



Fig. 19. Oil filter—sectional views showing oil pressure-relief valve and by-pass valve

Oil pressure relief valve (See Fig. 19)

The piston type relief valve is a complete assembly that cannot be dismantled. It screws into compartment "C" of the filter body and can be removed with a $\frac{1\frac{1}{8}}{16}$ in. A.F. open end spanner. If it needs cleaning it is washed in paraffin and blown dry with clean compressed air, while the piston valve is held off its seat.

Filter by-pass valve (See Fig. 19)

A spring loaded valve, situated between compartments "A" and "B" opens to allow oil to reach the bearings and other vital parts should the oil filter become choked due to lack of regular servicing. A pressure difference of 8-13 lbs./sq. in. (.56-.91 kg. sq. cm.) between compartment "A" and "B" is needed before this valve opens.

Filter element—To renew (See Fig. 18)

The filter cannot be drained and a container should be placed under the filter before removing the filter casing

to catch any oil that will be lost. This oil should be discarded.

Remove domed nut above the filter body.

Withdraw filter casing and remove element.

Clean out filter casing and renew joint ring (4) under the domed nut (3).

Check that the element support spring (11), steel washer (10), felt washer (9) and element support plate (8) are positioned on the through bolt as shown in Fig. 18. The felt washer (9) must be in good condition and not trapped between the through bolt and support plate. These parts must be assembled so that the element is supported by the spring as shown in Fig. 19 otherwise unfiltered oil will pass to the engine bearings.

Place the new element in the filter casing (12).

Replace casing and tighten the domed nut.

Add sufficient oil to the sump to replace oil lost while removing filter casing. Run engine and carefully check for oil leaks.

Recheck sump oil level.