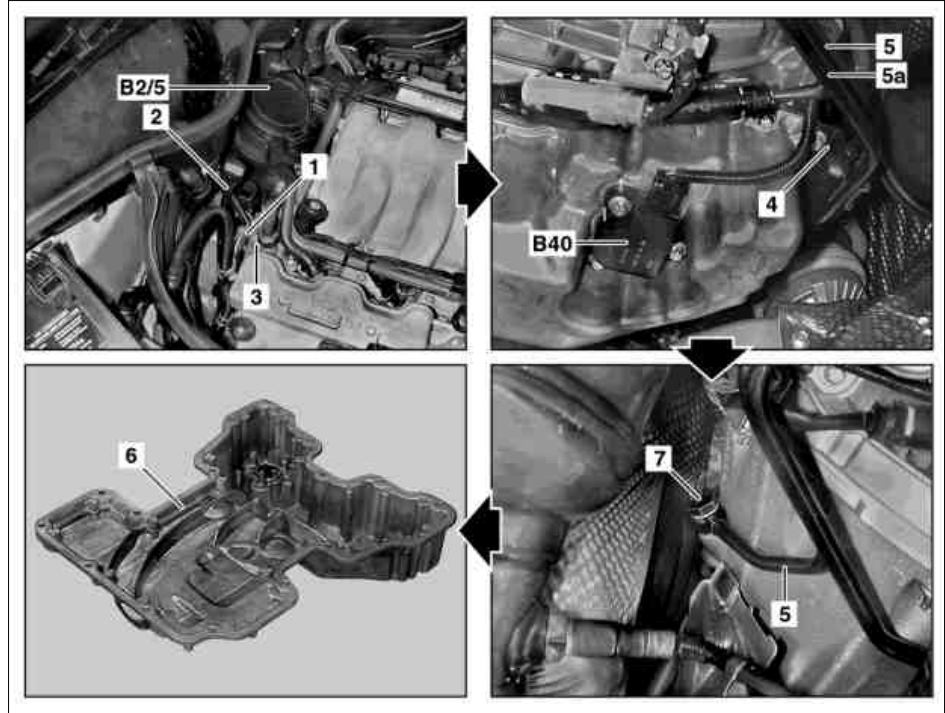


ENGINES 112.912 in MODEL 203.061 /261, 209.361 /461 with TRANSMISSION 722.6, 716.6
ENGINES 112.946 in MODEL 203.064 /264 with TRANSMISSION 722.6
ENGINES 112.955 in MODEL 209.365 /465 with TRANSMISSION 722.618
ENGINES 112.961 in MODEL 203.065 /265 with TRANSMISSION 722.6
ENGINES 113.968 in MODEL 209.375 /475 with TRANSMISSION 722.6
ENGINES 112.913 in MODEL 211.061 /261 with TRANSMISSIONS 716.6, 722.6
ENGINES 112.949 in MODEL 211.065 /265 with TRANSMISSION 722.6
ENGINES 113.967 in MODEL 211.070 /270 with TRANSMISSION 722.6
ENGINES 113.987 in MODEL 209.376 /476 with TRANSMISSION 722.636

Shown on engine 112 in model 203

- 1 Bracket
- 2 Oil dipstick guide tube
- 3 Exhaust gas recirculation valve
- 4 Bracket
- 5 Right ATF line
- 5a Left ATF line
- 6 Oil pan bottom section
- 7 Banjo bolt

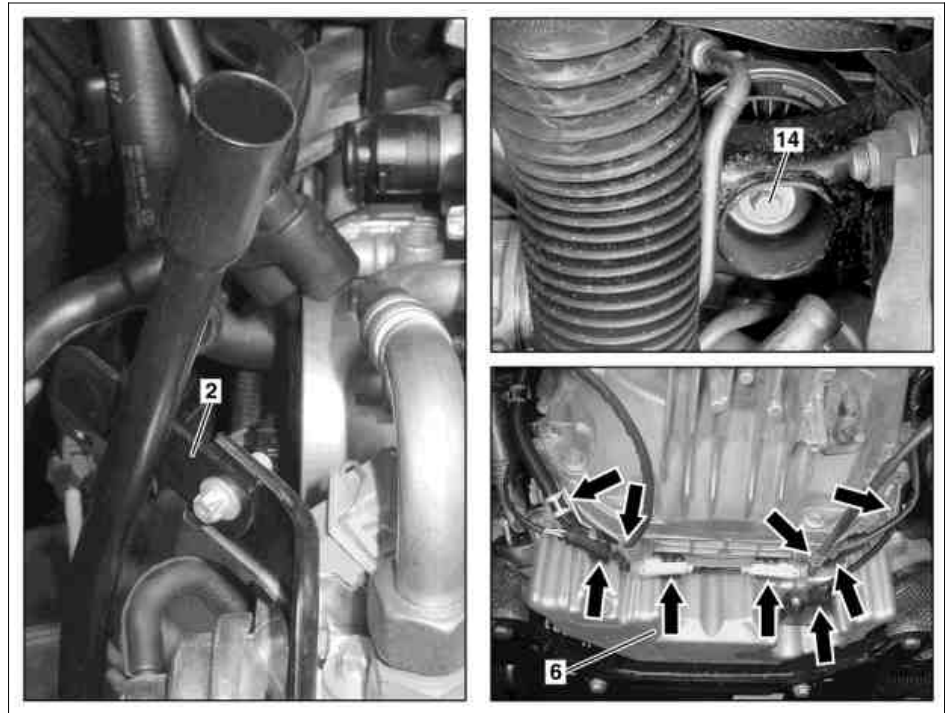
B2/5 Hot film mass air flow sensor
 B40 Oil sensor (oil level, temperature and quality)



P01.45-2068-06

Shown on engine 112 in model 211

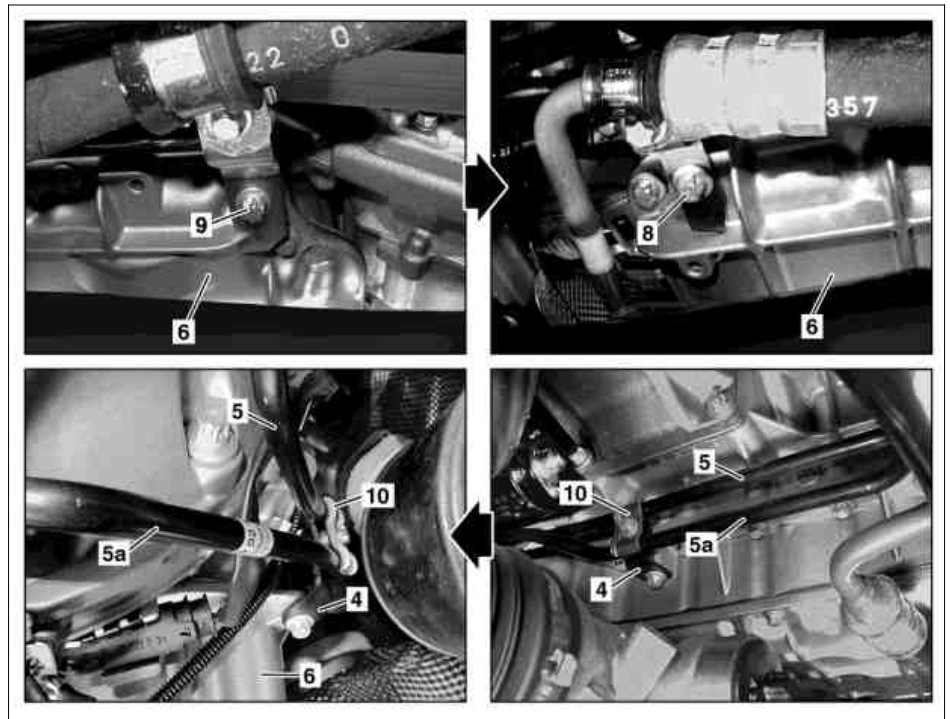
- 2 Oil dipstick guide tube
- 6 Oil pan bottom section
- 14 Bolts



P01.45-2094-06

Shown on engine 113.967

- 4 Bracket
- 5 Right ATF line
- 5a Left ATF line
- 6 Oil pan bottom section
- 8 Screw
- 9 Screw
- 10 Mounting cradle



P01.45-2192-06

Modification notes

13.6.08	Clean sealing surfaces - added	Step 17	
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	Remove/install		
Danger!	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
Danger!	Risk of explosion caused by oxyhydrogen gas. Risk of poisoning and caustic burns caused by swallowing battery acid. Risk of injury caused by burns to skin and eyes from battery acid or when handling damaged lead-acid batteries	No fire, sparks, open flames or smoking. Wear acid-resistant gloves, clothing and glasses. Only pour battery acid into suitable and appropriately marked containers.	AS54.10-Z-0001-01A
	Notes on bolted connections with self tapping screws		AH00.00-P-0007-01SF
1	Remove air filter housing	<p> Remove air filter housing by lifting vertically up and off the cylinder head covers.</p> <p> Installation: Moisten slightly with lubricating paste the rubber retainers on the cylinder head covers and the sealing ring of the hot film mass air flow sensor (B2/5) in the air filter housing.</p> <p> Model 211: Unclip cover of engine end face.</p>	*BR00.45-Z-1002-06A AR07.07-P-1454SV
2	Remove hot film mass air flow sensor (B2/5) with air intake pipe	Except engine 112.961	
3.1	Remove bracket (1) of oil dipstick guide pipe (2) at exhaust gas recirculation valve (3)	Model 203, 209	
3.2	Detach oil dipstick guide tube (2) from bracket at exhaust gas recirculation valve (3)	Model 211	
4	Pull out dipstick guide tube (2) slightly		
5	Put on engine carrier arm	Model 203, 209 Model 211	AR33.10-P-0100-01P AR33.10-P-0100-01T
6	Remove engine compartment paneling	Model 203, 209 Model 211	AR61.20-P-1105P AR61.20-P-1105T

7	Remove pressure line on power steering pump	Model 211 Remove bolts (8, 9) for bracket on power steering pump pressure line on oil pan bottom section (6).	
8	Drain/collect engine oil	Installation: Replace sealing ring of oil drain screw. 	*BA01.45-P-1003-01B *BF18.00-P-1001-01H
9	Remove engine mount bolts (14) at front axle carrier	Model 209 Model 211 Model 203	*BA22.10-P-1001-01L *BA22.10-P-1002-03A *BA22.10-P-1001-01R
10	Raise engine	Lift and lower the engine carefully to prevent causing damage.	
11.1	Remove oil sensor (oil level, temperature and quality) (B40)	Model 203, 209 Installation: Replace O-ring of oil sensor (oil level, temperature and quality) (B40).	AR18.40-P-5111PR
11.2	Detach lines of oil sensor (oil level, temperature and quality) (B40) and the O2 sensors (arrows) and attach to the side	Model 211	
12	Remove mounting clamp (10) of right automatic oil line (5) and left automatic oil line (5a) at bracket (4)	On vehicles with transmission 722.6	
13	Remove bracket (4) of right automatic oil line (5) and left automatic oil line (5a) at oil pan bottom section (6)	On vehicles with transmission 722.6	
14	Detach right ATF line (5) at transmission	On vehicles with transmission 722.6 Installation: Replace sealing rings for banjo bolt (7) at right automatic oil line (5) to prevent oil leakage.	
15	Remove bolts of bottom part of oil pan (6)		*BA01.45-P-1002-01B
16	Take out oil pan bottom section (6) to the rear Notes on sealant path for oil pan Notes on sealant path for oil pan	Model 203, 209: Slide oil dipstick guide tube (2) a little towards top. Press bracket (4) of left automatic oil line (5a) slightly to the side. Model 211: Slide oil dipstick guide tube (2) a little to the side. Installation: Ensure correct seating of Gasket of oil dipstick guide tube (2) in oil pan top section. Observe application of sealant to oil pan bottom section (6). Engine 112 Engine 113 Loctite sealant 5970	AH01.45-P-0001-01PV AH01.45-P-0001-01R *BR00.45-Z-1013-01A
	Clean		
17	Clean sealing surfaces	Do not use any sharp-edged tools or abrasive paper as this will damage the sealing surfaces. Loctite 7200 Cleaning spray, Loctite 7063 (150ml)	AR01.00-P-0050-01A *BR00.45-Z-1038-04A *BR00.45-Z-1046-04A
18	Install in the reverse order		
19 AD	Read out fault memory and erase Connect STAR DIAGNOSIS and read out fault memory		AD00.00-P-2000-04A
20	Check engine oil level	Engine 112.912/946 in model 203 Engine 112.912/955 in model 209 Engine 112.913/949 in model 211 Engine 112.961 in model 203 AMG 	AR18.00-P-3035-01A *BF18.00-P-1001-03B *BF18.00-P-1002-03B *BF18.00-P-1003-03B *BF18.00-P-1004-03B AR18.00-P-3035-01BA *BF18.00-P-1001-03BA *BF18.00-P-1002-03BA

Nm Engine mounts, engine supports

Number	Designation		Engine 113.968 in model 209	Engine 113.987 in model 209
BA22.10-P-1001-01L	Bolt, front engine mount to front axle carrier	Nm	35	35

Nm Engine mount, engine support (engine side)

Number	Designation		Model 211 except 4 MATIC
BA22.10-P-1002-03A	Front engine mount on front axle carrier	Nm	35

Nm Engine mounts, engine supports

Number	Designation		Engine 112.912/946 in model 203	Engine 112.961 in model 203
BA22.10-P-1001-01R	Bolt, front engine mount to front axle carrier	Nm	35	35

Engine lubrication

Number	Designation		Engine 112 except 112.916/953/975	Engine 113.967	
BF18.00-P-1001-01H	Engine oil	Filling capacity with oil filter	Liters	8,0	7,5
		Filling capacity without oil filter	Liters	7,5	-
	Specifications for Operating Fluids		Sheet	BB00.40-P-0229-01 A	BB00.40-P-0229-01 A
			Sheet	BB00.40-P-0229-03 A	BB00.40-P-0229-03 A

	Sheet	BB00.40-P-0229-05 A	BB00.40-P-0229-05 A
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Engine lubrication

Number	Designation	Engine 113.963/965/968	Engine 113.987/988/ 990/992/993/ 995		
BF18.00-P-1001-01H	Engine oil	Filling capacity with oil filter	Liters	7,5	8,5
		Filling capacity without oil filter	Liters	7,0	8,0
	Specifications for Operating Fluids	Sheet	BB00.40-P-0229-01 A	-	
		Sheet	BB00.40-P-0229-03 A	-	
		Sheet	BB00.40-P-0229-05 A	BB00.40-P-0229-05 A	

Oil level check

Number	Designation	Engine 112.912/913/946/ 949/955/973		
BF18.00-P-1001-03B	Oil level	Maximum	mm	171
		Minimum	mm	151
BF18.00-P-1002-03B	Dipstick indication 140 mm to 168 mm (oil level too low)	140 mm	Replenish oil quantity in liters	+2.2
		142 mm	Replenish oil quantity in liters	+2.1
		144 mm	Replenish oil quantity in liters	+2.0
		146 mm	Replenish oil quantity in liters	+1.8
		148 mm	Replenish oil quantity in liters	+1,7
		150 mm	Replenish oil quantity in liters	+1.6
		152 mm	Replenish oil quantity in liters	+1.4
		154 mm	Replenish oil quantity in liters	+1.3
		156 mm	Replenish oil quantity in liters	+1.1
		158 mm	Replenish oil quantity in liters	+0.9
		160 mm	Replenish oil quantity in liters	+0.8
		162 mm	Replenish oil quantity in liters	+0.6
164 mm	Replenish oil quantity in liters	+0.5		

		166 mm	Replenish oil quantity in liters	+0.4
		168 mm	Replenish oil quantity in liters	+0.2
BF18.00-P-1003-03B	Oil dipstick indication 170 mm to 172 mm (oil level correct)	170 mm	Oil quantity in liters	0.0
		171 mm	Oil quantity in liters	0.0
		172 mm	Oil quantity in liters	0.0
BF18.00-P-1004-03B	Oil dipstick indication 174 mm to 182 mm (oil level too high)	174 mm	Extract oil quantity in liters	-0.2
		176 mm	Extract oil quantity in liters	-0.4
		178 mm	Extract oil quantity in liters	-0.5
		180 mm	Extract oil quantity in liters	-0.6
		182 mm	Extract oil quantity in liters	-0.7

Oil level check

Number	Designation	Engine 112.961 in model 203		
BF18.00-P-1001-03BA	Oil level	Maximum	mm	172
		Minimum	mm	152
BF18.00-P-1002-03BA	Dipstick indication 137 mm to 169 mm (oil level too low)	137 mm	Replenish oil quantity in liters	+2,3
		139 mm	Replenish oil quantity in liters	+2.2
		141 mm	Replenish oil quantity in liters	+2.1
		143 mm	Replenish oil quantity in liters	+2.1
		145 mm	Replenish oil quantity in liters	+2.1
		147 mm	Replenish oil quantity in liters	+2.1
		149 mm	Replenish oil quantity in liters	+1,7
		151 mm	Replenish oil quantity in liters	+1.6
		153 mm	Replenish oil quantity in liters	+1.4
		155 mm	Replenish oil quantity in liters	+1.3
		157 mm	Replenish oil quantity in liters	+1.1
		159 mm	Replenish oil quantity in liters	+0.9
		161 mm	Replenish oil quantity in liters	+0.8
		163 mm	Replenish oil quantity in liters	+0.7
165 mm	Replenish oil quantity in liters	+0.5		

		167 mm	Replenish oil quantity in liters	+0.4
		169 mm	Replenish oil quantity in liters	+0.2
BF18.00-P-1003-03BA	Oil dipstick indication 171 mm to 173 mm (oil level correct)		Oil quantity in liters	0.0
		172 mm	Oil quantity in liters	0.0
		173 mm	Oil quantity in liters	0.0
BF18.00-P-1004-03BA	Oil dipstick indication 175 mm to 179 mm (oil level too high)	175 mm	Extract oil quantity in liters	-0.2
		177 mm	Extract oil quantity in liters	-0.3
		179 mm	Extract oil quantity in liters	-0.4

Oil level check

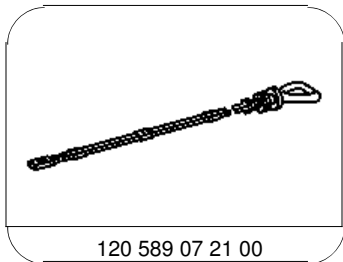
Number	Designation	Engine 113.987 in model 209		
BF18.00-P-1001-03IA	Oil level	Maximum	mm	164
		Minimum	mm	133
BF18.00-P-1002-03IA	Dipstick indication 123 mm to 161 mm (oil level too low)	123 mm	Replenish oil quantity in liters	+2.6
		125 mm	Replenish oil quantity in liters	+2.5
		127 mm	Replenish oil quantity in liters	+2.4
		129 mm	Replenish oil quantity in liters	+2,3
		131 mm	Replenish oil quantity in liters	+2.1
		133 mm	Replenish oil quantity in liters	+2.0
		135 mm	Replenish oil quantity in liters	+1,9
		137 mm	Replenish oil quantity in liters	+1.8
		139 mm	Replenish oil quantity in liters	+1.6
		141 mm	Replenish oil quantity in liters	+1.5
		143 mm	Replenish oil quantity in liters	+1.4
		145 mm	Replenish oil quantity in liters	+1.3
		147 mm	Replenish oil quantity in liters	+1.1
		149 mm	Replenish oil quantity in liters	+1,0
		151 mm	Replenish oil quantity in liters	+0.9
153 mm	Replenish oil quantity in liters	+0.7		
155 mm	Replenish oil quantity in liters	+0.6		

		157 mm	Replenish oil quantity in liters	+0.5
		159 mm	Replenish oil quantity in liters	+0.3
		161 mm	Replenish oil quantity in liters	+0.2
BF18.00-P-1003-03IA	Oil dipstick indication from 163 mm to 165 mm (oil level correct)	163 mm	Oil quantity in liters	0.0
		164 mm	Oil quantity in liters	0.0
		165 mm	Oil quantity in liters	0.0
BF18.00-P-1004-03IA	Oil dipstick indication from 167 mm to 175 mm (oil level too high)	167 mm	Extract oil quantity in liters	-0.2
		169 mm	Extract oil quantity in liters	-0.3
		171 mm	Extract oil quantity in liters	-0.5
		173 mm	Extract oil quantity in liters	-0.6
		175 mm	Extract oil quantity in liters	-0.7

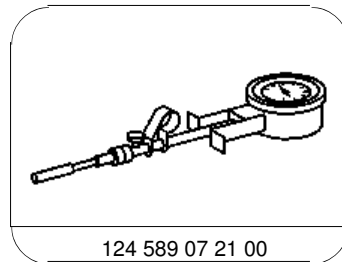
Oil level check

Number	Designation	Engine 113.963/967/968		
BF18.00-P-1001-03C	Oil level	Maximum	mm	149
		Minimum	mm	132
BF18.00-P-1002-03C	Dipstick indication 118 mm to 146 mm (oil level too low)	118 mm	Replenish oil quantity in liters	+2.8
		120 mm	Replenish oil quantity in liters	+2.5
		122 mm	Replenish oil quantity in liters	+2.4
		124 mm	Replenish oil quantity in liters	+2.2
		126 mm	Replenish oil quantity in liters	+2.0
		128 mm	Replenish oil quantity in liters	+1.8
		130 mm	Replenish oil quantity in liters	+1.6
		132 mm	Replenish oil quantity in liters	+1.4
		134 mm	Replenish oil quantity in liters	+1.3
		136 mm	Replenish oil quantity in liters	+1.1
		138 mm	Replenish oil quantity in liters	+0.9
		140 mm	Replenish oil quantity in liters	+0.8
		142 mm	Replenish oil quantity in liters	+0.6
144 mm	Replenish oil quantity in liters	+0.4		

		146 mm	Replenish oil quantity in liters	+0.3
BF18.00-P-1003-03C	Oil dipstick indication 148 mm to 150 mm (oil level correct)	148 mm	Oil quantity in liters	0.0
		149 mm	Oil quantity in liters	0.0
		150 mm	Oil quantity in liters	0.0
BF18.00-P-1004-03C	Oil dipstick indication 152 mm to 160 mm (oil level too high)	152 mm	Extract oil quantity in liters	-0.3
		154 mm	Extract oil quantity in liters	-0.4
		156 mm	Extract oil quantity in liters	-0.6
		158 mm	Extract oil quantity in liters	-0.8
		160 mm	Extract oil quantity in liters	-0.9



Dipstick



Remote thermometer

Repair materials

Number	Designation	Order number
BR00.45-Z-1013-01A	Loctite sealant 5970	A 003 989 98 20
BR00.45-Z-1002-06A	Lubricating paste, rubber parts 2.5 kg, DB supply specification 6867.00	A 000 989 01 60
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	Cleaning spray, Loctite 7063 (150ml)	A 001 986 71 71 10