

MB Sheet 223.2

Version: 05/2019

Prescribed Specifications for Service Fill Engine Oils in Passenger Car/ VAN engines - Mercedes-Benz, AMG, Maybach, smart

MB specifications for operating fluids / MB Sheet	226.5	226.51	228.3	228.5	228.51	228.61	229.3	229.31	229.5	229.51	229.52	229.6*	229.61*	229.71*
	Multigrade	Multigrade	Multigrade	Multigrade	Multigrade	Monobench	Multigrade	Multigrade	Multigrade	Multigrade	Multigrade	Multigrade	Multigrade	Multigrade
Gasoline Engines - Western Europe -														
PC engines														
M 155 (SLR)	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-	-	-
M 152, M 157, M 158, M 275, M 277, M 279, M 285 (Maybach)	-	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
M 133, M 156, M 159, M 176 in G500 (up to and including model year 2018), M 177, M 178	-	-	-	-	-	-	-	-	● ⁵¹	● ⁵¹	-	-	-	-
M 176 in BR 222, BR 217, BR 463 (as of model year 2019)	-	-	-	-	-	-	-	-	-	-	●	-	● ⁵¹	-
M 272, M 273	-	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
M 132, M 266, M 271	-	-	-	-	-	-	-	-	●	●	●	● ⁵¹	-	-
M 271 EVO	-	-	-	-	-	-	-	-	●	●	●	● ⁵¹	-	-
M 270	-	-	-	-	-	-	-	-	●	●	●	●	● ⁵¹	-
M 274 (all engine types except 213053)	-	-	-	-	-	-	-	-	●	●	●	●	● ⁵¹	-
M 274 hybrid in "E 300 e" (213053)	-	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
M 276	-	-	-	-	-	-	-	-	●	-	-	-	● ⁵¹	-
M 278	-	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
M 256, M 260, M 264, M 282	-	-	-	-	-	-	-	-	-	●	●	-	●	● ⁵¹
M 281	●	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
VAN engines														
M 200.71 in Citan	●	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
Gasoline Engines - Worldwide (except Western Europe) -														
PC engines														
M 155 (SLR)	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-	-	-
M 133, M 152, M 156, M 157, M 158, M 159, M 176 in G500 (up to and including model year 2018), M 177, M 178, M 275, M 277, M 279, M 285 (Maybach)	-	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
M 176 in BR 222, BR 217, BR 463 (as of model year 2019)	-	-	-	-	-	-	-	-	-	-	●	-	● ⁵¹	-
M 132, M 266, M 271, M 271 EVO, M 272, M 273, M 278	-	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
M 270, M 276	-	-	-	-	-	-	-	-	●	-	-	-	● ⁵¹	-
M 274 (all engine types except 213053, 213153)	-	-	-	-	-	-	-	-	●	-	-	-	● ⁵¹	-
M 274 hybrid in "E 300 e" (213053) and E 300 e L (213153)	-	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	● ⁵¹
M 256, M 260, M 264, M 282	-	-	-	-	-	-	-	-	-	●	●	-	●	● ⁵¹
M 281	●	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
VAN engines														
M 200.71 in Citan	●	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
M 274 in Vito, V-Class, Metris	-	-	-	-	-	-	-	-	-	●	-	-	● ⁵¹	-
M 274 in Sprinter	-	-	-	-	-	-	-	-	● ⁵¹	-	-	-	-	-
Diesel Engines - Worldwide -														
(a) in vehicles without particulate filter (DPF)														
PC engines: OM 640, OM 642, OM 646, OM 651														
VAN engines: OM 611, OM 612, OM 646, OM 647, OM 651 in Vito, Sprinter, Viano, V-Class	-	-	● ⁵¹	● ⁵¹	● ⁵¹	-	● ⁵¹	● ⁵¹	● ⁵¹	● ⁵¹	● ⁵¹	● ⁵¹	● ⁵¹	-
(b) in vehicles with particulate filter (DPF)														
PC engines														
OM 607 (in passenger cars), OM 626	-	●	-	-	-	-	-	-	●	●	● ⁵¹	-	-	-
OM 628	-	●	-	-	-	-	-	-	●	●	● ⁵¹	-	●	● ⁵¹
OM 629, OM 640, OM 646, OM 651	-	-	-	-	●	-	-	-	●	-	● ⁵¹	-	-	-
OM 642 - up to and including modification year 2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-
except: OM 642 EU6 in BR 164.124/824, BR 251.124, BR 221 (UK), BR 222 (UK)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OM 642 - in BR 463.306/336/346	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OM 642 Bin5 in BR 164.125/825, BR 251.125 (only USA and Canada)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OM 642 EU4 in BR 221.122 (UK)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OM 642 EU6 in BR 164.124/824, BR 251.124, BR 221 (UK), BR 222 (UK)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OM 642 - in BR 463.306/336/346	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OM 642 Bin5 in BR 164.125/825, BR 251.125 (only USA and Canada)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OM 642 EU4 in BR 221.122 (UK)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OM 642 - as of modification year 2017	-	-	-	-	-	-	-	-	-	-	-	-	● ⁵¹	-
OM 660 (EU3/EU4 with none-controlled particulate filter)	-	-	-	○	●	-	-	-	●	-	● ⁵¹	-	-	-
OM 654	-	-	-	-	●	-	-	-	●	-	●	-	●	● ⁵¹
OM 654 Hybride	-	-	-	-	●	-	-	-	●	-	● ⁵¹	-	●	-
OM 656	-	-	-	-	-	-	-	-	-	-	-	-	● ⁵¹	-
VAN engines														
OM 642, OM 646, OM 651 in Vito, Sprinter, Viano, V-Class	-	-	-	-	● ⁵¹	-	-	-	● ⁵¹	-	● ⁵¹	● ⁵¹	-	-
OM 699.3, OM 642 in X-Class	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OM 654 in Vito, V-Class	-	-	-	-	-	-	-	-	-	-	-	-	●	● ⁵¹
OM 607 in Citan	-	●	-	-	● ⁵¹	-	-	-	-	-	-	-	-	-
OM 622.9 in Vito	-	-	-	-	● ⁵¹	-	-	-	-	-	-	-	-	-
OM 622.8 in Vito (ab 09/2019)	-	-	-	-	● ⁵¹	-	-	-	-	-	-	-	● ⁵¹	-

- Approval
- Can only be used in exceptional cases or under certain operating conditions/in certain applications.
- Must not be used

- 1.) Restriction: Only SAE 5W-50 engine oils are allowed
- 2.) Restriction: Only SAE 0W-40 and SAE 5W-40 engine oils are allowed!
- 3.) Recommendation: In order to ensure cold start operability at temperatures below -20°C as well as optimum lubrication at low outside temperatures and under conditions of high biofuel content in the fuel, the viscosities SAE 0W-30, 0W-40 or SAE 5W-30, 5W-40 are recommended as year-round engine oils for VAN engines. Please note the temperature ranges of vehicle operation indicated in the operator's manual or on sheet 224.1.
- 4.) To be noticed: The specifications 229.6, 229.61, 229.71 and 228.61 allow engine oils with very low viscosities (SAE class, HTHS value). Their usage is permitted only according to the manuals of approved vehicles/engines (cp table above).
The usage in engine types not approved for these specifications (in particular older engine types) can cause damage to the engine.
- 5.) recommended for achieving lowest fuel consumption (lowest SAE viscosity class should be used, possible limitations of approved SAE viscosity classes to be noticed)
- 6.) Restriction: Only SAE 0W-30 and SAE 5W-30 engine oils are allowed!

Notes:
 In general, the binding engine oil specification (MB-sheet) is documented in the relevant operating manual of the vehicle.
 This table contains only engine oil specifications for engines that are currently in production.
 Information on unlisted or older engine types are described in the operating instructions of the vehicle or the maintenance instructions.
 The prescribed engine oil drain may be dependent on the applied engine oil specification. When using certain specifications reduced engine oil drain intervals have to be considered.
 Details are documented in the operating manual of the vehicle, the service information or maintenance instructions.
 Multi grade oils can be used all year-round taking into consideration the outside temperature (see sheet 224.1).
 The suitability of the applied viscosity grade (SAE grade) for the expected outside temperatures has to be ensured before the cold season starts.

MB Sheet 223.2

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Prescribed Specifications for Service Fill Engine Oils in Commercial Vehicle Engines - Mercedes-Benz

MB specifications for operating fluids / MB Sheet		228.0 / .1	228.2 / .3	228.31	228.5	228.51	228.52	228.61
		Mono- / Multigrade	Mono- / Multigrade	Multigrade	Multigrade	Multigrade	Multigrade	Mehrbereich
Diesel engines - worldwide -								
(a) in commercial vehicles and busses without particulate filter (DPF)								
BR 300, 400, 500, 900 & OM 457/460	up to and including Euro III	○ / ●	○ / ●	●	●	●	○	-
BR 900, BR 500, OM 457/460	Euro IV / V / EEV	-	○ / ●	●	●	●	○	-
OM 471	Euro V	-	- / ●	○	●	○	○	-
Compressed natural gas engine M 906 LAG	EEV	-	-	-	-	●	-	-
Compressed natural gas engine M 936 G	Euro VI	see Service-Informationen SI18.00-W-0013A and SI18.00-W-0013B						
(b) in commercial vehicles with particulate filter (DPF)								
BR 900, BR 500 & OM 457/460		-	-	●	-	●	○	-
OM 934, OM 936	Euro VI	-	-	●	-	●	○	-
OM 470 (except FE1 engine types, cp. next line) OM 471 (except FE1 engine types, cp. next line) OM 473 (except FE1 engine types, cp. next line)	Euro VI	-	-	●	-	●	○	-
OM 470 FE1-engine type: 470.913, 470.921 OM 471 FE1-engine type: 471.926, 471.944 OM 473 FE1-engine type (FIS GEN2; being manufactured after June 2018): 473.909, 473.919	Euro VI	-	-	●	-	●	○	●
(c) in busses with particulate filter (DPF)								
BR 900, BR 500 & OM 457		-	-	●	-	●	○	-
OM 934, OM 936, OM 936 h	Euro VI	-	-	○	-	●	●	-
OM 470 (except FE1 engine types, cp. next line) OM 471 (except FE1 engine types, cp. next line)	Euro VI	-	-	●	-	●	●	-
OM 470 FE1-engine type: 470.914, 470.915, 470.923 OM 471 FE1-engine type: 471.937, 471.946	Euro VI	-	-	●	-	●	●	●
(d) in industrial/off road applications without particulate filter (DPF)								
BR 900, BR500, OM 460	to/incl. EU Stage IIIA/US Tier 3	○ / ●	○ / ●	●	●	●	○	-
BR 900, BR500, OM 460	EU Stage IIIB / US Tier 4i	-	○ / ●	●	●	●	○	-
OM 934, OM 936	EU Stage IV / US Tier 4, EU Stage IIIA Downgrade	-	- / ●	●	●	●	○	-
OM 470, OM 471, OM 473	EU Stage IV / US Tier 4	-	- / ●	●	●	●	○	-
OM 470, OM 471, OM 473	EU Stage IIIA Downgrade	-	- / ●	-	●	-	○	-
(e) in industrial/off road applications with particulate filter (DPF)								
OM 934, OM 936	EU Stage V / US Tier 4	-	-	-	-	-	●	-
OM 470, OM 471, OM 473	EU Stage V / US Tier 4	-	-	●	-	●	●	-

○ only allowed in exceptional cases and under specific operating conditions / applications
- not allowed

Notes:

In general, the binding engine oil specification (MB-sheet) is documented in the relevant operating manual of the vehicle.

This table contains only engine oil specifications for engines that are currently in production.

The prescribed engine oil drain interval is dependent on the applied engine oil specification. When using certain specifications reduced engine oil drain intervals have to be considered.

Multi grade oils can be used all year-round taking into consideration the outside temperature (see sheet 224.2)

The suitability of the applied viscosity grade (SAE grade) for the expected outside temperatures has to be ensured before the cold season starts.