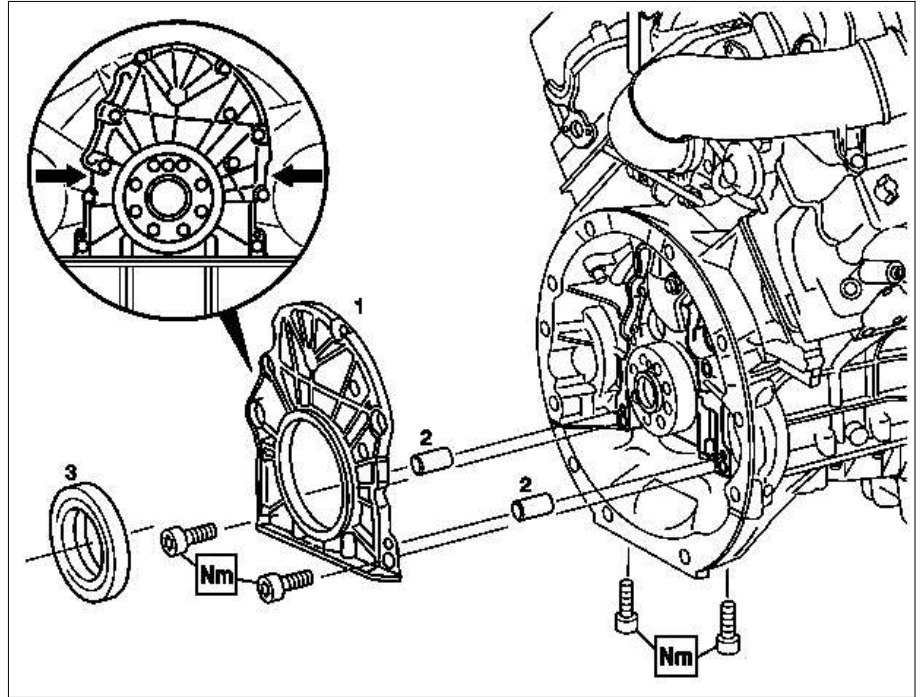


ENGINES 112.945 in MODEL 463.209 /232 /233 /244 /245 /250
 ENGINES 112 in MODEL 129, 163, 170, 202, 203, 208, 209, 210, 220
 ENGINES 113.962 in MODEL 463.206 /240 /241 /247 /248 /249 /254
 ENGINES 113 in MODEL 129, 163, 202, 208, 209, 210, 220, 230.474 /475
 ENGINES 112.913 in MODEL 211.061 /261
 ENGINES 112.949 in MODEL 211.065 /265
 ENGINES 113.967 in MODEL 211.070 /270
 ENGINES 113.982 in MODEL 463.243 /246
 ENGINES 112.917 in MODELS 211.080 /280
 ENGINES 112.954 in MODEL 211.082 /282
 ENGINES 113.969 in MODEL 211.083 /283

Shown on engine 112

- 1 End cover
 2 Fitting sleeves
 3 Crankshaft radial sealing ringing ring



P01.40-0290-06

Modification notes

28.5.08	Clean sealing surfaces - added	Operation step 3	
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	Remove/install		
1	Remove flywheel/drive plate		AR03.30-P-8001C
2	Remove end cover (1)	<p> Pry off end cover (1) carefully at both marked points with a bent screwdriver (see magnified section).</p> <p> The crankshaft radial sealing ringing ring (3) must always be replaced when end cover (1) is removed.</p> <p></p>	*BA01.40-P-1004-01C
	Clean		
3	Clean sealing surfaces	<p> Do not use any sharp-edged tools or abrasive paper as this will damage the sealing surfaces.</p> <p>Loctite 7200 Loctite 7063 cleaning spray (150 ml)</p>	AR01.00-P-0050-01A *BR00.45-Z-1038-04A *BR00.45-Z-1046-04A
4	Install a new rear crankshaft radial sealing ringing ring (3)	<p> The rear crankshaft radial sealing ringing ring (3) must only be removed once end cover (1) has been removed.</p> <p> Installation: Circumference and sealing lip of the crankshaft radial sealing ringing ring (3) as well as the mating surface on the crankshaft must be free of oil and grease, in order to guarantee a proper function:</p> <p>Install crankshaft radial sealing ringing ring (3).</p> <p></p>	AR03.20-P-3063-01B *111589084300

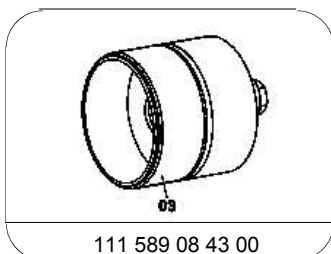
<p>i</p>	<p>Notes on sealant path on end cover with radial shaft sealing ring</p>	<p>i Installation: Pay attention to fitting sleeves (2) when pressing on end cover!</p> <p>Loctite 5970 sealant</p>	<p>AH01.40-P-1000-06A</p> <p>*BR00.45-Z-1013-01A</p>
<p>5</p>	<p>Install in the reverse order</p>		
<p>6</p>	<p>Risk of accident caused by vehicle starting off by itself when engine is running. Risk of injury caused by contusions and burns from working on the vehicle as it is being started or when the engine is running</p> <p>Carry out engine test run</p>	<p>Secure vehicle to prevent it from starting off by itself.</p> <p>Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.</p> <p>i Before installing transmission, check for oil leaks!</p>	<p>AS00.00-Z-0005-01A</p>

Nm Cylinder crankcase, timing case cover, end cover

Number	Designation	Engine 112 except 112.951 / 976						
<p>BA01.40-P-1004-01C</p>	<p>End cover screw/bolt</p>	<table border="1"> <tr> <td data-bbox="986 763 1161 819">Thread not pre-tapped</td> <td data-bbox="1166 763 1217 819">Nm</td> <td data-bbox="1222 763 1329 819">14</td> </tr> <tr> <td data-bbox="986 842 1161 898">Thread pre-tapped</td> <td data-bbox="1166 842 1217 898">Nm</td> <td data-bbox="1222 842 1329 898">10</td> </tr> </table>	Thread not pre-tapped	Nm	14	Thread pre-tapped	Nm	10
Thread not pre-tapped	Nm	14						
Thread pre-tapped	Nm	10						

Nm Cylinder crankcase, timing case cover, end cover

Number	Designation	Engine 113.940/941/ 942/943/944/ 948/960/961/ 962/963/964/ 965/966/967/ 968/969/971/ 980/981/982/ 984/986/992/ 995	Engine 113.987/ 988/990/ 991/993								
<p>BA01.40-P-1004-01C</p>	<p>End cover screw/bolt</p>	<table border="1"> <tr> <td data-bbox="986 1462 1161 1518">Thread not pre-tapped</td> <td data-bbox="1166 1462 1217 1518">Nm</td> <td data-bbox="1222 1462 1409 1518">-</td> <td data-bbox="1417 1462 1535 1518">-</td> </tr> <tr> <td data-bbox="986 1541 1161 1597">Thread pre-tapped</td> <td data-bbox="1166 1541 1217 1597">Nm</td> <td data-bbox="1222 1541 1409 1597">10</td> <td data-bbox="1417 1541 1535 1597">8</td> </tr> </table>	Thread not pre-tapped	Nm	-	-	Thread pre-tapped	Nm	10	8	
Thread not pre-tapped	Nm	-	-								
Thread pre-tapped	Nm	10	8								



Installation tool

Repair materials

Number	Designation	Order number
BR00.45-Z-1013-01A	Loctite 5970 sealant	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	Loctite 7063 cleaning spray (150 ml)	A 001 986 71 71 10