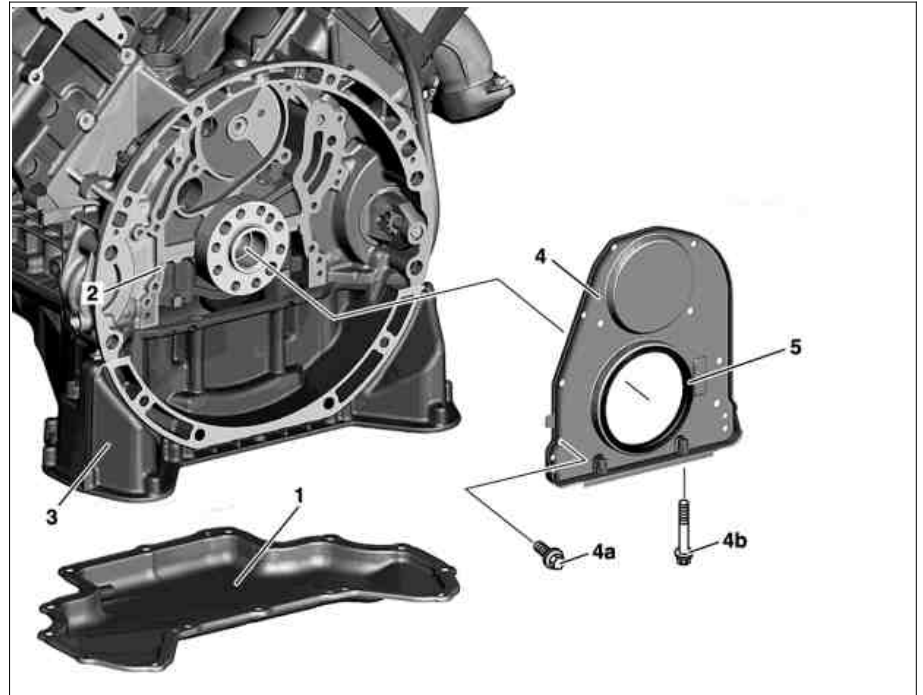


ENGINES 272.920 in MODEL 203.052 /252 /752
ENGINES 272.940 in MODEL 203.054 /254, 209.354 /454
ENGINES 272.960 in MODEL 203.056 /256 /756, 209.356 /456
ENGINES 272.970 in MODEL 203.087 /287
ENGINES 272.941 in MODEL 203.092 /292
ENGINES 273 in MODEL 209

Shown on engine 272

- 1 Oil pan bottom section
- 2 Cylinder crankcase
- 3 Oil pan
- 4 End cover
- 4a Bolt
- 4b Bolt
- 5 Crankshaft radial seal





















P03.20-2171-06

Modification notes

10.3.10	Diameter of the crankshaft flange altered - added	BT03.20-P-0003-01A
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	Removing		
⚠	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
⚠	Danger!	Risk of death caused by vehicle slipping or toppling off the lifting platform.	Align vehicle between columns of vehicle lift and position four support plates at vehicle lift support points specified by vehicle manufacturer. AS00.00-Z-0010-01A
ⓘ		Notes on self-locking nuts and bolts	AH00.00-N-0001-01A
1		Remove key from ignition lock	
2		Release parking brake	
⚠	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
3		Disconnect ground line from battery	ⓘ Insulate ground line clamp as a protection against unintentional contact of ground line with ground point of battery.
ⓘ		Notes on battery	AH54.10-P-0001-01A AR54.10-P-0003P AR54.10-P-0003Q
4		Raise vehicle with vehicle lift	AR00.60-P-1000P
5		Remove transmission	Transmission 716.6 in model 203, 209.3 /4 Transmission 716.6 in model 203 with Sequentronic automated manual transmission (ASG) (SEQ), code 424 Transmission 722.6 /9 except 722.676 /690 Transmission 722.676/ 690 AR26.10-P-0020P AR26.10-P-0020E AR27.10-P-0500P AR27.10-P-0500PW
6		Remove flywheel/drive plate	AR03.30-P-8001QB
7		Drain engine oil and collect it for recycling	

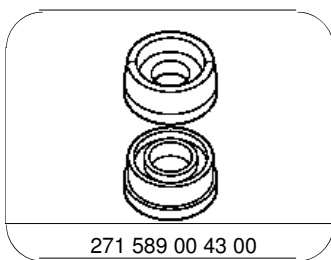
 AP	Engine oil and filter change	Model 203, 209 with engine 272 Model 209 with engine 273	AP18.00-P-0101PIT AP18.00-P-0101RX
8	Remove oil pan bottom section (1)	 Engine with rear sump	AR01.45-P-7555QB
	Clean		
9	Clean crankcase (2) and oil pan (3) in area of the end cover (4)	Cleaner from package	*BR00.45-Z-1028-04A
10	Remove bolts (4a, 4b)		
11	Pry off end cover (4) with crankshaft radial sealing ring (5) from crankcase (2)	 Do not hit tool for prying off between end cover (4) and crankcase (2); the sealing surface will be damaged.  Fit tool for prying off onto side recess clearances of end cover (4). If required heat up sealant with hot air gun.	
12	Remove end cover (4)		
	Clean		
13	Clean sealing surfaces for end cover (4)	 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
	Install		
14	Install end cover (4) with crankshaft radial sealing ring (5)	 Always follow instructions in the notes on application of sealant and on correct installation position of the crankshaft radial sealing ring (5) lip; otherwise there can be leaks that can damage the engine and the environment. Engine 273.96# /97# ## as of 300346 Engine 272 Engine 273  Engine 272  Engine 273  Insertion tool (engine 272, 273 up to engine end no. 300345 with crankshaft flange $\varnothing = 93$ mm)  Insertion tool (engine 273 as of engine end no. 300346 with crankshaft flange $\varnothing = 96$ mm)  Squeeze gun Loctite 5970 sealant	BT03.20-P-0003-01A AR03.20-P-3063-01VA AR03.20-P-3063-01SX *BA01.40-P-1004-01G *BA01.40-P-1003-01T *271589004300 *273589004300 *112589002500 *BR00.45-Z-1013-01A
 BT	Diameter of the crankshaft flange altered		
15	Install oil pan bottom section (1)	 Engine with rear sump	AR01.45-P-7555QB
16	Install flywheel/drive plate		AR03.30-P-8001QB
17	Install transmission	Transmission 716.6 in model 203, 209.3 /4 Transmission 716.6 in model 203 with Sequentronic automated manual transmission (ASG) (SEQ), code 424 Transmission 722.6 /9 except 722.676 /690 Transmission 722.676/ 690	AR26.10-P-0020P AR26.10-P-0020E AR27.10-P-0500P AR27.10-P-0500PW
18	Pour in engine oil Engine oil and filter change	Model 203, 209 with engine 272 Model 209 with engine 273	AP18.00-P-0101PIT AP18.00-P-0101RX
 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
19	Attach ground line to battery Notes on battery	Model 203 Model 209	AH54.10-P-0001-01A AR54.10-P-0003P AR54.10-P-0003Q
 Danger!	Risk of accident caused by vehicle starting off by itself when engine is running. Risk of injury caused by contusions and burns during starting procedure or when working near the engine as it is running Carry out an engine test run and check engine for leaks	Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.	AS00.00-Z-0005-01A
20			

 **Crankcase, timing case cover, end cover**

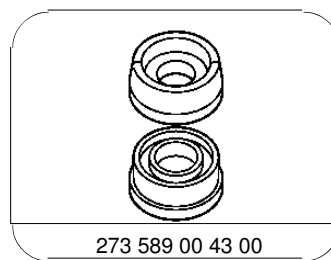
Number	Designation	Engine 272
BA01.40-P-1004-01G	Bolt, end cover to crankcase or oil pan	Nm 8

Nm Crankcase, timing case cover, end cover

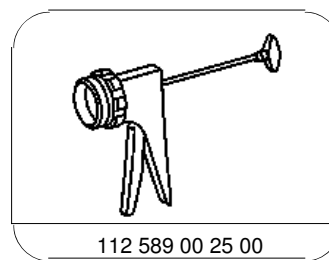
Number	Designation	Engine 273
BA01.40-P-1003-01T	Bolt, end cover to crankcase or oil pan	Nm 9



Insertion tool



Insertion tool



Squeeze gun

Repair materials

Number	Designation	Order number
BR00.45-Z-1013-01A	Loctite 5970 sealant	A 003 989 98 20
BR00.45-Z-1028-04A	Cleaner from package	Adolf Würth GmbH & Co. KG Reinhold-Würth-Str. 12-17 74653 Künzelsau-Gaisbach Germany Tel. +49 7940 15-0 Fax +49 7940 15-1000 www.wuerth.de
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