OFF-SET CAMSHAFT DOWELS TO SUIT FORD X/FLOW ETC., (REF: FP220S)

Off-set dowels are supplied in increments of 1° up to 9°, each degree being 0.006” offset. Each dowel is marked accordingly.

Any dowel will be supplied separately under Part No. FP220 or as a made-up set of nine dowels under Part No. FP220S.

GUIDE TO VALVE TIMING PROCEDURES

1) Bolt protractor disc to front pulley or end of crankshaft.

2) Affix a pointer in a suitable position to read off of the protractor.

3) With the use of a dial gauge, ascertain accurately the TDC position and zero disc to pointer accordingly.

4) Set up dial gauge to read off the camshaft lift. The most accurate method is to read directly off the cam follower/bucket, if necessary, via a suitable rod. However, if for some reason it is necessary to set up dial gauge over the valve cap, this method is quite adequate for most engine types, as long as the valve train parts i.e. valve guides, rocker shaft and bushes etc., are in good serviceable condition.

5) Making sure the timing chain (where fitted) is well tensioned, rotate crankshaft clockwise (front end) to read off point of maximum lift - refer to disc and read off position in degrees and correct accordingly with an offset dowel.

SPECIAL NOTE

When checking point of maximum lift, the best procedure is firstly to find the full lift position and zero the dial gauge. Then reverse rotate crank approximately half a revolution and slowly rotate back to a point just short of “zero”, for example, the “5” position on dial gauge – read off position on protractor disc and write it down. Continue to rotate crank up to full lift (“zero”) position and carry on rotating until gauge reads back on the “5” position again. Read off this new position as before. Add the two positions together and divide by 2 and the result is a very accurate full lift position.

Example: -

First reading = 94°
Second reading = 118°
(94 + 118) / 2 = 106°

If the full lift position of the particular camshaft fitted should be, for example, 108°, then, in the above example, a 2° (0.012”) dowel would be required to correct the difference.