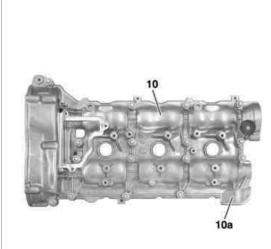
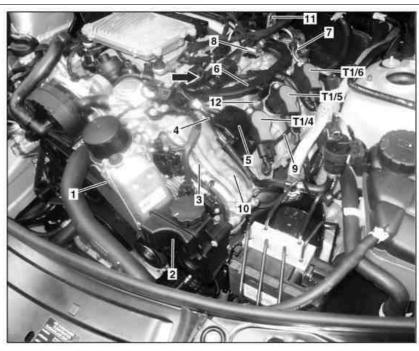
ENGINE 272, 273 in MODEL 164, 251





P01.20-2148-09

Shown on engine 272

- 1 Oil filter housing
- 2 Power steering expansion reservoir
- 3 Front cover
- 4 Purge line
- 5 Oil separator
- 6 Feed duct

- 7 Fuel pipe
- 8 Fuel distributor
- 9 Ground cable
- 10 Cylinder head cover
- 10a Heat shield
- 11 Engine lifting eye

12 Rubber mount

- T1/4 Cylinder 4 ignition coil
- T1/5 Cylinder 5 ignition coil
- T1/6 Cylinder 6 ignition coil

| XX | Remove/install | | |
|------------|--|---|--------------------|
| ⚠ Danger! | Risk of death caused by vehicle slipping or toppling off of 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 |
| ⚠ Danger! | Risk of injury to skin and eyes caused by scalding from contact with hot coolant spray. Risk of poisoning caused by swallowing coolant. | Do not open cooling system unless coolant temperature is below 90°C. Open cap slowly and release the pressure. Do not pour coolant into beverage containers. Wear protective gloves, protective clothing and safety glasses. | |
| ⚠ 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 | |
| ⚠ Danger! | Risk of explosion caused by fuel igniting, risk of poisoning caused by inhaling and swallowing fuel and risk of injury to eyes and skin caused by contact with fuel | No fire, sparks, open flames or smoking. Pour fuels only into suitable and appropriately marked containers. Wear protective clothing when handling fuel. | |
| 1 | Turn key in ignition lock to position "0" | i Vehicles with Keyless Go, code 889: Press Keyless Go start/stop button repeatedly until ignition is switched off. | |
| 2 | Drain coolant at radiator | | AR20.00-P-1142GZC |
| (3) | Notes on coolant | | AH20.00-N-2080-01A |
| 3 | Remove air filter housing | | AR09.10-P-1150GZA |
| 1 | Remove poly-V belt and clamping device | | AR13.20-P-0001GZA |
| 5 | Remove coolant thermostat | | AR20.10-P-2460GZA |
| 6 | Remove oil filter housing (1) | | AR18.20-P-3471GZA |
| 7 | Suction off oil in power steering expansion reservoir (2) | 3 | *210589007100 |
| 8 | Remove front cover (3) at left cylinder head | | AR01.30-P-5700GZA |
| 9 | Disconnect purge line (4) at separation point (arrow) | i Unclip purge line (4) from brackets on oil separator (5) and feed channel (6) and place to one side. | |

| 10 | Reduce fuel pressure with pressure hose via the service valve | | AR07.03-P-1460-01GZ |
|-----------|--|--|---------------------|
| | | Engine 272 with code 917 Fuel tank with exterior filter | *BA07.03-P-1004-01B |
| | | [3] | *119589046300 |
| 11 | Detach fuel line (7) at fuel distributor (8) | Catch escaping fuel with an absorbent | |
| | | rag! | |
| | | i Seal connections immediately with stop | |
| | | plugs. | |
| | | Nm | *BA07.03-P-1001-01B |
| | | 3 | *129589009100 |
| 12 | Remove ignition coils for left cylinder bank | | AR15.12-P-2003GZA |
| 13 | Remove oil separator (5) | | AR01.20-P-9750GZA |
| 14 | Detach ground line (9) from cylinder head cover (10) | Nm | *BA01.30-P-1001-010 |
| 15 | Remove left rear engine lifting eye (11) | Nm | *BA01.30-P-1005-010 |
| 16 | Detach feed duct (6) from cylinder head cover (10) | Nm | *BA15.18-P-1002-01B |
| 17 | Detach front rubber mount (12) of air filter housing from cylinder head cover (10) | Nm | *BA01.30-P-1011-01O |
| 18 | Remove heat shield (10a) | Nm | *BA01.30-P-1017-01O |
| 19 | Loosen bolts for cylinder head cover (10) in reverse order of tightening procedure and remove them | Engine 272 | AR01.20-P-5014-03VA |
| | | Engine 273 | AR01.20-P-5014-03SX |
| | | Nm | *BA01.30-P-1004-010 |
| 20 | Pry off cylinder head cover (10) from cylinder head carefully | To avoid damaging sealing surfaces, do not hit the tool for prying off between cylinder head cover (10) and cylinder head. | |
| | | i Installation: Apply sealant to cylinder head cover (10). | |
| i | Notes on sealant path for cylinder head cover | Engine 272 | AH01.30-P-1000-08V |
| i | | Engine 273 | AH01.30-P-1000-08SX |
| | | [3] | *112589002500 |
| | | Loctite sealant 5970 | *BR00.45-Z-1013-01A |
| r. | Clean | | |
| 21 | Clean sealing surfaces at cylinder head and a cylinder head cover (10) | Do not use any sharp-edged tools or abrasive paper as this will damage the sealing surfaces. | AR01.00-P-0050-01A |
| | | Loctite 7200 | *BR00.45-Z-1038-04A |
| | | Cleaning spray, Loctite 7063 (150ml) | *BR00.45-Z-1046-04A |
| 22 | Install in the reverse order | | |
| 23 | Fill power steering pump and bleed | Model 164 | AR46.30-P-0010GZ |
| | | Model 251 | AR46.30-P-0010RT |
| | Checking | | |
| ⚠ 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 | Do not touch hot or rotating parts. | AS00.00-Z-0005-01A |
| 24 | Conduct engine test run and check engine for leaks | | |

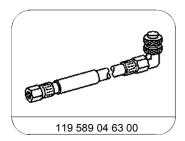
Nm Injectors, injection valves, lines

| Number | Designation | | Engine 272 | Engine 273 |
|--------------------|--|-----------|---------------|---------------|
| BA07.03-P-1001-01B | Union nut, fuel line to fuel distributor | Nm | 20 | 20 |
| BA07.03-P-1004-01B | Protective cap on service valve | lastic Nm | 2 | - |
| | M | letal Nm | 15 | - |

| Number | Designation | | | Engine 272 | Engine 273 |
|--------------------|--|---------|---------|---------------|---------------|
| BA01.30-P-1001-01O | Bolt, ground line to front cover | M6 | Nm | 9 | 9 |
| BA01.30-P-1004-01O | Bolt, cylinder head cover to cylinder head | M7 Stag | e 1 Nm | 12 | 12 |
| | | Stag | je 2 ∡° | 90 | 90 |
| BA01.30-P-1005-01O | Bolt, lifting eye to cylinder head | M8 | Nm | 20 | 20 |
| BA01.30-P-1011-01O | Bolt, air filter housing rubber mount to cylinder head cover | M6 | Nm | 9 | 9 |
| BA01.30-P-1017-01O | Bolt, heat shield to cylinder head | M6 | Nm | 9 | 9 |

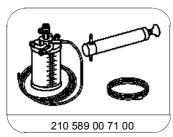
Nm Engine wiring harness

| Number | Designation | | Engine 272 | Engine 273 |
|--------------------|--|----|---------------|---------------|
| BA15.18-P-1002-01B | Bolt, feed duct to cylinder head cover | ٧m | 8 | 8 |









Pressure hose

Set of stop plugs

Squeeze gun

Hand pump

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 |