

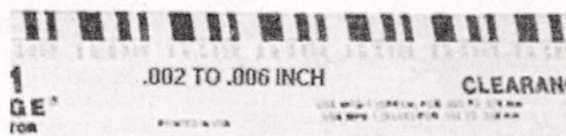
recommended. Bearings should also have a slight crush as indicated by the shell projecting about .002" above the joint surface. The bearing halves must make proper contact at the joints. It is also essential that the small nib or projection on the shell match with the notch in the bore and that oil holes in bearing and supporting member be in alignment. Oftentimes upper and lower halves of a bearing are not interchangeable due to location of oil holes and grooves.

Always inspect the crankshaft journals for scored condition. Check the bearing journals on

diameter vertically and horizontally to ascertain condition of journals for concentricity and taper. The cap supporting the bearing is generally so arranged that the nib or projection on upper and lower halves of the bearing do not butt against each other. Bearing halves may have one or two nibs or projections. When one projection is used for each shell, the projections for the upper and lower halves should be on opposite sides of the journal. When two are used, the cap must be positioned so that projections do not butt against each other. Always use a puller to remove inset caps to maintain uniform clearance and alignment. S.K.

## Measuring Bearing Clearance with Plastigauge®

Plastigauge® is comprised of a rod or thread of a compliant plastic material of accurately determined cross-section - either circular or square.



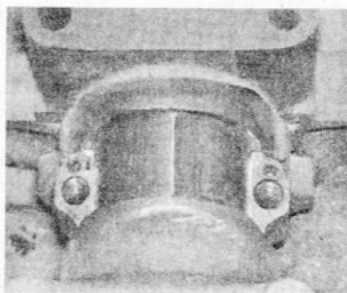
The surfaces between which measurement is to be made are first separated and cleaned, Plastigauge® is inserted and the surfaces are returned to their standard position. The once circular (or square) section of the Plastigauge® will have been flattened. By opening the surfaces to reveal the deformed gauge, the width of the deformed Plastigauge® can be measured directly, and from this the clearance can be determined.

The width of the strip can be compared with the scale which is supplied with the Plastigauge®. The actual clearance is shown alongside the mark which most nearly corresponds to the width. For greater accuracy the clearance may be interpolated between the two most nearly comparable scale marks.

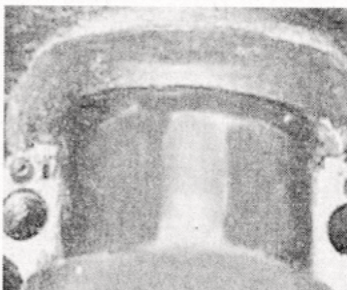
Perhaps the most widely used application of Plastigauge® is in the measurement of clearance in plain automotive bearings. This application is described in detail:

Remove the engine oil pan cover to reveal the big-end of the connecting rod and its retaining set-screws.

Remove surplus oil and release the big-end shells by unscrewing the set-screws. Apply a smear of grease to the journal and a small quantity of silicone release agent 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 set-screws to the recommended torque setting - without rotating the journal.



Now remove the shell to reveal the Plastigauge® which will have been spread across the bearing surface as a stripe or band.



Match the width of the stripe against the calibrated gauge card supplied and read off the clearance.

If possible remove the Plastigauge® stripe with a clean oily cloth or industrial de-greasing solvent, but any Plastigauge® left behind is oil soluble and cannot harm the engine in any way.

Information from  
<http://www.plastigaugeusa.com/>

S.K.