

Crankshaft Journal Bearing

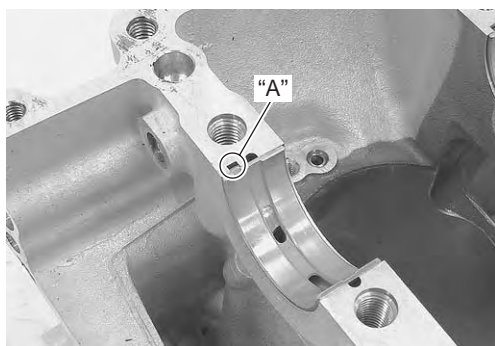
When fitting the crankshaft journal bearings to the upper and lower cranks, be sure to fix the stopper part "A" first and press the other end.

⚠ CAUTION

Do not touch the bearing surfaces with your hands. Grasp by the edge of the bearing shell.

NOTE

Inspect and select the crankshaft journal bearing if necessary. Refer to "Crankshaft Journal Bearing Inspection and Selection" (Page 1D-79).



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Piston and Conrod

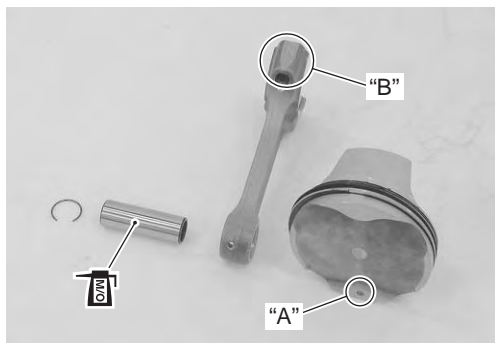
- Apply a small quantity of molybdenum oil solution onto each piston pin.

M/O: Molybdenum oil (MOLYBDENUM OIL SOLUTION)

- Assemble the piston and conrod.

NOTE

When installing the pistons, the indent "A" on the piston head must be brought to the other side of ID code "B" on the conrod big end.



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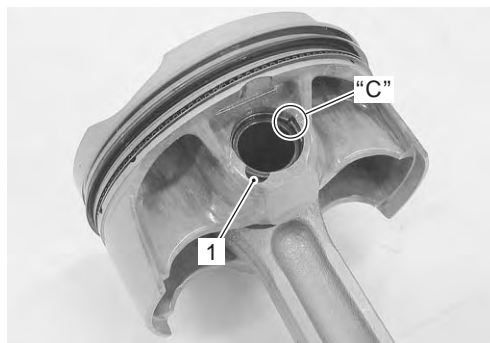
- Install the piston pin circlips (1).

⚠ CAUTION

Use new piston pin circlips (1) to prevent circlip failure which will occur when it is bent.

NOTE

End gap of the circlip "C" should not be aligned with the cutaway in the piston pin bore.



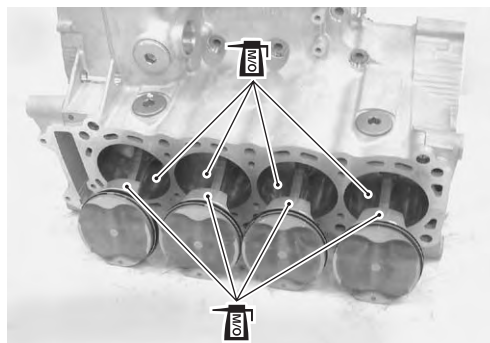
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- Apply a small quantity of molybdenum oil solution to the sliding surface of the pistons and cylinder walls.

M/O: Molybdenum oil (MOLYBDENUM OIL SOLUTION)

NOTE

Be sure to install the pistons in the cylinders from which they were removed in disassembly, referring to the cylinder numbers, #1 through #4, scribed on the piston.




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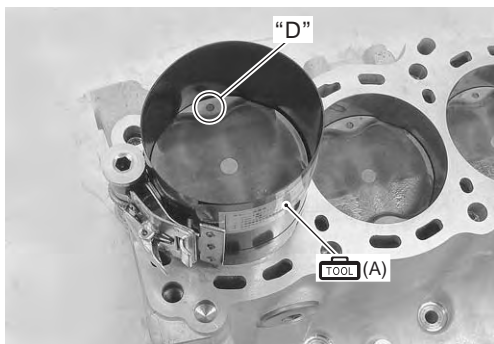
- Install the pistons with conrods into the cylinders from topside using the special tool.

NOTE

When installing the pistons, the indent “D” of each piston head must be brought to the exhaust side.

Special tool

 (A): 09916-77310 (Piston ring compressor)

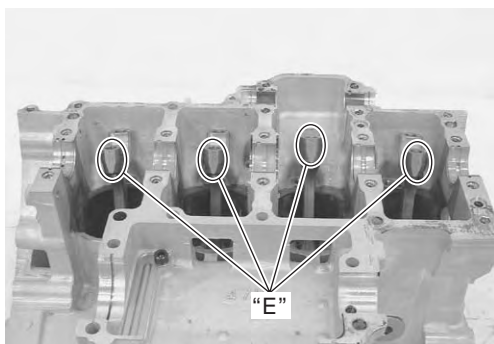


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- Check that I.D. code “E” on each conrod faces intake side.

⚠ CAUTION

Be sure to clean the conrod big end.



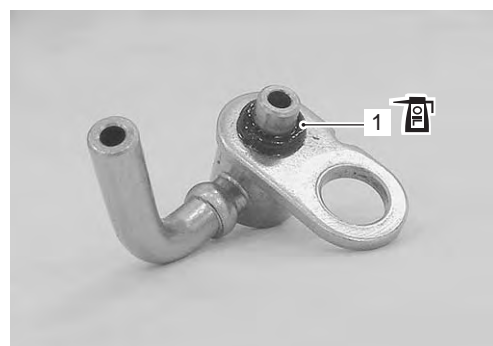
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Piston Cooling Oil Jet

- Fit new O-ring (1) to each piston cooling oil jet and apply engine oil to it.

⚠ CAUTION

Use new O-ring to prevent oil pressure leakage.



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- Install each piston cooling oil jet.

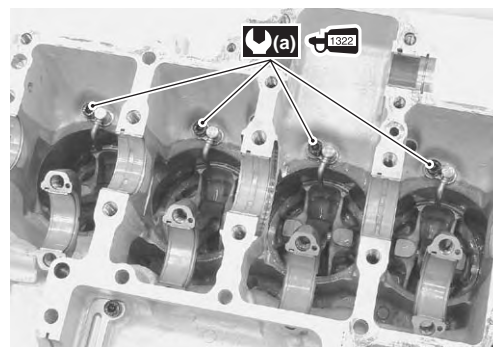
NOTE

Apply a small quantity of thread lock to the bolts and tighten them to the specified torque.

 : Thread lock cement 99000-32110 (THREAD LOCK CEMENT SUPER “1322” or equivalent)

Tightening torque

Piston cooling oil jet bolt (a): 10 N·m (1.0 kgf·m, 7.0 lbf·ft)

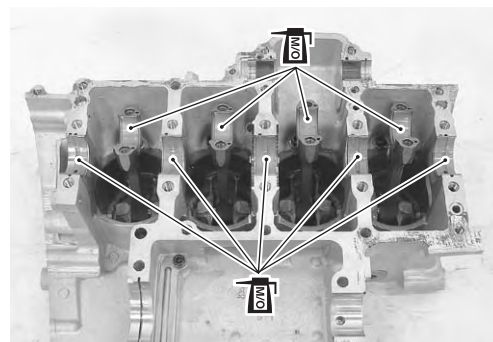


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Crankshaft

- 1) Apply molybdenum oil to each crank pin bearing surface and crankshaft journal bearing surface.

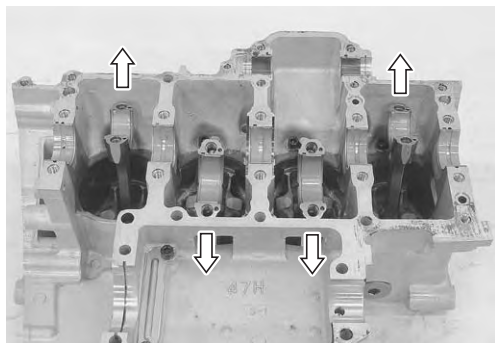
M/O: Molybdenum oil (MOLYBDENUM OIL SOLUTION)



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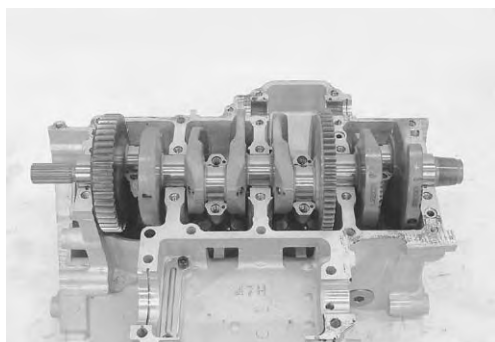
1D-60 Engine Mechanical:

- 2) Position the No. 2 and No. 3 conrod big ends on the same side, and the No. 1 and No. 4 conrod big ends on the opposite side of No. 2 and No. 3.



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- 3) Set the crankshaft onto the conrods and upper crankcase.



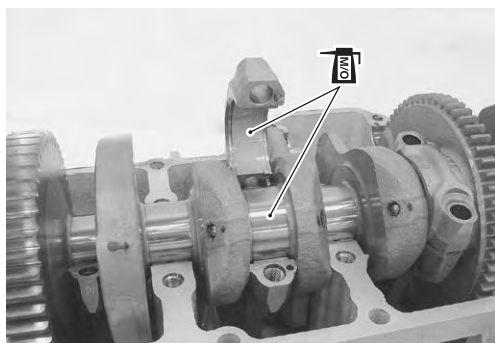
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- 4) Apply molybdenum oil to each crank pin and bearing surface.

⚠ CAUTION

Be sure to clean the conrod big end.

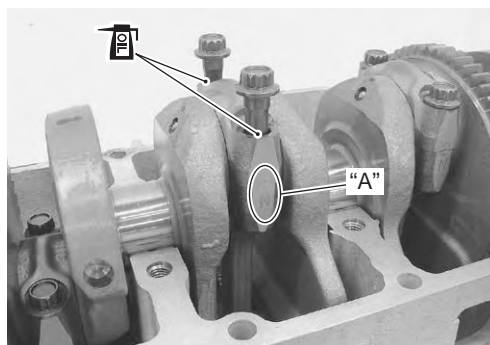
M/O: Molybdenum oil (MOLYBDENUM OIL SOLUTION)



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- 5) When fitting the conrod cap, make sure that I.D. code "A" on each conrod faces intake side.

- 6) Apply engine oil to the conrod cap bolts.

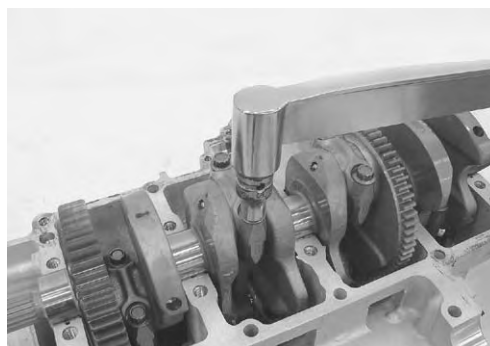


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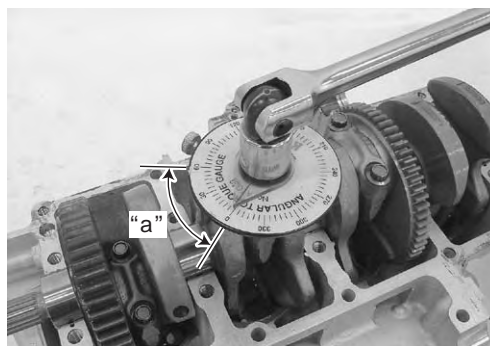
- 7) Tighten the conrod cap bolt by using a 10 mm, 12 point socket wrench in the following two steps.

Tightening torque

Conrod cap bolt: 37 N·m (3.7 kgf-m, 26.5 lbf-ft) then turn in 1/6 (60°) turn



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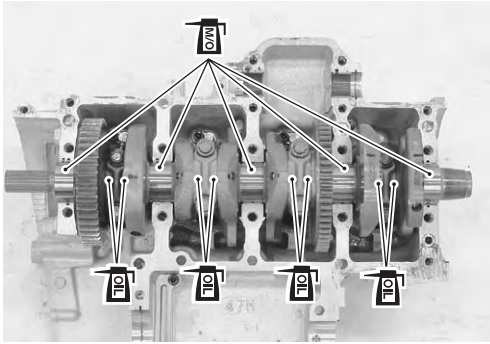
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"a": 60°

- 8) Apply engine oil to the conrod big end side surfaces.
9) Apply molybdenum oil to each crankshaft journal and bearing lightly.

M/O: Molybdenum oil (MOLYBDENUM OIL SOLUTION)

10) Check the conrod movement for smooth turning.

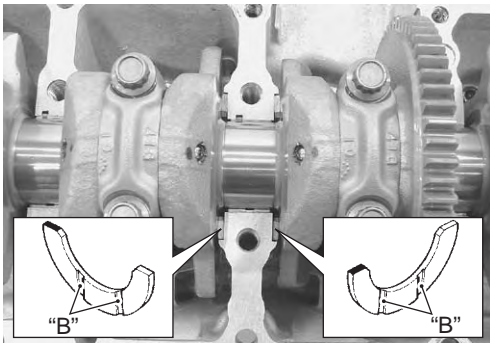


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11) Insert the right and left thrust bearings with the oil grooves "B" facing towards the crankshaft web.

NOTE

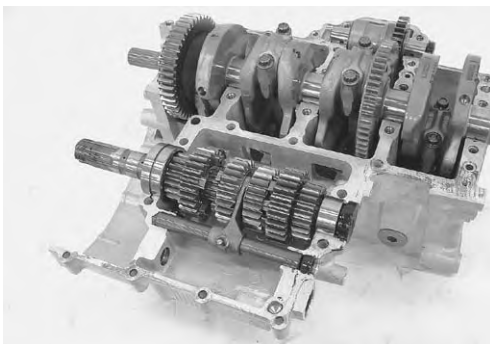
- Right-thrust bearing has green painting.
- Inspect and select the crankshaft thrust clearance if necessary. Refer to "Crankshaft Thrust Clearance Inspection and Selection" (Page 1D-82).



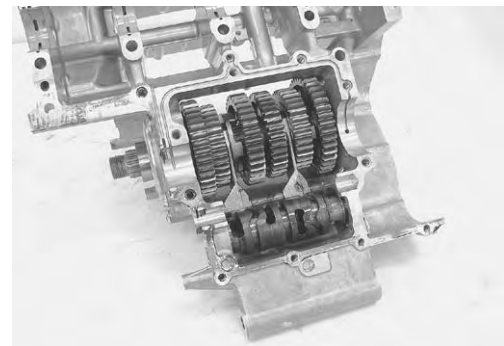
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Transmission

Install the transmission. Refer to "Transmission Installation" in Section 5B (Page 5B-5).



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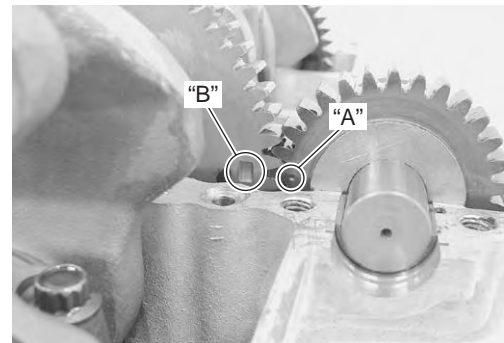
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Balancer Shaft

- Apply a molybdenum oil solution to each balancer shaft journal and bearing lightly.

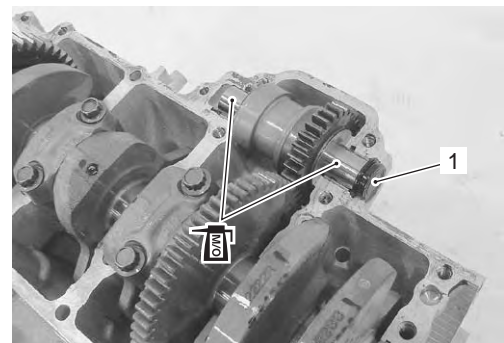
M/O: Molybdenum oil (MOLYBDENUM OIL SOLUTION)

- Set the balancer shaft so that its punch mark "A" is aligned with the index "B" on the crankshaft.



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- Install the plug (1).



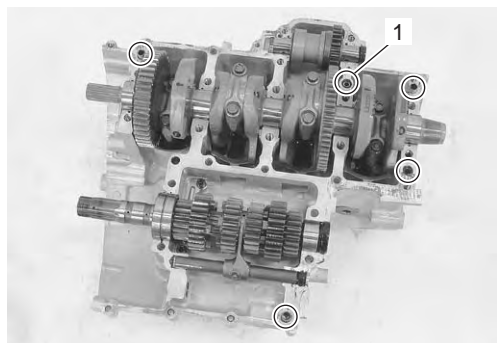
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Crankcase

- Install the dowel pins and O-rings (1).

CAUTION

Replace the O-rings with new ones.




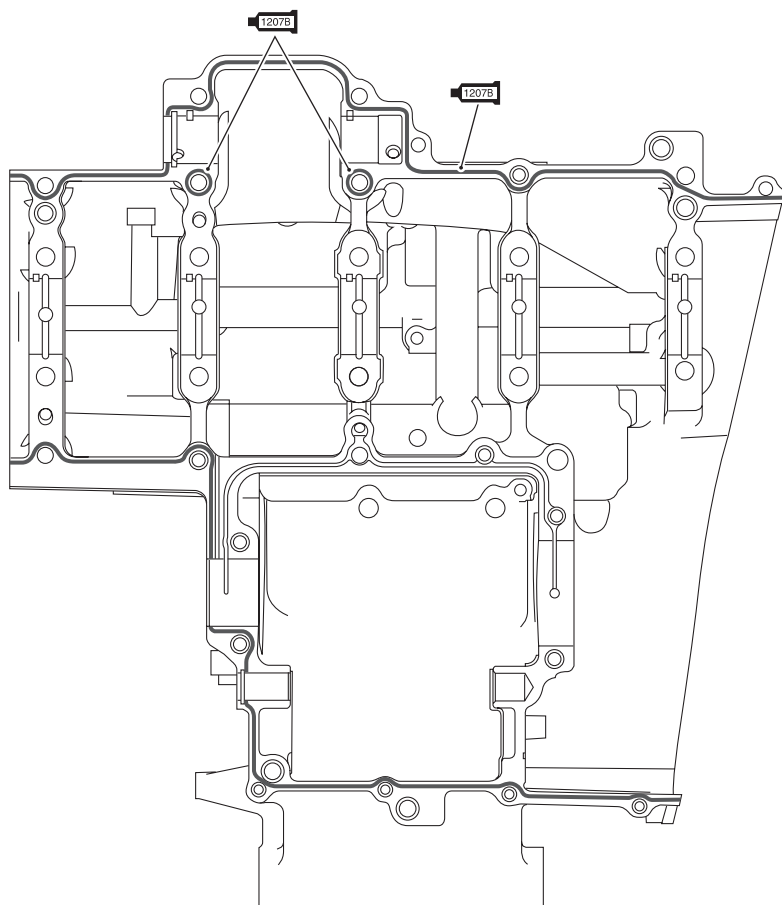
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
- Apply bond to the mating surface of the lower crankcase as follows.

NOTE

- Make mating surfaces free from moisture, oil, dust and other foreign materials.
- Spread the sealant on surfaces thinly to form an even layer, and assemble the crankcases within a few minutes.
- Take extreme care not to apply sealant to any oil hole, oil groove and bearing.
- Apply sealant to distorted surfaces as it forms a comparatively thick film.

 : Sealant 99000-31140 (SUZUKI BOND No.1207B or equivalent)



 : Apply bond.

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