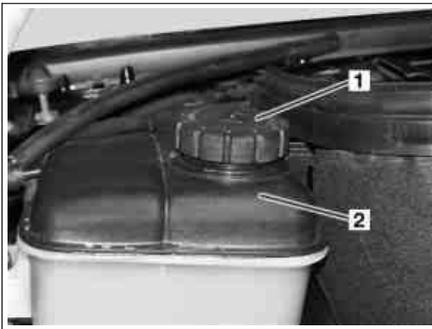


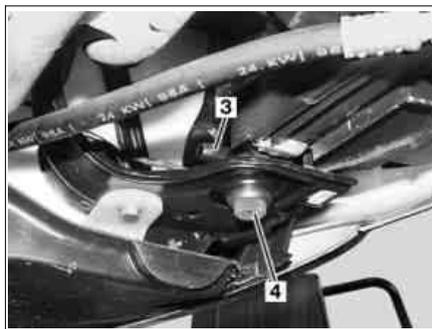
- Engine 112.912 in model 203.061/261, 209.361/461**
- Engine 112.916 in model 203.081/281**
- Engine 112.946 in model 203.064/264/764**
- Engine 112.953 in model 203.084/284**
- Engine 112.955 in model 209.365/465**
- Engine 112.961 in model 203.065/265**
- Engine 113.968 in model 209.375/475**
- Engine 113.987 in model 209.376/476**
- Engine 113.988 in model 203.076/276**
- Engine 113.989 in model 171.473**

Modification notes

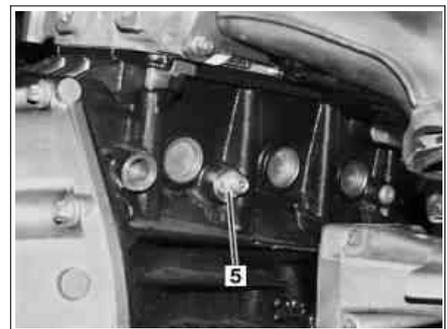
26.09.2014	Mixing ratio for coolant	BF20.00-P-1001-04A
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P20.00-2055-01



P20.20-2089-01



P20.00-2056-01

- | | | |
|-------------------------------|----------------------------|--------------------------------------|
| 1 Cooling system cap | 3 Fitting on radiator | 5 Drain screw for cylinder crankcase |
| 2 Coolant expansion reservoir | 4 Drain screw for radiator | |

	<p>Warning</p> <p>Risk of injury to skin and eyes suffering scalding from contact with hot coolant spray. Risk of poisoning from swallowing coolant.</p>	<p>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.</p>	AS20.00-Z-0001-01A
	Notes on coolant		AH20.00-N-2080-01A
	Drain off		
1	Open hood	<p>Engine 113.989 in model 171.473 Engine 112.912 in model 203.061/261, 209.361/461 Engine 112.916 in model 203.081/281 Engine 112.946 in model 203.064/264/764 Engine 112.953 in model 203.084/284 Engine 112.961 in model 203.065/265 Engine 113.988 in model 203.076/276 Engine 112.955 in model 209.365/465 Engine 113.968 in model 209.375/475 Engine 113.987 in model 209.376/476</p>	AR88.40-P-1000V AR88.40-P-1000P AR88.40-P-1000Q
2	Disconnect battery ground line	<p>Only when draining coolant at cylinder crankcase, right Engine 112.955 in model 209.365/465 Engine 113.968 in model 209.375/475 Engine 113.987 in model 209.376/476 Engine 112.912 in model 203.061/261, 209.361/461 Engine 112.916 in model 203.081/281 Engine 112.946 in model 203.064/264/764 Engine 112.953 in model 203.084/284 Engine 112.961 in model 203.065/265 Engine 113.988 in model 203.076/276 Engine 113.989 in model 171.473</p>	AR54.10-P-0003Q AR54.10-P-0003P AR54.10-P-0003V

		 Do not connect no-load current retention unit.	
3	Open cooling system cap (1) at coolant expansion reservoir (2)	 Turn cooling system cap (1) by 1/2 revolution anti-clockwise, release overpressure, then unscrew cooling system cap (1).	
4	Remove lower engine compartment paneling	Engine 113.989 in model 171.473 Engine 112.912 in model 203.061/261, 209.361/461 Engine 112.916 in model 203.081/281 Engine 112.946 in model 203.064/264/764 Engine 112.953 in model 203.084/284 Engine 112.955 in model 209.365/465 Engine 112.961 in model 203.065/265 Engine 113.968 in model 209.375/475 Engine 113.987 in model 209.376/476 Engine 113.988 in model 203.076/276	AR61.20-P-1105V AR61.20-P-1105P
	Drain coolant at radiator		
5	Slide drain hose onto fitting at radiator (3).		
6	Open cooler drain screw (4) and drain coolant	 Collect coolant in a suitable container.	
7	Tighten radiator drain screw (4) and detach drain hose from fitting at radiator (3).		
	Drain coolant at cylinder crankcase		
8	Loosen cylinder crankcase drain screw (5) and push drain hose onto cylinder crankcase drain screw (5).		
9	Open cylinder crankcase drain screw (5) and drain off coolant	 Collect coolant in a suitable container.	
10	Pull drain hose off cylinder crankcase drain screw (5) and tighten cylinder crankcase drain screw (5)	 Coolant drain plug on crankcase	*BA20.00-P-1001-02B
11	Lower vehicle		
	Pour in		
12	Pour in coolant and bleed cooling system Notes on coolant level  Anticorrosion/antifreeze agents (Sheet 325.0)  Coolant specifications	 Re-use clean coolant.  Coolant mixing ratio  Cooling system  Test cap  Cooler vacuum filling device	AR20.00-P-1142-04AK AH20.00-P-1142-01CW BB00.40-P-0325-00A BB00.40-P-0310-01A *BF20.00-P-1001-04A *BF20.00-P-1001-02K *169589009100 *285589002100
13	Check cooling system for leaktightness		AR20.00-P-1010P
14	Install lower engine compartment paneling	Engine 113.989 in model 171.473 Engine 112.912 in model 203.061/261, 209.361/461 Engine 112.916 in model 203.081/281 Engine 112.946 in model 203.064/264/764 Engine 112.953 in model 203.084/284 Engine 112.955 in model 209.365/465 Engine 112.961 in model 203.065/265 Engine 113.968 in model 209.375/475 Engine 113.987 in model 209.376/476 Engine 113.988 in model 203.076/276	AR61.20-P-1105V AR61.20-P-1105P
15	Connect ground cable to battery	Only when coolant has been drained at cylinder crankcase on the right. Engine 112.955 in model 209.365/465 Engine 113.968 in model 209.375/475 Engine 113.987 in model 209.376/476 Engine 112.912 in model 203.061/261, 209.361/461 Engine 112.916 in model 203.081/281 Engine 112.946 in model 203.064/264/764 Engine 112.953 in model 203.084/284 Engine 112.961 in model 203.065/265 Engine 113.988 in model 203.076/276 Engine 113.989 in model 171.473	AR54.10-P-0003Q AR54.10-P-0003P AR54.10-P-0003V
16	Close engine hood	Engine 113.989 in model 171.473 Engine 112.912 in model 203.061/261, 209.361/461 Engine 112.916 in model 203.081/281 Engine 112.946 in model 203.064/264/764 Engine 112.953 in model 203.084/284 Engine 112.961 in model 203.065/265 Engine 113.988 in model 203.076/276	AR88.40-P-1000V AR88.40-P-1000P

 Engine cooling, general

Number	Designation		Engine 112, 113.940/941/942/943 /944/948/960/961/96 3/964/965/966/967/9 68/971/980/981/984/ 986/987/988/990/991 /992/995	Engine 113.989
BA20.00-P-1001-02B	Coolant drain plug on crankcase	Nm	12	12

 Cooling system

Number	Designation		Engine 112.912/946 in model 203	Engine 112.912/955 in model 209	
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 10,5	≈ 10,5
		Filling capacity of anticorrosion agent/antifreeze down to -37 °C	Liter	≈ 5,25	≈ 5,25
		Filling capacity of anticorrosion agent/antifreeze down to -45 °C	Liter	≈ 5,75	≈ 5,75
		Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Sheet		BB00.40-P-0325-00A	BB00.40-P-0325-00A

 Cooling system

Number	Designation		Engine 112.916/953 in model 203	ENGINE 112.961 in MODEL 203.065/265 AMG	
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 10,0	≈ 10,5
		Filling capacity of anticorrosion agent/antifreeze down to -37 °C	Liter	≈ 5,0	-
		Filling capacity of anticorrosion agent/antifreeze down to -45 °C	Liter	≈ 5,5	-
		Sheet		BB00.40-P-0310-01A	-
		Sheet		BB00.40-P-0325-00A	-

 Cooling system

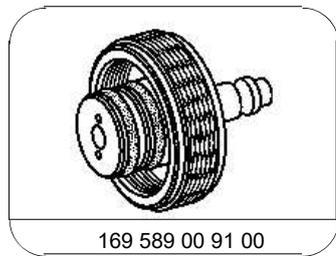
Number	Designation		Engine 113.968 in model 209	Engine 113.987/988	
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 11,5	≈ 11,5
		Filling capacity of anticorrosion agent/antifreeze down to -37 °C	Liter	≈ 5,75	≈ 5,8
		Filling capacity of anticorrosion agent/antifreeze down to -45 °C	Liter	≈ 6,25	≈ 6,3
		Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Sheet		BB00.40-P-0325-00A	BB00.40-P-0325-00A

 Cooling system

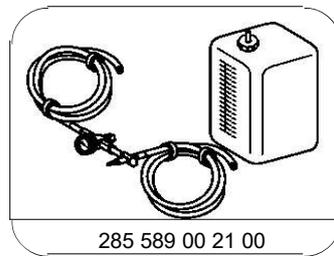
Number	Designation			Engine 113.989 in model 171
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 11,5
		Filling capacity of anticorrosion agent/antifreeze down to -37 °C	Liter	≈ 5,55
		Filling capacity of anticorrosion agent/antifreeze down to -45 °C	Liter	≈ 6,1
		Sheet		BB00.40-P-0310-01 A
		Sheet		BB00.40-P-0325-00 A

 Coolant mixing ratio

Number	Designation			Engine all (4xWD, CAR, smart)	
BF20.00-P-1001-04A	Coolant mixing ratio	Antifreeze/water	Up to -37°C	%	50/50
			As of -38 °C	%	55/45
			Overview and specifications sheet		BB00.40-P-0310-01 A
			References to sheet specification		BB00.40-P-0310ZZ



Test cap



Cooler vacuum filling device