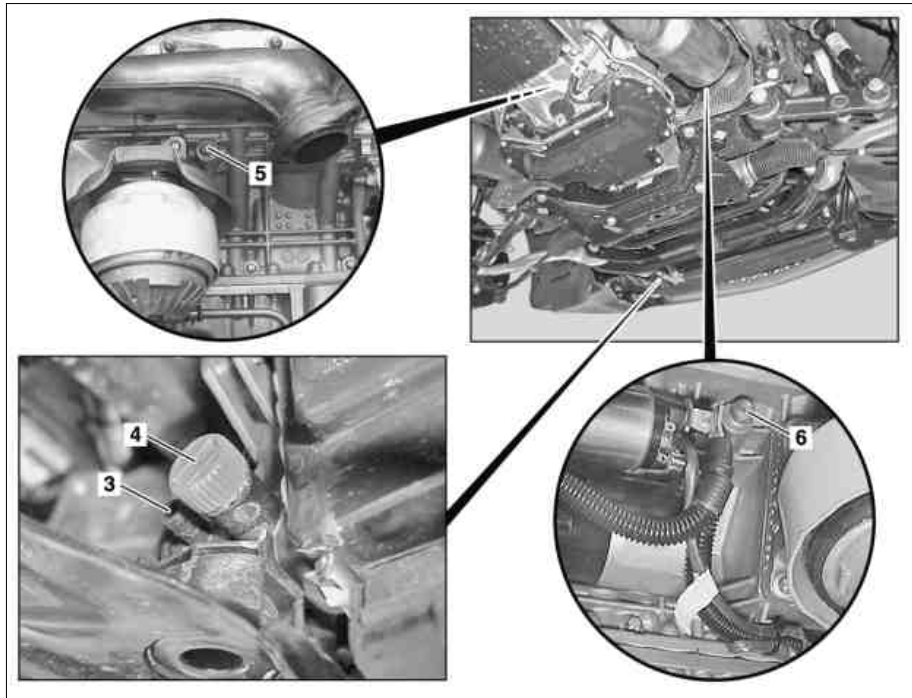


ENGINE 272, 273 in MODEL 211, 219

Shown on engine 272.964

- 3 Fitting
- 4 Radiator drain plug
- 5 Crankcase drain plug on the left
- 6 Crankcase drain plug on the right



P20.00-2239-06

Modification notes

17.5.05	Warm-up engine, omitted	Step 19	
17.5.05	Remove, install catalytic converter and shield, omitted	Operation step 8.1, 8.2, 9.1, 14.1, 15.1, 15.2	

	Drain		
Danger!	Risk of injury to skin and eyes caused by scalding from contact with hot coolant spray. 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
1	Disconnect ground line from battery	When draining the coolant at the right drain plug (6) on the crankcase Model 211.0 Model 211.2 Model 219.3	AR54.10-P-0003T AR54.10-P-0003TA AR54.10-P-0003TX
2	Unscrew the cap of the coolant expansion reservoir	Slowly unscrew the cap and reduce the excess pressure.	
3	Remove the front section of the lower engine compartment paneling	Model 211 Model 219.3	AR61.20-P-1105T AR61.20-P-1105TX
	Drain coolant from radiator		
4	Slide the siphon hose on to the left fitting (3) at the radiator		
5	Loosen siphon hose (4) at radiator and drain coolant.	Follow regulations for the disposal of coolant.	
6	Tighten the drain plug (4) at the radiator and detach the siphon hose from the fitting (3)		
	Drain coolant at crankcase		
7	Loosen left crankcase drain plug (5) and right crankcase drain plug (6) at crankcase until they can be turned by hand		
8	Loosen left or right crankcase drain plug (5) and slide siphon hose onto right crankcase drain plug (6)		
9	Continue to manually loosen left crankcase drain plug (5) and right crankcase drain plug (6) and drain off coolant	Follow regulations for the disposal of coolant.	

10	Detach drain hose and tighten drain plug on left crankcase (5) or drain plug on right crankcase (6)		*BA20.00-P-1001-02E
Filling			
11	Pour in coolant and bleed cooling system Coolant specifications Anticorrosion/antifreeze agents (Sheet 325.0) Notes on coolant level	Reuse clean coolant. Sheet 310.1 Sheet 325.0 	AR20.00-P-1142-04A BB00.40-P-0310-01A BB00.40-P-0325-00A *BF20.00-P-1001-02U AH20.00-P-1142-01V
12	Inspect cooling system for leaks		AR20.00-P-1010TS
13	Attach ground lead to battery	After draining coolant at right drain plug (6) on crankcase Model 211.0 Model 211.2 Model 219.3	AR54.10-P-0003T AR54.10-P-0003TA AR54.10-P-0003TX
14	Fit front section of lower engine compartment paneling	Model 211 Model 219.3	AR61.20-P-1105T AR61.20-P-1105TX

Engine cooling, general

Number	Designation	Engine 272	Engine 273
BA20.00-P-1001-02E	Coolant drain plug to crankcase	Nm	12

Cooling system

Number	Designation	Engine 272 in model 164, 211, 251, Engine 272.964 in model 219	Engine 272 in model 221 Engine 272.985 in model 219		
BF20.00-P-1001-02U	Cooling system	Total filling capacity	≈Liters	6.5	8
		Antifreeze/water	Up to -37 °C	50/50	50/50
			Up to -45 °C	55/45	55/45
	Specifications for Operating Fluids	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 273 in model 211, 219		
BF20.00-P-1001-02U	Cooling system	Total filling capacity	≈Liters	7
		Antifreeze/water	Up to -37 °C	50/50

		Up to -45°C	55/45
	Specifications for Operating Fluids	Sheet	BB00.40-P-0310-01A
		Sheet	BB00.40-P-0325-00A