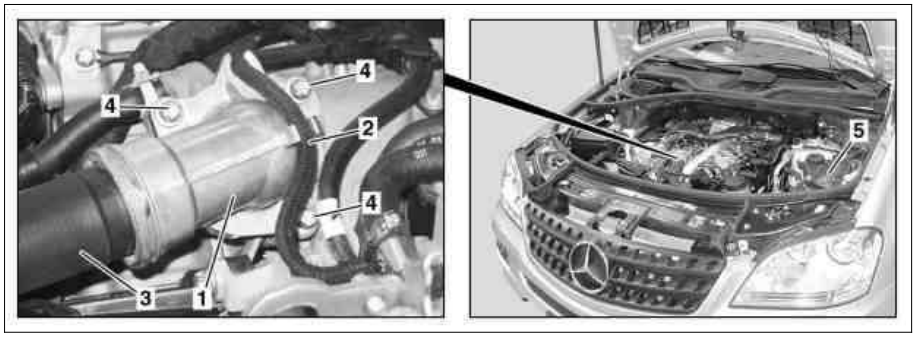
Engine 642 in model 164, 251

Modification notes

25.09.2013	Mix the cleaner to a 5% flushing solution (10 l water, 0.5 l cleaner), added	Operation step 9	
25.09.2013	The heater of the vehicle must be set to the highest temperature stage. The heater circuit is not flushed otherwise.	Operation step 8	
01.10.2013	If required, repeat operation steps 9 and 15, added.	Operation step 16	

1 Thermostat housing
5 Coolant expansion reservoir



P20.10-2188-04

⚠ **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
⚠ **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** caused by fingers being jammed or pinched when removing, installing or aligning hoods, doors, trunk lid/rear-end door or sliding roof.	No parts of the body or limbs should be within the operating area when the components are moving.	AS00.00-Z-0011-01A
	Notes on coolant		AH20.00-N-2080-01A
	Notes on coolant level		AH20.00-P-1142-01GZB
	Remove		
1.1	Removes strut tower brace	Engine 642 in model 164.8 i Remove strut tower brace from strut tower mounts.	AR62.30-P-2500GY
1.2	Remove partition wall between wheel wells	Engine 642 in model 251	AR62.30-P-2400RT
2	Remove engine cover		
3	Remove bottom section of soundproofing	MODEL 164 MODEL 251	AR94.30-P-5300GZ AR94.30-P-5300RT
4	Open coolant expansion reservoir (5)	i Rotate cooling system cap half a rotation anti-clockwise and release excess pressure. Then unscrew cooling system cap.	
5	Drain coolant		AR20.00-P-1142GZB
6	Remove coolant thermostat from the thermostat housing (1)		AR20.10-P-2460GZB
7 WF	Install housing to remove oil from the cooling and heating system	i **Installation:** The housing may be used only for the purpose of removing the oil and must be removed again after it has been rinsed. Nm Bolt, coolant thermostat housing to charge air manifold	WF58.50-P-2000-01A *BA20.10-P-1002-01S

© Daimler AG, 9/25/17, L/10/16, ar20.00-p-1250gzb, Remove oil from cooling and heating system
Engine 642 in model 164, 251

	Clean		
8	Set heater control to full output	The heater of the vehicle must be set to the highest temperature stage. The heater circuit is not flushed otherwise.	
9	Fill cooling and heating system with rinsing solution	Mix the cleaner to a 5% flushing solution (10 l water, 0.5 l cleaner). Cleaner for engine and cooling system for oil drag-in, 10 l	AR20.00-P-1142GZB *BR00.45-Z-1009-04A
10	Warm up engine to normal operating temperature	When engine is running, maintain the operating temperature at about 80°C for about 5 min.	
11	Turn off engine	Let the cooling system cool down to about 50°C.	
12	Drain the rinsing solution	The rinsing solution must be completely drained at the drain screw of the radiator. Observe environmental protection regulations of cleaner manufacturer.	
13	Fill cooling system with fresh water		AR20.00-P-1142GZB
14	Warm up engine to normal operating temperature	While engine is running, maintain operating temperature at about 80°C for about 5 min.	
15	Drain fresh water	If required, repeat rinsing procedure with fresh water so that all rinsing solution is removed.	
16	If required, repeat operation steps 9 and 15		
	Install		
17 WF	Remove housing to remove oil from the cooling and heating system	Bolt, coolant thermostat housing to charge air manifold	WF58.50-P-2000-01A *BA20.10-P-1002-01S
18	Install coolant thermostat with thermostat housing (1)		AR20.10-P-2460GZB
19	Pour in coolant		AR20.00-P-1142GZB
20	Check cooling system for leaktightness		AR20.00-P-1010GZB
21	Install bottom sections of soundproofing	MODEL 164 MODEL 251	AR94.30-P-5300GZ AR94.30-P-5300RT
22	Close coolant expansion reservoir (5)		
23	Install engine cover		
24.1	Install partition wall between the wheel wells	Engine 642 in model 251	AR62.30-P-2400RT
24.2	Removes strut tower brace	Engine 642 in model 164.8	AR62.30-P-2500GY

Coolant pump, coolant thermostat

Number	Designation		Engine 642
BA20.10-P-1002-01S	Bolt, coolant thermostat housing to charge air manifold	Nm	9

Repair materials

Number	Designation	Order number
BR00.45-Z-1009-04A	Cleaner for engine and cooling system for oil drag-in, 10 l	A 002 986 42 71