

PLASTIGAUGE®

PRECISION CLEARANCE GAUGES

"The accurate way to measure bearing clearances"

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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 it's retaining setscrews. 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 onto 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 setscrews to the manufacturers recommended torque setting without rotating the journal.

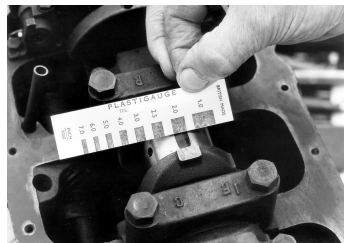
Now remove the shell once again by unscrewing the setscrews to reveal the PLASTIGAUGE which will have been spread across the bearing surface as a stripe or band. Match the width of the PLASTIGAUGE stripe against the card gauge supplied and read off the bearing clearance.



It is advisable to remove the PLASTIGAUGE strip 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.

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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 2000 of the diameter. Thus a journal of 2" (50.8mm) diameter may be expected to show a clearance of 0.001" (0.025mm).

The oil escape from the 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.