

- Engine 156, 157, 271, 272, 273, 274, 276, 278, 642, 651 in model 212
- Engine 157, 274, 276, 278, 642, 651 in model 218
- Engine 157, 276, 278, 642, 651 in model 166
- Engine 271, 272, 273, 274, 276, 278, 642, 651 in model 207

Shown on model 212

- 1 Cap
- 2 Coolant expansion reservoir




P20.30-2343-11

	<b>Risk of death</b> 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
⚠ Warning	<b>Risk of injury</b> to skin and eyes suffering scalding from contact with hot coolant spray. <b>Risk of poisoning</b> 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
◀	<b>Check</b>		
1	Check coolant level	MODEL 166 MODEL 207, 212, 218	AP20.30-P-2050GB AP20.30-P-2050EW
↕	<b>Remove</b>		
2	Drain coolant	Engine 274 in model 207, 212, 218 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 Engine 157, 276, 278 in model 212, 218	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 AR20.00-P-1142EL
↕	<b>Install</b>		
3	Pour in new coolant	Engine 274 in model 207, 212, 218 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, 278 in model 207 ENGINE 272, 273 in MODEL 212 Engine 642 in model 212, 218	AR20.00-P-1142MR AR20.00-P-1142EH AR20.00-P-1142GQ AR20.00-P-1142CW AR20.00-P-1142FH AR20.00-P-1142EWS 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> An engine filled with type 30 antifreeze must not be filled later on with conventional coolant as per Sheet 325.0 or 325.2. Type 30 antifreeze may <b>not</b> be mixed with other antifreezes and it <b>must</b> be replaced <b>every 3 years!</b> Engine damage can occur otherwise.</p> <p> A special antifreeze (type 30) is available for the "light alloy corrosion in cooling circuit" repair case. <b>Indications of light alloy corrosion in the cooling circuit are:</b></p> <ul style="list-style-type: none"> <li>● Sludging or gel formation in cooling system</li> <li>● Engine overheating</li> <li>● Flow rate deficiency in cooler</li> </ul> <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) <b>not</b> 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 <b>lower edge of the filler neck.</b></p> <p> Use approved anti-corrosion and antifreeze agents only.</p> <p> Coolant mixing ratio</p> <p> Engine 156 in model 212Cooling system</p> <p> ENGINE 157 in MODEL 166, 212, 218Cooling system</p> <p> Engine 271.8 in model 207, 212 Engine 271.9 in model 212Cooling system</p> <p> Engine 274 in model 207 Engine 274 in model 212 (except 212.035) Engine 274 in model 212.035 Engine 274 in model 218Cooling system</p> <p> ENGINE 276 in MODEL 166, 218 ENGINE 276.8 in MODEL 207, 212 ENGINE 276.9 in MODEL 207, 212Cooling system</p> <p> ENGINE 278 in MODEL 166, 207, 212, 218Cooling system</p> <p> ENGINE 642 in MODEL 166, 212, 218 ENGINE 642 in MODEL 207.323/423 ENGINE 642 in MODEL 207.326/426Cooling system</p> <p> ENGINE 651, 212, 207 in MODEL 166, 218Cooling system</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 (except 212.098/298)	
BF20.00-P-1001-02AA	Cooling system	Workshop replacement amount	Main circuit	Liter	≈ 10,0	≈ 10,0
			Low temperature circuit	Liter	-	-
	Antifreeze/water		Down to -37°C	%	50/50	50/50
			-38°C and below	%	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 amount	Main circuit	Liter	≈ 10,0	≈ 10,4
			Low temperature circuit	Liter	≈ 1,0	-
		Antifreeze/water	Down to -37°C	%	50/50	50/50
			-38°C and below	%	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 except code ME05 (HYBRID DRIVE 80KW VARIANT (INCLUDING PLUGIN))	Engine 276 in model 166 with code ME05 (HYBRID DRIVE 80KW VARIANT (INCLUDING PLUGIN))
BF20.00-P-1001-02BA	Cooling system	Workshop replacement amount	Main circuit	l	≈ 10,5	≈ 9,7
			Low-temperature circuit	l	≈ 1,9	≈ 6,0
		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 276.8 in model 207 (except 207.365/465)	Engine 276.8 in model 207.365/465
BF20.00-P-1001-02BA	Cooling system	Workshop replacement amount	Main circuit	l	≈ 10,3	≈ 10,3
			Low-temperature circuit	l	-	≈ 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 207	Engine 276.8 in model 212
BF20.00-P-1001-02BA	Cooling system	Workshop replacement amount	Main circuit	l	≈ 9,6	≈ 10,3
			Low-temperature circuit	l	-	≈ 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
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 Cooling system

Number	Designation			Engine 276.9 in model 212 (except 212.095/195)	Engine 276.9 in model 212.095/195
BF20.00-P-1001-02BA	Cooling system	Workshop replacement amount	Main circuit	≈ 9,6	≈ 8,4
			Low-temperature circuit	-	≈ 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 276 in model 218
BF20.00-P-1001-02BA	Cooling system	Workshop replacement amount	Main circuit	≈ 9,6
			Low-temperature circuit	-
	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 274 in model 207	Engine 274 in model 212 (except 212.035)
BF20.00-P-1001-02CA	Cooling system	Workshop replacement amount	Main circuit	≈ 8,5	≈ 8,5
			Low-temperature circuit	-	-
	Antifreeze/water	Down to -37°C %	50/50	50/50	
		-38°C and below %	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	Engine 274 in model 218
BF20.00-P-1001-02CA	Cooling system	Workshop replacement amount	Main circuit	≈ 8,5	≈ 8,5
			Low-temperature circuit	≈ 2,0	-
	Antifreeze/water	Down to -37°C %	50/50	50/50	
		-38°C and below %	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-0325-06A		

		Specifications for Operating Fluids, sheet	BB00.40-P-0326-00A	BB00.40-P-0326-06A
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 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	≈ 11,4	≈ 10,9
			Low temperature circuit	Liter	≈ 2,5	≈ 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

 Cooling system


Number	Designation				Engine 278 in model 212, 218
BF20.00-P-1001-02EA	Cooling system	Workshop replacement quantity	Main circuit	Liter	≈ 10,9
			Low temperature circuit	Liter	≈ 2,2
		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 change quantity	Main circuit	Liter	≈ 8	≈ 8
			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

 Cooling system


Number	Designation				Engine 157 in model 218
BF20.00-P-1001-02FA	Cooling system	Workshop change quantity	Main circuit	Liter	≈ 8,5
			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 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
			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 amount	Main circuit	Liter	≈ 10,0
			Low temperature circuit	Liter	-
		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 642 in model 166	Engine 642 in model 207.323/423
BF20.00-P-1001-02W	Cooling system	Workshop replacement amount	Main circuit	l	≈ 11,5	≈ 12,3
			Low-temperature circuit	l	-	-
		Antifreeze/water	Down to -37°C	%	50/50	50/50
			-38°C and below	%	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 amount	Main circuit	l	≈ 10,8	≈ 10,8
			Low-temperature circuit	l	-	-
		Antifreeze/water	Down to -37°C	%	50/50	50/50
			-38°C and below	%	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 amount	Main circuit	l	≈ 10,8
			Low-temperature circuit	l	-
		Antifreeze/water	Down to -37°C	%	50/50
			-38°C and below	%	55/45
			Sheet		BB00.40-P-0310-01 A
		Sheet		BB00.40-P-0325-00 A	
		Sheet		BB00.40-P-0326-00 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	