G. Removal and Installation of Distributor Drive and Oil Pump Drive

Repair procedure — see Job No. 15—5

Removal:

1. Remove the chain tensioner, the camshaft sprocket and the distributor together with the bearing (see Job No. 01—4, Sections C and F).

2. Unscrew the sprocket housing cover plate (4) at the crankcase and unscrew the lock screw (3) for the chain drive (see Fig. 01—4/24). Slacken the idling gear fixing screw. Remove the distributor drive helical gear. Unscrew the idling gear fixing screw and use Puller 187 589 02 35 to pull the idling gear off the gear shaft.

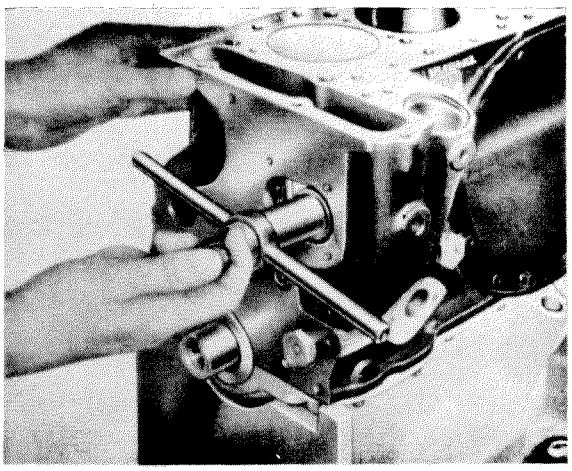

Fig. 01—4/27

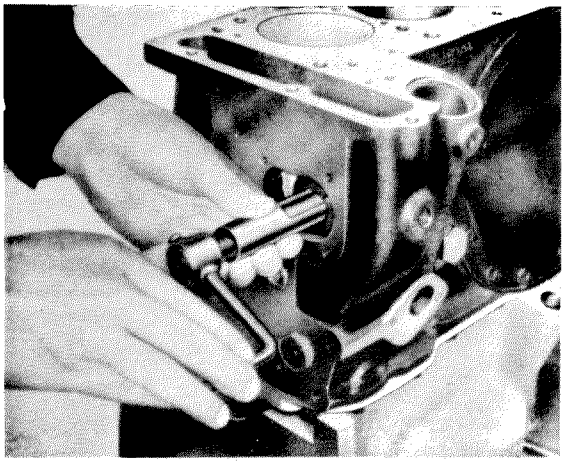

Fig. 01—4/26

3. Unscrew the retaining washer for the front bearing bushing of the idling gear shaft (see Fig. 01—4/30). Use Tool 187 589 07 61 to pull out the gear shaft together with the front bushing (Fig. 01—4/27).

   If the rear bushing has to be replaced, use Puller 186 589 09 33 to pull it out.

   If the vertical bearing bushing for the helical gear has to be replaced, either use Puller 189 589 09 33 to pull out the bushing or use a drift to drive it out from the oil pan side. To do this the oil pan and oil pump must be removed (see Job No. 01—4, Sections L and M).

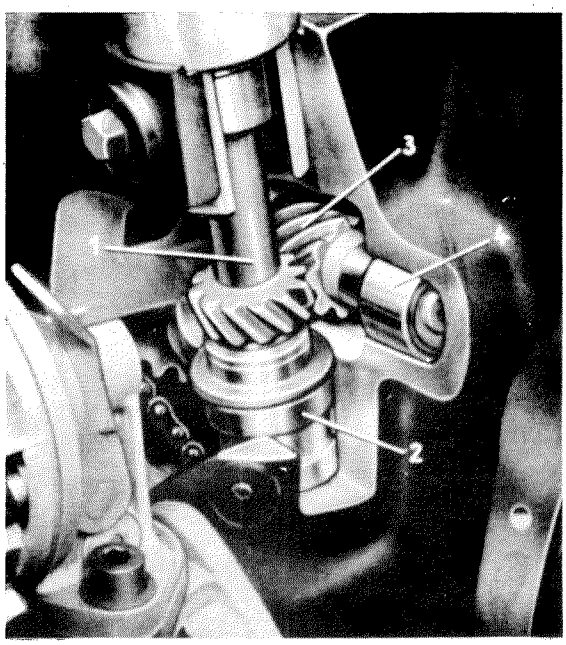

Fig. 01—4/28

1 Helical gear
2 Bearing with bushing
3 Idling gear shaft
4 Rear bearing bushing

Installation:

4. Use a suitable drift to press the vertical bearing bushing for the helical gear into the bore in the crankcase.

Use a suitable drift to drive in the rear bearing bushing for the idling gear. When doing this, care must be taken to ensure that the outer through-way groove in the bushing is on top. The open end of the inner groove must face toward the rear (Fig. 01—4/29).

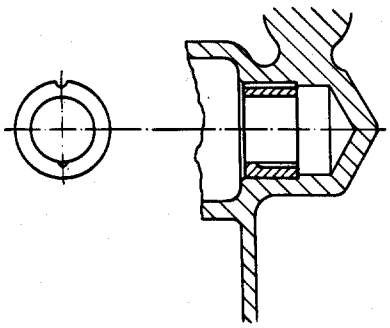

Fig. 01—4/29

5. Before installing the idling gear shaft; it is advisable to measure the end play with the bearing bushing pushed on and the idling gear in position. The end play should be 0.05—0.12 mm.

   Use Tool 187 589 07 61 to press the idling gear shaft (apply oil to the bearing surfaces), together with the front bearing bushing, into the bore in the crankcase.

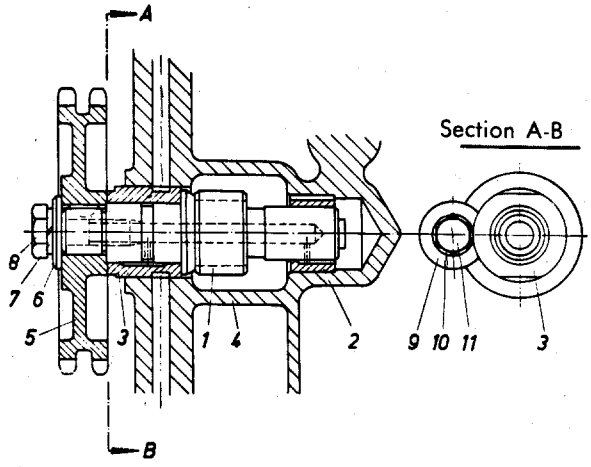

Fig. 01—4/30

1 Idling gear shaft with Woodruff key
2 Rear bearing bushing
3 Front bearing bushing
4 Crankcase
5 Idling gear
6 Washer
7 Lock washer
8 Hexagon screw
9 Retaining washer
10 Lock washer
11 Hexagon screw

Note: Make sure that the front bearing bushing is correctly positioned, in order to facilitate the fitting of the retaining washer (Sections A—B in Fig. 01—4/30).

6. Use the screw (11) with the lockwasher (10) to fix the retaining washer (9) for the front bearing bushing (see Fig. 01—4/30).

7. Place the twin roller chain on the idling gear and use Tool 187 589 07 61 to press the gear onto the shaft (Fig. 01—4/31).

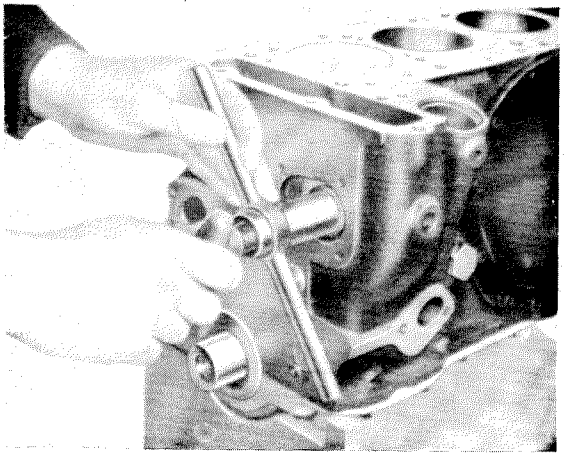

Fig. 01—4/31

In doing this do not omit the **Woodruff key!**

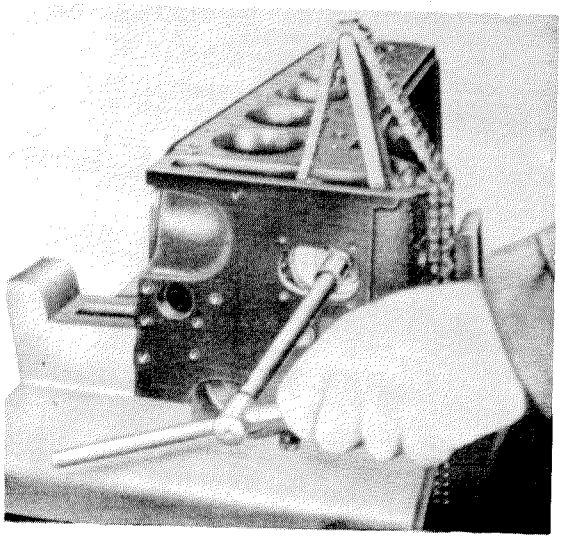

Fig. 01—4/32

In order to prevent the idling gear from turning when the screw is being tightened (do not omit the washer and the snap ring!), wedge a piece of hardwood approximately 15 cm long between the chain and the idling gear (Fig. 01— 4/32).

8. Install the helical gear for the oil pump and distributor drive (apply oil to the bearing surface) (Fig. 01— 4/33).

9. Screw the chain drive locking screw with sealing ring into the crankcase and screw the cover plate (with gasket) for the sprocket housing onto the crankcase.

10. Re-install the camshaft sprocket, the chain tensioner and the distributor with bearing (see Job No. 01—4, Sections C and F).

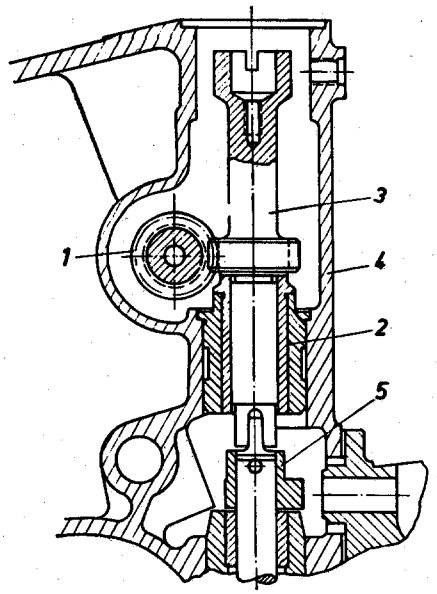

Fig. 01—4/33

1 Idling gear shaft
2 Bearing with bushing
3 Helical gear
4 Crankcase
5 Oil pump drive shaft with cam