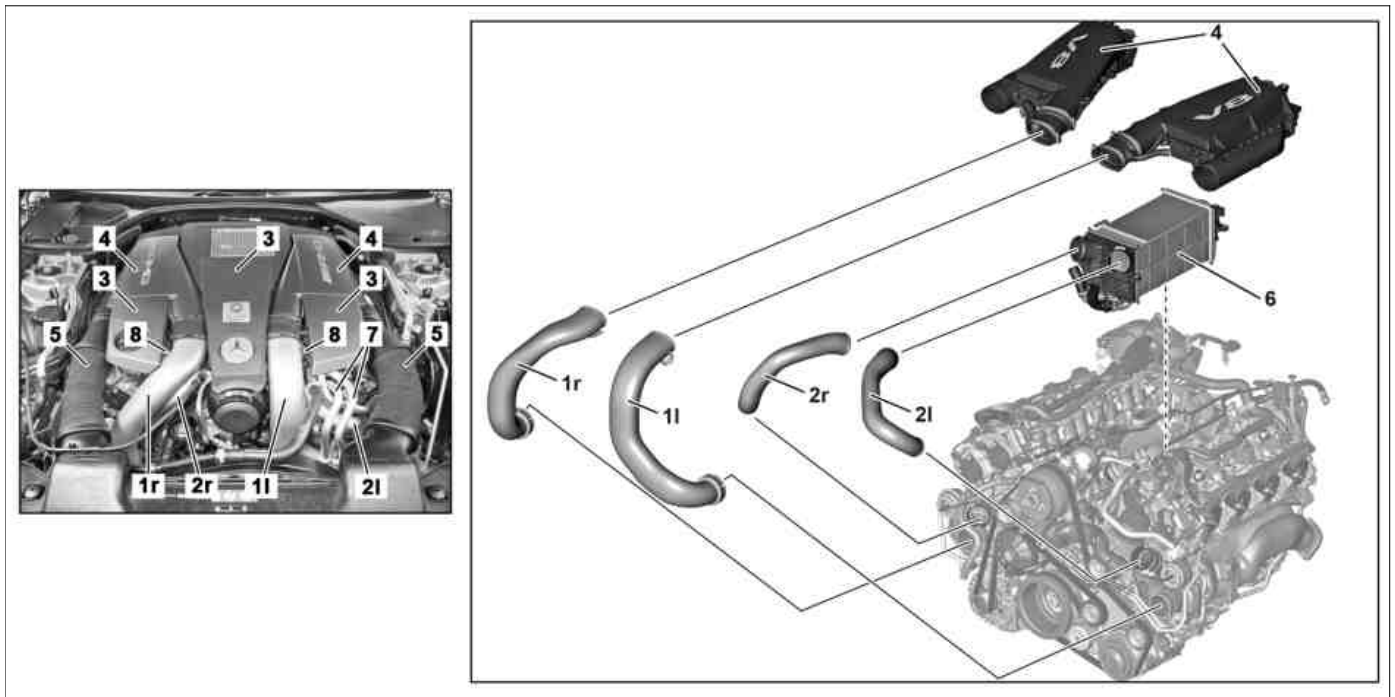


## ENGINE 157, 278 in MODEL 231



P09.41-2654-09

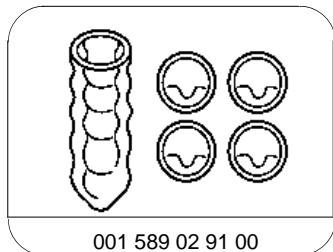
- |    |                                    |   |                         |
|----|------------------------------------|---|-------------------------|
| 1l | Upper charge air duct on the left  | 4 | Air cleaner housing     |
| 1r | Upper charge air duct on the right | 5 | Engine suction air duct |
| 2l | Lower charge air duct on the left  | 6 | Charge air cooler       |
| 2r | Lower charge air duct on the right | 7 | Oil line                |
| 3  | Engine cover                       | 8 | Screw/bolt              |

	Remove/install		
1	Remove engine covers (3)		
2	Remove right and left engine suction air duct (5)		
3	Remove oil lines (7) for engine oil cooling from oil filter housing and lay to the side outside of the working area	ENGINE 157 in MODEL 231  Plug openings. <b>Installation:</b> Replace sealing rings and clean connection area of the oil lines (7). Record plug	*129589009100
4	Release clamp for upper charge air duct on the left (1l) or for upper charge air duct on the right (1r) on boot air filter housing (4)	The boot remains on the air filter housing (4).	
5	Release clamp for upper charge air duct on the left (1l) or for upper charge air duct on the right (1r) on turbocharger	The boot remains on the upper charge air duct on the left (1l) or for upper charge air duct on the right (1r).	
6	Unscrew screw/bolt (8) upper charge air duct on the left (1l) or for upper charge air duct on the right (1r) on cylinder head cover	Bolt, charge air manifold to front cover/oil filter housing/cylinder head/ cylinder head cover	*BA09.40-P-1008-01R
7	Remove upper charge air duct on the left (1l) or upper charge air duct on the right (1r)	Seal openings on air intake pipe (6) and turbocharger. Set of protective caps	*001589029100
8	Remove air filter housing (4)		
9	Release clamp for upper charge air duct on the left (2l) or for upper charge air duct on the right (2r) on charge air cooler (6)	The boot remains on the charge air cooler (6).	

10	Release clamp for boot for lower charge air duct on the left (2l) or for lower charge air duct on the right (2r) on turbocharger	<b>i</b> The boot remains on the turbocharger.	
11	Remove bolts for right lower charge air duct (2r) from cylinder head	When removing the right lower charge air duct (2r)	
12	Remove screw/bolts for lower charge air duct on the left (2l) from cylinder head and oil filter housing	When removing the lower charge air duct on the left (2r)  <b>Nm</b> Bolt, charge air manifold to front cover/oil filter housing/cylinder head/ cylinder head cover	*BA09.40-P-1008-01R
13	Remove lower charge air duct on the left (2l) or lower charge air duct on the right (2r)	<b>i</b> Seal openings on air intake pipe (6) and turbocharger. <b>S</b> Set of protective caps	*001589029100
<b>&lt;</b>	<b>Check</b>		
14	Check boots, rubber seal and clamp for damage	<b>i</b> Replace if necessary.	
15	Install in the reverse order		
<b>&lt;</b>	<b>Check</b>		
<b>⚠ Danger !</b>	<b>Risk of accident</b> from vehicle starting off by itself when engine running. <b>Risk of injury</b> (bruises and burns) resulting from working on the engine while it is being started or when it is running.	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
16	Carry out engine test run, checking the engine for proper operation and leaks		

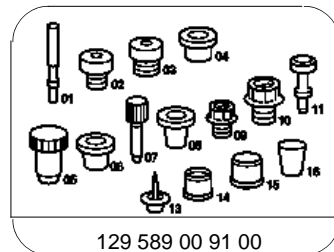
**Nm** Turbocharger

Number	Designation		ENGINE 157	ENGINE 278
BA09.40-P-1008-01R	Bolt, charge air manifold to front cover/oil filter housing/cylinder head/ cylinder head cover	Nm	9	9



001 589 02 91 00

Set of protective caps



129 589 00 91 00

Record plug