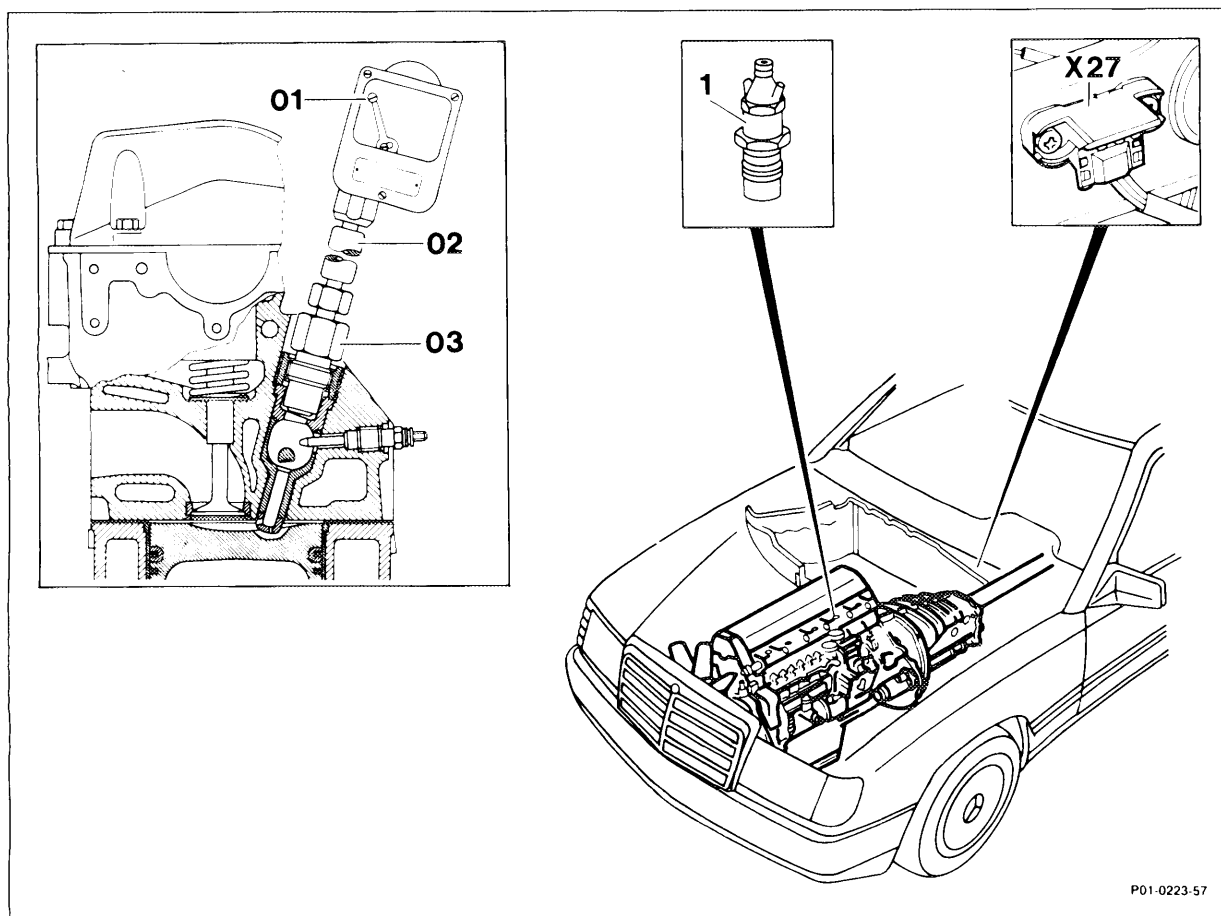


01-010 Testing compression pressure



P01-0223-57

- | | |
|--|---|
| <p>Engine</p> <p>Nozzle holder (1)</p> <p>Plug connector (X27)</p> | <p>warm up to operating temperature (approx. 80 °C) (item 1).</p> <p>Note Check compression only with engine at operating temperature.</p> <p>remove, install (07-230).</p> <p>for starter harness, disconnect, reconnect (items 3 – 4).</p> |
|--|---|

Note
The plug connector (X27) illustrated in the figure is installed on model 124. The installation point and version of the plug connector differs depending on the model.

| | |
|--|--|
| Contact handle | for compression pressure recorder 001 589 78 21 00, connect, adapter line 124 589 36 63 00 (items 3 – 5). |
| Engine | turn over a number of times to clean out; the transmission must be in neutral and the shutoff lever on the injection pump pressed to "stop" (item 6). |
| Compression pressure recorder (01) | bolt appropriate adapter (03) and flexible connector (02) into precombustion chamber of cylinder to be checked (item 7). |
| Compression | check; shift transmission to neutral and turn engine over at least 9 revolutions with the shutoff lever on the injection pump pushed to "stop" (items 8 – 9). |
| | Note Check compression in remaining cylinders in same manner. |
| Measured compression values | compare with specified test values (item 10). |

Note

Check compression in remaining cylinders in same manner.

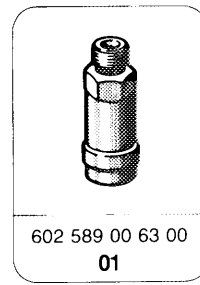
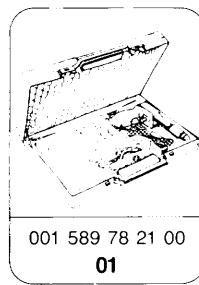
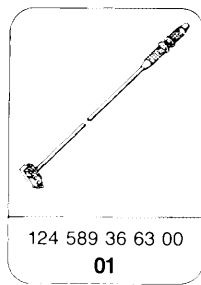
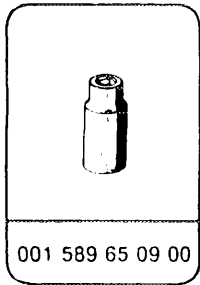
Note

If one or more cylinders do not have the minimum compression, determine cause.

| | |
|---|------------|
| Test values with engine at operating temperature (approx. 80 °C) | bar |
| Compression pressure, normal | 26 – 32 |
| Minimum compression pressure | approx. 18 |
| Permissible difference between individual cylinders | max. 3 |

| | |
|---|---------|
| Tightening torques | Nm |
| Union nuts on injection lines (reference value) | 10 – 20 |
| Nozzle holders in prechambers | 70 + 10 |
| Nozzle holders for angular injection | 30 |

Special tools



Testing

1 Warm engine up to operating temperature (approx. 80 °C).

Note

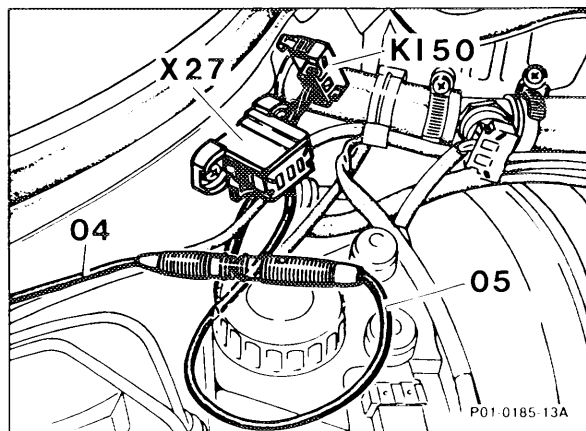
Check compression only with engine at operating temperature.

2 Remove all nozzle holders (07-230).

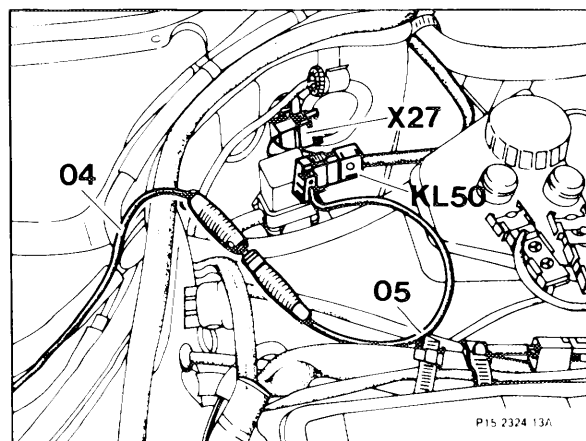
Models 124 and 126

3 Connect contact handle for compression pressure recorder 001 589 78 21 00; disconnect plug connector (X27) on left side of engine compartment and connect connection line (04) of contact handle to plug (KI50) with adapter line (124 589 36 63 00) (05).

Model 124

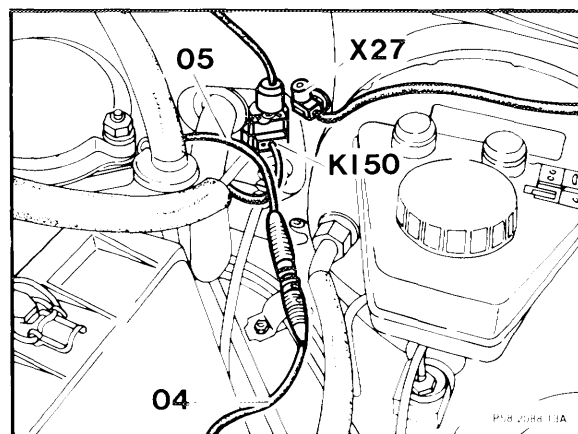


Model 126

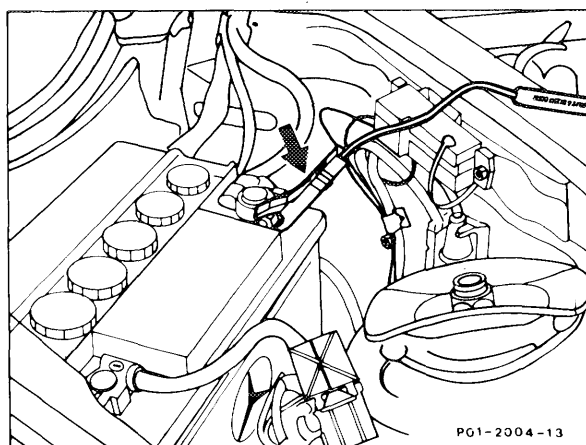


Model 201

4 Connect contact handle of compression pressure recorder 001 589 78 21 00; disconnect plug connector (X27) on left side of firewall and connect connection line (04) of contact handle to plug (KI50) with adapter line 124 589 36 63 00.



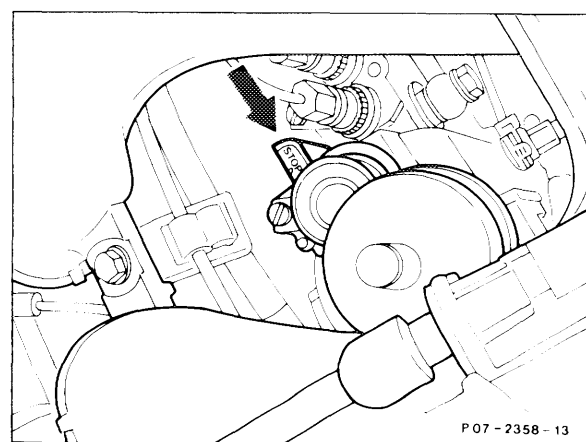
5 Connect second connection line from contact handle to positive pole (KI30) on battery (arrow).



6 Crank engine a number of times with starter with transmission in neutral and shutoff lever on injection pump (arrow) pressed to "stop" to remove combustion residues in the precombustion chamber of the cylinder.

Note

Always hold shutoff lever on injection pump depressed when cranking engine. This prevents fuel from being pumped and therefore running out of the disconnected injection lines.



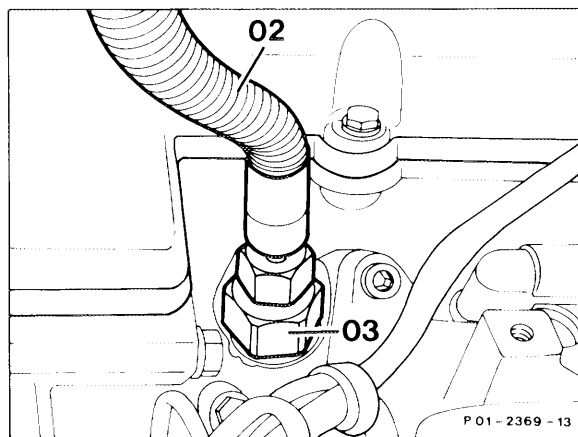
7 Bolt compression pressure recorder into pre-chamber of cylinder to be tested with appropriate adapter (03) and flexible connector (02).

Note

On engines with angular injection use adapter 602 589 00 63 00.

8 Crank engine at least 8 revolutions to test compression.

9 Perform test on remaining cylinders in same manner.



10 After completing the compression test compare pressures measured with specified values.

Note

If one or more cylinders do not have the minimum compression pressure, check cylinder for leakage (01-015) and determine cause.

11 Install in reverse order.