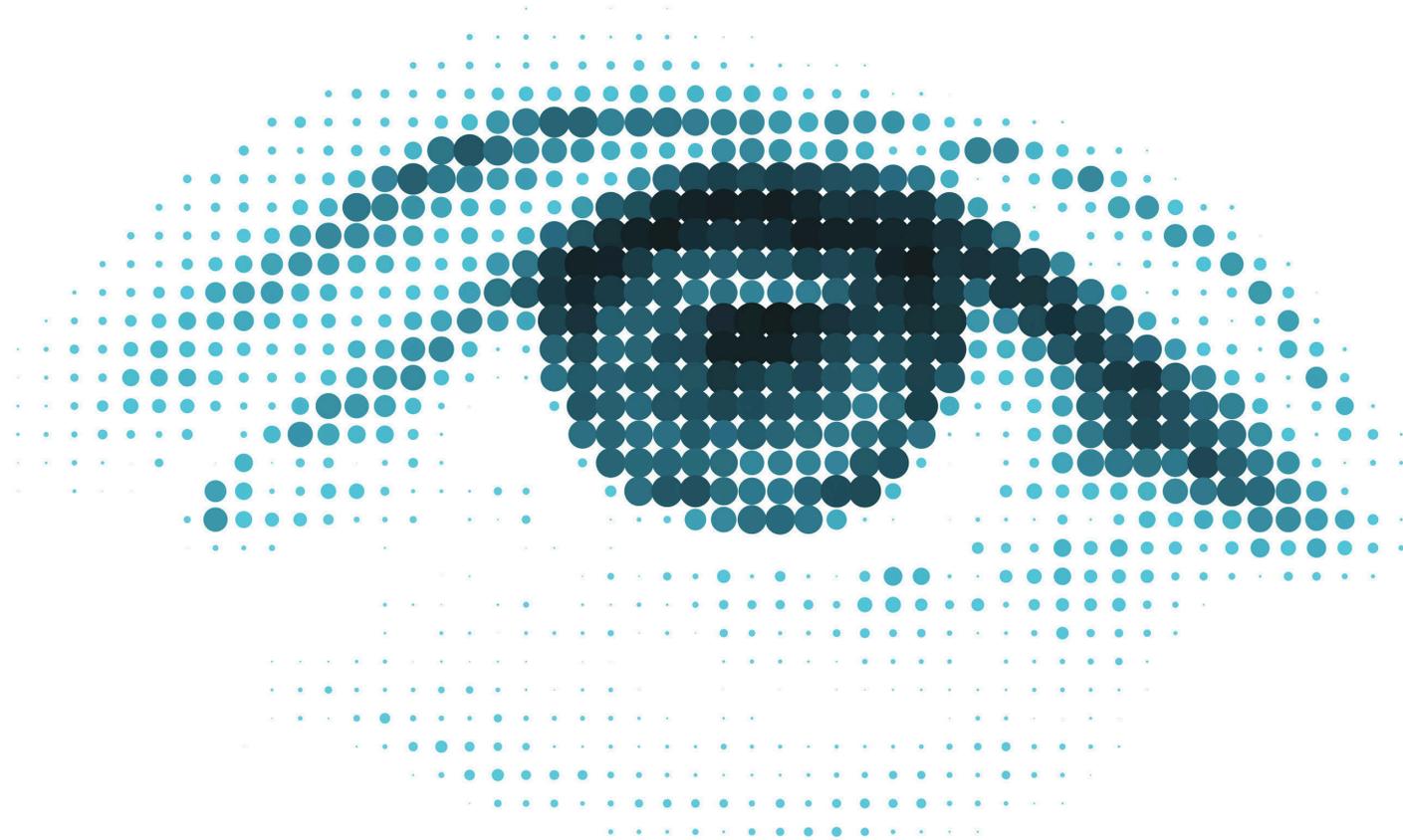


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internal reseller information system



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1. Automotive oils



Heavy Duty Diesel Oil (HDDO)

Approvals & recommendations (1 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- * Pending approval
- ✓ Recommendation

	O8 Formula Truck 9000 FE 0W-20	O8 Formula Truck 9000 FE 5W-20	O8 Formula Truck 9000 FE 5W-30	O8 Formula Truck 8900 FE 5W-30	O8 Formula Truck 8900 FE 10W-30	O8 Formula Truck 8810 FE 5W-30	O8 Formula Truck 8620 FE 10W-30	O8 Formula Truck 8620 10W-40	O8 Formula Truck 8610 10W-40	O8 Formula Truck 8510 FE 10W-30	O8 Formula Truck 8510 10W-40	O8 Formula Truck 7000 FE 10W-30	O8 Formula Truck 7000 10W-40	O8 Formula Truck 7000 15W-40	O8 Formula Truck 7000 15W-50	O8 City Bus Engine Oil 15W-50	O8 Formula Truck 6900 FE 5W-30	O8 T 860 S 10W-40	O8 T 860 10W-40	O8 T 800 10W-40	O8 T 800 10W-30	O8 T 750 15W-40	O8 T 750 20W-50	O8 T 750 SAE 10W	O8 T 750 SAE 30	O8 T 750 SAE 40	O8 T 750 SAE 50	O8 T 520 15W-40	O8 T 520 20W-50	O8 T 200 SAE 40		
Low SAPS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
HTHS	<2.9	<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	>3.5	

ACEA A3/B3																																				
ACEA A3/B4																																				
ACEA E11				•	✓	•	•	•	•	✓	✓	•	•	•																						
ACEA E2																																				
ACEA E3																																				
ACEA E4																																				
ACEA E5																																				
ACEA E6				•	✓	•	•	•	•	✓	✓																									
ACEA E7				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
ACEA E8				•	✓	•	•	•	•	•	✓	✓																								
ACEA E9				•	✓	•	•	•	•	•	✓	•	•	•																						
ACEA F01				✓																																
Allison C-3																																				
Allison TES-439																																				
API CD-II																																				
API CF																																				
API CF-4																																				
API CF-II																																				
API CG-4																																				
API CH-4																																				
API CI-4																																				
API CI-4+																																				
API CJ-4				•	✓	•			•	✓	✓	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
API CK-4				•	•	•	•	•	•	•	•	✓	✓	✓	•	•																				
API FA-4				•																																
API SL																																				
API SN				•	•	✓				✓	✓	✓	✓	✓																						
Caterpillar ECF-1																																				
Caterpillar ECF-1a																																				
Caterpillar ECF-2									✓																											

Heavy Duty Diesel Oil (HDDO)

Approvals & recommendations (2 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- * Pending approval
- ✓ Recommendation

	08 Formula Truck 9000 FE 0W-20	08 Formula Truck 9000 FE 5W-20	08 Formula Truck 9000 FE 5W-30	08 Formula Truck 8900 FE 5W-30	08 Formula Truck 8900 FE 10W-30	08 Formula Truck 8810 FE 5W-30	08 Formula Truck 8620 FE 10W-30	08 Formula Truck 8620 10W-40	08 Formula Truck 8610 10W-40	08 Formula Truck 8510 FE 10W-30	08 Formula Truck 8510 10W-40	08 Formula Truck 7000 FE 10W-30	08 Formula Truck 7000 10W-40	08 Formula Truck 7000 15W-40	08 Formula Truck 7000 15W-50	08 City Bus Engine Oil 15W-50	08 Formula Truck 6900 FE 5W-30	08 T 860 S 10W-40	08 T 860 10W-40	08 T 800 10W-40	08 T 800 10W-30	08 T 750 15W-40	08 T 750 20W-50	08 T 750 SAE 10W	08 T 750 SAE 30	08 T 750 SAE 40	08 T 750 SAE 50	08 T 520 15W-40	08 T 520 20W-50	08 T 200 SAE 40		
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			✓	✓		✓	✓		✓	✓																						
DAF PSQL 2.4										✓*																						
DAF PSQL 2.4 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 15C140 (MB 228.71)	✓																															
Daimler Truck AG DTFR 15D100 (MB 227.61)			✓																													
Daimler Truck AG DTFR 15E100						✓																										
Detroit Diesel DFS 93K218			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓																
Detroit Diesel DFS 93K222			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓																

Heavy Duty Diesel Oil (HDDO)

Approvals & recommendations (3 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- * Pending approval
- ✓ Recommendation

	Q8 Formula Truck 9000 FE 0W-20	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 FE 10W-30	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 DFS 93K223			✓																												
Detroit Diesel Two-stroke diesel engines																															✓
Deutz DQC III-10 LA															✓	✓															
Deutz DQC III-18																															
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 18-1804 TLV LS	✓																														
Iveco 18-1809 NG2				✓				✓	✓																						
JASO DH-1						•																									
JASO DH-2			✓	•	•	•			•	•	•	✓	✓	✓	•	✓															
JASO DL-0						✓																									
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																															

Heavy Duty Diesel Oil (HDDO)

Approvals & recommendations (4 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- * Pending approval
- ✓ Recommendation

	O8 Formula Truck 9000 FE 0W-20	O8 Formula Truck 9000 FE 5W-20	O8 Formula Truck 9000 FE 5W-30	O8 Formula Truck 8900 FE 5W-30	O8 Formula Truck 8900 FE 10W-30	O8 Formula Truck 8810 FE 5W-30	O8 Formula Truck 8620 FE 10W-30	O8 Formula Truck 8620 10W-40	O8 Formula Truck 8610 10W-40	O8 Formula Truck 8510 FE 10W-30	O8 Formula Truck 8510 10W-40	O8 Formula Truck 7000 FE 10W-30	O8 Formula Truck 7000 10W-40	O8 Formula Truck 7000 15W-40	O8 Formula Truck 7000 15W-50	O8 City Bus Engine Oil 15W-50	O8 Formula Truck 6900 FE 5W-30	O8 T 860 S 10W-40	O8 T 860 10W-40	O8 T 800 10W-40	O8 T 800 10W-30	O8 T 750 15W-40	O8 T 750 20W-50	O8 T 750 SAE 10W	O8 T 750 SAE 30	O8 T 750 SAE 40	O8 T 750 SAE 50	O8 T 520 15W-40	O8 T 520 20W-50	O8 T 200 SAE 40					
Mack EO-O Premium Plus																																			
Mack EO-S 4,5			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>																										
MAN M 270																											<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
MAN M 271																																			
MAN M 3271-1				<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																					
MAN M 3275-1																																			
MAN M 3277																		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
MAN M 3477				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>																										
MAN M 3575									<input checked="" type="checkbox"/>																										
MAN M 3677				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																													
MAN M 3691				<input checked="" type="checkbox"/>																															
MAN M 3775				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																												
MAN M 3777				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																													
MAN M 3977	<input checked="" type="checkbox"/>																																		
MB 226.9				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																								
MB 227.0																											<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
MB 227.61 (DTFR 15D100)				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>																									
MB 228.0																											<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
MB 228.1																																			
MB 228.3 (DTFR 15B110)																																			
MB 228.31 (DTFR 15C100)						<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>							<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
MB 228.5 (DTFR 15B120)																																			
MB 228.51 (DTFR 15C110)						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																										
MB 228.52 (DTFR 15C120)						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																										
MB 228.61 (DTFR 15C130)				<input checked="" type="checkbox"/>																															
MB 235.27 (DTFR 13D100)																																			
MIL L-2104C																																			
MTU Type 1																										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
MTU Type 2																										<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
MTU Type 2.1													<input checked="" type="checkbox"/>																						
MTU Type 3																																			
MTU Type 3.1				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																								
NATO O-237																										<input checked="" type="checkbox"/>									

Heavy Duty Diesel Oil (HDDO)

Approvals & recommendations (5 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- * Pending approval
- ✓ Recommendation

	08 Formula Truck 9000 FE 0W-20	08 Formula Truck 9000 FE 5W-20	08 Formula Truck 9000 FE 5W-30	08 Formula Truck 8900 FE 5W-30	08 Formula Truck 8900 FE 10W-30	08 Formula Truck 8810 FE 5W-30	08 Formula Truck 8620 FE 10W-30	08 Formula Truck 8620 10W-40	08 Formula Truck 8610 10W-40	08 Formula Truck 8510 FE 10W-30	08 Formula Truck 8510 10W-40	08 Formula Truck 7000 FE 10W-30	08 Formula Truck 7000 10W-40	08 Formula Truck 7000 15W-40	08 Formula Truck 7000 15W-50	08 City Bus Engine Oil 15W-50	08 Formula Truck 6900 FE 5W-30	08 T 860 S 10W-40	08 T 860 10W-40	08 T 800 10W-40	08 T 800 10W-30	08 T 750 15W-40	08 T 750 20W-50	08 T 750 SAE 10W	08 T 750 SAE 30	08 T 750 SAE 40	08 T 750 SAE 50	08 T 520 15W-40	08 T 520 20W-50	08 T 200 SAE 40			
Renault RGD			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓																				
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																			✓				✓										
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 (2 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- Pending approval
- ✓ Recommendation

	08 Formula Hybrid GF-6B 0W-16	08 Formula Special FE 0W-20	08 Formula Special D1 FE 0W-20	08 Formula Exclusive RN FE 0W-20	08 Formula Techno Eco FE 0W-20	08 Formula Elite FE 0W-20	08 Formula V Blue 0W-20	08 Formula Ultra V 0W-20	08 Formula Exclusive Eco 5W-20	08 Formula Exclusive V 0W-30	08 Formula Techno Eco 0W-30	08 Formula Elite C2 0W-30	08 Formula Prestige V 5W-30	08 Formula Elite C2/C3 5W-30	08 Formula Special RN 5W-30	08 Formula Elite FPW 5W-30	08 Formula R Long Life 5W-30	08 Formula Special D1 5W-30	08 Formula Exclusive C1 5W-30	08 Formula Special M 5W-40	08 Formula M Long Life 5W-40	08 Formula Excel Long Life FE 0W-30	08 Formula Techno FE Plus 5W-30	08 Formula Advanced 10W-30	08 Formula Excel Long Life 0W-40	08 Formula Excel Long Life 5W-40	08 Formula Excel 5W-40	08 Formula Advanced Plus 10W-40	08 Formula Plus 15W-40	08 Formula Plus 20W-50	08 Formula F1 Racing 5W-50	08 Formula F1 10W-50	08 Formula F1 10W-60			
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-G2																																				
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		✓					✓																													

Passenger Car Motor Oil (PCMO)

Approvals & recommendations (3 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- * Pending approval
- ✓ Recommendation

	08 Formula Hybrid GF-6B 0W-16	08 Formula Special FE 0W-20	08 Formula Special D1 FE 0W-20	08 Formula Exclusive RN FE 0W-20	08 Formula Techno Eco FE 0W-20	08 Formula Elite FE 0W-20	08 Formula V Blue 0W-20	08 Formula Ultra V 0W-20	08 Formula Exclusive Eco 5W-20	08 Formula Exclusive V 0W-30	08 Formula Techno Eco 0W-30	08 Formula Elite C2 0W-30	08 Formula Prestige V 5W-30	08 Formula Elite C2/C3 5W-30	08 Formula Special RN 5W-30	08 Formula Elite FPW 5W-30	08 Formula R Long Life 5W-30	08 Formula Special D1 5W-30	08 Formula Exclusive C1 5W-30	08 Formula Special M 5W-40	08 Formula M Long Life 5W-40	08 Formula Excel Long Life FE 0W-30	08 Formula Techno FE Plus 5W-30	08 Formula Advanced 10W-30	08 Formula Excel Long Life 0W-40	08 Formula Excel Long Life 5W-40	08 Formula Excel 5W-40	08 Formula Advanced Plus 10W-40	08 Formula Plus 15W-40	08 Formula Plus 20W-50	08 Formula F1 Racing 5W-50	08 Formula F1 10W-50	08 Formula F1 10W-60				
Ford M2C956-A1						✓																															
Ford M2C961-A1																		✓																			
Ford M2C962-A1		✓	✓					✓																													
GM Dexos D (OV0401547)					✓																																
GM Dexos1 Gen3			<input checked="" type="checkbox"/>															<input checked="" type="checkbox"/>																			
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																									<input checked="" type="checkbox"/>												
Jaguar Land Rover STJLR.03.5004								•																													
Jaguar Land Rover STJLR.03.5005																																					
Jaguar Land Rover STJLR.03.5006		✓			<input checked="" type="checkbox"/>		✓																														
Jaguar Land Rover STJLR.03.5007												<input checked="" type="checkbox"/>																									
Jaguar Land Rover STJLR.51.5122					✓																																
MB 226.5																																				✓	
MB 226.51																																					
MB 226.52															<input checked="" type="checkbox"/>																						
MB 229.1																																				✓	
MB 229.3																																					
MB 229.31															✓		<input checked="" type="checkbox"/>	✓									✓	✓	<input checked="" type="checkbox"/>		✓						
MB 229.5																																					
MB 229.51																																					
MB 229.52																																					
MB 229.6										<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																				
MB 229.71		<input checked="" type="checkbox"/>			✓		✓																														
MB 229.72		<input checked="" type="checkbox"/>					✓																														

Passenger Car Motor Oil (PCMO)

Approvals & recommendations (4 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- Pending approval
- ✓ Recommendation

	O8 Formula Hybrid GF-6B 0W-16	O8 Formula Special FE 0W-20	O8 Formula Special DT1 FE 0W-20	O8 Formula Exclusive RN FE 0W-20	O8 Formula Techno Eco FE 0W-20	O8 Formula Elite FE 0W-20	O8 Formula V Blue 0W-20	O8 Formula Ultra V 0W-20	O8 Formula Exclusive Eco 5W-20	O8 Formula Exclusive V 0W-30	O8 Formula Techno Eco 0W-30	O8 Formula Elite C2 0W-30	O8 Formula Prestige V 5W-30	O8 Formula Elite C2/C3 5W-30	O8 Formula Special RN 5W-30	O8 Formula Elite FPW 5W-30	O8 Formula R Long Life 5W-30	O8 Formula Special D1 5W-30	O8 Formula Exclusive C1 5W-30	O8 Formula Special IM 5W-40	O8 Formula M Long Life 5W-40	O8 Formula Excel Long Life FE 0W-30	O8 Formula Techno FE Plus 5W-30	O8 Formula Advanced 10W-30	O8 Formula Excel Long Life 0W-40	O8 Formula Excel Long Life 5W-40	O8 Formula Excel 5W-40	O8 Formula Advanced Plus 10W-40	O8 Formula Plus 15W-40	O8 Formula Plus 20W-50	O8 Formula F1 Racing 5W-50	O8 Formula F1 10W-50	O8 Formula F1 10W-60	
MB Approval 229.51										<input checked="" type="checkbox"/>																								
Opel/Vauxhall OV0401547 (Dexos D)	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>											<input checked="" type="checkbox"/>																			
Opel/Vauxhall OV0401547-A20	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>																														
Opel/Vauxhall OV0401547-D30													<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																			
Opel/Vauxhall OV0401547-G30													<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																			
Porsche A40																																		
Porsche C20						<input checked="" type="checkbox"/>																				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
Porsche C30									<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>																					
Porsche C40																																		
PSA B71 2010					<input checked="" type="checkbox"/>																													
PSA B71 2290													<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																			
PSA B71 2290-2014													<input checked="" type="checkbox"/>																					
PSA B71 2296																																		
PSA B71 2297																																		
PSA B71 2300																																		
PSA B71 2312-2022																																		
Renault RN 0700															<input checked="" type="checkbox"/>																			
Renault RN 0710															<input checked="" type="checkbox"/>																			
Renault RN 0720																																		
Renault RN 17															<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>																	
Renault RN17 FE				<input checked="" type="checkbox"/>																														
Stellantis FPW 9.55535-03 (V1)																																		
Toyota SFU	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>																														
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 2024																																		
VAG VW 505.00																																		
VAG VW 505.01																																		
VAG VW 506.00																																		
VAG VW 506.01																																		

Passenger Car Motor Oil (PCMO)

Approvals & recommendations (5 / 5)

Key

(dd. 03/03/2026)

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

	O8 Formula Hybrid GF-6B 0W-16	O8 Formula Special FE 0W-20	O8 Formula Special DT FE 0W-20	O8 Formula Exclusive RN FE 0W-20	O8 Formula Techno Eco FE 0W-20	O8 Formula Elite FE 0W-20	O8 Formula V Blue 0W-20	O8 Formula Ultra V 0W-20	O8 Formula Exclusive Eco 5W-20	O8 Formula Exclusive V 0W-30	O8 Formula Techno Eco 0W-30	O8 Formula Elite C2 0W-30	O8 Formula Prestige V 5W-30	O8 Formula Elite C2/C3 5W-30	O8 Formula Special RN 5W-30	O8 Formula Elite FPW 5W-30	O8 Formula R Long Life 5W-30	O8 Formula Special D1 5W-30	O8 Formula Exclusive C1 5W-30	O8 Formula Special M 5W-40	O8 Formula M Long Life 5W-40	O8 Formula Excel Long Life FE 0W-30	O8 Formula Techno FE Plus 5W-30	O8 Formula Advanced 10W-30	O8 Formula Excel Long Life 0W-40	O8 Formula Excel Long Life 5W-40	O8 Formula Excel 5W-40	O8 Formula Advanced Plus 10W-40	O8 Formula Plus 15W-40	O8 Formula Plus 20W-50	O8 Formula F1 Racing 5W-50	O8 Formula F1 10W-50	O8 Formula F1 10W-60		
VAG VW 507.00									<input checked="" type="checkbox"/>																										
VAG VW 507.00 Baumuster 2024												<input checked="" type="checkbox"/>																							
VAG VW 508.00						<input checked="" type="checkbox"/>																													
VAG VW 509.00						<input checked="" type="checkbox"/>																													
VAG VW 511.00																																			
VAG VWC 53034																																			
VAG VWC 53035																																			
VAG VWC 53036																																			
VAG VWC 53037																																			
Volvo Cars VCC 95200356																																			
Volvo Cars VCC 95200377																																			
Volvo Cars VCC C6SP		<input checked="" type="checkbox"/> *																																	
Volvo Cars VCC RBS0-2AE		✓																																	
Volvo VCC 95200356																																			

Manual transmission fluid (MTF) and axle lubricant

Approvals & recommendations (1 / 8)

Key

(dd. 03/03/2026)

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

	O8 T 35 SAE 80W	O8 T 35 SAE 90	O8 T 35 80W-90	O8 T 36 75W-90	O8 T 40 75W-90	O8 T 45 LS SAE 90	O8 T 45 LS SAE 85W-140	O8 T 55 80W-90	O8 T 55 SAE 90	O8 T 55 85W-140	O8 T 65 75W-90	O8 T 65 LS 75W-90	O8 Axle Oil TP 80W-90	O8 Axle Oil XG 80W-140	O8 Axle Oil GL-5 75W-90	O8 Axle Oil XG Synt FE 75W-80	O8 Axle Oil XG Synt FE 75W-85	O8 Gear Oil V 75W-80	O8 Gear Oil V LD 75W-80	O8 Gear Oil M LD 75W-80	O8 Gear Oil V LD 75W-90	O8 Gear Oil S LD 75W-90	O8 Gear Oil XG 80W-90	O8 Trans XGS 75W-85	O8 Trans XGS 75W-90	O8 Trans XGN 75W-90	O8 Trans XGS 75W-140	O8 Trans XGR 75W-140	O8 Unishift PC Synt 75W	O8 Unishift PC Synt 75W-80	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								✓	✓	✓	✓																					
DAF GO DAF PSQL 2.4																✓	✓															
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. 03/03/2026)

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

	O8 T 35 SAE 80W	O8 T 35 SAE 90	O8 T 35 80W-90	O8 T 36 75W-90	O8 T 40 75W-90	O8 T 45 LS SAE 90	O8 T 45 LS SAE 85W-140	O8 T 55 80W-90	O8 T 55 SAE 90	O8 T 55 85W-140	O8 T 65 75W-90	O8 T 65 LS 75W-90	O8 Axle Oil TP 80W-90	O8 Axle Oil XG 80W-140	O8 Axle Oil GL-5 75W-90	O8 Axle Oil XG Synt FE 75W-80	O8 Axle Oil XG Synt FE 75W-85	O8 Gear Oil V 75W-80	O8 Gear Oil V LD 75W-80	O8 Gear Oil M LD 75W-80	O8 Gear Oil V LD 75W-90	O8 Gear Oil S LD 75W-90	O8 Gear Oil XG 80W-90	O8 Trans XGS 75W-85	O8 Trans XGS 75W-90	O8 Trans XGN 75W-90	O8 Trans XGS 75W-140	O8 Trans XGR 75W-140	O8 Unishift PC Synt 75W	O8 Unishift PC Synt 75W-80	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																															✓		
Ford M2C200-D2																														●	✓		

Manual transmission fluid (MTF) and axle lubricant

Approvals & recommendations (3 / 8)

Key

(dd. 03/03/2026)

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

	O8 T 35 SAE 80W	O8 T 35 SAE 90	O8 T 35 80W-90	O8 T 36 75W-90	O8 T 40 75W-90	O8 T 45 LS SAE 90	O8 T 45 LS SAE 85W-140	O8 T 55 80W-90	O8 T 55 SAE 90	O8 T 55 85W-140	O8 T 65 75W-90	O8 T 65 LS 75W-90	O8 Axle Oil TP 80W-90	O8 Axle Oil XG 80W-140	O8 Axle Oil GL-5 75W-90	O8 Axle Oil XG Synt FE 75W-80	O8 Axle Oil XG Synt FE 75W-85	O8 Gear Oil V 75W-80	O8 Gear Oil V LD 75W-80	O8 Gear Oil M LD 75W-80	O8 Gear Oil V LD 75W-90	O8 Gear Oil S LD 75W-90	O8 Gear Oil XG 80W-90	O8 Trans XGS 75W-85	O8 Trans XGS 75W-90	O8 Trans XGN 75W-90	O8 Trans XGS 75W-140	O8 Trans XGR 75W-140	O8 Unishift PC Synt 75W	O8 Unishift PC Synt 75W-80	ZF Ecofluid M 75W-80	
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 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																																✓
Iveco 18-1805 RAM1								✓	✓																							✓
Iveco 18-1805 RAM2										✓																						✓
Iveco 18-1805 RAS1																																✓

Manual transmission fluid (MTF) and axle lubricant

Approvals & recommendations (5 / 8)

Key

(dd. 03/03/2026)

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

	O8 T 35 SAE 80W	O8 T 35 SAE 90	O8 T 35 80W-90	O8 T 36 75W-90	O8 T 40 75W-90	O8 T 45 LS SAE 90	O8 T 45 LS SAE 85W-140	O8 T 55 80W-90	O8 T 55 SAE 90	O8 T 55 85W-140	O8 T 65 75W-90	O8 T 65 LS 75W-90	O8 Axle Oil TP 80W-90	O8 Axle Oil XG 80W-140	O8 Axle Oil GL-5 75W-90	O8 Axle Oil XG Synt FE 75W-80	O8 Axle Oil XG Synt FE 75W-85	O8 Gear Oil V 75W-80	O8 Gear Oil V LD 75W-80	O8 Gear Oil M LD 75W-80	O8 Gear Oil V LD 75W-90	O8 Gear Oil S LD 75W-90	O8 Gear Oil XG 80W-90	O8 Trans XGS 75W-85	O8 Trans XGS 75W-90	O8 Trans XGN 75W-90	O8 Trans XGS 75W-140	O8 Trans XGR 75W-140	O8 Unishift PC Synt 75W	O8 Unishift PC Synt 75W-80	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 235.31 (DTFR 12B120)																✓			✓		✓												
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																															✓		
Meritor GO MTR 076S																✓	✓								✓	✓	✓						
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								✓	✓	✓																							✓

Manual transmission fluid (MTF) and axle lubricant

Approvals & recommendations (6 / 8)

Key

(dd. 03/03/2026)

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

	O8 T 35 SAE 80W	O8 T 35 SAE 90	O8 T 35 80W-90	O8 T 36 75W-90	O8 T 40 75W-90	O8 T 45 LS SAE 90	O8 T 45 LS SAE 85W-140	O8 T 55 80W-90	O8 T 55 SAE 90	O8 T 55 85W-140	O8 T 65 75W-90	O8 T 65 LS 75W-90	O8 Axle Oil TP 80W-90	O8 Axle Oil XG 80W-140	O8 Axle Oil GL-5 75W-90	O8 Axle Oil XG Synt FE 75W-80	O8 Axle Oil XG Synt FE 75W-85	O8 Gear Oil V 75W-80	O8 Gear Oil V LD 75W-80	O8 Gear Oil M LD 75W-80	O8 Gear Oil V LD 75W-90	O8 Gear Oil S LD 75W-90	O8 Gear Oil XG 80W-90	O8 Trans XGS 75W-85	O8 Trans XGS 75W-90	O8 Trans XGN 75W-90	O8 Trans XGS 75W-140	O8 Trans XGR 75W-140	O8 Unishift PC Synt 75W	O8 Unishift PC Synt 75W-80	ZF Ecofluid M 75W-80					
Rockwell International O-76-E											✓																									
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																						☑*		✓	✓											
Scania STO MTF																			✓																	
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 009 317																																	✓			
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												✓																							✓	
VAG VW G 055 538																																			✓	
VAG VW G 50																																			✓	
VAG VW G 52 726																																	✓	✓		

Manual transmission fluid (MTF) and axle lubricant

Approvals & recommendations (7 / 8)

Key

(dd. 03/03/2026)

- Specification
- Approval
- Pending approval
- ✓ Recommendation

	O8 T 35 SAE 80W	O8 T 35 SAE 90	O8 T 35 80W-90	O8 T 36 75W-90	O8 T 40 75W-90	O8 T 45 LS SAE 90	O8 T 45 LS SAE 85W-140	O8 T 55 80W-90	O8 T 55 SAE 90	O8 T 55 85W-140	O8 T 65 75W-90	O8 T 65 LS 75W-90	O8 Axle Oil TP 80W-90	O8 Axle Oil XG 80W-140	O8 Axle Oil GL-5 75W-90	O8 Axle Oil XG Synt FE 75W-80	O8 Axle Oil XG Synt FE 75W-85	O8 Gear Oil V 75W-80	O8 Gear Oil V LD 75W-80	O8 Gear Oil M LD 75W-80	O8 Gear Oil V LD 75W-90	O8 Gear Oil S LD 75W-90	O8 Gear Oil XG 80W-90	O8 Trans XGS 75W-85	O8 Trans XGS 75W-90	O8 Trans XGN 75W-90	O8 Trans XGS 75W-140	O8 Trans XGR 75W-140	O8 Unishift PC Synt 75W	O8 Unishift PC Synt 75W-80	ZF Ecofluid M 75W-80		
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)																		<input checked="" type="checkbox"/>	✓														
Volvo 97308																																	
Volvo 97309																																	
Volvo 97310								✓	✓	✓																							
Volvo 97311						✓	✓						●																				
Volvo 97312																									<input checked="" type="checkbox"/>	✓							
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 Synchronmesh transmissions					✓																												
ZF TE-ML 01E																																	<input checked="" type="checkbox"/>
ZF TE-ML 01L																		<input checked="" type="checkbox"/>	✓		✓												
ZF TE-ML 02B	✓	✓	✓																				✓	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	✓	✓					
ZF TE-ML 02E																																	<input checked="" type="checkbox"/>
ZF TE-ML 02L																		<input checked="" type="checkbox"/>	✓		✓												
ZF TE-ML 04G																																	
ZF TE-ML 05A								✓	✓	✓	✓			<input checked="" type="checkbox"/>	✓									<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	✓			<input checked="" type="checkbox"/>				
ZF TE-ML 05B																								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	✓			<input checked="" type="checkbox"/>				
ZF TE-ML 05C						<input checked="" type="checkbox"/>	✓																										
ZF TE-ML 05D												✓																					
ZF TE-ML 07A								✓	✓	✓	✓													✓									

Manual transmission fluid (MTF) and axle lubricant

Approvals & recommendations (8 / 8)

Key

(dd. 03/03/2026)

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

	O8 T 35 SAE 80W	O8 T 35 SAE 90	O8 T 35 80W-90	O8 T 36 75W-90	O8 T 40 75W-90	O8 T 45 LS SAE 90	O8 T 45 LS SAE 85W-140	O8 T 55 80W-90	O8 T 55 SAE 90	O8 T 55 85W-140	O8 T 65 75W-90	O8 T 65 LS 75W-90	O8 Axle Oil TP 80W-90	O8 Axle Oil XG 80W-140	O8 Axle Oil GL-5 75W-90	O8 Axle Oil XG Synt FE 75W-80	O8 Axle Oil XG Synt FE 75W-85	O8 Gear Oil V 75W-80	O8 Gear Oil V LD 75W-80	O8 Gear Oil M LD 75W-80	O8 Gear Oil V LD 75W-90	O8 Gear Oil S LD 75W-90	O8 Gear Oil XG 80W-90	O8 Trans XGS 75W-85	O8 Trans XGS 75W-90	O8 Trans XGN 75W-90	O8 Trans XGS 75W-140	O8 Trans XGR 75W-140	O8 Unishift PC Synt 75W	O8 Unishift PC Synt 75W-80	ZF Ecofluid M 75W-80	
ZF TE-ML 08	✓	✓	✓					✓	✓	✓	✓					✓	✓	✓														
ZF TE-ML 12A																																
ZF TE-ML 12B																												✓				
ZF TE-ML 12C						✓	✓																									
ZF TE-ML 12D												✓																				
ZF TE-ML 12F																✓	✓															
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 / 10)

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 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 3401									✓					
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-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 ATF 6											✓			
BMW DCTF-1+													✓	
BMW DCTF-2													✓	
BMW Drivelogic 7-speed (Getrag)													✓	
BMW ETL 8072B										✓				

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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											✓			
BYD DCT											✓			
BYD DHT									✓					

Automatic transmission fluid (ATF)

Approvals & recommendations (2 / 10)

Key

(dd. 03/03/2026)

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

O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
------------	---------------	--------------	--------------	--------------	--------------	------------	--------------	-----------------	-----------------	------------------	------------------	------------------	--------------------

BYD Q/BYD-A1909.0058-2013													
Castrol BOT 351 FE Plus													
Castrol BOT 351LV													
Caterpillar TO-2	✓						✓						
Changan DCTF													✓
Chery 351HHA							✓						
Chery 351HHB							✓						
Chery CVT											✓		
Chery CVT 25											✓		
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 68065322AA							✓						
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							✓						

Key

(dd. 03/03/2026)

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

O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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Chrysler P/N 68171866AA													
Chrysler P/N 68218925AA													
Chrysler Powershift 6-speed (Getrag)													
Clark TLC-25 3M 8-83	✓												
Daewoo LT71141							✓	✓					
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								✓					
FAW 7DCT220F											✓		
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											✓		

Automatic transmission fluid (ATF)

Approvals & recommendations (3 / 10)

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
Fiat 9.55550-MZ6									☑				✓	
Fiat CVT NG												✓		
Fiat JWS 3309 T-IV							✓	✓						
Fiat Tutela Car CVT NG									☑					
Ford ATF C-ML5								✓						
Ford EAP -M2C166H							✓	✓						
Ford Escape Hybrid eCVT								✓	✓		✓	✓		
Ford F-DC										✓				
Ford FNRS							✓	✓						
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									✓					

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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									✓					
Ford XT-9-QMM5									✓					
Ford/Nissan Powershift 6-speed (GFT)											✓			
Fuchs Titan FFL-6											✓	✓		
Fuchs Titan FFL-8											✓			
Fujjyuuko I-CVTF FG										✓				
Fuso ATF-A4								✓				✓		
Fuso ATF-II								✓	✓					
Fuso ATF-SPIII								✓	✓					
Geely 7 Speed											✓			
Geely DSIH 6P805									✓					
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								✓	✓					

Automatic transmission fluid (ATF)

Approvals & recommendations (4 / 10)

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-HEV ATF	O8 Auto H-HEV CVT	O8 Auto H-HEV DCT	ZF Ecofluid A Life
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								☑			✓			
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 CVT-J1									✓					

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-HEV ATF	O8 Auto H-HEV CVT	O8 Auto H-HEV DCT	ZF Ecofluid A Life
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 CVT-1										✓				
Hyundai/Kia SP IV								✓	✓					
Hyundai/Kia SP-II								✓	✓					
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								✓	✓					
Idemitsu W0133-19031-54									✓					
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			✓											
JAC DTF630											✓			
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								✓	✓					

Automatic transmission fluid (ATF)

Approvals & recommendations (5 / 10)

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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								✓	✓		✓			
Jeep ATF +3							✓	✓						
Jeep CVT+4								✓						
Jeep NS-2								✓						
JF Powertronic DCT350									✓					
Komatsu Dresser B22-0004	✓													
Land-Rover LR0234288							✓							
Land-Rover TYK500050							✓							
Lexus Fluid FE								✓				✓		
Lexus Fluid TC								✓				✓		
Lexus JWS 3309								✓						
Lynk & Co. Hybrid electric SUV									✓					
Lynk & Co. Plug-in hybrid									✓					
Mahindra 6SP								✓						
MAN 339 Type A								✓						
MAN 339 Type L1		☑												
MAN 339 Type L2	☑													
MAN 339 Type V1	☑			✓			✓							
MAN 339 Type V2		☑	✓				✓							
MAN 339 Type V3				✓										
MAN 339 Type Z1	☑						✓							
MAN 339 Type Z12				✓										
MAN 339 Type Z13														✓

Key

(dd. 03/03/2026)

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	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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)	✓	☑*												
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)			✓											

Automatic transmission fluid (ATF)

Approvals & recommendations (6 / 10)

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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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							✓	✓						
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								✓						
NB/SH/T 6042-2021								✓						
Nissan Altima Hybrid								✓			✓			
Nissan Altima Hybrid with eCVT								✓				✓		
Nissan e Power								✓						
Nissan KTF-1								✓						
Nissan Matic C							✓	✓						
Nissan Matic D							✓	✓						

Key

(dd. 03/03/2026)

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	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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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									✓					
PDK DCT Transmission Oil for ZF										✓				
Pentosin FFL-6											✓			
Pentosin FFL-8											✓			
Porsche #999.917.080.00											✓			
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)										✓				✓

Automatic transmission fluid (ATF)

Approvals & recommendations (7 / 10)

Key

(dd. 03/03/2026)

- Specification
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- ✓ Recommendation

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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									✓			✓		
Punch VT2									✓					
Punch VT3									✓					
Punch VT5									✓					
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									✓			✓		
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									✓					

Key

(dd. 03/03/2026)

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- ☑* Pending approval
- ✓ Recommendation

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
Saturn T-IV (JWS 3309)								✓	✓					
Scion (all vehicles)								✓	✓					
Shell 3353									✓					
Shell 3403									✓					
Shell ATF 134FE									✓					
Shell ATF D97									✓					
Shell ATF D971									✓					
Shell Green 1V										✓				
Shell L 12108									✓					
Shell LA 2634									✓					
Shell M-1375.4									✓					
Shell M-1375.5									✓					
Shell M-1375.6									✓					
Shell M115									✓					
Shell TF DCT-F3										✓				
Ssang Yong DSIH 5M-66									✓					
Ssang Yong DSIH 6P805									✓					
Stellantis 1693483780										✓				
Subaru ATF								✓						
Subaru ATF-5AT								✓	✓					
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								✓						
Subaru K0421Y0700										✓				
Subaru K0425Y0710										✓				
Subaru K0425Y0711										✓				
Subaru K0710Y0700									✓					

Automatic transmission fluid (ATF)

Approvals & recommendations (8 / 10)

Key

(dd. 03/03/2026)

- Specification
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- ☑* Pending approval
- ✓ Recommendation

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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							✓							
Toyota ATF DII							✓							
Toyota ATF T--IV							✓							
Toyota ATF T-III							✓							
Toyota ATF WS including Toyota hybrid system							✓	✓				✓		

Key

(dd. 03/03/2026)

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- ✓ Recommendation

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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								✓	✓			✓	✓	
Toyota ZF Lifeguard Hybrid 2 (ZF No. 0671.090.548)								✓						
Tsingshan DCT170											✓			
Tsingshan DF515											✓			
Tsingshan DF727C											✓			
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											✓			

Automatic transmission fluid (ATF)

Approvals & recommendations (9 / 10)

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
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 (180.000km)					☑			✓						
Voith 3.90 -8e_ 1997						☑								
Voith H55.6335.xx (60.000km)	☑			✓	✓		✓	✓						
Voith H55.6336.xx (120.000km)		☑	☑	✓	✓			✓						
Voith Hydrodynamic brakes						✓								
Voith Service Bulletin 013/118 (120.000km)		☑	☑	✓	☑			✓						
Voith Service Bulletin 013/118 (180.000km)					☑			✓						
Voith Service Bulletin 013/118 (60.000km)	☑													

Key

(dd. 03/03/2026)

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

	O8 Auto 14	O8 Auto 15 ED	O8 Auto 15 S	O8 Auto 15 A	O8 Auto 15 V	O8 Auto 26 R	O8 Auto JK	O8 Auto D VI	O8 Auto CVT EVO	O8 Auto DCT EVO	O8 Auto H-EV ATF	O8 Auto H-EV CVT	O8 Auto H-EV DCT	ZF Ecofluid A Life
Voith Turbo 3625-006072 (Type S/TP/DTP/VIR)									✓					
Voith Turbo 3625-006073 (Type R)									✓					
Voith Turbo Couplings									✓					
Volvo 97325	✓							✓	✓					
Volvo 97335	✓							✓	✓					
Volvo 97340	✓								✓		✓			
Volvo 97341 (AT 101)		☑		✓	✓				✓					
Volvo 97342 (AT 102)									✓					
Volvo Cars P-N 1161521									✓					
Volvo Cars P-N 31256675									✓					
Volvo Cars P-N 31367567									✓					
Volvo Cars P-N 3344208									✓					
Volvo Cars P/N 1161540									✓					
Volvo Cars P/N 1161621									✓					
Volvo Cars P/N 31256774									✓					
Volvo Cars P/N 31256775									✓					
Volvo CVT													✓	
Volvo CVT 4959										✓				
Volvo P/N 1161540								✓						
Volvo P/N 1161838											✓			
Volvo P/N 1161839											✓			
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 LifeGuard Hybrid 1 (No. AA02.836.455)									✓					
ZF LifeGuard Hybrid 2 (No. 0671.090.548)									✓					
ZF LifeGuard Hybrid 4 (No. 5961.308.625)									✓					

Automatic transmission fluid (ATF)

Approvals & recommendations (10 / 10)

Key

(dd. 03/03/2026)

- 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 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
ZF LifeguardFluid 5								✓						
ZF LifeguardFluid 6								✓						
ZF LifeguardFluid 6 Plus								✓						
ZF LifeguardFluid 8								✓			✓			
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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					✓							<input checked="" type="checkbox"/>
ZF TE-ML 05L							✓	✓						
ZF TE-ML 09	✓	✓					✓	✓						
ZF TE-ML 11									✓					
ZF TE-ML 11A							✓	✓						
ZF TE-ML 11B							✓	✓						
ZF TE-ML 14A	<input checked="" type="checkbox"/>						✓	✓						
ZF TE-ML 14B		<input checked="" type="checkbox"/>					✓							
ZF TE-ML 14C			✓		✓									
ZF TE-ML 14E														<input checked="" type="checkbox"/>
ZF TE-ML 16L		✓					✓							
ZF TE-ML 16N														<input checked="" type="checkbox"/>
ZF TE-ML 16Q														<input checked="" type="checkbox"/>
ZF TE-ML 16S			<input checked="" type="checkbox"/>											
ZF TE-ML 17C	✓	✓					✓							
ZF TE-ML 20C			<input checked="" type="checkbox"/>		✓									
ZF TE-ML 20F														✓
ZF TE-ML 21L								✓						
ZF TE-ML 25C			<input checked="" type="checkbox"/>											
Zotye CVT									✓					

Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU, CVT & TO-4

Approvals & recommendations (1 / 5)

Key

(dd. 03/03/2026)

- 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	Q8 Terra TO-4 SAE 10W	Q8 Terra TO-4 SAE 30	Q8 Terra TO-4 SAE 50
STOU	✓	✓	✓											
UTTO				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Hydraulic (ISO VG)	68	100	100	46-68	46-68	46	68-100	46-68	68	100	68	32	100	220
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(*)	10W(*)	30(*)	50(*)
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 1216				✓										
Case MS 1230				✓	✓									

Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU, CVT & TO-4

Approvals & recommendations (2 / 5)

Key

(dd. 03/03/2026)

- 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	Q8 Terra TO-4 SAE 10W	Q8 Terra TO-4 SAE 30	Q8 Terra TO-4 SAE 50
Case New Holland MAT 3505				✓	✓	✓		✓	✓	✓				
Case New Holland MAT 3506				✓	✓					✓				
Case New Holland MAT 3509				✓	✓									
Case New Holland MAT 3525	✓	✓	✓	✓	✓	✓		✓	✓	✓				
Case New Holland MAT 3526						✓								
Case New Holland MAT 3540				✓	✓			✓	✓	✓				
Case New Holland MAT 3541								✓	✓					
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 Cold Weather											✓			
Caterpillar TO-2	✓		✓	✓	✓	✓	✓							
Caterpillar TO-4												✓	✓	✓
Claas AGRISHIFT XE											✓			
Claas CVT								✓	✓	✓				
DANA OHTM-TO												✓		
Denison HF-0						✓								
Denison HF-1						✓								
Denison HF-2						✓								
Deutz Allis AC Power Fluid 821 XL				✓	✓			✓	✓					
DIN 51524-3 HVLDP			✓											
Fendt FWN 81001								✓						
Fendt Vario			✓					✓	✓	✓				
Fiat AF 87			✓				✓							
FNHA 2-C 200					✓									
FNHA 2-C-201						✓								
Ford M2C121-D			✓											

Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU, CVT & TO-4

Approvals & recommendations (3 / 5)

Key

(dd. 03/03/2026)

- 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	Q8 Terra TO-4 SAE 10W	Q8 Terra TO-4 SAE 30	Q8 Terra TO-4 SAE 50
Ford M2C121-E	✓													
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 J20C	✓	✓	✓	✓	✓			✓	✓	✓				
John Deere JDM J20D						✓								
John Deere JDM J27	✓	✓	✓											
Komatsu Dresser B06-0001						✓								
Komatsu Dresser B06-0002				✓	✓	✓	✓							
Komatsu Dresser Micro-Clutch												✓	✓	✓
Komatsu KES 07.866				✓	✓			✓	✓	✓				
Komatsu KES 07.868.1												✓	✓	✓
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								✓	✓					

Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU, CVT & TO-4

Approvals & recommendations (4 / 5)

Key

(dd. 03/03/2026)

- 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	Q8 Terra TO-4 SAE 10W	Q8 Terra TO-4 SAE 30	Q8 Terra TO-4 SAE 50
Massey Ferguson CMS M 1143		✓		✓	✓	✓								
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+)				✓	✓			✓	✓	✓				
Vickers 35VQ25												✓		
Volvo 97302				✓	✓									
Volvo 97303 (WB 101)				✓	<input checked="" type="checkbox"/>									
Volvo 97304 (WB 102)						✓								
White New Idea Q-1802				✓	✓									
White New Idea Q-1826				✓	✓									

Agri & Off-Road - NEW Q8 Terra range: UTTO, STOU, CVT & TO-4

Approvals & recommendations (5 / 5)

Key

(dd. 03/03/2026)

- 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	Q8 Terra TO-4 SAE 10W	Q8 Terra TO-4 SAE 30	Q8 Terra TO-4 SAE 50
ZF TE-ML 03C				✓	✓	✓		✓	✓	✓		<input checked="" type="checkbox"/>	✓	✓
ZF TE-ML 03E				✓	✓	✓		✓	✓	✓				
ZF TE-ML 03F				✓	✓	✓		✓	✓	✓				
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 07F													✓	
ZF TE-ML 17E				✓	✓			✓	✓	✓				
ZF TE-ML 21F				✓	✓			✓	✓	✓				

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

Approvals & recommendations (1 / 2)

Key

(dd. 03/03/2026)

- Specification
- Approval
- Pending approval
- ✓ Recommendation

O8 Terra 8000 Long Drain FE 5W-30	O8 Terra 8000 Long Drain FE 10W-30	O8 Terra 8000 Long Drain 10W-40	O8 Terra 7000 FE 10W-30	O8 Terra 7000 10W-40	O8 Terra 7000 15W-40	O8 Terra 6600 S 10W-40	O8 Terra 6600 10W-40	O8 Terra 6000 10W-40	O8 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 MS 1121						✓	✓		
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	✓	✓	✓	✓	✓	✓			

Key

(dd. 03/03/2026)

- Specification
- Approval
- Pending approval
- ✓ Recommendation

O8 Terra 8000 Long Drain FE 5W-30	O8 Terra 8000 Long Drain FE 10W-30	O8 Terra 8000 Long Drain 10W-40	O8 Terra 7000 FE 10W-30	O8 Terra 7000 10W-40	O8 Terra 7000 15W-40	O8 Terra 6600 S 10W-40	O8 Terra 6600 10W-40	O8 Terra 6000 10W-40	O8 Terra 6000 15W-40
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Deutz DQC III-18								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Deutz DQC III-18 LA			✓	✓	✓	✓			
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						✓	✓		
Mack EO-N						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mack EO-O Premium Plus				✓	✓	✓			
Mack EO-S 4.5	<input checked="" type="checkbox"/>								
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)	✓								

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

Approvals & recommendations (2 / 2)

Key

(dd. 03/03/2026)

- *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
MB 228.52 (DTRF 15C120)	✓									
MTU Type 2									✓	✓
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. 03/03/2026)

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

	08 T 1000 (D) 10W-30	08 T 1000 15W-40	08 T 5000 10W-40	08 T 2200	08 T 2300 CVT HF 10W-30	08 T 2300 CVT 10W-30	08 T 2300 CVT 15W-40	08 T 2500	08 T 2600 WB Axle 80W-140	08 T 3000	08 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. 03/03/2026)

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

	08 T 1000 (D) 10W-30	08 T 1000 15W-40	08 T 5000 10W-40	08 T 2200	08 T 2300 CVT HF 10W-30	08 T 2500 CVT 10W-30	08 T 2300 CVT 15W-40	08 T 2500	08 T 2500 MB Axle 80W-140	08 T 3000	08 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 HVLDP			✓								
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. 03/03/2026)

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

	08 T 1000 (D) 10W-30	08 T 1000 15W-40	08 T 5000 10W-40	08 T 2200	08 T 2300 CVT HF 10W-30	08 T 2500 CVT 10W-30	08 T 2300 CVT 15W-40	08 T 2500	08 T 2500 MB Axle 80W-140	08 T 3000	08 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. 03/03/2026)

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

	08 T 1000 (D) 10W-30	08 T 1000 15W-40	08 T 5000 10W-40	08 T 2200	08 T 2300 CVT HF 10W-30	08 T 2500 CVT 10W-30	08 T 2300 CVT 15W-40	08 T 2500	08 T 2500 MB Axle 80W-140	08 T 3000	08 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. 03/03/2026)

- Specification
- Approval
- Pending approval
- ✓ Recommendation

	08 T 1000 (D) 10W-30	08 T 1000 15W-40	08 T 5000 10W-40	08 T 2200	08 T 2300 CVT HF 10W-30	08 T 2500 CVT 10W-30	08 T 2300 CVT 15W-40	08 T 2500	08 T 2500 MB Axle 80W-140	08 T 3000	08 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 (higher = better)	Q8 Racing 2T <i>JASO FD; API TC+++; TISI; ISO L-EGD; GLOBAL GD</i> Q8 Allroads 2T <i>JASO FD; API TC++; TISI 1040; ISO-L-EGC</i>		Q8 Outboard Synt 2T <i>NMMA TC-W3</i>	Q8 Garden Pro Synt 2T <i>JASO FD; API TC +++; TISI; ISO L-EGD; GLOBAL GD</i> Q8 Garden Pro 2T <i>JASO FD; API TC ++; TISI 1040; ISO-L-EGC</i>
4 Stroke	Positioning (higher = better)	Q8 Sport 4T 10W-40 <i>JASO MA2; API SN</i> Q8 Racing 4T 10W-50 <i>JASO MA2; API SN</i> Q8 Rider 4T 20W-50 <i>JASO MA2; API SN</i> Q8 Allroads 4T 10W-40 <i>JASO MA2; API SL</i> Q8 Allroads 4T 15W-50 <i>JASO MA2; API SL</i>		Q8 Outboard Synt 4T 10W-40 <i>NMMA FC-W; API SM</i>	Q8 Garden Pro 4T SAE 30 <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

Small engines

Approvals & recommendations (1 / 1)

Key

(dd. 03/03/2026)

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

	O8 Racing 2T	O8 Allroads 2T	O8 Outboard Synt 2T	O8 Garden Pro Synt 2T	O8 Garden Pro 2T	O8 Racing 4T 10W-50	O8 Sport 4T 10W-40	O8 Rider 4T 20W-50	O8 Allroads 4T 10W-40	O8 Allroads 4T 15W-50	O8 Outboard Synt 4T 10W-40	O8 Garden Pro 4T SAE 30
API CD												✓
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 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- Pending approval
- ✓ Recommendation

	Q8 Antifreeze Extended Life	Q8 Antifreeze Lobrid EC-1 Premixed	Q8 Antifreeze Lobrid Premixed	Q8 Antifreeze Lobrid Evo PSI-OAT	Q8 Antifreeze Lobrid Evo PSI-OAT Pre	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	Q8 TMF-EV LC
Technology	OAT	LOAT	Si-OAT	PSI-OAT	PSI-OAT	OAT	OAT	OAT	OAT	OAT	OAT	PSI-OAT	PSI-OAT	OAT
Colour	Blue-green	Red	Magenta	Pink	Pink	Orange-red	Orange-red	Orange/Red	orange/red	Orange	Orange	Green	Pink	Light Blue

AFNOR NF R 15-601	✓					•	•			•	•			
AFNOR NF-R-15-601 1 except for RA				✓	✓									
AS 2108-2004	•			✓	✓							✓	✓	
ASTM D 3306	•		✓	✓	✓	•	•			•	•	✓	✓	
ASTM D 4656						•	•			•	•			
ASTM D 4985			✓	✓	✓	•	•			•	•	✓	✓	
ASTM D 6210		✓		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	•	•			•	•	✓	✓	
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)												✓		
BMW LC87, LC97, LC18				✓	✓									
BS 6580	•	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	
Bugatti VW TL 774 L				✓	✓								✓	
Case New Holland MAT 3624						•	•			•	•			
Case New Holland MAT 3724										✓	✓			
Caterpillar EC-1		✓								✓	✓			
Caterpillar GCM34										✓	✓			
China GB 29743-2013			✓									✓	✓	
China GB 29743-20XX														✓
Cummins 85T8-2				✓	✓									
Cummins CES 14439						•	<input checked="" type="checkbox"/>	✓	✓	•	•			
Cummins CES 14603			•			•	✓	✓	✓	•	•			
CUNA NC 956-16	•		✓									✓	✓	
CUNA NC 956-18 (Except RA)	•													
DAF 74002						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	✓	✓	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Daimler Truck AG DTRF 29C110 (MB 325.3)									✓	✓	✓			

Antifreeze

Product range (2 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- * Pending approval
- ✓ Recommendation

	Q8 Antifreeze Extended Life	Q8 Antifreeze Lobrid EC-1 Premixed	Q8 Antifreeze Lobrid Premixed	Q8 Antifreeze Lobrid Evo PSI-OAT	Q8 Antifreeze Lobrid Evo PSI-OAT 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	Q8 TMF-EV LC
Daimler Truck AG DTFR 29C120 (MB 325.5)				✓										
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						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	✓	✓	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Deutz DQC CC-14			✓	✓	✓							✓	✓	
Deutz-Fahr > 04/2017												✓		
Fiat 9.55523				✓	✓	✓	✓			✓	✓			
Ford ESD-M97B49-A				✓	✓									
Ford M97B44-D						•	•	✓	✓	•	•			
Ford M97B44-E						✓	✓			✓	✓			
Foton Q-FPT 2313005-2013						•	•	✓	✓	•	•			
France NFR 15-601	•	✓												
FTP FP19_COOL002										✓				
FVV Heft R 443		✓				•	•			•	•			
GB 29743-2013	•									✓	✓			
GB 29743.1 2014, 2022*				✓	✓									
GM B 040 1065								✓	✓					
GM GMW 18270								✓	✓					
GM GMW 3420								✓	✓	✓	✓			
Huerlimann > 04/2017												✓		
Hyundai/Kia Technology BSC-2 approved														✓
INNIO Jenbacher TA 1000-0201						•	•			•	•			
Iveco 18-1830				✓	✓			✓	✓	✓	✓			
Jaguar Land Rover STJLR 03.5212										✓	✓			
Jaguar Land Rover STJLR.651.5003 (CMR 8229)						•	•			•	•			
JASO M325		✓												
JIS K 2234		✓	✓			•	•			•	•	✓		
JIS K 2234:2006													✓	

Antifreeze

Product range (3 / 5)

Key

(dd. 03/03/2026)

- Specification
- Approval
- * Pending approval
- ✓ Recommendation

	Q8 Antifreeze Extended Life	Q8 Antifreeze Lobrid EC-1 Premixed	Q8 Antifreeze Lobrid Premixed	Q8 Antifreeze Lobrid Evo PSI-OAT	Q8 Antifreeze Lobrid Evo PSI-OAT 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	Q8 TMF-EV LC
JIS K2234:2018				✓	✓									
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 NF				✓	✓									
MAN 324 Type Si-OAT			✓	✓	✓									
MAN 324 Type SNF						<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	✓	✓	✓	<input checked="" type="checkbox"/>			
MAN 325 Type SNF								✓	✓					
MAN B&W AG D36 5600						•	•			•	•			
MAN Energy Solutions BASF-CW-GLY00G64-01												✓		
Mazda MEZ MN 121 D						•	•			•	•			
MB 325.3 (DTFR 29C110)						✓				✓	✓			
MB 325.5 (DTFR 29C120)				✓										
MB 325.6				✓										
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						•	•			•	•			

Antifreeze

Product range (4 / 5)

Key

(dd. 03/03/2026)

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

	Q8 Antifreeze Extended Life	Q8 Antifreeze Lobrid EC-1 Premixed	Q8 Antifreeze Lobrid Premixed	Q8 Antifreeze Lobrid Evo PSI-OAT	Q8 Antifreeze Lobrid Evo PSI-OAT 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	Q8 TMF-EV LC
MTU MTL 5048			✓	✓	✓	●	☑			●	●			
MWM 0199-99-2091/12				✓	✓	●	●			●	●			
MWM TR 2091						●	●			●	●	✓		
NATO S-759		✓				●	●			●	●			
Opel/Vauxhall GME L1301				✓	✓									
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								✓	✓					
Stellantis GMW 18270								✓	✓					
Stellantis GMW 3420								✓	✓					
Tata Tata										✓	✓			
TMC RP 329		✓												
Toyota 1WW / 2WW Engine				✓	✓									
UNE 26-361-88/1	●	✓				●	●			●	●			
US Federal AA-5262		✓												
VAG VW G 15														✓
VAG VW TL 774 D (G12)						●	●	✓	✓	●	●			

Antifreeze

Product range (5 / 5)

Key

(dd. 03/03/2026)

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

	Q8 Antifreeze Extended Life	Q8 Antifreeze Lobrid EC-1 Premixed	Q8 Antifreeze Lobrid Premixed	Q8 Antifreeze Lobrid Evo PSI-OAT	Q8 Antifreeze Lobrid Evo PSI-OAT 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	Q8 TMF-EV LC
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 128 6083				✓	✓									
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
IAT	Inorganic Additive Technology	≈ 90–100 %	≈ 0–10 %	Traditional green antifreeze with full mineral salts and fast-depleting inhibitors; short service life.
HOAT	Hybrid Organic Acid Technology	≈ 40–60 %	≈ 40–60 %	Mix of organic and inorganic corrosion inhibitors; long-life, slow depletion.
LOAT	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.
OAT	Organic Acid Technology	≈ 0 %	≈ 100 %	Fully organic acids; long-life, global standard; no mineral salts.
Si-OAT	Silicated Organic Acid Technology	≈ 2–5 % silicate	≈ 95–98 %	OAT with small silicate dose for fast aluminum protection; common in European OEMs.
P-OAT	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.
PSi-OAT	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)	*(11)	*(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)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
DAF											*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
Detroit Diesel											*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
Dongfeng Trucks																																
FAW																																
Mercedes-Benz Trucks											*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
Freightliner											*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
Fuso																*(1)	*(1)	*(1)	*(1)	*(1)	*(1)											
Hino																*(1)	*(1)	*(1)	*(1)	*(1)	*(1)											
Isuzu																*(1)	*(1)	*(1)	*(1)	*(1)	*(1)											
Iveco																																
Kamaz																												*(2)	*(2)	*(2)	*(2)	*(2)
Kenworth											*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
Mack											*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
MAN											*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(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)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
Renault Trucks											*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
Scania											*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(11)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)	*(12)		
Tatra																						*(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)	*(11)	*(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)
Audi																														
BMW																														
BYD	N/A																													
Chery	N/A																													
Chrysler																														
Citroen																														
Dacia																														
Daewoo																														
Fiat & Lancia																														
Ford																														
Geely	N/A																													
GM																														
Great Wall	N/A																													
Honda																														
Hyundai/Kia																														
Jaguar																														
Land Rover																														
Mazda																														
Mercedes																														
Mitsubishi																														
Nissan																														
Opel																														
Peugeot																														
Porsche																														
Renault																														
Saab																														
Seat																														
Skoda																														
SsangYong																														
Suzuki																														
Toyota																														
Volkswagen																														
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)

Other automotive

Product range (1 / 1)

Key

(dd. 03/03/2026)

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

O8 Brake Fluid DOT 4+	O8 Brake Fluid DOT 4 LV	O8 Brake Fluid DOT 5.1 LV	O8 LHM+	O8 CHF 225	O8 PSF 325
-----------------------	-------------------------	---------------------------	---------	------------	------------

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

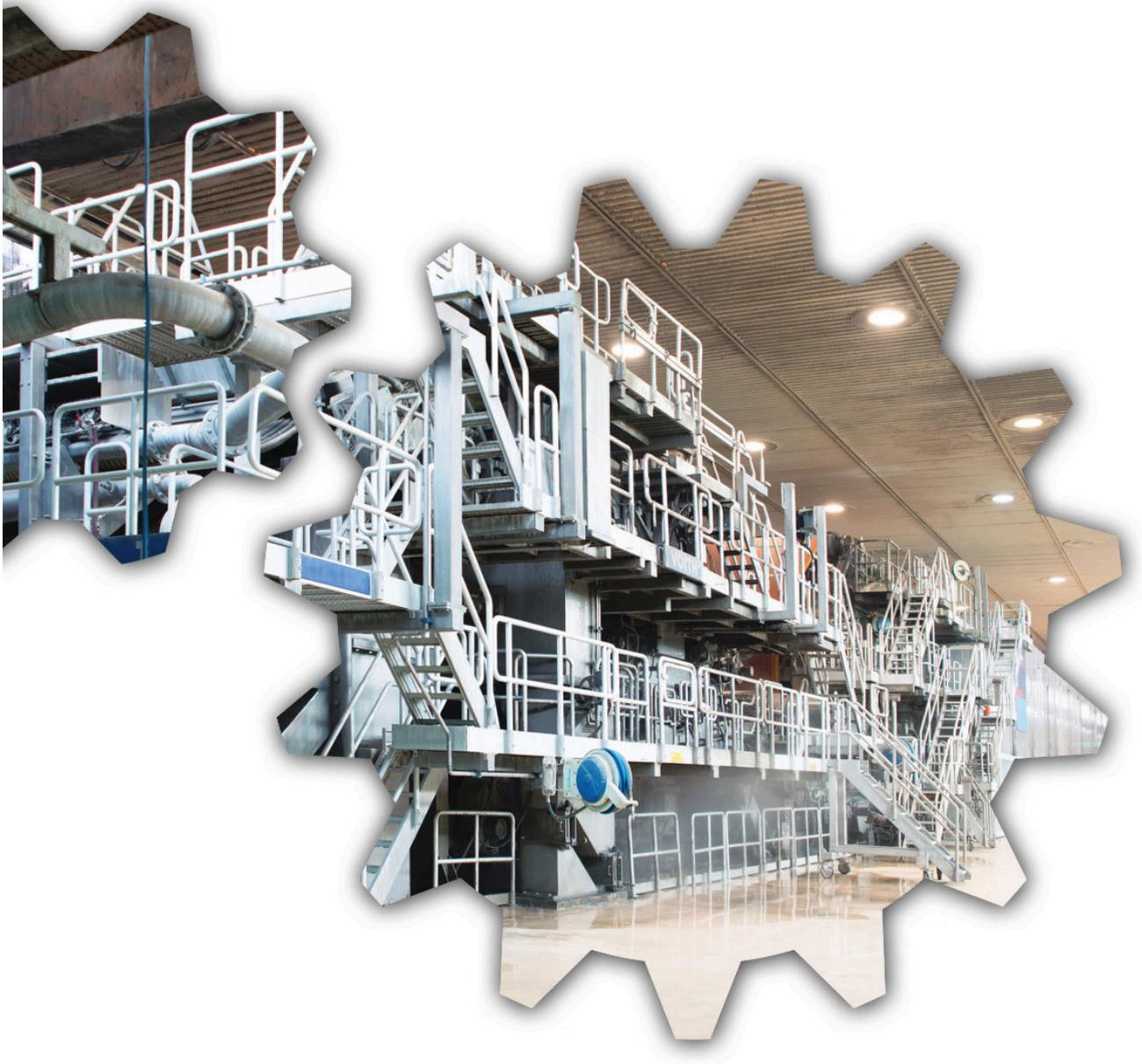
(dd. 03/03/2026)

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

O8 Brake Fluid DOT 4+	O8 Brake Fluid DOT 4 LV	O8 Brake Fluid DOT 5.1 LV	O8 LHM+	O8 CHF 225	O8 PSF 325
-----------------------	-------------------------	---------------------------	---------	------------	------------

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				●	
ZF TE-ML 02K				✓	

2. Industrial oils



Hydraulic oils

Product range

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

(*) - Bosch Rexroth approval

(**) - Bosch Rexroth approval pending

Specifications & recommendations (1 / 2)

Key

(dd. 03/03/2026)

- 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	Q8 Estin	Roloiil 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 0.597669.N _ HFDU-U-46 (Rebrand of approved brand Roloiil Estin 46 S)																					☑*	
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	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓										
FM Approval Standard 6930																					☑	
ISO 11158 HM	•			•	•		•			•			•	•	•							
ISO 11158 HV		•	•			•		•			•	•				•	•			•		
ISO 15380 HEES																		•				
ISO 15380 HEES (2016)																		•				
ISO 21469																				•		
ISO 6743-4 HFDU																					•	
MAG IAS P-68					•																	
MAG IAS P-68, P-69, P-70	•					•																
MAG IAS P-69					•																	
MAG IAS P-70					•																	
Swedish Defense FSD 8401																•						
Swedish Standard SS 155434 AAV 46 Biodegradable																			✓			
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																			•			

Specifications & recommendations (2 / 2)

Key

(dd. 03/03/2026)

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

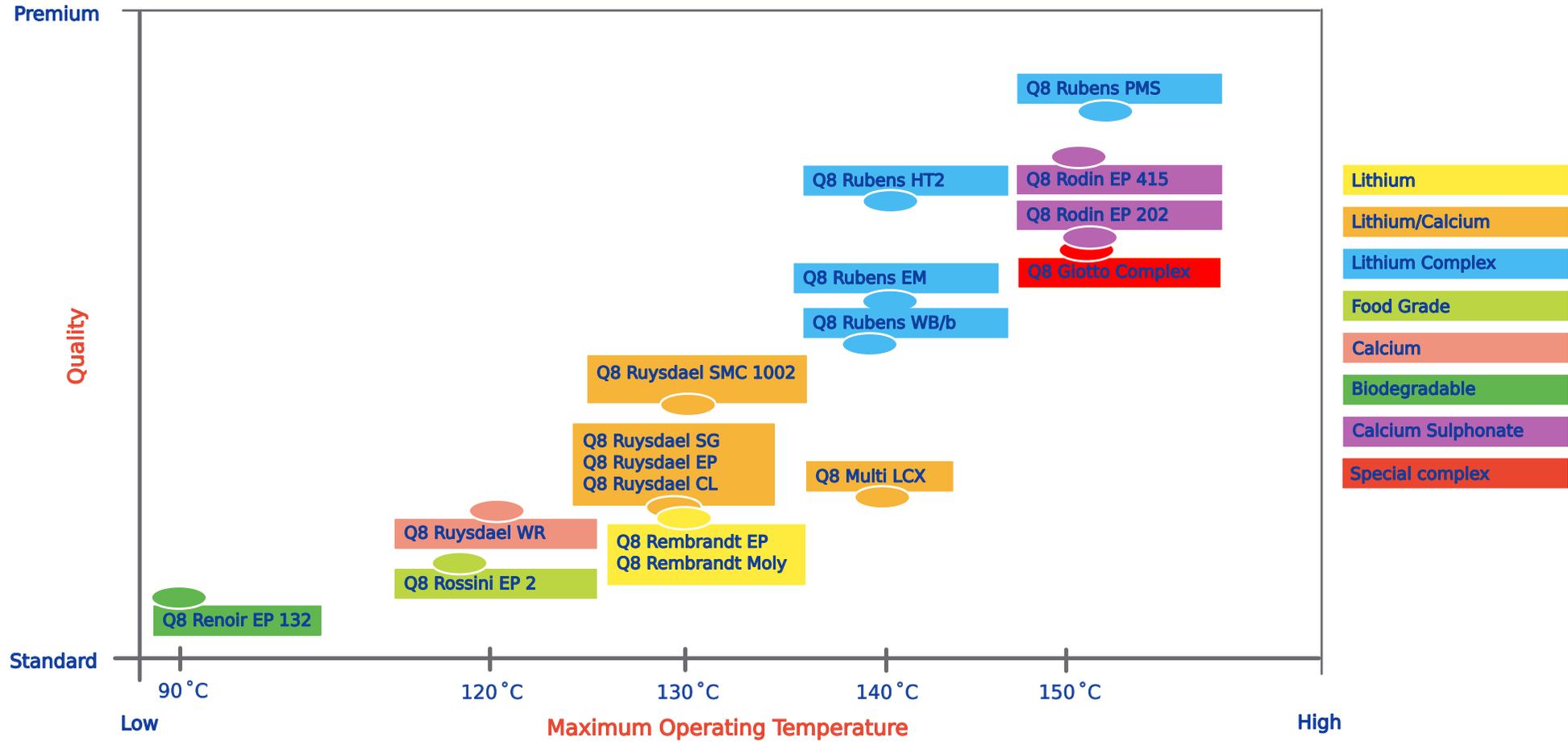
Q8 Haydn	Q8 Heller	Q8 Handel	Q8 Hunt	Q8 Henry	Q8 Hogarth	Q8 Heinichen	Q8 Hoffmeister	Q8 Handel D	Q8 Holst	Q8 Hanson	Q8 Halley	Q8 Holst EP	Q8 Holst XEP	Q8 Holst CR	Q8 Hindemith	Q8 Huygens	Q8 Holbein	Q8 Rossini HMG	Q8 Estin	Roiolil Hydroglix
Volvo STD 1286.07															✓					

Product range

Product	DIN 51502	ISO 6743-9	NLGI Class	Soap Type	Base Oil Type	Base Oil Viscosity @ 40°C mm ² /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	00	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+MoS2	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

Greases

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

DIN 51502

K P HC 2 K -50

Application:

K	Roller & journal bearings
G	Closed gears
OG	Open gears
M	Journal bearings & seals

Additives:

F	Solid lubricants
P	EP additives
Blanc	None

Base Fluid Type:

E	Synthetic ester	PG	Polyalkylenglycol
FK	Perfluoropolyether	SI	Silicon oil
HC	Polyalphaolefin	X	Others
PH	Phosphate ester	Blanc	Mineral

Consistency:

NLGI	Description	2	Firm
000	Nearly fluid	3	Very firm
00	Semi fluid	4	Hard
0	Very soft	5	Very hard
1	Soft	6	Block

Supplementary Code:

C	Upper operating temp	Behaviour against water.
D	+60°C	Excellent
E	+80°C	Standard
F	+100°C	Excellent
G	+120°C	Standard
H	+140°C	Excellent
K	+160°C	Standard
M	+180°C	according to agreement
N	+200°C	
P	+220°C	
R	>220°C	
S		
T		
U		

Lower Operating Temperature:

-10	=	-10°C
-20	=	-20°C
-30	=	-30°C
-40	=	-40°C
-50	=	-50°C
-60	=	-60°C

ISO 6743-9

L - X E C I B 2

Consistency:

NLGI:	Description
000	Nearly fluid
00	Semi fluid
0	Very soft
1	Soft
2	Firm
3	Very firm
4	Hard
5	Very hard
6	Block

Extreme Pressure:

A	=	No
B	=	Yes

Resistance:

	Against wash out ⁽¹⁾	Against corrosion ⁽²⁾
A	L	L
B	L	M
C	L	H
D	M	L
E	M	M
F	M	H
G	H	L
H	H	M
I	H	H

(1) L = Dry
M = In contact with water
H = Water wash

(2) L = No protection
M = In water
H = In salt water

Upper operating temp.

A	60°C
B	90°C
C	120°C
D	140°C
E	160°C
F	180°C
G	>180°C

Lower operating temp.

A	0°C
B	-20°C
C	-30°C
D	-40°C
E	<40°C

Subclass.

X	=	Greases
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Class.

L	=	Lubricants
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Specifications & recommendations (1 / 1)

Key

(dd. 03/03/2026)

- 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) >14 (ISO VG 220-460)	>12 (ISO VG 68-150) >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		<input checked="" type="checkbox"/>						
Danieli Standard 0.000.001-R15 (2023)		<input checked="" type="checkbox"/>						
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 6743-2 F	•							
ISO 6743-4 HL	•							
Moventas Field trial					✓			
Siemens Flender MD rev. 16.2					<input checked="" type="checkbox"/>			
Winergy Field trial					✓			

Demoulding Oils

Product range

Product name		Kinematic Viscosity @ 40°C (mm ² /s)	Biodegradability 28 days OECD 301B (%)	Pour Point (°C)	Flash Point (°C)
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)				
	Q8 Dino XL 12	12		-9	182
	Solvent free and low odour anti-sticking agent for steel grids				
Asphalt	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					
Asphalt	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 depressant; AM = Anti-Mist; AMP = Anti-Mist + Pourpoint depressant; WS = Water Soluble

Heat transfer oils

Product range

Q8 Gluck	Method	Units	E	L	M	S	H	W
			Inspection Data					
Absolute Density, 15°C	D 4052	kg/m ³	848	862	868	873	878	884
Kinematic Viscosity, 40°C	D 445	mm ² /s	8.00	12.25	20.22	35.61	60.15	128.00
Kinematic Viscosity, 100°C	D 445	mm ² /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	mm ² /s	kJ/kg K	kg/m ³	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	mm ² /s	kJ/kg K	kg/m ³	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	mm ² /s	kJ/kg K	kg/m ³	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	mm ² /s	kJ/kg K	kg/m ³	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	mm ² /s	kJ/kg K	kg/m ³	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	mm ² /s	kJ/kg K	kg/m ³	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

Gas Engine Oils (GEO)

Product range

		Stationary																													
Product		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					
Sulphated Ash		0.8			0.5			0.9			0.5			0.8			1			0.5			0.8			0.55					
TBN		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	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	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	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	Q	Q							
TEDOM							Q	A	A	A	Q	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							
Liebherr													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. 03/03/2026)

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

	Jenbacher S Oil 40	Q8 Mahler MA SAE 40	Q8 Mahler HA SAE 40	Q8 Mahler GS 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)			☑		☑			☑	
MAN M 3271-5 (except MAN E3872 LE steel piston engine)								☑	
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				☑					

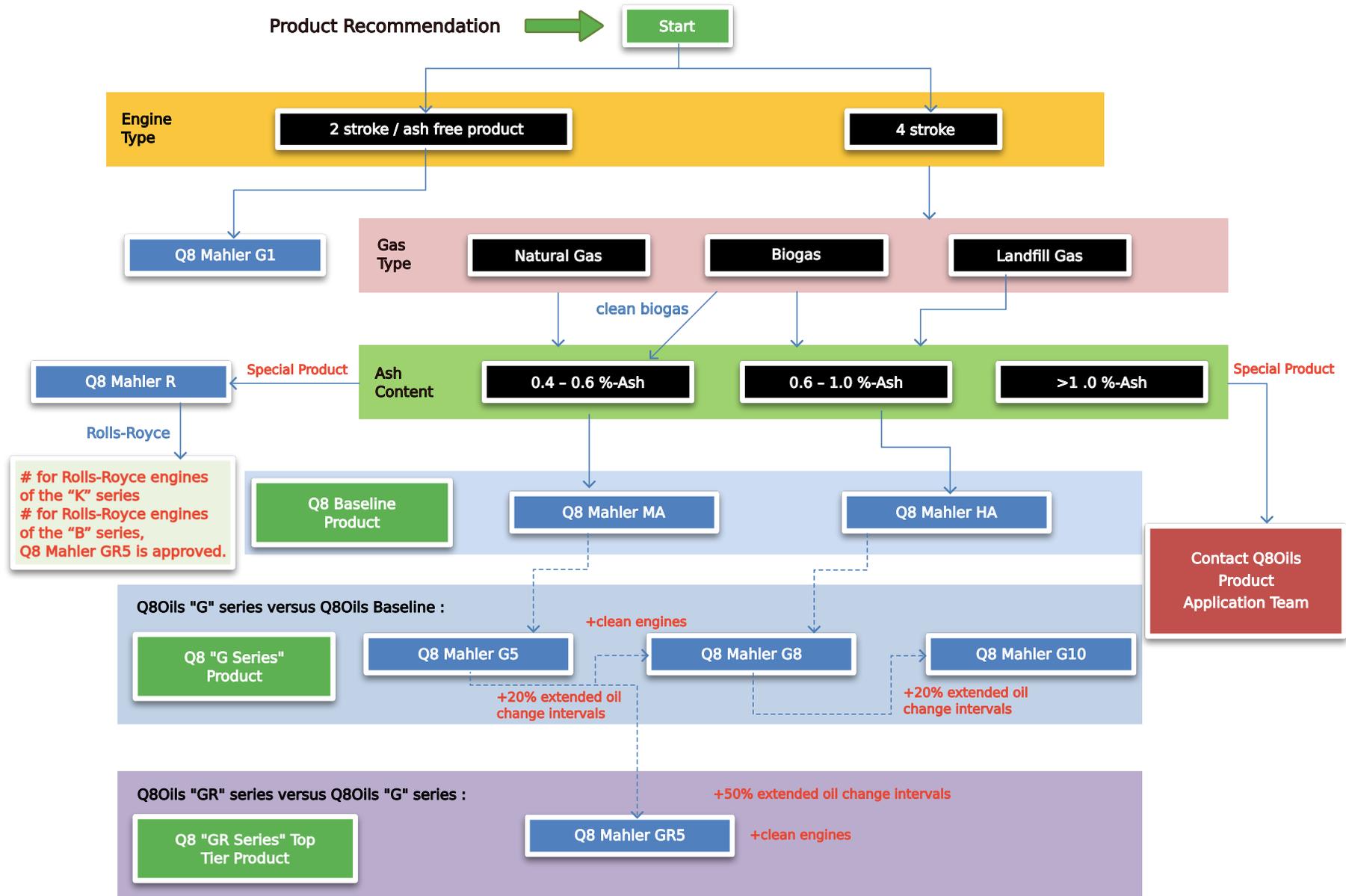
Key

(dd. 03/03/2026)

- Specification
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- ✓ Recommendation

	Jenbacher S Oil 40	Q8 Mahler MA SAE 40	Q8 Mahler HA SAE 40	Q8 Mahler GS 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 28SG					☑				
Wärtsilä 31DF					☑				
Wärtsilä 31SG					☑				
Wärtsilä 32DF					☑				
Wärtsilä 34DF					☑				
Wärtsilä 34SG					☑				
Wärtsilä 46DF					☑				
Wärtsilä 50DF					☑				
Wärtsilä 50SG					☑				

Technical guide



Turbine oils

Specifications & recommendations (1 / 1)

Key

(dd. 03/03/2026)

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

	08 van Gogh 22	08 van Gogh 32	08 van Gogh 46	08 van Gogh 68	08 van Gogh 100	08 van Gogh 150	08 van Gogh EP 32	08 van Gogh EP 46	08 van Gogh EP 68	08 van Gogh EP 100	08 van Gogh EP 150	08 Volta 32	08 Volta 46	08 Volta EP 32	08 Volta EP 46
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Alstom Power HTGD 90117												✓	☑	✓	☑
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							✓							☑	
GE Energy GEK 107395							✓					✓		✓	
GE Energy GEK 120498														☑	
GE Energy GEK 121608							✓							✓	
GE Energy GEK 28143							✓		✓	●				☑	
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												☑	☑	☑	☑

Key

(dd. 03/03/2026)

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

	08 van Gogh 22	08 van Gogh 32	08 van Gogh 46	08 van Gogh 68	08 van Gogh 100	08 van Gogh 150	08 van Gogh EP 32	08 van Gogh EP 46	08 van Gogh EP 68	08 van Gogh EP 100	08 van Gogh EP 150	08 Volta 32	08 Volta 46	08 Volta EP 32	08 Volta EP 46
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Siemens MAT812108								✓							✓
Siemens MAT812109									✓						✓
Siemens TLV 9013 04		☑	☑				☑	☑				☑	☑	☑	☑
Siemens TLV 9013 05		☑	☑				☑	☑				☑	☑	☑	☑
Siemens Westinghouse M-Spec 55125Z3		✓					●					✓		●	
Solar Turbines ES 9-224 (Class I)							✓	✓							
Solar Turbines ES 9-224 (Class II)														✓	✓
Turbomach ES 9-224 (Class I)							✓	✓							
Turbomach ES 9-224 (Class II)														✓	✓

Specifications & recommendations (1 / 1)

Key

(dd. 03/03/2026)

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

	Q8 Verdi	Q8 Schubert	Q8 Schumann	Q8 Strauss	Q8 Sincan	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 6743-2 F	●									
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) Good in natural and CFC systems Do NOT use in HFC systems
Q8 Stravinsky N	Naphtenic base oils (M) Good in HCFC and CFC systems Do NOT use in HFC systems
Q8 Stravinsky AB	Alkyl benzene Good in HCFC and CFC and natural systems Do NOT use in HFC systems
Q8 Stravinsky POE	Synthetic Polyol Ester (POE) Good in HFC systems Do NOT use in natural systems
Q8 Sinan	Synthetic Polyalkylene Glycol (PAG) Hydrocarbon gases like methane, ethane, propane and butane Hydrocarbon chemical gases like ethylene, propylene and butylene Chemical gases like vinyl chloride, butadiene and ammonia

Coolant range

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

Coolant / refrigerator oil - tolerance

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

Key

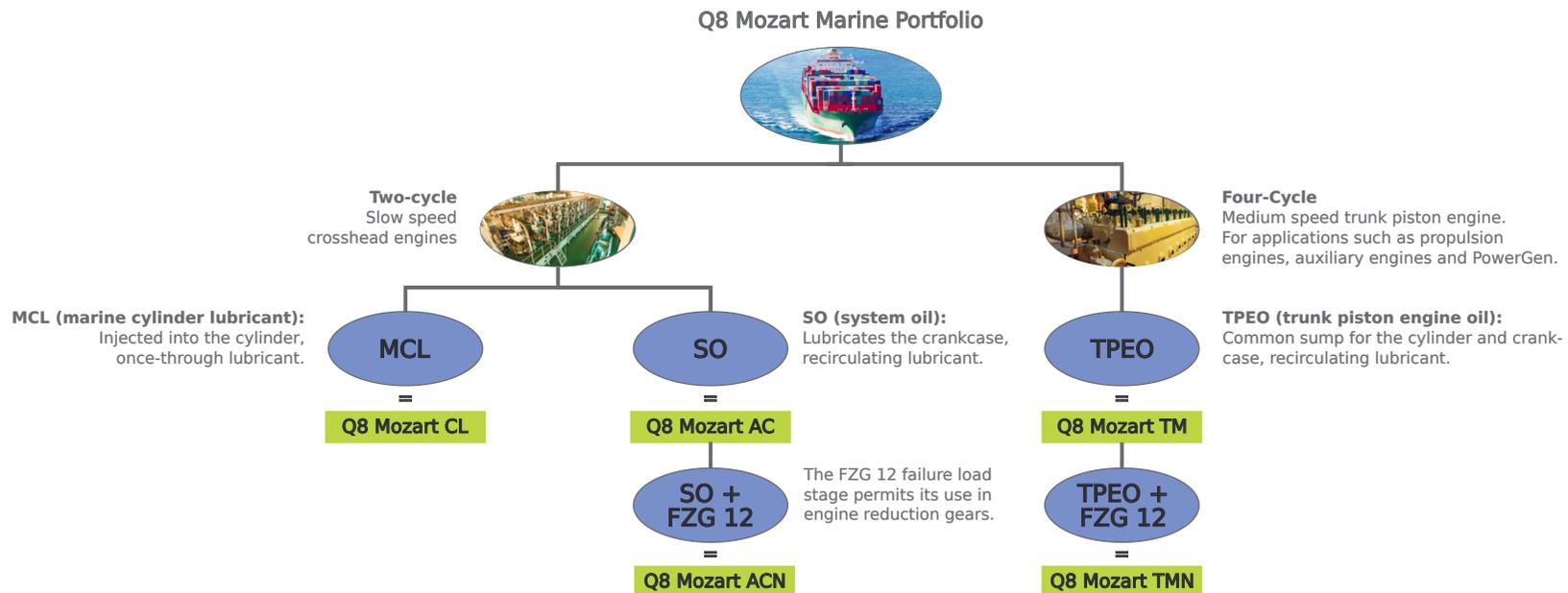
- ☑ appropriate for use with CR O-rings
- ✓ appropriate for use with HNBR O-rings
- ✗ not appropriate

Product range

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

Green: available in price list

Black: please request price



Transformer oils

Product range

			Q8 Transformer Oil U Uninhibited	Q8 Transformer Oil I Inhibited
SPECIFICATION			IEC 60296	IEC 60296
ELECTRICAL INSULATION				
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
OIL LIFE				
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
COOLING				
Kinematic Viscosity, 40 °C	ISO 3104	mm ² /s	9.5	9.5
Kinematic Viscosity, -30 °C	ISO 3104	mm ² /s	1030	1025
Pour Point	ISO 3016	°C	-61	-63
MATERIAL COMPABILITY				
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	Copper alloys	Cast iron	Steel	Stainless steel	Aluminium	Alu aerospace	Titanium	Inconel
SYNTHETIC BASED														
Q8 Brunel XF 776	9.5	36	1	✓			✓	!	✓	✓	✓	✓	✓	✓
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		✓		×	✓	✓	✓	×	×	×	×

✓ Recommended

! Consult metal@Q8Oils.com

× Not applicable

For more information on using metalworking fluids please consult MWF engineers guide (available on www.Q8Oils.com)

Metalworking oils

Neat oils product range

Product	General Machining	Deep Hole Drilling	Broaching	Gear Shaping/Cutting	Honing	Thread Rolling	Grinding
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Cast iron	Carbon Steel	Alloyed Steel	Stainless Steel & Nickel Alloys	Aluminium	Copper/Copper Alloys
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Lubricity	Sulphur EP	Chlorine
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Appearance	Odour	Viscosity	Density (15°)	Flash Point	4 Ball Weld (kg)	Copper corrosion
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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

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

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

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	✓	✗	✗	✗	✗	✗	✗
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✓	✓	✓	✓	✓	✓
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✓✓	Non Active	Free
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PaleYellow	Low	18.5	0.84	165	140	1
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✓ Recommended
 ! Consult metal@Q8Oils.com
 ✗ Not applicable

For more information on using metalworking fluids please consult MWF engineers guide (available on www.Q8Oils.com)

Metalworking oils

Complimentary products

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

Key

- ¹ classified DIN 51524/2 HLP & passed FZG/seal test
- ² only for low loaded gearboxes
- ³ classified DIN 51524/2 HLP & DIN 51517/3 CLP
- ⁴ 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 ² /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!

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