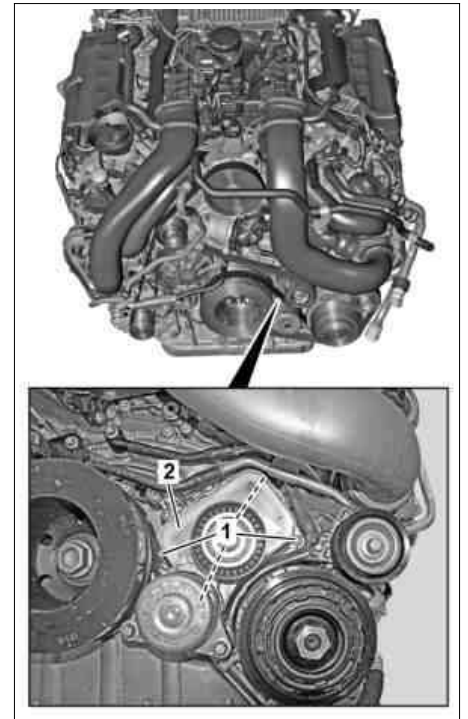


Engine 157, 278 in model 212, 218












Engine 278 in model 207


- 1 Screw/bolts
2 Heat exchanger



P18.30-2151-03

	Risk of injury. Skin or eye injuries may result when handling hot or glowing objects.	Wear protective gloves, protective clothing and safety glasses, if necessary.	AS00.00-Z-0002-01A
	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
	Risk of injury to skin and eyes due to handling of engine oil. Risk of poisoning caused by swallowing engine oil	Wear protective gloves, protective clothing and safety glasses. Do not fill engine oil into beverage containers.	AS18.00-Z-0001-01A
ⓘ	Notes on coolant		AH20.00-N-2080-01A
ⓘ	Notes on avoiding damage through contamination and foreign objects		AH00.00-P-5000-01A
✂	Remove		
1	Detach double clamp from left ATL and from coolant lines	Engine 157, 278 in model 212, 218 except code 139 (M157/M278 engine cooling measures) Engine 278 in model 207 except code 139 (M157/M278 engine cooling measures)	AR20.20-P-7440ELB
2	Detach bracket of the upper coolant line from oil filter housing	Engine 157, 278 in model 212, 218 except code 139 (M157/M278 engine cooling measures) Engine 278 in model 207 except code 139 (M157/M278 engine cooling measures)	AR20.20-P-7440ELB
3	Detach left coolant lines on coolant pump	Engine 157, 278 in model 212, 218 except code 139 (M157/M278 engine cooling measures) Engine 278 in model 207 except code 139 (M157/M278 engine cooling measures)	AR20.20-P-7440ELB
4	Remove tensioning device for poly-V belt		AR13.20-P-0001ELB


5	Remove drain screw from oil pan, catch engine oil and catch in a suitable container		
6	Remove screw/bolt (1)		
7	Detach and remove heat exchanger (2) on timing case cover		
8	Clean sealing surface on timing case cover with lint-free rags		
	Install		
9	Place heat exchanger (2) on timing case cover	 Replace seal.	
10	Screw in screw/bolts (1) and tighten	 Replace screw/bolts (1).  Bolt, oil-water heat exchanger to timing case cover	*BA18.30-P-1002-01G
11	Screw in and tighten drain screw in oil pan	 Replace sealing ring.  Drain plug at oil pan/oil pan bottom section	*BA01.45-P-1007-01E
12	Install tensioning device on poly-V belt		AR13.20-P-0001ELB
13	Mount left coolant lines on coolant pump	Engine 157, 278 in model 212, 218 except code 139 (M157/M278 engine cooling measures) Engine 278 in model 207 except code 139 (M157/M278 engine cooling measures)	AR20.20-P-7440ELB
14	Mount bracket of the upper coolant line on oil filter housing	Engine 157, 278 in model 212, 218 except code 139 (M157/M278 engine cooling measures) Engine 278 in model 207 except code 139 (M157/M278 engine cooling measures)	AR20.20-P-7440ELB
15	Mount double clamp on left ATL and on coolant lines	Engine 157, 278 in model 212, 218 except code 139 (M157/M278 engine cooling measures) Engine 278 in model 207 except code 139 (M157/M278 engine cooling measures)	AR20.20-P-7440ELB
16	Pour in engine oil	 Use only approved engine oils. Engine damage could occur otherwise.  Engine 157 in model 212, 218  Engine 278.922 in model 207, 212, 218	*BF18.00-P-1001-01V *BF18.00-P-1001-01M
17	Fill in coolant	Engine 278 in model 207 Engine 157, 278 in model 212, 218  Only install the front section of the engine compartment paneling after the engine leak test.	AR20.00-P-1142FH AR20.00-P-1142EL
	Check		
18	Check engine oil level; correct if necessary		AP18.00-P-1811MP
19	Risk of accident from vehicle starting off by itself when engine running. Risk of injury (bruises and burns) resulting from working on the engine while it is being started or when it is running. Carry out an engine test run, checking the engine for proper operation and leaktightness	Secure vehicle to prevent it from starting off by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.	AS00.00-Z-0005-01A
20	Install front section of lower engine compartment paneling		AR61.20-P-1105EW

 Oil pan

Number	Designation	Material	Thread	Unit	Engine 157	Engine 278
BA01.45-P-1007-01E	Drain plug at oil pan/oil pan bottom section	Metal	M12	Nm	20	20
			M14	Nm	30	30
		Plastic		Nm	4	4

 Oil cooling system

Number	Designation		Engine 157	Engine 278
BA18.30-P-1002-01G	Bolt, oil-water heat exchanger to timing case cover	Nm	8	8

 Engine lubrication

Number	Designation		Engine 278.910/922/927/929
BF18.00-P-1001-01M	Engine oil	Oil filling capacity with Liter oil filter	8,0
		Sheet	-
		Sheet	-
		Sheet	BB00.40-P-0229-05A
		Sheet	-

 Engine lubrication system

Number	Designation		Engine 157 in model 166, 212, 216, 217, 218, 221, 222, 231, 292 Engine 157 in model 463
BF18.00-P-1001-01V	Engine oil	Filling capacity (oil and filter change) Liter	8,5
		Sheet	BB00.40-P-0229-05A
		Sheet	-
		Sheet	-