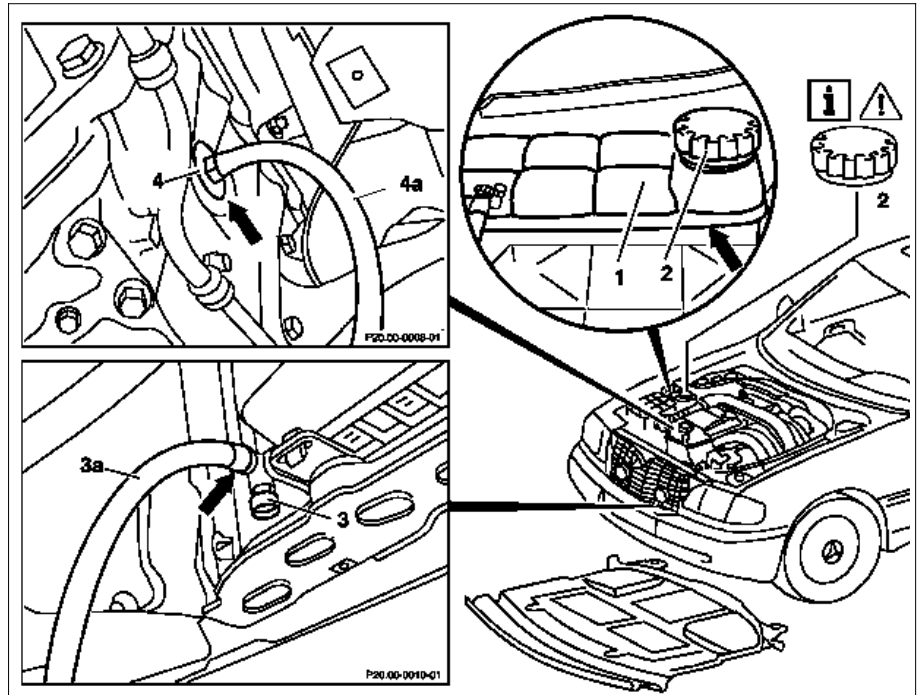


Engine	112 in model 129, 202, 208, 210, 211.061/065/080/082/261/265/280/282, 220, 230.467
Engine	112 in model 163
Engine	112.945 in model 463.209/232/233/244/245/250
Engine	113 (except 113.991) in model 215 (except 215.374)
Engine	113 (except 113.991) in model 220 (except 220.074/174)
Engine	113 in model 129, 202, 208, 210, 211.070/083/270/283
Engine	113 in model 163
Engine	113.962 in model 463.206/240/241/247/248/249/254
Engine	113.982 in model 463.241/243/246
Engine	137 in model 215, 220

Shown on model 202

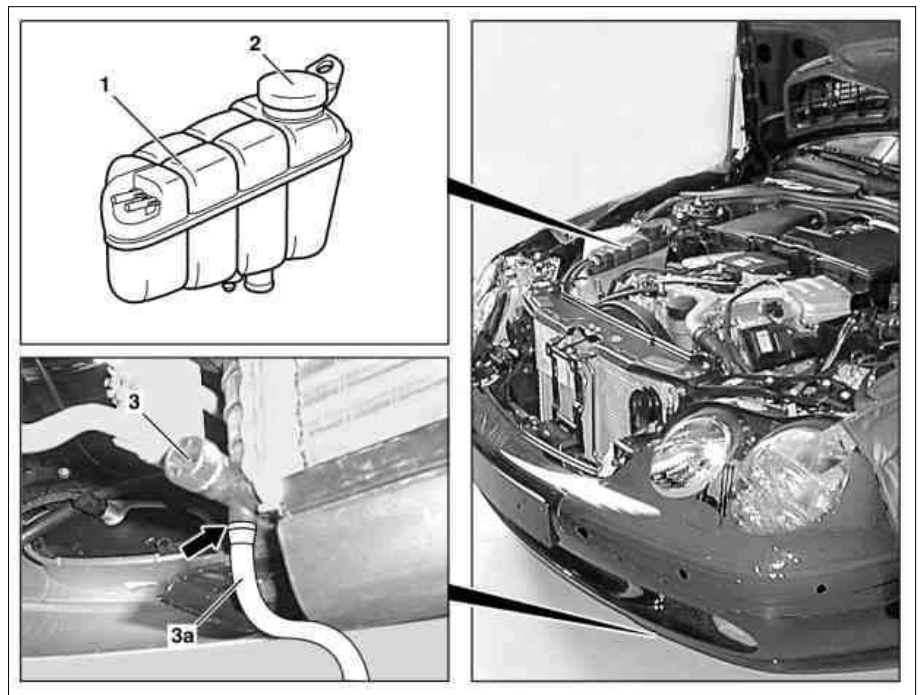
- 1 Coolant expansion reservoir
- 2 Cooling system cap
- 3 Drain screw for radiator
- 3a Drain hose
- 4 Drain screw for cylinder crankcase
- 4a Drain hose



P20.00-0215-06

Shown on model 215 with engine 137


- 1 Coolant expansion reservoir
- 2 Cooling system cap
- 3 Drain screw for radiator
- 3a Drain hose










P20.00-2045-06

	Drain off	
	Notes on coolant	AH20.00-N-2080-01A


1	Open hood		
2	Detach ground line from battery	<p>Only when draining coolant at cylinder crankcase, right</p> <p>Engine 112 in model 129, 163, 202, 208, 210 Engine 113 in model 129, 163, 202, 208, 210 Engine 112 in model 211.061/065/080/082 Engine 113 in model 211.070/083 Engine 112 in model 211.261/265/280/282 Engine 113 in model 211.270/283 Engine 112 in model 220 Engine 113 (except 113.991) in model 215 (except 215.374) Engine 113 (except 113.991) in model 220 (except 220.074/174) Engine 137 in model 215, 220 Engine 112 in model 230.467 except code P99 (Special model "AMG Black Series") Engine 112.945 in model 463.209/232/233/244/245/250 up to model year 2013 Engine 113.962 in model 463.206/240/247/249/254 up to model year 2013 Engine 113.962 in model 463.248 up to model year 2008 except code 979 (Special protection MB Guard) Engine 113.962/982 in model 463.241 up to model year 2008 except code 979 (Special protection MB Guard) Engine 113.982 in model 463.243/246 up to model year 2013 Engine 113.962/982 in model 463.241 up to model year 2019 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS4 (Special protection version FB4) Engine 113.962/982 in model 463.241 up to model year 2019 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS6 (Special protection version FB6) Engine 113.962/982 in model 463.241 up to model year 2019 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS7 (Special protection version FB7) Engine 113.962 in model 463.248 up to model year 2015 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS6 (Special protection version FB6) Engine 113.962 in model 463.248 up to model year 2015 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS7 (Special protection version FB7)</p> <p>i Do not connect no-load current retention unit.</p>	<p>AR54.10-P-0003A</p> <p>AR54.10-P-0003T</p> <p>AR54.10-P-0003TA</p> <p>AR54.10-P-0003I</p> <p>AR54.10-P-0003R</p> <p>AR54.10-P-0003G</p> <p>AR54.10-P-0003PV</p> <p>AR54.10-P-0003PM</p>
3	Open cooling system cap (2) at coolant expansion reservoir (1)	<p>i Pay attention to different versions. Cooling system cap (2) with notch: Carefully turn cooling system cap (2) to first predetent, relieve overpressure, then unscrew cooling system cap (2). 1-stage and 2-stage cooling system cap (2): Turn cooling system cap (2) by 1/2 revolution anti-clockwise, release overpressure, then unscrew cooling system cap (2).</p>	
4	Raise vehicle		

5.1	Remove lower engine compartment paneling	<p>Engine 112 in model 129, 202, 208, 210, 211.061/065/080/082/261/265/280/282, 220, 230.467</p> <p>Engine 112 in model 163</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 113 in model 129, 202, 208, 210, 211.070/083/270/283</p> <p>Engine 113 in model 163</p> <p>Engine 137 in model 215, 220</p> <p>Engine 112 in model 129, 202, 208, 210</p> <p>Engine 113 in model 129, 202, 208, 210</p> <p>Engine 113.942 in model 163.172</p> <p>Engine 113.965 in model 163.175</p> <p>Engine 113.981 in model 163.174</p> <p>Engine 112 in model 211.061/065/080/082/261/265/280/282</p> <p>Engine 113 in model 211.070/083/270/283</p> <p>Engine 112 in model 220</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 137 in model 215, 220</p> <p>Engine 112 in model 230.467 except code P99 (Special model "AMG Black Series")</p>	<p>AR61.20-P-1105AB</p> <p>AR61.20-P-1105GH</p> <p>AR61.20-P-1105T</p> <p>AR61.20-P-1105M</p> <p>AR61.20-P-1105R</p>
5.2	Remove underdrive guard	<p>Engine 112.945 in model 463.209/232/233/244/245/250</p> <p>Engine 113.962 in model 463.206/240/241/247/248/249/254</p> <p>Engine 113.982 in model 463.241/243/246</p>	
6	Remove air deflector shield	Engine 113.942 in model 163	
	Drain coolant at radiator		
7	Push drain hose (3a) onto radiator drain screw (3)	<p>Engine 112 in model 129, 202, 208, 210, 211.061/065/080/082/261/265/280/282, 220, 230.467</p> <p>Engine 112.945 in model 463.209/232/233/244/245/250</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 113 in model 129, 202, 208, 210, 211.070/083/270/283</p> <p>Engine 113.962 in model 463.206/240/241/247/248/249/254</p> <p>Engine 113.982 in model 463.241/243/246</p> <p>Engine 137 in model 215, 220</p>	
8	Open radiator drain screw (3) and drain coolant	<p>Engine 112 in model 129, 202, 208, 210, 211.061/065/080/082/261/265/280/282, 220, 230.467</p> <p>Engine 112.945 in model 463.209/232/233/244/245/250</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 113 in model 129, 202, 208, 210, 211.070/083/270/283</p> <p>Engine 113.962 in model 463.206/240/241/247/248/249/254</p> <p>Engine 113.982 in model 463.241/243/246</p> <p>Engine 137 in model 215, 220</p> <p> Collect coolant in a suitable container.</p>	
9	Tighten radiator drain screw (3) and detach drain hose (3a) from radiator drain screw (3)	<p>Engine 112 in model 129, 202, 208, 210, 211.061/065/080/082/261/265/280/282, 220, 230.467</p> <p>Engine 112.945 in model 463.209/232/233/244/245/250</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 113 in model 129, 202, 208, 210, 211.070/083/270/283</p> <p>Engine 113.962 in model 463.206/240/241/247/248/249/254</p> <p>Engine 113.982 in model 463.241/243/246</p> <p>Engine 137 in model 215, 220</p>	

<p>16</p> <p> BB</p> <p> BB</p>	<p>Pour in coolant and bleed cooling system</p> <p>Anticorrosion/antifreeze agents (Sheet 325.0)</p> <p>Coolant specifications</p>	<p>Engine 112 in model 129, 202, 208, 210, 211.061/065/080/082/261/265/280/282, 220, 230.467</p> <p>Engine 112.945 in model 463.209/232/233/244/245/250</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 113 in model 129, 202, 208, 210, 211.070/083/270/283</p> <p>Engine 113.962 in model 463.206/240/241/247/248/249/254</p> <p>Engine 113.982 in model 463.241/243/246</p> <p>Engine 137 in model 215, 220</p> <p>Engine 112 in model 129, 202, 208, 210, 211.061/065/080/082/261/265/280/282, 220, 230.467</p> <p>Engine 112.945 in model 463.209/232/233/244/245/250</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 113 in model 129, 202, 208, 210, 211.070/083/270/283</p> <p>Engine 113.962 in model 463.206/240/241/247/248/249/254</p> <p>Engine 113.982 in model 463.241/243/246</p> <p>Engine 137 in model 215, 220</p> <p>All models</p> <p> Re-use clean coolant.</p> <p> Engine 112.910/920 in model 202</p> <p>Engine 112.911/921/941 in model 210</p> <p>Engine 112.913/917/949/954 in model 211</p> <p>Engine 112.922/944/972 in model 220</p> <p>Engine 112.923/943 in model 129</p> <p>Engine 112.940 in model 208</p> <p>Engine 112.945 in model 463.209/232/233/244/245/250</p> <p>Engine 112.973 in model 230.467</p> <p>Engine 112.975 in model 220</p> <p>Engine 113.940/980 in model 210</p> <p>Engine 113.941/960 in model 220</p> <p>Engine 113.943/984 in model 208</p> <p>Engine 113.944 in model 202</p> <p>Engine 113.948/966 in model 220</p> <p>Engine 113.961 in model 129</p> <p>Engine 113.962 in model 463.206/240/241/247/248/249/254</p> <p>Engine 113.967/969 in model 211</p> <p>Engine 113.982 in model 463.241/243/246</p> <p>Engine 113.986 in model 215Cooling system</p> <p> Engine 137.970 in model 215, 220Cooling system</p> <p> Cooler vacuum filling device</p> <p> Test cap</p>	<p>AR20.00-P-1142-04AK</p> <p>BB00.40-P-0325-00A</p> <p>BB00.40-P-0310-01A</p> <p>*BF20.00-P-1001-02K</p> <p>*BF20.00-P-1001-02M</p> <p>*285589002100</p> <p>*169589009100</p>
<p>17</p>	<p>Check cooling system for leaktightness</p>	<p>Engine 112 in model 129, 202, 208, 210, 211.061/065/080/082/261/265/280/282, 220, 230.467, engine 112 in model 163Motor (engine) 112.945 in model 463.209/232/233/244/245/250, engine 113 (except 113.991) in model 215 (except 215.374), engine 113 (except 113.991) in model 220 (except 220.074/174), engine 113 in model 129, 202, 208, 210, 211.070/083/270/283, engine 113 in model 163, engine 113.962 in model 463.206/240/241/247/248/249/254, engine 113.982 in model 463.241/243/246</p>	<p>AR20.00-P-1010HA</p>
<p>18</p>	<p>Install air deflector shield</p>	<p>Engine 113.942 in model 163</p>	
<p>19.1</p>	<p>Install underride guard</p>	<p>Engine 112.945 in model 463.209/232/233/244/245/250</p> <p>Engine 113.962 in model 463.206/240/241/247/248/249/254</p> <p>Engine 113.982 in model 463.241/243/246</p>	

19.2	Install lower engine compartment paneling	<p>Engine 112 in model 129, 202, 208, 210, 211.061/065/080/082/261/265/280/282, 220, 230.467</p> <p>Engine 112 in model 163</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 113 in model 129, 202, 208, 210, 211.070/083/270/283</p> <p>Engine 113 in model 163</p> <p>Engine 137 in model 215, 220</p> <p>Engine 112 in model 129, 202, 208, 210</p> <p>Engine 113 in model 129, 202, 208, 210</p> <p>Engine 113.942 in model 163.172</p> <p>Engine 113.965 in model 163.175</p> <p>Engine 113.981 in model 163.174</p> <p>Engine 112 in model 211.061/065/080/082/261/265/280/282</p> <p>Engine 113 in model 211.070/083/270/283</p> <p>Engine 112 in model 220</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 137 in model 215, 220</p> <p>Engine 112 in model 230.467 except code P99 (Special model "AMG Black Series")</p>	<p>AR61.20-P-1105AB</p> <p>AR61.20-P-1105GH</p> <p>AR61.20-P-1105T</p> <p>AR61.20-P-1105M</p> <p>AR61.20-P-1105R</p>
20	Lower vehicle		
21	Connect ground cable to battery	<p>Only when coolant has been drained at cylinder crankcase on the right</p> <p>Engine 112 in model 129, 163, 202, 208, 210</p> <p>Engine 113 in model 129, 163, 202, 208, 210</p> <p>Engine 112 in model 211.061/065/080/082</p> <p>Engine 113 in model 211.070/083</p> <p>Engine 112 in model 211.261/265/280/282</p> <p>Engine 113 in model 211.270/283</p> <p>Engine 112 in model 220</p> <p>Engine 113 (except 113.991) in model 215 (except 215.374)</p> <p>Engine 113 (except 113.991) in model 220 (except 220.074/174)</p> <p>Engine 137 in model 215, 220</p> <p>Engine 112 in model 230.467 except code P99 (Special model "AMG Black Series")</p> <p>Engine 112.945 in model 463.209/232/233/244/245/250 up to model year 2013</p> <p>Engine 113.962 in model 463.206/240/247/249/254 up to model year 2013</p> <p>Engine 113.962 in model 463.241/248 up to model year 2008 except code 979 (Special protection MB Guard)</p> <p>Engine 113.982 in model 463.241 up to model year 2008 except code 979 (Special protection MB Guard)</p> <p>Engine 113.982 in model 463.243/246 up to model year 2013</p> <p>Engine 113.962 in model 463.248 up to model year 2015 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS6 (Special protection version FB6)</p> <p>Engine 113.962 in model 463.248 up to model year 2015 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS7 (Special protection version FB7)</p>	<p>AR54.10-P-0003A</p> <p>AR54.10-P-0003T</p> <p>AR54.10-P-0003TA</p> <p>AR54.10-P-0003I</p> <p>AR54.10-P-0003R</p> <p>AR54.10-P-0003G</p> <p>AR54.10-P-0003PM</p>


		<p>Engine 113.962/982 in model 463.241 up to model year 2019 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS4 (Special protection version FB4)</p> <p>Engine 113.962/982 in model 463.241 up to model year 2019 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS6 (Special protection version FB6)</p> <p>Engine 113.962/982 in model 463.241 up to model year 2019 with code 979 (Special protection MB Guard) with code E26 (Auxiliary battery) with code ZS7 (Special protection version FB7)</p>	AR54.10-P-0003PV
22	Perform basic programming	<p>Only if ground line for battery has been detached</p> <p>Engine 112, 113 in model 129</p> <p>Engine 112, 113 in model 163</p> <p>Engine 112, 113 in model 202, 208</p> <p>Engine 112, 113 in model 210</p> <p>Engine 112 in model 211.061/065/080/082/261/265/280/282</p> <p>Engine 113 in model 211.070/083/270/283</p> <p>Engine 137 in model 215, 220</p> <p>Engine 112 in model 230.467</p> <p>Engine 112.945 in model 463.244/245/250</p> <p>Engine 113.962 in model 463.247/248/249/254</p> <p>Engine 113.982 in model 463.243/246</p>	<p>AR00.19-P-0200A</p> <p>AR00.19-P-0200GH</p> <p>AR00.19-P-0200C</p> <p>AR00.19-P-0200D</p> <p>AR00.19-P-0200T</p> <p>AR00.19-P-0200M</p> <p>AR00.19-P-0200R</p> <p>AR00.19-P-0200P</p>
23	Read out and clear the fault memory using Star Diagnosis	Only if ground line for battery has been detached	
24	Close engine hood		

 Cylinder crankcase, timing case cover, end cover

Number	Designation	Engine
BA01.40-P-1003-01C	Crankcase discharge fitting	<p>113.940/941/942/943/944/948/960/961/962/963/964/965/966/967/968/969/971/980/981/982/984/986/987/988/989/990/991/992/995</p>
		Nm 12=8.9 ft. lbs.

 Engine cooling, general

Number	Designation	Engine
BA20.00-P-1001-02B	Coolant drain plug on crankcase	<p>112, 113.940/941/942/943/944/948/960/961/962/963/964/965/966/967/968/971/980/981/982/984/986/987/988/990/991/992/995</p>
		Nm 12=8.9 ft. lbs

 Radiator, coolant hoses


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

 Cooling system

Number	Designation			Engine 112.910/920 in model 202 Engine 112.940 in model 208	Engine 112.911/921/941 in model 210
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 9,5	≈ 10,0
		Filling capacity of anticorrosion agent/antifreeze down to -37 °C	Liter	≈ 4,75	≈ 5,0
		Filling capacity of anticorrosion agent/antifreeze down to -45 °C	Liter	≈ 5,25	≈ 5,5
		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 112.913/917/949/954 in model 211	Engine 112.922/944/972 in model 220
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 9,5	≈ 10,5
		Filling capacity of anticorrosion agent/antifreeze down to -37 °C	Liter	≈ 4,75	≈ 5,0
		Filling capacity of anticorrosion agent/antifreeze down to -45 °C	Liter	≈ 5,25	≈ 5,5
		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 112.923/943 in model 129	Engine 112.942 in model 163 Engine 113.940/980 in model 210 Engine 113.943/984 in model 208 Engine 113.944 in model 202
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 11,75	≈ 11,0
		Filling capacity of anticorrosion agent/antifreeze down to -37 °C	Liter	≈ 6,0	≈ 5,5
		Filling capacity of anticorrosion agent/antifreeze down to -45 °C	Liter	≈ 6,5	≈ 6,0
		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 112.945 in MODEL 463.209/232/233/244/245/250	Engine 112.973 in model 230.467
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 11,5	≈ 10,8
		Filling capacity of anticorrosion agent/antifreeze down to -37 °C	Liter	≈ 5,8	≈ 5,4

		Filling capacity of anticorrosion agent/ antifreeze down to -45 °C	Liter	≈ 6,4	≈ 6
		Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Sheet		BB00.40-P-0325-00A	BB00.40-P-0310-01A

 Cooling system

Number	Designation			Engine 112.975 in model 220	Engine 113.941/960 in model 220
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 10,4	≈ 11,5
		Filling capacity of anticorrosion agent/ antifreeze down to -37 °C	Liter	≈ 5,2	≈ 5,75
		Filling capacity of anticorrosion agent/ antifreeze down to -45 °C	Liter	≈ 5,7	≈ 6,25
		Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Sheet		BB00.40-P-0310-01A	BB00.40-P-0325-00A

 Cooling system

Number	Designation			Engine 113.948/966 in model 220	Engine 113.960/986 in model 215
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 11,6	≈ 11,5
		Filling capacity of anticorrosion agent/ antifreeze down to -37 °C	Liter	≈ 5,8	≈ 5,75
		Filling capacity of anticorrosion agent/ antifreeze down to -45 °C	Liter	≈ 6,4	≈ 6,25
		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 113.961 in model 129	ENGINE 113.962 in MODEL 463.206/ 240/241/247/248/ 249/254
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 12,75	≈ 12
		Filling capacity of anticorrosion agent/ antifreeze down to -37 °C	Liter	≈ 6,25	≈ 6
		Filling capacity of anticorrosion agent/ antifreeze down to -45 °C	Liter	≈ 7,0	≈ 6,6
		Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Sheet		BB00.40-P-0325-00A	BB00.40-P-0325-00A

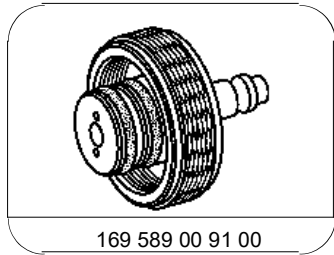
 Cooling system

Number	Designation			Engine 113.967/969 in model 211	Engine 113.982 in model 463.241/243/246
BF20.00-P-1001-02K	Cooling system	Total filling capacity	Liter	≈ 10,75	≈ 11,9

		Filling capacity of anticorrosion agent/ antifreeze down to -37 °C	Liter	≈ 5,25	≈ 5,95
		Filling capacity of anticorrosion agent/ antifreeze down to -45 °C	Liter	≈ 6,0	≈ 6,55
		Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Sheet		BB00.40-P-0325-00A	BB00.40-P-0325-00A

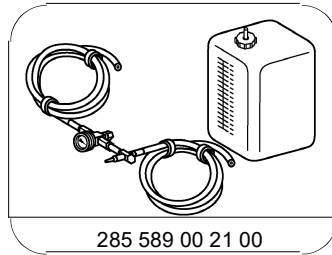
 Cooling system

Number	Designation			Engine 137.970	
BF20.00-P-1001-02M	Cooling system	Total filling capacity	Liter	≈ 12	
		Filling capacity of anticorrosion/ antifreeze down to -37°C	Liter	≈ 6	
		Filling capacity of anticorrosion/ antifreeze down to -45°C	Liter	≈ 6,6	
		Sheet		BB00.40-P-0310-01A	
		Sheet		BB00.40-P-0325-00A	



169 589 00 91 00

Test cap



285 589 00 21 00

Cooler vacuum filling device