

ENGINE 112 in MODEL 170, 202, 203, 208.365 /465, 209, 210, 220

ENGINE 113 in MODEL 220

ENGINE 113.981 in MODEL 163.174

ENGINE 113.968 in MODEL 209.375 /475

ENGINE 112.913 in MODEL 211.061 /261

ENGINE 112.949 in MODEL 211.065 /265

ENGINE 113.967 in MODEL 211.070 /270

ENGINE 113.963 in MODEL 230.475

ENGINE 113.987 in MODEL 209.376 /476

ENGINE 113.965 in MODEL 163.175

ENGINE 112.917 in MODEL 211.080 /280

ENGINE 112.954 in MODEL 211.082 /282

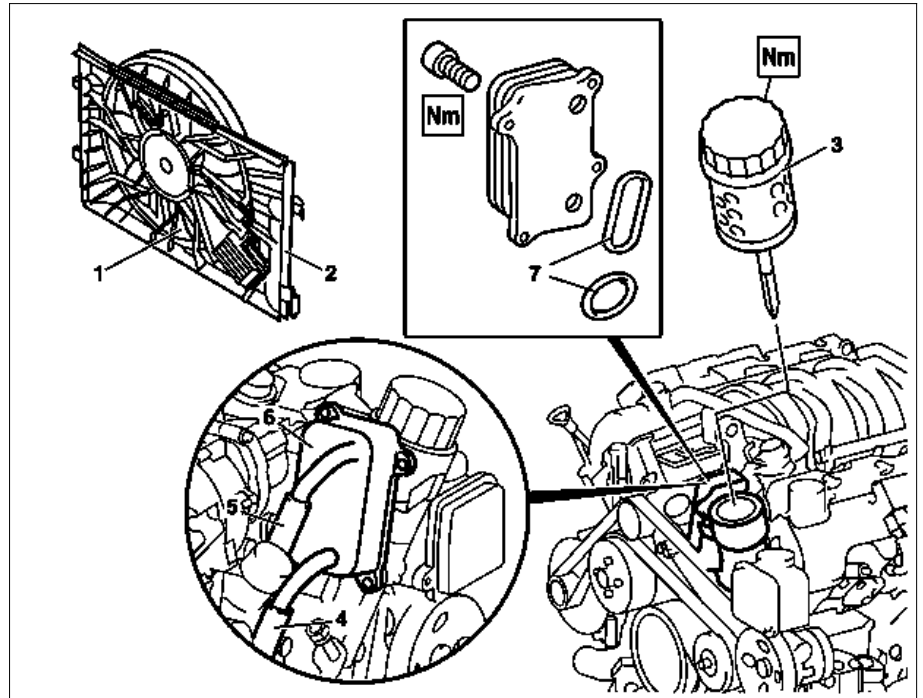
ENGINE 113.969 in MODEL 211.083 /283

ENGINE 113.988 in MODEL 203.076 /276

Engine 113.942 in Model 163.172








Shown on engine 112 without air pump

- 2 Fan shroud
- 3 Oil filter housing cap
- 4 Coolant line
- 5 Coolant line
- 6 Oil/water heat exchanger
- 7 Sealing rings



P18.30-2024-06

☒ ☒	Remove/install		
⚠ <b>Danger!</b>	<b>Risk of death</b> caused by vehicle slipping or toppling off 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
1	Unclip cover on front side of engine	Model 211, 220, 230	
2.1	Remove engine cover with integrated air filter	Except model 170.466, 203.065 /076 /265 /276, 209.376 /476 from 24.4.04, 220.074 /174 <b>i</b> Remove engine cover or air filter by pulling it vertically up and off the cylinder head covers.	
2.2	Remove air filter housing	Model 170.466, 203.065 /265, 220.074 /174 Model 203.076 /276, 209.376 /476 from of 24.4.04	AR09.10-P-1150SVK AR09.10-P-1150AC
3.1	Remove fan shroud (2) together with electric fan	Model 202, 208, 210, 220, 230 <b>i</b> Before removal of fan shroud (2) disconnect connector for electric fan. Model 202, 208, 210 Model 220, 230	AR20.40-P-6800AB
3.2	Remove electric fan	Model 163, 170, 203, 209	
		<b>i</b> On model 163 unscrew bolts at bottom of fan shroud (2).	
		Model 163 Model 170 Model 209, 203 except model 203.076 /276 Model 203.076 /276	AR20.40-P-5000GH AR20.40-P-5000SV AR20.40-P-5000PV AR20.40-P-5000AC

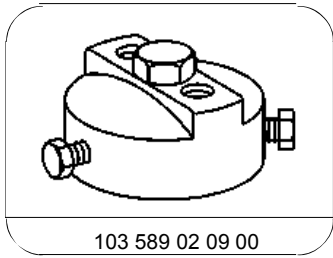
4	Unscrew oil filter housing cover (3)	 	*BA18.20-P-1001-01D *103589020900
 <b>Danger!</b>	<b>Risk of injury</b> to skin and eyes caused by scalding from contact with hot coolant spray. <b>Risk of poisoning</b> caused by swallowing coolant.	Do not open cooling system unless coolant temperature is below 90°C. Open cap slowly and release the pressure. Do not pour coolant into beverage containers. Wear protective gloves, protective clothing and safety glasses.	AS20.00-Z-0001-01A
5	Drain coolant at radiator	 Model 163: To drain coolant disconnect bottom coolant line from radiator or coolant pump. Model 163, 202, 208, 210, 211, 220 Model 170 Model 230 Model 203, 209	AR20.00-P-1142HA AR20.00-P-1142SV AR20.00-P-1142RVK AR20.00-P-1142PV AH20.00-N-2080-01A
	Notes on coolant		
6	Detach coolant lines (4, 5) from oil-water heat exchanger (6)		
7	Remove air pump	Only for engines with air pump Model 163, 202, 208, 210, 211 Model 209.361 /365 /375 /461 /465 /475 Model 209.376 /476 up to 23.4.04 Model 170 except 170.466 Model 203 except 203.065 /076 /265 /276 Model 170.466 Model 203.065 /265 Model 209.376/ 476 as of 24.4.04 Model 230 Model 220 except 220.074 /174 Model 220.074 / 174	AR14.30-P-7251A  AR14.30-P-7251SVK AR14.30-P-7251PVK AR14.30-P-7251AC AR14.30-P-7251AA AR14.30-P-7251RVK
8	Detach oil-water heat exchanger (6) from oil filter housing	 <b>Installation:</b> Install new sealing rings (7). 	*BA18.30-P-1001-01B
9	Install in the reverse order		
10	Inspect cooling system for leaks	Model 163, 202, 208, 210, 211, 220 except 220.074 /174 Model 170, 203, 209 Model 220.074 / 174 Model 230	AR20.00-P-1010HA AR20.00-P-1010P AR20.00-P-1010RVK

 Oil filter

Number	Designation	Engine	Engine	Engine	Engine
		112.910/911/ 912/913/914/ 915/916/917/ 920/921/922/ 923/940/941/ 942/943/944/ 945/946/947/ 949/951/953/ 954/955/960/ 961/970/972/ 973/975	113.940/941/ 942/943/944/ 945/946/948/ 960/961/962/ 963/965/966/ 967/968/969/ 980/981/982/ 984/986	113.987/ 988	113.990/ 991/993
BA18.20-P-1001-01D	Screw cap on oil filter	Nm 25	25	25	25

 Oil cooling system

Number	Designation	Engine 112	Engine 113
BA18.30-P-1001-01B	Oil-water heat exchanger on oil filter housing	Nm 11	9



103 589 02 09 00

Wrench socket