

Tightening Torques in kpm

Fastening bolt for oil filter on intermediate piece or on cylinder crankcase	4
Oil drain plug to oil pan	5
Oil drain plug to air oil cooler	3 _{0.5}

Oil Capacity in Liters

Oil pan min./max.	5.5/7.5
Oil air cooler	0.4
Oil filter	0.75
Total filling capacity	8.65

Note

Engines ex factory, exchange engines and basically reconditioned engines are provided or should be provided with an initial operation filter element.

During the first customer service (voucher A) the initial operation filter element must be replaced against the standard filter element. The filter element must be replaced every 10,000 km.

Initial Operation Oils

Engines ex factory, exchange engines and basically reconditioned engines must be filled with an approved initial operation oil for the first 300–1,000 km (refer to Specifications for Fuels, Lubricants, Coolants.) In an emergency, a 1:1 mixture of unblended oil and an approved HD engine oil may be used as initial operation oil.

Engine Oil Change

1 Unscrew drain plug on oil pan and air oil cooler (arrows in Fig. 1).

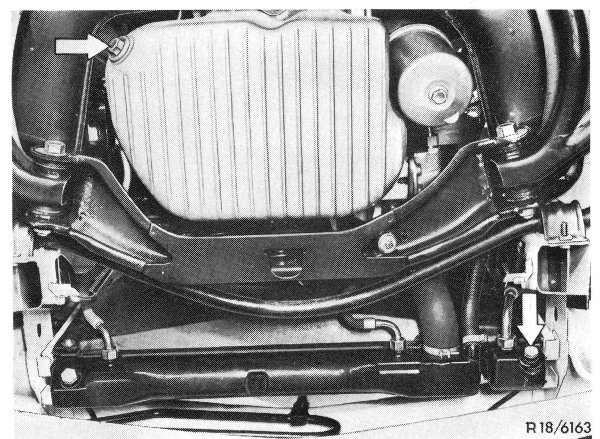


Fig. 1

2 Removal of filter housing (3) (Fig. 2).

18.1 Engine Oil Change

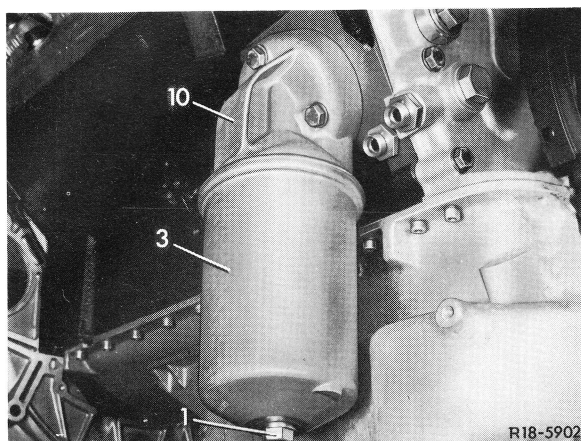


Fig. 2

- 1 Fastening bolt
- 10 Intermediate piece
- 3 Filter housing

3 Empty filter housing and clean.

4 Check sealing ring (2) and replace according to findings (Fig. 3).

Caution! Do not forget compression spring with retainer (5), since otherwise the filter element will not come to rest against top and **the oil will then not be filtered.**

5 Replace filter element (6) and rubber sealing ring (4).

6 Mount filter housing (4 kpm).

7 Replace sealing ring on oil pan drain plug and tighten (5 kpm).

8 Mount drain plug on air oil cooler **without** sealing ring and tighten (3–0.5 kpm).

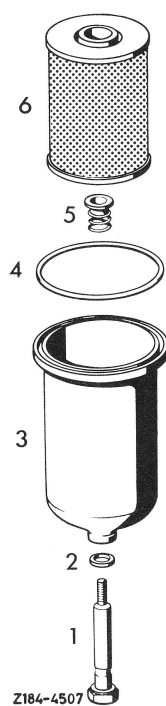


Fig. 3

- 1 Fastening bolt
- 2 Sealing ring
- 3 Filter housing
- 4 Rubber sealing ring
- 5 Compression spring with spring retainer
- 6 Paper filter element

Caution! The drain plug on the air oil cooler has been lengthened from 9 to 15 mm and is mounted without sealing ring. The short drain plug should be replaced by the longer drain plug 001 997 15 30.

9 Fill up with specified quantity of oil. Run engine and check for leaks.

10 Check oil level.