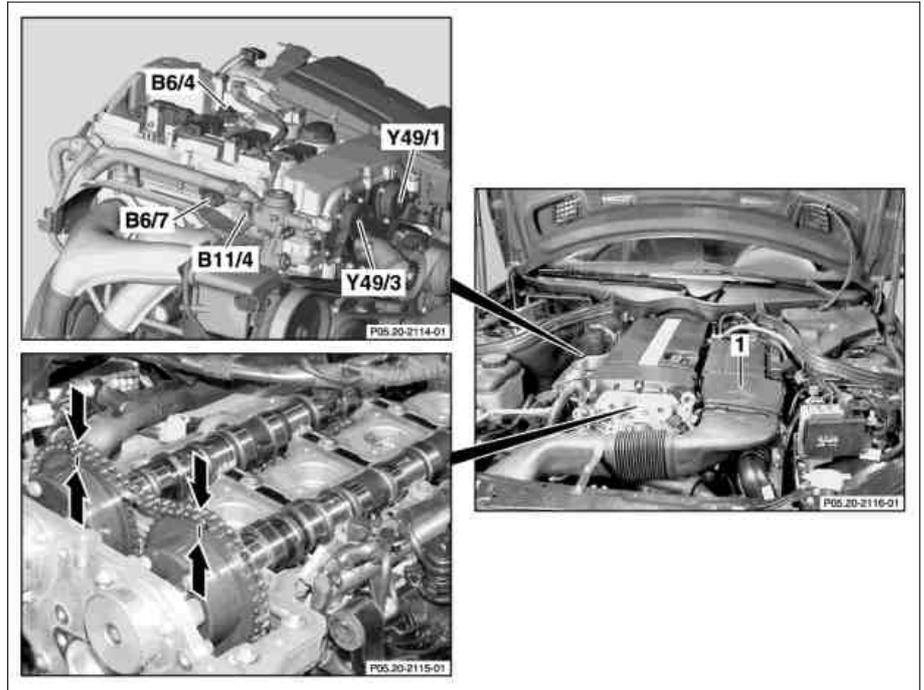


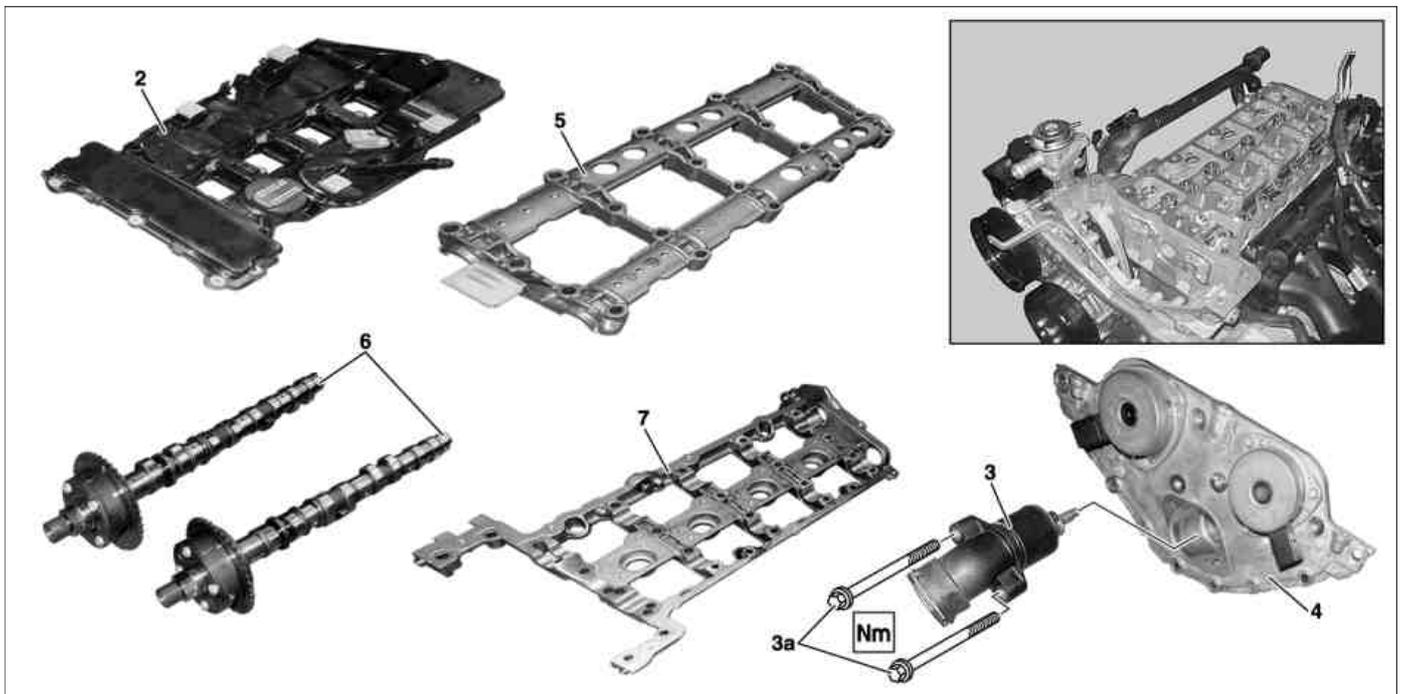
ENGINES	271.940 in MODEL 203.042 /242 /742, 209.342 /442
ENGINES	271.941 in MODELS 211.042 /242
ENGINES	271.946 in MODEL 203.046 /246 /746
ENGINES	271.948 in MODEL 203.040 /240 /740
ENGINES	271.942 in MODEL 203.043 /243 /743, 209.343
ENGINES	271.921 in MODEL 203.730
ENGINES	271.955 in MODEL 209.341 /441
ENGINES	271.956 in MODEL 211.041 /241
ENGINES	271.957 in MODEL 203.741

1 Air cleaner housing

B6/4 Left intake camshaft Hall sensor
 B6/7 Right exhaust camshaft Hall sensor
 B11/4 Coolant temperature sensor
 Y49/1 Camshaft intake solenoid
 Y49/3 Camshaft exhaust solenoid



P05.20-2117-06



P05.20-2118-09

2	Cylinder head cover	3a	Bolts	6	Camshafts
3	Coolant thermostat housing	4	Front cover	7	Bottom part of camshaft bearing housing
		5	Top part of camshaft bearing housing		

Modification notes

16.4.03	Change in the repair method, to release the timing chain, the chain tensioner is no longer removed, instead the slide rail in the cylinder head is pushed back	Step 9 revised
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	Remove/install		
1	Open engine hood	Model 203 Model 209 Model 211	AR88.40-P-1000P AR88.40-P-1000Q AR88.40-P-1000T
2	Remove air filter housing (1).		AR09.10-P-1150Q
3	Remove engine-side engine wiring harness	For this, detach the plugs of the following components: left intake camshaft Hall sensor (B6/4), right exhaust camshaft Hall sensor (B6/7), coolant temperature sensor (B11/4), camshaft exhaust solenoid (Y49/3), camshaft intake solenoid (Y49/1).	
4	Remove cylinder head cover (2)	Model 203, 209 Model 211	AR01.20-P-5014QK AR01.20-P-5014TK
5	Spin engine at crankshaft in direction of rotation until piston of cylinder 1 is positioned at	The cams of the exhaust camshaft and of the inlet camshaft at cylinder 1 must be pointing up at an angle.	
6	Mark position of camshafts (6)	Mark the position of the camshaft drive gears and the position of the timing chain with a line (see arrows). For a new assembly set up basic position for camshafts.	AR05.20-P-6020QK
7	Remove guide pulley for poly-V-belt		*BA01.40-P-1011-01G
8	Remove coolant thermostat housing (3)		*BA01.30-P-1009-01J
9	Remove front cover (4) at cylinder head		AR01.30-P-5700QK
10	Release timing chain		AR05.10-P-7605-01TK *271589003100
11	Remove top part of camshaft bearing housing (5)	 Installation: Pay attention to tightening pattern of camshaft case.	*BA01.30-P-1003-01J AR05.20-P-6995-01QK
12	Remove camshafts (6)	At the same time unhinge timing chain and secure against falling down.	AR05.20-P-6992QK
13	Remove left exhaust camshaft Hall sensor (B6/4)		
14	Loosen shield of exhaust manifold	Only unscrew mounting screw at shield.	
15	Remove bottom part of camshaft bearing housing (7) 	Heat sealing compound with a hot air blower and then carefully pry off the bottom part of the camshaft bearing housing (7). Installation: Coat new sealant: ↓ Notice for sealant blend of camshaft bearing housing subdivision (7) Loctite sealant 5970	AH05.20-P-6995-01QK *BA01.30-P-1004-01J *BR00.45-Z-1013-01A
	Clean		
16	Clean sealing surfaces	Do not use any sharp-edged tools or abrasive paper as this will damage the sealing surfaces. Loctite 7200 Cleaning spray, Loctite 7063 (150ml)	AR01.00-P-0050-01A *BR00.45-Z-1038-04A *BR00.45-Z-1046-04A
17	Install in the reverse order		

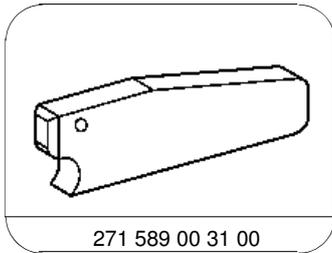
Cylinder head

Number	Designation	Engine 271
BA01.30-P-1003-01J	Bolt, upper part of camshaft bearing housing at cylinder head	M7 Stage 1 Nm 10
		Stage 2 4° 90
BA01.30-P-1004-01J	Bolt, lower part of camshaft bearing housing at cylinder head	M7 Nm 14

BA01.30-P-1009-01J	Bolt, thermostat housing to cylinder head	M6	Nm	9
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Nm Crankcase, timing case cover, end cover

Number	Designation		Engine 271
BA01.40-P-1011-01G	Bolt, guide pulley to timing case	Nm	20



Wedge

Repair materials

Number	Designation	Order number
BR00.45-Z-1013-01A	Loctite sealant 5970	A 003 989 98 20
BR00.45-Z-1038-04A	Loctite 7200	Henkel Loctite Deutschland GmbH Arabellastrasse 17 81925 München Germany Tel. +49 899268-0 Fax + 49 899101978 www.Loctite.de
BR00.45-Z-1046-04A	Cleaning spray, Loctite 7063 (150ml)	A 001 986 71 71 10