

249 Indian Vertical Scout

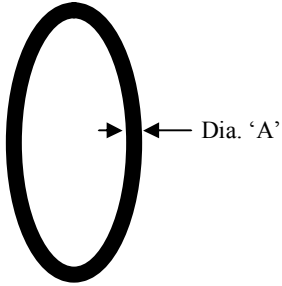
Oil Pump Modification

October 2008

'O' Ring – Type 13 on the partition hole (between the oil gear sets)

'O' Ring – Type 15 on the oil pump cover (between the drive gear hole and housing)

IMPORTANT Tolerences



- (1) 0.030" close fit on the diameter (overlap fit) between the hole and the shaft. This means the depth of the internal groove should be machined so that when the 'O' Ring is placed in the groove (without the shaft in place) it will have a 0.030" less internal diameter than the hole diameter. This tight fit is crucial. If the tolerance is less, oil will seep through at high pressure. If the tolerance is larger, the shaft will rub on the ring and wear the 'O' Ring material.
- (2) Internal 'O' Ring Groove to be 0.020" wider than the 'O' Ring – Ring Diameter 'A'. When the 'O' Ring sits in the Groove, and when the shaft is assembled, The 'O' Ring is compressed. In order accommodate this expansion of the 'O' Ring material, the groove has to be slightly larger than the 'O'Ring – Ring Diameter by 0.020".

The following pictures show the items before and after modification. I recommend a fixture with a four Jaw chuck with independent arms so that the components can be mounted and centered accurately.

