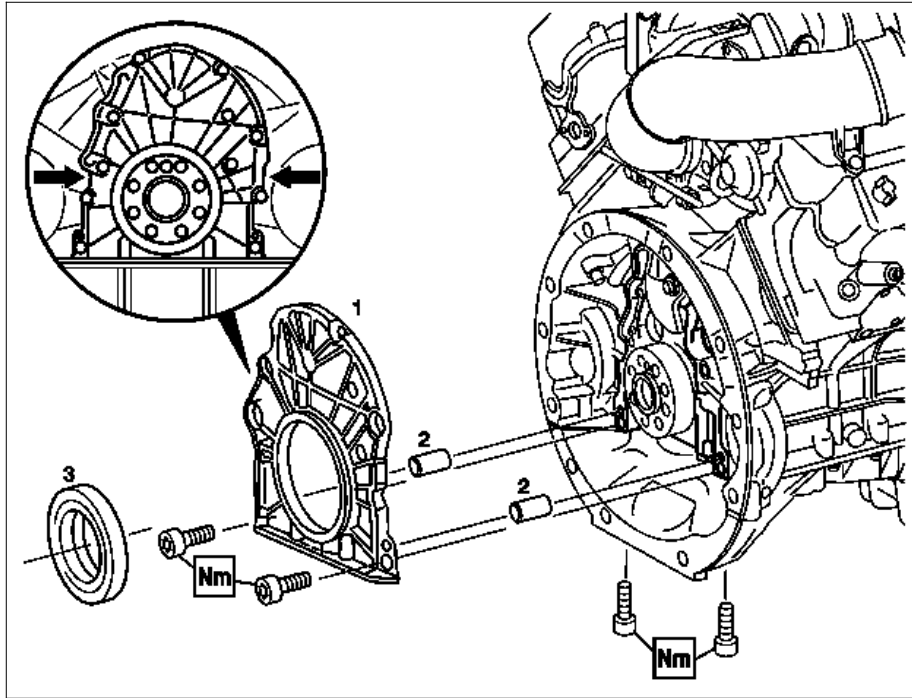


ENGINES 112.945 in **MODEL** 463.209 /232 /233 /244 /245 /250
ENGINES 112 in **MODEL** 129, 163, 170, 202, 203, 208, 209, 210, 220
ENGINES 113.962 in **MODEL** 463.206 /240 /241 /247 /248 /249 /254
ENGINES 113 in **MODEL** 129, 163, 202, 208, 209, 210, 220, 230.474 /475
ENGINES 112.913 in **MODEL** 211.061 /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 ring



P01.40-0290-06

Modification notes

| | | | |
|---------|--------------------------------|------------------|--|
| 28.5.08 | Clean sealing surfaces - added | Operation step 3 | |
|---------|--------------------------------|------------------|--|

| | | Remove/install | | |
|---|-----|---|--|---|
| 1 | ✕ ✕ | Remove flywheel/drive plate | AR03.30-P-8001C | |
| 2 | | Remove the end cover (1) | <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> <i>i</i> Pry off end cover (1) carefully at both marked points with a slanted screwdriver (see magnified section). </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> <i>i</i> The crankshaft radial sealing ring (3) must always be replaced when end cover (1) is removed. </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> Nm </div> | *BA01.40-P-1004-01C |
| 3 | 🧼 | Clean Clean sealing surfaces | <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> ⚠ Do not use any sharp-edged tools or abrasive paper as this will damage the sealing surfaces. </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> Loctite 7200 </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> Loctite 7063 cleaning spray (150 ml) </div> | AR01.00-P-0050-01A <div style="color: blue;">*BR00.45-Z-1038-04A *BR00.45-Z-1046-04A</div> |
| 4 | | Install a new rear crankshaft radial seal (3) | <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> <i>i</i> The rear crankshaft radial sealing ring (3) must only be removed once end cover (1) has been removed. </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> ⚠ Installation: Circumference and lip of the crankshaft radial sealing ring (3) as well as the counter tread on the crankshaft must be free of oil and grease, in order to guarantee a proper function: </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> Install crankshaft radial seal (3). </div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;"> Ⓢ </div> | AR03.20-P-3063-01B <div style="color: blue;">*111589084300</div> |

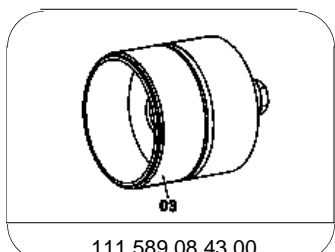
| | | | |
|----------------------------------|--|--|----------------------------|
| <p>i</p> | <p>Notes on sealant path on end cover with radial shaft seal</p> | <p>i Installation: Pay attention to fitted sleeves (2) when pressing on end cover!</p> | <p>AH01.40-P-1000-06A</p> |
| <p>5</p> | <p>Install in the reverse order</p> | <p>Loctite 5970 sealant</p> | <p>*BR00.45-Z-1013-01A</p> |
| <p>⚠ Danger!</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 during starting procedure or when working near the engine as it is running</p> <p>Carry out engine test run</p> | <p>Secure vehicle to prevent it from moving by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.</p> <p>i Before installing transmission, inspect for oil leaks!</p> | <p>AS00.00-Z-0005-01A</p> |

Nm Crankcase, timing case cover, end cover

| Number | Designation | Engine 112 except 112.951/ 976 |
|--------------------|-----------------|--|
| BA01.40-P-1004-01C | End cover screw | Thread not pre-tapped Nm 14 |
| | | Thread pre-tapped Nm 10 |

Nm Crankcase, timing case cover, end cover

| Number | Designation | Engine 113.940/ 941/942/ 943/944/ 945/946/ 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 |
|--------------------|-----------------|---|---|
| BA01.40-P-1004-01C | End cover screw | Thread not pre-tapped Nm - | - |
| | | Thread pre-tapped Nm 10 | 8 |



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 |