AR20.10-P-1271B Remove/install coolant pump 3.11.09

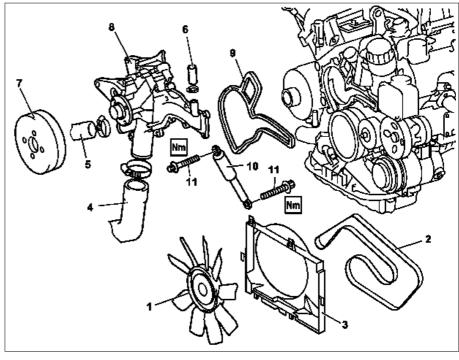
ENGINES 112.945 in MODEL 463.209 /232 /233 /244 /245 /250
ENGINES 112 in MODEL 129, 163, 170, 202, 203, 208, 209, 210, 220
ENGINES 113.962 in MODELS 463.206 /240 /241 /247 /248 /249 /254

ENGINES 113 in MODEL 129, 163, 202, 203, 208, 209, 210, 220

ENGINES 113.982 in MODEL 463.243 /246 ENGINES 113.989 in MODEL 171.473

Shown on engine 112

- 1 Viscous fan
- 2 Poly-V-belt
- 3 Fan shroud
- 4 Coolant hose
- 5 Coolant hose
- 6 Coolant hose to oil-water heat exchanger
- 7 Coolant pump belt pulley
- 8 Coolant pump
- 9 Coolant pump gasket
- 10 Shock absorber
- 11 Bolts



P20.10-0242-06

Modification notes

16.12.03	Value changed from 10 Nm to 9 Nm	engine 112.910/911/912/913/914/915/ 916/917/920/921/922/923/940/941/942/	BA20.10-P-1002-01M
		943/944/945/946/947/949/953/954/ 955/960/961/970/972/973/975	

XX	Remove/install		
	Risk of death caused by vehicle slipping or toppling off the lifting platform.	Align vehicle between columns of lifting platform and position four support plates at the lifting platform support points specified by vehicle manufacturer.	AS00.00-Z-0010-01A
1	Lift/jack up vehicle	Models 129, 170, 202, 208, 210, 220	
		Model 163	AR00.60-P-1000GH
		Model 171	AR00.60-P-1000V
		Model 203, 209	AR00.60-P-1000P
		Model 463	AR00.60-P-1000G
	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
2	Open engine hood	Model 129	
		Model 163.154 /172 up to VIN A145272 Model 163.154 /172 up to VIN X708318	AR88.40-P-1000GH
		Model 163.154 /172 from VIN A145273 Model 163.154 /172 from VIN X708319 Model 163.157/ 174/ 175	AR88.40-P-1000GI
		Model 170	AR88.40-P-1000G
		Model 171.4	AR88.40-P-1000V
		Model 202	AR88.40-P-1000E
		Model 203	AR88.40-P-1000P
		Model 208 / 210	AR88.40-P-1000F
		Model 209	AR88.40-P-1000Q
		Model 220	AR88.40-P-1000M
		Model 463	AR88.40-P-1000GG
3.1	Unclip cover on front side of engine	i Only model 220	

4.1	Remove engine cover or air filter	i All except models 170.466, 171.473,	
	J. Company	203.065 /265, 203.076 /276, 209.376 /476	
5.1	Partially remove air filter housing	from 24.4.04. Engine 112.960 in model 170.466	AR09.10-P-1150SV/K
5.1	Failially remove all filler flousing	Engine 112.961 in model 203.065/ 265	AR09.10-F-1100
		Engine 113.987 in model 209.376 /476 as of	AR09.10-P-1150AC
		24.4.04 Engine 113.988 in model 203.076 /276	
		Engine 113.989 in model 171.473	
6.1	Remove viscous fan (1)	All except models 163.174 /175, 170,	AR20.40-P-5660C
		171.473, 203, 208.365 /465, 209, 220	
		i Right-hand thread!	
7.1	Remove fan shroud (3)	i On vehicles fitted with suction fan,	
		separate the plug connection of the suction fan before removing the fan shroud (3).	
		Model 171.473 with engine 113.989	AR20.40-P-6800VT
		Model 463 with engine 112.945, 113.962 /982	
		Model 220 with engine 112, 113	AR20.40-P-6800AB
8.1	Remove electric fan	Model 163 with engines 113.965/ 981	AR20.40-P-5000GH
		Model 170 with engine 112.947 /960	AR20.40-P-5000SV
		Model 171.473 with engine 113.989	AR20.40-P-5000V
		Model 203.076 /276	AR20.40-P-5000AC
		Model 203 with engines 112.912 /916 /946	AR20.40-P-5000PV
		/953 /961	
		Model 209 with engines 112.912 /955, 113.968 /987.	
		Model 208.365 / 465	
	Risk of injury to skin and eyes caused by	Do not open cooling system unless coolant	AS20.00-Z-0001-01A
	scalding from contact with hot coolant spray.	temperature is below 90°C. Open cap slowly	
	Risk of poisoning caused by swallowing	and release the pressure. Do not pour coolant	4
	coolant.	into beverage containers. Wear protective gloves, protective clothing	
		and safety glasses.	
9	Drain coolant at radiator	i Model 163: For draining coolant, detach	
		bottom coolant line at radiator or at coolant	
		pump.	
		(19) Installation: On model 163 replace	
		radiator connection of hose clamps to coolant	
		hose, otherwise this can cause a damage to the bolt/thread.	
		Mm Hose clamp	*BA20.20-P-1004-01A
			B/120.201 1001 01/1
		i Collect coolant	
		i Disposal of coolants: observe legal	
		regulations or local wastewater requirements!	
		Refer to Environmental Protection Catalog issued by MBVD/PWU for locations in Germany.	
		Model 129, 163, 202, 208, 210, 220 with engine 112	AR20.00-P-1142HA
		Model 220, 210, 208, 202, 163, 129 with engine 113	
		Model 463.206 /240 /241 /247 /248 /249 /254	
		with engine 113.962	
		Model 463.209 /232 /233 /244 /245 /250 with	
		engine 112.945. Model 463.243 /246 with engine 113.982	
		Model 170.465 with engine 112.947	AR20.00-P-1142SV
		Model 170.466 with engine 112.960	A DOO OO D 4446574
		Model 171.473 with engine 113.989 Model 203.061 /261 with engine 112.912	AR20.00-P-1142PV
		Model 203.061 /261 with engine 112.912 Model 203.064 /264 /764 with engine 112.946	
		Model 203.065 /265 with engine 112.961	
		Model 203.076 /276 with engine 113.988	
		Model 203.081 /281 with engine 112.916 Model 203.084 /284 with engine 112.953	
		Model 203.084 /284 with engine 112.953 Model 209.361 /461 with engine 112.912	
		Model 209.365 /465 with engine 112.955	
		Model 209.375 /475 with engine 113.968	
10	Pemeyo paly 1/ half (2)	Model 209.376 /476 with engine 113.987	
10	Remove poly-V belt (2)	Lock tensioner pulley with drift or pin	
		(diameter 5 mm).	I

engine 112 945 Model 463 208 720 / 741 724 7248 7249 7254 With engine 113 802 With engine 113 802 Model 129, 202 208 370 M70, 2010 with engine 113 802 Model 129, 202 208 370 M70, 2010 with engine 113 Model 163 with engine 113 except 113.982 Model 163 with engine 113 except 113.982 Model 220 with engine 113 except 113.982 Model 220 with engine 112 except 113.983 Model 220 208 210 220 with engine 112 except 113.983 Model 163 174 with engine 113.981 Model 163 174 with engine 113.981 Model 220 074 174 Model 170 465 with engine 112.981 Model 220 074 174 Model 170 465 with engine 112.980 Model 230 300 872 With engine 112.980 Model 230 300 872 With engine 112.981 Model 230 300 872 With engine 112.981 Model 230 300 872 With engine 112.981 Model 230 300 872 With engine 112.985 Model 230 300 872 With engine 112.985 Model 230 300 872 With engine 112.985 Model 230 300 872 With engine 112.986 With engine 12.986 Model 230 300 872 With engine 13.987 With engine 12.986 Wit	Model 463 206 7240 7241 7247 7249 7249 7254 with engine 113.982 Model 463 243 7246 with engine 113.982 Model 123, 136 with engine 113.982 Model 123, 136 with engine 113.982 Model 123, 136 with engine 113.985 Model 124, 136 with engine 113 except 113.985 Model 202, 208, 210, 220 with engine 112 Model 202, 208, 210, 220 with engine 113 except 113.981 Model 163, 175 with engine 113 except 113.981 Model 163, 175 with engine 113 except 113.981 Model 202, 2074 1714 Model 202, 2074 1747 Model 170, 466 with engine 112.947 Model 202, 2074 1747 Model 202, 2074 Mo				
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Model 220.074.174 Model 270.074.174 Model 170.466 with engine 112.947 Model 170.466 with engine 112.947 Model 170.466 with engine 112.946 Model 270.366 with engine 112.946 Model 270.366 with engine 113.989 Model 270.361 /261 with engine 113.989 Model 270.361 /261 with engine 112.946 Model 270.361 /261 with engine 113.988 Model 270.361 /261 with engine 113.988 Model 270.361 /261 /261 /261 /261 /261 /261 /261 /2	Model 220.074.174 Model 170.466 with engine 112.947 Model 170.466 with engine 112.947 Model 270.466 with engine 112.947 Model 270.466 with engine 112.946 Model 203.066.726 with engine 113.949 Model 203.066.726 with engine 113.946 Model 203.067.276 with engine 112.946 Model 203.067.276 with engine 112.946 Model 203.067.276 with engine 112.946 Model 203.081.281 with engine 112.946 Model 203.081.281 with engine 112.946 Model 209.376.176 with engine 112.945 Model 209.376.176 with engine 113.963 Model 209.376.176 with engine 113.963 Model 209.376.176 with engine 113.967 Model 209.376.176 with engine 113.987 Model 209.376.176 with engine 113.987 Model 203.206.220 with engine 113.988 Model 203.206.220 with engine 113.982 Model 303.246 with engine 113.982 Model 303.246 with engine 113.982 Model 163.176 with engine 113.985 Model 163.176 with engine 113.980 Model 203.209.220 with engine 113 Disconnect coolant hose (6) at oil-water heat			Model 202, 208, 210, 220 with engine 112 Model 220 with engine 113 except 220.074 /174 Model 163.174 with engine 113.981 Model 163.175 with engine 113.965	AR13.22-P-1202BA
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Model 209.375 /475 with engine 113.988	Model 209. 376 / 175 with engine 113.988				
Model 210.376 /476 with engine 113.987	Remove shock absorber (10)				
Remove poly-V-belt tensioning device	Remove poly-V-belt tensioning device Model 463.209 /232 /233 /244 /245 /250 with engine 112.945 Model 463.209 /242 /247 /247 /248 /249 /254 with engine 113.962 Model 463.206 /240 /241 /247 /248 /249 /254 with engine 113.962 Model 463.206 /240 /241 /247 /248 /249 /254 with engine 113.962 Model 129, 202, 208, 210 with engine 113 model 163 with engine 113 model 163.175 with engine 113.965 Model 170, 170, 203, 208, 209, 210 with engine 113.965 Model 170, 170, 203, 208, 209, 210, 220 with engine 113.965 Model 170, 170, 203, 208, 209, 210, 220 with engine 113.965 Model 170, 173 with engine 113.965 Model 170, 203, 200, 200, 200 with engine 113.965 Model 170, 173 with engine 113 with engine 113.965 Model 170, 173 with engine 113 with engi				
Remove poly-V-belt tensioning device Model 463.209 /232 /233 /244 /245 /250 with engine 112.945. Model 463.206 /240 /241 /247 /248 /249 /254 with engine 113.982	Remove poly-V-belt tensioning device Model 463.209 /232 /233 /244 /245 /250 with appine 112.945 Model 463.206 /240 /241 /247 /248 /249 /254 with engine 113.962 Model 463.243 /246 with engine 113.982 Model 129, 163 with engine 113.982 Model 129, 163 with engine 113.982 Model 129, 202, 208, 210 with engine 113.985 Model 163 with engine 113 except 113.985 Model 163 with engine 113 except 113.985 Model 163.174 with engine 113.985 Model 163.175 with engine 113.985 Model 163.175 with engine 113.985 Model 163.175 with engine 113.989 Model 203, 209, 220 with engine 113.989 Model 203, 209, 220 with engine 113 except 113.989 Model 203, 209, 220 with engine 113.989 Mode	11.1	Remove shock absorber (10)		
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timing case				timing case	
	//QQ1 ·				
	Self-tapping screw for coolant pump to timing case i Engine 113 except 113.987 /988 /989	19	Remove coolant pump (8)	Counterholder I Installation: Replace gasket of coolant pump (9).	*113589004000

		Nm Self-tapping screw for coolant pump to	*BA20.10-P-1001-01C
		timing case	
		i Engines 113.987 /988 /989 /991: ↓	
		Nm Bolt, coolant pump to timing case	*BA20.10-P-1001-01L
		i Engine 112, 113: ↓	
		Nm Alternator screw	*BA15.40-P-1003-01A
		S External torx set	*001589760900
20	Install in the reverse order		
21	Inspecting cooling system for leaks	i All except models 170, 171.473, 203, 209	9, AR20.00-P-1010HA
		220.074 /174	
		Model 170, 171.473, 203, 209	AR20.00-P-1010P
		Model 220.074 / 174	AR20.00-P-1010RVK

Nm Alternator

Number	Designation		Engine 112.91/92/94/ 953/954/955/ 96/97 except 112.976, engine 113.94/96/98	Engine 113.991 in model 215, 220
BA15.40-P-1003-01A	Alternator bolt	Nm	42	-

Nm Oil filter

Number	Designation	Engine 113.989
BA18.20-P-1003-01D	Bolt, oil line to oil filter housing Nm	9
BA18.20-P-1004-01D	Bolt for oil line bracket Nm	-

Nm Coolant pump, coolant thermostat

Number	Designation				Engine 112.910/911/912 /913/914/915/ 916/917/920/ 921/922/923/ 940/941/942/ 943/944/945/ 946/947/949/ 953/954/955/ 960/961/970/ 972/973/975
BA20.10-P-1001-01M	Self-tapping bolt, connecting coolant pump to timing case	Thread not pre- tapped	M6	Nm	14
		Thread not pre- tapped	M8	Nm	35
		Thread pre- tapped	M6	Nm	10

		Thread pre- tapped	M8	Nm	25
BA20.10-P-1002-01M	Belt pulley on coolant pump			Nm	9

Nm Coolant pump, coolant thermostat

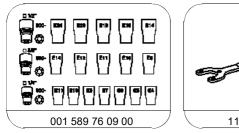
Number	Designation				Engine 113.940/941/ 942/943/944/ 945/946/948/ 960/961/962/ 963/965/966/ 967/968/969/ 980/981/982/ 984/986/992 993/995
BA20.10-P-1001-01C	Self-tapping bolt, connecting coolant pump to timing case	Thread not pre- tapped	M6	Nm	14
		Thread not pre- tapped	M8	Nm	35
		Thread pre-tapped	M6	Nm	10
		Thread pre-tapped	M8	Nm	25
BA20.10-P-1002-01C	Belt pulley on coolant pump			Nm	10

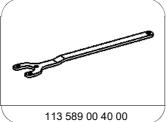
Nm Coolant pump, coolant thermostat

Number	Designation			Engine 113.987/988/ 990/991	Engine 113.989
BA20.10-P-1001-01L	Bolt, coolant pump to timing case	M6	Nm	14	14
		M8	Nm	20	20
BA20.10-P-1002-01L	Belt pulley on coolant pump		Nm	9	9

Nm Radiator, coolant hoses

Number	Designation		Engine 112.942/ 970, 113.942/ 965/981
BA20.20-P-1004-01A	Hose clamp	Nm	3





External Torx set

Counterholder