

ENGINE 156, 157, **271**, 272, 273, 274, 276, 278, 642, 651 in MODEL 212
ENGINE 157, 276, 278, 642, 651 in MODEL 166
ENGINE 157, 276, 278, 642, 651 in MODEL 218
ENGINE 271, 272, 273, 274, 276, 278, 642, 651 in MODEL 207

Modification notes

26.9.14	Mischungsverhältnis Kühlmittel	BF20.00-P-1001-04A
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Shown on model 212

- 1 Cap
- 2 Coolant expansion reservoir



P20.30-2343-11

Danger !	Risk of death caused by vehicle slipping or toppling off of the lifting platform.	Align vehicle between vehicle lift columns and position the four support plates at the vehicle lift support points specified by the vehicle manufacturer.	AS00.00-Z-0010-01A
Danger !	Risk of injury to skin and eyes suffering scalding from contact with hot coolantspray. Risk of poisoning from 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
	Notes on coolant		AH20.00-N-2080-01A
	Check		
1	Check coolant level	MODEL 166 MODEL 207, 212, 218	AP20.30-P-2050GB AP20.30-P-2050EW
	Remove		
2	Drain coolant	ENGINE 274 in MODEL 207, 212 ENGINE 651 in MODEL 212.098/298 ENGINE 157, 276, 278, 642, 651 in MODEL 166 ENGINE 271 in MODEL 212 ENGINE 271, 272, 273, 642, 651 in MODEL 207 ENGINE 276.8 in MODEL 207 ENGINE 276.9, 278 in MODEL 207 ENGINE 272, 273 in MODEL 212 Engine 642 in model 212, 218 ENGINE 651 in MODEL 212 (except 212.098/298), 218 ENGINE 156 in MODEL 212	AR20.00-P-1142MR AR20.00-P-1142EH AR20.00-P-1142GQ AR20.00-P-1142CW AR20.00-P-1142A AR20.00-P-1142FH AR20.00-P-1142EWS AR20.00-P-1142OGE AR20.00-P-1142OMA AR20.00-P-1142CMG

AR		Engine 157, 276, 278 in model 212, 218	AR20.00-P-1142EL
	Install		
3	Pour in new coolant		
AR		ENGINE 274 in MODEL 207, 212	AR20.00-P-1142MR
AR		ENGINE 651 in MODEL 212.098/298	AR20.00-P-1142EH
AR		ENGINE 157, 276, 278, 642, 651 in MODEL 166	AR20.00-P-1142GQ
AR		ENGINE 271 in MODEL 212 ENGINE 271, 272, 273, 642, 651 in MODEL 207	AR20.00-P-1142CW
AR		Engine 276, 278 in model 207	AR20.00-P-1142FH
AR		ENGINE 272, 273 in MODEL 212	AR20.00-P-1142EWS
AR		Engine 642 in model 212, 218	AR20.00-P-1142OGE
AR		ENGINE 651 in MODEL 212 (except 212.098/298), 218	AR20.00-P-1142OMA
AR		ENGINE 156 in MODEL 212	AR20.00-P-1142CMG
AR		Engine 157, 276, 278 in model 212, 218	AR20.00-P-1142EL
		<p> A model 30 engine filled with antifreeze must not be filled later on with conventional coolant as per Sheet 325.0 or 325.2. The antifreeze model 30 may not be mixed with other antifreezes and it must be replaced every 3 years! Engine damage can occur otherwise.</p> <p> A special antifreeze (model 30) is available for the "light alloy corrosion in cooling circuit" repair case. Indications of light alloy corrosion in the cooling circuit are:</p> <ul style="list-style-type: none"> ● Sludging or gel formation in cooling system ● Engine overheating ● Flow rate deficiency in cooler <p>In these cases, a warning label (model 30) is to be attached in a well-visible spot on the coolant expansion reservoir.</p> <p> Use antifreeze model 30 if warning label (model 30) is present on the coolant expansion reservoir.</p> <p> ENGINE 207, 212 Do (2) not fill the coolant expansion reservoir to the lower edge of the marking bar only, because at extremely low outside temperatures it is possible that the instrument cluster will briefly display a coolant level message. The coolant expansion reservoir (2) may be filled when warm or cold to the lower edge of the filler neck.</p> <p> Use approved anti-corrosion and antifreeze agents only.</p> <p> Coolant mixing ratio</p> <p></p> <p>ENGINE 156 in MODEL 212</p> <p> ENGINE 157 in MODEL 166, 212, 218</p> <p></p> <p>ENGINE 271.8 in MODEL 207, 212 ENGINE 271.9 in MODEL 212</p> <p></p> <p>ENGINE 274 in MODEL 207 ENGINE 274 in MODEL 212 (except 212.035) ENGINE 274 in MODEL 212.035</p> <p> ENGINE 276 in MODEL 166, 218 ENGINE 276.8 in MODEL 207, 212 ENGINE 276.9 in MODEL 207, 212</p> <p> ENGINE 278 in MODEL 166, 207, 212, 218</p> <p> ENGINE 642 in MODEL 166, 212, 218 ENGINE 642 in MODEL 207.323/423 ENGINE 642 in MODEL 207.326/426</p> <p> ENGINE 651 in MODEL 166, 207, 212, 218</p>	<p>*BF20.00-P-1001-04A</p> <p>*BF20.00-P-1001-02U</p> <p>*BF20.00-P-1001-02FA</p> <p>*BF20.00-P-1001-02P</p> <p>*BF20.00-P-1001-02CA</p> <p>*BF20.00-P-1001-02BA</p> <p>*BF20.00-P-1001-02EA</p> <p>*BF20.00-P-1001-02W</p> <p>*BF20.00-P-1001-02AA</p>

 Cooling system

Number	Designation				ENGINE 651 in MODEL 166	ENGINE 651 in MODEL 204, 207, 212
BF20.00-P-1001-02AA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈10,0	≈10,0
			Low temperature circuit	Liter	-	-
		Antifreeze/water	Up to -37_°C	%	50/50	50/50
			As of -38_°C	%	55/45	55/45
			Specifications for Operating Fluids, Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Specifications for Operating Fluids, Sheet		BB00.40-P-0325-00A	BB00.40-P-0325-00A	
		Specifications for Operating Fluids, Sheet		BB00.40-P-0326-00A	BB00.40-P-0326-00A	

 Cooling system

Number	Designation				ENGINE 651 in MODEL 212.098/298	ENGINE 651 in MODEL 218
BF20.00-P-1001-02AA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈10,0	≈10,4
			Low temperature circuit	Liter	≈1,0	-
		Antifreeze/water	Up to -37_°C	%	50/50	50/50
			As of -38_°C	%	55/45	55/45
			Specifications for Operating Fluids, Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Specifications for Operating Fluids, Sheet		BB00.40-P-0325-00A	BB00.40-P-0325-00A	
		Specifications for Operating Fluids, Sheet		BB00.40-P-0326-00A	BB00.40-P-0326-00A	

 Cooling system

Number	Designation				ENGINE 276 in MODEL 166	ENGINE 276.8 in MODEL 207 (except 207.365/465)
BF20.00-P-1001-02BA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈10,5	≈10,3
			Low temperature circuit	Liter	-	-
		Antifreeze/water	Up to -37°C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
			Specifications for Operating Fluids, sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Specifications for Operating Fluids, sheet		BB00.40-P-0325-00A	BB00.40-P-0325-00A	
		Specifications for Operating Fluids, sheet		BB00.40-P-0326-00A	BB00.40-P-0326-00A	

 Cooling system

Number	Designation				ENGINE 276.8 in MODEL 207.365/465	ENGINE 276.9 in MODEL 207
BF20.00-P-1001-02BA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈10,3	≈9,6
			Low temperature circuit	Liter	1,9	-
		Antifreeze/water	Up to -37°C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
			Specifications for Operating Fluids, sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A

		Specifications for Operating Fluids, sheet	BB00.40-P-0325-00A	BB00.40-P-0325-00A
		Specifications for Operating Fluids, sheet	BB00.40-P-0326-00A	BB00.40-P-0326-00A

 Cooling system

Number	Designation			ENGINE 276.8 in MODEL 212	ENGINE 276.9 in MODEL 212 (except 212.095/195)	
BF20.00-P-1001-02BA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈10,3	≈9,6
			Low temperature circuit	Liter	1,9	-
	Antifreeze/water		Up to -37°C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
			Specifications for Operating Fluids, sheet	BB00.40-P-0310-01A	BB00.40-P-0310-01A	
			Specifications for Operating Fluids, sheet	BB00.40-P-0325-00A	BB00.40-P-0325-00A	
			Specifications for Operating Fluids, sheet	BB00.40-P-0326-00A	BB00.40-P-0326-00A	

 Cooling system

Number	Designation			ENGINE 276.9 in MODEL 212.095/195	ENGINE 276 in MODEL 218	
BF20.00-P-1001-02BA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈8,4	≈9,6
			Low temperature circuit	Liter	2,7	-
	Antifreeze/water		Up to -37°C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
			Specifications for Operating Fluids, sheet	BB00.40-P-0310-01A	BB00.40-P-0310-01A	
			Specifications for Operating Fluids, sheet	BB00.40-P-0325-00A	BB00.40-P-0325-00A	
			Specifications for Operating Fluids, sheet	BB00.40-P-0326-00A	BB00.40-P-0326-00A	

 Cooling system

Number	Designation			ENGINE 274 in MODEL 207	ENGINE 274 in MODEL 212 (except 212.035)	
BF20.00-P-1001-02CA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈8,5	≈8,5
			Low temperature circuit	Liter	-	-
	Antifreeze/water		Up to -37°C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
			Specifications for Operating Fluids, sheet	BB00.40-P-0310-01A	BB00.40-P-0310-01A	
			Specifications for Operating Fluids, sheet	BB00.40-P-0325-00A	BB00.40-P-0325-00A	
			Specifications for Operating Fluids, sheet	BB00.40-P-0326-00A	BB00.40-P-0326-00A	

 Cooling system

Number	Designation			ENGINE 274 in MODEL 212.035	
BF20.00-P-1001-02CA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈8,5
			Low temperature circuit	Liter	≈2,0

	Antifreeze/water	Up to -37°C	%	50/50
		As of -38 °C	%	55/45
		Specifications for Operating Fluids, sheet		BB00.40-P-0310-01A
		Specifications for Operating Fluids, sheet		BB00.40-P-0325-00A
		Specifications for Operating Fluids, sheet		BB00.40-P-0326-00A

 Cooling system

Number	Designation			ENGINE 278 in MODEL 166	ENGINE 278 in MODEL 207	
BF20.00-P-1001-02EA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈12,9	≈10,9
			Low-temperature circuit	Liter	-	≈2,2
	Antifreeze/water		up to -37°C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
			Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
			Sheet		BB00.40-P-0325-00A	BB00.40-P-0325-00A
			Sheet		BB00.40-P-0326-00A	BB00.40-P-0326-00A
			Sheet		BB00.40-P-0326-00A	BB00.40-P-0326-00A

 Cooling system

Number	Designation			ENGINE 278 in MODEL 212, 218	
BF20.00-P-1001-02EA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈12,3
			Low-temperature circuit	Liter	≈2,5
	Antifreeze/water		up to -37°C	%	50/50
			As of -38 °C	%	55/45
			Sheet		BB00.40-P-0310-01A
			Sheet		BB00.40-P-0325-00A
			Sheet		BB00.40-P-0326-00A

 Cooling system

Number	Designation			ENGINE 157 in MODEL 166	ENGINE 157 in MODEL 212	
BF20.00-P-1001-02FA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈7,5	-
			Low temperature circuit	Liter	≈1,7	-
	Antifreeze/water		Up to -37°C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
			Sheet		BB00.40-P-0310-01A	BB00.40-P-0310-01A
			Sheet		BB00.40-P-0325-00A	BB00.40-P-0325-00A
			Sheet		BB00.40-P-0326-00A	BB00.40-P-0326-00A

 Cooling system

Number	Designation			ENGINE 157 in MODEL 218	
BF20.00-P-1001-02FA	Cooling system	Workshop replacement quantity	Main circuit	Liter	-
			Low temperature circuit	Liter	-
	Antifreeze/water		Up to -37°C	%	50/50
			As of -38 °C	%	55/45
			Sheet		BB00.40-P-0310-01A
			Sheet		BB00.40-P-0325-00A
Sheet		BB00.40-P-0326-00A			

 Cooling system

Number	Designation			ENGINE 271.8 in MODEL 204, 207, 212	ENGINE 271.9	
BF20.00-P-1001-02P	Cooling system	Workshop replacement quantity	Liter	≈7,5	≈5,6	
		Antifreeze/water	Up to -37°C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
		Sheet			BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Sheet			BB00.40-P-0325-00A	BB00.40-P-0325-00A
		Sheet			BB00.40-P-0326-00A	BB00.40-P-0326-00A

 Cooling system

Number	Designation			ENGINE 156 in MODEL 212		
BF20.00-P-1001-02U	Cooling system	Workshop replacement quantity	Main circuit	Liter		
			Low temperature circuit	Liter	–	
		Antifreeze/water	Up to -37°C	%	50/50	
			Sheet			BB00.40-P-0310-01A
			Sheet			BB00.40-P-0325-00A
			Sheet			BB00.40-P-0326-00A
As of -38 °C	%	55/45				

 Cooling system

Number	Designation			ENGINE 642 in MODEL 166	ENGINE 642 in MODEL 207.323/423	
BF20.00-P-1001-02W	Cooling system	Workshop replacement quantity	Liter	≈11,5	≈12,3	
		Antifreeze/water	Up to -37 °C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
		Sheet			BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Sheet			BB00.40-P-0325-00A	BB00.40-P-0325-00A
		Sheet			BB00.40-P-0326-00A	BB00.40-P-0326-00A

 Cooling system

Number	Designation			ENGINE 642 in MODEL 207.326/426	ENGINE 642 in MODEL 212	
BF20.00-P-1001-02W	Cooling system	Workshop replacement quantity	Liter	≈10,8	≈10,8	
		Antifreeze/water	Up to -37 °C	%	50/50	50/50
			As of -38 °C	%	55/45	55/45
		Sheet			BB00.40-P-0310-01A	BB00.40-P-0310-01A
		Sheet			BB00.40-P-0325-00A	BB00.40-P-0325-00A
		Sheet			BB00.40-P-0326-00A	BB00.40-P-0326-00A

 Cooling system

Number	Designation			ENGINE 642 in MODEL 218	
BF20.00-P-1001-02W	Cooling system	Workshop replacement quantity	Liter	≈10,8	
		Antifreeze/water	Up to -37 °C	%	50/50
			As of -38 °C	%	55/45
		Sheet			BB00.40-P-0310-01A
		Sheet			BB00.40-P-0325-00A

 Coolant mixing ratio

Number	Designation		ENGINE ALL
BF20.00-P-1001-04A	Coolant mixing ratio	Antifreeze/water bis -37°C	50/50
		Antifreeze/water bis -45°C	55/45
		Sheet	BB00.40-P-0310-01A
		Sheet	BB00.40-P-0325-00A