

Main Bearings

Clearance

1. To check main bearing-to-journal oil clearance, remove the main caps and bearing halves.
2. Clean each main journal and bearing half with a clean shop towel.
3. Place one strip of plastigage across each main journal.

NOTE: If the engine is still in the vehicle when you bolt the main cap down to check clearance, the weight of the crankshaft and flywheel will flatten the plastigage further than just the torque on the cap bolts, and give you an incorrect reading. For an accurate reading, support the crankshaft with a jack under the counterweights and check only one bearing at a time.

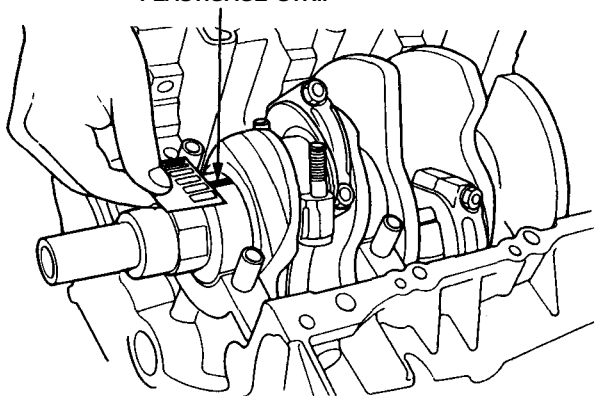
4. Reinstall the bearings and caps, then torque the 9 mm cap bolts to 39 N-m (4.0 kgf-m, 29 lbf-ft). Torque the 11 mm cap bolts to 76 N-m (7.8 kgf-m, 57 lbf-ft).
5. Torque the side bolts to 49 N-m (5.0 kgf-m, 36 lbf-ft).
6. Remove the caps and bearings, and measure the widest part of the plastigage.

Main Bearing-to-Journal Oil Clearance:

Standard (New): 0.020 - 0.044 mm
(0.0008 - 0.0017 in)

Service Limit: 0.05 mm (0.002 in)

PLASTIGAGE STRIP



7. If the plastigage measures too wide or too narrow, remove the crankshaft, and remove the upper half of the bearing. Install a new, complete bearing with the same color code (select the color as shown in the right column of this page), and recheck the clearance.

CAUTION: Do not file, shim, or scrape the bearings or the caps to adjust clearance.

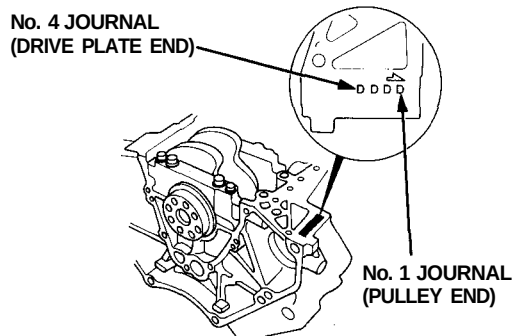
8. If the plastigage shows the clearance is still incorrect, try the next larger or smaller bearing (the color listed above or below that one), and check again.
NOTE: If the proper clearance cannot be obtained by using the appropriate larger or smaller bearings, replace the crankshaft and start over.

Selection

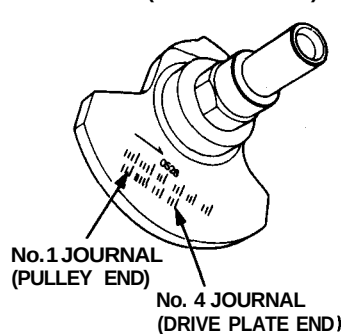
CAUTION: If the codes are indecipherable because of an accumulation of dirt and dust, do not scrub them with a wire brush or scraper. Clean them only with solvent or detergent.

Crankshaft Bore Code Locations

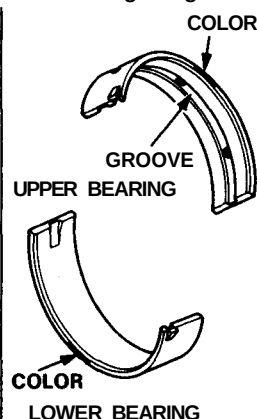
Letters or bars have been stamped on the end of the cylinder block as a code for the size of each of the four main journal bores. Use them, and the numbers or bars stamped on the crankshaft (codes for main journal size), to choose the correct bearings.



Main Journal Code Locations (Numbers or Bars)



Bearing Design



Bearing Identification

Color code is on the edge of the bearing.

Larger crank bore			
A or I	B or II	C or III	D or IIII
Small bearing (thicker)			

1 or I	2 or II	3 or III	4 or IIII	5 or IIII	6 or IIII
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Smaller
main
journal

Smaller
bearing
(thicker)

Pink	Pink Yellow	Yellow	Yellow Green
Pink Yellow	Yellow	Yellow Green	Green
Yellow	Yellow Green	Green	Green Brown
Yellow Green	Green	Green Brown	Brown
Green	Green Brown	Brown	Brown Black
Green Brown	Brown	Brown Black	Black

NOTE: When using bearing halves of different colors, it does not matter which color is used in the top or bottom.