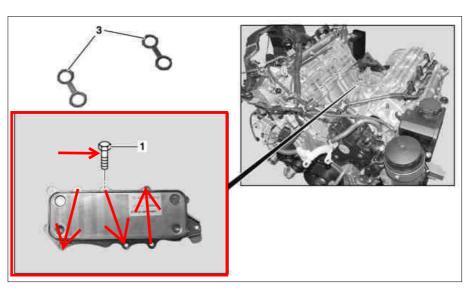
### ENGINE 642 in MODEL 164, 251

1 Bolt3 Seals



P18.30-2088-05

#### **Modification notes**

| 12.2.07 | Engine oil filling capacity (oil change and filter change) | Engine 642.940/950 without particulate filter | *BF18.00-P-1001-01A |
|---------|--|---|---------------------|
| 12.2.07 | Engine oil filling capacity (oil change and filter change) | Engine 642.940/950 with particulate filter    | *BF18.00-P-1001-01S |

| XX        | Remove/install   |  |                     |
|-----------|--|--|---------------------|
| ⚠ Danger! | Risk of injury caused by fingers being pinched or crushed when removing, installing or aligning hoods, doors, trunk lids, tailgates or sliding roof  | Keep body parts and limbs well clear of moving parts.  | AS00.00-Z-0011-01A  |
| 1.1       | Removes strut tower brace  | Model 164.8 only   | AR62.30-P-2500GY    |
|           |  | Remove strut tower brace from strut tower mounts.  |                     |
| 1.2       | Remove partition wall between wheel wells  | Model 251 only   | AR62.30-P-2400RT    |
| 2         | Remove engine cover  | i Installation: Check engine for leaks before reinstalling engine cover.   |                     |
| 3         | Remove charge air manifold   |  | AR09.41-P-1310GZB   |
| 4         | Remove bolts (1) from oil-water heat exchanger   | Nm   | *BA18.30-P-1001-01J |
| 5         | Remove oil-water heat exchanger  | Installation: Install new seals (3) to avoid leaks.  Seals (3) and oil-water heat exchanger must be free of oil and grease.  |                     |
| 6         | Install in the reverse order   |  |                     |
| 7         | Check engine oil level   | <ul> <li>In order to avoid measurement errors, vehicle must be parked on an even surface.</li> <li>Shut off engine once it has reached operating temperature and wait approx. 5 minutes before checking engine oil level.</li> </ul> | AR18.00-P-3035-01PI |
|           |  | Without particulate filter   | *BF18.00-P-1001-01A |
|           |  | With code 474 Particulate filter   | *BF18.00-P-1001-01S |
| 8         | Check cooling system for leaks   |  | AR20.00-P-1010GZB   |
| ⚠ Danger! | 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 | Secure vehicle to prevent it from starting off by itself. Wear closed and snug-fitting work clothes. Do not touch hot or rotating parts.   | AS00.00-Z-0005-01A  |
| 9         | Check for leaks with engine running  |  |                     |

# Nm Oil cooling system

| Number | Designation | Engine<br>642 |
|--------|-------------|---------------|
|        |             |               |

| BA18.30-P-1001-01J | Bolt, oil-water heat exchanger to crankshaft housing | Nm | 12=8.850 ft. | lbs. |
|--------------------|--|----|--------------|------|
|                    |  |    |              |      |

## Engine lubrication system

| Number             | Designation | on                                       |        | Engine<br>642.940/950<br>with particulate<br>filter |
|--------------------|-------------|--|--------|---|
| BF18.00-P-1001-01S | Engine oil  | Filling capacity (oil and filter change) | Liters | 8,5   |
|                    |             | Specifications for Operating Fluids      | Sheet  | BB00.40-P-0228-51A                                  |
|                    |             |  | Sheet  | BB00.40-P-0229-31A                                  |
|                    |             |  | Sheet  | BB00.40-P-0229-51A                                  |

## Engine lubrication system

| Number             | Designation | on                                       |        | Engine<br>642.940/950<br>without<br>particulate filter |
|--------------------|-------------|--|--------|--|
| BF18.00-P-1001-01A | Engine oil  | Filling capacity (oil and filter change) | Liters | 8,5  |
|                    |             | Specifications for Operating Fluids      | Sheet  | BB00.40-P-0228-03A                                     |
|                    |             |  | Sheet  | BB00.40-P-0228-05A                                     |
|                    |             |  | Sheet  | BB00.40-P-0228-51A                                     |
|                    |             |  | Sheet  | BB00.40-P-0229-03A                                     |
|                    |             |  | Sheet  | BB00.40-P-0229-31A                                     |
|                    |             |  | Sheet  | BB00.40-P-0229-05A                                     |
|                    |             |  | Sheet  | BB00.40-P-0229-51A                                     |