

# PLASTIGAUGE®

## PLASTIC PRECISION CLEARANCE GAUGES

PLASTIGAUGE provides a simple but effective method for the measurement of clearance between fitted surfaces. It is particularly useful for measuring clearances in split bearings or in situations where a feeler gauge cannot be inserted. Measurement of clearance in big-end bearings can be achieved without dismantling the crankshaft.

We recommend that the engine sump cover should be removed to expose the big-end and its retaining set screws. Remove surplus oil and release the big-end shells by unscrewing the set screws. Wipe the exposed surface of the journal and shell. Apply a smear of grease to the journal and squeeze a small quantity of silicone release agent on to the shell.

Trim a length of PLASTIGAUGE to fit across the journal using the grease to hold it in place. Replace the shell and tighten the retaining set screws to the manufacturer's recommended torque setting without rotating the journal.

Now remove the shell once again by unscrewing the set screws to reveal the PLASTIGAUGE which will have been spread across the bearing surface as a stripe or band. Match the width of the plastigauge stripe against the gauge card supplied and read off the bearing clearance.

It is advisable to remove the PLASTIGAUGE stripe with a clean oily cloth, but users may be assured that any PLASTIGAUGE left behind is oil-soluble and cannot harm the engine in any way.



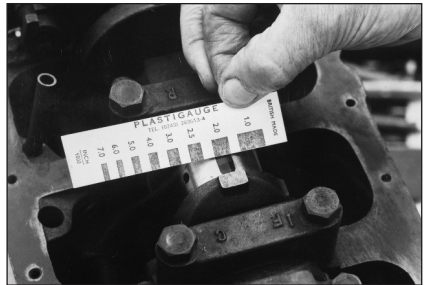
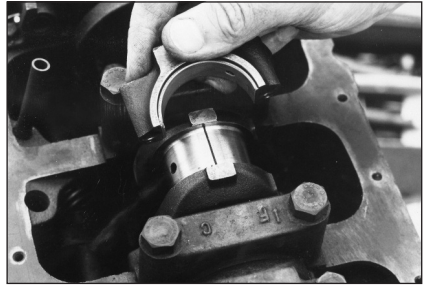
Ovality may be determined by placing PLASTIGAUGE around the bearing shaft.

### General Information

The normal clearance in the big-end or main bearing should be approximately one part in 2,000 of the diameter. Thus a journal of 2" (50.8mm) in diameter may be expected to show a clearance of 0.001" (0.025mm).

The oil escape from a pressure fed bearing increases by roughly the square of the clearance. Thus a clearance of 0.002" (0.050mm) can pass almost twice as much oil as with 0.0015" (0.038mm). If the pump capacity cannot meet this demand the pressure will fall and the bearing will be damaged. This illustrates the importance of accuracy in fitted bearings.

PLASTIGAUGE may be used to detect high spots in cylinder heads, pipe flanges etc. It is useful in production, inspection and servicing.



## THE PLASTIGAUGE MANUFACTURING CO.

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*We are the UK based manufacturer of Plastigauge Precision Clearance Gauges, supplying automotive, aviation, petrochemical & engineering industries throughout the world.*