SM-593
GPX/DPX
30/55



ISO 9001 CLARK

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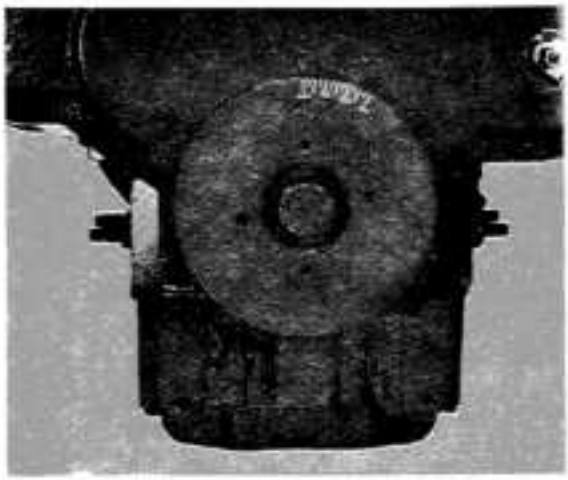
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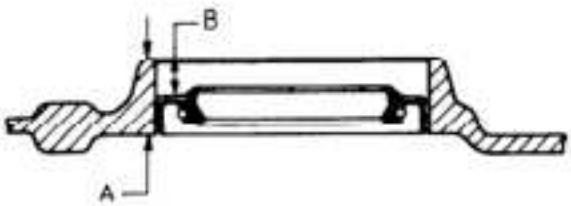
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TIMING CASE AND DRIVE—J.2

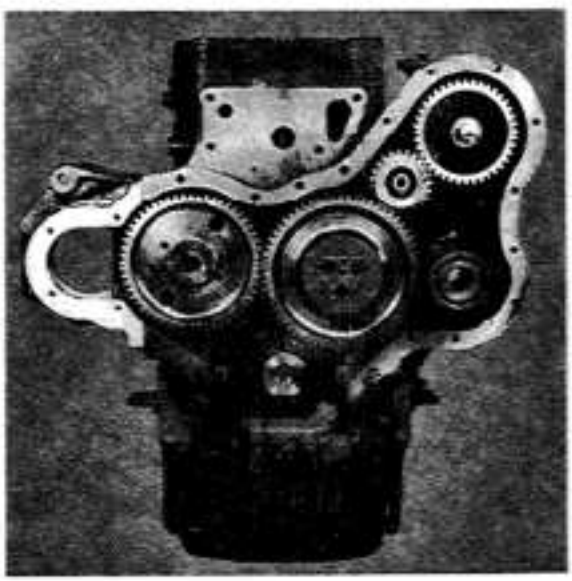


J1



J2

Dimension A	Dimension B
11/16 in	0.43/0.45 in (10,92/11,43 mm)
11/16 in	0.30/0.32 in (7,76/8,18 mm)



J3

To Remove Timing Case Cover

1. Remove Fan Belt, Generator and on earlier engines the H.T. coil.
2. Remove Crankshaft Pulley.
3. Remove timing case cover setscrews (note different lengths).
4. Taking care not to damage crankshaft front oil seal, remove timing case cover.

To Renew Crankshaft Front Oil Seal

1. Press out old seal.
2. Locate new seal in the timing case cover with the lip of the seal towards the inside of the cover.
3. Press the new seal into the cover until it is 0.25 in (6,35 mm) below the front face.

Earlier engines were fitted with a black nitrile seal and a crankshaft oil thrower.

Later engines have a red silicone seal and the oil thrower is replaced with a distance piece. Under no circumstances should the latest red seal be fitted with an oil thrower.

Current engines are fitted with a black viton seal and a spoked type crankshaft pulley with an increased hub length which removes the need for a distance piece. The seal has a protruding lip at the front and the adaptor for pressing in this seal must have a suitable recess in it to clear this lip.

Press in the new seal with the spring loaded lip towards the inside of the case to the applicable dimension below the front face of the timing case as shown in Fig. J.2.

To Replace Timing Case Cover

1. Using a new joint refit cover loosely. Fit the crankshaft pulley temporarily to centralise the oil seal in the cover. Tighten one or two setscrews and remove crankshaft pulley and tighten remaining setscrews. Use loctite 575 on bottom three setscrews fitted in through holes.
2. Refit crankshaft pulley. Ensure dot on pulley lines up with line on crankshaft (Fig. J.1).
3. Refit generator, fan belt, and H.T. coil.

Timing Gears

The camshaft gear, crankshaft gear and idler gear, are suitably marked during production to facilitate re-timing. Fig. J.3 shows timing marks correctly positioned with No. 1 piston at T.D.C.

To Check Timing Gear Backlash

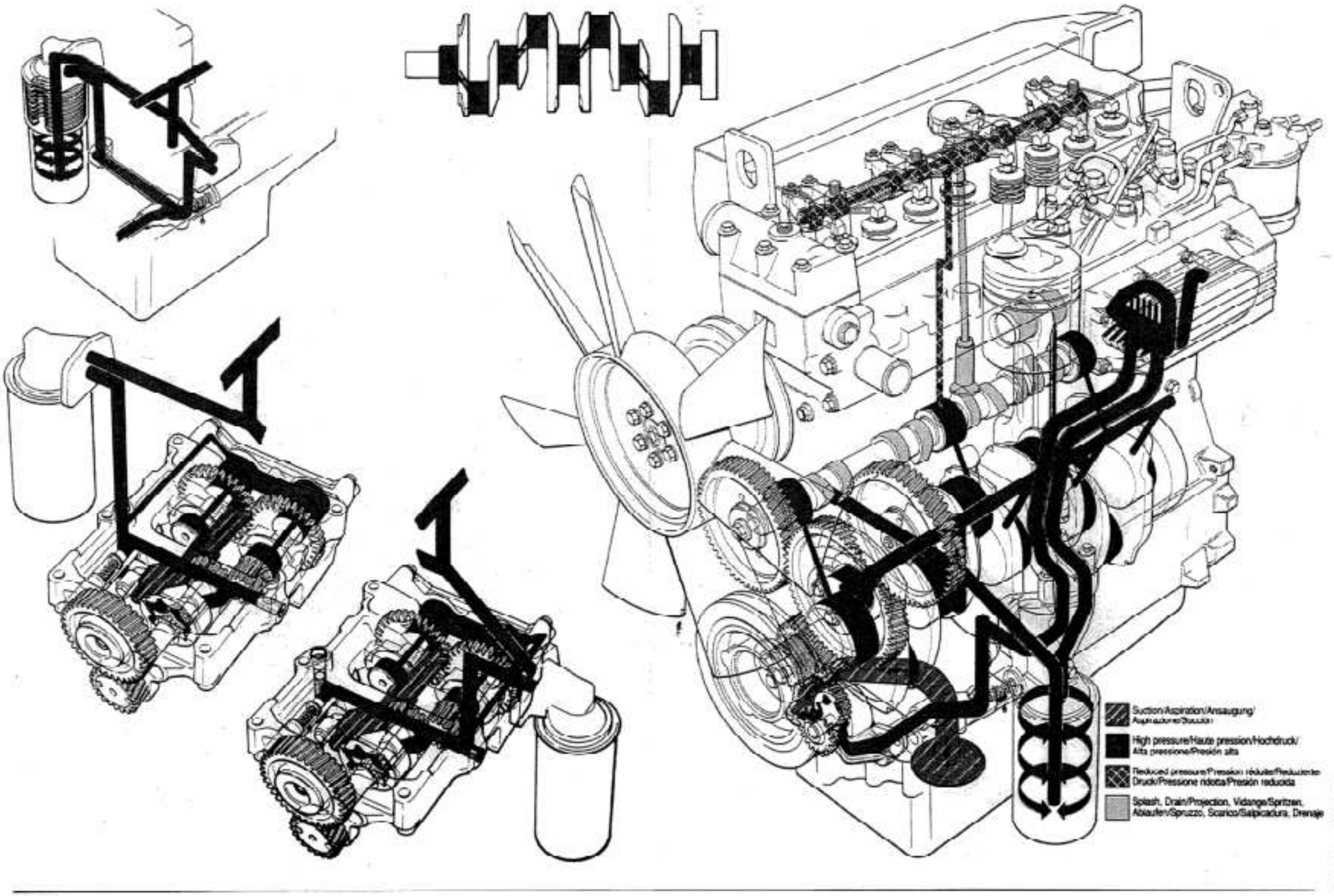
1. Remove timing case cover as previously described.
2. Check backlash between timing gears with a feeler gauge, this should be 0.003 in (0,08 mm) minimum. (Fig. J.4).

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Section 2.

Hydraulic Valve Troubleshooting and Overhaul

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