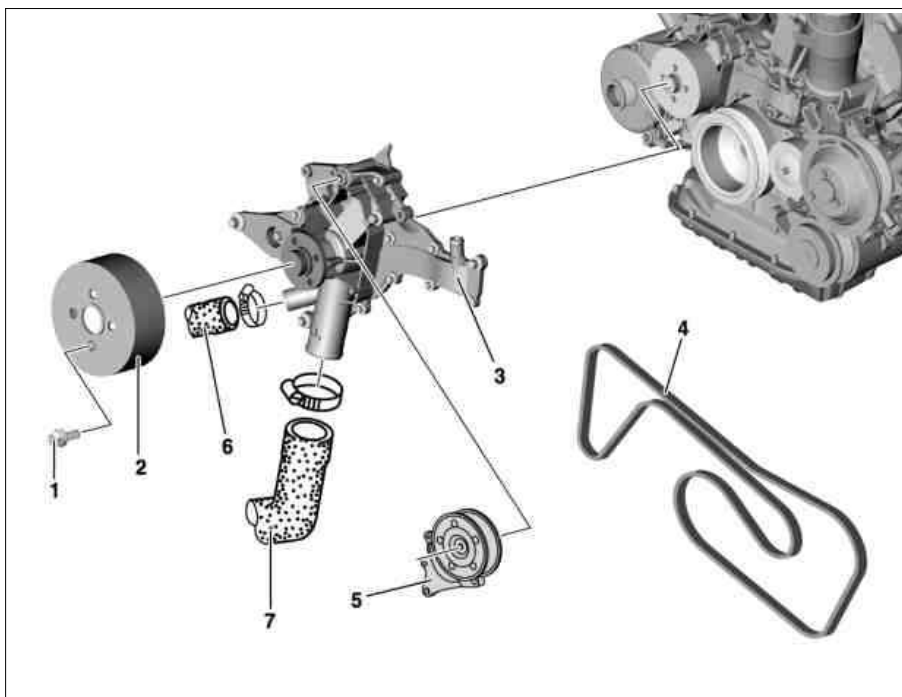


ENGINE 113.990 in MODEL 211.076 /276
ENGINE 113.991 in MODEL 215.374, 220.074
ENGINE 113.992 in MODEL 230.474
ENGINE 113.995 in MODEL 230.472

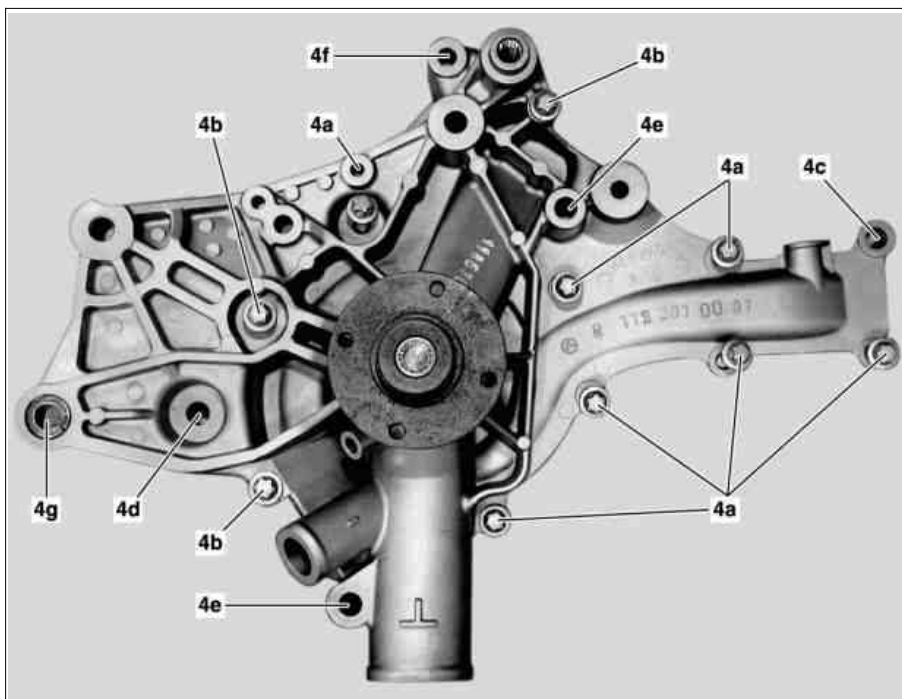
- 1 Bolt, belt pulley
- 2 Coolant pump belt pulley
- 3 Coolant pump
- 4 Poly-V belt
- 5 Tensioner pulley of compressor poly-V belt
- 6 Coolant hose
- 7 Coolant hose



P20.10-2039-06

Bolt assignment of coolant pump

- 4a Bolt M6B19
- 4b Bolt M6B43
- 4c Bolt M8B80
- 4d Bolt M8B90
- 4e Bolt M8B110
- 4f Bolt M8B135
- 4g Bolt M10B110



P20.10-2040-06

Modification notes

28.5.08	Clean sealing surfaces - added	Step 15	
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Remove/install			
Danger!	Risk of injury to skin and eyes caused by scalding from contact with hot coolant spray. Risk of poisoning 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 AR20.00-P-1142RVK
1	Drain coolant at radiator		

	Notes on coolant		AH20.00-N-2080-01A
2	Remove front engine compartment paneling		
3	Remove poly-V belt of supercharger		AR13.21-P-1202RVK
4	Remove poly-V belt (4)	Model 215.374, 220.074, 230.472 /474 Model 211.076 / 276	AR13.22-P-1202R AR13.22-P-1202RV
5	Unscrew bolts of belt pulley (1) at coolant pump (3)	 Installation: Tighten bolts for belt pulley (1) fully.  Engine 113.992 /995  Engine 113.990/ 991	*BA20.10-P-1002-01C *BA20.10-P-1002-01L
6	Take off belt pulley of coolant pump (2)	 Installation: Screw in bolts only by hand, do not tighten.	
7	Remove cap of compressor poly-V belt guide pulley	 Carefully lever off cap with a slotted screwdriver in order to avoid damaging guide pulley.	
8	Unscrew bolt for compressor poly-V belt guide pulley		*BA13.25-P-1008-01D
9	Take off compressor poly-V belt guide pulley		
10	Unscrew bolts for tensioner pulley for compressor poly-V-belt	 Installation: The threads for mounting tensioning device of compressor are not pre-tapped on a new timing case cover. For this reason a new timing case cover requires new self-cutting bolts to be used.  If timing case cover was not replaced, observe torque when threads are pre-tapped. 	*BA13.25-P-1006-01D
11	Take off tensioner pulley for compressor poly-V belt (5)		
12	Disconnect coolant hose (6) and coolant hose (7)	 Check condition of coolant hoses and hose clamps. Install new parts if necessary in order to avoid a loss of coolant.	
13	Loosen bolt M10×110 (4g) on alternator	 Installation: The threads for mounting alternator are not pre-tapped on a new timing case cover. For this reason a new timing case cover requires new self-cutting bolts to be used.  If timing case cover was not replaced, observe torque when threads are pre-tapped. 	*BA15.40-P-1005-01A
14	Unbolt coolant pump (3) at timing case cover and remove	 Installation: The threads for mounting coolant pump are not pre-tapped on a new timing case cover. For this reason a new timing case cover requires new self-cutting bolts to be used.	
	Notes on application of sealant to coolant pump housing	 If timing case cover was not replaced, observe torque when threads are pre-tapped.  Engine 113.992 /995  Engine 113.990/ 991 Loctite Loctite sealant 5970	AH20.10-P-0001-02RVK *BA20.10-P-1001-01C *BA20.10-P-1001-01L *BR00.45-Z-1013-01A
	Clean		
15	Clean sealing surfaces at timing case cover and coolant pump (3)	 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
16	Install in the reverse order		
17	Inspecting cooling system for leaks		AR20.00-P-1010RVK

 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

Coolant pump, coolant thermostat

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

Belt tensioning device

Number	Designation			Engine 113.990/ 991/992/ 993/995
BA13.25-P-1006-01D	Self-tapping bolt, compressor belt tensioner to timing case cover	Thread not pretapped	Nm	35
		Thread pretapped	Nm	25
BA13.25-P-1008-01D	Bolt, guide pulley for compressor and major assembly belts to timing case cover	M8×78	Nm	68

Alternator

Number	Designation		Engine 113.991 in model 215, 220	Engine 113.992/ 995 in model 230	Engine 113.990 in model 211
BA15.40-P-1005-01A	Self-tapping bolt, alternator to timing case	Thread not pre-tapped	Nm	57	57
		Thread pre-tapped	Nm	45	45

Repair materials

Number	Designation	Order number
BR00.45-Z-1013-01A	Loctite sealant 5970	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	Cleaning spray, Loctite 7063 (150ml)	A 001 986 71 71 10