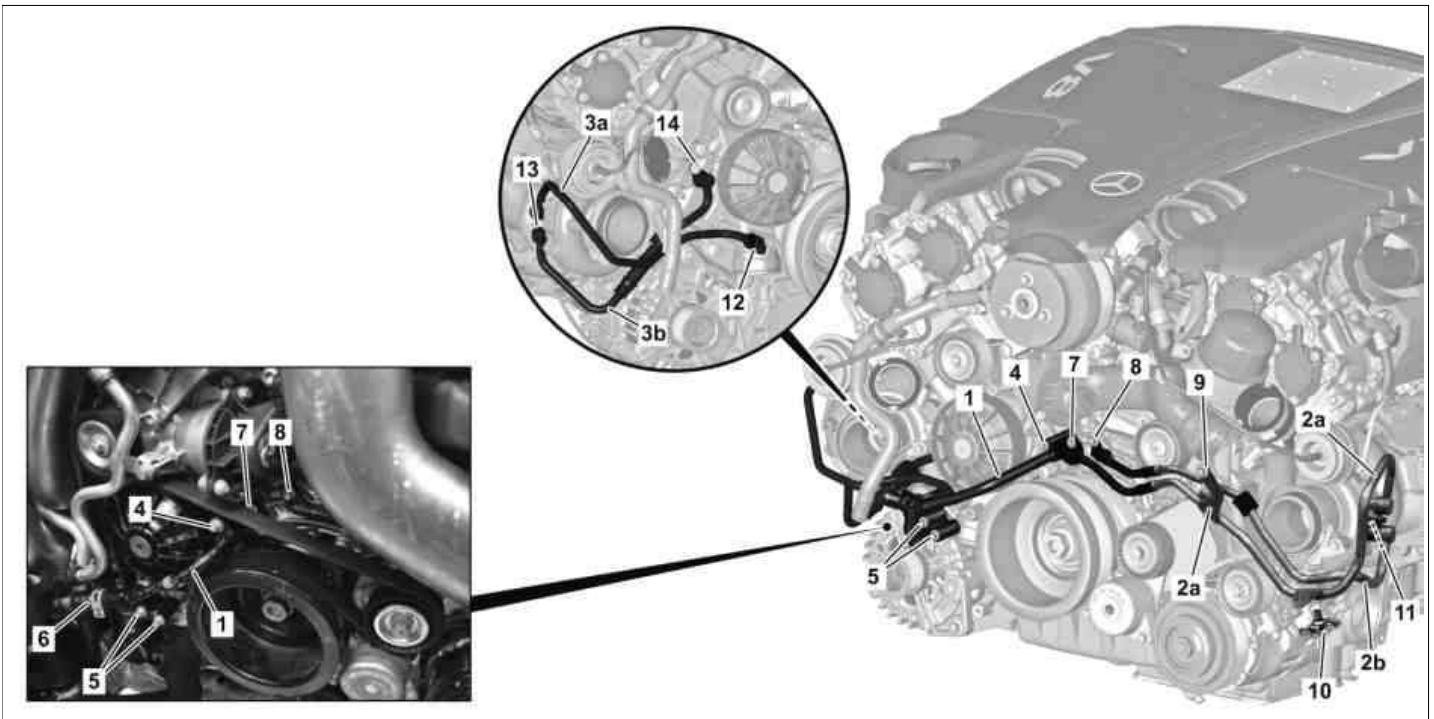


- Engine 157, 278 in model 212, 218
with code 139 (M157/M278 engine cooling measures)
- Engine 278 as of 3/1/12 in model 207.3/4
with code 139 (M157/M278 engine cooling measures)



P20.00-2462-09

- | | | | | | |
|----|----------------------------------|----|--------------|----|---------|
| 1 | Front coolant line (return line) | 5 | Bolts | 11 | Screw |
| 2a | Return line on the left | 6 | Coolant hose | 12 | Bracket |
| 2b | Feed line on the left | 7 | Screw | 13 | Screw |
| 3a | Return line on the right | 8 | Screw | 14 | Screw |
| 3b | Feed line on the right | 9 | Screw | | |
| 4 | Screw | 10 | Double clamp | | |

☒ ☒	Remove/install		
	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
	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
	Risk of injury caused by scraping or cutting body parts on sharp vehicle parts	Always wear protective gloves when working on or near sharp and non-deburred vehicle parts. Deburr repair panels.	AS00.00-Z-0017-01A
1 ⓘ	Drain off coolant Notes on coolant	MODEL 207	AR20.00-P-1142FH AH20.00-N-2080-01A
2	Remove charge air ducts from air filter to turbocharger	MODEL 212, 218	AR20.00-P-1142EL AR09.41-P-8620ELB
3	Release hose clamp on coolant hose (6)		

4	Remove screw/bolts (4, 5)	Bolt, coolant line to turbocharger/oil filter/coolant pump/ timing case cover	*BA09.40-P-1005-01R
5	Detach front coolant line (1) from return line on the left (2a) and return line on the right (3a)	Installation: Use new sealing rings.	
6	Detach front coolant line (1) from coolant hose (6)		
	Only perform operation steps 7 to 12 for removal of the return line on the left (2a) or the feed line on the left (2b)		
7	Remove poly-V belt		AR13.20-P-0001ELB
8	Detach double clamp (10) from return line on the left (2a) and feed line on the left (2b) and remove	Bolt, coolant line clamp to bracket Bolt, coolant line bracket to water pump/turbocharger	*BA09.40-P-1009-01R *BA09.40-P-1006-01R
9	Remove screw/bolt (9) on the bracket for the return line on the left (2a)	Bolt, coolant line bracket to water pump/turbocharger	*BA09.40-P-1006-01R
10	Remove screw/bolt (7) from return line on the left (2a) and screw/bolt (8) for feed line on the left (2b)	Bolt, coolant line to turbocharger/oil filter/coolant pump/ timing case cover	*BA09.40-P-1005-01R
11	Remove screw/bolt (11) from return line on the left (2a) and feed line on the left (2b) at turbocharger	Bolt, coolant line to turbocharger/oil filter/coolant pump/ timing case cover	*BA09.40-P-1005-01R
12	Pull return line on the left (2a) and feed line on the left (2b) out of the coolant pump and turbocharger and remove upwards	Installation: Pay attention to correct mounting and routing of the return line on the left (2a) and the feed line on the left (2b). Damage will occur on the coolant circuit of the turbocharger otherwise. Plug openings. Installation: The assembly sequence of the coolant lines should be observed. The lower feed line on the left (2b) must always be installed first before the upper return line on the left (2a) is installed. Installation: Use new sealing rings. Record plug	*129589009100
	Only perform operation steps 13 to 17 for removal of the return line on the right (3a) or the feed line on the right (3b)		
13	Remove poly-V belt		AR13.20-P-0001ELB
14	Remove screw/bolt (13) from return line on the right (3a) and feed line on the right (3b) at turbocharger	Bolt, coolant line to turbocharger/oil filter/coolant pump/ timing case cover	*BA09.40-P-1005-01R
15	Remove return line on the right (3a) from the turbocharger and remove upwards	Installation: Ensure correct assembly and routing of the return line on the right (3a). Damage will occur on the coolant circuit of the turbocharger otherwise. Installation: Use new sealing rings. Installation: Ensure correct alignment of the bracket (12) over the left screwing hole for the screw/bolt (5) should be observed.	
16	Remove screw/bolt (14) for the feed line on the right (3b) at the coolant pump	Bolt, coolant line to turbocharger/oil filter/coolant pump/ timing case cover	*BA09.40-P-1005-01R
17	Remove feed line on the right (3b) from coolant pump and turbocharger and remove upwards	Installation: Ensure correct assembly and routing of the feed line on the right (3b). Damage will occur on the coolant circuit of the turbocharger otherwise. Installation: The assembly sequence of the coolant lines should be observed. The lower feed line on the right (3b) must always be installed first before the upper return line on the right (3a) is installed. Plug openings. Installation: Use new sealing rings. Record plug	*129589009100
18	Install in the reverse order		
	Check		

19	<p>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.</p> <p>Carry out an engine test run, checking the engine for proper operation and leaktightness</p>	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
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Nm Turbocharger

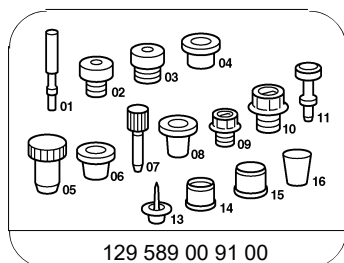
Number	Designation	Engine 157	Engine 278
BA09.40-P-1005-01R	Bolt, coolant line to turbocharger/oil filter/coolant pump/ timing case cover Nm	9	9

Nm Turbocharger

Number	Designation	Engine 157	Engine 278
BA09.40-P-1006-01R	Bolt, coolant line bracket to water pump/turbocharger Nm	9	9

Nm Turbocharger

Number	Designation	Engine 157	Engine 278
BA09.40-P-1009-01R	Bolt, coolant line clamp to bracket Nm	9	9



Record plug