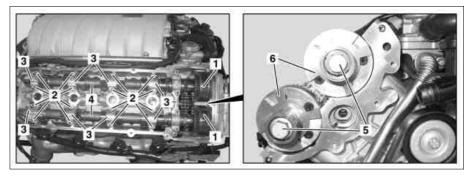
# ENGINES 156.### ## as of 001178

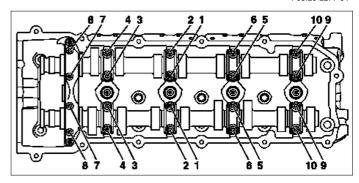
# Shown on right cylinder head

- 1 Camshaft adjuster
- 2 Bolts
- 3 Camshaft bearing cap
- 4 Camshafts



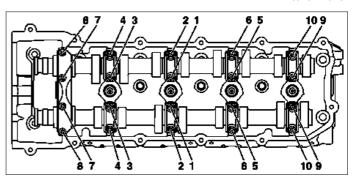
P05.20-2277-04

# Tightening sequence on right cylinder head



P05.20-2278-10

# Tightening sequence on left cylinder head



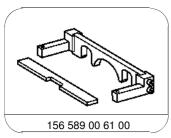
P05.20-2279-10

$\Xi$	Removing		
⚠ Danger!	Risk of explosion caused by fuel igniting, risk of poisoning caused by inhaling and swallowing fuel and risk of injury to eyes and skin caused by contact with fuel	No fire, sparks, open flames or smoking. Pour fuels only into suitable and appropriately marked containers. Wear protective clothing when handling fuel.	AS47.00-Z-0001-01A
⚠ Danger!	Risk of injury caused by fingers being pinched or crushed when removing, installing or aligning hoods, doors, trunk lids, liftgates or sliding roof	Keep body parts and limbs well clear of moving parts.	AS00.00-Z-0011-01A
(1)	Notes on self-locking nuts and bolts		AH00.00-N-0001-01A
⚠ Danger!	Risk of explosion caused by oxyhydrogen gas. Risk of poisoning and caustic burns caused by swallowing battery acid. Risk of injury caused by burns to skin and eyes from battery acid or when handling damaged lead-acid batteries	No fire, sparks, open flames or smoking. Wear acid-resistant gloves, clothing and glasses. Only pour battery acid into suitable and appropriately marked containers.	AS54.10-Z-0001-01A
1	Switch off ignition		
2	Remove partition wall between wheel wells	Model 251	AR62.30-P-2400RT
3	Remove air filter housing	Model 164, 251	AR09.10-P-1150GZS
		Model 204, 212	AR09.10-P-1150CMG
		Model 209, 211, 219	AR09.10-P-1150TMG
		Model 216, 221	AR09.10-P-1150SMG
		Model 230	AR09.10-P-1150RMG
4	Remove spark plugs	i Only if it is not possible to crank engine due to high compression.	
		Model 164, 251	AR15.12-P-1010GZS
		Model 204, 212	AR15.12-P-1010CMG
		Model 209, 211, 219	AR15.12-P-1010TMG

		Model 216, 221	AR15.12-P-1010SMG
		Model 230	AR15.12-P-1010RMG
5	Rotate engine at crankshaft center bolt in	i Rotate engine at crankshaft in running	
	direction of rotation of engine to a 40°	direction until scribe mark 40° on pulley /	
	crankshaft angle after top dead center (TDC)	vibration damper corresponds with scribe	
	on cylinder 1	mark on timing case.	
6	Remove cylinder head covers	Model 164, 251	AR01.20-P-5014GZS
		Model 204, 212	AR01.20-P-5014CMG
		Model 209, 211, 219	AR01.20-P-5014TMG
		Model 216, 221	AR01.20-P-5014SMG
		Model 230	AR01.20-P-5014RMG
7	Remove all camshaft adjusters (1)		AR05.20-P-7201AMG
8	Remove bolts (2) for camshaft bearing cap	If camshaft bearing caps (3) have no	AR05.20-P-6992-09AMG
	(3)	identification markings, the original position must be marked. Interchanged bearing caps can lead to engine damage.	
9	Remove camshafts (4)	i Identify the position of camshafts (4) in	
	Tiomere damenane (1)	the cylinder head. If the camshafts (4) have	
		no identification markings for the intake and	
		exhaust side, these must be marked.	
<b>4</b>	Checking		
10	Check camshafts (4) and camshaft bearing caps (3) for galling and score marks		
X	Install		
11	Insert the camshafts (4)	i Follow the camshaft markings. Oil the bearing surfaces!	
12	Install camshaft bearing caps (3)	i Observe tightening procedure!	AR05.20-P-6992-09AMG
	The state of the s	Nm	*BA01.30-P-1001-01U
13	Turn camshafts (4) into basic position		BA01.001 1001 010
13	Turri carristians (4) into basic position	Lock camshafts (4) using holding device	
		and straightedge.	*15050000100
			*156589006100
14	Install all camshaft adjusters (1)		AR05.20-P-7201AMG
15	Install cylinder head covers	Model 164, 251	AR01.20-P-5014GZS
		Model 204, 212	AR01.20-P-5014CMG
		Model 209, 211, 219	AR01.20-P-5014TMG
		Model 216, 221	AR01.20-P-5014SMG
		Model 230	AR01.20-P-5014RMG
16	Install spark plugs	If necessary	
		Model 164, 251	AR15.12-P-1010GZS
		Model 204, 212	AR15.12-P-1010CMG
		Model 209, 211, 219	AR15.12-P-1010TMG
		Model 216, 221	AR15.12-P-1010SMG
		Model 230	AR15.12-P-1010RMG
17	Remove/install between the wheel well liners	Model 251	AR62.30-P-2400RT
18	Install air filter housing	Model 164, 251	AR09.10-P-1150GZS
		Model 204, 212	AR09.10-P-1150CMG
		Model 209, 211, 219	AR09.10-P-1150TMG
		Model 216, 221	AR09.10-P-1150SMG
^	<u> </u>	Model 230	AR09.10-P-1150RMG
⚠ Danger!	Risk of accident caused by vehicle starting	Secure vehicle to prevent it from moving by	AS00.00-Z-0005-01A
	off by itself when engine is running. <b>Risk of injury</b> caused by contusions and burns	itself. Wear closed and snug-fitting work clothes.	
	during starting procedure or when working	Do not touch hot or rotating parts.	
	near the engine as it is running		
19	Carry out engine test run		

# Nm Cylinder head

Number	Designation			Engine 156
BA01.30-P-1001-01U	Bolt, camshaft bearing cap/bearing bridge	M6	Nm	10



Holding device