

# ENGINEERING BULLETIN

EB003/2016



## FLEXIGAUGE



Flexigauge is precision manufactured plastic strip, and can be used to check the clearance of connecting rod and main bearings where there is no access to traditional measuring equipment such as micrometers. It is available in four sizes, and is suitable for Automotive, Marine and Industrial applications.

The four sizes available together can cover clearances ranging from .001" to .016", or .025mm to .406mm, sizes are as follows:

Reference:	Clearance range:
AG-1 - (RG-1) (Green Pack)	.001 - .003in or .025 - .076mm
AR-1 - (RR-1) (Red Pack)	.002 - .006in or .050 - .150mm
AB-1 - (RB-1) (Blue Pack)	.004 - .009in or .10 - .23mm
AY-1 - (RY-1) (Yellow Pack)	.008 - .016in or .203 - .406mm

Flexigauge strips – 12" long – are packed in individual envelopes, which are marked in appropriate graduations – one side in thousandths of an inch and the other in millimeters. Ten strips in their envelopes are packed in their appropriate colored carton.

Directions for use, which are printed on the outside of each carton for easy reference, are as follows:

1. Remove the bearing cap, wipe the journal and bearing shell clear of oil.
2. Place a piece of Flexigauge across the bearing at the crown.
3. Install the bearing cap and using a Torque Wrench tighten the bolts to the correct tension.

#### DO NOT ROTATE THE SHAFT OR BEARINGS.

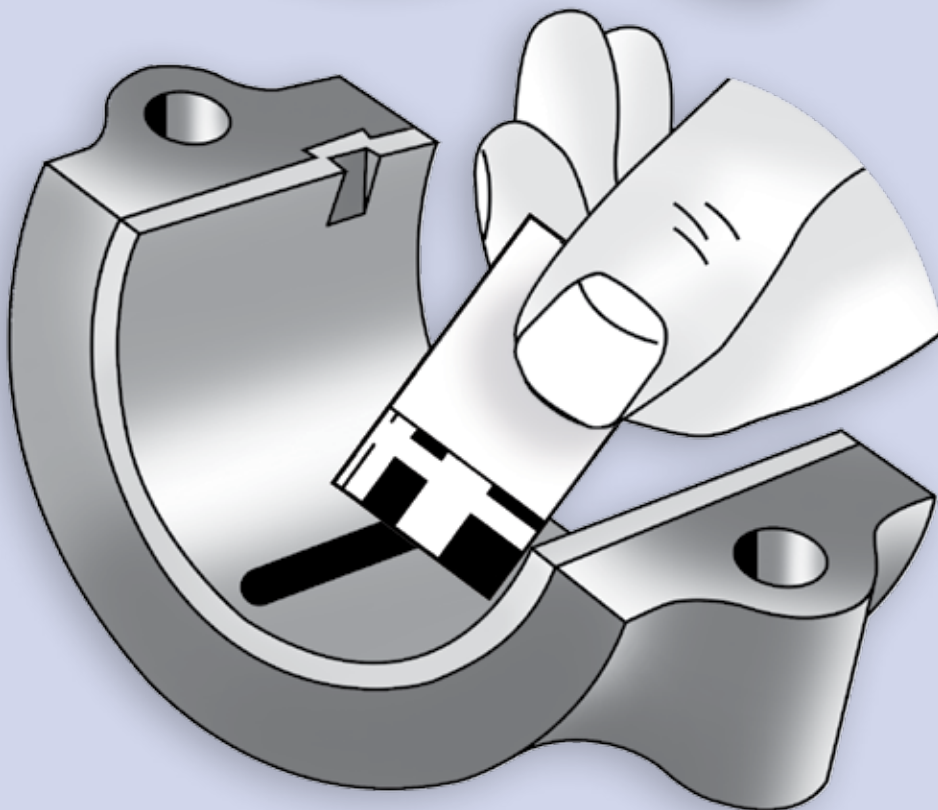
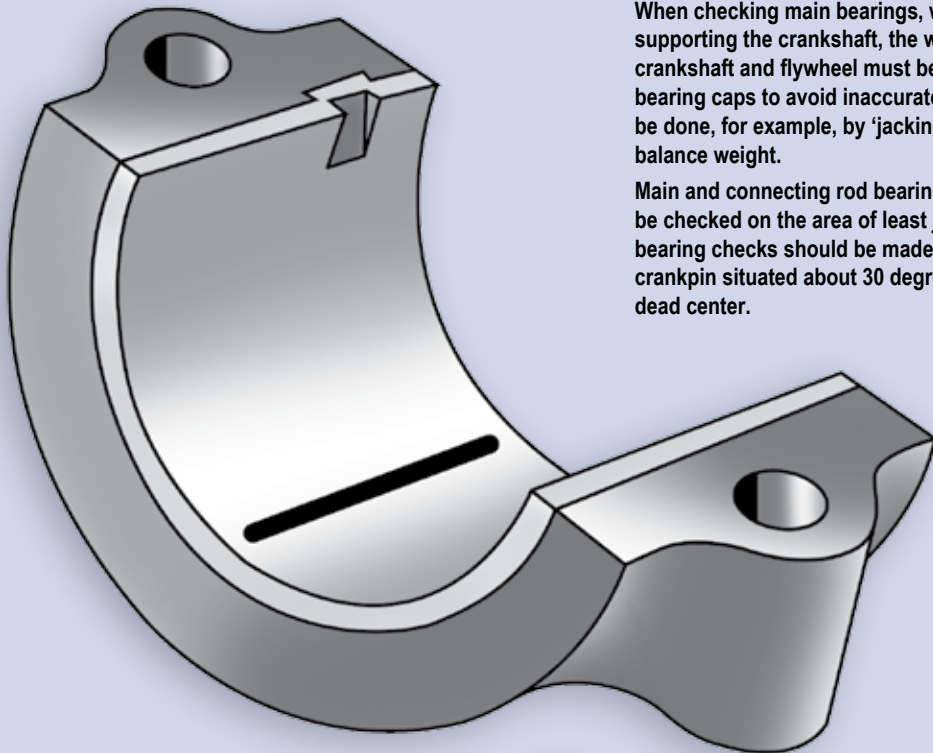
4. Remove the bearing cap. The Flexigauge will stay on either the bearing or the shaft.
5. Compare the width of the flattened Flexigauge with the graduation on the envelope. The figure within the graduations indicates the clearance in thousandths of an inch or millimeters, depending on which side of the envelope is used.
6. Taper is indicated when the Flexigauge is wider at one end than the other, the amount of taper is equal to the difference in the two readings. The widest part of the Flexigauge represents the area with the least clearance. 'Barrelling' of the shaft is present when the Flexigauge is wider in the center of the bearing.

AUSTRALIAN ENGINEERING EXCELLENCE

#### PRECAUTION

When checking main bearings, with the CAP supporting the crankshaft, the weight of the crankshaft and flywheel must be taken off the bearing caps to avoid inaccurate results. This can be done, for example, by 'jacking' on the crankshaft balance weight.

Main and connecting rod bearing clearances should be checked on the area of least journal wear. Main bearing checks should be made with the adjacent crankpin situated about 30 degrees after bottom dead center.



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