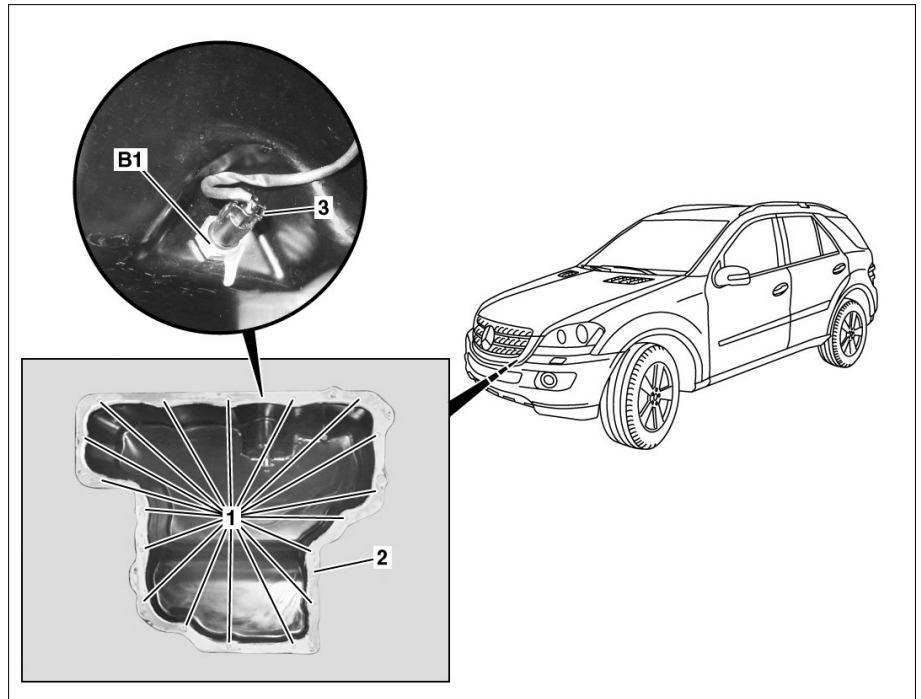


ENGINES 642 in MODEL 164, 251

- 1 Bolts
2 Oil pan bottom section
3 Electrical connector

B1 Oil temperature sensor



P01.45-2206-06

Modification notes

4.8.10	Method to install engine hoist changed		AR33.10-P-0100-01RT
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	Remove/install		
	Risk of death caused by vehicle slipping or toppling off of the lifting platform.	Align vehicle between columns of vehicle lift and position four support plates at vehicle lift support points specified by vehicle manufacturer.	AS00.00-Z-0010-01A
	Risk of injury caused by fingers being pinched or crushed when removing, installing or aligning hoods, doors, trunk lids, liftgates or sliding roof	Keep body parts and limbs well clear of moving parts.	AS00.00-Z-0011-01A
	Notes on self-locking nuts and bolts		AH00.00-N-0001-01A
1.1	Removes strut tower brace	Model 164.8 only i Remove strut tower brace from strut tower mounts.	AR62.30-P-2500GY
1.2	Remove partition wall between wheel wells	Model 251 only	AR62.30-P-2400RT
2	Remove engine trim panel	Model 164 Model 251	AR01.10-P-2405GZB AR01.10-P-2405RTB
3	Mount engine lifting device and attach engine	Model 164 Model 251 i Observe manufacturer's assembly specifications and safety information. Nm Model 251 S Engine hoist	AR33.10-P-0100-01GZ AR33.10-P-0100-01RT *BA62.30-P-1008-01E *240589006100
4	Remove oil dipstick guide tube		AR18.40-P-3510GZB
5	Remove bottom sections of soundproofing	i Installation: Only install lower sections of soundproofing after checking for leaks. Model 164 Model 251	AR94.30-P-5300GZ AR94.30-P-5300RT
6	Drain engine oil, collect if necessary	Nm	*BA01.45-P-1006-01Q
7	Loosen bolts on the engine mount at the front axle carrier	Nm Model 164 Nm Model 251	*BA22.10-P-1001-03G *BA22.10-P-1001-03F
8	Disconnect electrical connector (3) from oil temperature sensor (B1)		
9	Raise engine		

10	Unscrew bolts (1) and take off oil pan bottom section (2)	Warm sealing surface on oil pan in order to ease detachment of the seal. Do not damage sealing surfaces while removing! Observe application of sealant to oil pan bottom section (2).	
	Notes on sealant path for oil pan	 Loctite 5970 sealant	AH01.45-P-0001-01OM *BA01.45-P-1003-01Q *BR00.45-Z-1013-01A
	Clean		
11	Clean sealing surfaces	Do not use any sharp-edged tools or abrasive paper as this will damage the sealing surfaces. Loctite 7200 Loctite 7063 cleaning spray (150 ml)	AR01.00-P-0050-01A *BR00.45-Z-1038-04A *BR00.45-Z-1046-04A
12	Install in the reverse order		
13	Check engine oil level	In order to avoid measurement errors, vehicle must be parked on an even surface. Shut off engine once it has reached operating temperature and wait approx. 5 minutes before checking engine oil level. With code 474 Particulate filter Without particulate filter	AR18.00-P-3035-01PI *BF18.00-P-1001-01S *BF18.00-P-1001-01A
14	Risk of accident caused by vehicle starting off by itself when engine is running. Risk of injury caused by contusions and burns during starting procedure or when working near the engine as it is running Carry out engine test run	Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts. Check leakage when engine is running.	AS00.00-Z-0005-01A
15	Read out fault memory and erase if necessary Connect STAR DIAGNOSIS and read out fault memory		AD00.00-P-2000-04A

Oil pan

Number	Designation	Engine 642		
BA01.45-P-1003-01Q	Oil pan bottom section to oil pan top section	M6	Nm	14
BA01.45-P-1006-01Q	Oil drain screw to oil pan	M12	Nm	30
		M24	Nm	45

Engine mount, engine support (engine side)

Number	Designation	Model 164	
BA22.10-P-1001-03G	Bolt, front engine mount to front axle carrier	Nm	53

Engine mount, engine support (engine side)

Number	Designation	Model 251	
BA22.10-P-1001-03F	Bolt, front engine mount to front axle carrier	Nm	53

Crossmember and front reinforcement

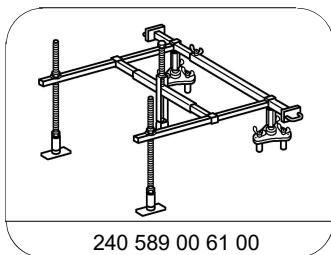
Number	Designation	Model 251
BA62.30-P-1008-01E	Bolt for partition wall reinforcement between wheel well liners to fender	Nm 10

📄 Engine lubrication system

Number	Designation	Engine 642.940/950 with particulate filter	Engine 642.820/822/870 /872 with particulate filter
BF18.00-P-1001-01S	Engine oil Filling capacity (oil and filter change)	Liters 8.5	8.5
	Specifications for Operating Fluids	Sheet BB00.40-P-0228-51A	BB00.40-P-0228-51A
		Sheet BB00.40-P-0229-31A	BB00.40-P-0229-31A
		Sheet BB00.40-P-0229-51A	BB00.40-P-0229-51A

📄 Engine lubrication system

Number	Designation	Engine 642.940/950 without particulate filter	Engine 642.820/822/870 /872 without particulate filter
BF18.00-P-1001-01A	Engine oil Filling capacity (oil and filter change)	Liters 8.5	8.5
	Specifications for Operating Fluids	Sheet BB00.40-P-0228-03A	BB00.40-P-0228-03A
		Sheet BB00.40-P-0228-05A	BB00.40-P-0228-05A
		Sheet BB00.40-P-0228-51A	BB00.40-P-0228-51A
		Sheet BB00.40-P-0229-03A	BB00.40-P-0229-03A
		Sheet BB00.40-P-0229-31A	BB00.40-P-0229-31A
		Sheet BB00.40-P-0229-05A	BB00.40-P-0229-05A
		Sheet BB00.40-P-0229-51A	BB00.40-P-0229-51A



Engine lifting fixture

Repair materials

Number	Designation	Order number
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BR00.45-Z-1013-01A	Loctite 5970 sealant	A 003 989 98 20
BR00.45-Z-1038-04A	Loctite 7200	Henkel Loctite Deutschland GmbH Arabellastrasse 17 81925 München Germany Tel. +49 899268-0 Fax + 49 899101978 www.Loctite.de
BR00.45-Z-1046-04A	Loctite 7063 cleaning spray (150 ml)	A 001 986 71 71 10