

Assembled Flanged Main Bearings

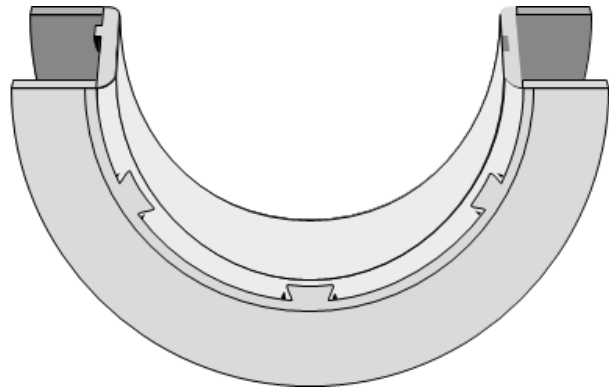
In most engine applications the crankshaft is forced forward during normal running by the clutch or some other power transmitting assembly.

Traditionally this end thrust has been resisted by the fitting of loose thrust washers or a flanged main bearing.

Major engine manufacturers have introduced a third type of bearing known as the assembled flanged bearing. Although it is similar in appearance to the conventional flange bearing it differs in its method of manufacture.

The conventional flange bearing is pressed from a single blank. The assembled flange bearing however is made from three parts - one slotted main bearing and two thrust washers with side lugs. Although the assembled flange bearing feels tight when handled it does allow a small initial movement when fitted to the engine. This ensures the bearing conforms to the housing and gives better contact.

The main advantage to the engine manufacturer is that it allows robotic engine assembly. There are however technical benefits associated with this design which can now be passed to engine reconditioners and the replacement parts market.



The flexibility inherent in the design allows the flanges to align against the housing without affecting the lie of the main half bearings to which they are attached. In this way the best possible support for the flanged thrust bearing is achieved. The conventional flange bearing is not free to move and may suffer from some local loading due to its rigidity. Good contact at the back of flanges is essential to allow heat to dissipate quickly from the bearing to the engine block.

The assembled type of flanged bearing will run cool and efficient and give a long reliable operating life under the most arduous engine conditions.