

Revision: Revised, pressure oil chain tensioner with 3-hole flange added.

Model 200 D/8, 220 D/8, 200/8 and 220/8

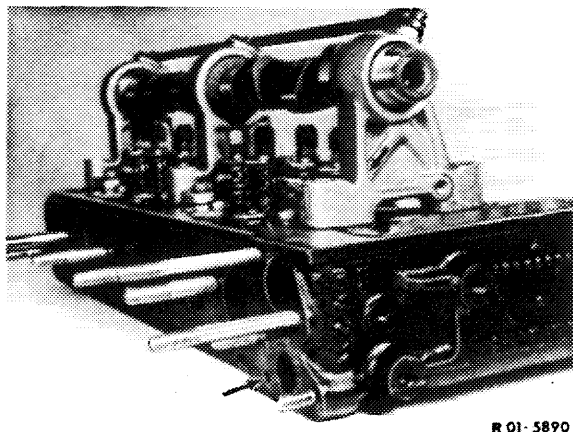


Fig. 05-0/1

This pressure oil chain tensioner is installed on these engines since October 1970, the system is fed by the engine oil circuit.

In the first camshaft bearing (cranking end) and in cylinder head is an additional oil duct. This duct leads from camshaft bearing point through base of camshaft bearing to cylinder head and emerges at screw-on surface for chain tensioner (arrows in Fig. 05-10/1).

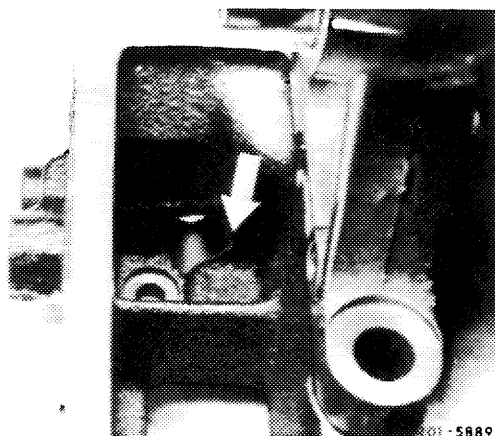


Fig. 05-10/2

Old version

There is no more oil weir in cylinder head (Fig. 05-10/2 and 3).

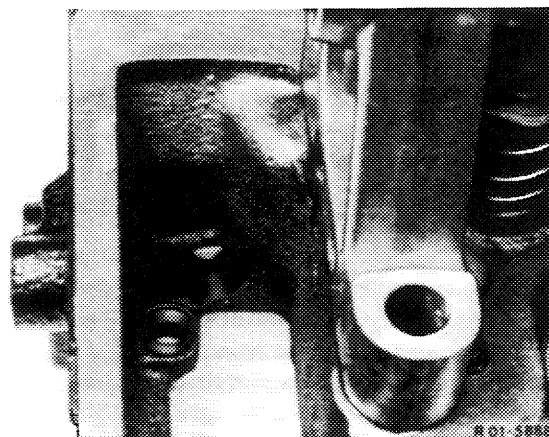


Fig. 05-10/3

New version

Function of Pressure Oil Chain Tensioner

The pressure oil chain tensioner is filled with oil through oil bore (refer to arrow in Fig. 05-10/4) and ball valve. The ball valve closes under influence of counterpressure of timing chain (via tensioning rail) against pressure bolt (1) and will open again only when the oil pressure in the inner chamber is less than in chamber of closing plug (13). The oil can emerge at venting and compensating groove (8) so that the chain tensioner will not lose its yielding effect.

A return flow bore (7) serves for venting and flushing chamber in closing plug.

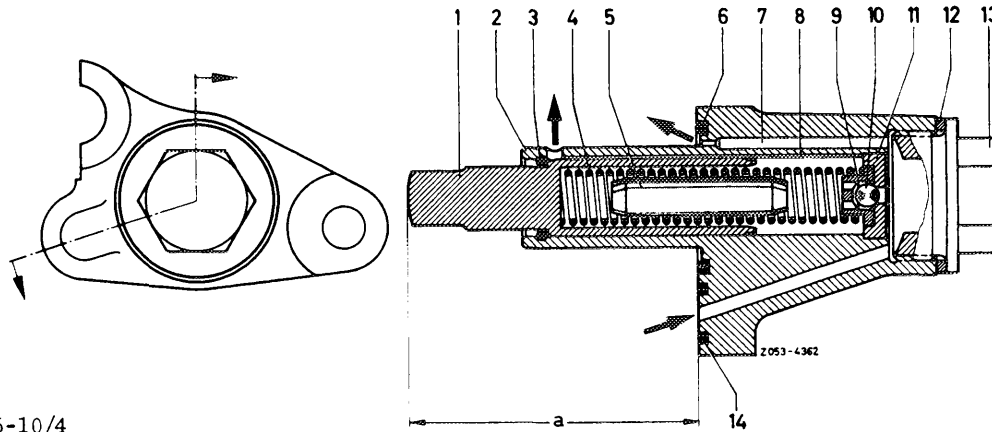


Fig. 05-10/4

- |                      |                                   |                   |                                 |
|----------------------|-----------------------------------|-------------------|---------------------------------|
| 1 Pressure bolt      | 5 Bolt                            | 9 Ball cage       | 13 Closing plug                 |
| 2 Housing            | 6 Sealing ring                    | 10 Ball           | 14 Sealing ring 010 997 22 45   |
| 3 Circlip            | 7 Return flow bore                | 11 Ball seat ring | a 74 mm, model 200 D/8, 220 D/8 |
| 4 Compression spring | 8 Venting and compensating groove | 12 Sealing ring   | 57 mm, model 200/8, 220/8       |

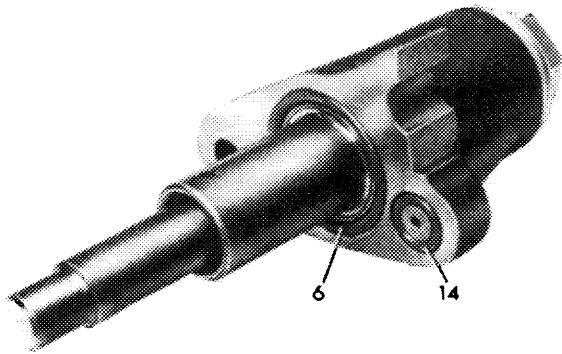
General Instructions

1 Pressure oil chain tensioner is installed in filled condition. For filling, chain tensioner should be standing in engine oil SAE 10 in upright position on pressure bolt at least up to flange (oil level above flange surface). Then the pressure bolt is slowly depressed 7-10 times up to stop by means of a press or drill press.

3 The first version of the pressure oil chain tensioner (2-hole flange) can be replaced by 2nd version (3-hole flange). In this case, there will be no lower attachment adjacent to pressure oil inflow.

4 When a pressure oil chain tensioner with 3-hole flange must be replaced by the 2-hole version, because the 3-hole version is not available, this chain tensioner must be slightly refinished on flange adjacent to pressure oil inflow, to prevent any contact with stud in cylinder head (3rd attachment for 3-hole version). Do not remove stud.

5 The pressure oil chain tensioner should not be installed in cylinder heads with oil weir (Fig. 05-10/2), since these cylinder heads have no pressure oil bore.

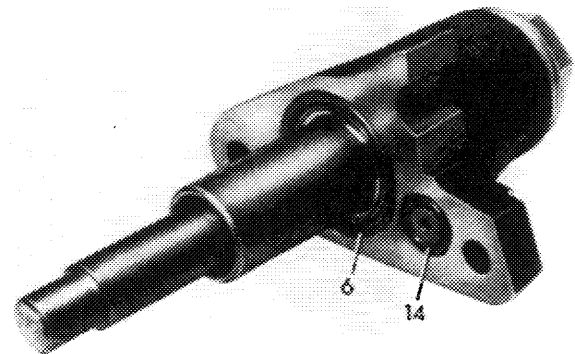


R 05-3860

Fig. 05-10/5

Pressure oil chain tensioner 1st version (2-hole flange)

2 When installing chain tensioner, watch out for perfect seat of rubber rings (6 and 14 in Fig. 05-10/5 and 6). Squeezed-off or torn sealing rings will result in oil loss.



R 05/3860/1

Fig. 05-10/6

Pressure oil chain tensioner 2nd version (3-hole flange)