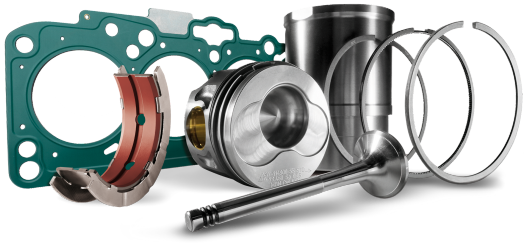


SERVICE ENGINEERING BULLETIN

SB2112.1

Fitting of Wet Liner Seals

Wet cylinder liners are very common in both CV and LV engines. Almost without exception, these have a sealing ring(s) fitted against a shoulder at the lower end; some also have an additional sealing ring under the upper flange.

Coolant leakage into the oil system can occur if assembling the seals without due care. This can lead to major engine failure if it goes unnoticed.

Following these three rules steps helps to avoid these problems:

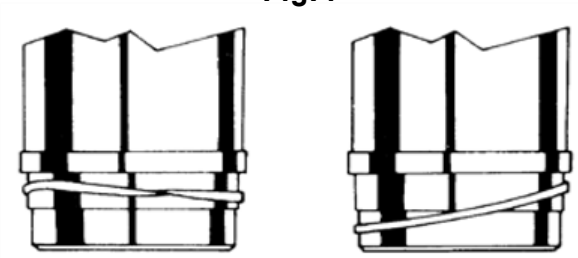
1. Inspect the engine block to ensure that the seal recess is clean and undamaged. Corrosion or pitting in this area prevents the seal being fully effective. Also, inspect the block to ensure that there are no sharp edges, burrs, scale debris or corrosion that could damage the sealing ring whilst fitting the liner.

2. Without twisting or excessively stretching the ring (Fig. 1), carefully place a sealing ring in position on a clean liner. Then progressively and evenly push it on to the liner shoulder (Fig. 2). Taking a few extra seconds time spent at this stage can prevent water leaks and save many hours to correct the problem.

3. Take care not to damage the seal when fitting each liner with its sealing ring into the engine block. If there is any difficulty when attempting to push the liner home, remove it and investigate the cause. The need for excessive force during assembly may indicate the seal is trapped: it is essential to avoid this. (Fig. 3).

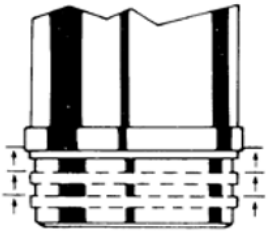
Water sealing is fully effective after fitting and correctly tightening the cylinder head and its gasket.

Fig. 1



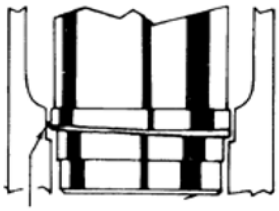
INCORRECT

Fig. 2



CORRECT

Fig. 3



TO BE AVOIDED AT ALL COSTS