

iris

*internal reseller information system*



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# 1. Automotive oils



# Heavy Duty Diesel Oil (HDDO)

## Approvals & recommendations (1 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|      | Q8 Formula Truck 9000 FE 5W-20 | Q8 Formula Truck 9000 FE 5W-30 | Q8 Formula Truck 8900 FE 5W-30 | Q8 Formula Truck 8900 FE 10W-30 | Q8 Formula Truck 8810 FE 5W-30 | Q8 Formula Truck 8620 FE 10W-30 | Q8 Formula Truck 8620 10W-40 | Q8 Formula Truck 8610 10W-40 | Q8 Formula Truck 8510 10W-40 | Q8 Formula Truck 7000 FE 10W-30 | Q8 Formula Truck 7000 10W-40 | Q8 Formula Truck 7000 15W-40 | Q8 Formula Truck 7000 15W-50 | Q8 City Bus Engine Oil 15W-50 | Q8 Formula Truck 6900 FE 5W-30 | Q8 T 860 S 10W-40 | Q8 T 860 10W-40 | Q8 T 800 10W-40 | Q8 T 800 10W-30 | Q8 T 750 15W-40 | Q8 T 750 20W-50 | Q8 T 750 SAE 10W | Q8 T 750 SAE 30 | Q8 T 750 SAE 40 | Q8 T 750 SAE 50 | Q8 T 520 15W-40 | Q8 T 520 20W-50 | Q8 T 200 SAE 40 |
|------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| ✓    | ✓                              | ✓                              | ✓                              | ✓                               | ✓                              | ✓                               | ✓                            | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            | ✓                             |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| <2.9 | ≤3.2                           | >3.5                           | >3.5                           | >3.5                            | >3.5                           | >3.5                            | >3.5                         | >3.5                         | >3.5                         | >3.5                            | >3.5                         | >3.5                         | >3.5                         | >3.5                          | >3.5                           | >3.5              | >3.5            | >3.5            | >3.5            | >3.5            | >3.5            | >3.5             | >3.5            | >3.5            | >3.5            | >3.5            | >3.5            | >3.5            |

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# Heavy Duty Diesel Oil (HDDO)

## Approvals & recommendations (2 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☒ Approval
- ☒ Pending approval
- ✓ Recommendation

|                                          | Q8 Formula Truck 9000 FE 5W-20 | Q8 Formula Truck 9000 FE 5W-30 | Q8 Formula Truck 8900 FE 5W-30 | Q8 Formula Truck 8900 FE 10W-30 | Q8 Formula Truck 8810 FE 5W-30 | Q8 Formula Truck 8620 FE 10W-30 | Q8 Formula Truck 8620 10W-40 | Q8 Formula Truck 8610 10W-40 | Q8 Formula Truck 8510 10W-40 | Q8 Formula Truck 7000 FE 10W-30 | Q8 Formula Truck 7000 10W-40 | Q8 Formula Truck 7000 15W-40 | Q8 Formula Truck 7000 15W-50 | Q8 City Bus Engine Oil 15W-50 | Q8 Formula Truck 6900 FE 5W-30 | Q8 T 860 S 10W-40 | Q8 T 860 10W-40 | Q8 T 800 10W-40 | Q8 T 800 10W-30 | Q8 T 750 15W-40 | Q8 T 750 20W-50 | Q8 T 750 SAE 10W | Q8 T 750 SAE 30 | Q8 T 750 SAE 40 | Q8 T 750 SAE 50 | Q8 T 520 15W-40 | Q8 T 520 20W-50 | Q8 T 200 SAE 40 |
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| Caterpillar ECF-1a                       |                                |                                |                                |                                 |                                |                                 |                              | ✓                            |                              |                                 |                              |                              | ✓                            |                               |                                | ✓                 |                 | ✓               | ✓               | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Caterpillar ECF-2                        |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              | ✓                            | ✓                            |                               |                                |                   | ✓               | ✓               | ✓               | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Caterpillar ECF-3                        |                                |                                | ✓                              | ✓                               | ✓                              | ✓                               | ✓                            | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Caterpillar TO-2                         |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 | ✓                | ✓               |                 |                 |                 |                 | ✓               |
| CCMC D2                                  |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 | ✓               |
| Cummins CES 20071                        |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Cummins CES 20072                        |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 | ✓               | ✓               | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Cummins CES 20076                        |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 | ✓               | ✓               | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Cummins CES 20077                        |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              | ✓                 | ✓               | ✓               | ✓               | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Cummins CES 20078                        |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ✓                 | ✓               | ✓               | ✓               | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Cummins CES 20081                        |                                |                                | ✓                              | ✓                               | ✓                              |                                 |                              | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Cummins CES 20086                        |                                |                                | ✓                              | ✓                               | ✓                              | ✓                               | ✓                            | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Cummins CES 20087                        |                                | ✓                              |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Cummins CES 20092                        |                                |                                |                                |                                 |                                | ✓                               | ✓                            |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Cummins CES 20100                        |                                |                                |                                |                                 |                                | ✓                               |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| DAF Extended Drain                       |                                |                                |                                | ✓                               |                                |                                 |                              | ✓                            | ✓                            |                                 |                              |                              |                              |                               |                                | ✓                 | ✓               |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| DAF HP1                                  |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| DAF HP2                                  |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| DAF LPG engines                          |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              | ✓                            |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| DAF PSQL 2.1E                            |                                |                                | ✓                              | ✓                               |                                |                                 |                              |                              | ✓                            | ✓                               |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| DAF PSQL 2.1E LD                         |                                |                                | ✓                              | ✓                               |                                | ✓                               | ✓                            |                              | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Daimler Truck AG DTFR 13D110 (MB 235.28) |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ✓*                |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Daimler Truck AG DTFR 15B110 (MB 228.3)  |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ✓                 | ✓               |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Daimler Truck AG DTFR 15B120 (MB 228.5)  |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ✓                 | ✓               |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Daimler Truck AG DTFR 15C100 (MB 228.31) |                                |                                | ✓                              | ✓                               |                                |                                 |                              |                              | ✓                            | ✓                               | ✓                            | ✓                            |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Daimler Truck AG DTFR 15C110 (MB 228.51) |                                |                                | ✓                              | ✓                               |                                | ✓                               | ✓                            |                              | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Daimler Truck AG DTFR 15C120 (MB 228.52) |                                |                                | ✓                              | ✓                               |                                | ✓                               | ✓                            |                              | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Daimler Truck AG DTFR 15C130 (MB 228.61) |                                | ✓                              |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Daimler Truck AG DTFR 15D100 (MB 227.61) |                                |                                | ✓                              |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Daimler Truck AG DTFR 15E100             |                                |                                |                                |                                 |                                | ✓                               |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Detroit Diesel DFS 93K218                |                                |                                |                                | ✓                               | ✓                              |                                 |                              | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            | ✓                             |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Detroit Diesel DFS 93K222                |                                |                                | ✓                              | ✓                               | ✓                              | ✓                               | ✓                            | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            | ✓                             |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Detroit Diesel DFS 93K223                |                                | ✓                              |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |

# Heavy Duty Diesel Oil (HDDO)

## Approvals & recommendations (3 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                          | Q8 Formula Truck 9000 FE 5W-20 | Q8 Formula Truck 9000 FE 5W-30 | Q8 Formula Truck 8900 FE 5W-30 | Q8 Formula Truck 8900 FE 10W-30 | Q8 Formula Truck 8810 FE 5W-30 | Q8 Formula Truck 8620 FE 10W-30 | Q8 Formula Truck 8620 10W-40 | Q8 Formula Truck 8610 10W-40 | Q8 Formula Truck 8510 10W-40 | Q8 Formula Truck 7000 FE 10W-30 | Q8 Formula Truck 7000 10W-40 | Q8 Formula Truck 7000 15W-40 | Q8 Formula Truck 7000 15W-50 | Q8 City Bus Engine Oil 15W-50 | Q8 Formula Truck 6900 FE 5W-30 | Q8 T 860 S 10W-40 | Q8 T 860 10W-40 | Q8 T 800 10W-40 | Q8 T 800 10W-30 | Q8 T 750 15W-40 | Q8 T 750 20W-50 | Q8 T 750 SAE 10W | Q8 T 750 SAE 30 | Q8 T 750 SAE 40 | Q8 T 750 SAE 50 | Q8 T 520 15W-40 | Q8 T 520 20W-50 | Q8 T 200 SAE 40 |
|------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Detroit Diesel Two-stroke diesel engines |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 | ✓               |
| Deutz DQC III-10                         |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   | ☑               |                 |                 | ☑               |                 |                  |                 |                 |                 |                 |                 |                 |
| Deutz DQC III-10 LA                      |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Deutz DQC III-18 LA                      |                                |                                |                                |                                 |                                |                                 |                              |                              |                              | ☑                               | ☑                            | ☑                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Deutz DQC IV-10 LA                       |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Deutz DQC IV-18                          |                                |                                | ✓                              |                                 |                                |                                 |                              | ✓                            |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Deutz DQC IV-18 LA                       |                                |                                | ☑                              | ☑                               | ☑                              | ✓                               | ✓                            | ☑                            | ☑                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Ford M2C171-F1                           |                                |                                |                                |                                 |                                |                                 |                              |                              |                              | ✓                               | ✓                            | ✓                            | ✓                            | ✓                             |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Ford M2C213-A1                           |                                |                                | ✓                              |                                 | ✓                              |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Ford M2C214-B1                           |                                | ✓                              |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Ford M2C219-A1                           |                                | ✓                              |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Ford M2C944-A                            |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ☑*                | ✓               |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Global DHD-1                             |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   | •               | •               |                 | •               | •               |                  |                 |                 |                 |                 |                 |                 |
| GM Allison Two-stroke diesel engines     |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 | ✓               |
| Iveco 18-1804 T2 E7                      |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ✓                 |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Iveco 18-1804 T3 E4                      |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ✓                 |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Iveco 18-1804 TFE                        |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Iveco 18-1804 TLS E6                     |                                |                                | ✓                              |                                 | •                              |                                 |                              | •                            | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Iveco 18-1804 TLS E9                     |                                |                                | •                              | •                               | •                              |                                 |                              | •                            | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Iveco 18-1809 NG2                        |                                |                                | ✓                              |                                 |                                |                                 | ✓                            | ✓                            |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| JASO DH-1                                |                                |                                |                                |                                 | •                              |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   | •               |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| JASO DH-2                                |                                | ✓                              | •                              | •                               | •                              |                                 |                              | •                            | •                            | ☑*                              | ☑*                           | ☑*                           | •                            | ✓                             |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| JASO DL-0                                |                                |                                |                                |                                 | ✓                              |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| John Deere JDQ 78X                       |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 | ✓                            | ✓                            |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Liebherr LH-00-ENG                       |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Liebherr LH-00-ENG LA                    |                                |                                | ✓                              | ✓                               | ✓                              |                                 |                              | ✓                            | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Liebherr LH-00-ENG3A LA                  |                                |                                |                                | ✓                               |                                |                                 |                              | •                            | ✓                            |                                 |                              | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Liebherr LH-00-ENG5C                     |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ✓                 | ✓               |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Liebherr LH-00-ENG5C LA                  |                                |                                | ✓                              |                                 | ✓                              |                                 |                              | ✓                            | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Mack EO- S 5                             | ☑                              |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Mack EO-M Plus                           |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Mack EO-N                                |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ☑*                             | ☑                 | ☑               | ☑               |                 |                 | ☑               |                  |                 |                 |                 |                 |                 |                 |
| Mack EO-O Premium Plus                   |                                |                                |                                |                                 | ✓                              |                                 |                              | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |

# Heavy Duty Diesel Oil (HDDO)

## Approvals & recommendations (4 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
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|                         | Q8 Formula Truck 9000 FE 5W-20 | Q8 Formula Truck 9000 FE 5W-30 | Q8 Formula Truck 8900 FE 5W-30 | Q8 Formula Truck 8900 FE 10W-30 | Q8 Formula Truck 8810 FE 5W-30 | Q8 Formula Truck 8620 FE 10W-30 | Q8 Formula Truck 8620 10W-40 | Q8 Formula Truck 8610 10W-40 | Q8 Formula Truck 8510 10W-40 | Q8 Formula Truck 7000 FE 10W-30 | Q8 Formula Truck 7000 10W-40 | Q8 Formula Truck 7000 15W-40 | Q8 Formula Truck 7000 15W-50 | Q8 City Bus Engine Oil 15W-50 | Q8 Formula Truck 6900 FE 5W-30 | Q8 T 860 S 10W-40 | Q8 T 860 10W-40 | Q8 T 800 10W-40 | Q8 T 800 10W-30 | Q8 T 750 15W-40 | Q8 T 750 20W-50 | Q8 T 750 SAE 10W | Q8 T 750 SAE 30 | Q8 T 750 SAE 40 | Q8 T 750 SAE 50 | Q8 T 520 15W-40 | Q8 T 520 20W-50 | Q8 T 200 SAE 40 |
|-------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Mack EO-S 4.5           |                                |                                | ☑                              | ☑                               | ☑                              | ✓                               | ✓                            | ☑                            | ☑                            | ☑                               | ☑                            | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  | ✓               | ✓               |                 |                 |                 |                 |
| MAN M 270               |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 | ✓               |                 |                 |
| MAN M 271               |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 | ✓               |                 |                 |
| MAN M 3271-1            |                                |                                | ✓                              |                                 | ✓                              | ✓                               |                              | ☑*                           | ✓                            | ✓                               | ✓                            | ✓                            |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MAN M 3275-1            |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ☑*                | ☑*              | ☑               |                 | ✓               | ✓               |                  |                 |                 |                 |                 |                 |                 |
| MAN M 3277              |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                | ☑*                | ☑*              | ☑               |                 |                 | ☑               | ✓                |                 |                 |                 |                 |                 |                 |
| MAN M 3477              |                                |                                | ✓                              | ✓                               | ✓                              |                                 |                              | ☑*                           | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MAN M 3575              |                                |                                |                                |                                 | ✓                              |                                 |                              | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MAN M 3677              |                                |                                | ☑                              | ☑                               | ☑                              |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MAN M 3691              |                                |                                | ✓                              |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MAN M 3775              |                                |                                | ✓                              | ☑                               | ☑                              | ✓                               | ✓                            | ☑                            | ☑                            | ☑                               | ☑                            | ☑                            |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MAN M 3777              |                                |                                |                                |                                 | ☑                              |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MAN M 3977              | ☑                              |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MB 226.9                |                                |                                | ✓                              | ✓                               |                                |                                 | ✓                            | ✓                            |                              | ✓                               | ✓                            | ✓                            |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MB 227.0                |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 | ✓                | ✓               |                 |                 |                 |                 |                 |
| MB 227.61 (DTFR 15D100) |                                |                                | ✓                              | ✓                               |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MB 228.0                |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MB 228.1                |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 | ✓               |                 |                 |
| MB 228.3 (DTFR 15B110)  |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 | ✓               |                 | ☑               | ✓               |                  |                 |                 |                 |                 |                 |                 |
| MB 228.31 (DTFR 15C100) |                                |                                |                                |                                 | ☑                              |                                 |                              | ☑                            | ☑                            |                                 |                              |                              | ✓                            | ✓                             |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MB 228.5 (DTFR 15B120)  |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ☑*                             |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MB 228.51 (DTFR 15C110) |                                |                                |                                | ☑                               | ✓                              |                                 | ☑                            | ☑                            |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MB 228.52 (DTFR 15C120) |                                |                                |                                | ☑                               | ✓                              |                                 | ☑                            | ☑                            |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MB 228.61 (DTFR 15C130) |                                | ☑                              |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MB 235.27 (DTFR 13D100) |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MIL L-2104C             |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 | •               |
| MTU Type 1              |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 | ✓                | ✓               | ✓               | ✓               |                 |                 |                 |
| MTU Type 2              |                                |                                |                                |                                 |                                | ✓                               | ✓                            |                              | ✓                            | ☑                               | ✓                            | ✓                            | ✓                            | ✓                             |                                |                   |                 | ☑               |                 | ☑               |                 |                  |                 |                 |                 |                 |                 |                 |
| MTU Type 2.1            |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MTU Type 3              |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              | ☑                 | ☑               |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| MTU Type 3.1            |                                |                                | ☑                              | ✓                               | ☑*                             | ✓                               | ✓                            | ☑*                           | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| NATO O-237              |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 | ✓                |                 |                 |                 |                 |                 |                 |
| Renault RGD             |                                |                                | ✓                              | ✓                               | ✓                              | ✓                               | ✓                            | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |

# Heavy Duty Diesel Oil (HDDO)

## Approvals & recommendations (5 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
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|--------------------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|--------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|---------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------|--------------------------------|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Renault RLD                                |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              | ✓                 | ✓               | ✓               | ✓               | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Renault RLD-2                              |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              | ✓                 | ✓               | ✓               | ✓               | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Renault RLD-3                              |                                |                                | ✓                              | ✓                               | ✓                              | ✓                               | ✓                            | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Renault RLD-4                              |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              | ✓                             |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Renault RLD-5                              |                                | ✓                              |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Renault RVI RLD-4                          |                                |                                |                                |                                 |                                |                                 | ✓                            |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Renault RXD                                |                                |                                | ✓                              |                                 |                                | ✓                               |                              | ✓                            |                              |                                 |                              |                              |                              |                               | ✓                              | ✓                 |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Scania LA (Low Ash)                        |                                |                                | ✓                              | ✓                               | ✓                              |                                 |                              | ☑*                           | ✓                            |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Scania LDF-3                               |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | •                              | ✓                 |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Scania LDF-4                               |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Scania LDF-5                               |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| SDMO - Kohler KD engine series K135 & K175 |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   | ☑*              |                 |                 | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Tatra TDS 30/12                            |                                |                                |                                | ✓                               |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Tedom 258-3                                |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 | ✓               |                 | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Tedom 258-4                                |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   | ✓               |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Valtra S-Series                            |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 | ✓                            | ✓                            |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Voith Class A Retarder Oil                 |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ✓                              |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Voith Class B Retarder Oil                 |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               | ☑*                             |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Voith Retarder                             |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 | ✓                | ✓               |                 |                 |                 |                 |                 |
| Volvo CNG                                  |                                |                                | ✓                              | ✓                               | ✓                              | ✓                               | ✓                            | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Volvo VDS                                  |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 | ✓               |                 |                 |
| Volvo VDS-2                                |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Volvo VDS-3                                |                                |                                |                                | ✓                               | ✓                              |                                 |                              | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            |                               | ✓                              | ✓                 | ✓               | ✓               |                 | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| Volvo VDS-4                                |                                |                                |                                | ✓                               | ✓                              |                                 |                              | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Volvo VDS-4.5                              |                                |                                | ✓                              | ✓                               | ✓                              | ✓                               | ✓                            | ✓                            | ✓                            | ✓                               | ✓                            | ✓                            | ✓                            |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| Volvo VDS-5                                |                                | ✓                              |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 |                 |                 |                  |                 |                 |                 |                 |                 |                 |
| ZF TE-ML 04C                               |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |
| ZF TE-ML 07C                               |                                |                                |                                |                                 |                                |                                 |                              |                              |                              |                                 |                              |                              |                              |                               |                                |                   |                 |                 |                 | ✓               |                 |                  |                 |                 |                 |                 |                 |                 |



# Passenger Car Motor Oil (PCMO)

## Approvals & recommendations (1 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☒ Approval
- ☒ Pending approval
- ✓ Recommendation

|      | Q8 Formula Hybrid GF-6B 0W-16 | Q8 Formula Hybrid GF-6A 0W-20 | Q8 Formula Hybrid C6 0W-20 | Q8 Formula Special FE 0W-20 | Q8 Formula Special D1 FE 0W-20 | Q8 Formula Exclusive RN FE 0W-20 | Q8 Formula Techno Eco FE 0W-20 | Q8 Formula Elite FE 0W-20 | Q8 Formula V Blue 0W-20 | Q8 Formula Ultra V 0W-20 | Q8 Formula Exclusive Eco 5W-20 | Q8 Formula Exclusive V 0W-30 | Q8 Formula Techno Eco 0W-30 | Q8 Formula Elite C2 0W-30 | Q8 Formula Prestige V 5W-30 | Q8 Formula Elite C2/C3 5W-30 | Q8 Formula Special RN 5W-30 | Q8 Formula Elite FPW 5W-30 | Q8 Formula R Long Life 5W-30 | Q8 Formula Special D1 5W-30 | Q8 Formula Exclusive C1 5W-30 | Q8 Formula Special M 5W-40 | Q8 Formula M Long Life 5W-40 | Q8 Formula Excel Long Life FE 0W-30 | Q8 Formula Excel Long Life FE 5W-30 | Q8 Formula Techno FE Plus 5W-30 | Q8 Formula Advanced 10W-30 | Q8 Formula Excel Long Life 0W-40 | Q8 Formula Excel Long Life 5W-40 | Q8 Formula Excel 5W-40 | Q8 Formula Advanced Plus 10W-40 | Q8 Formula Plus 15W-40 | Q8 Formula Plus 20W-50 | Q8 Formula F1 10W-50 | Q8 Formula F1 10W-60 |      |
|------|-------------------------------|-------------------------------|----------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------------------|---------------------------|-------------------------|--------------------------|--------------------------------|------------------------------|-----------------------------|---------------------------|-----------------------------|------------------------------|-----------------------------|----------------------------|------------------------------|-----------------------------|-------------------------------|----------------------------|------------------------------|-------------------------------------|-------------------------------------|---------------------------------|----------------------------|----------------------------------|----------------------------------|------------------------|---------------------------------|------------------------|------------------------|----------------------|----------------------|------|
| ✓    | ✓                             | ✓                             | ✓                          | ✓                           | ✓                              | ✓                                | ✓                              | ✓                         | ✓                       | ✓                        | ✓                              | ✓                            | ✓                           | ✓                         | ✓                           | ✓                            | ✓                           | ✓                          | ✓                            | ✓                           | ✓                             | ✓                          | ✓                            |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |      |
| ≥2.3 | ≥2.6                          | ≥2.6                          | ≥2.6                       | ≥2.6                        | ≥2.6                           | ≥2.6                             | ≥2.6                           | ≥2.6                      | ≥2.6                    | ≥2.6                     | ≥2.6                           | ≥3.5                         | ≥2.9                        | ≥2.9                      | ≥3.5                        | ≥3.5                         | ≥3.5                        | ≥3.5                       | ≥3.5                         | ≥2.9                        | ≥2.9                          | ≥3.5                       | ≥3.5                         | ≥3.2                                | ≥3.5                                | ≥2.9                            | ≥3.2                       | ≥3.5                             | ≥3.5                             | ≥3.5                   | ≥3.5                            | ≥3.5                   | ≥3.5                   | ≥3.5                 | ≥3.5                 | ≥3.5 |

|                              |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|--|--|---|---|--|--|--|---|--|--|--|--|---|---|---|--|---|---|---|---|---|--|---|---|---|--|
| Abarth 0101                  |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   | ✓ |  |
| ACEA A3/B4                   |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  | • | • | • |  |   | • | • | • | • |  | • | • |   |  |
| ACEA A5/B5                   |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  | • | • | • |  |   |   |   |   |   |  |   |   |   |  |
| ACEA C1                      |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| ACEA C2                      |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| ACEA C3                      |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| ACEA C4                      |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| ACEA C5                      |   |   | • | • |   | • | • | • | • | • | • |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| ACEA C6                      |   |   | • | • |   | • | • | • |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| ACEA Recommended for ACEA C2 |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| API CF                       |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| API SL                       |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| API SN                       | • | • | • |   | • |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| API SN Plus                  | • | • | • |   | • |   | • |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| API SN Plus-RC               | • | • | • |   |   |   | • |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| API SN-RC                    | • | • | ✓ |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| API SP                       | • | • | ✓ | • | • |   | • |   |   | • |   |  |  | • | • |  |  |  | • |  |  |  |  | • |   |   |  | ✓ | ✓ |   |   |   |  |   | • | • |  |
| API SP-RC                    | • | • | • | • | • |   | • |   |   | • |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| API SQ                       |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| BMW Longlife-01              |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| BMW Longlife-01 FE           |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| BMW Longlife-04              |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| BMW Longlife-04 (B48)        |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| BMW Longlife-12 FE           |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| BMW Longlife-14 FE+          |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| BMW Longlife-17 FE+          |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| BMW Longlife-19 FE           |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| Chrysler MS-10725            |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| Chrysler MS-11106            |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |
| Chrysler MS-12145            |   |   |   |   |   |   |   |   |   |   |   |  |  |   |   |  |  |  |   |  |  |  |  |   |   |   |  |   |   |   |   |   |  |   |   |   |  |

# Passenger Car Motor Oil (PCMO)

## Approvals & recommendations (2 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ✓ Approval
- ✓\* Pending approval
- ✓ Recommendation

Key

(dd. 03/09/2025)

● Specification

☑ Approval

☑\* Pending approval

✓ Recommendation

|                  | Q8 Formula Hybrid GF-6B 0W-16 | Q8 Formula Hybrid GF-6A 0W-20 | Q8 Formula Hybrid C6 0W-20 | Q8 Formula Special FE 0W-20 | Q8 Formula Special D1 FE 0W-20 | Q8 Formula Exclusive RN FE 0W-20 | Q8 Formula Techno Eco FE 0W-20 | Q8 Formula Elite FE 0W-20 | Q8 Formula V Blue 0W-20 | Q8 Formula Ultra V 0W-20 | Q8 Formula Exclusive Eco 5W-20 | Q8 Formula Exclusive V 0W-30 | Q8 Formula Techno Eco 0W-30 | Q8 Formula Elite C2 0W-30 | Q8 Formula Prestige V 5W-30 | Q8 Formula Elite C2/C3 5W-30 | Q8 Formula Special RN 5W-30 | Q8 Formula Elite FPW 5W-30 | Q8 Formula R Long Life 5W-30 | Q8 Formula Special D1 5W-30 | Q8 Formula Exclusive C1 5W-30 | Q8 Formula Special M 5W-40 | Q8 Formula M Long Life 5W-40 | Q8 Formula Excel Long Life FE 0W-30 | Q8 Formula Excel Long Life FE 5W-30 | Q8 Formula Techno FE Plus 5W-30 | Q8 Formula Advanced 10W-30 | Q8 Formula Excel Long Life 0W-40 | Q8 Formula Excel Long Life 5W-40 | Q8 Formula Excel 5W-40 | Q8 Formula Advanced Plus 10W-40 | Q8 Formula Plus 15W-40 | Q8 Formula Plus 20W-50 | Q8 Formula F1 10W-50 | Q8 Formula F1 10W-60 |  |  |
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| Chrysler MS-6395 |                               |                               |                            | ✓                           |                                |                                  |                                |                           |                         |                          | ✓                              |                              |                             |                           |                             |                              |                             |                            | ✓                            |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-CR1 |                               |                               | ✓                          | ✓                           |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-DM1 |                               |                               |                            | ✓                           |                                |                                  |                                | ✓                         |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-DS1 |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              | ●                           | ●                         |                             | ✓                            |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-DSX |                               |                               | ✓                          | ✓                           |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-G1  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             | ✓                         |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     | ●                               |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-GH2 |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               | ✓                          |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-GS1 |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              | ●                           | ●                         |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-GSX |                               |                               |                            | ✓                           |                                |                                  |                                | ✓                         |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-H2  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               | ✓                          | ✓                            |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-M2  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  | ✓                                | ✓                      |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-N2  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  | ✓                      |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-S1  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             | ✓                         |                             | ✓                            |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-S2  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               | ✓                          | ✓                            |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-S3  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              | ✓                           |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-S4  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            | ✓                            |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-T2  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               | ✓                          | ✓                            |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Fiat 9.55535-Z2  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               | ✓                          | ✓                            |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C912      |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             | ✓                             |                            |                              |                                     |                                     | ✓                               |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C913-A    |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             | ✓                             |                            |                              |                                     |                                     | ✓                               |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C913-B    |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             | ✓                             |                            |                              |                                     |                                     | ✓                               |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C913-C    |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     | ✓                               |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C913-D    |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     | ✓                               |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C917-A    |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              | ✓                           |                            |                              |                             |                               | ✓                          | ✓                            |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C934-B    |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C937-A    |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C947-A    |                               |                               |                            |                             | ✓                              |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C947-B1   |                               |                               |                            | ✓                           |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C948-B    |                               |                               |                            | ✓                           |                                |                                  |                                |                           |                         |                          | ✓                              |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C950-A    |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C952-A1   |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C954-A1   |                               |                               |                            | ✓                           |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |
| Ford M2C956-A1   |                               |                               |                            |                             |                                |                                  |                                |                           | ✓                       |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |  |

# Passenger Car Motor Oil (PCMO)

## Approvals & recommendations (3 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☒ Approval
- ☒ Pending approval
- ✓ Recommendation

|                                 | Q8 Formula Hybrid GF-6B 0W-16 | Q8 Formula Hybrid GF-6A 0W-20 | Q8 Formula Hybrid C6 0W-20 | Q8 Formula Special FE 0W-20 | Q8 Formula Special D1 FE 0W-20 | Q8 Formula Exclusive RN FE 0W-20 | Q8 Formula Techno Eco FE 0W-20 | Q8 Formula Elite FE 0W-20 | Q8 Formula V Blue 0W-20 | Q8 Formula Ultra V 0W-20 | Q8 Formula Exclusive Eco 5W-20 | Q8 Formula Exclusive V 0W-30 | Q8 Formula Techno Eco 0W-30 | Q8 Formula Elite C2 0W-30 | Q8 Formula Prestige V 5W-30 | Q8 Formula Elite C2/C3 5W-30 | Q8 Formula Special RN 5W-30 | Q8 Formula Elite FPW 5W-30 | Q8 Formula R Long Life 5W-30 | Q8 Formula Special D1 5W-30 | Q8 Formula Exclusive C1 5W-30 | Q8 Formula Special M 5W-40 | Q8 Formula M Long Life 5W-40 | Q8 Formula Excel Long Life FE 0W-30 | Q8 Formula Excel Long Life FE 5W-30 | Q8 Formula Techno FE Plus 5W-30 | Q8 Formula Advanced 10W-30 | Q8 Formula Excel Long Life 0W-40 | Q8 Formula Excel Long Life 5W-40 | Q8 Formula Excel 5W-40 | Q8 Formula Advanced Plus 10W-40 | Q8 Formula Plus 15W-40 | Q8 Formula Plus 20W-50 | Q8 Formula F1 10W-50 | Q8 Formula F1 10W-60 |  |
|---------------------------------|-------------------------------|-------------------------------|----------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------------------|---------------------------|-------------------------|--------------------------|--------------------------------|------------------------------|-----------------------------|---------------------------|-----------------------------|------------------------------|-----------------------------|----------------------------|------------------------------|-----------------------------|-------------------------------|----------------------------|------------------------------|-------------------------------------|-------------------------------------|---------------------------------|----------------------------|----------------------------------|----------------------------------|------------------------|---------------------------------|------------------------|------------------------|----------------------|----------------------|--|
| Ford M2C961-A1                  | •                             | •                             | •                          | •                           | •                              |                                  |                                |                           |                         |                          |                                |                              |                             |                           | ✓                           |                              | ✓                           |                            |                              |                             | ✓                             |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Ford M2C962-A1                  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| GM Dexos D (OV0401547)          |                               |                               |                            | ✓                           |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| GM Dexos1 Gen3                  |                               |                               |                            |                             | ✓                              |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| GM Dexos2                       |                               |                               |                            |                             |                                |                                  | ✓                              |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| GM LL-A-025                     |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| GM LL-B-025                     |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| ILSAC GF-5                      |                               | •                             | •                          | •                           | •                              |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| ILSAC GF-6A                     |                               | •                             | •                          | •                           | •                              |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| ILSAC GF-6B                     | •                             |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Iveco 18-1811 S1                |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Iveco 18-1811 SC1               |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              | ✓                           |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Iveco 18-1811 SC1 LV            |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Iveco 18-1811 SC1 LV 21         |                               |                               |                            | ✓                           |                                |                                  | ✓                              |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Jaguar Land Rover STJLR.03.5003 |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Jaguar Land Rover STJLR.03.5004 |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          | •                              |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Jaguar Land Rover STJLR.03.5005 |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Jaguar Land Rover STJLR.03.5006 |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| Jaguar Land Rover STJLR.03.5007 |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 226.5                        |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 226.51                       |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 226.52                       |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 229.1                        |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 229.3                        |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 229.31                       |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 229.5                        |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 229.51                       |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 229.52                       |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 229.6                        |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 229.71                       |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB 229.72                       |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
| MB Approval 229.51              |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |

# Passenger Car Motor Oil (PCMO)

## Approvals & recommendations (4 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☒ Approval
- ☒ Pending approval
- ✓ Recommendation

|                                                | Q8 Formula Hybrid GF-6B 0W-16 | Q8 Formula Hybrid GF-6A 0W-20 | Q8 Formula Hybrid C6 0W-20 | Q8 Formula Special FE 0W-20         | Q8 Formula Special D1 FE 0W-20 | Q8 Formula Exclusive RN FE 0W-20 | Q8 Formula Techno Eco FE 0W-20 | Q8 Formula Elite FE 0W-20 | Q8 Formula V Blue 0W-20 | Q8 Formula Ultra V 0W-20 | Q8 Formula Exclusive Eco 5W-20 | Q8 Formula Exclusive V 0W-30 | Q8 Formula Techno Eco 0W-30 | Q8 Formula Elite C2 0W-30 | Q8 Formula Prestige V 5W-30 | Q8 Formula Elite C2/C3 5W-30 | Q8 Formula Special RN 5W-30 | Q8 Formula Elite FPW 5W-30 | Q8 Formula R Long Life 5W-30 | Q8 Formula Special D1 5W-30 | Q8 Formula Exclusive C1 5W-30 | Q8 Formula Special M 5W-40 | Q8 Formula M Long Life 5W-40 | Q8 Formula Excel Long Life FE 0W-30 | Q8 Formula Excel Long Life FE 5W-30 | Q8 Formula Techno FE Plus 5W-30 | Q8 Formula Advanced 10W-30 | Q8 Formula Excel Long Life 0W-40 | Q8 Formula Excel Long Life 5W-40    | Q8 Formula Excel 5W-40              | Q8 Formula Advanced Plus 10W-40 | Q8 Formula Plus 15W-40 | Q8 Formula Plus 20W-50 | Q8 Formula F1 10W-50 | Q8 Formula F1 15W-50 |  |  |  |
|------------------------------------------------|-------------------------------|-------------------------------|----------------------------|-------------------------------------|--------------------------------|----------------------------------|--------------------------------|---------------------------|-------------------------|--------------------------|--------------------------------|------------------------------|-----------------------------|---------------------------|-----------------------------|------------------------------|-----------------------------|----------------------------|------------------------------|-----------------------------|-------------------------------|----------------------------|------------------------------|-------------------------------------|-------------------------------------|---------------------------------|----------------------------|----------------------------------|-------------------------------------|-------------------------------------|---------------------------------|------------------------|------------------------|----------------------|----------------------|--|--|--|
| Opel/Vauxhall OV0401547 (Dexos D)              |                               |                               |                            | ✓                                   |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Opel/Vauxhall OV0401547-A20                    |                               |                               |                            | <input checked="" type="checkbox"/> |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Opel/Vauxhall OV0401547-D30                    |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Opel/Vauxhall OV0401547-G30                    |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Porsche A40                                    |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              | ✓                                   |                                     |                                 |                            |                                  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |                                 |                        |                        |                      |                      |  |  |  |
| Porsche C20                                    |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Porsche C30                                    |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Porsche C40                                    |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| PSA B71 2010                                   |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| PSA B71 2290                                   |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| PSA B71 2290-2014                              |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| PSA B71 2296                                   |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| PSA B71 2297                                   |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| PSA B71 2300                                   |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| PSA B71 2312-2022                              |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Renault RN 0700                                |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Renault RN 0710                                |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Renault RN 0720                                |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Renault RN17                                   |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Renault RN17 FE                                |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Stellantis FPW 9.55535-03 (DVR5R wear,EP6 E10) |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| Toyota SFU                                     |                               |                               | ✓                          |                                     |                                |                                  | ✓                              |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| VAG VW 501.01                                  |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| VAG VW 502.00                                  |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| VAG VW 503.00                                  |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| VAG VW 503.01                                  |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| VAG VW 504.00                                  |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| VAG VW 504.00 Baumuster 2020                   |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| VAG VW 505.00                                  |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |
| VAG VW 505.01                                  |                               |                               |                            |                                     |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                     |                                     |                                 |                        |                        |                      |                      |  |  |  |

# Passenger Car Motor Oil (PCMO)

## Approvals & recommendations (5 / 5)

### Key

- (dd. 03/09/2025)
- Specification
  - ☑ Approval
  - ☑\* Pending approval
  - ✓ Recommendation

|  | Q8 Formula Hybrid GF-6B 0W-16 | Q8 Formula Hybrid GF-6A 0W-20 | Q8 Formula Hybrid C6 0W-20 | Q8 Formula Special FE 0W-20 | Q8 Formula Special D1 FE 0W-20 | Q8 Formula Exclusive RN FE 0W-20 | Q8 Formula Techno Eco FE 0W-20 | Q8 Formula Elite FE 0W-20 | Q8 Formula V Blue 0W-20 | Q8 Formula Ultra V 0W-20 | Q8 Formula Exclusive Eco 5W-20 | Q8 Formula Exclusive V 0W-30 | Q8 Formula Techno Eco 0W-30 | Q8 Formula Elite C2 0W-30 | Q8 Formula Prestige V 5W-30 | Q8 Formula Elite C2/C3 5W-30 | Q8 Formula Special RN 5W-30 | Q8 Formula Elite FPW 5W-30 | Q8 Formula R Long Life 5W-30 | Q8 Formula Special D1 5W-30 | Q8 Formula Exclusive C1 5W-30 | Q8 Formula Special M 5W-40 | Q8 Formula M Long Life 5W-40 | Q8 Formula Excel Long Life FE 0W-30 | Q8 Formula Excel Long Life FE 5W-30 | Q8 Formula Techno FE Plus 5W-30 | Q8 Formula Advanced 10W-30 | Q8 Formula Excel Long Life 0W-40 | Q8 Formula Excel Long Life 5W-40 | Q8 Formula Excel 5W-40 | Q8 Formula Advanced Plus 10W-40 | Q8 Formula Plus 15W-40 | Q8 Formula Plus 20W-50 | Q8 Formula F1 10W-50 | Q8 Formula F1 10W-60 |  |
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|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
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|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
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|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
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|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
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|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
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|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |
|  |                               |                               |                            |                             |                                |                                  |                                |                           |                         |                          |                                |                              |                             |                           |                             |                              |                             |                            |                              |                             |                               |                            |                              |                                     |                                     |                                 |                            |                                  |                                  |                        |                                 |                        |                        |                      |                      |  |

# Manual transmission fluid (MTF) and axle lubricant

## Approvals & recommendations (1 / 8)

### Key

(dd. 03/09/2025)

- Specification
- ✓ Approval
- ✓\* Pending approval
- ✓ Recommendation

|                                          | Q8 T 35 SAE 80W | Q8 T 35 SAE 90 | Q8 T 35 80W-90 | Q8 T 36 75W-90 | Q8 T 40 75W-90 | Q8 T 45 LS SAE 90 | Q8 T 45 LS SAE 85W-140 | Q8 T 55 80W-90 | Q8 T 55 SAE 90 | Q8 T 55 85W-140 | Q8 T 65 75W-90 | Q8 T 65 LS 75W-90 | Q8 Axle Oil TP 80W-90 | Q8 Axle Oil XG 80W-140 | Q8 Axle Oil GL-5 75W-90 | Q8 Axle Oil XG Synt FE 75W-80 | Q8 Axle Oil XG Synt FE 75W-85 | Q8 Gear Oil V 75W-80 | Q8 Gear Oil V LD 75W-80 | Q8 Gear Oil V LD 75W-90 | Q8 Gear Oil XG 80W-90 | Q8 Trans XGS 75W-85 | Q8 Trans XGS 75W-90 | Q8 Trans XGN 75W-90 | Q8 Trans XGS 75W-140 | Q8 Trans XGR 75W-140 | Q8 Unishift PC Synt 75W | Q8 Unishift PC Synt 75W-80 | Q8 Unishift PC Synt 75W-90 | ZF Ecofluid M 75W-80 |
|------------------------------------------|-----------------|----------------|----------------|----------------|----------------|-------------------|------------------------|----------------|----------------|-----------------|----------------|-------------------|-----------------------|------------------------|-------------------------|-------------------------------|-------------------------------|----------------------|-------------------------|-------------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|----------------------|-------------------------|----------------------------|----------------------------|----------------------|
| Gearbox                                  | ✓               | ✓              | ✓              | ✓              | ✓              | ✓                 | ✓                      | ✓              | ✓              | ✓               | ✓              | ✓                 | ✓                     | ✓                      | ✓                       | ✓                             | ✓                             | ✓                    | ✓                       | ✓                       | ✓                     | ✓                   | ✓                   | ✓                   | ✓                    | ✓                    | ✓                       | ✓                          | ✓                          | ✓                    |
| Axle                                     |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Limited Slip                             |                 |                |                |                |                | ✓                 | ✓                      |                |                |                 |                | ✓                 | ✓                     |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| API GL-4                                 | •               | •              | •              | •              | ✓              |                   |                        |                |                |                 |                |                   |                       | •                      |                         |                               |                               | •                    | •                       | •                       | •                     | •                   | •                   | •                   | •                    |                      | •                       | •                          | •                          |                      |
| API GL-5                                 |                 |                |                |                |                |                   |                        | •              | •              | •               | •              |                   | •                     | •                      | •                       | •                             |                               |                      |                         |                         | •                     | •                   | •                   | •                   | •                    | •                    |                         |                            |                            |                      |
| API GL-5 LS                              |                 |                |                |                |                | •                 | •                      |                |                |                 |                | •                 | •                     |                        |                         |                               |                               |                      |                         |                         | •                     | •                   | •                   | •                   | •                    | •                    |                         |                            |                            |                      |
| API MT-1                                 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       | •                      |                         |                               |                               |                      |                         |                         | ✓                     |                     | •                   | •                   |                      | •                    |                         |                            |                            |                      |
| BMW/MINI 2300 1434 404BMW                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| BMW/MINI 2300 7533 513                   |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| BMW/MINI 2300 7533 818                   |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       | ✓                          |                            |                      |
| BMW/MINI 83 22 0 309 031                 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| BMW/MINI 83 22 0 396 706                 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       | ✓                          |                            |                      |
| BMW/MINI 83 22 7 533 818                 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       | ✓                          |                            |                      |
| BMW/MINI ATF-D2                          |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| BMW/MINI JWS 2271                        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| BMW/MINI MTF-LT1                         |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |
| BMW/MINI MTF-LT2                         |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |
| BMW/MINI MTF-LT3                         |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |
| BMW/MINI MTF-LT4                         |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |
| BMW/MINI MTF-LT5                         |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |
| British Ministry of Defence CS 3000B     |                 |                |                |                |                |                   |                        | •              | •              | •               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Case MS 1316                             |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Clark ALC-1 5M 7-80 KE                   |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Clark MS-8 Rev. 1                        |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Clark TLC-25 3M 8-83                     |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Daimler Truck AG DTFR 12B100 (MB 235.0)  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     | ✓                   |                     |                      |                      |                         |                            |                            |                      |
| Daimler Truck AG DTFR 12B120 (MB 235.31) |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         | ✓                             |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Daimler Truck AG DTFR 12B140 (MB 235.8)  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     | ✓*                  |                      |                      |                         |                            |                            |                      |
| Daimler Truck AG DTFR 13B110 (MB 235.11) |                 |                |                |                | ✓              |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Detroit Diesel DFS 93K219.01             |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     | ✓                   |                     |                      |                      |                         |                            |                            |                      |
| Eaton/Fuller Bulletin 2052               | ✓               | ✓              | ✓              |                |                |                   |                        | ✓              | ✓              | ✓               | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Eaton/Fuller Bulletin 2053               | ✓               | ✓              | ✓              |                |                |                   |                        | ✓              | ✓              | ✓               | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |

# Manual transmission fluid (MTF) and axle lubricant

## Approvals & recommendations (2 / 8)

### Key

(dd. 03/09/2025)

- Specification
- ✓ Approval
- ✓\* Pending approval
- ✓ Recommendation

Key

(dd. 03/09/2025)

● Specification

☑ Approval

☑\* Pending approval

✓ Recommendation

|                                                 | Q8 T 35 SAE 80W | Q8 T 35 SAE 90 | Q8 T 35 80W-90 | Q8 T 36 75W-90 | Q8 T 40 75W-90 | Q8 T 45 LS SAE 90 | Q8 T 45 LS SAE 85W-140 | Q8 T 55 80W-90 | Q8 T 55 SAE 90 | Q8 T 55 85W-140 | Q8 T 65 75W-90 | Q8 T 65 LS 75W-90 | Q8 Axle Oil TP 80W-90 | Q8 Axle Oil XG 80W-140 | Q8 Axle Oil GL-5 75W-90 | Q8 Axle Oil XG Synt FE 75W-80 | Q8 Axle Oil XG Synt FE 75W-85 | Q8 Gear Oil V 75W-80 | Q8 Gear Oil V LD 75W-80 | Q8 Gear Oil V LD 75W-90 | Q8 Gear Oil XG 80W-90 | Q8 Trans XG5 75W-85 | Q8 Trans XG5 75W-90 | Q8 Trans XGN 75W-90 | Q8 Trans XG5 75W-140 | Q8 Trans XGR 75W-140 | Q8 Unishift PC Synt 75W | Q8 Unishift PC Synt 75W-80 | Q8 Unishift PC Synt 75W-90 | ZF Ecofluid M 75W-80 |  |
|-------------------------------------------------|-----------------|----------------|----------------|----------------|----------------|-------------------|------------------------|----------------|----------------|-----------------|----------------|-------------------|-----------------------|------------------------|-------------------------|-------------------------------|-------------------------------|----------------------|-------------------------|-------------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|----------------------|-------------------------|----------------------------|----------------------------|----------------------|--|
| Eaton/Fuller Bulletin 6007                      |                 |                |                |                |                |                   |                        | ☑              | ☑              | ☑               |                |                   |                       |                        |                         |                               |                               | ☑                    | ☑                       | ☑                       |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Eaton/Fuller Europe Extended drain (300.000 km) |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Eaton/Fuller Form 121                           | ☑               | ☑              | ☑              |                |                |                   |                        | ☑              | ☑              | ☑               | ☑              |                   |                       |                        |                         |                               |                               |                      | ☑                       | ☑                       | ☑                     |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Ferrari GL-4                                    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Ferrari GL-5                                    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Fiat 9.55550-DA3                                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Fiat 9.55550-DA4                                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Fiat 9.55550-DA8                                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Fiat 9.55550-DA9                                |                 |                |                |                |                |                   |                        |                |                |                 |                | ☑                 |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Fiat 9.55550-MX3                                |                 |                |                |                | ☑              |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ●                          | ●                          |                      |  |
| Fiat 9.55550-MX4                                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Fiat 9.55550-MZ1                                |                 |                |                |                | ☑              |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            | ●                          |                      |  |
| Fiat 9.55550-MZ10                               |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Fiat 9.55550-MZ11                               |                 |                |                |                | ☑              |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Fiat 9.55550-MZ12                               |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Fiat 9.55550-MZ14                               |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Fiat 9.55550-MZ2                                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Fiat 9.55550-MZ27                               |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Fiat 9.55550-MZ3                                |                 |                |                |                | ☑              |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ☑                   |                     |                     |                      |                      |                         |                            |                            | ☑                    |  |
| Fiat 9.55550-MZ4                                |                 |                |                |                | ☑              |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            | ☑                          |                      |  |
| Fiat 9.55550-MZ5                                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ●                          |                            |                      |  |
| Fiat 9.55550-MZ6                                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ☑                       |                            |                            |                      |  |
| Fiat 9.55550-MZ9                                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Ford 1382914                                    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Ford 1547953                                    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Ford ESD-M2C186-A                               |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Ford M2C119-A                                   |                 |                |                |                |                | ☑                 | ☑                      |                |                |                 |                | ☑                 |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Ford M2C154-A                                   |                 |                |                |                |                | ☑                 | ☑                      |                |                |                 |                | ☑                 |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Ford M2C175-A                                   |                 |                |                |                | ☑              |                   |                        |                |                |                 | ☑              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            | ☑                          |                      |  |
| Ford M2C192-A                                   |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     | ☑                   |                      |                      |                         |                            |                            |                      |  |
| Ford M2C200-C                                   |                 |                |                |                | ☑              |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            | ☑                          |                      |  |
| Ford M2C200-C/C2/C3                             |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ☑                          |                            |                      |  |
| Ford M2C200-D1                                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ☑                       |                            |                            |                      |  |

# Manual transmission fluid (MTF) and axle lubricant

## Approvals & recommendations (3 / 8)

### Key

(dd. 03/09/2025)

- Specification
- ✓ Approval
- ✓\* Pending approval
- ✓ Recommendation

|                             | Q8 T 35 SAE 80W | Q8 T 35 SAE 90 | Q8 T 35 80W-90 | Q8 T 36 75W-90 | Q8 T 40 75W-90 | Q8 T 45 LS SAE 90 | Q8 T 45 LS SAE 85W-140 | Q8 T 55 80W-90 | Q8 T 55 SAE 90 | Q8 T 55 85W-140 | Q8 T 65 75W-90 | Q8 T 65 LS 75W-90 | Q8 Axle Oil TP 80W-90 | Q8 Axle Oil XG 80W-140 | Q8 Axle Oil GL-5 75W-90 | Q8 Axle Oil XG Synt FE 75W-80 | Q8 Axle Oil XG Synt FE 75W-85 | Q8 Gear Oil V 75W-80 | Q8 Gear Oil V LD 75W-80 | Q8 Gear Oil V LD 75W-90 | Q8 Gear Oil XG 80W-90 | Q8 Trans XGS 75W-85 | Q8 Trans XGS 75W-90 | Q8 Trans XGN 75W-90 | Q8 Trans XGS 75W-140 | Q8 Trans XGR 75W-140 | Q8 Unishift PC Synt 75W | Q8 Unishift PC Synt 75W-80 | Q8 Unishift PC Synt 75W-90 | ZF Ecofluid M 75W-80 |
|-----------------------------|-----------------|----------------|----------------|----------------|----------------|-------------------|------------------------|----------------|----------------|-----------------|----------------|-------------------|-----------------------|------------------------|-------------------------|-------------------------------|-------------------------------|----------------------|-------------------------|-------------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|----------------------|-------------------------|----------------------------|----------------------------|----------------------|
| Ford M2C200-D2              |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | •                       | ✓                          |                            |                      |
| Ford M2C200-D3              |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| Ford M2C210-A               |                 |                |                |                |                |                   |                        |                |                |                 | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Ford SM-2C-1011A            | ✓               | ✓              | ✓              |                |                |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| Ford SQM-2C9002-AA          |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Ford SQM-2C9008-A           | ✓               | ✓              | ✓              |                | ✓              |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Ford WSD-M2C200-D           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| GM 1940182                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| GM 1940704                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       | ✓                          |                            |                      |
| GM 1940711                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| GM 194075 (90001777)        | ✓               | ✓              | ✓              |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| GM 1940757                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| GM 1940759 (90188629)       |                 |                |                |                |                |                   |                        |                |                |                 | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| GM 1940761                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| GM 1940768                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | •                          |                      |
| GM 1940776                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| GM 1942382 (90006326)       |                 |                |                |                |                | ✓                 | ✓                      |                |                |                 |                | ✓                 |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| GM 8863370                  |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| GM 88861800                 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| GM 88861801                 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| GM B 040 104 3              |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            | ✓                          |                      |
| GM MTF 0063                 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       |                            |                            |                      |
| GM PN 09120541              |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       |                            |                            |                      |
| Hanomag Specification 511   |                 |                |                |                |                | ✓                 | ✓                      |                |                |                 |                | ✓                 |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Honda 08261-99964           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| Honda 08798-9031            |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| Honda MTF 94                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | •                       | •                          |                            |                      |
| Honda MTF II/SG             |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | •                       |                            | ✓                          |                      |
| Honda MTF-7289              |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       |                            |                            |                      |
| Honda MTF-II                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       |                            |                            |                      |
| Honda MTF-III               |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       |                            |                            |                      |
| Honda Special MTF           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | •                       | •                          |                            |                      |
| Hyundai/Kia 02200-00130 TOD |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       |                            |                            |                      |



# Manual transmission fluid (MTF) and axle lubricant

## Approvals & recommendations (4 / 8)

### Key

(dd. 03/09/2025)

- Specification
- ☒ Approval
- ☒ Pending approval
- ✓ Recommendation

|                          | Q8 T 35 SAE 80W | Q8 T 35 SAE 90 | Q8 T 35 80W-90 | Q8 T 36 75W-90 | Q8 T 40 75W-90                      | Q8 T 45 LS SAE 90 | Q8 T 45 LS SAE 85W-140 | Q8 T 55 80W-90 | Q8 T 55 SAE 90 | Q8 T 55 85W-140 | Q8 T 65 75W-90 | Q8 T 65 LS 75W-90 | Q8 Axle Oil TP 80W-90 | Q8 Axle Oil XG 80W-140 | Q8 Axle Oil GL-5 75W-90 | Q8 Axle Oil XG Synt FE 75W-80 | Q8 Axle Oil XG Synt FE 75W-85 | Q8 Gear Oil V 75W-80 | Q8 Gear Oil V LD 75W-80 | Q8 Gear Oil V LD 75W-90 | Q8 Gear Oil XG 80W-90               | Q8 Trans XGS 75W-85 | Q8 Trans XGS 75W-90                 | Q8 Trans XGN 75W-90 | Q8 Trans XGS 75W-140 | Q8 Trans XGR 75W-140 | Q8 Unishift PC Synt 75W | Q8 Unishift PC Synt 75W-80 | Q8 Unishift PC Synt 75W-90 | ZF Ecofluid M 75W-80                |
|--------------------------|-----------------|----------------|----------------|----------------|-------------------------------------|-------------------|------------------------|----------------|----------------|-----------------|----------------|-------------------|-----------------------|------------------------|-------------------------|-------------------------------|-------------------------------|----------------------|-------------------------|-------------------------|-------------------------------------|---------------------|-------------------------------------|---------------------|----------------------|----------------------|-------------------------|----------------------------|----------------------------|-------------------------------------|
| Iveco 18-1805 RAM1       |                 |                |                |                |                                     |                   |                        | ✓              | ✓              |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| Iveco 18-1805 RAM2       |                 |                |                |                |                                     |                   |                        |                |                | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| Iveco 18-1805 RAS1       |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     | ✓                                   | ✓                   |                      |                      |                         |                            |                            |                                     |
| Iveco 18-1807 MG         |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         | ✓                                   | ✓                   |                                     |                     |                      |                      |                         |                            |                            |                                     |
| Iveco 18-1807 MGM        |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         | ✓                                   | ✓                   |                                     |                     |                      |                      |                         |                            |                            |                                     |
| Iveco 18-1807 MGS        |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               | ✓                    | ✓                       |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| Iveco 18-1807 MGS1       |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               | ✓                    | ✓                       |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| Iveco ZC 90              |                 |                |                |                | ✓                                   |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| John Deere JDM J11B      | ✓               | ✓              | ✓              |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| John Deere JDM J11D      |                 |                |                |                |                                     |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| John Deere JDM J11E      |                 |                |                |                |                                     |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| John Deere JDM J20C      |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   | ✓                     |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| John Deere JDQ-96        |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   | ✓                     |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| Komatsu Dresser B22-0003 |                 |                |                |                |                                     |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| Komatsu Dresser B22-0005 |                 |                |                |                |                                     |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| Land-Rover STC 9157      |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         | ✓                          |                            |                                     |
| Land-Rover STC 9158      |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         | ✓                          |                            |                                     |
| Land-Rover TYK 500030    |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         | ✓                          |                            |                                     |
| Mack GO-J                |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     | ✓                                   |                     |                      | ✓                    |                         |                            |                            |                                     |
| MAN 3343 Type S          |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     | ✓                    |                      |                         |                            |                            |                                     |
| MAN 341 Type E1          | ✓               | ✓              | ✓              |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| MAN 341 Type E2          |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| MAN 341 Type E3          |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| MAN 341 Type E4          |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               | ✓                    | ✓                       | ✓                       |                                     |                     | ✓                                   | ✓                   | ✓                    |                      |                         |                            |                            |                                     |
| MAN 341 Type GA1         |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     | ✓                                   |                     |                      |                      |                         |                            |                            |                                     |
| MAN 341 Type MB          |                 |                |                |                | <input checked="" type="checkbox"/> |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| MAN 341 Type Z1          | ✓               | ✓              |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| MAN 341 Type Z2          | ✓               |                | ✓              |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         | <input checked="" type="checkbox"/> |                     | <input checked="" type="checkbox"/> | ✓                   |                      |                      |                         |                            |                            |                                     |
| MAN 341 Type Z3          |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               | ✓                    |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| MAN 341 Type Z4          |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               | ✓                    | ✓                       | ✓                       |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| MAN 341 Type Z5          |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      | ✓                       |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            | <input checked="" type="checkbox"/> |
| MAN 342 Type M1          |                 |                |                |                |                                     |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                                     |                     |                                     |                     |                      |                      |                         |                            |                            |                                     |
| MAN 342 Type M2          |                 |                |                |                |                                     |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         | <input checked="" type="checkbox"/> |                     | ✓                                   |                     |                      |                      |                         |                            |                            |                                     |

# Manual transmission fluid (MTF) and axle lubricant

## Approvals & recommendations (5 / 8)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

Key

(dd. 03/09/2025)

● Specification

☑ Approval

☑\* Pending approval

✓ Recommendation

|                               | Q8 T 35 SAE 80W | Q8 T 35 SAE 90 | Q8 T 35 80W-90 | Q8 T 36 75W-90 | Q8 T 40 75W-90 | Q8 T 45 LS SAE 90 | Q8 T 45 LS SAE 85W-140 | Q8 T 55 80W-90 | Q8 T 55 SAE 90 | Q8 T 55 85W-140 | Q8 T 65 75W-90 | Q8 T 65 LS 75W-90 | Q8 Axle Oil TP 80W-90 | Q8 Axle Oil XG 80W-140 | Q8 Axle Oil GL-5 75W-90 | Q8 Axle Oil XG Synt FE 75W-80 | Q8 Axle Oil XG Synt FE 75W-85 | Q8 Gear Oil V 75W-80 | Q8 Gear Oil V LD 75W-80 | Q8 Gear Oil V LD 75W-90 | Q8 Gear Oil XG 80W-90 | Q8 Trans XGS 75W-85 | Q8 Trans XGS 75W-90 | Q8 Trans XGN 75W-90 | Q8 Trans XGS 75W-140 | Q8 Trans XGR 75W-140 | Q8 Unishift PC Synt 75W | Q8 Unishift PC Synt 75W-80 | Q8 Unishift PC Synt 75W-90 | ZF Ecofluid M 75W-80 |  |
|-------------------------------|-----------------|----------------|----------------|----------------|----------------|-------------------|------------------------|----------------|----------------|-----------------|----------------|-------------------|-----------------------|------------------------|-------------------------|-------------------------------|-------------------------------|----------------------|-------------------------|-------------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|----------------------|-------------------------|----------------------------|----------------------------|----------------------|--|
| MAN 342 Type M3               |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ☑                   | ✓                   |                     |                      |                      |                         |                            |                            |                      |  |
| MAN 342 Type S1               |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ☑                   | ✓                   |                     |                      |                      |                         |                            |                            |                      |  |
| MB 235.0 (DTFR 12B100)        |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| MB 235.1 (DTFR 13B100)        | ✓               | ✓              | ✓              |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| MB 235.10                     |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ✓                   |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| MB 235.11 (DTFR 13B110)       |                 |                |                | ☑              |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| MB 235.4                      |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               | ✓                    | ✓                       | ✓                       |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| MB 235.41 (DTFR 13B160)       |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      | ✓                       |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| MB 235.5 (DTFR 13B170)        |                 |                | ✓              |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| MB 235.63                     |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ✓                   |                     |                     |                      |                      |                         |                            |                            |                      |  |
| MB 235.71                     |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       |                            |                            |                      |  |
| MB 235.8 (DTFR 12B140)        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ☑                   | ✓                   | ✓                   |                      |                      |                         |                            |                            |                      |  |
| Meritor 076M                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     | ✓                    |                      |                         |                            |                            |                      |  |
| MIL L-2105B                   |                 |                |                |                |                | ●                 |                        | ●              | ●              | ●               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     | ●                   | ●                   | ●                    | ●                    |                         |                            |                            |                      |  |
| MIL L-2105D                   |                 |                |                |                |                |                   | ●                      | ●              |                | ●               |                | ●                 |                       |                        | ●                       |                               |                               |                      |                         |                         |                       |                     | ●                   | ●                   | ●                    | ●                    |                         |                            |                            |                      |  |
| MIL PRF-2105E                 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       | ●                      |                         |                               |                               |                      |                         |                         |                       |                     | ●                   | ●                   | ●                    | ●                    |                         |                            |                            |                      |  |
| Mitsubishi MZ3005401          |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| Mitsubishi MZ312644           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| Nissan 999MP-MTF20P           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| Nissan KE91699932R            |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| Nissan MT-XZ                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| Nissan MTF HQ                 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         | ✓                     |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| Porsche VW G 052 554 B0       |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| PSA 9730 A2                   |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| PSA 9730-A8                   |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       | ✓                          | ✓                          |                      |  |
| PSA B71 2310                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       | ✓                          | ✓                          |                      |  |
| PSA B71 2315                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| PSA B71 2330                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          | ✓                    |  |
| Renault NFJ                   |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| Renault NFP                   |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| Renault TRX                   |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          | ✓                          |                      |  |
| Rockwell International O-76   |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Rockwell International O-76-E |                 |                |                |                |                |                   |                        |                |                |                 | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |

# Manual transmission fluid (MTF) and axle lubricant

## Approvals & recommendations (6 / 8)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                     | Q8 T 35 SAE 80W | Q8 T 35 SAE 90 | Q8 T 35 80W-90 | Q8 T 36 75W-90 | Q8 T 40 75W-90 | Q8 T 45 LS SAE 90 | Q8 T 45 LS SAE 85W-140 | Q8 T 55 80W-90 | Q8 T 55 SAE 90 | Q8 T 55 85W-140 | Q8 T 65 75W-90 | Q8 T 65 LS 75W-90 | Q8 Axle Oil TP 80W-90 | Q8 Axle Oil XG 80W-140 | Q8 Axle Oil GL-5 75W-90 | Q8 Axle Oil XG Synt FE 75W-80 | Q8 Axle Oil XG Synt FE 75W-85 | Q8 Gear Oil V 75W-80 | Q8 Gear Oil V LD 75W-80 | Q8 Gear Oil V LD 75W-90 | Q8 Gear Oil XG 80W-90 | Q8 Trans XGS 75W-85 | Q8 Trans XGS 75W-90 | Q8 Trans XGN 75W-90 | Q8 Trans XGS 75W-140 | Q8 Trans XGR 75W-140 | Q8 Unishift PC Synt 75W | Q8 Unishift PC Synt 75W-80 | Q8 Unishift PC Synt 75W-90 | ZF Ecofluid M 75W-80 |
|---------------------|-----------------|----------------|----------------|----------------|----------------|-------------------|------------------------|----------------|----------------|-----------------|----------------|-------------------|-----------------------|------------------------|-------------------------|-------------------------------|-------------------------------|----------------------|-------------------------|-------------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|----------------------|-------------------------|----------------------------|----------------------------|----------------------|
| SAE J 2360          |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       | •                      |                         | •                             |                               |                      |                         |                         | ✓                     | •                   | ☑                   |                     | •                    |                      |                         |                            |                            |                      |
| Scania STO 1:0      |                 |                |                |                |                |                   |                        |                |                |                 |                |                   | ☑                     |                        |                         | ✓                             |                               |                      |                         |                         | ☑                     |                     | ☑                   | ✓                   | ☑*                   | ✓                    |                         |                            |                            |                      |
| Scania STO 1:1 G    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     | ☑*                  | ✓                   |                      |                      |                         |                            |                            |                      |
| Scania STO 2:0 A    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     | ✓                   | ✓                   |                      | ✓                    |                         |                            |                            |                      |
| Scania STO 2:0 A FS |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     | ☑                   |                     |                      |                      |                         |                            |                            |                      |
| Scania STO 2:0 G    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     | ✓                   | ✓                   |                      |                      |                         |                            |                            |                      |
| Subaru K0321-F0090  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| Suzuki MTF-1        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| Suzuki MTF-2        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| Suzuki MTF-3        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| Tatra TDS 100/40    |                 |                |                |                |                |                   |                        |                |                |                 | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| Toyota 08885-00705  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| Toyota 08885-81001  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       |                            |                            |                      |
| Toyota 08885-81081  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       |                            |                            |                      |
| Toyota JWS 227      |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG Audi TL 52 532  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG VW 501.50       |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG VW G 005 000    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG VW G 005 100    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG VW G 009 317    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG VW G 052 145    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG VW G 052 157    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG VW G 052 171    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       | ✓                          |                            |                      |
| VAG VW G 052 178    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       | ✓                          |                            |                      |
| VAG VW G 052 190    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | •                   |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG VW G 052 512    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      | ✓                    | ✓                       | ✓                          |                            |                      |
| VAG VW G 052 527    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      | ✓                    | ✓                       | ✓                          |                            |                      |
| VAG VW G 052 532    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      | ✓                    | ✓                       | ✓                          |                            |                      |
| VAG VW G 052 549    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      | ✓                    | ✓                       | ✓                          |                            |                      |
| VAG VW G 052 554 B0 |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      | ✓                       | ✓                          |                            |                      |
| VAG VW G 052 798    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      | ✓                    | ✓                       | ✓                          |                            |                      |
| VAG VW G 052 911    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ✓                   |                     |                     |                      |                      |                         | ✓                          |                            |                      |
| VAG VW G 055 145    |                 |                |                |                |                |                   |                        |                |                |                 | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |

# Manual transmission fluid (MTF) and axle lubricant

## Approvals & recommendations (7 / 8)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
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|                                    | Q8 T 35 SAE 80W | Q8 T 35 SAE 90 | Q8 T 35 80W-90 | Q8 T 36 75W-90 | Q8 T 40 75W-90 | Q8 T 45 LS SAE 90 | Q8 T 45 LS SAE 85W-140 | Q8 T 55 80W-90 | Q8 T 55 SAE 90 | Q8 T 55 85W-140 | Q8 T 65 75W-90 | Q8 T 65 LS 75W-90 | Q8 Axle Oil TP 80W-90 | Q8 Axle Oil XG 80W-140 | Q8 Axle Oil GL-5 75W-90 | Q8 Axle Oil XG Synt FE 75W-80 | Q8 Axle Oil XG Synt FE 75W-85 | Q8 Gear Oil V 75W-80 | Q8 Gear Oil V LD 75W-80 | Q8 Gear Oil V LD 75W-90 | Q8 Gear Oil XG 80W-90 | Q8 Trans XGS 75W-85 | Q8 Trans XGS 75W-90 | Q8 Trans XGN 75W-90 | Q8 Trans XGS 75W-140 | Q8 Trans XGR 75W-140 | Q8 Unishift PC Synt 75W | Q8 Unishift PC Synt 75W-80 | Q8 Unishift PC Synt 75W-90 | ZF Ecofluid M 75W-90 |  |
|------------------------------------|-----------------|----------------|----------------|----------------|----------------|-------------------|------------------------|----------------|----------------|-----------------|----------------|-------------------|-----------------------|------------------------|-------------------------|-------------------------------|-------------------------------|----------------------|-------------------------|-------------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|----------------------|-------------------------|----------------------------|----------------------------|----------------------|--|
| VAG VW G 055 538                   | ✓               |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| VAG VW G 50                        | ✓               |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| VAG VW G 51                        | ✓               |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| VAG VW G 52 726                    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| VAG VW TL 521 71 (G 052 171 A1/A2) |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| VAG VW TL 521 78 (G 052 178 A2)    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| VAG VW TL 525 12 (G 052 512 A2)    |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| VAG VW TL 726 (80W)                |                 |                |                |                | ✓              |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| VME Americas EEMS 19003F           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97305                        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97307 (400.000 km)           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97308                        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97309                        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97310                        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97311                        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97312                        |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97312 (<2013)                |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97315 (400.000 km)           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97317 (GO 102)               |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97318 (800.000 km)           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo 97319 (800.000 km)           |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo P-N 1161681                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo P-N 1161745                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo P/N 1161838                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| Volvo P/N 1161839                  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| ZF 8DT (transmission section)      |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| ZF Synchromesh transmissions       |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| ZF TE ML 07A                       |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| ZF TE-ML 01E                       |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| ZF TE-ML 01L                       |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| ZF TE-ML 02B                       | ✓               | ✓              | ✓              |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |
| ZF TE-ML 02E                       |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |  |

# Manual transmission fluid (MTF) and axle lubricant

## Approvals & recommendations (8 / 8)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|              | Q8 T 35 SAE 80W | Q8 T 35 SAE 90 | Q8 T 35 80W-90 | Q8 T 36 75W-90 | Q8 T 40 75W-90 | Q8 T 45 LS SAE 90 | Q8 T 45 LS SAE 85W-140 | Q8 T 55 80W-90 | Q8 T 55 SAE 90 | Q8 T 55 85W-140 | Q8 T 65 75W-90 | Q8 T 65 LS 75W-90 | Q8 Axle Oil TP 80W-90 | Q8 Axle Oil XG 80W-140 | Q8 Axle Oil GL-5 75W-90 | Q8 Axle Oil XG Synt FE 75W-80 | Q8 Axle Oil XG Synt FE 75W-85 | Q8 Gear Oil V 75W-80 | Q8 Gear Oil V LD 75W-80 | Q8 Gear Oil V LD 75W-90 | Q8 Gear Oil XG 80W-90 | Q8 Trans XGS 75W-85 | Q8 Trans XGS 75W-90 | Q8 Trans XGN 75W-90 | Q8 Trans XGS 75W-140 | Q8 Trans XGR 75W-140 | Q8 Unishift PC Synt 75W | Q8 Unishift PC Synt 75W-80 | Q8 Unishift PC Synt 75W-90 | ZF Ecofluid M 75W-80 |
|--------------|-----------------|----------------|----------------|----------------|----------------|-------------------|------------------------|----------------|----------------|-----------------|----------------|-------------------|-----------------------|------------------------|-------------------------|-------------------------------|-------------------------------|----------------------|-------------------------|-------------------------|-----------------------|---------------------|---------------------|---------------------|----------------------|----------------------|-------------------------|----------------------------|----------------------------|----------------------|
| ZF TE-ML 04G |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               | ✓              |                   | ☑                     | ✓                      |                         | ✓                             |                               |                      |                         |                         | ☑                     |                     | ☑                   | ✓                   |                      | ☑                    |                         |                            |                            |                      |
| ZF TE-ML 05A |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         | ☑                     |                     | ☑                   |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 05B |                 |                |                |                |                | ☑                 | ✓                      |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ☑                   |                     |                     | ✓                    |                      |                         |                            |                            |                      |
| ZF TE-ML 05C |                 |                |                |                |                | ☑                 | ✓                      |                |                |                 |                | ✓                 |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 05D |                 |                |                |                |                |                   |                        |                |                |                 |                | ✓                 |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 07A |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               | ✓              |                   |                       |                        |                         |                               | ✓                             |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 08  | ✓               | ✓              | ✓              |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               | ✓                             | ✓                    | ✓                       | ✓                       |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 12A |                 |                |                |                |                |                   |                        | ✓              | ✓              | ✓               | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 12B |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     | ✓                    |                      |                         |                            |                            |                      |
| ZF TE-ML 12C |                 |                |                |                |                | ✓                 | ✓                      |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 12D |                 |                |                |                |                |                   |                        |                |                |                 | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 12L |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       | ☑                      |                         |                               |                               |                      |                         |                         | ☑                     |                     | ☑                   | ✓                   |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 12M |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       | ☑                      |                         |                               |                               |                      |                         |                         | ☑                     |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 12N |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ☑                   | ✓                   |                     |                      | ☑                    |                         |                            |                            |                      |
| ZF TE-ML 13  |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               | ✓                    |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 16A | ✓               | ✓              | ☑              |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 16B |                 |                |                |                |                |                   |                        | ☑              | ✓              | ☑               |                |                   |                       |                        | ✓                       |                               |                               |                      |                         |                         | ☑                     |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 16C |                 |                |                |                |                |                   |                        | ✓              | ☑              | ✓               |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 16D |                 |                |                |                |                |                   |                        |                |                | ☑               |                |                   |                       | ☑                      |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 16E |                 |                |                |                |                | ✓                 | ✓                      |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 16F |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       | ☑                   | ✓                   | ✓                   | ✓                    | ☑                    |                         |                            |                            |                      |
| ZF TE-ML 16K |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               | ☑                    | ✓                       | ✓                       |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 16P |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            | ✓                    |
| ZF TE-ML 17A | ☑               | ✓              | ☑              |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 17B |                 |                |                |                |                |                   |                        | ☑              | ☑              | ✓               | ✓              |                   |                       |                        | ✓                       |                               |                               |                      |                         |                         | ✓                     |                     | ☑                   | ✓                   |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 17H |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         | ☑                     |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 19A | ✓               | ✓              | ☑              |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 19B |                 |                |                |                |                |                   |                        | ☑              | ☑              | ✓               |                |                   |                       |                        | ✓                       |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 19C |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               |                      |                         |                         | ☑                     |                     | ☑                   | ✓                   |                      | ✓                    |                         |                            |                            |                      |
| ZF TE-ML 21A |                 |                |                |                |                |                   |                        | ☑              | ☑              | ☑               |                |                   |                       | ☑                      |                         |                               |                               |                      |                         |                         | ☑                     |                     | ☑                   | ✓                   |                      | ☑                    |                         |                            |                            |                      |
| ZF TE-ML 21C |                 |                |                |                |                | ☑                 | ✓                      |                |                |                 | ✓              |                   |                       |                        |                         |                               |                               |                      |                         |                         |                       |                     |                     |                     |                      |                      |                         |                            |                            |                      |
| ZF TE-ML 24A |                 |                |                |                |                |                   |                        |                |                |                 |                |                   |                       |                        |                         |                               |                               | ✓                    |                         |                         |                       | ✓                   |                     |                     |                      |                      |                         |                            |                            |                      |

# Automatic transmission fluid (ATF)

## Approvals & recommendations (1 / 9)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                   | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto DVI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|-----------------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
| Aisin Warner JWS 3309 (T-IV)      |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Aisin Warner JWS 3317             |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Aisin Warner JWS 3324 (WS)        |            |               |              |              |              |              | ✓          | ✓          | ✓           |                 |                 |                  |                  |                  |                    |
| Aisin Warner JWS AW-1             |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Aisin Warner JWS AW-2             |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Allison C-3                       |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Allison C-4                       | ✓          | ✓             |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Allison TES-228                   |            |               |              |              |              |              | ✓          |            |             |                 |                 |                  |                  |                  |                    |
| Allison TES-295                   |            |               | ✓            | ✓            |              |              |            |            |             |                 |                 |                  |                  |                  |                    |
| Allison TES-389                   |            | ✓             | ✓            | ✓            |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Allison TES-468                   |            |               | ✓            |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Allison TES-468TM                 |            |               |              | ✓            |              |              |            |            |             |                 |                 |                  |                  |                  |                    |
| Allison TES-668                   |            |               | ☑            |              |              |              |            |            |             |                 |                 |                  |                  |                  |                    |
| American Motors ATF +3 (MS7176-E) |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| AML Oil No. 4G43A9A509/AA/S       |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| ATF RED 1                         |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| ATF RED 1K                        |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Audi 5 HP LT71141                 |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Audi G 060 162                    |            |               |              |              |              |              |            |            |             |                 |                 | ✓                |                  |                  |                    |
| Audi Multitronic                  |            |               |              |              |              |              |            |            |             |                 |                 |                  | ✓                |                  |                    |
| Audi ZF 5 HP 18FL                 |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Audi ZF 5 HP 19FL                 |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Audi ZF 5 HP 24A                  |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BAIC CVTF-EX1                     |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Bentley PY112995PA                |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Bentley VW G 052 524 B2           |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| BMW 6-speed DCT                   |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  | ✓                |                    |
| BMW 83 22 2 167 666               |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| BMW ATF 6                         |            |               |              |              |              |              |            |            |             |                 |                 | ✓                |                  |                  |                    |
| BMW DCTF-1                        |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| BMW DCTF-1+                       |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  | ✓                |                    |
| BMW DCTF-2                        |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  | ✓                |                    |

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
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|                                          | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto DVI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|------------------------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
| BMW Drivelogic 7-speed (Getrag)          |            |               |              |              |              |              |            |            |             |                 |                 | ✓                |                  |                  |                    |
| BMW ETL 8072B                            |            |               |              |              |              |              |            |            |             |                 |                 |                  | ✓                |                  |                    |
| BMW MTF LT-5                             |            |               |              |              |              |              |            |            |             |                 |                 | ✓                |                  |                  |                    |
| BMW/MINI 7045E                           |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI 83 22 0 026 922                 |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI 83 22 0 136 376                 |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| BMW/MINI 83 22 0 142 516                 |            |               |              |              |              |              |            | ✓          |             |                 |                 |                  |                  |                  |                    |
| BMW/MINI 83 22 0 163 514                 |            |               |              |              |              |              |            | ✓          |             |                 |                 |                  |                  |                  |                    |
| BMW/MINI 83 22 0 397 114                 |            |               |              |              |              |              |            | ✓          | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI 83 22 0 402 413                 |            |               |              |              |              |              | ✓          |            |             |                 |                 |                  |                  |                  |                    |
| BMW/MINI 83 22 0 403 249                 |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI 83 22 0 429 154                 |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| BMW/MINI ATF 2                           |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI ATF 3+                          |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI ATF 6                           |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI ATF 7                           |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI ETL 8072B                       |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI EZL 799                         |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| BMW/MINI EZL 799A                        |            |               |              |              |              |              |            |            |             | ✓               |                 |                  | ✓                |                  |                    |
| BMW/MINI JWS 3309 (T-IV)                 |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  | ✓                |                  |                    |
| BMW/MINI LA 2634                         |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI LT71141 (ZF 5 HP 18FL/19FL/24A) |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI T-IV                            |            |               |              |              |              |              |            |            | •           |                 |                 |                  |                  |                  |                    |
| BMW/MINI ZF 5 HP 19FL                    |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI ZF 5 HP 24A                     |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI ZF 5 HP 30                      |            |               |              |              |              |              |            | ✓          | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI ZF 5HP18FL                      |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| BMW/MINI ZF CVT V1                       |            |               |              |              |              |              |            |            |             | ✓               |                 |                  | ✓                |                  |                    |
| BMW/MINI ZF HP 24                        |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Borg Warner Wet DCT                      |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  | ✓                |                    |
| Bosch TE-ML 09                           |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Bugatti Veyron (Wet DCT)                 |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| BYD 6DT35                                |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |

# Automatic transmission fluid (ATF)

## Approvals & recommendations (2 / 9)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|  | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto DVI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|

|                                      |   |   |  |  |   |  |   |   |   |   |   |  |  |   |  |
|--------------------------------------|---|---|--|--|---|--|---|---|---|---|---|--|--|---|--|
| BYD DCT                              |   |   |  |  |   |  |   |   |   |   | ✓ |  |  |   |  |
| BYD Q/BYD-A1909.0058-2013            |   |   |  |  |   |  |   |   |   |   | ✓ |  |  |   |  |
| Caterpillar TO-2                     | ✓ |   |  |  |   |  |   | ✓ |   |   |   |  |  |   |  |
| Changan DCTF                         |   |   |  |  |   |  |   |   |   | ✓ |   |  |  | ✓ |  |
| Chery CVT                            |   |   |  |  |   |  |   |   |   | ✓ |   |  |  |   |  |
| Chrysler ATF+                        |   |   |  |  |   |  | ✓ |   | ✓ |   |   |  |  |   |  |
| Chrysler ATF+2                       |   |   |  |  |   |  | ✓ | ✓ | ✓ |   |   |  |  |   |  |
| Chrysler ATF+3                       |   | ✓ |  |  |   |  | ✓ | ✓ |   |   |   |  |  |   |  |
| Chrysler ATF+4                       |   |   |  |  |   |  | ✓ | ✓ |   |   |   |  |  |   |  |
| Chrysler CVT+4                       |   |   |  |  |   |  |   |   |   | ✓ |   |  |  |   |  |
| Chrysler JWS 3309                    |   |   |  |  |   |  | ✓ | ✓ | ✓ |   |   |  |  |   |  |
| Chrysler MOPAR AS 68 RC (T-IV)       |   |   |  |  |   |  |   | ✓ | ✓ |   |   |  |  |   |  |
| Chrysler MOPAR SP IV                 |   |   |  |  |   |  |   | ✓ | ✓ |   |   |  |  |   |  |
| Chrysler MOPAR AS 69 RC (T-IV)       |   |   |  |  |   |  | ✓ | ✓ |   |   |   |  |  |   |  |
| Chrysler MS-6704A                    | ✓ |   |  |  |   |  |   |   |   |   |   |  |  |   |  |
| Chrysler MS-7176E                    |   |   |  |  |   |  | ✓ |   |   |   |   |  |  |   |  |
| Chrysler MS-9602                     |   |   |  |  |   |  | ✓ |   |   |   |   |  |  |   |  |
| Chrysler NAG-1                       |   |   |  |  |   |  |   | ✓ |   |   |   |  |  |   |  |
| Chrysler NS-2                        |   |   |  |  |   |  |   |   | ✓ |   |   |  |  |   |  |
| Chrysler P-N 68049954AA              |   |   |  |  |   |  |   | ✓ |   |   |   |  |  |   |  |
| Chrysler P-N 68171869AA              |   |   |  |  |   |  |   | ✓ |   |   |   |  |  |   |  |
| Chrysler P-N 68218925AB              |   |   |  |  |   |  |   | ✓ |   |   |   |  |  |   |  |
| Chrysler P/N 05127382AA              |   |   |  |  | ✓ |  | ✓ | ✓ |   |   |   |  |  |   |  |
| Chrysler P/N 68043742AA              |   |   |  |  |   |  | ✓ | ✓ |   |   |   |  |  |   |  |
| Chrysler P/N 68044345EA              |   |   |  |  |   |  |   |   |   |   | ✓ |  |  |   |  |
| Chrysler P/N 68044345GA              |   |   |  |  |   |  |   |   |   |   | ✓ |  |  |   |  |
| Chrysler P/N 68157995AA              |   |   |  |  |   |  | ✓ | ✓ |   |   |   |  |  |   |  |
| Chrysler P/N 68157995AB              |   |   |  |  |   |  |   | ✓ |   |   |   |  |  |   |  |
| Chrysler P/N 68171866AA              |   |   |  |  |   |  |   | ✓ |   |   |   |  |  |   |  |
| Chrysler P/N 68218925AA              |   |   |  |  |   |  |   | ✓ |   |   |   |  |  |   |  |
| Chrysler Powershift 6-speed (Getrag) |   |   |  |  |   |  |   |   |   |   | ✓ |  |  | ✓ |  |
| Clark TLC-25 3M 8-83                 | ✓ |   |  |  |   |  |   |   |   |   |   |  |  |   |  |
| Daewoo LT71141                       |   |   |  |  |   |  | ✓ | ✓ |   |   |   |  |  |   |  |

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|  | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto DVI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|

|                                          |  |  |  |   |   |  |  |   |   |   |   |   |   |   |  |
|------------------------------------------|--|--|--|---|---|--|--|---|---|---|---|---|---|---|--|
| Daihatsu Alumix ATF Multi                |  |  |  |   |   |  |  | ✓ |   |   |   |   |   |   |  |
| Daihatsu Ammix ATF D-II                  |  |  |  |   |   |  |  | ✓ |   | ✓ |   |   |   |   |  |
| Daihatsu Ammix ATF D-III SP              |  |  |  |   |   |  |  | ✓ |   | ✓ |   |   |   |   |  |
| Daihatsu Ammix CVTF DC                   |  |  |  |   |   |  |  |   |   |   | ✓ |   |   |   |  |
| Daihatsu Ammix CVTF DFC                  |  |  |  |   |   |  |  |   |   |   | ✓ |   |   |   |  |
| Daihatsu Ammix CVTF DFE                  |  |  |  |   |   |  |  |   |   |   | ✓ |   |   |   |  |
| Daihatsu Fluid TC                        |  |  |  |   |   |  |  |   |   | ✓ |   |   |   |   |  |
| Daimler Truck AG DTFR 13C170 (MB 236.9)  |  |  |  |   | ✓ |  |  |   |   |   |   |   |   |   |  |
| Daimler Truck AG DTFR 13C180 (MB 236.91) |  |  |  | ✓ |   |  |  |   |   |   |   |   |   |   |  |
| Daimler Truck AG DTFR 13C190 (MB 236.92) |  |  |  | ✓ |   |  |  |   |   |   |   |   |   |   |  |
| DANA OHTM-ATF-X                          |  |  |  | ✓ |   |  |  |   |   |   |   |   |   |   |  |
| DFSK CVTF-EX1                            |  |  |  |   |   |  |  |   |   |   | ✓ |   |   |   |  |
| Dodge CVTF+4                             |  |  |  |   |   |  |  |   |   |   | ✓ |   |   |   |  |
| Dodge NS-2                               |  |  |  |   |   |  |  |   |   |   | ✓ |   |   |   |  |
| Eaton Eaton PS-278                       |  |  |  |   |   |  |  |   |   |   |   | ✓ |   |   |  |
| Esso LT 71141                            |  |  |  |   |   |  |  |   | ✓ |   |   |   |   |   |  |
| Ferrari 7-speed (Getrag)                 |  |  |  |   |   |  |  |   |   |   |   | ✓ |   | ✓ |  |
| Ferrari TF DCT-3                         |  |  |  |   |   |  |  |   |   |   | ✓ |   |   | ✓ |  |
| Fiat 9.55550-AG1                         |  |  |  |   |   |  |  | ✓ |   |   |   |   |   |   |  |
| Fiat 9.55550-AG2                         |  |  |  |   |   |  |  | ✓ |   |   |   |   |   |   |  |
| Fiat 9.55550-AV1                         |  |  |  |   |   |  |  | ✓ |   |   |   |   |   |   |  |
| Fiat 9.55550-AV2                         |  |  |  |   |   |  |  |   | ✓ |   |   |   |   |   |  |
| Fiat 9.55550-AV3                         |  |  |  |   |   |  |  |   |   | ✓ |   |   |   |   |  |
| Fiat 9.55550-AV4                         |  |  |  |   |   |  |  | ✓ |   |   |   |   |   |   |  |
| Fiat 9.55550-AV5                         |  |  |  |   |   |  |  |   | ✓ |   |   |   |   |   |  |
| Fiat 9.55550-AV6                         |  |  |  |   |   |  |  |   | ✓ |   |   |   |   |   |  |
| Fiat 9.55550-HE2                         |  |  |  |   |   |  |  |   |   |   | ✓ |   |   | ✓ |  |
| Fiat 9.55550-MZ6                         |  |  |  |   |   |  |  |   |   |   | ✓ |   |   | ✓ |  |
| Fiat CVT NG                              |  |  |  |   |   |  |  |   |   |   |   |   | ✓ |   |  |
| Fiat JWS 3309 T-IV                       |  |  |  |   |   |  |  | ✓ |   | ✓ |   |   |   |   |  |
| Fiat Tutela Car CVT NG                   |  |  |  |   |   |  |  |   |   | ✓ |   |   |   |   |  |
| Ford ATF C-ML5                           |  |  |  |   |   |  |  |   | ✓ |   |   |   |   |   |  |
| Ford EAP -M2C166H                        |  |  |  |   |   |  |  | ✓ |   | ✓ |   |   |   |   |  |

# Automatic transmission fluid (ATF)

## Approvals & recommendations (3 / 9)

### Key

(dd. 03/09/2025)

- Specification
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|                           | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto D VI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|---------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|--------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
| Ford Escape Hybrid eCVT   |            |               |              |              |              |              |            |            |              |                 |                 | ✓                | ✓                |                  |                    |
| Ford F-DC                 |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| Ford FNR5                 |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford JWS 3309             |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford M2C138-CJ            | •          |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford M2C166-H             | •          |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford M2C185-A             | •          |               |              |              |              |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Ford M2C186-A             | •          |               |              |              |              |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Ford M2C200-D2            |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| Ford M2C202-B             |            |               |              |              |              |              | ✓          |            |              |                 | ✓               |                  |                  |                  |                    |
| Ford M2C218-A1            |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| Ford M2C919-E             |            |               |              |              |              |              | ✓          |            |              |                 |                 | ✓                |                  |                  |                    |
| Ford M2C922-A1            |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford M2C924-A( XT-8-QAW)  |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 | ✓                |                  |                  |                    |
| Ford M2C936-A             |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  | ✓                |                    |
| Ford M2C938-A (Mercon LV) |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford Mercon               |            | ✓             |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford Mercon LV            |            |               |              |              |              |              |            | ✓          |              |                 |                 | ✓                |                  |                  |                    |
| Ford Mercon V             |            |               |              |              |              |              | ✓          |            |              |                 |                 |                  |                  |                  |                    |
| Ford P/N 1490761          |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| Ford P/N 1490763          |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| Ford Part # KU7J M2C218AA |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| Ford Powershift           |            |               |              |              |              |              |            |            |              |                 |                 |                  |                  | ✓                |                    |
| Ford SQM-2C9010-A         | •          |               |              |              |              |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Ford SQM-2C9010-B         | •          |               |              |              |              |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Ford XL-12                |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford XT-11-QDC            |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| Ford XT-2-QDX             |            |               |              | ✓            |              |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Ford XT-2-QDX (M)         |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford XT-2-QSM (S)         |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford XT-5-QM              |            |               |              | ✓            |              |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Ford XT-6-DSP             |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |
| Ford XT-8-QAW             |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |

### Key

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|--------------------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|--------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
| Ford XT-9-QMM5                       |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| Ford/Nissan Powershift 6-speed (GFT) |            |               |              |              |              |              |            |            |              |                 |                 | ✓                |                  |                  |                    |
| Fuchs Titan FFL-6                    |            |               |              |              |              |              |            |            |              |                 |                 | ✓                |                  |                  |                    |
| Fuchs Titan FFL-8                    |            |               |              |              |              |              |            |            |              |                 |                 | ✓                |                  |                  |                    |
| Fujijyuuko i-CVTF FG                 |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| Fuso ATF-A4                          |            |               |              |              |              |              |            | ✓          |              |                 |                 |                  | ✓                |                  |                    |
| Fuso ATF-II                          |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |
| Fuso ATF-SPIII                       |            |               |              |              |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| Geely 7 Speed                        |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| GM 1940700                           |            |               |              |              |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM 1940713                           |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| GM 1940714                           |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| GM 1940767                           |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| GM 21005966 (Transaxle)              |            |               |              |              |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM 22717466                          |            |               |              |              |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM 6137M                             | •          |               |              |              |              |              |            |            |              |                 |                 |                  |                  |                  |                    |
| GM 88863400                          |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| GM 88863401                          |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| GM 88900925                          |            |               |              |              |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM 93160393                          |            |               |              |              |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM 9986195 (Aisin AW, JWS 3309)      |            |               |              |              |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM ATF Type A (Suffix A)             |            | ✓             |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| GM AW1                               |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| GM CVTF I-Green2                     |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| GM DEX-CVT                           |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| GM Dexron II                         |            |               |              |              |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM Dexron II D                       | ✓          |               |              | ✓            |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM Dexron II E                       |            |               |              |              |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM Dexron III                        |            | ✓             |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| GM Dexron III F                      |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| GM Dexron III G                      |            | ✓             | ✓            | ✓            |              |              |            | ✓          |              | ✓               |                 |                  |                  |                  |                    |
| GM Dexron III H                      |            | ✓             |              | ✓            |              |              |            | ✓          |              | ☑               |                 |                  |                  |                  |                    |
| GM Dexron VI                         |            |               |              |              |              |              |            | ✓          |              | ☑               |                 |                  | ✓                |                  |                    |



# Automatic transmission fluid (ATF)

## Approvals & recommendations (4 / 9)

### Key

(dd. 03/09/2025)

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|-------------------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|--------------|-----------------|-----------------|-------------------|-------------------|-------------------|--------------------|
| GM GMN10060                         |            |               |              |              |              |              |            | •          |              |                 |                 |                   |                   |                   |                    |
| GM HP CVT                           |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| GM TASA                             |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| GM Transfer Case (Auto Trak II)     |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| GM VT 40                            |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Great Wall DCT                      |            |               |              |              |              |              |            |            |              |                 | ✓               |                   |                   |                   |                    |
| Hino Blue Ribon ATF                 |            |               |              |              |              | ✓            |            | ✓          |              |                 |                 |                   |                   |                   |                    |
| Honda ATF Ultra II                  |            |               |              |              |              |              |            | ✓          |              |                 |                 |                   |                   |                   |                    |
| Honda CVT                           |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Honda DW-1                          |            |               |              |              |              |              | ✓          | ✓          |              |                 |                 |                   |                   |                   |                    |
| Honda e-HEV                         |            |               |              |              |              |              |            |            |              |                 |                 | ✓                 | ✓                 |                   |                    |
| Honda Fit                           |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Honda HCF2                          |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Honda HMMF                          |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Honda iMMD                          |            |               |              |              |              |              |            |            |              |                 |                 | ✓                 | ✓                 |                   |                    |
| Honda Jazz                          |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Honda Type 3.0                      |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Honda Type 3.1                      |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Honda Type 3.1 (08200-9017 USA)     |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Honda Type 3.1 (08263-999-01HE (EU) |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Honda Z-1 (CVT model)               |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   | ✓                 |                   |                    |
| Honda Z-1 (except in CVT)           |            |               |              |              |              | ✓            |            | ✓          |              |                 |                 | ✓                 |                   |                   |                    |
| Hyundai/Kia 040000C90SG             |            |               |              |              |              |              |            | ✓          | ✓            |                 |                 |                   |                   |                   |                    |
| Hyundai/Kia 04300-2N110 WDHO-1      |            |               |              |              |              |              |            |            |              |                 | ✓               |                   |                   |                   |                    |
| Hyundai/Kia CVT-1                   |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   | ✓                 |                   |                    |
| Hyundai/Kia Dex-II                  |            |               |              |              |              | ✓            |            | ✓          |              |                 |                 |                   |                   |                   |                    |
| Hyundai/Kia DW-1                    |            |               |              |              |              | ✓            |            |            |              |                 |                 |                   |                   |                   |                    |
| Hyundai/Kia JWS 3314                |            |               |              |              |              | ✓            |            | ✓          |              |                 |                 |                   |                   |                   |                    |
| Hyundai/Kia NUMM040 CH20 Red-1      |            |               |              |              |              |              |            | ✓          |              |                 |                 | ✓                 |                   |                   |                    |
| Hyundai/Kia NWS-9638                |            |               |              |              |              | ✓            |            | ✓          |              |                 |                 | ✓                 |                   |                   |                    |
| Hyundai/Kia NWS-9638 T-5            |            |               |              |              |              |              |            | ✓          |              |                 |                 |                   |                   |                   |                    |
| Hyundai/Kia SP IV                   |            |               |              |              |              | ✓            | ✓          | ✓          |              |                 |                 |                   |                   |                   |                    |
| Hyundai/Kia SP-II                   |            |               |              |              |              | ✓            |            | ✓          |              |                 |                 |                   |                   |                   |                    |

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                          | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto D VI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-VEV ATF | Q8 Auto H-VEV CVT | Q8 Auto H-VEV DCT | ZF Ecofluid A Life |
|------------------------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|--------------|-----------------|-----------------|-------------------|-------------------|-------------------|--------------------|
| Hyundai/Kia SP-III (CVT model)           |            |               |              |              |              |              |            |            |              | ✓               |                 |                   |                   |                   |                    |
| Hyundai/Kia SP-III (except in CVT's)     |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Hyundai/Kia SP-IV M                      |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   | ✓                 |                   |                    |
| Hyundai/Kia SP-IV RR                     |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Hyundai/Kia SP4-M                        |            |               |              |              |              |              |            | ✓          | ✓            |                 |                 |                   |                   |                   |                    |
| Hyundai/Kia SPH-IV                       |            |               |              |              |              |              |            | ✓          | ✓            |                 |                 |                   |                   |                   |                    |
| Idemitsu CVTF-EX1                        |            |               |              |              |              |              |            |            |              | ✓               |                 |                   |                   |                   |                    |
| Idemitsu K17 3100 PL085                  |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Isuzu ATF WSI                            |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Isuzu Besco 08200-9001                   |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Isuzu Besco ATF SP                       |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Isuzu Besco ATF-II                       |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Isuzu Besco ATF-III                      |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Isuzu Besco SCS Fluid                    |            |               |              |              |              |              | ✓          |            |              |                 |                 | ✓                 |                   |                   |                    |
| Iveco 18-1807 AG2                        | ✓          |               |              |              |              |              |            |            |              |                 |                 |                   |                   |                   |                    |
| Iveco 18-1807 AG3/I                      |            |               | ✓            |              |              |              |            |            |              |                 |                 |                   |                   |                   |                    |
| Iveco 18-1807 AG3/IV                     |            |               | ✓            |              |              |              |            |            |              |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover 02JDE26444             |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover ATF 3403 M115          |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover ATF LT71141 (ZF 5HP24) |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover Fluid 8432             |            |               |              |              |              |              | ✓          | ✓          | ✓            |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover JLM 20238              |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover JLM 20292              |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover K17                    |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover LR0022460              |            |               |              |              |              |              |            | ✓          | ✓            |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover LR023288               |            |               |              |              |              |              |            |            | ✓            |                 |                 |                   |                   |                   |                    |
| Jaguar Land Rover M2C 922-A1             |            |               |              |              |              |              |            |            | ✓            |                 |                 | ✓                 |                   |                   |                    |
| Jaguar Land Rover TYK500050              |            |               |              |              |              |              |            | ✓          | ✓            |                 |                 |                   |                   |                   |                    |
| JASO M315 Type 1A                        |            |               |              | ✓            |              |              | ✓          | •          | ✓            | ✓               |                 |                   |                   |                   |                    |
| JASO M315 Type 1A LV                     |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 | ✓                 |                   |                   |                    |
| JASO M315 Type 2A                        |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 | ✓                 |                   |                   |                    |
| Jatco CVT 8 Hybrid                       |            |               |              |              |              |              |            |            |              |                 |                 |                   | ✓                 |                   |                    |
| Jatco JR712E                             |            |               |              |              |              |              |            |            |              |                 |                 | ✓                 |                   |                   |                    |

# Automatic transmission fluid (ATF)

## Approvals & recommendations (5 / 9)

### Key

(dd. 03/09/2025)

- Specification
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- ☑\* Pending approval
- ✓ Recommendation

|  | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto DVI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|

|                          |   |    |   |   |   |  |   |   |   |   |  |   |   |  |   |
|--------------------------|---|----|---|---|---|--|---|---|---|---|--|---|---|--|---|
| Jeep ATF +3              |   |    |   |   |   |  | ✓ |   | ✓ |   |  |   |   |  |   |
| Jeep CVT+4               |   |    |   |   |   |  |   |   |   | ✓ |  |   |   |  |   |
| Jeep NS-2                |   |    |   |   |   |  |   |   |   | ✓ |  |   |   |  |   |
| Komatsu Dresser B22-0004 | ✓ |    |   |   |   |  |   |   |   |   |  |   |   |  |   |
| Land-Rover LR0234288     |   |    |   |   |   |  | ✓ |   |   |   |  |   |   |  |   |
| Land-Rover TYK500050     |   |    |   |   |   |  | ✓ |   |   |   |  |   |   |  |   |
| Lexus Fluid FE           |   |    |   |   |   |  |   |   |   | ✓ |  |   | ✓ |  |   |
| Lexus Fluid TC           |   |    |   |   |   |  |   |   |   | ✓ |  |   | ✓ |  |   |
| Lexus JWS 3309           |   |    |   |   |   |  |   |   | ✓ |   |  |   |   |  |   |
| MAN 339 Type A           |   |    |   |   |   |  |   |   | ✓ |   |  |   |   |  |   |
| MAN 339 Type L1          |   | ☑  |   |   |   |  |   |   |   |   |  |   |   |  |   |
| MAN 339 Type L2          | ☑ |    |   |   |   |  |   |   |   |   |  |   |   |  |   |
| MAN 339 Type V1          | ☑ |    |   | ✓ |   |  | ✓ |   |   |   |  |   |   |  |   |
| MAN 339 Type V2          |   | ☑  | ✓ |   | ✓ |  | ✓ |   |   |   |  |   |   |  |   |
| MAN 339 Type Z1          | ☑ |    |   |   |   |  | ✓ |   |   |   |  |   |   |  |   |
| MAN 339 Type Z12         |   |    |   |   | ✓ |  |   |   |   |   |  |   |   |  |   |
| MAN 339 Type Z13         |   |    |   |   |   |  |   |   |   |   |  |   |   |  | ✓ |
| MAN 339 Type Z2          |   | ☑  |   |   |   |  | ✓ |   |   |   |  |   |   |  |   |
| MAN 339 Type Z3          |   |    | ✓ |   | ✓ |  | ✓ |   |   |   |  |   |   |  |   |
| MAN 339 Type Z4          |   |    |   |   |   |  |   |   |   |   |  |   |   |  | ✓ |
| Maserati P/N 231603      |   |    |   |   |   |  |   | • | ✓ |   |  | ✓ |   |  |   |
| Mazda ATF 3317           |   |    |   |   |   |  | ✓ |   | ✓ |   |  |   |   |  |   |
| Mazda ATF A7             |   |    |   |   |   |  |   |   | ✓ |   |  |   |   |  |   |
| Mazda ATF D-II           |   |    |   |   |   |  | ✓ |   | ✓ |   |  |   |   |  |   |
| Mazda ATF F-1            |   |    |   |   |   |  | ✓ |   | ✓ |   |  |   |   |  |   |
| Mazda ATF FZ             |   |    |   |   |   |  | ✓ | ✓ | ✓ |   |  |   |   |  |   |
| Mazda ATF M-III          |   |    |   |   |   |  | ✓ |   | ✓ |   |  |   |   |  |   |
| Mazda ATF M-V            |   |    |   |   |   |  | ✓ |   | ✓ |   |  |   |   |  |   |
| Mazda ATF N-1            |   |    |   |   |   |  | ✓ |   | ✓ |   |  |   |   |  |   |
| Mazda ATF S-1            |   |    |   |   |   |  | ✓ |   | ✓ |   |  |   |   |  |   |
| Mazda JWS 3320           |   |    |   |   |   |  |   |   |   | ✓ |  |   |   |  |   |
| Mazda SKYACTIVE-HYBRID   |   |    |   |   |   |  |   |   |   |   |  | ✓ |   |  |   |
| MB 236.1 (DTFR 13C100)   | ✓ | ☑* |   |   |   |  |   |   |   |   |  |   |   |  |   |

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|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|

|                                   |   |    |   |  |  |  |   |   |   |   |   |   |   |   |  |
|-----------------------------------|---|----|---|--|--|--|---|---|---|---|---|---|---|---|--|
| MB 236.10                         |   | ✓  |   |  |  |  | ✓ |   |   |   |   |   |   |   |  |
| MB 236.11 (DTFR 13C110)           |   | ✓  |   |  |  |  |   |   |   |   |   |   |   |   |  |
| MB 236.12                         |   |    |   |  |  |  |   | ✓ | ✓ |   |   |   |   |   |  |
| MB 236.14                         |   |    |   |  |  |  |   | ✓ | ✓ |   |   |   |   |   |  |
| MB 236.15                         |   |    |   |  |  |  |   | ✓ | ✓ |   |   |   |   |   |  |
| MB 236.17                         |   |    |   |  |  |  |   | ✓ | ✓ |   |   |   |   |   |  |
| MB 236.20                         |   |    |   |  |  |  |   |   |   | ✓ |   |   |   |   |  |
| MB 236.21 (DTFR 13C130)           |   |    |   |  |  |  |   |   |   |   | ✓ |   |   | ✓ |  |
| MB 236.22                         |   |    |   |  |  |  |   |   |   |   | ✓ |   |   | ✓ |  |
| MB 236.24                         |   |    |   |  |  |  |   |   |   |   | ✓ |   |   | ✓ |  |
| MB 236.25                         |   |    |   |  |  |  |   |   |   |   | ✓ |   |   | ✓ |  |
| MB 236.3                          |   |    |   |  |  |  |   |   | ✓ |   |   |   |   |   |  |
| MB 236.41                         |   |    |   |  |  |  |   | ✓ | ✓ |   |   |   |   |   |  |
| MB 236.5                          | ✓ | ✓  |   |  |  |  |   |   |   |   |   |   |   |   |  |
| MB 236.7 (DTFR 13C140)            | ✓ |    |   |  |  |  |   |   |   |   |   |   |   |   |  |
| MB 236.9 (DTFR 13C170)            |   | ☑* |   |  |  |  | ✓ |   |   |   |   |   |   |   |  |
| MB 236.91 (DTFR 13C180)           |   |    | ✓ |  |  |  |   |   |   |   |   |   |   |   |  |
| MB 239.21                         |   |    |   |  |  |  |   |   |   |   | ✓ |   |   |   |  |
| MB ZF 4HP20                       |   |    |   |  |  |  |   |   |   | ✓ |   | ✓ |   |   |  |
| MG/Rover EM-CVT                   |   |    |   |  |  |  |   |   |   |   | ✓ |   |   |   |  |
| Mitsubishi ATF-J3                 |   |    |   |  |  |  |   | ✓ |   |   |   |   |   |   |  |
| Mitsubishi CVTF ECO J4            |   |    |   |  |  |  |   |   |   |   | ✓ |   |   | ✓ |  |
| Mitsubishi CVTF-J1                |   |    |   |  |  |  |   |   |   |   | ✓ |   |   |   |  |
| Mitsubishi CVTF-J4                |   |    |   |  |  |  |   |   |   |   | ✓ |   |   | ✓ |  |
| Mitsubishi CVTF-J4+               |   |    |   |  |  |  |   |   |   |   | ✓ |   |   | ✓ |  |
| Mitsubishi Diaqueen ATF MA1       |   |    |   |  |  |  |   |   |   | ✓ |   |   |   |   |  |
| Mitsubishi Diaqueen ATF PA        |   |    |   |  |  |  |   | ✓ |   | ✓ |   |   | ✓ |   |  |
| Mitsubishi Diaqueen AW            |   |    |   |  |  |  |   | ✓ |   | ✓ |   |   |   |   |  |
| Mitsubishi Diaqueen CVT Fluid J1  |   |    |   |  |  |  |   |   |   |   | ✓ |   |   |   |  |
| Mitsubishi Diaqueen CVT Fluid J4  |   |    |   |  |  |  |   |   |   |   | ✓ |   |   |   |  |
| Mitsubishi Diaqueen CVT Fluid J4+ |   |    |   |  |  |  |   |   |   |   | ✓ |   |   |   |  |
| Mitsubishi Diaqueen J2            |   |    |   |  |  |  |   | ✓ |   | ✓ |   |   |   |   |  |
| Mitsubishi Diaqueen J3            |   |    |   |  |  |  |   | ✓ |   | ✓ |   |   |   |   |  |

# Automatic transmission fluid (ATF)

## Approvals & recommendations (6 / 9)

### Key

(dd. 03/09/2025)

- Specification
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|                                              | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto DVI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|----------------------------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
| Mitsubishi Diaqueen NS-2                     |            |               |              |              |              |              |            |            |             |                 | •               |                  |                  |                  |                    |
| Mitsubishi Diaqueen SK                       |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Mitsubishi Diaqueen SP-II                    |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Mitsubishi Diaqueen SP-III                   |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Mitsubishi Diaqueen SP-III (except in CVT's) |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Mitsubishi Diaqueen SP-IV                    |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Mitsubishi Diaqueen SSTF-1                   |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Mitsubishi MZ320065                          |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Mitsubishi TC-SST 6-speed (GFT)              |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Mopar CVT+4                                  |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Nissan Altima Hybrid                         |            |               |              |              |              |              |            |            |             |                 |                 | ✓                |                  |                  |                    |
| Nissan Altima Hybrid with eCVT               |            |               |              |              |              |              |            |            |             |                 |                 |                  | ✓                |                  |                    |
| Nissan KTF-1                                 |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Nissan Matic C                               |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Nissan Matic D                               |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Nissan Matic Fluid S                         |            |               |              |              |              |              | ✓          |            |             |                 |                 | ✓                |                  |                  |                    |
| Nissan Matic J                               |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Nissan Matic K                               |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Nissan Matic P                               |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Nissan Matic S                               |            |               |              |              |              |              |            | ✓          | ✓           |                 |                 |                  |                  |                  |                    |
| Nissan Matic W                               |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| Nissan N-CVT                                 |            |               |              |              |              |              |            |            |             | ✓               |                 |                  | ✓                |                  |                    |
| Nissan Note e-POWER DAA-HE12                 |            |               |              |              |              |              |            |            |             |                 |                 |                  | ✓                |                  |                    |
| Nissan NS-1                                  |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Nissan NS-2                                  |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Nissan NS-2V                                 |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Nissan NS-3                                  |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Opel/Vauxhall 7-speed CVT                    |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Opel/Vauxhall 95529854                       |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| PKD DCT Transmission Oil for ZF              |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Pentosin FFL-6                               |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Pentosin FFL-8                               |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Porsche #999.917.080.00                      |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |

### Key

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|-------------------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
| Porsche ATF 3403-M115               |            |               |              |              |              |              |            | ✓          |             |                 |                 |                  |                  |                  |                    |
| Porsche LT71141 (ZF 5HP19FL, 5HP20) |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Porsche P/N 000 043 201 44          |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Porsche P/N 000 043 205 09          |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Porsche P/N 000 043 205 28          |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Porsche P/N 000 043 304 00          |            |               |              |              |              |              |            | ✓          |             |                 |                 |                  |                  |                  |                    |
| Porsche P/N 999 917 080 01          |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Porsche P/N 999 917 547 00          |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Porsche PDK DCT                     |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Porsche T-IV (JWS 3309)             |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 | ✓                |                  |                  |                    |
| Porsche Z 000169756                 |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| PSA 9730.AE (AL4 automatic gearbox) |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 | ✓                |                  |                  |                    |
| PSA 9734.S2                         |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  | ✓                |                    |
| PSA B71 2340                        |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| PSA DCS 6-speed (GFT)               |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  | ✓                |                    |
| PSA JWS 3309                        |            |               |              |              |              |              | ✓          |            |             |                 |                 |                  |                  |                  |                    |
| PSA LT 71141                        |            |               |              |              |              |              | ✓          |            |             |                 |                 |                  |                  |                  |                    |
| PSA LT71141 (ZF 5HP19FL, 5HP20)     |            |               |              |              |              |              | ✓          |            |             |                 |                 |                  |                  |                  |                    |
| PSA P-N 16 350 56 080               |            |               |              |              |              |              |            |            | ✓           |                 |                 |                  |                  |                  |                    |
| PSA S71 2340                        |            |               |              |              |              |              | ✓          |            |             |                 |                 |                  |                  |                  |                    |
| PSA Standard 9735EF                 |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| PSA Z 000169756                     |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| PSA ZF 4HP20                        |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Punch CVTF-EX1                      |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  | ✓                |                    |
| Renault DC4 (BOT 450)               |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Renault DPO/AL4                     |            |               |              |              |              |              | ✓          |            | ✓           |                 |                 |                  |                  |                  |                    |
| Renault DW5                         |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Renault DW6                         |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Renault EDC 6 speed (Getrag)        |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  |                  |                    |
| Renault EDC 7 speed                 |            |               |              |              |              |              |            |            |             |                 | ✓               |                  |                  | ✓                |                    |
| Renault Matic CVT                   |            |               |              |              |              |              |            |            |             | ✓               |                 |                  |                  |                  |                    |
| Renault Matic CVT CK                |            |               |              |              |              |              |            |            |             | ✓               |                 |                  | ✓                |                  |                    |
| Renault Matic CVT FK                |            |               |              |              |              |              |            |            |             | ✓               |                 |                  | ✓                |                  |                    |

# Automatic transmission fluid (ATF)

## Approvals & recommendations (7 / 9)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|  | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto DVI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|

|                            |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |
|----------------------------|--|--|--|--|--|--|---|---|---|---|---|---|---|--|--|
| Renault Matic CVT SK       |  |  |  |  |  |  |   |   |   |   |   |   |   |  |  |
| Renault Matic D2           |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Renault Samsung SATF-D     |  |  |  |  |  |  | ✓ |   | ✓ |   |   | ✓ |   |  |  |
| Renault Talisman R7D       |  |  |  |  |  |  |   |   |   |   | ✓ |   |   |  |  |
| Saab AW-1                  |  |  |  |  |  |  |   | ✓ |   |   |   |   |   |  |  |
| Saab P-N 45 30 09 800      |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Saab P-N 93 160 548        |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Saab P/N 93 160 393        |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Saab P/N 93 165 147        |  |  |  |  |  |  | ✓ | ✓ | ✓ |   |   |   |   |  |  |
| Saab T-IV (JWS 3309)       |  |  |  |  |  |  | ✓ |   | ✓ |   |   |   |   |  |  |
| Saturn CVTF I-Green2       |  |  |  |  |  |  |   |   |   | ✓ |   |   |   |  |  |
| Saturn DEX-CVT             |  |  |  |  |  |  |   |   |   | ✓ |   |   |   |  |  |
| Saturn T-IV (JWS 3309)     |  |  |  |  |  |  | ✓ |   | ✓ |   |   |   |   |  |  |
| Scion (all vehicles)       |  |  |  |  |  |  | ✓ |   | ✓ |   |   |   |   |  |  |
| Shell 3403                 |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Shell Green 1V             |  |  |  |  |  |  |   |   |   | ✓ |   |   |   |  |  |
| Shell L 12108              |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Shell LA 2634              |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Shell M-1375.4             |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Shell M115                 |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Shell TF DCT-F3            |  |  |  |  |  |  |   |   |   |   | ✓ |   |   |  |  |
| Ssang Yong DSIH 5M-66      |  |  |  |  |  |  |   |   | ✓ |   |   |   |   |  |  |
| Subaru ATF                 |  |  |  |  |  |  | ✓ |   |   |   |   |   |   |  |  |
| Subaru ATF-SAT             |  |  |  |  |  |  | ✓ |   | ✓ |   |   |   |   |  |  |
| Subaru ATF-AW              |  |  |  |  |  |  |   |   | ✓ |   |   | ✓ |   |  |  |
| Subaru ATF-HP              |  |  |  |  |  |  | ✓ |   | ✓ |   |   | ✓ |   |  |  |
| Subaru CV-30               |  |  |  |  |  |  |   |   |   | ✓ |   |   |   |  |  |
| Subaru Dexron II           |  |  |  |  |  |  | ✓ |   | ✓ |   |   |   |   |  |  |
| Subaru ECVT                |  |  |  |  |  |  |   |   |   | ✓ |   |   | ✓ |  |  |
| Subaru High Torque CVTF-LV |  |  |  |  |  |  |   |   |   | ✓ |   |   |   |  |  |
| Subaru iCVT                |  |  |  |  |  |  |   |   |   | ✓ |   |   |   |  |  |
| Subaru iCVT FG             |  |  |  |  |  |  |   |   |   | ✓ |   |   | ✓ |  |  |
| Subaru K0140Y0700          |  |  |  |  |  |  | ✓ |   |   |   |   |   |   |  |  |

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|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|

|                                                |  |  |  |  |  |  |   |   |   |   |   |  |   |   |  |
|------------------------------------------------|--|--|--|--|--|--|---|---|---|---|---|--|---|---|--|
| Subaru K0421Y0700                              |  |  |  |  |  |  |   |   |   |   |   |  |   |   |  |
| Subaru K0425Y0710                              |  |  |  |  |  |  |   |   |   |   |   |  |   |   |  |
| Subaru K0425Y0711                              |  |  |  |  |  |  |   |   |   |   |   |  |   |   |  |
| Subaru K0710Y0700                              |  |  |  |  |  |  |   |   | ✓ |   |   |  |   |   |  |
| Subaru Lineartronic chain CVT                  |  |  |  |  |  |  |   |   |   | ✓ |   |  |   |   |  |
| Subaru Lineartronic Chain CVT 3 Fluid          |  |  |  |  |  |  |   |   |   | ✓ |   |  |   |   |  |
| Subaru Lineartronic chain CVT II Fluid         |  |  |  |  |  |  |   |   |   | ✓ |   |  |   |   |  |
| Subaru Lineartronic High Torque (HT) CVT Fluid |  |  |  |  |  |  |   |   |   | ✓ |   |  |   |   |  |
| Subaru NS-2                                    |  |  |  |  |  |  |   |   |   | ✓ |   |  |   |   |  |
| Subaru Opel Original ATF 09117946              |  |  |  |  |  |  |   |   | ✓ |   |   |  |   |   |  |
| Subaru Opel Original ATF 93160393              |  |  |  |  |  |  |   |   | ✓ |   |   |  |   |   |  |
| Suzuki AT OIL 5D06                             |  |  |  |  |  |  |   | ✓ |   | ✓ |   |  |   |   |  |
| Suzuki ATF 2326                                |  |  |  |  |  |  |   | ✓ |   | ✓ |   |  |   |   |  |
| Suzuki ATF 2384K                               |  |  |  |  |  |  |   | ✓ |   | ✓ |   |  |   |   |  |
| Suzuki ATF 3309                                |  |  |  |  |  |  |   | ✓ |   | ✓ |   |  |   |   |  |
| Suzuki ATF 3314                                |  |  |  |  |  |  |   | ✓ |   | ✓ |   |  |   |   |  |
| Suzuki ATF 3317                                |  |  |  |  |  |  |   | ✓ |   | ✓ |   |  |   |   |  |
| Suzuki ATF AW-1                                |  |  |  |  |  |  |   | ✓ |   | ✓ |   |  |   |   |  |
| Suzuki CVT Green 1                             |  |  |  |  |  |  |   |   |   |   | ✓ |  |   |   |  |
| Suzuki CVT Green 1V                            |  |  |  |  |  |  |   |   |   |   | ✓ |  |   | ✓ |  |
| Suzuki CVT Green 2                             |  |  |  |  |  |  |   |   |   |   | ✓ |  |   | ✓ |  |
| Suzuki CVTF 3320                               |  |  |  |  |  |  |   |   |   |   | ✓ |  |   |   |  |
| Suzuki CVTF 4401                               |  |  |  |  |  |  |   |   |   |   | ✓ |  |   |   |  |
| Suzuki CVTF TC                                 |  |  |  |  |  |  |   |   |   |   | ✓ |  |   |   |  |
| Suzuki CVTF-II                                 |  |  |  |  |  |  |   |   |   |   | ✓ |  |   |   |  |
| Suzuki NS-2                                    |  |  |  |  |  |  |   |   |   |   | ✓ |  |   |   |  |
| Tesla Model 3                                  |  |  |  |  |  |  |   |   |   |   |   |  | ✓ |   |  |
| Tesla Model S                                  |  |  |  |  |  |  |   |   |   |   |   |  | ✓ |   |  |
| Tesla Model X                                  |  |  |  |  |  |  |   |   |   |   |   |  | ✓ |   |  |
| Texaco 7045E                                   |  |  |  |  |  |  |   |   | ✓ |   |   |  |   |   |  |
| Texaco 8072B                                   |  |  |  |  |  |  |   |   | ✓ |   |   |  |   |   |  |
| Texaco N402                                    |  |  |  |  |  |  |   |   | ✓ |   |   |  |   |   |  |
| Toyota ATF D-III                               |  |  |  |  |  |  | ✓ |   |   |   |   |  |   |   |  |

# Automatic transmission fluid (ATF)

## Approvals & recommendations (8 / 9)

### Key

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- Specification
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|                                              | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto D VI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|----------------------------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|--------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
| Toyota ATF DII                               |            |               |              |              |              |              | ✓          |            |              |                 |                 |                  |                  |                  |                    |
| Toyota ATF T-IV                              |            |               |              |              |              |              | ✓          |            |              |                 |                 |                  |                  |                  |                    |
| Toyota ATF T-III                             |            |               |              |              |              |              | ✓          |            |              |                 |                 |                  |                  |                  |                    |
| Toyota ATF WS including Toyota hybrid system |            |               |              |              |              |              | ✓          | ✓          | ✓            |                 |                 | ✓                |                  |                  |                    |
| Toyota CVTF FE                               |            |               |              |              |              |              |            |            |              | ✓               |                 |                  | ✓                |                  |                    |
| Toyota CVTF TC                               |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| Toyota D-II                                  |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Toyota D-III                                 |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |
| Toyota Hybrid                                |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |
| Toyota Noah                                  |            |               |              |              |              |              |            |            |              |                 |                 | ✓                | ✓                |                  |                    |
| Toyota Prius                                 |            |               |              |              |              |              |            |            |              |                 |                 | ✓                | ✓                |                  |                    |
| Toyota T-I                                   |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Toyota T-II                                  |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Toyota T-III                                 |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Toyota T-IV                                  |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 | ✓                |                  |                  |                    |
| Toyota THS 5th Gen.                          |            |               |              |              |              |              |            |            |              |                 |                 | ✓                | ✓                |                  |                    |
| Toyota THSII                                 |            |               |              |              |              |              |            |            |              |                 |                 | ✓                | ✓                |                  |                    |
| Toyota Voxy                                  |            |               |              |              |              |              |            |            |              |                 |                 | ✓                | ✓                |                  |                    |
| VAG 6 speed                                  |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| VAG 7 speed                                  |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  | ✓                |                    |
| VAG Audi G 052 512                           |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| VAG Audi Multitronic                         |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| VAG Audi S-Tronic 7                          |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  | ✓                |                    |
| VAG DSG7                                     |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  | ✓                |                    |
| VAG LT 71141 (ZF 5HP 18FL/19FL/24A)          |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 052 025                             |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 052 055                             |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 052 162 (ZF LifeguardFluid 5)       |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 052 180                             |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| VAG VW G 052 182                             |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| VAG VW G 052 182 A2                          |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| VAG VW G 052 516                             |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| VAG VW G 052 524 B2                          |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |

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|------------------------------------------------|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|--------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
| VAG VW G 052 529                               |            |               |              |              |              |              |            |            |              |                 |                 | ✓                |                  |                  |                    |
| VAG VW G 052 529 A2                            |            |               |              |              |              |              |            |            |              |                 |                 | ✓                |                  |                  |                    |
| VAG VW G 052 529 A6                            |            |               |              |              |              |              |            |            |              |                 |                 | ✓                |                  |                  |                    |
| VAG VW G 052 533                               |            |               |              |              |              |              |            | ✓          | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 052 536                               |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| VAG VW G 052 990                               |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 053 001                               |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 053 025                               |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 055 005 (ZF LifeguardFluid 6)         |            |               |              |              |              |              | ✓          | ✓          | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 055 025 (JWS 3309)                    |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 055 162 (ZF LifeguardFluid 6 Plus)    |            |               |              |              |              |              |            | ✓          | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW G 055 529                               |            |               |              |              |              |              |            |            |              |                 |                 | ✓                |                  |                  |                    |
| VAG VW G 055 536                               |            |               |              |              |              |              |            |            |              |                 |                 | ✓                |                  |                  |                    |
| VAG VW G 055 540                               |            |               |              |              |              |              |            | ✓          | ✓            | ✓               |                 |                  |                  |                  |                    |
| VAG VW G 060 162 (ZF LifeguardFluid 8)         |            |               |              |              |              |              | ✓          | ✓          | ✓            |                 |                 | ✓                |                  |                  |                    |
| VAG VW G US 000 162                            |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW Golf GTE DQ400E                         |            |               |              |              |              |              |            |            |              |                 |                 |                  |                  |                  | ✓                  |
| VAG VW TL 521 16                               |            |               |              |              |              |              |            |            |              |                 | ✓               |                  | ✓                |                  |                    |
| VAG VW TL 521 62                               |            |               |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| VAG VW TL 521 80                               |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| VAG VW TL 521 82                               |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| VAG VW TL 525 29                               |            |               |              |              |              |              |            |            |              |                 | ✓               |                  |                  |                  |                    |
| Vickers I-286-S                                |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |
| Vickers M2950-S                                |            |               |              |              |              |              |            |            | ✓            |                 |                 |                  |                  |                  |                    |
| VME Americas EEMS 19088G                       | ✓          |               |              |              |              |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Voith 150.014524.xx                            |            |               |              |              | ☑            |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Voith 3.90 -8e_ 1997                           |            |               |              |              |              | ☑            |            |            |              |                 |                 |                  |                  |                  |                    |
| Voith DIWA SB 013-118 – Ext. Drain (115.000km) |            |               |              |              | ✓            |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Voith H55.6335.xx                              | ☑          | ✓             |              |              |              |              | ✓          |            | ✓            |                 |                 |                  |                  |                  |                    |
| Voith H55.6336.xx                              |            | ☑             | ☑            |              |              |              |            |            |              |                 |                 |                  |                  |                  |                    |
| Voith Hydrodynamic brakes                      |            |               |              |              |              | ✓            |            |            |              |                 |                 |                  |                  |                  |                    |
| Voith Svc Bltn #013                            |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |
| Voith Svc Bltn #118                            |            |               |              |              |              |              |            |            |              | ✓               |                 |                  |                  |                  |                    |

# Automatic transmission fluid (ATF)

## Approvals & recommendations (9 / 9)

### Key

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|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|

|                                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Voith Turbo 3625-006072 (Type S/TP/DTP/VIR) |   |   |   |   |   | ✓ |   |   |   |   |   |   |   |   |  |
| Voith Turbo 3625-006073 (Type R)            |   |   |   |   |   | ✓ |   |   |   |   |   |   |   |   |  |
| Voith Turbo Couplings                       |   |   |   |   |   | ✓ |   |   |   |   |   |   |   |   |  |
| Voith US SB 013/118                         | ☑ | ☑ | ✓ |   | ☑ |   |   |   |   |   |   |   |   |   |  |
| Volvo 97325                                 | ✓ |   |   |   |   |   | ✓ |   | ✓ |   |   |   |   |   |  |
| Volvo 97335                                 | ✓ |   |   |   |   |   | ✓ |   | ✓ |   |   |   |   |   |  |
| Volvo 97340                                 | ✓ |   |   | ✓ |   |   |   |   |   |   |   |   |   |   |  |
| Volvo 97341 (AT 101)                        |   | ☑ |   | ✓ | ✓ |   |   |   |   |   |   |   |   |   |  |
| Volvo 97342 (AT 102)                        |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |   |  |
| Volvo CE 97340                              |   |   |   |   |   |   |   | ✓ |   |   |   | ✓ |   |   |  |
| Volvo CVT                                   |   |   |   |   |   |   |   |   |   |   |   |   | ✓ |   |  |
| Volvo CVT 4959                              |   |   |   |   |   |   |   |   |   | ✓ |   |   |   |   |  |
| Volvo P-N 1161521                           |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |   |  |
| Volvo P/N 1161540                           |   |   |   |   |   |   | ✓ | ✓ |   |   |   |   |   |   |  |
| Volvo P/N 1161621                           |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |   |  |
| Volvo P/N 1161640                           |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |   |  |
| Volvo P/N 1161838                           |   |   |   |   |   |   |   |   |   |   | ✓ |   |   |   |  |
| Volvo P/N 1161839                           |   |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |  |
| Volvo P/N 31256774                          |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |   |  |
| Volvo P/N 31256775                          |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |   |  |
| Volvo Powershift 6-speed (GFT)              |   |   |   |   |   |   |   |   |   |   | ✓ |   |   | ✓ |  |
| ZF 3HP                                      |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |   |  |
| ZF 4HP                                      |   | ✓ |   |   |   |   |   | ✓ |   |   |   |   |   |   |  |
| ZF 4HP20/AL4                                |   |   |   |   |   |   | ✓ |   |   |   |   |   |   |   |  |
| ZF 5HP                                      |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |   |  |
| ZF 6HP                                      |   | ✓ |   |   |   |   | ✓ | ✓ | ✓ |   |   |   |   |   |  |
| ZF 8DT (clutch section)                     |   |   |   |   |   |   |   |   |   |   | ✓ |   |   |   |  |
| ZF 8HP                                      |   |   |   |   |   |   | ✓ | ✓ | ✓ |   |   |   |   |   |  |
| ZF 9HP                                      |   |   |   |   |   |   |   | ✓ | ✓ |   |   |   |   |   |  |
| ZF LifeguardFluid 5                         |   |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |  |
| ZF LifeguardFluid 6                         |   |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |  |
| ZF LifeguardFluid 6 Plus                    |   |   |   |   |   |   |   |   | ✓ |   |   |   |   |   |  |
| ZF LifeguardFluid 8                         |   |   |   |   |   |   |   | ✓ |   |   |   | ✓ |   |   |  |

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|  | Q8 Auto 14 | Q8 Auto 15 ED | Q8 Auto 15 S | Q8 Auto 15 A | Q8 Auto 15 V | Q8 Auto 26 R | Q8 Auto JK | Q8 Auto MV | Q8 Auto DVI | Q8 Auto CVT EVO | Q8 Auto DCT EVO | Q8 Auto H-EV ATF | Q8 Auto H-EV CVT | Q8 Auto H-EV DCT | ZF Ecofluid A Life |
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|
|--|------------|---------------|--------------|--------------|--------------|--------------|------------|------------|-------------|-----------------|-----------------|------------------|------------------|------------------|--------------------|

|                                  |   |   |   |  |   |  |   |   |   |   |   |  |  |  |   |
|----------------------------------|---|---|---|--|---|--|---|---|---|---|---|--|--|--|---|
| ZF LifeguardFluid 9              |   |   |   |  |   |  |   |   |   |   |   |  |  |  |   |
| ZF No. S671 090 170 (LGF 5)      |   |   |   |  |   |  |   |   | ✓ |   |   |  |  |  |   |
| ZF No. S671 090 281 (LGF 6 plus) |   |   |   |  |   |  |   |   | ✓ |   |   |  |  |  |   |
| ZF No. S671 090 312 (LGF 8)      |   |   |   |  |   |  |   |   | ✓ |   |   |  |  |  |   |
| ZF No. S671 090 255 (LGF 6)      |   |   |   |  |   |  |   |   | ✓ |   |   |  |  |  |   |
| ZF TE-ML 02F                     | ✓ | ✓ |   |  |   |  |   |   |   |   |   |  |  |  |   |
| ZF TE-ML 03D                     | ✓ | ✓ |   |  |   |  | ✓ |   |   |   |   |  |  |  |   |
| ZF TE-ML 04D                     | ☑ | ☑ |   |  |   |  | ✓ |   |   |   |   |  |  |  | ☑ |
| ZF TE-ML 05L                     |   |   |   |  |   |  |   |   | ✓ |   |   |  |  |  |   |
| ZF TE-ML 09                      | ✓ | ✓ |   |  |   |  | ✓ | • | ✓ |   |   |  |  |  |   |
| ZF TE-ML 11                      |   |   |   |  |   |  |   |   |   |   | ✓ |  |  |  |   |
| ZF TE-ML 11A                     |   |   |   |  |   |  | ✓ |   | ✓ |   |   |  |  |  |   |
| ZF TE-ML 11B                     |   |   |   |  |   |  | ✓ |   | ✓ |   |   |  |  |  |   |
| ZF TE-ML 14A                     | ☑ |   |   |  |   |  | ✓ |   |   |   |   |  |  |  |   |
| ZF TE-ML 14B                     |   | ☑ |   |  |   |  | ✓ |   |   |   |   |  |  |  |   |
| ZF TE-ML 14C                     |   |   | ✓ |  | ✓ |  |   |   |   |   |   |  |  |  |   |
| ZF TE-ML 14E                     |   |   |   |  |   |  |   |   |   |   |   |  |  |  | ☑ |
| ZF TE-ML 16L                     |   | ✓ |   |  |   |  | ✓ |   |   |   |   |  |  |  |   |
| ZF TE-ML 16N                     |   |   |   |  |   |  |   |   |   |   |   |  |  |  | ☑ |
| ZF TE-ML 16Q                     |   |   |   |  |   |  |   |   |   |   |   |  |  |  | ☑ |
| ZF TE-ML 16S                     |   |   | ☑ |  |   |  |   |   |   |   |   |  |  |  |   |
| ZF TE-ML 17C                     | ✓ | ✓ |   |  |   |  | ✓ |   |   |   |   |  |  |  |   |
| ZF TE-ML 20C                     |   |   | ☑ |  | ✓ |  |   |   |   |   |   |  |  |  |   |
| ZF TE-ML 20F                     |   |   |   |  |   |  |   |   |   |   |   |  |  |  | ✓ |
| ZF TE-ML 21L                     |   |   |   |  |   |  |   |   | ✓ |   |   |  |  |  |   |
| ZF TE-ML 25C                     |   |   | ☑ |  |   |  |   |   |   | ✓ |   |  |  |  |   |
| Zotye CVT                        |   |   |   |  |   |  |   |   |   |   |   |  |  |  |   |

# Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU & CVT

## Approvals & recommendations (1 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                    | Q8 Terra 1000 STOU 10W-30 | Q8 Terra 1000 STOU 15W-40 | Q8 Terra 1000 STOU 10W-40 | Q8 Terra 2200 UTTO | Q8 Terra 2200 UTTO RC | Q8 Terra 2500 UTTO | Q8 Terra 3000 WB | Q8 Terra 4000 UTTO CVT LV 75W-80 | Q8 Terra 4000 UTTO CVT 75W-85 | Q8 Terra 4000 UTTO CVT 75W-90 | Q8 Terra 4400 CVT HF 75W-85 |
|--------------------|---------------------------|---------------------------|---------------------------|--------------------|-----------------------|--------------------|------------------|----------------------------------|-------------------------------|-------------------------------|-----------------------------|
| STOU               | ✓                         | ✓                         | ✓                         |                    | ✓                     | ✓                  | ✓                | ✓                                | ✓                             | ✓                             | ✓                           |
| UTTO               |                           |                           |                           | ✓                  | ✓                     | ✓                  | ✓                | ✓                                | ✓                             | ✓                             | ✓                           |
| Hydraulic (ISO VG) | 68                        | 100                       | 100                       | 46-68              | 46-68                 | 46                 | 68-100           | 46-68                            | 68                            | 100                           | 68                          |
| Transmission (SAE) | 75W-85                    | 80W-90                    | 75W-90                    | 75W-80             | 75W-80                | 70W-80             | 80W-80           | 75W-80                           | 75W-85                        | 75W-90                        | 75W-85                      |
| Engine (SAE)       | 10W-30                    | 15W-40                    | 10W-40                    | 10W-30(*)          | 10W-30(*)             | 10W-20(*)          | 15W-30(*)        | 10W-30(*)                        | 10W-30(*)                     | 15W-40(*)                     | 10W-30(*)                   |
| Wet Brakes         | ✓                         | ✓                         | ✓                         | ✓                  | ✓                     | ✓                  | ✓                | ✓                                | ✓                             | ✓                             | ✓                           |
| Hydraulic          | ✓                         | ✓                         | ✓                         | ✓                  | ✓                     | ✓                  | ✓                | ✓                                | ✓                             | ✓                             | ✓                           |
| Transmission       | ✓                         | ✓                         | ✓                         | ✓                  | ✓                     | ✓                  | ✓                | ✓                                | ✓                             | ✓                             | ✓                           |
| Engine             | ✓                         | ✓                         | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |

(\*)Just for comparison. Do NOT use UTTO products as engine oil!

|                                                            |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|
| ACEA E3                                                    |   | ✓ | ● |   |   |   |   |   |   |   |   |
| ACEA E7 level of soot control, wear and piston cleanliness | ✓ | ✓ | ✓ |   |   |   |   |   |   |   |   |
| AGCO CVT ML 200                                            |   | ✓ | ✓ |   |   |   |   | ✓ | ✓ | ✓ |   |
| Allison C-2                                                |   |   |   |   |   | ✓ |   |   |   |   |   |
| Allison C-3                                                |   |   | ✓ |   |   | ✓ | ✓ |   |   |   |   |
| Allison C-4                                                | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |   |   |   |
| API CE                                                     |   | ● |   |   |   |   |   |   |   |   |   |
| API CF                                                     |   | ● |   |   |   |   |   |   |   |   |   |
| API CF-4                                                   | ● |   | ● |   |   |   |   |   |   |   |   |
| API CI-4 level of soot control                             | ✓ | ✓ | ✓ |   |   |   |   |   |   |   |   |
| API GL-3                                                   |   | ● |   |   |   |   |   |   |   |   |   |
| API GL-4                                                   | ● | ● | ● | ● | ● | ● | ● | ✓ | ● | ● | ✓ |
| API SF                                                     | ● | ● | ● |   |   |   |   |   |   |   |   |
| Case MS 1118                                               | ✓ |   | ✓ |   |   |   |   |   |   |   |   |
| Case MS 1206                                               |   |   |   |   |   | ✓ |   |   |   |   |   |
| Case MS 1207                                               | ✓ |   | ✓ |   | ✓ | ✓ | ✓ |   |   |   |   |
| Case MS 1207 / MS 1209                                     |   |   |   | ✓ |   |   |   | ✓ | ✓ |   |   |
| Case MS 1209                                               | ✓ |   | ✓ |   | ✓ | ✓ | ✓ |   |   |   |   |
| Case MS 1210                                               |   |   |   | ✓ | ✓ | ✓ |   | ✓ | ✓ |   |   |
| Case MS 1216 / MS 1230                                     |   |   |   | ✓ |   |   |   |   |   |   |   |

# Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU & CVT

## Approvals & recommendations (2 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                          | Q8 Terra 1000 STOU 10W-30 | Q8 Terra 1000 STOU 15W-40 | Q8 Terra 1000 STOU 10W-40 | Q8 Terra 2200 UTTO | Q8 Terra 2200 UTTO RC | Q8 Terra 2500 UTTO | Q8 Terra 3000 WB | Q8 Terra 4000 UTTO CVT LV 75W-80 | Q8 Terra 4000 UTTO CVT 75W-85 | Q8 Terra 4000 UTTO CVT 75W-90 | Q8 Terra 4400 CVT HF 75W-85 |
|------------------------------------------|---------------------------|---------------------------|---------------------------|--------------------|-----------------------|--------------------|------------------|----------------------------------|-------------------------------|-------------------------------|-----------------------------|
| Case MS 1230                             |                           |                           |                           | ✓                  | ✓                     |                    |                  |                                  |                               |                               |                             |
| Case New Holland MAT 3505                |                           |                           |                           | ✓                  | ✓                     | ✓                  |                  | ✓                                | ✓                             | ✓                             |                             |
| Case New Holland MAT 3506                |                           |                           |                           | ✓                  | ✓                     |                    |                  |                                  |                               | ✓                             |                             |
| Case New Holland MAT 3509                |                           |                           |                           | ✓                  | ✓                     |                    |                  |                                  |                               |                               |                             |
| Case New Holland MAT 3525                | ✓                         | ✓                         | ✓                         |                    | ✓                     | ✓                  |                  | ✓                                |                               | ✓                             |                             |
| Case New Holland MAT 3525 / MAT 3540     |                           |                           |                           | ✓                  |                       |                    |                  |                                  | ✓                             |                               |                             |
| Case New Holland MAT 3526                |                           | ✓                         |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Case New Holland MAT 3540                |                           |                           |                           |                    | ✓                     |                    |                  | ✓                                |                               | ✓                             |                             |
| Case New Holland MAT 3541 / MAT 3544     |                           |                           |                           |                    |                       |                    |                  | ✓                                | ✓                             |                               |                             |
| Case New Holland MAT 3552-A              |                           |                           |                           | ✓                  | ✓                     |                    |                  | ✓                                | ✓                             |                               |                             |
| Case New Holland MAT 3552-A / MAT 3553-A |                           |                           |                           |                    |                       |                    |                  | ✓                                | ✓                             |                               |                             |
| Case UK/David Brown                      |                           |                           |                           |                    |                       |                    | ✓                |                                  |                               |                               |                             |
| Caterpillar SATO                         |                           |                           |                           |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| Caterpillar TDTO Cold Weather            |                           |                           |                           |                    |                       |                    |                  |                                  |                               |                               | ✓                           |
| Caterpillar TDTO-TMS Cold Weather        |                           |                           |                           |                    |                       |                    |                  |                                  |                               |                               | ✓                           |
| Caterpillar TO-2                         | ✓                         |                           | ✓                         | ✓                  | ✓                     | ✓                  | ✓                |                                  |                               |                               |                             |
| Claas AGRISHIFT XE                       |                           |                           |                           |                    |                       |                    |                  |                                  |                               |                               | ✓                           |
| Claas CVT                                |                           |                           |                           |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| Denison HF-0                             |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Denison HF-1                             |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Denison HF-2                             |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Deutz Allis AC Power Fluid 821 XL        |                           |                           |                           | ✓                  | ✓                     |                    |                  | ✓                                | ✓                             |                               |                             |
| DIN 51524-3 HVLPD                        |                           |                           | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |
| Fendt FWN 81001                          |                           |                           |                           |                    |                       |                    |                  | ✓                                |                               |                               |                             |
| Fendt Vario                              |                           |                           | ✓                         |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| Fiat AF 87                               |                           |                           | ✓                         |                    |                       |                    | ✓                |                                  |                               |                               |                             |
| FNHA 2-C 200                             |                           |                           |                           |                    | ✓                     |                    |                  |                                  |                               |                               |                             |
| FNHA 2-C-201                             |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Ford M2C121-D                            |                           |                           | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |
| Ford M2C121-E                            | ✓                         |                           |                           |                    |                       |                    |                  |                                  |                               |                               |                             |



# Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU & CVT

## Approvals & recommendations (3 / 5)

### Key

(dd. 03/09/2025)

- *Specification*
- ☑ *Approval*
- ☑\* *Pending approval*
- ✓ *Recommendation*

|                                              | Q8 Terra 1000 STOU 10W-30 | Q8 Terra 1000 STOU 15W-40 | Q8 Terra 1000 STOU 10W-40 | Q8 Terra 2200 UTTO | Q8 Terra 2200 UTTO RC | Q8 Terra 2500 UTTO | Q8 Terra 3000 WB | Q8 Terra 4000 UTTO CVT LV 75W-80 | Q8 Terra 4000 UTTO CVT 75W-85 | Q8 Terra 4000 UTTO CVT 75W-90 | Q8 Terra 4400 CVT HF 75W-85 |
|----------------------------------------------|---------------------------|---------------------------|---------------------------|--------------------|-----------------------|--------------------|------------------|----------------------------------|-------------------------------|-------------------------------|-----------------------------|
| Ford M2C134-D                                | ✓                         | ✓                         | ✓                         | ✓                  | ✓                     |                    |                  |                                  |                               |                               |                             |
| Ford M2C159-B                                |                           | ✓                         | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |
| Ford M2C159-C                                | ✓                         | ✓                         | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |
| Ford M2C41-B                                 | ✓                         |                           | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |
| Ford M2C48-C2                                |                           |                           |                           |                    | ✓                     |                    |                  |                                  |                               |                               |                             |
| Ford M2C86-B                                 |                           |                           |                           |                    |                       | ✓                  | ✓                |                                  |                               |                               |                             |
| Ford M2C86-C                                 |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| John Deere JDM 3000                          |                           |                           |                           |                    | ✓                     |                    |                  |                                  |                               |                               |                             |
| John Deere JDM J20A                          |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| John Deere JDM J20B                          |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| John Deere JDM J20C                          | ✓                         | ✓                         | ✓                         | ✓                  | ✓                     | ✓                  |                  | ✓                                | ✓                             | ✓                             |                             |
| John Deere JDM J20D                          |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| John Deere JDM J27                           | ✓                         | ✓                         | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |
| Komatsu Dresser B06-0001                     |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Komatsu Dresser B06-0002                     |                           |                           |                           | ✓                  | ✓                     | ✓                  | ✓                |                                  |                               |                               |                             |
| Komatsu KES 07.866                           |                           |                           |                           | ✓                  | ✓                     |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| Kubota Super UDT                             |                           |                           |                           |                    | ✓                     | ✓                  |                  |                                  |                               |                               |                             |
| Kubota Super UDT2                            |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Kubota UDT                                   |                           |                           |                           |                    | ✓                     | ✓                  |                  |                                  |                               | ✓                             |                             |
| Kubota UDT / Super UDT / UDT-HD              |                           |                           |                           |                    |                       |                    |                  | ✓                                | ✓                             |                               |                             |
| Landini UTTO                                 |                           |                           |                           |                    |                       |                    | ✓                |                                  |                               |                               |                             |
| Massey Ferguson CMS M 1110                   |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Massey Ferguson CMS M 1127                   | ✓                         |                           | ✓                         |                    |                       |                    | ✓                |                                  |                               |                               |                             |
| Massey Ferguson CMS M 1127-A                 |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Massey Ferguson CMS M 1127-B                 |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Massey Ferguson CMS M 1135                   | ✓                         | ✓                         |                           | ✓                  | ✓                     | ✓                  | ✓                | ✓                                | ✓                             |                               |                             |
| Massey Ferguson CMS M 1139                   | ✓                         | ✓                         | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |
| Massey Ferguson CMS M 1141                   | ✓                         |                           | ✓                         | ✓                  | ✓                     | ✓                  | ✓                |                                  |                               |                               |                             |
| Massey Ferguson CMS M 1141 / M 1143 / M 1145 |                           |                           |                           |                    |                       |                    |                  | ✓                                | ✓                             |                               |                             |
| Massey Ferguson CMS M 1143                   |                           | ✓                         |                           | ✓                  | ✓                     | ✓                  |                  |                                  |                               |                               |                             |

# Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU & CVT

## Approvals & recommendations (4 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                           | Q8 Terra 1000 STOU 10W-30 | Q8 Terra 1000 STOU 15W-40 | Q8 Terra 1000 STOU 10W-40 | Q8 Terra 2200 UTTO | Q8 Terra 2200 UTTO RC | Q8 Terra 2500 UTTO | Q8 Terra 3000 WB | Q8 Terra 4000 UTTO CVT LV 75W-80 | Q8 Terra 4000 UTTO CVT 75W-85 | Q8 Terra 4000 UTTO CVT 75W-90 | Q8 Terra 4400 CVT HF 75W-85 |
|-------------------------------------------|---------------------------|---------------------------|---------------------------|--------------------|-----------------------|--------------------|------------------|----------------------------------|-------------------------------|-------------------------------|-----------------------------|
| Massey Ferguson CMS M 1144                | ✓                         | ✓                         | ✓                         |                    | ✓                     | ✓                  |                  |                                  |                               | ✓                             |                             |
| Massey Ferguson CMS M 1145                | ✓                         | ✓                         | ✓                         | ✓                  | ✓                     | ✓                  |                  |                                  |                               |                               |                             |
| MB 227.1                                  | ✓                         | ✓                         |                           |                    |                       |                    |                  |                                  |                               |                               |                             |
| MB 228.1 engine performance in SAE 10W-30 | ✓                         |                           |                           |                    |                       |                    |                  |                                  |                               |                               |                             |
| MB 228.3 level of piston cleanliness      | ✓                         |                           |                           |                    |                       |                    |                  |                                  |                               |                               |                             |
| MIL L-2104D                               | ●                         |                           |                           |                    |                       |                    |                  |                                  |                               |                               |                             |
| New Holland NH 024-C                      | ✓                         | ✓                         |                           |                    |                       |                    |                  |                                  |                               |                               |                             |
| New Holland NH 030-C                      |                           | ✓                         |                           |                    |                       |                    |                  |                                  |                               |                               |                             |
| New Holland NH 324-B                      | ✓                         |                           |                           |                    |                       |                    |                  |                                  |                               |                               |                             |
| New Holland NH 410-B                      | ✓                         | ✓                         | ✓                         |                    | ✓                     |                    |                  |                                  |                               | ✓                             |                             |
| New Holland NH 410-B / NH 410-C           |                           |                           |                           | ✓                  |                       |                    |                  | ✓                                | ✓                             |                               |                             |
| New Holland NH 410-C                      |                           |                           |                           |                    | ✓                     | ✓                  |                  |                                  |                               | ✓                             |                             |
| New Holland NH 420-A                      |                           | ✓                         |                           |                    |                       |                    |                  |                                  |                               |                               |                             |
| New Holland NH 526-C                      |                           |                           | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |
| New Holland NH 540-B                      | ✓                         |                           |                           |                    |                       |                    |                  |                                  |                               |                               |                             |
| Renk Doromat 873                          |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Renk Doromat 874-A                        |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Renk Doromat 874-B                        |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| Same Deutz Fahr UTTO                      |                           |                           |                           |                    |                       |                    | ✓                | ✓                                | ✓                             | ✓                             |                             |
| Steyr 397 88001                           |                           |                           | ✓                         |                    |                       |                    |                  |                                  |                               |                               |                             |
| Valmet/Volvo BM UTTO                      |                           |                           |                           |                    |                       |                    | ✓                |                                  |                               |                               |                             |
| Valtra G2-08 (XT-60)                      |                           |                           |                           | ✓                  | ✓                     |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| Valtra G2-B10 (XT-60+)                    |                           |                           |                           | ✓                  | ✓                     |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| Volvo 97302                               |                           |                           |                           | ✓                  | ✓                     |                    |                  |                                  |                               |                               |                             |
| Volvo 97303 (WB 101)                      |                           |                           |                           | ✓                  | ☑                     |                    |                  |                                  |                               |                               |                             |
| Volvo 97304 (WB 102)                      |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |
| White New Idea Q-1802                     |                           |                           |                           | ✓                  | ✓                     |                    |                  |                                  |                               |                               |                             |
| White New Idea Q-1826                     |                           |                           |                           | ✓                  | ✓                     |                    |                  |                                  |                               |                               |                             |
| ZF TE-ML 03E                              |                           |                           |                           | ✓                  | ✓                     | ✓                  |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 03F                              |                           |                           |                           |                    |                       | ✓                  |                  |                                  |                               |                               |                             |

# Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU & CVT

## Approvals & recommendations (5 / 5)

### Key

(dd. 03/09/2025)

- *Specification*
- ☒ *Approval*
- ☒\* *Pending approval*
- ✓ *Recommendation*

|              | Q8 Terra 1000 STOU 10W-30             | Q8 Terra 1000 STOU 15W-40 | Q8 Terra 1000 STOU 10W-40           | Q8 Terra 2200 UTTO | Q8 Terra 2200 UTTO RC | Q8 Terra 2500 UTTO | Q8 Terra 3000 WB | Q8 Terra 4000 UTTO CVT LV 75W-80 | Q8 Terra 4000 UTTO CVT 75W-85 | Q8 Terra 4000 UTTO CVT 75W-90 | Q8 Terra 4400 CVT HF 75W-85 |
|--------------|---------------------------------------|---------------------------|-------------------------------------|--------------------|-----------------------|--------------------|------------------|----------------------------------|-------------------------------|-------------------------------|-----------------------------|
| ZF TE-ML 03L |                                       |                           |                                     | ✓                  | ✓                     |                    |                  |                                  |                               |                               |                             |
| ZF TE-ML 05F |                                       |                           |                                     | ✓                  | ✓                     | ✓                  |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06B | <input checked="" type="checkbox"/>   | ✓                         | <input checked="" type="checkbox"/> |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06C | ✓                                     | ✓                         |                                     |                    |                       |                    |                  |                                  |                               |                               |                             |
| ZF TE-ML 06D | <input checked="" type="checkbox"/> * |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06E |                                       |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06F |                                       |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06H |                                       |                           |                                     |                    |                       |                    |                  |                                  |                               |                               | ✓                           |
| ZF TE-ML 06K |                                       |                           |                                     | ✓                  | ✓                     | ✓                  |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06L |                                       |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06M |                                       |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06N | <input checked="" type="checkbox"/> * |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06P |                                       |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06R |                                       |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06S |                                       |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 06T |                                       |                           |                                     |                    |                       |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 07B | <input checked="" type="checkbox"/> * |                           | <input checked="" type="checkbox"/> |                    |                       |                    |                  |                                  |                               |                               |                             |
| ZF TE-ML 17E |                                       |                           |                                     | ✓                  | ✓                     |                    |                  | ✓                                | ✓                             | ✓                             |                             |
| ZF TE-ML 21F |                                       |                           |                                     | ✓                  | ✓                     |                    |                  | ✓                                | ✓                             | ✓                             |                             |

# Agri & Off-Road - NEW Q8 Terra range: HDDO

## Approvals & recommendations (1 / 2)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|          | Q8 Terra 8000 Long Drain FE 5W-30 | Q8 Terra 8000 Long Drain FE 10W-30 | Q8 Terra 8000 Long Drain 10W-40 | Q8 Terra 7000 FE 10W-30 | Q8 Terra 7000 10W-40 | Q8 Terra 7000 15W-40 | Q8 Terra 6600 S 10W-40 | Q8 Terra 6600 10W-40 | Q8 Terra 6000 10W-40 | Q8 Terra 6000 15W-40 |
|----------|-----------------------------------|------------------------------------|---------------------------------|-------------------------|----------------------|----------------------|------------------------|----------------------|----------------------|----------------------|
| Low SAPS | ✓                                 | ✓                                  |                                 | ✓                       | ✓                    | ✓                    |                        |                      |                      |                      |
| HTHS     | >3.5                              | >3.5                               |                                 | >3.5                    | >3.5                 | >3.5                 | >3.5                   | >3.5                 | >3.5                 | >3.5                 |

|                                          |   |   |   |   |   |   |   |   |    |    |
|------------------------------------------|---|---|---|---|---|---|---|---|----|----|
| ACEA E11 / E 9                           | ● | ● | ● | ● | ● | ● |   |   |    |    |
| ACEA E4                                  |   |   |   |   |   |   | ● | ● |    |    |
| ACEA E7                                  | ● | ● | ● | ● | ● | ● | ● | ● | ●  | ●  |
| ACEA E8 / E6                             | ● | ● | ● |   |   |   |   |   |    |    |
| Allison TES-439                          |   |   | ✓ | ✓ | ✓ | ✓ |   |   |    |    |
| API CI-4                                 |   |   |   |   |   |   | ● | ● |    |    |
| API CI-4 / SL                            |   |   |   |   |   |   |   |   | ●  | ●  |
| API CI-4 / SN                            | ● | ● | ● | ✓ | ✓ | ● |   |   |    |    |
| API CK-4                                 | ● | ● | ● | ● | ● | ● |   |   |    |    |
| Case New Holland MAT 3507                |   |   |   |   |   |   | ✓ | ✓ | ✓  | ✓  |
| Case New Holland MAT 3521                | ✓ |   |   |   | ✓ |   |   |   |    |    |
| Case New Holland MAT 3522                |   |   |   |   |   | ✓ |   |   |    |    |
| Case New Holland MAT 3571                |   |   | ✓ |   | ✓ |   |   |   |    |    |
| Case New Holland MAT 3572                |   |   |   |   |   | ✓ |   |   |    |    |
| Case New Holland MAT 3622                |   |   |   |   |   |   | ✓ | ✓ | ✓  | ✓  |
| Caterpillar ECF-1a                       |   |   |   |   |   |   | ✓ | ● | ✓  |    |
| Caterpillar ECF-2                        |   |   |   |   |   |   |   | ● | ✓  |    |
| Caterpillar ECF-3                        | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |    |    |
| Cummins CES 20071 / 20072 / 20076        |   |   |   |   |   |   |   |   | ✓  | ✓  |
| Cummins CES 20077 / 20078                |   |   |   |   |   |   | ✓ | ✓ | ✓  |    |
| Cummins CES 20081 / 20086                | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |    |    |
| Daimler Truck AG DTFR 15B110 (MB 228.3)  |   |   |   |   |   |   |   |   | ✓  | ✓  |
| Daimler Truck AG DTFR 15B120 (MB 228.5)  |   |   |   |   |   |   | ✓ | ✓ |    |    |
| Daimler Truck AG DTFR 15C100 (MB 228.31) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |    |    |
| Daimler Truck AG DTFR 15C110 (MB 228.51) | ✓ | ✓ | ✓ |   |   |   |   |   |    |    |
| Daimler Truck AG DTFR 15C120 (MB 228.52) | ✓ | ✓ | ✓ |   |   |   |   |   |    |    |
| Daimler Truck AG DTFR 15D100 (MB 227.61) | ✓ |   |   |   |   |   |   |   |    |    |
| Detroit Diesel DFS 93K218 / 93K222       | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |   |   |    |    |
| Deutz DQC III-18                         |   |   |   |   |   |   |   |   | ☑* | ☑* |
| Deutz DQC III-18 LA                      |   |   | ✓ | ✓ | ✓ | ✓ |   |   |    |    |

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                         | Q8 Terra 8000 Long Drain FE 5W-30 | Q8 Terra 8000 Long Drain FE 10W-30 | Q8 Terra 8000 Long Drain 10W-40 | Q8 Terra 7000 FE 10W-30 | Q8 Terra 7000 10W-40 | Q8 Terra 7000 15W-40 | Q8 Terra 6600 S 10W-40 | Q8 Terra 6600 10W-40 | Q8 Terra 6000 10W-40 | Q8 Terra 6000 15W-40 |
|-------------------------|-----------------------------------|------------------------------------|---------------------------------|-------------------------|----------------------|----------------------|------------------------|----------------------|----------------------|----------------------|
| Deutz DQC IV-10 LA      | ✓                                 |                                    |                                 |                         |                      |                      |                        |                      |                      |                      |
| Deutz DQC IV-18         |                                   |                                    |                                 |                         |                      |                      | ✓                      | ✓                    |                      |                      |
| Deutz DQC IV-18 LA      | ✓                                 | ✓                                  | ✓                               |                         |                      |                      |                        |                      |                      |                      |
| Ford M2C171-F1          |                                   |                                    |                                 | ✓                       | ✓                    | ✓                    |                        |                      |                      |                      |
| Global DHD-1            |                                   |                                    |                                 |                         |                      |                      |                        | ●                    | ●                    | ✓                    |
| JASO DH-1               |                                   |                                    |                                 |                         |                      |                      | ✓                      | ●                    |                      |                      |
| JASO DH-2               | ●                                 | ●                                  | ●                               | ✓                       | ✓                    | ✓                    |                        |                      |                      |                      |
| John Deere JDQ 78A      |                                   |                                    |                                 |                         |                      |                      |                        |                      | ✓                    | ✓                    |
| John Deere JDQ 78X      |                                   |                                    | ✓                               |                         | ✓                    | ✓                    |                        |                      |                      |                      |
| Komatsu EOS10W30-LA     |                                   | ✓                                  |                                 | ✓                       |                      |                      |                        |                      |                      |                      |
| Komatsu KES 07.851.1    |                                   |                                    |                                 |                         |                      |                      | ✓                      | ✓                    | ✓                    | ✓                    |
| Komatsu KES 07.851.2    | ✓                                 | ✓                                  | ✓                               | ✓                       | ✓                    | ✓                    |                        |                      |                      |                      |
| Liebherr LH-00-ENG LA   | ✓                                 |                                    | ✓                               |                         |                      |                      |                        |                      |                      |                      |
| Liebherr LH-00-ENG3A LA |                                   |                                    | ✓                               |                         | ✓                    | ✓                    |                        |                      |                      |                      |
| Liebherr LH-00-ENG5C    |                                   |                                    |                                 |                         |                      |                      | ✓                      | ✓                    |                      |                      |
| Liebherr LH-00-ENG5C LA | ✓                                 |                                    | ✓                               |                         |                      |                      |                        |                      |                      |                      |
| Mack EO-N               |                                   |                                    |                                 |                         |                      |                      | ☑*                     | ☑*                   | ☑*                   | ☑*                   |
| Mack EO-O Premium Plus  |                                   |                                    | ✓                               | ✓                       |                      | ✓                    |                        |                      |                      |                      |
| Mack EO-S 4.5           | ☑*                                | ☑*                                 | ☑*                              | ☑*                      | ☑*                   | ☑*                   |                        |                      |                      |                      |
| MAN M 3271-1            | ✓                                 |                                    | ✓                               | ✓                       |                      |                      |                        |                      |                      |                      |
| MAN M 3275-1            |                                   |                                    |                                 |                         |                      |                      |                        |                      | ✓                    | ✓                    |
| MAN M 3277              |                                   |                                    |                                 |                         |                      |                      | ✓                      | ✓                    |                      |                      |
| MAN M 3477              | ✓                                 |                                    |                                 |                         |                      |                      |                        |                      |                      |                      |
| MAN M 3477 / M 3575     |                                   |                                    | ✓                               |                         |                      |                      |                        |                      |                      |                      |
| MAN M 3575              |                                   |                                    |                                 | ✓                       | ✓                    | ✓                    |                        |                      |                      |                      |
| MAN M 3677              | ✓                                 | ✓                                  |                                 |                         |                      |                      |                        |                      |                      |                      |
| MAN M 3775              | ✓                                 | ✓                                  | ✓                               | ✓                       | ✓                    | ✓                    |                        |                      |                      |                      |
| MB 226.9                | ✓                                 | ✓                                  |                                 |                         |                      |                      |                        |                      |                      |                      |
| MB 227.61 (DTFR 15D100) | ✓                                 | ✓                                  |                                 |                         |                      |                      |                        |                      |                      |                      |
| MB 228.31 (DTFR 15C100) | ✓                                 |                                    |                                 | ✓                       |                      |                      |                        |                      |                      |                      |
| MB 228.51 (DTFR 15C110) | ✓                                 |                                    |                                 |                         |                      |                      |                        |                      |                      |                      |
| MB 228.52 (DTFR 15C120) | ✓                                 |                                    |                                 |                         |                      |                      |                        |                      |                      |                      |
| MTU Type 2              |                                   |                                    |                                 |                         |                      |                      |                        |                      | ✓                    | ✓                    |

## Approvals & recommendations (2 / 2)

### Key

(dd. 03/09/2025)

- *Specification*
- ☑ *Approval*
- ☑\* *Pending approval*
- ✓ *Recommendation*

|                                            | Q8 Terra 8000 Long Drain FE 5W-30 | Q8 Terra 8000 Long Drain FE 10W-30 | Q8 Terra 8000 Long Drain 10W-40 | Q8 Terra 7000 FE 10W-30 | Q8 Terra 7000 10W-40 | Q8 Terra 7000 15W-40 | Q8 Terra 6600 S 10W-40 | Q8 Terra 6600 10W-40 | Q8 Terra 6000 10W-40 | Q8 Terra 6000 15W-40 |
|--------------------------------------------|-----------------------------------|------------------------------------|---------------------------------|-------------------------|----------------------|----------------------|------------------------|----------------------|----------------------|----------------------|
| MTU Type 2.1                               |                                   | ✓                                  |                                 | ✓                       | ✓                    | ✓                    |                        |                      |                      |                      |
| MTU Type 3                                 |                                   |                                    |                                 |                         |                      |                      | ✓                      | ✓                    |                      |                      |
| MTU Type 3.1                               | ✓                                 | ✓                                  | ✓                               |                         |                      |                      |                        |                      |                      |                      |
| Renault RLD-2                              |                                   |                                    |                                 |                         |                      |                      | ☑*                     | ☑*                   | ☑*                   | ☑*                   |
| Renault RLD-3                              | ☑*                                | ☑*                                 | ☑*                              | ☑*                      | ☑*                   | ☑*                   |                        |                      |                      |                      |
| SDMO - Kohler KD engine series K135 & K175 |                                   |                                    |                                 |                         |                      |                      |                        | ✓                    |                      | ✓                    |
| Tedom 258-3                                |                                   |                                    |                                 |                         |                      |                      |                        |                      | ✓                    | ✓                    |
| Tedom 258-4                                |                                   |                                    |                                 |                         |                      |                      | ✓                      | ✓                    |                      |                      |
| Valtra S-Series                            |                                   |                                    |                                 |                         | ✓                    |                      |                        |                      |                      |                      |
| Volvo CNG                                  | ✓                                 |                                    |                                 |                         |                      |                      |                        |                      |                      |                      |
| Volvo VDS-3                                |                                   |                                    |                                 |                         | ☑*                   | ✓                    | ☑*                     | ☑*                   | ☑*                   | ☑*                   |
| Volvo VDS-4                                | ✓                                 | ✓                                  |                                 | ✓                       |                      |                      |                        |                      |                      |                      |
| Volvo VDS-4.5                              | ☑*                                | ☑*                                 | ☑*                              | ☑*                      | ✓                    | ☑*                   |                        |                      |                      |                      |
| ZF TE-ML 07C                               |                                   |                                    |                                 |                         |                      |                      |                        |                      |                      | ✓                    |

## Approvals & recommendations (1 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                    | Q8 T 1000 (D) 10W-30 | Q8 T 1000 15W-40 | Q8 T 5000 10W-40 | Q8 T 2200 | Q8 T 2300 CVT HF 10W-30 | Q8 T 2300 CVT 10W-30 | Q8 T 2300 CVT 15W-40 | Q8 T 2500 | Q8 T 2600 WB Axle 80W-140 | Q8 T 3000 | Q8 T 3500 |
|--------------------|----------------------|------------------|------------------|-----------|-------------------------|----------------------|----------------------|-----------|---------------------------|-----------|-----------|
| STOU               | ✓                    | ✓                | ✓                |           | ✓                       | ✓                    | ✓                    | ✓         | ✓                         | ✓         | ✓         |
| UTTO               |                      |                  |                  | ✓         | ✓                       | ✓                    | ✓                    | ✓         | ✓                         | ✓         | ✓         |
| Hydraulic (ISO VG) | 68                   | 100              | 100              | 46-68     | 68                      | 68                   | 100                  | 46        | 220-320                   | 68-100    | 32        |
| Transmission (SAE) | 75W-85               | 80W-90           | 75W-90           | 75W-80    | 75W-85                  | 75W-85               | 80W-90               | 75W       | 80W-140                   | 80W-80    |           |
| Engine (SAE)       | 10W-30               | 15W-40           | 10W-40           | 10W-30(*) | 10W-30(*)               | 10W-30(*)            | 15W-40(*)            | 10W-20(*) | (*)                       | 15W-30(*) | (*)       |
| Wet Brakes         | ✓                    | ✓                | ✓                | ✓         | ✓                       | ✓                    | ✓                    | ✓         | ✓                         | ✓         | ✓         |
| Hydraulic          | ✓                    | ✓                | ✓                | ✓         | ✓                       | ✓                    | ✓                    | ✓         | ✓                         | ✓         | ✓         |
| Transmission       | ✓                    | ✓                | ✓                | ✓         | ✓                       | ✓                    | ✓                    | ✓         | ✓                         | ✓         | ✓         |
| Engine             | ✓                    | ✓                | ✓                |           |                         |                      |                      |           |                           |           |           |

(\*)Just for comparison. Do NOT use UTTO products as engine oil!

|                                                            |   |   |   |   |   |   |   |   |   |   |  |
|------------------------------------------------------------|---|---|---|---|---|---|---|---|---|---|--|
| ACEA E3                                                    |   | ✓ | ● |   |   |   |   |   |   |   |  |
| ACEA E7 level of soot control, wear and piston cleanliness | ✓ | ✓ | ✓ |   |   |   |   |   |   |   |  |
| AGCO CVT ML 200                                            |   | ✓ | ✓ |   |   | ✓ | ✓ |   |   |   |  |
| Allison C-2                                                |   |   |   |   |   |   |   | ✓ |   |   |  |
| Allison C-3                                                |   |   | ✓ |   |   |   |   | ✓ |   | ✓ |  |
| Allison C-4                                                | ✓ | ✓ | ✓ | ✓ |   |   |   | ✓ |   |   |  |
| API CE                                                     |   | ● |   |   |   |   |   |   |   |   |  |
| API CF                                                     |   | ● |   |   |   |   |   |   |   |   |  |
| API CF-4                                                   | ● |   | ● |   |   |   |   |   |   |   |  |
| API CI-4 level of soot control                             | ✓ | ✓ | ✓ |   |   |   |   |   |   |   |  |
| API GL-3                                                   |   | ● |   |   |   |   |   |   |   |   |  |
| API GL-4                                                   | ● | ● | ● | ● | ✓ | ● | ● | ● | ✓ | ● |  |
| API SF                                                     | ● | ● | ● |   |   |   |   |   |   |   |  |
| Case MS 1118                                               | ✓ |   | ✓ |   |   |   |   |   |   |   |  |
| Case MS 1206                                               |   |   |   |   |   |   |   | ✓ |   |   |  |
| Case MS 1207                                               | ✓ |   | ✓ | ✓ |   | ✓ |   | ✓ |   | ✓ |  |
| Case MS 1209                                               | ✓ |   | ✓ | ✓ |   | ✓ |   | ✓ |   | ✓ |  |
| Case MS 1210                                               |   |   |   | ✓ |   | ✓ |   | ✓ |   |   |  |
| Case MS 1230                                               |   |   |   | ✓ |   |   |   |   |   |   |  |
| Case MS 1317                                               |   |   |   |   |   |   |   |   | ✓ |   |  |

## Approvals & recommendations (2 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                   | Q8 T 1000 (D) 10W-30 | Q8 T 1000 15W-40 | Q8 T 5000 10W-40 | Q8 T 2200 | Q8 T 2300 CVT HF 10W-30 | Q8 T 2300 CVT 10W-30 | Q8 T 2300 CVT 15W-40 | Q8 T 2500 | Q8 T 2600 MB Axle 80W-140 | Q8 T 3000 | Q8 T 3500 |
|-----------------------------------|----------------------|------------------|------------------|-----------|-------------------------|----------------------|----------------------|-----------|---------------------------|-----------|-----------|
| Case New Holland MAT 3505         |                      |                  |                  | ✓         |                         | ✓                    | ✓                    | ✓         |                           |           |           |
| Case New Holland MAT 3506         |                      |                  |                  | ✓         |                         |                      | ✓                    |           |                           |           |           |
| Case New Holland MAT 3509         |                      |                  |                  | ✓         |                         |                      |                      |           |                           |           |           |
| Case New Holland MAT 3510         |                      |                  |                  |           |                         |                      |                      |           | ✓                         |           |           |
| Case New Holland MAT 3525         | ✓                    | ✓                | ✓                | ✓         |                         | ✓                    | ✓                    | ✓         |                           |           |           |
| Case New Holland MAT 3526         |                      | ✓                |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Case New Holland MAT 3540         |                      |                  |                  | ✓         |                         | ✓                    | ✓                    |           |                           |           |           |
| Case New Holland MAT 3544         |                      |                  |                  |           |                         | ✓                    |                      |           |                           |           |           |
| Case New Holland MAT 3552-A       |                      |                  |                  | ✓         |                         | ✓                    |                      |           |                           |           |           |
| Case New Holland MAT 3553-A       |                      |                  |                  |           |                         | ✓                    |                      |           |                           |           |           |
| Case UK/David Brown               |                      |                  |                  |           |                         |                      |                      |           |                           | ✓         |           |
| Caterpillar SATO                  |                      |                  |                  |           |                         | ✓                    | ✓                    |           |                           |           |           |
| Caterpillar TDTO Cold Weather     |                      |                  |                  |           | ✓                       |                      |                      |           |                           |           |           |
| Caterpillar TDTO-TMS              |                      |                  |                  |           | ✓                       |                      |                      |           |                           |           |           |
| Caterpillar TO-2                  | ✓                    |                  | ✓                | ✓         |                         |                      |                      | ✓         |                           | ✓         |           |
| Claas AGRISHIFT XE                |                      |                  |                  |           | ✓                       |                      |                      |           |                           |           |           |
| Claas CVT                         |                      |                  |                  |           |                         | ✓                    | ✓                    |           |                           |           |           |
| Denison HF-0                      |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Denison HF-1                      |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Denison HF-2                      |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Deutz Allis AC Power Fluid 821 XL |                      |                  |                  | ✓         |                         | ✓                    |                      |           |                           |           |           |
| DIN 51524-3 HVLPD                 |                      |                  | ✓                |           |                         |                      |                      |           |                           |           |           |
| Fendt Vario                       |                      |                  | ✓                |           |                         | ✓                    | ✓                    |           |                           |           |           |
| Fiat AF 87                        |                      |                  | ✓                |           |                         |                      |                      |           |                           | ✓         |           |
| FNHA 2-C 200                      |                      |                  |                  | ✓         |                         |                      |                      |           |                           |           |           |
| FNHA 2-C-201                      |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Ford M2C121-D                     |                      |                  | ✓                |           |                         |                      |                      |           |                           |           |           |
| Ford M2C121-E                     | ✓                    |                  |                  |           |                         |                      |                      |           |                           |           |           |
| Ford M2C134-D                     | ✓                    | ✓                | ✓                | ✓         |                         |                      |                      |           |                           |           |           |
| Ford M2C159-B                     |                      | ✓                | ✓                |           |                         |                      |                      |           |                           |           |           |

## Approvals & recommendations (3 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                              | Q8 T 1000 (D) 10W-30 | Q8 T 1000 15W-40 | Q8 T 5000 10W-40 | Q8 T 2200 | Q8 T 2300 CVT HF 10W-30 | Q8 T 2300 CVT 10W-30 | Q8 T 2300 CVT 15W-40 | Q8 T 2500 | Q8 T 2600 MB Axle 80W-140 | Q8 T 3000 | Q8 T 3500 |
|------------------------------|----------------------|------------------|------------------|-----------|-------------------------|----------------------|----------------------|-----------|---------------------------|-----------|-----------|
| Ford M2C159-C                | ✓                    | ✓                | ✓                |           |                         |                      |                      |           |                           |           |           |
| Ford M2C41-B                 | ✓                    |                  | ✓                |           |                         |                      |                      |           |                           |           |           |
| Ford M2C48-C2                |                      |                  |                  | ✓         |                         |                      |                      |           |                           |           |           |
| Ford M2C86-B                 |                      |                  |                  |           |                         |                      |                      | ✓         |                           | ✓         |           |
| Ford M2C86-C                 |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| John Deere Hygard            |                      |                  |                  |           | ✓                       |                      |                      |           |                           |           |           |
| John Deere JDM 3000          |                      |                  |                  | ✓         |                         |                      |                      | ✓         |                           |           |           |
| John Deere JDM J20A          |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| John Deere JDM J20B          |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| John Deere JDM J20C          | ✓                    | ✓                | ✓                | ✓         |                         | ✓                    | ✓                    | ✓         |                           |           |           |
| John Deere JDM J20D          |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| John Deere JDM J27           | ✓                    | ✓                | ✓                |           |                         |                      |                      |           |                           |           |           |
| Komatsu Dresser B06-0001     |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Komatsu Dresser B06-0002     |                      |                  |                  | ✓         |                         |                      |                      | ✓         |                           | ✓         |           |
| Komatsu KES 07.866           |                      |                  |                  | ✓         |                         | ✓                    | ✓                    |           |                           |           |           |
| Kubota Super UDT             |                      |                  |                  | ✓         |                         |                      |                      | ✓         |                           |           |           |
| Kubota Super UDT2            |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Kubota UDT                   |                      |                  |                  | ✓         |                         | ✓                    | ✓                    | ✓         |                           |           |           |
| Kubota UDT-HD                |                      |                  |                  |           |                         | ✓                    |                      |           |                           |           |           |
| Landini UTTO                 |                      |                  |                  |           |                         |                      |                      |           |                           | ✓         |           |
| Massey Ferguson CMS M 1110   |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Massey Ferguson CMS M 1127   | ✓                    |                  | ✓                |           |                         |                      |                      |           |                           | ✓         |           |
| Massey Ferguson CMS M 1127-A |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Massey Ferguson CMS M 1127-B |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Massey Ferguson CMS M 1135   | ✓                    | ✓                |                  | ✓         |                         | ✓                    |                      | ✓         |                           | ✓         |           |
| Massey Ferguson CMS M 1139   | ✓                    | ✓                | ✓                |           |                         |                      |                      |           |                           |           |           |
| Massey Ferguson CMS M 1141   | ✓                    |                  | ✓                | ✓         |                         | ✓                    |                      | ✓         |                           | ✓         |           |
| Massey Ferguson CMS M 1143   |                      | ✓                |                  | ✓         |                         | ✓                    |                      | ✓         |                           |           |           |
| Massey Ferguson CMS M 1144   | ✓                    | ✓                | ✓                |           |                         |                      |                      |           |                           |           |           |
| Massey Ferguson CMS M 1145   | ✓                    | ✓                | ✓                | ✓         |                         | ✓                    | ✓                    | ✓         |                           |           |           |



## Approvals & recommendations (4 / 5)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                           | Q8 T 1000 (D) 10W-30 | Q8 T 1000 15W-40 | Q8 T 5000 10W-40 | Q8 T 2200 | Q8 T 2300 CVT HF 10W-30 | Q8 T 2300 CVT 10W-30 | Q8 T 2300 CVT 15W-40 | Q8 T 2500 | Q8 T 2600 MB Axle 80W-140 | Q8 T 3000 | Q8 T 3500 |
|-------------------------------------------|----------------------|------------------|------------------|-----------|-------------------------|----------------------|----------------------|-----------|---------------------------|-----------|-----------|
| MB 227.1                                  | ✓                    | ✓                |                  |           |                         |                      |                      |           |                           |           |           |
| MB 228.1 engine performance in SAE 10W-30 | ✓                    |                  |                  |           |                         |                      |                      |           |                           |           |           |
| MB 228.3 level of piston cleanliness      | ✓                    |                  |                  |           |                         |                      |                      |           |                           |           |           |
| MIL L-2104D                               | ●                    |                  |                  |           |                         |                      |                      |           |                           |           |           |
| New Holland NH 024-C                      | ✓                    | ✓                |                  |           |                         |                      |                      |           |                           |           |           |
| New Holland NH 030-C                      |                      | ✓                |                  |           |                         |                      |                      |           |                           |           |           |
| New Holland NH 324-B                      | ✓                    |                  |                  |           |                         |                      |                      |           |                           |           |           |
| New Holland NH 410-B                      | ✓                    | ✓                | ✓                | ✓         |                         | ✓                    | ✓                    |           |                           |           |           |
| New Holland NH 410-C                      |                      |                  |                  | ✓         |                         | ✓                    | ✓                    | ✓         |                           |           |           |
| New Holland NH 420-A                      |                      | ✓                |                  |           |                         |                      |                      |           |                           |           |           |
| New Holland NH 526-C                      |                      |                  | ✓                |           |                         |                      |                      |           |                           |           |           |
| New Holland NH 540-B                      | ✓                    |                  |                  |           |                         |                      |                      |           |                           |           |           |
| New Holland NH 600 TR                     |                      |                  |                  |           |                         |                      |                      |           | ✓                         |           |           |
| Renk Doromat 873                          |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Renk Doromat 874-A                        |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Renk Doromat 874-B                        |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| Same Deutz Fahr UTTO                      |                      |                  |                  |           |                         | ✓                    |                      |           |                           | ✓         |           |
| Steyr 397 88001                           |                      |                  | ✓                |           |                         |                      |                      |           |                           |           |           |
| Valmet/Volvo BM UTTO                      |                      |                  |                  |           |                         |                      |                      |           |                           | ✓         |           |
| Valtra G2-08 (XT-60)                      |                      |                  |                  | ✓         |                         | ✓                    | ✓                    |           |                           |           |           |
| Valtra G2-B10 (XT-60+)                    |                      |                  |                  | ✓         |                         | ✓                    | ✓                    |           |                           |           |           |
| Volvo 97302                               |                      |                  |                  | ✓         |                         |                      |                      |           |                           |           |           |
| Volvo 97303 (WB 101)                      |                      |                  |                  | ☑         |                         |                      |                      |           |                           |           |           |
| Volvo 97304 (WB 102)                      |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| White New Idea Q-1802                     |                      |                  |                  | ✓         |                         |                      |                      |           |                           |           |           |
| White New Idea Q-1826                     |                      |                  |                  | ✓         |                         |                      |                      |           |                           |           |           |
| ZF TE-ML 03E                              |                      |                  |                  | ✓         |                         | ✓                    | ✓                    | ✓         |                           |           |           |
| ZF TE-ML 03F                              |                      |                  |                  |           |                         |                      |                      | ✓         |                           |           |           |
| ZF TE-ML 03L                              |                      |                  |                  | ✓         |                         |                      |                      |           |                           |           |           |
| ZF TE-ML 05F                              |                      |                  |                  | ☑         |                         | ✓                    | ✓                    | ✓         | ✓                         |           |           |

## Approvals & recommendations (5 / 5)

### Key

(dd. 03/09/2025)

- *Specification*
- ☒ *Approval*
- ☒\* *Pending approval*
- ✓ *Recommendation*

|              | Q8 T 1000 (D) 10W-30                | Q8 T 1000 15W-40 | Q8 T 5000 10W-40                    | Q8 T 2200                           | Q8 T 2300 CVT HF 10W-30 | Q8 T 2300 CVT 10W-30 | Q8 T 2300 CVT 15W-40 | Q8 T 2500 | Q8 T 2600 WB Axle 80W-140 | Q8 T 3000 | Q8 T 3500 |
|--------------|-------------------------------------|------------------|-------------------------------------|-------------------------------------|-------------------------|----------------------|----------------------|-----------|---------------------------|-----------|-----------|
| ZF TE-ML 06B | <input checked="" type="checkbox"/> | ✓                | <input checked="" type="checkbox"/> |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06C | ✓                                   | ✓                |                                     |                                     |                         |                      |                      |           |                           |           |           |
| ZF TE-ML 06D | <input checked="" type="checkbox"/> |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06E |                                     |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06F |                                     |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06H |                                     |                  |                                     |                                     | ✓                       |                      |                      |           |                           |           |           |
| ZF TE-ML 06K |                                     |                  |                                     | ✓                                   |                         | ✓                    | ✓                    | ✓         | ✓                         |           |           |
| ZF TE-ML 06L |                                     |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06M |                                     |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06N | <input checked="" type="checkbox"/> |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06P |                                     |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06R |                                     |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06S |                                     |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 06T |                                     |                  |                                     |                                     |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 07B | <input checked="" type="checkbox"/> |                  | <input checked="" type="checkbox"/> |                                     |                         |                      |                      |           |                           |           |           |
| ZF TE-ML 17E |                                     |                  |                                     | <input checked="" type="checkbox"/> |                         | ✓                    | ✓                    |           |                           |           |           |
| ZF TE-ML 21F |                                     |                  |                                     | <input checked="" type="checkbox"/> |                         | ✓                    | ✓                    |           | ✓                         |           |           |

# Small engines

## Product range

|          |                                  | Scooter                                                                                                                                                                                                                                                                                                                                            | Moto | Outboard                                                                                          | Garden                                                                                                                                                                   |
|----------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 Stroke | Positioning<br>(higher = better) | <b>Q8 Racing 2T</b><br><i>JASO FD; API TC+++; TISI; ISO L-EGD; GLOBAL GD</i><br><b>Q8 Allroads 2T</b><br><i>JASO FD; API TC++; TISI 1040; ISO-L-EGC</i>                                                                                                                                                                                            |      | <b>Q8 Outboard Synt 2T</b><br><i>NMMA TC-W3</i><br><br><b>Q8 Outboard 2T</b><br><i>NMMA TC-W3</i> | <b>Q8 Garden Pro Synt 2T</b><br><i>JASO FD; API TC +++; TISI; ISO L-EGD; GLOBAL GD</i><br><br><b>Q8 Garden Pro 2T</b><br><i>JASO FD; API TC ++; TISI 1040; ISO-L-EGC</i> |
| 4 Stroke | Positioning<br>(higher = better) | <b>Q8 City 4T 10W-30</b><br><i>JASO MA2; API SN</i><br><b>Q8 Sport 4T 10W-40</b><br><i>JASO MA2; API SN</i><br><b>Q8 Racing 4T 10W-50</b><br><i>JASO MA2; API SN</i><br><b>Q8 Rider 4T 20W-50</b><br><i>JASO MA2; API SN</i><br><b>Q8 Allroads 4T 10W-40</b><br><i>JASO MA2; API SL</i><br><b>Q8 Allroads 4T 15W-50</b><br><i>JASO MA2; API SL</i> |      | <b>Q8 Outboard Synt 4T 10W-40</b><br><i>NMMA FC-W; API SM</i>                                     | <b>Q8 Garden Pro Synt 4T 5W-30</b><br><i>API SL/CF</i><br><br><b>Q8 Garden Pro 4T SAE 30</b><br><i>API SF/CC</i>                                                         |

| JASO T903 friction performance classification |                  | Wet Clutch  |             |             | Dry Clutch  |
|-----------------------------------------------|------------------|-------------|-------------|-------------|-------------|
|                                               |                  | MA2         | MA1         | MA          | MB          |
| Index                                         | Static friction  | 1.70≤X<2.50 | 1.15≤X<1.70 | 1.15≤X<2.50 | 0.50≤X<1.15 |
|                                               | Dynamic friction | 1.80≤X<2.50 | 1.45≤X<1.80 | 1.45≤X<2.50 | 0.50≤X<1.45 |
|                                               | Stop time        | 1.90≤X<2.50 | 1.55≤X<1.90 | 1.55≤X<2.50 | 0.50≤X<1.55 |

Approvals & recommendations (1 / 1)

Key

(dd. 03/09/2025)

•

Specification

☒

Approval

☒

Pending approval

☒

Recommendation

|                               | Q8 Racing 2T | Q8 Allroads 2T | Q8 Outboard Synt 2T | Q8 Outboard 2T | Q8 Garden Pro Synt 2T | Q8 Garden Pro 2T | Q8 Racing 4T 10W-50 | Q8 Sport 4T 10W-40 | Q8 City 4T 10W-30 | Q8 Rider 4T 20W-50 | Q8 Allroads 4T 10W-40 | Q8 Allroads 4T 15W-50 | Q8 Outboard Synt 4T 10W-40 | Q8 Garden Pro Synt 4T 5W-30 | Q8 Garden Pro 4T SAE 30 |
|-------------------------------|--------------|----------------|---------------------|----------------|-----------------------|------------------|---------------------|--------------------|-------------------|--------------------|-----------------------|-----------------------|----------------------------|-----------------------------|-------------------------|
| API CD                        |              |                |                     |                |                       |                  |                     |                    |                   |                    |                       |                       |                            | •                           | ✓                       |
| API CF                        |              |                |                     |                |                       |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| API SF                        |              |                |                     |                |                       |                  |                     |                    |                   |                    |                       |                       |                            |                             | ✓                       |
| API SL                        |              |                |                     |                |                       |                  |                     | •                  |                   |                    | •                     | •                     |                            | •                           |                         |
| API SM                        |              |                |                     |                |                       |                  | •                   | ✓                  |                   |                    |                       |                       | •                          |                             |                         |
| API SN                        |              |                |                     |                |                       |                  | •                   |                    |                   | ✓                  |                       |                       |                            |                             |                         |
| API SP                        |              |                |                     |                |                       |                  | •                   | ✓                  |                   | ✓                  |                       |                       |                            |                             |                         |
| API TC +                      |              |                | ✓                   |                |                       |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| API TC ++                     |              | •              |                     |                |                       | •                |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| API TC +++                    | •            |                |                     |                | •                     |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| Husqvarna 346                 | ✓            |                |                     |                | ✓                     |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| Husqvarna 372                 | ✓            |                |                     |                | ✓                     |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| ISO L-EGC                     | ✓            | ✓              |                     |                | ✓                     | •                |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| ISO L-EGD                     | •            |                |                     |                | •                     |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| JASO FC                       | ✓            |                |                     |                | ✓                     |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| JASO FD                       | •            | •              | ✓                   |                | •                     | •                |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| JASO MA2                      |              |                |                     |                |                       |                  | •                   | ✓                  | •                 | ✓                  | •                     | •                     |                            |                             |                         |
| NMMA FC-W                     |              |                |                     |                |                       |                  |                     |                    |                   |                    |                       |                       | •                          |                             |                         |
| NMMA TC-W Catalyst Compatible |              |                |                     |                |                       |                  |                     |                    |                   |                    |                       |                       | ✓                          |                             |                         |
| NMMA TC-W3                    |              |                | •                   | •              |                       |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| Rotax 253                     | ✓            |                |                     |                | ✓                     |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| SAE Class 3 Fluidity          | ✓            |                | ✓                   | ✓              | ✓                     |                  |                     |                    |                   |                    |                       |                       |                            |                             |                         |
| TISI 1040                     | •            | •              |                     |                | ✓                     | •                |                     |                    |                   |                    |                       |                       |                            |                             |                         |

# Antifreeze

## Product range (1 / 4)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

| Q8 Antifreeze Extended Life | Q8 Antifreeze Extended Life Premixed | Q8 Antifreeze Lobrid Premixed | Q8 Antifreeze Long Life | Q8 Antifreeze Long Life Premixed | Q8 Antifreeze Long Life OAT | Q8 Antifreeze Long Life OAT Premixed | Q8 Antifreeze OAT-2 | Q8 Antifreeze OAT-2 Premixed | Q8 Antifreeze V | Q8 Antifreeze Evo |
|-----------------------------|--------------------------------------|-------------------------------|-------------------------|----------------------------------|-----------------------------|--------------------------------------|---------------------|------------------------------|-----------------|-------------------|
| OAT                         | OAT                                  | Si-OAT                        | OAT                     | OAT                              | OAT                         | OAT                                  | OAT                 | OAT                          | PSi-OAT         | PSi-OAT           |
| Blue-green                  | Blue-green                           | Magenta                       | Orange-red              | Orange-red                       | Orange/Red                  | orange/red                           | Orange              | Orange                       | Green           | Pink              |

|                                         |   |   |   |   |    |   |   |    |    |   |   |
|-----------------------------------------|---|---|---|---|----|---|---|----|----|---|---|
| AFNOR NF R 15-601                       |   |   |   | • | •  |   |   | •  | •  |   |   |
| AS 2108-2004                            | • | • |   |   |    |   |   |    |    | ✓ | ✓ |
| ASTM D 3306                             | • | • | ✓ | • | •  |   |   | •  | •  | ✓ | ✓ |
| ASTM D 4656                             |   |   |   | • | •  |   |   | •  | •  |   |   |
| ASTM D 4985                             |   |   | ✓ | • | •  |   |   | •  | •  | ✓ | ✓ |
| ASTM D 6210                             |   |   |   | • | •  |   |   | •  | •  | ✓ | ✓ |
| ASTM D 7583                             |   |   |   |   |    |   |   |    |    | ✓ | ✓ |
| Audi VW TL 774 L                        |   |   |   |   |    |   |   |    |    |   | ✓ |
| Bentley VW TL 774 G (G12++)             |   |   | ✓ |   |    |   |   |    |    |   |   |
| Bentley VW TL 774 L                     |   |   |   |   |    |   |   |    |    |   | ✓ |
| Bergen engines 2.13.01                  |   |   |   | • | •  |   |   | •  | •  |   |   |
| BMW LC-18 (> 01/2019)                   |   |   |   |   |    |   |   |    |    | ✓ |   |
| BS 6580                                 | • | ✓ | ✓ | ✓ | ✓  |   |   | ✓  | ✓  | ✓ | ✓ |
| Bugatti VW TL 774 L                     |   |   |   |   |    |   |   |    |    |   | ✓ |
| Case New Holland MAT 3624               |   |   |   | • | •  |   |   | •  | •  |   |   |
| Case New Holland MAT 3724               |   |   |   |   |    |   |   | ✓  | ✓  |   |   |
| Caterpillar GCM34                       |   |   |   |   |    |   |   | ✓  | ✓  |   |   |
| China GB 29743-2013                     |   |   | ✓ |   |    |   |   |    |    | ✓ | ✓ |
| Cummins CES 14439                       |   |   |   | • | ☑* | ✓ | ✓ | •  | •  |   |   |
| Cummins CES 14603                       |   |   | • | • | ✓  | ✓ | ✓ | •  | •  |   |   |
| CUNA NC 956-16                          | • | • | ✓ |   |    |   |   |    |    | ✓ | ✓ |
| CUNA NC 956-18 (Except RA)              | • | • |   |   |    |   |   |    |    |   |   |
| DAF 74002                               |   |   |   | ☑ | ☑  | ✓ | ✓ | ☑* | ☑* |   |   |
| Daimler Truck AG DTFR 29C110 (MB 325.3) |   |   |   |   |    |   | ✓ | ✓  | ✓  |   |   |
| Daimler Truck AG DTFR 29D110 (MB 326.3) |   |   |   |   |    | ✓ | ✓ | ✓  | ✓  |   |   |
| Daimler Truck AG DTFR 29D120 (MB 326.5) |   |   | ✓ |   |    |   |   |    |    |   |   |
| Daimler Truck AG Evobus                 |   |   |   |   |    |   |   | ✓  | ✓  |   |   |
| Detroit Diesel DFS 93K217               |   |   |   | • | ✓  | ✓ | ✓ | •  | •  |   |   |
| Detroit Diesel DFS 93K227               |   |   |   |   |    | ✓ | ✓ |    |    |   |   |
| Deutz DQC CB-14                         |   |   |   | ☑ | ☑  | ✓ | ✓ | ☑  | ☑  |   |   |
| Deutz DQC CC-14                         |   |   | ✓ |   |    |   |   |    |    | ✓ | ✓ |

# Antifreeze

## Product range (2 / 4)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                             | Q8 Antifreeze Extended Life | Q8 Antifreeze Extended Life Premixed | Q8 Antifreeze Lobrid Premixed | Q8 Antifreeze Long Life | Q8 Antifreeze Long Life Premixed | Q8 Antifreeze Long Life OAT | Q8 Antifreeze Long Life OAT Premixed | Q8 Antifreeze OAT-2 | Q8 Antifreeze OAT-2 Premixed | Q8 Antifreeze V | Q8 Antifreeze Evo |
|---------------------------------------------|-----------------------------|--------------------------------------|-------------------------------|-------------------------|----------------------------------|-----------------------------|--------------------------------------|---------------------|------------------------------|-----------------|-------------------|
| Deutz-Fahr > 04/2017                        |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              | ✓               |                   |
| Fiat 9.55523                                |                             |                                      |                               | ✓                       | ✓                                |                             |                                      | ✓                   | ✓                            |                 |                   |
| Ford M97B44-D                               |                             |                                      |                               | •                       | •                                | ✓                           | ✓                                    | •                   | •                            |                 |                   |
| Ford M97B44-E                               |                             |                                      |                               | ✓                       | ✓                                |                             |                                      | ✓                   | ✓                            |                 |                   |
| Foton Q-FPT 2313005-2013                    |                             |                                      |                               | •                       | •                                | ✓                           | ✓                                    | •                   | •                            |                 |                   |
| France NFR 15-601                           | •                           | ✓                                    |                               |                         |                                  |                             |                                      |                     |                              |                 |                   |
| FVV Heft R 443                              |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| GB 29743-2013                               | •                           | •                                    |                               |                         |                                  |                             |                                      | ✓                   | ✓                            |                 |                   |
| GM B 040 1065                               |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    |                     |                              |                 |                   |
| GM GMW 18270                                |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    |                     |                              |                 |                   |
| GM GMW 3420                                 |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    | ✓                   | ✓                            |                 |                   |
| Huerlimann > 04/2017                        |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              | ✓               |                   |
| INNIO Jenbacher TA 1000-0201                |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| Iveco 18-1830                               |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    |                     |                              |                 |                   |
| Jaguar Land Rover STJLR 03.5212             |                             |                                      |                               |                         |                                  |                             |                                      | ✓                   | ✓                            |                 |                   |
| Jaguar Land Rover STJLR.651.5003 (CMR 8229) |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| JIS K 2234                                  |                             |                                      | ✓                             | •                       | •                                |                             |                                      | •                   | •                            | ✓               |                   |
| JIS K 2234:2006                             |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              |                 | ✓                 |
| John Deere > 2011                           |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              | ✓               |                   |
| John Deere JDM H5                           |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| Komatsu KES 07.892                          |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| KSM 2142                                    |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| Lamborghini VW TL 774 G (G12++)             |                             |                                      | ✓                             |                         |                                  |                             |                                      |                     |                              |                 |                   |
| Lamborghini VW TL 774 L                     |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              |                 | ✓                 |
| Lamborghini-Tractors > 04/2017              |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              | ✓               |                   |
| Leyland Trucks DW03245403                   |                             |                                      |                               | •                       | •                                | ✓                           | ✓                                    | •                   | •                            |                 |                   |
| Liebherr LH-01-COL3A                        |                             |                                      | ✓                             |                         |                                  |                             |                                      |                     |                              |                 |                   |
| Liebherr MD1-36-130                         |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| Mack 014 GS 17009                           |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| MAN 324 Type Si-OAT                         |                             |                                      | ✓                             |                         |                                  |                             |                                      |                     |                              |                 |                   |
| MAN 324 Type SNF                            |                             |                                      |                               | ☑                       | ☑                                | ✓                           | ✓                                    | ☑                   | ☑                            |                 |                   |
| MAN 325 Type SNF                            |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    |                     |                              |                 |                   |
| MAN B&W AG D36 5600                         |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |

# Antifreeze

## Product range (3 / 4)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                          | Q8 Antifreeze Extended Life | Q8 Antifreeze Extended Life Premixed | Q8 Antifreeze Lobrid Premixed | Q8 Antifreeze Long Life | Q8 Antifreeze Long Life Premixed | Q8 Antifreeze Long Life OAT | Q8 Antifreeze Long Life OAT Premixed | Q8 Antifreeze OAT-2 | Q8 Antifreeze OAT-2 Premixed | Q8 Antifreeze V | Q8 Antifreeze Evo |
|------------------------------------------|-----------------------------|--------------------------------------|-------------------------------|-------------------------|----------------------------------|-----------------------------|--------------------------------------|---------------------|------------------------------|-----------------|-------------------|
| MAN Energy Solutions BASF-CW-GLY00G64-01 |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            | ✓               |                   |
| Mazda MEZ MN 121 D                       |                             |                                      |                               | ✓                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| MB 325.3 (DTFR 29C110)                   |                             |                                      |                               |                         | ✓                                |                             |                                      | ✓                   | ✓                            |                 |                   |
| MB 326.3 (DTFR 29D110)                   |                             |                                      |                               |                         | ✓                                |                             |                                      |                     |                              |                 |                   |
| MB 326.5                                 |                             |                                      | ✓                             |                         |                                  |                             |                                      |                     |                              |                 |                   |
| MB 326.6                                 |                             |                                      | ✓                             |                         |                                  |                             |                                      |                     |                              |                 |                   |
| MIL-Belgium BT-PS-606 A                  |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| MIL-France DCSEA 615/C                   |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| MIL-Italy E/L-1415b                      |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| MIL-Norway FS 6850-0951                  |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| MIL-Sweden FSD 8704                      |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| Mitsubishi MHI                           |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| MTU MTL 5048                             |                             |                                      | ✓                             | •                       | ☑                                |                             |                                      | •                   | •                            |                 |                   |
| MWM 0199-99-2091/12                      |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| MWM TR 2091                              |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              | ✓               |                   |
| NATO S-759                               |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| Opel/Vauxhall GMW 18270                  |                             |                                      |                               |                         |                                  |                             |                                      | ✓                   | ✓                            |                 |                   |
| Opel/Vauxhall GMW 3420                   |                             |                                      |                               | •                       | ✓                                |                             |                                      | •                   | •                            |                 |                   |
| PN C40007:2000                           |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              |                 | ✓                 |
| Porsche VW TL 774 G (G12++)              |                             |                                      | •                             |                         |                                  |                             |                                      |                     |                              |                 |                   |
| Porsche VW TL 774 L                      |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              |                 | ✓                 |
| Renault 41-01-001/- -S Type D            |                             |                                      |                               |                         |                                  |                             | ✓                                    |                     |                              |                 |                   |
| Renault 41-01-001/- -T                   |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    |                     |                              |                 |                   |
| Renault 41-01-001/S Type D               |                             |                                      |                               | •                       | •                                | ✓                           |                                      | •                   | •                            |                 |                   |
| Rolls-Royce Bergen 2.13.01               |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    |                     |                              |                 |                   |
| Saab B 040 1065                          |                             |                                      |                               | •                       | ✓                                |                             |                                      | •                   | •                            |                 |                   |
| SACM Diesel DLP799861                    |                             |                                      |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| SAE J 1034                               | •                           | •                                    | ✓                             | •                       | •                                |                             |                                      | •                   | •                            | ✓               | ✓                 |
| Same > 04/2017                           |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              | ✓               |                   |
| SANS 1251:2005                           |                             |                                      | ✓                             |                         |                                  |                             |                                      |                     |                              | ✓               | ✓                 |
| Scania TB 1451                           |                             |                                      | ✓                             |                         |                                  |                             |                                      |                     |                              |                 |                   |
| Seat VW TL 774 L                         |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              |                 | ✓                 |
| Stellantis FPW 9.55523                   |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    |                     |                              |                 |                   |

## Product range (4 / 4)

### Key

(dd. 03/09/2025)

- Specification
- ✓ Approval
- ✓\* Pending approval
- ✓ Recommendation

|                                                   | Q8 Antifreeze Extended Life | Q8 Antifreeze Extended Life Premixed | Q8 Antifreeze Lobrid Premixed | Q8 Antifreeze Long Life | Q8 Antifreeze Long Life Premixed | Q8 Antifreeze Long Life OAT | Q8 Antifreeze Long Life OAT Premixed | Q8 Antifreeze OAT-2 | Q8 Antifreeze OAT-2 Premixed | Q8 Antifreeze V | Q8 Antifreeze Evo |
|---------------------------------------------------|-----------------------------|--------------------------------------|-------------------------------|-------------------------|----------------------------------|-----------------------------|--------------------------------------|---------------------|------------------------------|-----------------|-------------------|
| Stellantis GMW 18270                              |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    |                     |                              |                 |                   |
| Stellantis GMW 3420                               |                             |                                      |                               |                         |                                  | ✓                           | ✓                                    |                     |                              |                 |                   |
| Tata Tata                                         |                             |                                      |                               |                         |                                  |                             |                                      | ✓                   | ✓                            |                 |                   |
| UNE 26-361-88/1                                   | •                           | •                                    |                               | •                       | •                                |                             |                                      | •                   | •                            |                 |                   |
| VAG VW TL 774 D (G12)                             |                             |                                      |                               | •                       | •                                | ✓                           | ✓                                    | •                   | •                            |                 |                   |
| VAG VW TL 774 F (G12+)                            |                             |                                      |                               | ✓                       | •                                | ✓                           | ✓                                    | ✓                   | ✓                            |                 |                   |
| VAG VW TL 774 G (G12++)                           |                             |                                      | ✓                             |                         |                                  |                             |                                      |                     |                              |                 |                   |
| VAG VW TL 774 L (G12 EVO)                         |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              |                 | ✓                 |
| VAG Škoda 61-0-0257                               |                             |                                      |                               | •                       | ✓                                |                             |                                      | •                   | •                            |                 |                   |
| Volkswagen VW TL 774 L                            |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              |                 | ✓                 |
| Volvo Cars TR-31854114-002                        |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              | ✓               |                   |
| Volvo Construction Equipment STD 418-0007 (VCS-2) |                             |                                      |                               |                         |                                  |                             |                                      | ✓                   | ✓                            |                 |                   |
| Volvo Penta STD 418-0007 (VCS-2)                  |                             |                                      |                               |                         |                                  |                             |                                      | ✓                   | ✓                            |                 |                   |
| Volvo Trucks STD 418-0007 (VCS-2)                 |                             |                                      |                               |                         |                                  |                             |                                      | ✓                   | ✓                            |                 |                   |
| Volvo Volvo Penta                                 |                             |                                      |                               | ✓                       | ✓                                |                             |                                      | ✓                   | ✓                            |                 |                   |
| VW/Audi TL-774 D= G12                             |                             |                                      |                               | •                       |                                  |                             |                                      | •                   | •                            |                 |                   |
| Önorm V5123                                       |                             |                                      | ✓                             | ✓                       | •                                |                             |                                      | ✓                   | ✓                            | ✓               | ✓                 |
| Škoda VW TL 774 G (G12++)                         |                             |                                      | ✓                             |                         |                                  |                             |                                      |                     |                              |                 |                   |
| Škoda VW TL 774 L                                 |                             |                                      |                               |                         |                                  |                             |                                      |                     |                              |                 | ✓                 |



## Coolant types

|                | Full Name                                    | Inorganic Inhibitors | Organic Acid Inhibitors | Description                                                                                                        |
|----------------|----------------------------------------------|----------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>IAT</b>     | Inorganic Additive Technology                | ≈ 90–100 %           | ≈ 0–10 %                | Traditional green antifreeze with full mineral salts and fast-depleting inhibitors; short service life.            |
| <b>HOAT</b>    | Hybrid Organic Acid Technology               | ≈ 40–60 %            | ≈ 40–60 %               | Mix of organic and inorganic corrosion inhibitors; long-life, slow depletion.                                      |
| <b>LOAT</b>    | Low-Hybrid Organic Acid Technology           | ≈ 10–25 %            | ≈ 75–90 %               | Low-mineral OAT with small silicate or phosphate dose plus carboxylates; longer life than IAT, less than full OAT. |
| <b>OAT</b>     | Organic Acid Technology                      | ≈ 0 %                | ≈ 100 %                 | Fully organic acids; long-life, global standard; no mineral salts.                                                 |
| <b>Si-OAT</b>  | Silicated Organic Acid Technology            | ≈ 2–5 % silicate     | ≈ 95–98 %               | OAT with small silicate dose for fast aluminum protection; common in European OEMs.                                |
| <b>P-OAT</b>   | Phosphated Organic Acid Technology           | ≈ 2–5 % phosphate    | ≈ 95–98 %               | OAT with small phosphate dose for aluminum protection; common in Japanese OEMs. Can be pink or blue.               |
| <b>PSi-OAT</b> | Phosphated Silicated Organic Acid Technology | ≈ 5–10 % Si + P      | ≈ 90–95 %               | OAT with both phosphate and silicate for global multi-metal protection.                                            |

## Technologies used by heavy duty OEMs - historical evolution

| OEM                  | 1995 | 1996 | 1997 | 1998 | 1999 | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|----------------------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Caterpillar          |      |      |      |      |      | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Cummins              |      |      |      |      |      | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| DAF                  |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Detroit Diesel       |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Dongfeng Trucks      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| FAW                  |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Mercedes-Benz Trucks |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Freightliner         |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Fuso                 |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       | *(1)  | *(1)  | *(1)  | *(1)  | *(1)  |       |       |       |       |       |       |       |       |       |       |
| Hino                 |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       | *(1)  | *(1)  | *(1)  | *(1)  | *(1)  |       |       |       |       |       |       |       |       |       |       |
| Isuzu                |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       | *(1)  | *(1)  | *(1)  | *(1)  | *(1)  |       |       |       |       |       |       |       |       |       |       |
| Iveco                |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Kamaz                |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Kenworth             |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Mack                 |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| MAN                  |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| MAZ                  |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Ford Trucks          |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Navistar             |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| PACCAR               |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Peterbilt            |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Renault Trucks       |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Scania               |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Tatra                |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  |
| Ural                 |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| Volvo Trucks         |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |
| Western Star         |      |      |      |      |      |       |       |       |       |       | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(11) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) | *(12) |

Coolant Type



IAT



HOAT



LOAT



OAT



Si-OAT



P-OAT



Psi-OAT

**Note:** The colour indicating the coolant type is the most-used factory fill for that OEM/year. If another type appears in brackets, it was still in use on some models or in certain markets during that year (e.g., transition between specifications), or gives more information about the most-used type like base fluid, colour or inhibitors.

\*(1) = (& IAT) \*(2) = (& HOAT) \*(3) = (& LOAT) \*(4) = (& OAT) \*(5) = (& Si-OAT) \*(6) = (& P-OAT) \*(7) = (& Psi-OAT) \*(8) = (glycerin) \*(9) = (pink) \*(10) = (blue) \*(11) = \*(nitrited) \*(12) = \*(nitrite-free)

## Technologies used by passenger car OEMs - historical evolution

| OEM           | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |      |
|---------------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Alfa Romeo    |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  |      |
| Audi          |      |      |      |      |      |      |       |       |       |       | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(8)  | *(8)  | *(8)  | *(8)  | *(8)  |       |       |       |       |       |       |       |      |
| BMW           |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       | *(2)  | *(2)  |       |       |       |       |       |       |       |       |       |      |
| BYD           | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A   | N/A   | N/A   | N/A   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | *(5)  | *(5)  | *(5)  | *(5)  | *(5) |
| Chery         | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A   | N/A   | N/A   | N/A   |       |       |       |       |       |       |       |       |       |       | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  |      |
| Chrysler      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Citroen       |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  |      |
| Dacia         |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Daewoo        |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Fiat & Lancia |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  |      |
| Ford          |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  |       |       |       |       |       |       |       |      |
| Geely         | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A   | N/A   | N/A   | N/A   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| GM            |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Great Wall    | N/A  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A   | N/A   | N/A   | N/A   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Honda         |      |      |      |      |      |      | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) |      |
| Hyundai/Kia   |      |      |      |      |      |      |       |       |       |       |       | *(1)  | *(1)  | *(1)  | *(1)  | *(1)  | *(1)  | *(1)  |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Jaguar        |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Land Rover    |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Mazda         |      |      |      |      |      |      |       |       |       |       |       |       |       | *(1)  | *(1)  | *(1)  | *(1)  | *(1)  |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Mercedes      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Mitsubishi    |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Nissan        |      |      |      |      |      |      |       |       |       |       |       | *(3)  | *(3)  | *(3)  | *(3)  | *(3)  | *(3)  | *(3)  | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) | *(10) |      |
| Opel          |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Peugeot       |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  |      |
| Porsche       |      |      |      |      |      |      |       |       |       |       | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(8)  | *(8)  | *(8)  | *(8)  | *(8)  | *(8)  |       |       |       |       |       |       |      |
| Renault       |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  |       |       |       |       |       |       |       |      |
| Saab          |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Seat          |      |      |      |      |      |      |       |       |       |       | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(8)  | *(8)  | *(8)  | *(8)  | *(8)  | *(8)  |       |       |       |       |       |       |      |
| Skoda         |      |      |      |      |      |      |       |       |       |       | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(8)  | *(8)  | *(8)  | *(8)  | *(8)  | *(8)  |       |       |       |       |       |       |      |
| SsangYong     |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  | *(2)  |      |
| Suzuki        |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |
| Toyota        |      |      |      |      |      |      |       |       |       | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  | *(9)  |      |
| Volkswagen    |      |      |      |      |      |      |       |       |       |       | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(4)  | *(8)  | *(8)  | *(8)  | *(8)  | *(8)  |       |       |       |       |       |       |      |
| Volvo         |      |      |      |      |      |      |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |      |

Coolant Type

IAT

HOAT

LOAT

OAT

Si-OAT

P-OAT

PSi-OAT

**Note:** The colour indicating the coolant type is the most-used factory fill for that OEM/year. If another type appears in brackets, it was still in use on some models or in certain markets during that year (e.g., transition between specifications), or gives more information about the most-used type like base fluid, colour or inhibitors.

\*(1) = (& IAT) \*(2) = (& HOAT) \*(3) = (& LOAT) \*(4) = (& OAT) \*(5) = (& Si-OAT) \*(6) = (& P-OAT) \*(7) = (& PSi-OAT) \*(8) = (glycerin) \*(9) = (pink) \*(10) = (blue) \*(11) = \*(nitrited) \*(12) = \*(nitrite-free)

## Product range (1 / 1)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                             | Q8 Brake Fluid DOT 4+ | Q8 Brake Fluid DOT 4 LV | Q8 Brake Fluid DOT 5.1 LV | Q8 LHM+ | Q8 CHF 22S | Q8 PSF 32S |
|-----------------------------|-----------------------|-------------------------|---------------------------|---------|------------|------------|
| BMW/MINI 54 34 0 392 235    |                       |                         |                           |         | ✓          |            |
| BMW/MINI 54 34 0 394 395    |                       |                         |                           |         | ✓          |            |
| BMW/MINI 54 34 7 117 733    |                       |                         |                           |         | ✓          |            |
| BMW/MINI 82 11 0 14 8 132   |                       |                         |                           |         | ✓          |            |
| BMW/MINI 82 11 1 468 041    |                       |                         |                           |         | ✓          |            |
| BMW/MINI 83 29 0 429 576    |                       |                         |                           |         | ✓          |            |
| Bosch TE-ML 09              |                       |                         |                           |         |            | ✓          |
| Chrysler MS-11655           |                       |                         |                           |         | ✓          |            |
| Chrysler P-N 05127381AB     |                       |                         |                           |         | ✓          |            |
| Chrysler P-N 68088485AA     |                       |                         |                           |         | ✓          |            |
| DIN 51524-3 HVLP            |                       |                         |                           | •       |            |            |
| Fendt X 902 011 622         |                       |                         |                           |         | ✓          |            |
| Fiat 9.55550-AG2            |                       |                         |                           |         |            | ✓          |
| Fiat 9.55550-SA1            |                       |                         |                           |         | ✓          |            |
| FMVSS 116 DOT 3             | •                     | •                       | •                         |         |            |            |
| FMVSS 116 DOT 4             | •                     | •                       | •                         |         |            |            |
| FMVSS 116 DOT 4 LV          |                       | •                       |                           |         |            |            |
| FMVSS 116 DOT 5.1           |                       |                         | •                         |         |            |            |
| FMVSS 116 DOT 5.1 LV        |                       |                         | •                         |         |            |            |
| Ford 204-A1                 |                       |                         |                           |         | ✓          |            |
| Ford M2C204-A2              |                       |                         |                           |         | ✓          |            |
| Ford M6C65-A2               |                       | •                       |                           |         |            |            |
| GM B 040 2012               |                       |                         |                           |         | ✓          |            |
| GM Dexron III               |                       |                         |                           |         |            | ✓          |
| Honda PSF-1                 |                       |                         |                           |         |            | ✓          |
| Honda PSF-S                 |                       |                         |                           |         |            | ✓          |
| Honda PSF-V                 |                       |                         |                           |         |            | ✓          |
| Hyundai/Kia P-N 00232-19017 |                       |                         |                           |         | ✓          |            |
| Hyundai/Kia PSF-4           |                       |                         |                           |         | ✓          |            |
| ISO 4925 Class 4            | •                     |                         | •                         |         |            |            |
| ISO 4925 Class 5.1          |                       |                         | •                         |         |            |            |
| ISO 4925 Class 6            |                       | •                       | •                         |         |            |            |
| ISO 4925 Class 7            |                       |                         | •                         |         |            |            |
| ISO 7308                    |                       |                         |                           | •       | •          |            |

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                           | Q8 Brake Fluid DOT 4+ | Q8 Brake Fluid DOT 4 LV | Q8 Brake Fluid DOT 5.1 LV | Q8 LHM+ | Q8 CHF 22S | Q8 PSF 32S |
|-------------------------------------------|-----------------------|-------------------------|---------------------------|---------|------------|------------|
| JIS K 2233 Class 4                        | •                     |                         |                           |         |            |            |
| JIS K 2233 Class 6                        |                       | •                       |                           |         |            |            |
| Land-Rover Cold Climate PAS Fluid LRN2261 |                       |                         |                           |         | ✓          |            |
| Land-Rover LR003401                       |                       |                         |                           |         | ✓          |            |
| MAN M 3289                                |                       |                         |                           |         | ✓          |            |
| MB 236.3                                  |                       |                         |                           |         |            | ✓          |
| MB 345.0 (DTFR 31B120)                    |                       |                         |                           |         | ✓          |            |
| MB P-N 001 989 24 03 10                   |                       |                         |                           |         | ✓          |            |
| MB P-N 001 989 24 03 12                   |                       |                         |                           |         | ✓          |            |
| MB P-N Q 1 32 0001                        |                       |                         |                           |         | ✓          |            |
| Porsche P-N 000 043 203 33                |                       |                         |                           |         | ✓          |            |
| Porsche P-N 000 043 206 56                |                       |                         |                           |         | ✓          |            |
| PSA 9735-EJ                               |                       |                         |                           |         | ✓          |            |
| PSA 9979-A1                               |                       |                         |                           |         | ✓          |            |
| PSA B71 2710                              |                       |                         |                           | •       |            |            |
| PSA S71 2710                              |                       |                         |                           |         | •          |            |
| Saab P-N 3032 380                         |                       |                         |                           |         | ✓          |            |
| Saab P-N 9316 0548                        |                       |                         |                           |         | ✓          |            |
| SAE J 1703                                | •                     | •                       | •                         |         |            |            |
| SAE J 1704                                | •                     | •                       | •                         |         |            |            |
| SAE J 1704 LV                             |                       | •                       | •                         |         |            |            |
| Toyota PSF NEW-W                          |                       |                         |                           |         | ✓          |            |
| VAG VW 501.14                             |                       | •                       |                           |         |            |            |
| VAG VW G 002 000                          |                       |                         |                           |         | ✓          |            |
| VAG VW G 004 000                          |                       |                         |                           |         | ✓          |            |
| VAG VW G 004 012                          |                       |                         |                           |         | ✓          |            |
| VAG VW TL 521 46                          |                       |                         |                           |         | •          |            |
| Volvo 97325                               |                       |                         |                           |         |            | ✓          |
| Volvo P-N 1161529                         |                       |                         |                           |         | ✓          |            |
| Volvo STD 1273.36                         |                       |                         |                           |         | •          |            |
| Volvo WSS-MWC204A                         |                       |                         |                           |         | ✓          |            |
| ZF TE-ML 02K                              |                       |                         |                           |         | ✓          |            |

Approved and recommended Q8Oils products in ZF Friedrichshafen AG "ZF TE-ML" Lubricants List (dd. 31/11/2022)

[illegible]

**A** = approved product

**R** = could be used but not approved

 = look at online list

 = no Q8Oils product listed

 = *obsolete list*

Approved and recommended Q8Oils products in ZF Friedrichshafen AG "ZF TE-ML" Lubricants List (dd. 31/11/2022)

[illegible]

**A** = approved product

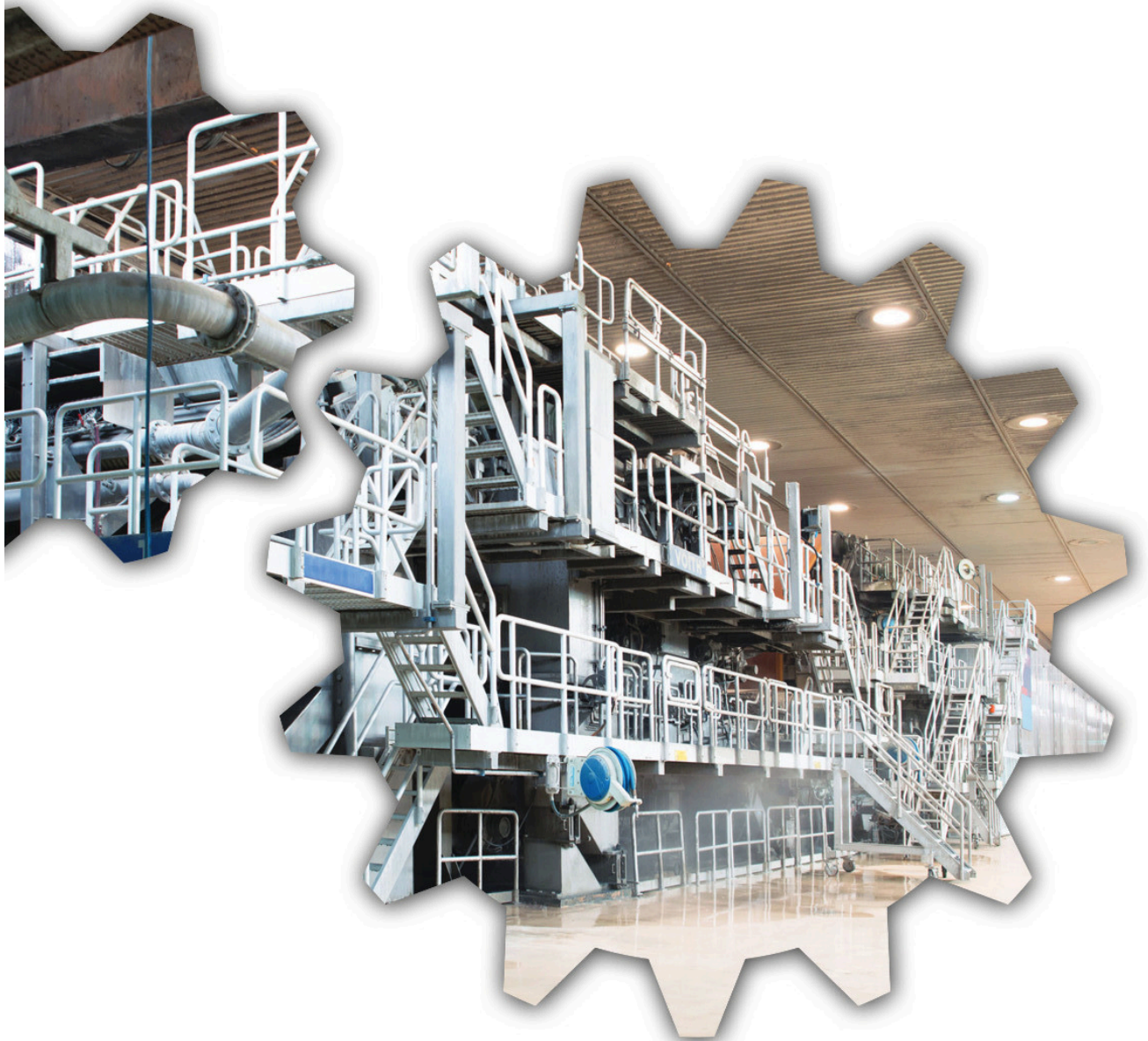
**R** = could be used but not approved

 = look at online list

 = no Q8Oils product listed

 = *obsolete list*

## 2. Industrial oils



## Product range

|          | Zinc Based   |               |                 |                                                   |                                                |                   | Zinc Free    |                                     |                                                 |               | Biodegradable             |                                                     |                                                           | Fire Resistant                  |                            |                                          | Food Grade           |
|----------|--------------|---------------|-----------------|---------------------------------------------------|------------------------------------------------|-------------------|--------------|-------------------------------------|-------------------------------------------------|---------------|---------------------------|-----------------------------------------------------|-----------------------------------------------------------|---------------------------------|----------------------------|------------------------------------------|----------------------|
|          | No Detergent |               |                 |                                                   |                                                | + Detergent       | No Detergent |                                     |                                                 | + Detergent   | Unsaturated Ester         | Saturated Ester                                     |                                                           | HFC<br>Based on<br>Water-Glycol | HFDU<br>Based on<br>Esters | HFDR<br>Based on<br>Phosphates<br>Esters |                      |
|          | Main Line    | Sustainable   | Grp II          | Grp III                                           | Auxiliary<br>technology                        |                   | Main Line    | Brugger<br>><br>30N/mm <sup>2</sup> | Auxiliary<br>technology                         |               |                           |                                                     |                                                           |                                 |                            |                                          |                      |
| VI ~ 100 | Q8<br>Haydn  | Q8<br>Hunt    | Q8<br>Henry (*) |                                                   | Q8<br>Hartmann<br><br>stick slip<br>properties | Q8<br>Heinichen   | Q8 Holst     | Q8<br>Holst EP                      | Q8<br>Holst CR<br><br>Q8 Bach Rxx<br>compatible |               |                           |                                                     |                                                           |                                 |                            |                                          | Q8<br>Verne          |
| VI » 150 | Q8<br>Heller | Q8<br>Hunt HV |                 |                                                   |                                                | Q8<br>Hoffmeister | Q8<br>Hanson |                                     | Q8<br>Schuman<br><br>PAO                        | Q8<br>Huygens |                           |                                                     |                                                           |                                 |                            |                                          | Q8<br>Rossini<br>HMG |
| VI » 180 | Q8<br>Handel |               |                 | Q8<br>Hogarth<br><br>Q8<br>Hogarth<br>Xtreme (**) |                                                | Q8<br>Handel D    | Q8<br>Halley |                                     |                                                 |               | Q8<br>Holbein<br>Bio Plus | Q8<br>Holbein<br>Bio Long<br>Life<br><br>Long drain | Q8<br>Holbein<br>Bio Xtreme<br><br>Extended<br>long drain | Q8<br>Hydroglix                 | Q8<br>Estin S              |                                          |                      |
| VI » 300 |              |               |                 |                                                   |                                                |                   |              |                                     | Q8<br>Hindemith<br><br>Naphtenic                |               |                           |                                                     |                                                           |                                 |                            |                                          |                      |

(\*) - Bosch Rexroth approval

(\*\*) - Bosch Rexroth approval pending



## Specifications & recommendations (1 / 1)

### Key

(dd. 03/09/2025)

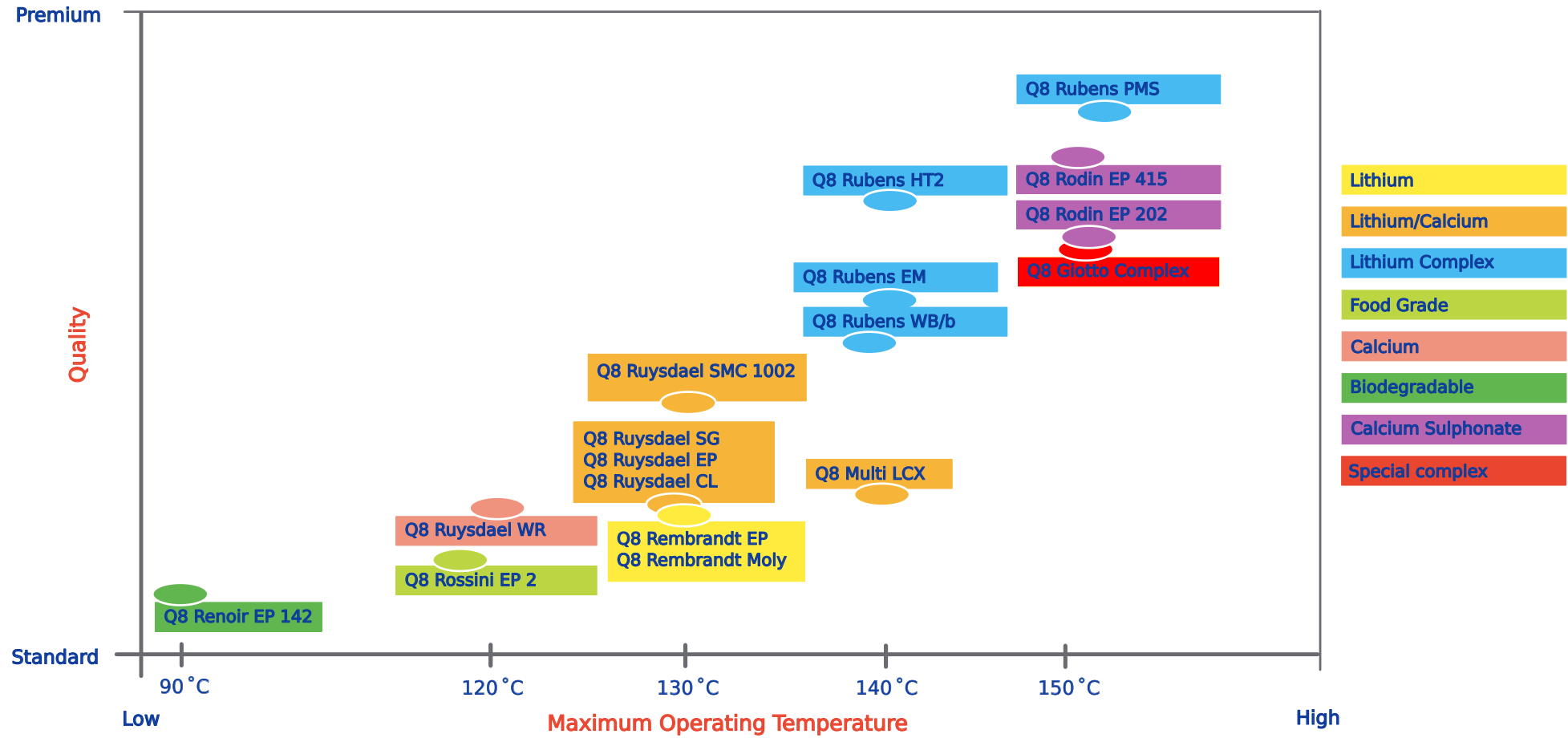
- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

|                                                              | Q8 Haydn | Q8 Heller | Q8 Handel | Q8 Hunt | Q8 Henry | Q8 Hogarth | Q8 Heinichen | Q8 Hoffmeister | Q8 Handel D | Q8 Holst | Q8 Hanson | Q8 Halley | Q8 Holst EP | Q8 Holst XEP | Q8 Holst CR | Q8 Hindemith | Q8 Huygens | Q8 Holbein | Q8 Rossini HMG | Roiloil Estin-S | Roiloil Hydroglix |
|--------------------------------------------------------------|----------|-----------|-----------|---------|----------|------------|--------------|----------------|-------------|----------|-----------|-----------|-------------|--------------|-------------|--------------|------------|------------|----------------|-----------------|-------------------|
| AFNOR 48-603 HV                                              |          | •         |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| AFNOR NF E 48-603 HM                                         | •        |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| Arburg HLP VG 46 (ZAF)                                       |          |           |           |         |          |            |              |                | ☑           |          |           |           | ☑           | ☑            |             |              |            |            |                |                 |                   |
| Bosch Rexroth RDE-90235                                      |          |           |           |         | ☑        |            |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| Bosch Rexroth RDE-90245                                      |          |           |           |         | ☑        |            |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| Bosch Rexroth RE 90220 notes                                 | ✓        | ✓         | ✓         |         | ✓        | ✓          | ✓            | ✓              | ✓           | ✓        | ✓         | ✓         | ✓           | ✓            | ✓           |              |            |            |                |                 |                   |
| Bosch Rexroth RE 90221 notes                                 |          |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            | ✓          |                |                 |                   |
| Danieli Standard 0.000.001-R15 (2023)                        | ☑        |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| Denison HF-0, HF-1, HF-2                                     | ☑        |           |           |         | ✓        | ☑          |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| DIN 51517-2 CL                                               | ✓        |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| DIN 51524-2 HLP                                              | •        |           |           | •       | •        |            |              |                |             | •        |           |           | •           | •            | •           |              |            |            |                |                 |                   |
| DIN 51524-2 HLPD                                             |          |           |           |         |          |            | •            |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| DIN 51524-3 HVLP                                             |          | •         | •         |         |          | •          |              |                |             |          | •         | •         |             |              |             | •            |            |            | •              |                 |                   |
| DIN 51524-3 HVLPD                                            |          |           |           |         |          |            |              | •              | •           |          |           |           |             |              |             |              | •          |            |                |                 |                   |
| Eaton Brochure 03-401-2010                                   | ✓        | ✓         | ✓         |         | ✓        | ✓          | ✓            | ✓              | ✓           | ✓        | ✓         | ✓         |             |              |             |              |            |            |                |                 |                   |
| ISO 11158 HM                                                 | •        |           |           | •       | •        |            | •            |                |             | •        |           |           | •           | •            | •           |              |            |            |                |                 |                   |
| ISO 11158 HV                                                 |          | •         | •         |         |          | •          |              | •              |             |          | •         | •         |             |              |             | •            | •          |            | •              |                 |                   |
| ISO 15380 HEES                                               |          |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            | •          |                | •               |                   |
| ISO 21469                                                    |          |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            |            | •              |                 |                   |
| MAG IAS P-68, P-69, P-70                                     | •        |           |           |         | •        | •          |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| Swedish Defense FSD 8401                                     |          |           |           |         |          |            |              |                |             |          |           |           |             |              |             | •            |            |            |                |                 |                   |
| Swedish Standard SS 155434 AM                                | •        |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| Swedish Standard SS 155434 AV                                |          |           | •         |         |          | •          |              |                |             |          |           |           |             |              |             |              |            |            |                |                 |                   |
| Swedish Standard SS 155434 BBV 22 Environmentally acceptable |          |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            | •          |                |                 |                   |
| Swedish Standard SS 155434 BBV 32 Environmentally acceptable |          |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            | •          |                |                 |                   |
| Swedish Standard SS 155434 BVV 46 Environmentally acceptable |          |           |           |         |          |            |              |                |             |          |           |           |             |              |             |              |            | •          |                |                 |                   |
| Volvo STD 1286.07                                            |          |           |           |         |          |            |              |                |             |          |           |           |             |              |             | ✓            |            |            |                |                 |                   |

## Product range

| Product                       | DIN 51502    | ISO 6743-9    | NLGI Class | Soap Type           | Base Oil Type | Base Oil Viscosity @ 40°C mm <sup>2</sup> /s | Operating Temp Range (Peak) °C | Drop Point °C | 4 Ball Weld Load N |
|-------------------------------|--------------|---------------|------------|---------------------|---------------|----------------------------------------------|--------------------------------|---------------|--------------------|
| Q8 Copper Thread              | N/A          | N/A           | 1-2        | Bentonite           | Min           | N/A                                          | -30/1100                       | no            | 3400               |
| Q8 Giotto Complex             | KPGOG0.5N-30 | L-XCDIB0.5    | 0-1        | LiCa-X              | Min           | 800                                          | -30/140(180)                   | 260           | >7500              |
| Q8 Giotto Special (spray can) | KPGOG0.5N-30 | L-XCDIB0.5    | 0-1        | LiCa-X              | Min           | 800                                          | -30/140(180)                   | 260           | >7500              |
| Q8 Multi LCX 2                | KP2K-20      | L-XBCDB2      | 2          | LiCa                | Min           | 310                                          | -20/140                        | >180          | 3100               |
| Q8 Rembrandt EP 00 WV         | KP00G-30     | L-XCBEB00     | 0          | Li                  | Min           | 40                                           | -30/100(110)                   | >160          | 2400               |
| Q8 Rembrandt EP 00            | KP00K-30     | L-XCCHB00     | 0          | Li                  | Min           | 280                                          | -30/120                        | 170           | 2450               |
| Q8 Rembrandt EP 0             | KP0K-30      | L-XCCFB0      | 0          | Li                  | Min           | 200                                          | -30/120(130)                   | 200           | 2450               |
| Q8 Rembrandt EP 1             | KP1K-30      | L-XCCFB1      | 1          | Li                  | Min           | 200                                          | -30/120(130)                   | 205           | 2450               |
| Q8 Rembrandt EP 2             | KP2K-30      | L-XCCFB2      | 2          | Li                  | Min           | 190                                          | -30/120(130)                   | 205           | 2450               |
| Q8 Rembrandt EP 3             | KP3K-20      | L-XBCFB3      | 3          | Li                  | Min           | 280                                          | -20/120(130)                   | >180          | 2600               |
| Q8 Rembrandt Moly 2           | KPF2K-30     | L-XCCHB2      | 2          | Li+MoS <sub>2</sub> | Min           | 120                                          | -30/120(130)                   | 190           | 2750               |
| Q8 Renoir EP 132              | KPE2E-20     | L-XABIB2      | 2          | AnhCa               | Veg+SynEs     | 130                                          | -20/90(100)                    | >140          | 2800               |
| Q8 Reynolds OC AD             | N/A          | N/A           | 2          | LiCa                | Min           | 260                                          | -20/120(130)                   | >180          | -                  |
| Q8 Reynolds OC 150            | N/A          | N/A           | 2-3        | Bentonite           | Min           | -                                            | -40/150                        | no            | -                  |
| Q8 Rodin EP 202               | KP2N-30      | L-XB(F)DIB2   | 2          | CaSul-X             | Min           | 290                                          | -30/140(220)                   | >280          | >7500              |
| Q8 Rodin EP 415               | KP1.5N-20    | L-XB(F)DIB1.5 | 1-2        | CaSul-X             | Min           | 400                                          | -20/140(220)                   | >300          | >5000              |
| Q8 Rossini EP 2               | KP2K-20      | L-XBCEB2      | 2          | Al-X                | White         | 570                                          | -20/120(140)                   | 256           | 6000               |
| Q8 Rubens 00                  | KP00G-35     | L-XCBIB00     | 0          | Li-X                | Min           | 115                                          | -35/100(120)                   | 170           | 2350               |
| Q8 Rubens EM 2                | KP2N-30      | L-XCDHB2      | 2          | Li-X                | Min           | 110                                          | -30/140 (220)                  | >260          | 2600               |
| Q8 Rubens EM 3                | KP3N-30      | L-XCDEB3      | 3          | Li-X                | Min           | 110                                          | -30/140(160)                   | >260          | 2600               |
| Q8 Rubens HT 2                | KP2N-20      | L-XBDIB2      | 2          | Li-X                | Min           | 520                                          | -20/140(220)                   | >260          | 3400               |
| Q8 Rubens PMS 222             | KPHC2N-40    | L-XDDIB2      | 2          | Li-X                | PAO           | 220                                          | -40/150(220)                   | >260          | 3400               |
| Q8 Rubens PMS 462             | KPHC2N-40    | L-XDDIB2      | 2          | Li-X                | PAO           | 460                                          | -40/150(220)                   | >260          | 3600               |
| Q8 Rubens WB/b                | KP2N-30      | L-XCDIB2      | 2          | Li-X                | Min           | 210                                          | -30/140(220)                   | >260          | 2800               |
| Q8 Ruysdael EP 2              | KP2K-20      | L-XBCHB2      | 2          | LiCa                | Min           | 260                                          | -20/120(130)                   | 190           | 4200               |
| Q8 Ruysdael SG                | KP2.5K-20    | L-XBCHB2.5    | 2-3        | LiCa                | Min           | 520                                          | -20/120(130)                   | >160          | 4200               |
| Q8 Ruysdael SMC 1002          | KPF2K-20     | L-XB(F)CHB2   | 2          | LiCa                | Min           | 1000                                         | -20/120(130)                   | >180          | >7500              |
| Q8 Ruysdael WR                | KP2K-20      | L-XBCIB2      | 2          | AnhCa               | Min           | 790                                          | -20/120(130)                   | 150           | 2800               |

## Positioning



## Miscibility of grease thickeners

| Thickener                  | Aluminium Complex | Barium Complex | Calcium | Lithium Calcium | Calcium Complex | Calcium Sulphonate Complex | Clay (Bentone) | Lithium | Lithium Complex | Polyurea | Sodium (Natrium) |
|----------------------------|-------------------|----------------|---------|-----------------|-----------------|----------------------------|----------------|---------|-----------------|----------|------------------|
| Aluminium Complex          |                   | ✓              | ✓       | ✗               | !               | ✗                          | ✗              | ✗       | ✓               | !        | ✗                |
| Barium Complex             | ✓                 |                | !       | !               | ✗               | !                          | !              | !       | !               | !        | ✓                |
| Calcium                    | ✓                 | !              |         | ✓               | !               | !                          | ✓              | ✓       | ✓               | ✗        | ✗                |
| Lithium Calcium            | ✗                 | !              | ✓       |                 | ✓               | !                          | ✓              | ✓       | ✓               | !        | ✗                |
| Calcium Complex            | !                 | ✗              | !       | ✓               |                 | ✓                          | !              | ✗       | ✓               | ✓        | !                |
| Calcium Sulphonate Complex | ✗                 | !              | !       | !               | ✓               |                            | ✗              | ✓       | ✓               | ✓        | ✗                |
| Clay (Bentone)             | ✗                 | !              | ✓       | ✓               | !               | ✗                          |                | !       | ✗               | !        | !                |
| Lithium                    | ✗                 | !              | ✓       | ✓               | ✗               | ✓                          | !              |         | ✓               | !        | ✗                |
| Lithium Complex            | ✓                 | !              | ✓       | ✓               | ✓               | ✓                          | ✗              | ✓       |                 | ✗        | !                |
| Polyurea                   | !                 | !              | ✗       | !               | ✓               | ✓                          | !              | !       | ✗               |          | !                |
| Sodium (Natrium)           | ✗                 | ✓              | ✗       | ✗               | !               | ✗                          | !              | ✗       | !               | !        |                  |

## Miscibility of base oils in greases

| Base Oil                   | Ester | Mineral Oil | Polyalpha olefin | Poly Glycol | Perfluoro polyether (PFPE) |
|----------------------------|-------|-------------|------------------|-------------|----------------------------|
| Ester                      |       | ✓           | ✓                | ✓           | ✗                          |
| Mineral Oil                | ✓     |             | ✓                | ✗           | ✗                          |
| Polyalpha olefin           | ✓     | ✓           |                  | ✗           | ✗                          |
| Poly glycol                | ✓     | ✗           | ✗                |             | ✗                          |
| Perfluoro polyether (PFPE) | ✗     | ✗           | ✗                | ✗           |                            |

### Key

- ✓ Compatible
- ! Requires Testing
- ✗ Incompatible

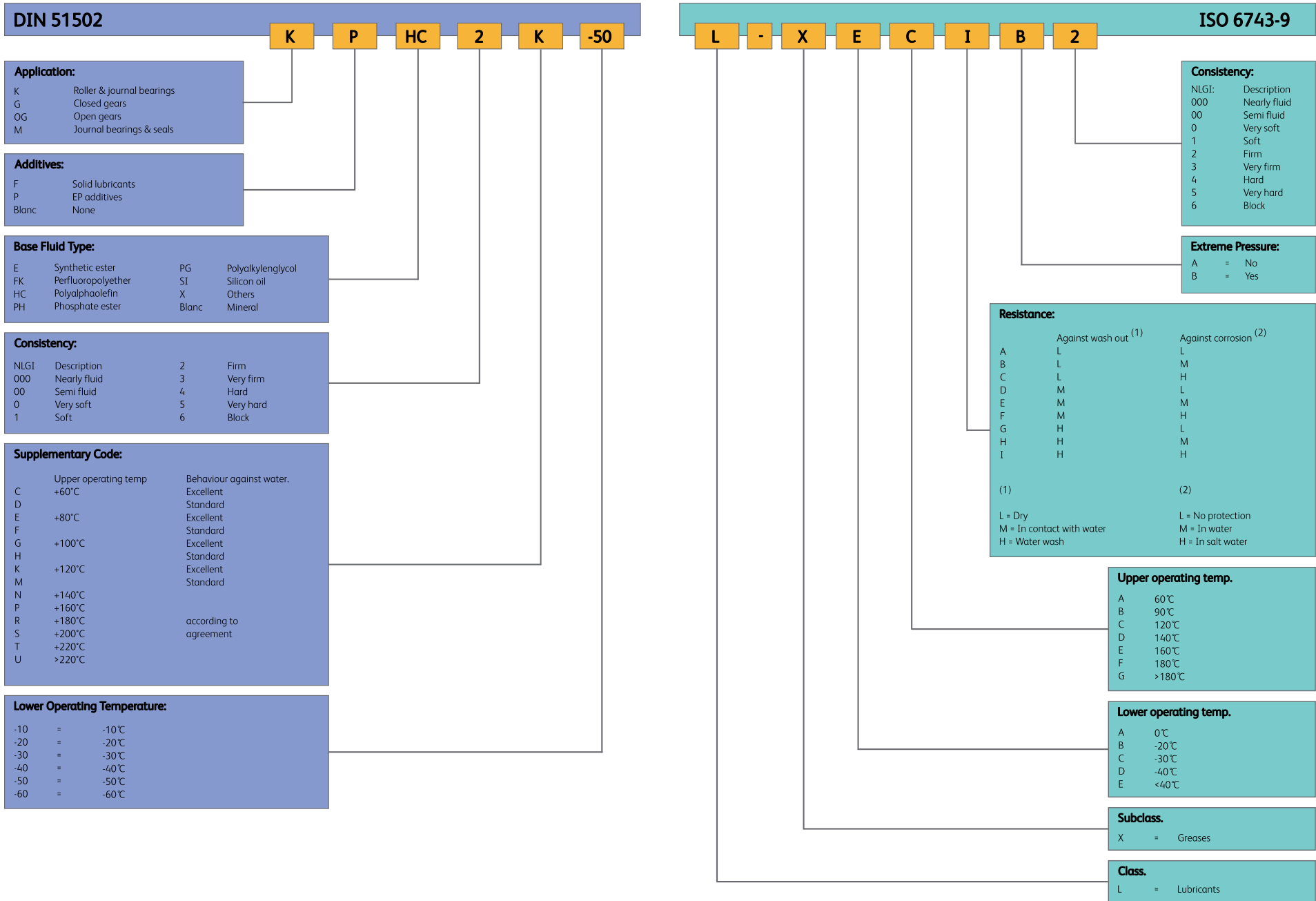
### Notes

Flush out as much old grease as possible

This chart only explains which greases are compatible.

Do not confuse this with comparable in terms of performance

## DIN & ISO specifications



## Specifications & recommendations (1 / 1)

### Key

(dd. 03/09/2025)

- *Specification*
- ☑ *Approval*
- ☑\* *Pending approval*
- ✓ *Recommendation*

|                                       | Q8 Verdi | Q8 Goya              | Q8 Goya NT                               | Q8 El Greco                                 | Q8 Galilei           | Q8 Gade SFX          | Q8 Rossini G         | Q8 Schumann G         |
|---------------------------------------|----------|----------------------|------------------------------------------|---------------------------------------------|----------------------|----------------------|----------------------|-----------------------|
| Mineral                               | ✓        | ✓                    | ✓                                        |                                             | ✓                    |                      |                      |                       |
| Synthetic base                        |          |                      |                                          |                                             |                      |                      |                      |                       |
| PAO (Poly Alpha Olefine)              |          |                      |                                          | ✓                                           |                      |                      | ✓                    | ✓                     |
| PAG (Polyalkylene Glycol)             |          |                      |                                          |                                             |                      | ✓                    |                      |                       |
| FZG Test, A/8.3/90, pass              | N/A      | >12 (ISO VG 46-1000) | >12 (ISO VG 150)<br>>14 (ISO VG 220-460) | >12 (ISO VG 68-150)<br>>14 (ISO VG 220-680) | >14 (ISO VG 150-680) | >14 (ISO VG 220-460) | >12 (ISO VG 150-220) | >12 (ISO VG 150-1000) |
| FZG Grey staining test, 60°C, pass    | N/A      | N/A                  | 10                                       | 10                                          | 10                   | 10                   | N/A                  | N/A                   |
| ANSI/AGMA 9005-E02 4 EP               |          |                      |                                          | ✓                                           |                      |                      |                      |                       |
| ANSI/AGMA 9005-E02 5 EP               |          |                      |                                          | ✓                                           |                      |                      |                      |                       |
| ANSI/AGMA 9005-E02 6 EP               |          |                      |                                          | ✓                                           |                      |                      |                      |                       |
| ANSI/AGMA 9005-F16                    |          | •                    | •                                        | •                                           | •                    |                      |                      | •                     |
| Danieli 0.597647.G - CLP 220          |          | ☑                    |                                          |                                             |                      |                      |                      |                       |
| Danieli Standard 0.000.001-R15 (2023) |          | ☑                    |                                          |                                             |                      |                      |                      |                       |
| DIN 51506 VBL                         | •        |                      |                                          |                                             |                      |                      |                      |                       |
| DIN 51515-1 L-TD                      | •        |                      |                                          |                                             |                      |                      |                      |                       |
| DIN 51517-2 CL                        | •        |                      |                                          |                                             |                      |                      |                      |                       |
| DIN 51517-3 CLP                       |          | •                    | •                                        |                                             | •                    |                      | ✓                    |                       |
| DIN 51517-3 CLP-HC                    |          |                      |                                          | •                                           |                      |                      |                      | •                     |
| DIN 51517-3 CLP-PG                    |          |                      |                                          |                                             |                      | •                    |                      |                       |
| DIN 51524-1 HL                        | •        |                      |                                          |                                             |                      |                      |                      |                       |
| IEC 61400-4                           |          |                      |                                          |                                             | •                    |                      |                      |                       |
| ISO 12925-1 CKC-CKD                   |          | •                    | •                                        | •                                           | •                    | •                    |                      | •                     |
| ISO 12925-1 CKE                       |          |                      |                                          | •                                           | •                    | •                    |                      | •                     |
| ISO 21469                             |          |                      |                                          |                                             |                      |                      | •                    |                       |
| ISO 6743-4 HL                         | •        |                      |                                          |                                             |                      |                      |                      |                       |
| Moventas Field trial                  |          |                      |                                          |                                             | ✓                    |                      |                      |                       |
| Siemens Flender MD rev. 16.2          |          |                      |                                          |                                             | ☑                    |                      |                      |                       |
| Winergy Field trial                   |          |                      |                                          |                                             | ✓                    |                      |                      |                       |

# Demoulding Oils

## Product range

| Product name |                  |                                                                                                                                                                                                   | Kinematic Viscosity<br>@ 40°C<br>(mm <sup>2</sup> /s) | Biodegradability<br>28 days OECD<br>301B<br>(%) | Pour Point<br>(°C) | Flash Point<br>(°C) |
|--------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------|--------------------|---------------------|
| Applications | Concrete         | Q8 da Vinci 6                                                                                                                                                                                     | 6                                                     | 55                                              | -21                | 130                 |
|              |                  | Demoulding of prefab sewage pipes connector part (sloping mould) and on-site elements and tiles, with anti-rust additive for steel mould (high flash, light colour, low odour)                    |                                                       |                                                 |                    |                     |
|              |                  | Q8 da Vinci 8                                                                                                                                                                                     | 8                                                     | 55                                              | -15                | 140                 |
|              |                  | Demoulding of on-site elements for vertical and warm moulds, with anti-rust additive for steel mould (high flash, light colour, low odour)                                                        |                                                       |                                                 |                    |                     |
|              |                  | Q8 da Vinci 20                                                                                                                                                                                    | 20                                                    |                                                 | -15                | 130                 |
|              |                  | Demoulding based on lubricity film for fast industrial series; with anti-rust additive for the mould                                                                                              |                                                       |                                                 |                    |                     |
|              |                  | Q8 da Vinci P6                                                                                                                                                                                    | 6                                                     | 55                                              | -33                | 134                 |
|              |                  | Demoulding of prefab sewage pipes connectors part (sloping mould) and on-site elements, with some anti-rust additive and low pour point for steel mould (high flash, light colour, low odour)     |                                                       |                                                 |                    |                     |
|              |                  | Q8 da Vinci P8                                                                                                                                                                                    | 8                                                     | 55                                              | -21                | 148                 |
|              |                  | General concrete demoulding for warm mould, with anti-rust additive for steel mould (high flash, light colour, low odour)                                                                         |                                                       |                                                 |                    |                     |
|              | Aerated concrete | Q8 da Vinci AM 4                                                                                                                                                                                  | 4                                                     | 55                                              | -24                | 128                 |
|              |                  | Demoulding elements and of prefab concrete foundation piles, on-site elements with tackiness/bio anti-mist, anti-rust additive and adhesive for steel mould (high flash, light colour, low odour) |                                                       |                                                 |                    |                     |
|              |                  | Q8 da Vinci AM 5                                                                                                                                                                                  | 5                                                     | 55                                              | -30                | 130                 |
|              |                  | Demoulding elements and of prefab concrete foundation piles, on-site elements with anti-mist, anti-rust additive and adhesive for steel mould (high flash, light colour, low odour)               |                                                       |                                                 |                    |                     |
|              |                  | Q8 Dalton 100                                                                                                                                                                                     | 100                                                   |                                                 | -12                | 254                 |
|              |                  | Demoulding for aerated concrete                                                                                                                                                                   |                                                       |                                                 |                    |                     |
|              |                  | Q8 Dalton 140                                                                                                                                                                                     | 140                                                   |                                                 | -12                | 280                 |
|              |                  | Demoulding for aerated concrete                                                                                                                                                                   |                                                       |                                                 |                    |                     |
|              |                  | Q8 Dalton 320                                                                                                                                                                                     | 320                                                   |                                                 | -12                | 290                 |
|              |                  | Demoulding for aerated concrete                                                                                                                                                                   |                                                       |                                                 |                    |                     |
|              | Tiles            | Q8 Dalton 400                                                                                                                                                                                     | 400                                                   |                                                 | -12                | >220                |
|              |                  | Demoulding for aerated concrete                                                                                                                                                                   |                                                       |                                                 |                    |                     |
|              |                  | Q8 Dalton 500                                                                                                                                                                                     | 500                                                   |                                                 | -12                | 300                 |
|              |                  | Demoulding for aerated concrete (low odour, light colour, homogeneous layer, clean mould, anti-mist)                                                                                              |                                                       |                                                 |                    |                     |
|              | Asphalt          | Q8 Dino XL 12                                                                                                                                                                                     | 12                                                    |                                                 | -9                 | 182                 |
|              |                  | Solvent free and low odour anti-sticking agent for steel grids                                                                                                                                    |                                                       |                                                 |                    |                     |
|              |                  | Q8 Dali 4                                                                                                                                                                                         | 4                                                     | 60                                              | -24                | 128                 |
|              |                  | Demoulding for Eternit (fibre cement), tiles, with rust protection for mould                                                                                                                      |                                                       |                                                 |                    |                     |
|              |                  | Q8 Dali 11                                                                                                                                                                                        | 11                                                    |                                                 | -15                | 174                 |
|              |                  | Demoulding for Eternit (fibre cement), tiles, with strong rust protection for mould                                                                                                               |                                                       |                                                 |                    |                     |
|              |                  | Q8 Dino 3.5                                                                                                                                                                                       | 3.5                                                   | 61                                              | -18                | 130                 |
|              |                  | Readily biodegradable Anti-Stick oil                                                                                                                                                              |                                                       |                                                 |                    |                     |
|              |                  | Q8 Dusart Bio 3.5                                                                                                                                                                                 | 3.6                                                   | 73                                              | -9                 | 132                 |
|              |                  | Readily biodegradable Anti-Stick oil                                                                                                                                                              |                                                       |                                                 |                    |                     |
|              |                  | Q8 da Vinci AM4                                                                                                                                                                                   | 4                                                     | 55                                              | -24                | 128                 |
|              |                  | Anti-stick oil                                                                                                                                                                                    |                                                       |                                                 |                    |                     |

P = Pourpoint depressent; AM = Anti-Mist; AMP = Anti-Mist + Pourpoint depressent; WS = Water Soluble

# Heat transfer oils

## Product range

| Q8 Gluck                            |        |       | E               | L     | M     | S     | H     | W      |
|-------------------------------------|--------|-------|-----------------|-------|-------|-------|-------|--------|
|                                     | Method | Units | Inspection Data |       |       |       |       |        |
| Absolute Density, 15°C              | D 4052 | kg/m³ | 848             | 862   | 868   | 873   | 878   | 884    |
| Kinematic Viscosity, 40°C           | D 445  | mm²/s | 8.00            | 12.25 | 20.22 | 35.61 | 60.15 | 128.00 |
| Kinematic Viscosity, 100°C          | D 445  | mm²/s | 2.30            | 2.92  | 4.00  | 5.77  | 7.99  | 13.20  |
| Viscosity Index                     | D 2270 | -     | 87              | 80    | 89    | 102   | 98    | 96     |
| Flash Point                         | D 92   | °C    | 154             | 174   | 190   | 216   | 242   | 280    |
| Pour Point                          | D 97   | °C    | -42             | -36   | -24   | -15   | -15   | -12    |
| Max film temperature, closed system |        | °C    | 260             | 280   | 330   | 330   | 320   | 300    |

| Q8 Gluck E  |                     |               |         |                      |                   |             |
|-------------|---------------------|---------------|---------|----------------------|-------------------|-------------|
| Temperature | Kinematic Viscosity | Specific Heat | Density | Thermal Conductivity | Dynamic Viscosity | Prandtl nr° |
| °C          | mm²/s               | kJ/kg K       | kg/m³   | W/m K                | mPas              |             |
| 0           | 38.51               | 1.833         | 859     | 0.1383               | 33.07             | 438         |
| 10          | 23.66               | 1.870         | 852     | 0.1375               | 20.15             | 274         |
| 20          | 15.61               | 1.907         | 844     | 0.1368               | 13.19             | 184         |
| 30          | 10.92               | 1.943         | 837     | 0.1360               | 9.14              | 131         |
| 40          | 8.00                | 1.980         | 830     | 0.1353               | 6.64              | 97          |
| 50          | 6.09                | 2.017         | 823     | 0.1345               | 5.01              | 75          |
| 60          | 4.79                | 2.054         | 816     | 0.1338               | 3.91              | 60          |
| 70          | 3.87                | 2.091         | 809     | 0.1330               | 3.13              | 49          |
| 80          | 3.19                | 2.128         | 802     | 0.1323               | 2.56              | 41          |
| 90          | 2.69                | 2.164         | 795     | 0.1315               | 2.14              | 35          |
| 100         | 2.30                | 2.201         | 787     | 0.1308               | 1.81              | 30          |
| 110         | 2.00                | 2.238         | 780     | 0.1301               | 1.56              | 27          |
| 120         | 1.75                | 2.275         | 773     | 0.1293               | 1.36              | 24          |
| 130         | 1.56                | 2.312         | 766     | 0.1286               | 1.19              | 21          |
| 140         | 1.40                | 2.348         | 759     | 0.1278               | 1.06              | 20          |
| 150         | 1.27                | 2.385         | 752     | 0.1271               | 0.95              | 18          |
| 160         | 1.15                | 2.422         | 745     | 0.1263               | 0.86              | 16          |
| 170         | 1.06                | 2.459         | 738     | 0.1256               | 0.78              | 15          |
| 180         | 0.98                | 2.496         | 731     | 0.1248               | 0.72              | 14          |
| 190         | 0.91                | 2.533         | 723     | 0.1241               | 0.66              | 13          |
| 200         | 0.85                | 2.569         | 716     | 0.1233               | 0.61              | 13          |
| 210         | 0.80                | 2.606         | 709     | 0.1226               | 0.57              | 12          |
| 220         | 0.75                | 2.643         | 702     | 0.1219               | 0.53              | 11          |
| 230         | 0.71                | 2.680         | 695     | 0.1211               | 0.50              | 11          |
| 240         | 0.68                | 2.717         | 688     | 0.1204               | 0.47              | 11          |
| 250         | 0.65                | 2.754         | 681     | 0.1196               | 0.44              | 10          |
| 260         | 0.62                | 2.790         | 674     | 0.1189               | 0.42              | 10          |
| 270         | 0.59                | 2.827         | 666     | 0.1181               | 0.40              | 9           |
| 280         | 0.57                | 2.864         | 659     | 0.1174               | 0.38              | 9           |
| 290         | 0.55                | 2.901         | 652     | 0.1166               | 0.36              | 9           |
| 300         | 0.53                | 2.938         | 645     | 0.1159               | 0.34              | 9           |
| 310         | 0.52                | 2.975         | 638     | 0.1151               | 0.33              | 9           |
| 320         | 0.50                | 3.011         | 631     | 0.1144               | 0.32              | 8           |
| 330         | 0.49                | 3.048         | 624     | 0.1137               | 0.30              | 8           |

| Q8 Gluck L  |                     |               |         |                      |                   |             |
|-------------|---------------------|---------------|---------|----------------------|-------------------|-------------|
| Temperature | Kinematic Viscosity | Specific Heat | Density | Thermal Conductivity | Dynamic Viscosity | Prandtl nr° |
| °C          | mm²/s               | kJ/kg K       | kg/m³   | W/m K                | mPas              |             |
| 0           | 79.21               | 1.818         | 873     | 0.1360               | 69.12             | 924         |
| 10          | 44.17               | 1.854         | 866     | 0.1353               | 38.23             | 524         |
| 20          | 26.93               | 1.891         | 858     | 0.1345               | 23.12             | 325         |
| 30          | 17.64               | 1.928         | 851     | 0.1338               | 15.02             | 216         |
| 40          | 12.25               | 1.964         | 844     | 0.1331               | 10.34             | 153         |
| 50          | 8.92                | 2.001         | 837     | 0.1323               | 7.46              | 113         |
| 60          | 6.75                | 2.037         | 830     | 0.1316               | 5.60              | 87          |
| 70          | 5.28                | 2.074         | 823     | 0.1309               | 4.34              | 69          |
| 80          | 4.24                | 2.110         | 816     | 0.1301               | 3.46              | 56          |
| 90          | 3.48                | 2.147         | 809     | 0.1294               | 2.82              | 47          |
| 100         | 2.92                | 2.183         | 801     | 0.1287               | 2.34              | 40          |
| 110         | 2.49                | 2.220         | 794     | 0.1279               | 1.98              | 34          |
| 120         | 2.15                | 2.256         | 787     | 0.1272               | 1.69              | 30          |
| 130         | 1.88                | 2.293         | 780     | 0.1265               | 1.47              | 2           |
| 140         | 1.67                | 2.329         | 773     | 0.1257               | 1.29              | 2           |
| 150         | 1.49                | 2.366         | 766     | 0.1250               | 1.14              | 22          |
| 160         | 1.35                | 2.402         | 759     | 0.1243               | 1.02              | 20          |
| 170         | 1.22                | 2.439         | 752     | 0.1235               | 0.92              | 18          |
| 180         | 1.12                | 2.475         | 745     | 0.1228               | 0.84              | 17          |
| 190         | 1.03                | 2.512         | 737     | 0.1221               | 0.76              | 16          |
| 200         | 0.96                | 2.548         | 730     | 0.1213               | 0.70              | 15          |
| 210         | 0.89                | 2.585         | 723     | 0.1206               | 0.65              | 14          |
| 220         | 0.84                | 2.622         | 716     | 0.1199               | 0.60              | 13          |
| 230         | 0.79                | 2.658         | 709     | 0.1191               | 0.56              | 12          |
| 240         | 0.75                | 2.695         | 702     | 0.1184               | 0.52              | 12          |
| 250         | 0.71                | 2.731         | 695     | 0.1177               | 0.49              | 11          |
| 260         | 0.67                | 2.768         | 688     | 0.1169               | 0.46              | 11          |
| 270         | 0.64                | 2.804         | 680     | 0.1162               | 0.44              | 11          |
| 280         | 0.62                | 2.841         | 673     | 0.1155               | 0.41              | 10          |
| 290         | 0.59                | 2.877         | 666     | 0.1147               | 0.39              | 10          |
| 300         | 0.57                | 2.914         | 659     | 0.1140               | 0.38              | 10          |
| 310         | 0.55                | 2.950         | 652     | 0.1133               | 0.36              | 9           |
| 320         | 0.53                | 2.987         | 645     | 0.1125               | 0.34              | 9           |
| 330         | 0.52                | 3.023         | 638     | 0.1118               | 0.33              | 9           |

| Q8 Gluck M  |                     |               |         |                      |                   |             |
|-------------|---------------------|---------------|---------|----------------------|-------------------|-------------|
| Temperature | Kinematic Viscosity | Specific Heat | Density | Thermal Conductivity | Dynamic Viscosity | Prandtl nr° |
| °C          | mm²/s               | kJ/kg K       | kg/m³   | W/m K                | mPas              |             |
| 0           | 171.44              | 1.812         | 878     | 0.1351               | 150.61            | 2020        |
| 10          | 87.73               | 1.848         | 871     | 0.1343               | 76.46             | 1052        |
| 20          | 49.76               | 1.884         | 865     | 0.1336               | 43.02             | 607         |
| 30          | 30.67               | 1.921         | 858     | 0.1329               | 26.30             | 380         |
| 40          | 20.22               | 1.957         | 851     | 0.1322               | 17.20             | 255         |
| 50          | 14.09               | 1.994         | 844     | 0.1314               | 11.88             | 180         |
| 60          | 10.27               | 2.030         | 837     | 0.1307               | 8.59              | 133         |
| 70          | 7.78                | 2.066         | 830     | 0.1300               | 6.45              | 103         |
| 80          | 6.08                | 2.103         | 823     | 0.1292               | 5.00              | 81          |
| 90          | 4.88                | 2.139         | 816     | 0.1285               | 3.98              | 66          |
| 100         | 4.00                | 2.176         | 809     | 0.1278               | 3.23              | 55          |
| 110         | 3.35                | 2.212         | 802     | 0.1271               | 2.68              | 47          |
| 120         | 2.85                | 2.248         | 795     | 0.1263               | 2.26              | 40          |
| 130         | 2.45                | 2.285         | 788     | 0.1256               | 1.93              | 35          |
| 140         | 2.14                | 2.321         | 781     | 0.1249               | 1.67              | 31          |
| 150         | 1.89                | 2.358         | 774     | 0.1241               | 1.47              | 28          |
| 160         | 1.69                | 2.394         | 767     | 0.1234               | 1.30              | 25          |
| 170         | 1.52                | 2.430         | 760     | 0.1227               | 1.16              | 23          |
| 180         | 1.38                | 2.467         | 753     | 0.1220               | 1.04              | 21          |
| 190         | 1.26                | 2.503         | 746     | 0.1212               | 0.94              | 19          |
| 200         | 1.16                | 2.540         | 739     | 0.1205               | 0.86              | 18          |
| 210         | 1.07                | 2.576         | 732     | 0.1198               | 0.78              | 17          |
| 220         | 1.00                | 2.612         | 725     | 0.1190               | 0.72              | 16          |
| 230         | 0.93                | 2.649         | 718     | 0.1183               | 0.67              | 15          |
| 240         | 0.87                | 2.685         | 711     | 0.1176               | 0.62              | 14          |
| 250         | 0.82                | 2.722         | 704     | 0.1169               | 0.58              | 13          |
| 260         | 0.78                | 2.758         | 697     | 0.1161               | 0.54              | 13          |
| 270         | 0.74                | 2.794         | 690     | 0.1154               | 0.51              | 12          |
| 280         | 0.70                | 2.831         | 683     | 0.1147               | 0.48              | 12          |
| 290         | 0.67                | 2.867         | 676     | 0.1140               | 0.45              | 11          |
| 300         | 0.64                | 2.904         | 669     | 0.1132               | 0.43              | 11          |
| 310         | 0.62                | 2.940         | 662     | 0.1125               | 0.41              | 11          |
| 320         | 0.60                | 2.976         | 655     | 0.1118               | 0.39              | 10          |
| 330         | 0.58                | 3.013         | 648     | 0.1110               | 0.37              | 10          |



# Heat transfer oils

## Product range

| Q8 Gluck S  |                     |               |         |                      |                   |             |
|-------------|---------------------|---------------|---------|----------------------|-------------------|-------------|
| Temperature | Kinematic Viscosity | Specific Heat | Density | Thermal Conductivity | Dynamic Viscosity | Prandtl nr* |
| °C          | mm²/s               | kJ/kg K       | kg/m³   | W/m K                | mPas              |             |
| 0           | 395.80              | 1.806         | 883     | 0.1343               | 349.60            | 4703        |
| 10          | 186.32              | 1.843         | 876     | 0.1336               | 163.30            | 2253        |
| 20          | 98.34               | 1.879         | 870     | 0.1328               | 85.52             | 1210        |
| 30          | 56.97               | 1.915         | 863     | 0.1321               | 49.15             | 712         |
| 40          | 35.61               | 1.952         | 856     | 0.1314               | 30.48             | 453         |
| 50          | 23.70               | 1.988         | 849     | 0.1307               | 20.12             | 306         |
| 60          | 16.60               | 2.024         | 842     | 0.1300               | 13.98             | 218         |
| 70          | 12.15               | 2.061         | 835     | 0.1292               | 10.14             | 162         |
| 80          | 9.21                | 2.097         | 828     | 0.1285               | 7.63              | 124         |
| 90          | 7.20                | 2.133         | 822     | 0.1278               | 5.91              | 99          |
| 100         | 5.77                | 2.169         | 815     | 0.1271               | 4.70              | 80          |
| 110         | 4.73                | 2.206         | 808     | 0.1263               | 3.82              | 67          |
| 120         | 3.95                | 2.242         | 801     | 0.1256               | 3.16              | 56          |
| 130         | 3.35                | 2.278         | 794     | 0.1249               | 2.66              | 49          |
| 140         | 2.89                | 2.315         | 787     | 0.1242               | 2.27              | 42          |
| 150         | 2.51                | 2.351         | 780     | 0.1234               | 1.96              | 37          |
| 160         | 2.22                | 2.387         | 774     | 0.1227               | 1.71              | 33          |
| 170         | 1.97                | 2.423         | 767     | 0.1220               | 1.51              | 30          |
| 180         | 1.77                | 2.460         | 760     | 0.1213               | 1.35              | 27          |
| 190         | 1.60                | 2.496         | 753     | 0.1205               | 1.21              | 25          |
| 200         | 1.46                | 2.532         | 746     | 0.1198               | 1.09              | 23          |
| 210         | 1.34                | 2.569         | 739     | 0.1191               | 0.99              | 21          |
| 220         | 1.23                | 2.605         | 732     | 0.1184               | 0.90              | 20          |
| 230         | 1.14                | 2.641         | 726     | 0.1176               | 0.83              | 19          |
| 240         | 1.07                | 2.678         | 719     | 0.1169               | 0.77              | 18          |
| 250         | 1.00                | 2.714         | 712     | 0.1162               | 0.71              | 17          |
| 260         | 0.94                | 2.750         | 705     | 0.1155               | 0.66              | 16          |
| 270         | 0.88                | 2.786         | 698     | 0.1147               | 0.62              | 15          |
| 280         | 0.84                | 2.823         | 691     | 0.1140               | 0.58              | 14          |
| 290         | 0.79                | 2.859         | 684     | 0.1133               | 0.54              | 14          |
| 300         | 0.76                | 2.895         | 677     | 0.1126               | 0.51              | 13          |
| 310         | 0.72                | 2.932         | 671     | 0.1119               | 0.48              | 13          |
| 320         | 0.69                | 2.968         | 664     | 0.1111               | 0.46              | 12          |
| 330         | 0.66                | 3.004         | 657     | 0.1104               | 0.44              | 12          |

| Q8 Gluck H  |                     |               |         |                      |                   |             |
|-------------|---------------------|---------------|---------|----------------------|-------------------|-------------|
| Temperature | Kinematic Viscosity | Specific Heat | Density | Thermal Conductivity | Dynamic Viscosity | Prandtl nr* |
| °C          | mm²/s               | kJ/kg K       | kg/m³   | W/m K                | mPas              |             |
| 0           | 876.60              | 1.801         | 888     | 0.1335               | 778.50            | 10502       |
| 10          | 379.51              | 1.837         | 881     | 0.1328               | 334.49            | 4628        |
| 20          | 186.40              | 1.874         | 875     | 0.1321               | 163.03            | 2313        |
| 30          | 101.50              | 1.910         | 868     | 0.1314               | 88.09             | 1281        |
| 40          | 60.15               | 1.946         | 861     | 0.1307               | 51.80             | 772         |
| 50          | 38.23               | 1.982         | 854     | 0.1299               | 32.66             | 498         |
| 60          | 25.74               | 2.018         | 848     | 0.1292               | 21.82             | 341         |
| 70          | 18.19               | 2.055         | 841     | 0.1285               | 15.30             | 245         |
| 80          | 13.39               | 2.091         | 834     | 0.1278               | 11.17             | 183         |
| 90          | 10.20               | 2.127         | 828     | 0.1271               | 8.44              | 141         |
| 100         | 7.99                | 2.163         | 821     | 0.1263               | 6.56              | 112         |
| 110         | 6.42                | 2.199         | 814     | 0.1256               | 5.22              | 91          |
| 120         | 5.27                | 2.236         | 807     | 0.1249               | 4.25              | 76          |
| 130         | 4.40                | 2.272         | 801     | 0.1242               | 3.52              | 64          |
| 140         | 3.73                | 2.308         | 794     | 0.1235               | 2.96              | 55          |
| 150         | 3.21                | 2.344         | 787     | 0.1227               | 2.53              | 48          |
| 160         | 2.80                | 2.380         | 780     | 0.1220               | 2.18              | 43          |
| 170         | 2.46                | 2.417         | 774     | 0.1213               | 1.91              | 38          |
| 180         | 2.19                | 2.453         | 767     | 0.1206               | 1.68              | 34          |
| 190         | 1.96                | 2.489         | 760     | 0.1199               | 1.49              | 31          |
| 200         | 1.78                | 2.525         | 753     | 0.1191               | 1.34              | 28          |
| 210         | 1.62                | 2.561         | 747     | 0.1184               | 1.21              | 26          |
| 220         | 1.48                | 2.598         | 740     | 0.1177               | 1.09              | 24          |
| 230         | 1.36                | 2.634         | 733     | 0.1170               | 1.00              | 22          |
| 240         | 1.26                | 2.670         | 727     | 0.1163               | 0.92              | 21          |
| 250         | 1.17                | 2.706         | 720     | 0.1155               | 0.84              | 20          |
| 260         | 1.10                | 2.742         | 713     | 0.1148               | 0.78              | 19          |
| 270         | 1.03                | 2.779         | 706     | 0.1141               | 0.73              | 18          |
| 280         | 0.97                | 2.815         | 700     | 0.1134               | 0.68              | 17          |
| 290         | 0.91                | 2.851         | 693     | 0.1127               | 0.63              | 16          |
| 300         | 0.87                | 2.887         | 686     | 0.1119               | 0.59              | 15          |
| 310         | 0.82                | 2.923         | 679     | 0.1112               | 0.56              | 15          |
| 320         | 0.79                | 2.959         | 673     | 0.1105               | 0.53              | 14          |
| 330         | 0.75                | 2.996         | 666     | 0.1098               | 0.50              | 14          |

| Q8 Gluck W  |                     |               |         |                      |                   |             |
|-------------|---------------------|---------------|---------|----------------------|-------------------|-------------|
| Temperature | Kinematic Viscosity | Specific Heat | Density | Thermal Conductivity | Dynamic Viscosity | Prandtl nr* |
| °C          | mm²/s               | kJ/kg K       | kg/m³   | W/m K                | mPas              |             |
| 0           | 2520.99             | 1.795         | 894     | 0.1326               | 2253.51           | 30502       |
| 10          | 998.97              | 1.831         | 887     | 0.1319               | 886.38            | 12305       |
| 20          | 453.31              | 1.867         | 881     | 0.1312               | 399.23            | 5682        |
| 30          | 230.00              | 1.903         | 874     | 0.1305               | 201.04            | 2933        |
| 40          | 128.00              | 1.939         | 868     | 0.1298               | 111.04            | 1660        |
| 50          | 76.93               | 1.976         | 861     | 0.1291               | 66.23             | 1014        |
| 60          | 49.31               | 2.012         | 854     | 0.1283               | 42.12             | 660         |
| 70          | 33.35               | 2.048         | 848     | 0.1276               | 28.27             | 454         |
| 80          | 23.61               | 2.084         | 841     | 0.1269               | 19.86             | 326         |
| 90          | 17.37               | 2.120         | 835     | 0.1262               | 14.49             | 243         |
| 100         | 13.20               | 2.156         | 828     | 0.1255               | 10.93             | 188         |
| 110         | 10.32               | 2.192         | 821     | 0.1248               | 8.47              | 149         |
| 120         | 8.26                | 2.228         | 815     | 0.1240               | 6.73              | 121         |
| 130         | 6.75                | 2.264         | 808     | 0.1233               | 5.46              | 100         |
| 140         | 5.62                | 2.300         | 802     | 0.1226               | 4.50              | 84          |
| 150         | 4.75                | 2.336         | 795     | 0.1219               | 3.78              | 72          |
| 160         | 4.07                | 2.372         | 788     | 0.1212               | 3.21              | 63          |
| 170         | 3.53                | 2.408         | 782     | 0.1205               | 2.76              | 55          |
| 180         | 3.10                | 2.444         | 775     | 0.1198               | 2.40              | 49          |
| 190         | 2.74                | 2.481         | 769     | 0.1190               | 2.11              | 44          |
| 200         | 2.45                | 2.517         | 762     | 0.1183               | 1.87              | 40          |
| 210         | 2.21                | 2.553         | 755     | 0.1176               | 1.67              | 36          |
| 220         | 2.00                | 2.589         | 749     | 0.1169               | 1.50              | 33          |
| 230         | 1.82                | 2.625         | 742     | 0.1162               | 1.35              | 31          |
| 240         | 1.67                | 2.661         | 736     | 0.1155               | 1.23              | 28          |
| 250         | 1.54                | 2.697         | 729     | 0.1147               | 1.12              | 26          |
| 260         | 1.43                | 2.733         | 722     | 0.1140               | 1.03              | 25          |
| 270         | 1.33                | 2.769         | 716     | 0.1133               | 0.95              | 23          |
| 280         | 1.24                | 2.805         | 709     | 0.1126               | 0.88              | 22          |
| 290         | 1.17                | 2.841         | 703     | 0.1119               | 0.82              | 21          |
| 300         | 1.10                | 2.877         | 696     | 0.1112               | 0.76              | 20          |
| 310         | 1.04                | 2.913         | 689     | 0.1105               | 0.72              | 19          |
| 320         | 0.98                | 2.949         | 683     | 0.1097               | 0.67              | 18          |
| 330         | 0.93                | 2.985         | 676     | 0.1090               | 0.63              | 17          |

### 3. Energy



# Gas Engine Oils (GEO)

## Product range

|                                   |                       | Stationary         |     |         |              |     |         |              |     |         |              |     |         |              |     |         |               |     |         |               |     |         |               |     |         |             |     |         |  |
|-----------------------------------|-----------------------|--------------------|-----|---------|--------------|-----|---------|--------------|-----|---------|--------------|-----|---------|--------------|-----|---------|---------------|-----|---------|---------------|-----|---------|---------------|-----|---------|-------------|-----|---------|--|
| Product                           | Sulphated Ash<br>TBN  | Jenbacher S Oil 40 |     |         | Q8 Mahler MA |     |         | Q8 Mahler HA |     |         | Q8 Mahler G5 |     |         | Q8 Mahler G8 |     |         | Q8 Mahler G10 |     |         | Q8 Mahler GR5 |     |         | Q8 Mahler GR8 |     |         | Q8 Mahler R |     |         |  |
|                                   |                       | 0.8                |     |         | 0.5          |     |         | 0.9          |     |         | 0.5          |     |         | 0.8          |     |         | 1             |     |         | 0.5           |     |         | 0.8           |     |         | 0.55        |     |         |  |
|                                   |                       | 8                  |     |         | 5.5          |     |         | 7.9          |     |         | 6            |     |         | 8            |     |         | 10            |     |         | 6             |     |         | 8             |     |         | 7           |     |         |  |
| Gas Type                          |                       | Landfill           | Bio | Natural | Landfill     | Bio | Natural | Landfill     | Bio | Natural | Landfill     | Bio | Natural | Landfill     | Bio | Natural | Landfill      | Bio | Natural | Landfill      | Bio | Natural | Landfill      | Bio | Natural | Landfill    | Bio | Natural |  |
|                                   |                       |                    |     |         |              |     |         |              |     |         |              |     |         |              |     |         |               |     |         |               |     |         |               |     |         |             |     |         |  |
| OEM                               |                       |                    |     |         |              |     |         |              |     |         |              |     |         |              |     |         |               |     |         |               |     |         |               |     |         |             |     |         |  |
| MAN                               | M3271-2 / -4          |                    |     |         |              |     | A       | A            | A   |         | Q            | Q   | Q       | A            | A   | Q       | Q             | Q   |         | Q             | Q   | A       | A             | A   | Q       |             |     |         |  |
| MWM                               |                       |                    |     |         | A            | A   | A       | A            | A   |         | A            | A   | A       | A            | A   | A       | Q             | Q   |         | A             | A   | A       | A             | A   | A       |             |     |         |  |
| Caterpillar Energy Solutions GmbH |                       |                    |     |         | A            | A   | A       | A            | A   |         | A            | A   | A       | A            | A   | A       | Q             | Q   |         | A             | A   | A       | A             | A   | A       |             |     |         |  |
| Deutz AG                          |                       |                    |     |         | A            | A   | A       |              |     |         | A            | A   | A       | Q            | Q   | Q       | Q             | Q   |         | Q             | Q   | Q       | Q             | Q   | Q       |             |     |         |  |
| INNIO Jenbacher                   | Serie 2               | A                  | A   | Q       |              |     | Q       | A            | A   |         | A            | A   | A       | A            | A   | A       | Q             | Q   |         | Q             | A   | A       | A             | A   | A       |             |     |         |  |
|                                   | Serie 3               | A                  | A   | Q       |              |     | Q       | A            | A   |         | A            | A   | A       | A            | A   | A       | Q             | Q   |         | Q             | A   | A       | A             | A   | A       |             |     |         |  |
|                                   | Serie 4               | A                  | A   | Q       |              |     |         |              |     |         | A            | A   | A       | A            | Q   | Q       | Q             |     |         | Q             | A*  | A       | Q             | Q   | Q       |             |     |         |  |
|                                   | Serie 6               | A                  | A   | Q       |              |     |         |              |     |         | A*           | A*  | A       | Q            | Q   | A       |               |     |         | Q             | A   | A       | A             | A   | A       |             |     |         |  |
|                                   | Serie 6 version H & K |                    |     | Q       |              |     |         |              |     |         |              |     |         |              |     |         |               |     |         |               |     |         |               |     | A       |             |     |         |  |
|                                   | Serie 9               |                    |     | Q       |              |     |         |              |     |         |              |     |         |              |     |         |               |     |         |               |     |         |               |     | A       |             |     |         |  |
|                                   | Catalysts             | A                  | A   | Q       |              |     |         |              |     |         | A            | A   | A       | A            | A   | A       |               |     |         | A             | A   | A       | A             | A   | A       |             |     |         |  |
| GE Waukesha                       | VSGseries             |                    |     |         |              |     | A       | Q            | Q   | A       | Q            | Q   | Q       | Q            | Q   | Q       | Q             |     |         | Q             | Q   | Q       | Q             | Q   | Q       |             |     |         |  |
|                                   | VGF series            |                    |     |         | Q            | Q   | A       |              |     | Q       | Q            | Q   | Q       | Q            | Q   | Q       | Q             |     |         | Q             | Q   | Q       | Q             | Q   | Q       |             |     |         |  |
|                                   | VHP series            |                    |     |         | Q            | Q   | A       | Q**          | Q** | A**     | Q            | Q   | Q       | Q            | Q   | Q       | Q             |     |         | Q             | Q   | Q       | Q             | Q   | Q       |             |     |         |  |
|                                   | AT 25/27 GL series    |                    |     |         |              |     | A       | Q            | Q   | A       | Q            | Q   | Q       | Q            | Q   | Q       | Q             |     |         | Q             | Q   | Q       | Q             | Q   | Q       |             |     |         |  |
|                                   | APG series            |                    |     |         |              |     | A       |              |     |         | Q            | Q   | Q       | Q            | Q   | Q       | Q             |     |         | Q             | Q   | Q       | Q             | Q   | Q       |             |     |         |  |
| Guascor                           | FGLD & SFGLD          |                    |     |         |              |     |         | Q            | Q   | Q       |              |     |         | Q            | Q   | A       | Q             | Q   | Q       |               | Q   | Q       | Q             | Q   | Q       |             |     |         |  |
| Rolls-Royce Power System          | K series              |                    |     |         |              |     | A*      |              |     |         |              |     |         |              |     |         |               |     |         | Q             | Q   | Q       |               |     |         | A           | A   | A       |  |
| Bergen Engines                    | B series              |                    |     |         |              |     |         |              |     |         |              |     |         |              |     |         |               |     |         | A             | A   | A       | T             | T   | T       |             |     |         |  |
| MTU Onsite Energie                | 400 Series (MDE)      |                    |     |         |              |     | A       | A            | A   |         |              |     |         | Q            | Q   | Q       | Q             | Q   |         |               | Q   | Q       | Q             | Q   | Q       | Q           |     |         |  |
|                                   | 4000 Series           |                    |     |         |              |     |         |              |     |         |              |     |         | Q            | Q   | Q       | Q             |     |         |               | Q   | Q       | Q             | Q   | Q       |             |     |         |  |
| TEDOM                             |                       |                    |     |         |              |     | Q       | A            | A   | A       | Q            | Q   | Q       | Q            | Q   | Q       |               |     |         | A             | A   | A       | A             | A   | A       |             |     |         |  |
| Perkins                           |                       |                    |     |         |              |     | A       | Q            | Q   |         |              |     |         | Q            | Q   | Q       | Q             |     |         |               |     |         | Q             | Q   | Q       | Q           |     |         |  |
| Cummins                           |                       |                    |     |         |              |     |         |              |     |         |              |     |         | Q            | Q   | Q       | Q             | Q   |         |               |     |         | Q             | Q   | Q       | Q           |     |         |  |
| Liebherr                          |                       |                    |     |         |              |     |         |              |     |         |              | Q   |         | Q            | Q   | Q       | Q             | Q   | Q       |               |     |         | Q             | Q   | Q       | Q           |     |         |  |
| Service company                   |                       |                    |     |         |              |     |         |              |     |         |              |     |         |              |     |         |               |     |         |               |     |         |               |     |         |             |     |         |  |
| Senergie                          |                       |                    |     |         |              | A   | A       | A            | A   |         |              | Q   | Q       | Q            | Q   |         |               |     |         |               | Q   | Q       | Q             | Q   | Q       |             |     |         |  |

### Key

- A Official approval
- T Test started
- Q Q8 recommendation
- \* dependent on model year and BMEP
- \*\* dependent on engine model & allowed ash level

|             | Product              | Gas Type                                               | OEM Recommendations                                                |
|-------------|----------------------|--------------------------------------------------------|--------------------------------------------------------------------|
|             |                      |                                                        |                                                                    |
| mobile      | Q8 Mahler C 15W-40   | Natural (compressed or liquified)                      | API CF; Cummins CES 20074                                          |
|             | Q8 Mahler T 15W-40   | Natural (compressed or liquified) or LPG               | API CF-4; Renault VI RGD; DAF LPF; MB 226.9; MAN 3271-1; Volvo CNG |
|             | Q8 FT 8500 10W-40    | Natural (compressed or liquified) or LPG               | API CJ-4; MAN 3271-1; MB 226.9; RVI RGD, Volvo CNG                 |
|             | Q8 FT 8600 10W-40    | Natural (compressed or liquified) or LPG               | API CJ-4; MAN 3271-1; MB 226.9; RVI RGD, Volvo CNG                 |
|             | Q8 FT 8700 FE 5W-30  | Natural (compressed or liquified) or LPG               | API CJ-4; MAN 3271-1; RVI RGD, Volvo CNG                           |
| Anti-freeze | Q8 Mahler Cool 40/60 | TEDOM, GE Jenbacher, Caterpillar Energy Solutions, MWM |                                                                    |
|             | Q8 Antifreeze LL     | TEDOM, GE Jenbacher, Caterpillar Energy Solutions, MWM |                                                                    |

# Gas Engine Oils (GEO)

## Specifications & recommendations (1 / 1)

### Key

(dd. 03/09/2025)

- Specification
- ☑ Approval
- ☑\* Pending approval
- ✓ Recommendation

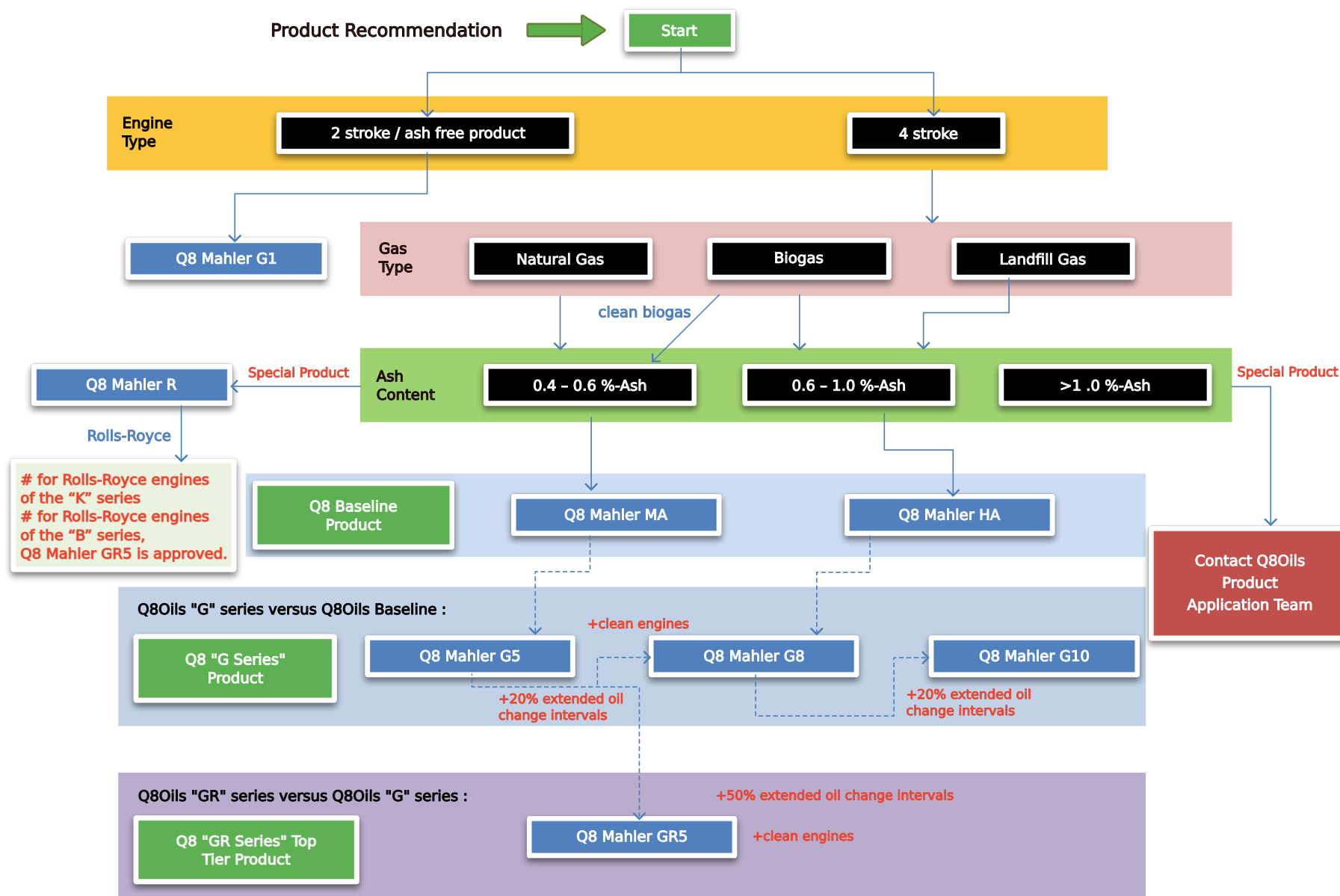
|                                                                     | Jenbacher S Oil 40 | Q8 Mahler MA SAE 40 | Q8 Mahler HA SAE 40 | Q8 Mahler G5 SAE 40 | Q8 Mahler G8 SAE 40 | Q8 Mahler G10 SAE 40 | Q8 Mahler GR5 SAE 40 | Q8 Mahler GR8 SAE 40 | Q8 Mahler R SAE 40 |
|---------------------------------------------------------------------|--------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|--------------------|
| Caterpillar Energy Solutions CG132, CG170, CG260                    |                    | ☑                   | ☑                   | ☑                   | ☑                   |                      | ☑                    | ☑                    |                    |
| Deutz 0199-99-01213                                                 |                    | ☑                   |                     | ☑                   |                     |                      |                      |                      |                    |
| Guascor Power FGLD, SFGLD series                                    |                    |                     |                     |                     | ☑                   |                      |                      |                      |                    |
| INNIO Jenbacher TA 1000-1109, catalytic converter approved          | ☑                  |                     |                     | ☑                   | ☑                   |                      | ☑                    | ☑                    |                    |
| INNIO Jenbacher TA 1000-1109, extended oil change interval          | ☑                  |                     |                     |                     | ☑                   |                      | ☑                    | ☑                    |                    |
| INNIO Jenbacher TA 1000-1109, Type 2, 3 Series - Fuel class A, B    |                    |                     |                     |                     |                     |                      | ☑                    |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 2, 3 Series - Fuel class A, B, C |                    |                     |                     | ☑                   | ☑                   |                      |                      | ☑                    |                    |
| INNIO Jenbacher TA 1000-1109, Type 2, 3 Series - Fuel class B, C    | ☑                  |                     | ☑                   |                     |                     |                      |                      |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 4 (A & B) - Fuel class A, B      |                    |                     |                     |                     |                     |                      | ☑                    |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 4 (A & B) - Fuel class A, B, C   |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 4 (A & B) - Fuel class B, C      | ☑                  |                     |                     |                     |                     |                      |                      |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 4 (C) - Fuel class A, B          |                    |                     |                     |                     |                     |                      | ☑                    |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 4 (C) - Fuel class A, B, C       |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 4 (C) - Fuel class B, C          | ☑                  |                     |                     |                     |                     |                      |                      |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 6 (C & E) - Fuel class A, B      |                    |                     |                     |                     | ☑                   |                      | ☑                    | ☑                    |                    |
| INNIO Jenbacher TA 1000-1109, Type 6 (C & E) - Fuel class A, B, C   |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 6 (C & E) - Fuel class B, C      | ☑                  |                     |                     |                     |                     |                      |                      |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 6 (F & J) - Fuel class B, C      | ☑                  |                     |                     |                     |                     |                      |                      |                      |                    |
| INNIO Jenbacher TA 1000-1109, Type 6 (F) - Fuel class A             |                    |                     |                     | ☑                   | ☑                   |                      |                      | ☑                    |                    |
| INNIO Jenbacher TA 1000-1109, Type 6 (F) - Fuel class A, B          |                    |                     |                     |                     |                     |                      | ☑                    |                      |                    |
| INNIO Jenbacher Type 9 - Fuel class A                               |                    |                     |                     |                     |                     |                      |                      | ☑                    |                    |
| INNIO Waukesha 12-1880                                              |                    | ☑                   | ☑                   |                     |                     |                      |                      |                      |                    |
| MAN M 3271-2 (Natural gas)                                          |                    | ☑                   |                     |                     |                     |                      | ☑                    |                      |                    |
| MAN M 3271-4 (Special gas)                                          |                    |                     | ☑                   |                     | ☑                   |                      |                      | ☑                    |                    |
| MTU Onsite Energy 400 series                                        |                    | ☑                   | ☑                   |                     |                     |                      |                      |                      |                    |
| MWM 0199-99-02105                                                   |                    | ☑                   | ☑                   | ☑                   | ☑                   |                      | ☑                    | ☑                    |                    |
| Perkins 4006, 4008 series                                           |                    | ☑                   |                     |                     |                     |                      |                      |                      |                    |
| Rolls-Royce Bergen B series                                         |                    |                     |                     |                     |                     |                      | ☑                    |                      |                    |
| Rolls-Royce Bergen K series                                         |                    |                     |                     |                     |                     |                      |                      |                      | ☑                  |
| Tedom 61-0-0281                                                     |                    |                     | ☑                   |                     |                     |                      | ☑                    | ☑                    |                    |
| Wärtsilä 175SG                                                      |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 20DF                                                       |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 25SG                                                       |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 28SG                                                       |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |

### Key

(dd. 03/09/2025)

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|               | Jenbacher S Oil 40 | Q8 Mahler MA SAE 40 | Q8 Mahler HA SAE 40 | Q8 Mahler G5 SAE 40 | Q8 Mahler G8 SAE 40 | Q8 Mahler G10 SAE 40 | Q8 Mahler GR5 SAE 40 | Q8 Mahler GR8 SAE 40 | Q8 Mahler R SAE 40 |
|---------------|--------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------------|----------------------|--------------------|
| Wärtsilä 31DF |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 31SG |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 32DF |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 34DF |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 34SG |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 46DF |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 50DF |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |
| Wärtsilä 50SG |                    |                     |                     | ☑                   |                     |                      |                      |                      |                    |



Specifications & recommendations (1 / 1)

Key

(dd. 03/09/2025)

• Specification

☒ Approval

☒ Pending approval

✓ Recommendation

|                                | Q8 van Gogh 22 | Q8 van Gogh 32 | Q8 van Gogh 46 | Q8 van Gogh 68 | Q8 van Gogh 100 | Q8 van Gogh 150 | Q8 van Gogh EP 32 | Q8 van Gogh EP 46 | Q8 van Gogh EP 68 | Q8 van Gogh EP 100 | Q8 van Gogh EP 150 | Q8 Volta 32                         | Q8 Volta 46                         | Q8 Volta EP 32                      | Q8 Volta EP 46                      |
|--------------------------------|----------------|----------------|----------------|----------------|-----------------|-----------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Alstom Power HTGD 90117        |                |                |                |                |                 |                 |                   |                   |                   |                    |                    | ✓                                   | <input checked="" type="checkbox"/> | ✓                                   | <input checked="" type="checkbox"/> |
| ASTM D 4304, Type I            |                | •              | •              | •              | •               |                 |                   |                   |                   |                    |                    | •                                   | •                                   |                                     |                                     |
| ASTM D 4304, Type II (EP)      |                |                |                |                |                 |                 | •                 | •                 | •                 | •                  | •                  |                                     |                                     | •                                   | •                                   |
| British Standard 489           |                | •              | •              | •              | •               |                 | •                 | •                 | •                 | •                  |                    | •                                   | •                                   | •                                   | •                                   |
| Chinese Standard GB 11120-2011 |                | ✓              |                |                |                 |                 | ✓                 | •                 |                   |                    |                    | •                                   |                                     | ✓                                   |                                     |
| DIN 51515-1 L-TD               |                | •              | •              |                | •               |                 |                   |                   |                   |                    |                    | •                                   | •                                   |                                     |                                     |
| DIN 51515-1 L-TDP              |                |                |                |                |                 |                 | •                 | •                 | •                 | •                  |                    |                                     |                                     | •                                   | •                                   |
| DIN 51515-2 L-TG               |                | •              | •              |                |                 |                 |                   |                   |                   |                    |                    | •                                   | •                                   |                                     |                                     |
| DIN 51515-2 L-TGP              |                |                |                |                |                 |                 | •                 | •                 |                   |                    |                    |                                     |                                     | •                                   | •                                   |
| GE Energy GEK 101941           |                |                |                |                |                 |                 | ✓                 |                   |                   |                    |                    |                                     |                                     | <input checked="" type="checkbox"/> |                                     |
| GE Energy GEK 107395           |                |                |                |                |                 |                 | ✓                 |                   |                   |                    |                    | ✓                                   |                                     | ✓                                   |                                     |
| GE Energy GEK 120498           |                |                |                |                |                 |                 |                   |                   |                   |                    |                    |                                     |                                     | <input checked="" type="checkbox"/> |                                     |
| GE Energy GEK 121608           |                |                |                |                |                 |                 | ✓                 |                   |                   |                    |                    |                                     |                                     | ✓                                   |                                     |
| GE Energy GEK 28143            |                |                |                |                |                 |                 | ✓                 |                   | ✓                 | •                  |                    |                                     |                                     | <input checked="" type="checkbox"/> |                                     |
| GE Energy GEK 32568            |                |                |                |                |                 |                 | ✓                 |                   |                   |                    |                    | ✓                                   |                                     |                                     |                                     |
| GE Energy GEK 32568h           |                |                |                |                |                 |                 |                   |                   |                   |                    |                    |                                     |                                     | ✓                                   |                                     |
| GE Energy GEK 46357            |                |                |                |                |                 |                 | ✓                 |                   |                   |                    |                    |                                     |                                     |                                     |                                     |
| GE Energy GEK 46506            |                |                |                |                |                 |                 | ✓                 |                   |                   |                    |                    |                                     |                                     | ✓                                   |                                     |
| GE Thermodyn ISPSH901SDI       |                |                |                |                |                 |                 | ✓                 | ✓                 |                   |                    |                    |                                     |                                     |                                     |                                     |
| Indian Standard IS 1012:2002   |                | ✓              |                |                |                 |                 | ✓                 | •                 |                   |                    |                    |                                     |                                     |                                     |                                     |
| ISO 6743-5 L-TGA               | •              | •              | •              | •              | •               | •               |                   |                   |                   |                    |                    | •                                   | •                                   |                                     |                                     |
| ISO 6743-5 L-TGB               |                |                |                |                |                 |                 |                   |                   |                   |                    |                    | •                                   | •                                   |                                     |                                     |
| ISO 6743-5 L-TGE               |                |                |                |                |                 |                 | •                 | •                 | •                 | •                  | •                  |                                     |                                     | •                                   | •                                   |
| ISO 6743-5 L-TGF               |                |                |                |                |                 |                 |                   |                   |                   |                    |                    |                                     |                                     | •                                   | •                                   |
| ISO 6743-5 L-TGSB              |                |                |                |                |                 |                 |                   |                   |                   |                    |                    | •                                   | •                                   |                                     |                                     |
| ISO 6743-5 L-TGSE              |                |                |                |                |                 |                 |                   |                   |                   |                    |                    |                                     |                                     | •                                   | •                                   |
| ISO 6743-5 L-TSA               | •              | •              | •              | •              | •               | •               |                   |                   |                   |                    |                    | •                                   | •                                   |                                     |                                     |
| ISO 6743-5 L-TSE               |                |                |                |                |                 |                 | •                 | •                 | •                 | •                  | •                  |                                     |                                     | •                                   | •                                   |
| ISO 8068                       |                | •              | •              |                |                 |                 | •                 | •                 | •                 |                    |                    | •                                   | •                                   | •                                   | •                                   |
| JIS K 2213 Type 2              |                | •              | •              | •              |                 |                 | •                 | •                 | •                 |                    |                    | •                                   | •                                   | •                                   | •                                   |
| MAN Turbo SPD 10000494596      |                |                |                |                |                 |                 |                   |                   |                   |                    |                    | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Key

(dd. 03/09/2025)

• Specification

☒ Approval

☒ Pending approval

✓ Recommendation

## Specifications & recommendations (1 / 1)

### Key

(dd. 03/09/2025)

- *Specification*
- ✓ *Approval*
- ✓\* *Pending approval*
- ✓ *Recommendation*

| Q8 Verdi | Q8 Schubert | Q8 Schumann | Q8 Strauss | Q8 Sinan | Q8 Rossini CO | Q8 Stravinsky | Q8 Stravinsky AB | Q8 Stravinsky N | Q8 Stravinsky POE |
|----------|-------------|-------------|------------|----------|---------------|---------------|------------------|-----------------|-------------------|
|----------|-------------|-------------|------------|----------|---------------|---------------|------------------|-----------------|-------------------|

|                                                                                                                                    |   |   |   |   |  |   |   |   |   |
|------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|--|---|---|---|---|
| Mineral (Group I)                                                                                                                  | ✓ |   |   |   |  |   |   | ✓ |   |
| Mineral (Group II)                                                                                                                 |   | ✓ |   | ✓ |  |   |   |   |   |
| AB (Alkylbenzene)                                                                                                                  |   |   |   |   |  |   | ✓ |   |   |
| PAO (Poly Alpha Olefine)                                                                                                           |   |   | ✓ |   |  | ✓ |   |   |   |
| PAO + AB                                                                                                                           |   |   |   |   |  | ✓ |   |   |   |
| POE (Synthetic Polyol Ester)                                                                                                       |   |   |   |   |  |   |   |   | ✓ |
| PAG (Polyalkylene Glycol)                                                                                                          |   |   |   | ✓ |  |   |   |   |   |
| Screw air compressors                                                                                                              |   | ✓ | ✓ |   |  | ✓ |   |   |   |
| Reciprocating air compressors                                                                                                      |   | ✓ | ✓ |   |  | ✓ |   |   |   |
| Vacuum pumps                                                                                                                       |   |   | ✓ |   |  | ✓ |   |   |   |
| Synthesis gas compressors                                                                                                          |   |   | ✓ |   |  |   |   |   |   |
| Rotary and reciprocating compressors in which the lubricant is in continuous contact with the gas (hydrocarbon and chemical gases) |   |   |   | ✓ |  |   |   |   |   |
| Reciprocating and rotary refrigerator compressors (Gas types see next page)                                                        |   |   |   |   |  | ✓ | ✓ | ✓ | ✓ |
| Compressors for which no specific compressor oils are required                                                                     | ✓ |   |   |   |  |   |   |   |   |

|                  |   |   |   |   |  |   |  |  |  |
|------------------|---|---|---|---|--|---|--|--|--|
| DIN 51506 VBL    | • |   |   |   |  |   |  |  |  |
| DIN 51506 VDL    |   | • | • |   |  | ✓ |  |  |  |
| DIN 51515-1 L-TD | • |   |   | • |  |   |  |  |  |
| DIN 51517-2 CL   | • |   |   |   |  |   |  |  |  |
| DIN 51524-1 HL   | • |   |   |   |  |   |  |  |  |
| ISO 21469        |   |   |   |   |  | • |  |  |  |
| ISO 6743-3 DAA   |   | • | • |   |  |   |  |  |  |
| ISO 6743-3 DAB   |   | • | • |   |  |   |  |  |  |
| ISO 6743-3 DAG   |   | • | • |   |  |   |  |  |  |
| ISO 6743-3 DAH   |   | • | • |   |  |   |  |  |  |
| ISO 6743-3 DAJ   |   |   | • |   |  |   |  |  |  |
| ISO 6743-3 DVA   |   | • | • |   |  |   |  |  |  |
| ISO 6743-4 HL    | • |   |   |   |  |   |  |  |  |
| ISO 6743-4 L-HV  |   |   | • |   |  |   |  |  |  |

## Compressor oils

### Refrigerator compressor oil range

|                   |                                                                                                                                                                                                                                    |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Q8 Stravinsky     | Mixture of Polyalphaolefin and Alkyl benzene (PAO + AB)<br>Good in natural and CFC systems<br>Do <b>NOT</b> use in HFC systems                                                                                                     |
| Q8 Stravinsky N   | Naphtenic base oils (M)<br>Good in HCFC and CFC systems<br>Do <b>NOT</b> use in HFC systems                                                                                                                                        |
| Q8 Stravinsky AB  | Alkyl benzene<br>Good in HCFC and CFC and natural systems<br>Do <b>NOT</b> use in HFC systems                                                                                                                                      |
| Q8 Stravinsky POE | Synthetic Polyol Ester (POE)<br>Good in HFC systems<br>Do <b>NOT</b> use in natural systems                                                                                                                                        |
| Q8 Sinan          | Synthetic Polyalkylene Glycol (PAG)<br>Hydrocarbon gases like methane, ethane, propane and butane<br>Hydrocarbon chemical gases like ethylene, propylene and butylene<br>Chemical gases like vinyl chloride, butadiene and ammonia |

### Coolant range

|                     |                                                                                                                                                                                                            |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CFC                 | Chloro-Fluoro-Carbon: prohibited since 1990<br>R11, R12, R13, R13b1, R113, R114, R502<br>Most harmful to the ozone layer<br>Recommendation: Q8 Stravinsky N or Q8 Stravinsky or Q8 Stravinsky AB           |
| HCFC                | Hydro-Chloro-Fluoro-Carbon: prohibited since 2003<br>R21, R22, R123, R124, R141b, R142b, R409a<br>Slightly harmful to the ozone layer<br>Recommendation: Q8 Stravinsky N or Q8 Stravinsky AB               |
| HFC                 | Hydro-Fluoro-Carbon<br>R23, R32, R125, R134/R134a, R152a, R143/R143a, R404a, R407c, R410a/R410b, R417a, R422a/R422d, R427a, R507/R507a<br>Harmless to the ozone layer<br>Recommendation: Q8 Stravinsky POE |
| Inorganic (natural) | Ammonia (NH3)<br>R717<br>Environmentally friendly, but pure ammonia gas is highly toxic to people<br>Recommendation: Q8 Stravinsky                                                                         |
| Mixtures (examples) | R404a = R125 + R143 + R134<br>R407c = R32 + R125 + R134a<br>R408a = R125 + R143a + R22<br>R409a = R22 + R124 + R142b<br>R410a = R32 + R125<br>R500 = R12 + R152a<br>R501 = R22 + R12<br>R502 = R22 + R115  |

### Coolant / refrigerator oil - tolerance

|                        | Ammonia (NH <sub>3</sub> ) | R22 | R134a | R404a | R407c | R410a | R507 | CO <sub>2</sub> |
|------------------------|----------------------------|-----|-------|-------|-------|-------|------|-----------------|
| Mineral oil (M)        | ☑                          | ☑   | ✗     | ✗     | ✗     | ✗     | ✗    | ✗               |
| Polyalphaolefine (PAO) | ✓                          | ✗   | ✗     | ✗     | ✗     | ✗     | ✗    | ✓               |
| Alkyl benzene (AB)     | ☑                          | ☑   | ✗     | ✗     | ✗     | ✗     | ✗    | ✗               |
| Polyglycol (PAG)       | ✓                          | ✗   | ✗     | ✗     | ✗     | ✗     | ✗    | ✓               |
| Ester                  | ✗                          | ☑   | ✓     | ✓     | ✓     | ✓     | ✓    | ✓               |
| M + AB                 | ☑                          | ☑   | ✗     | ✗     | ✗     | ✗     | ✗    | ✗               |
| PAO + AB               | ☑                          | ✗   | ✗     | ✗     | ✗     | ✗     | ✗    | ✗               |

#### Key

- ☑ appropriate for use with CR O-rings
- ✓ appropriate for use with HNBR O-rings
- ✗ not appropriate

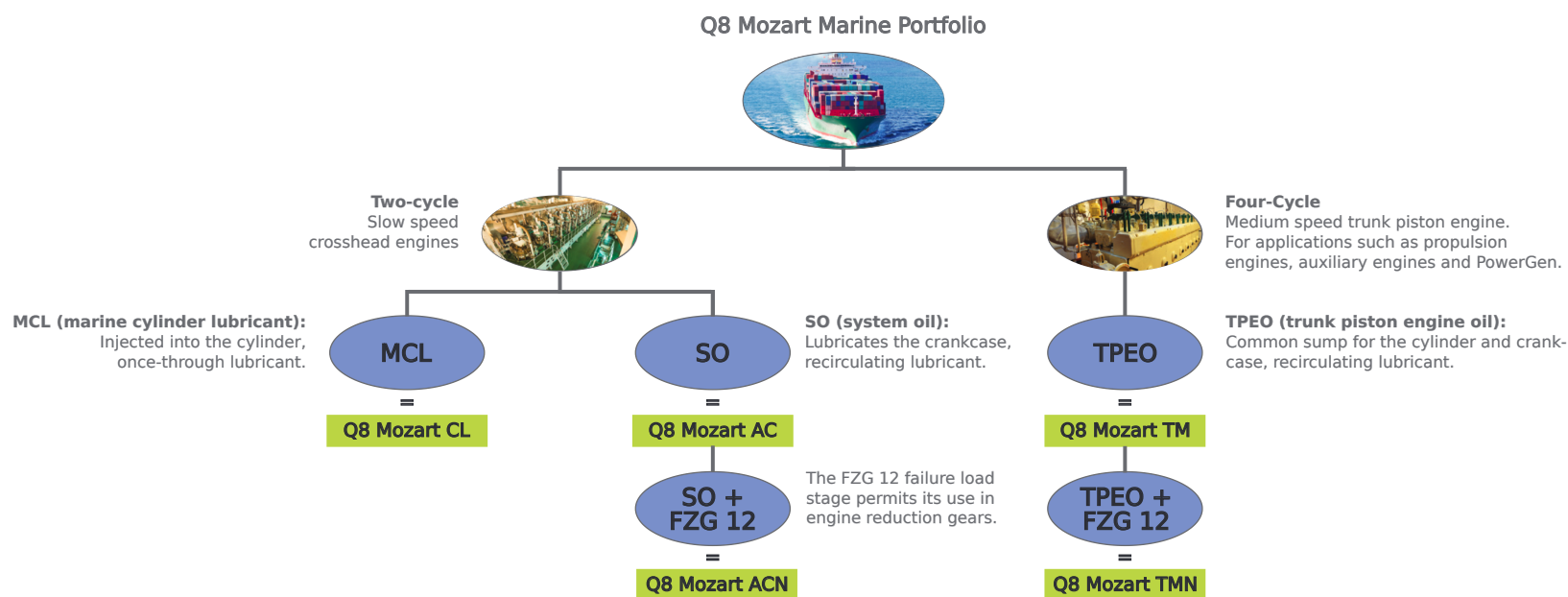


## Product range

| TPEO                                                       | TPEO + FZG 12                                                | SO                               | SO + FZG 12                       | MCL                               |
|------------------------------------------------------------|--------------------------------------------------------------|----------------------------------|-----------------------------------|-----------------------------------|
| Q8 Mozart TM 12 SAE 30<br>Q8 Mozart TM 12 SAE 40<br>TBN 12 | Q8 Mozart TMN 12 SAE 30<br>Q8 Mozart TMN 12 SAE 40<br>TBN 12 | Q8 Mozart AC 30<br>TBN 6, SAE 30 | Q8 Mozart ACN 30<br>TBN 6, SAE 30 | Q8 Mozart CL 20<br>TBN 20, SAE 50 |
| Q8 Mozart TM 15 SAE 30<br>Q8 Mozart TM 15 SAE 40<br>TBN 15 | Q8 Mozart TMN 15 SAE 30<br>Q8 Mozart TMN 15 SAE 40<br>TBN 15 | Q8 Mozart AC 40<br>TBN 6, SAE 40 | Q8 Mozart ACN 40<br>TBN 6, SAE 40 | Q8 Mozart CL 40<br>TBN 40, SAE 50 |
| Q8 Mozart TM 20 SAE 30<br>Q8 Mozart TM 20 SAE 40<br>TBN 20 |                                                              |                                  |                                   | Q8 Mozart CL 70<br>TBN 70, SAE 50 |
| Q8 Mozart TM 30 SAE 30<br>Q8 Mozart TM 30 SAE 40<br>TBN 30 |                                                              |                                  |                                   |                                   |
| Q8 Mozart TM 40 SAE 30<br>Q8 Mozart TM 40 SAE 40<br>TBN 40 |                                                              |                                  |                                   |                                   |
| Q8 Mozart TM 50 SAE 40<br>TBN 50                           |                                                              |                                  |                                   |                                   |
| Q8 Mozart TM 55 SAE 40<br>TBN 55                           |                                                              |                                  |                                   |                                   |

Green: available in price list

Black: please request price



## Product range

|                                                       |           |                    | Q8 Transformer Oil U<br>Uninhibited | Q8 Transformer Oil I<br>Inhibited |
|-------------------------------------------------------|-----------|--------------------|-------------------------------------|-----------------------------------|
| SPECIFICATION                                         |           |                    | IEC 60296                           | IEC 60296                         |
| <b>ELECTRICAL INSULATION</b>                          |           |                    |                                     |                                   |
| Dielectric Dissipation Factor (DDF) at 90 °C          |           |                    | <0.001                              | <0.001                            |
| Interfacial tension                                   | ISO 6295  | mN/m               | 47                                  | 50                                |
| Breakdown voltage, Before treatment                   | IEC 60156 | kV                 | 45                                  | 47                                |
| Breakdown voltage, After treatment                    | IEC 60156 | kV                 | 72                                  | 73                                |
| <b>OIL LIFE</b>                                       |           |                    |                                     |                                   |
| Oxidation Stability at 120 °C (164 hr), Total acidity | IEC 61125 | mg KOH/g           | 0.7                                 | 0.01                              |
| Oxidation Stability at 120 °C (164 hr), Sludge        | IEC 61125 | % mass             | 0.2                                 | 0.01                              |
| Oxidation Stability at 120 °C (164 hr), DDF at 90 °C  | IEC 61125 |                    | 0.037                               | 0.013                             |
| Inhibitors (antioxidant)                              | IEC 60666 | % mass             | Non detectable                      | Non detectable                    |
| <b>COOLING</b>                                        |           |                    |                                     |                                   |
| Kinematic Viscosity, 40 °C                            | ISO 3104  | mm <sup>2</sup> /s | 9.5                                 | 9.5                               |
| Kinematic Viscosity, -30 °C                           | ISO 3104  | mm <sup>2</sup> /s | 1030                                | 1025                              |
| Pour Point                                            | ISO 3016  | °C                 | -61                                 | -63                               |
| <b>MATERIAL COMPABILITY</b>                           |           |                    |                                     |                                   |
| Acidity                                               | IEC 62021 | mg KOH/g           | <0.01                               | <0.01                             |
| Corrosive Sulfur                                      | DIN 51353 |                    | Non corrosive                       | Non corrosive                     |
| Corrosive Sulfur                                      | D 1275    |                    | Non corrosive                       | Non corrosive                     |
| Corrosive Sulfur                                      | IEC 62535 |                    | Non corrosive                       | Non corrosive                     |
| Sulfur                                                | ISO 14596 | % mass             | <0.01                               | <0.01                             |
| DBDS                                                  | IEC 62697 | mg/kg              | Non detectable, 0                   | Non detectable, 0                 |

## 4. Metalworking fluids



# Metalworking oils

## Soluble oils core range

| Product | PH @5% in 40m | % Base fluid | Refractometer factor | Machining | Grinding | Tube |
|---------|---------------|--------------|----------------------|-----------|----------|------|
|---------|---------------|--------------|----------------------|-----------|----------|------|

### SYNTHETIC BASED

|                  |     |    |     |   |   |   |
|------------------|-----|----|-----|---|---|---|
| Q8 Brunel XF 753 | 9.5 | 34 | 1.2 | ✓ | ✓ |   |
| Q8 Brunel XF 741 | 9.6 | 10 | 1.7 | ✓ | ✓ |   |
| Q8 Brunel XF 732 | 9.7 | 20 | 1.7 | ✓ | ✓ |   |
| Q8 Brunel XF 711 | 9.6 | 8  | 2.4 | ✓ | ✓ | ✓ |

### MINERAL OIL BASED

|                  |     |    |     |   |   |  |
|------------------|-----|----|-----|---|---|--|
| Q8 Brunel XF 132 | 9.4 | 18 | 1.8 | ✓ | ✓ |  |
| Q8 Brunel XF 263 | 9.5 | 25 | 1.2 | ✓ | ✓ |  |
| Q8 Brunel XF 277 | 8.6 | 54 | 1   | ✓ |   |  |
| Q8 Brunel XF 322 | 9.4 | 25 | 1.5 | ✓ |   |  |
| Q8 Brunel XF 343 | 9   | 25 | 1.2 | ✓ |   |  |
| Q8 Brunel XF 355 | 9.4 | 40 | 1.1 | ✓ | ✓ |  |

### FULL SYNTHETIC

|                  |     |   |     |   |   |  |
|------------------|-----|---|-----|---|---|--|
| Q8 Brunel XF 662 | 8.5 | 0 | 1.3 | ✓ | ✓ |  |
|------------------|-----|---|-----|---|---|--|

### GRINDING / FULL SYNTHETIC

|                  |     |   |     |   |   |  |
|------------------|-----|---|-----|---|---|--|
| Q8 Brunel XF 530 | 9.6 | 0 | 1.6 | ✓ | ✓ |  |
| Q8 Brunel XF 527 | 9   | 0 | 1.4 |   | ✓ |  |
| Q8 Brunel XF 512 | 9.5 | 0 | 2   |   | ✓ |  |

| Copper alloys | Cast iron | Steel | Stainless steel | Aluminium | Alu auto | Alu aerospace | Titanium | Inconel |
|---------------|-----------|-------|-----------------|-----------|----------|---------------|----------|---------|
|---------------|-----------|-------|-----------------|-----------|----------|---------------|----------|---------|

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| ! | ! | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ! | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ! | ! |
| ! | ✓ | ✓ | ✓ | ! | × | × | × | × |
| ! | ✓ | ✓ | ! | × | × | × | × | × |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| ! | ✓ | ✓ | ✓ | ! | × | × | × | × |
| × | ! | ✓ | ✓ | ✓ | ✓ | ! | ✓ | ✓ |
| ✓ | × | × | × | ✓ | ! | ! | ! | × |
| ! | ! | ✓ | ! | ✓ | ✓ | ✓ | ! | ! |
| ✓ | ! | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ! | ! |

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| ! | ! | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|---|---|---|---|---|---|---|---|---|

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| ! | ✓ | ✓ | ✓ | × | × | × | ✓ | ✓ |
| ! | ✓ | ✓ | ✓ | ! | ! | ! | ✓ | ✓ |
| × | ✓ | ✓ | ✓ | × | × | × | × | × |



Recommended



Consult metal@Q8Oils.com



Not applicable

Aluminium, for pure aluminium and for non specialized machining

Aluminium automotive, for the high silicon alloys produced by die casting process, typically used in car wheels and engine bodies. These alloys are less susceptible to corrosion, but require high oil containing products

Aluminium aerospace, which includes 2000 and 7000, much more susceptible to corrosion

The Aluminium alloy 6000 is common to both automotive and aerospace

For more information on using metalworking fluids please consult

MWF engineers guide (available on [www.Q8Oils.com](http://www.Q8Oils.com))

# Metalworking oils

## Neat oils product range

| Product | General Machining | Deep Hole Drilling | Broaching | Gear Shaping/Cutting | Honing | Thread Rolling | Grinding |
|---------|-------------------|--------------------|-----------|----------------------|--------|----------------|----------|
|---------|-------------------|--------------------|-----------|----------------------|--------|----------------|----------|

| Cast iron | Carbon Steel | Alloyed Steel | Stainless Steel & Nickel Alloys | Aluminium | Copper/Copper Alloys |
|-----------|--------------|---------------|---------------------------------|-----------|----------------------|
|-----------|--------------|---------------|---------------------------------|-----------|----------------------|

| Lubricity | Sulphur EP | Chlorine |
|-----------|------------|----------|
|-----------|------------|----------|

| Appearance | Odour | Viscosity | Density (15°) | Flash Point | 4 Ball Weld (kg) | Copper corrosion |
|------------|-------|-----------|---------------|-------------|------------------|------------------|
|------------|-------|-----------|---------------|-------------|------------------|------------------|

### MINERAL OIL BASED NON-ACTIVE SULPHUR OILS

|                |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|
| Q8 Bach XNL 22 | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ! |
| Q8 Bach XNF 6  | ✓ | ✗ | ✗ | ✗ | ✓ | ✗ | ✓ |
| Q8 Bach XNF 10 | ✓ | ! | ✗ | ✗ | ✗ | ✗ | ✓ |
| Q8 Bach XNF 15 | ✓ | ! | ! | ✗ | ✗ | ! | ✗ |
| Q8 Bach XNF 28 | ✓ | ✗ | ! | ! | ✗ | ! | ✗ |
| Q8 Bach XNF 36 | ✓ | ✗ | ! | ! | ✗ | ! | ✗ |

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

|    |            |      |
|----|------------|------|
| ✓  | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |

|            |     |    |      |     |     |   |
|------------|-----|----|------|-----|-----|---|
| PaleYellow | Low | 22 | 0.86 | 205 | 140 | 1 |
| PaleYellow | Low | 6  | 0.83 | 130 | 500 | 1 |
| PaleYellow | Low | 10 | 0.85 | 130 | 500 | 1 |
| PaleYellow | Low | 15 | 0.86 | 185 | 520 | 1 |
| PaleYellow | Low | 28 | 0.87 | 195 | 520 | 1 |
| PaleYellow | Low | 36 | 0.88 | 200 | 520 | 1 |

### MINERAL OIL BASED ACTIVE SULPHUR OILS

|                |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|
| Q8 Bach XAF 15 | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ |
| Q8 Bach XAF 22 | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ |
| Q8 Bach XAS 42 | ✓ | ✗ | ✓ | ✓ | ✗ | ✓ | ✗ |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ! | ✗ |
| ✓ | ✓ | ✓ | ✓ | ! | ✗ |
| ✓ | ✓ | ✓ | ✓ | ! | ✗ |

|    |        |      |
|----|--------|------|
| ✓✓ | Active | Free |
| ✓✓ | Active | Free |
| ✓✓ | Active | Free |

|       |      |    |      |     |      |   |
|-------|------|----|------|-----|------|---|
| Amber | Mild | 15 | 0.86 | 190 | 520  | 4 |
| Amber | Mild | 23 | 0.87 | 210 | 520  | 4 |
| Amber | Mild | 41 | 0.87 | 195 | >800 | 4 |

### SYNTHETIC BASED NON-ACTIVE SULPHUR OILS

|              |   |   |   |   |   |   |   |
|--------------|---|---|---|---|---|---|---|
| Q8 Bach 7006 | ! | ✗ | ✗ | ✗ | ✓ | ✗ | ✓ |
| Q8 Bach 7012 | ✓ | ! | ✗ | ✗ | ✗ | ✗ | ✓ |
| Q8 Bach 7022 | ✓ | ! | ! | ! | ✗ | ! | ✗ |
| Q8 Bach 7032 | ✓ | ✗ | ! | ! | ✗ | ! | ✗ |

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

|    |            |      |
|----|------------|------|
| ✓  | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |

|            |     |    |      |     |     |   |
|------------|-----|----|------|-----|-----|---|
| PaleYellow | Low | 6  | 0.80 | 170 | 200 | 1 |
| PaleYellow | Low | 12 | 0.82 | 195 | 660 | 1 |
| PaleYellow | Low | 22 | 0.82 | 230 | 580 | 1 |
| PaleYellow | Low | 34 | 0.93 | 200 | 520 | 1 |

### SYNTHETIC BASED ACTIVE SULPHUR OILS

|              |   |   |   |   |   |   |   |
|--------------|---|---|---|---|---|---|---|
| Q8 Bach 7510 | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ |
| Q8 Bach 7515 | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ |
| Q8 Bach 7520 | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ |
| Q8 Bach 7530 | ✓ | ✗ | ✓ | ✓ | ✗ | ✓ | ✗ |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ! | ✗ |
| ✓ | ✓ | ✓ | ✓ | ! | ✗ |
| ✓ | ✓ | ✓ | ✓ | ! | ✗ |
| ✓ | ✓ | ✓ | ✓ | ! | ✗ |

|    |        |      |
|----|--------|------|
| ✓✓ | Active | Free |
| ✓✓ | Active | Free |
| ✓✓ | Active | Free |
| ✓✓ | Active | Free |

|       |      |    |      |     |      |   |
|-------|------|----|------|-----|------|---|
| Amber | Mild | 9  | 0.83 | 175 | >800 | 4 |
| Amber | Mild | 16 | 0.84 | 195 | >800 | 4 |
| Amber | Mild | 23 | 0.94 | 200 | >800 | 4 |
| Amber | Mild | 33 | 0.84 | 200 | >800 | 4 |

### ESTER-BASED NON-ACTIVE SULPHUR OILS

|                 |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|
| Q8 Bach XNRG 6  | ✓ | ✗ | ✗ | ✗ | ✓ | ✗ | ✓ |
| Q8 Bach XNRG 12 | ✓ | ! | ✗ | ✗ | ✗ | ✗ | ✓ |
| Q8 Bach XNRG 15 | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ |
| Q8 Bach XNRG 25 | ✓ | ✗ | ! | ! | ✗ | ! | ✗ |
| Q8 Bach XNRG 32 | ✓ | ✗ | ! | ! | ✗ | ! | ✗ |
| Q8 Bach XNRG 44 | ✓ | ✗ | ✗ | ! | ✗ | ! | ✗ |

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

|    |            |      |
|----|------------|------|
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |
| ✓✓ | Non Active | Free |

|            |     |    |      |     |      |   |
|------------|-----|----|------|-----|------|---|
| PaleYellow | Low | 6  | 0.87 | 190 | 420  | 1 |
| PaleYellow | Low | 12 | 0.88 | 200 | 340  | 1 |
| PaleYellow | Low | 15 | 0.87 | 220 | >800 | 1 |
| PaleYellow | Low | 23 | 0.93 | 205 | 440  | 1 |
| PaleYellow | Low | 32 | 0.91 | 240 | 380  | 1 |
| PaleYellow | Low | 44 | 0.92 | 300 | 260  | 1 |

### MINIMUM QUANTITY LUBRICATION (VEG. SYNTH.)

|                |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|
| Q8 Bach MQL 20 | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ |
|----------------|---|---|---|---|---|---|---|

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
|---|---|---|---|---|---|---|

|    |            |      |
|----|------------|------|
| ✓✓ | Non Active | Free |
|----|------------|------|

|            |     |      |      |     |     |   |
|------------|-----|------|------|-----|-----|---|
| PaleYellow | Low | 18.5 | 0.84 | 165 | 140 | 1 |
|------------|-----|------|------|-----|-----|---|

✓ Recommended
 ! Consult metal@Q8Oils.com
 ✗ Not applicable

For more information on using metalworking fluids please consult MWF engineers guide (available on [www.Q8Oils.com](http://www.Q8Oils.com))

## Complimentary products

|                |                   | Machine part                        |                                            |                                                                        |                                   |                                              |                                                                     |                  |
|----------------|-------------------|-------------------------------------|--------------------------------------------|------------------------------------------------------------------------|-----------------------------------|----------------------------------------------|---------------------------------------------------------------------|------------------|
|                |                   | Hydraulic system                    | Slideway                                   | Spindle                                                                | Pneumatic system                  | Gearbox                                      | Bearing                                                             | Electric engine  |
| Lubricant type | Hydraulic Oils    | Q8 Haydn<br>Q8 Holst<br>Q8 Hogarth  |                                            |                                                                        |                                   | <sup>2</sup> Q8 Haydn                        | Q8 Haydn<br>Q8 Holst                                                |                  |
|                | Metalworking oils | <sup>1</sup> Q8 Bach XNF<br>28 & 36 |                                            |                                                                        |                                   |                                              |                                                                     |                  |
|                | Slideway oils     | <sup>3</sup> Q8 Wagner NS<br>32/68  | <sup>3</sup> Q8 Wagner NS<br>32/68/150/220 |                                                                        |                                   | <sup>3</sup> Q8 Wagner NS<br>32/68           | <sup>3</sup> Q8 Wagner NS<br>32/68                                  |                  |
|                | Spindle oils      | Q8 Dynobear<br>32/68                | Q8 Dynobear<br>32/68                       | Q8 Dynobear<br>3/5/10/32/68                                            |                                   |                                              |                                                                     |                  |
|                | Pneumatic oils    |                                     |                                            |                                                                        | Q8 Chopin 32/46                   |                                              |                                                                     |                  |
|                | Compressor oils   |                                     |                                            |                                                                        | Q8 Schubert 46<br>Q8 Scarlatti 46 |                                              |                                                                     |                  |
|                | Gear oils         |                                     |                                            |                                                                        |                                   | Q8 Goya<br>150/220<br>Q8 El Greco<br>150/220 | Q8 Goya<br>150/220<br>Q8 El Greco<br>150/220                        |                  |
|                | Greases           |                                     |                                            | <sup>4</sup> Q8 Rubens EM 2/3<br><sup>4</sup> Q8 Rembrandt<br>EP 00 WV |                                   |                                              | Q8 Multi LCX 1/2<br>Q8 Rodin EP 202/415<br>Q8 Rubens PMS<br>222/462 | Q8 Rubens EM 2/3 |

### Key

- <sup>1</sup> classified DIN 51524/2 HLP & passed FZG/seal test
- <sup>2</sup> only for low loaded gearboxes
- <sup>3</sup> classified DIN 51524/2 HLP & DIN 51517/3 CLP
- <sup>4</sup> only when spindles are grease lubricated

## Rust prevention and service products

### Rust preventative

| Product           | Property             | Protection | Type        | Film Type | Protection time indoor (months) | Protection outside (months) | Kin. Viscosity 40°C (mm <sup>2</sup> /s) | Flash point COC (°C) | Drying time@room temp. (min.) |
|-------------------|----------------------|------------|-------------|-----------|---------------------------------|-----------------------------|------------------------------------------|----------------------|-------------------------------|
| Q8 Ravel TX 630   | Dewatering           | Medium     | Mineral Oil | Oily      | 6 - 8                           | X                           | 23                                       | 190                  | n.a.                          |
| Q8 Ravel DTX 1203 | Dewatering           | Medium     | Solvent     | Oily      | 8 - 12                          | Up to 6                     | 2.5                                      | 84                   | 60 - 90                       |
| Q8 Ravel WX 1202  | Long-term Protection | Long       | Solvent     | Waxy      | 12 - 18                         | Up to 12                    | 2.1                                      | 84                   | 60 - 90                       |

### Service products for water soluble MWF systems

| Product          | Description                                                       |
|------------------|-------------------------------------------------------------------|
| Q8 Antifoam EX   | Antifoam additive for water based emulsion systems                |
| Q8 Bioclean Plus | System cleaner for tanks and equipment that use water base fluids |
| Q8 Solguard pH   | Additive to increase pH of watersoluble metalworking fluids       |

## Important: Always use the latest distributed overviews!

### NOTICE

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