



**HONDA**  
NU50·NU50M

# 10. CRANKCASE / CRANKSHAFT

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## SERVICE INFORMATION

### GENERAL

- The following parts must be removed before separating the crankcase:

Engine	Page 5-2
— Mounting bracket	
— Center stand	
Oil pump	Page 2-5
Reed valve	Page 4-9
Kick starter driven gear	Page 8-11, 17
Alternator	Page 7-2
Cylinder head, cylinder	Page 6-2, 3

- In addition to the above, remove the following parts when the left crankcase half must be replaced:

Rear wheel	Page 12-2
Final reduction	Page 9-2

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### SPECIFICATIONS

ITEM	STANDARD mm (in)	SERVICE LIMIT mm (in)
CONNECTING ROD BIG END SIDE CLEARANCE	_____	0.60 (0.024)
CONNECTING ROD BIG END RADIAL CLEARANCE	_____	0.05 (0.002)
CRANKSHAFT RUNOUT A	_____	0.15 (0.006)
B	_____	0.10 (0.004)

### TOOLS

Special	
Crankcase Puller	07935-1870000 or modified 07933-1470000
Seal And Case Assembling Tool	07965-1480010
Bearing Remover \	07936-3710600

Common	
Attachment, 42 x 47 mm	07746-0010300
Pilot, 20 mm	07746-0040500
Driver	07749-0010000
Bearing Remover Handle	07936-3710100
Bearing Remover Weight	07936-3710200

## TROUBLESHOOTING

Abnormal engine noise

- Worn main journal bearing
- Worn crankpin bearing
- Worn transmission bearing

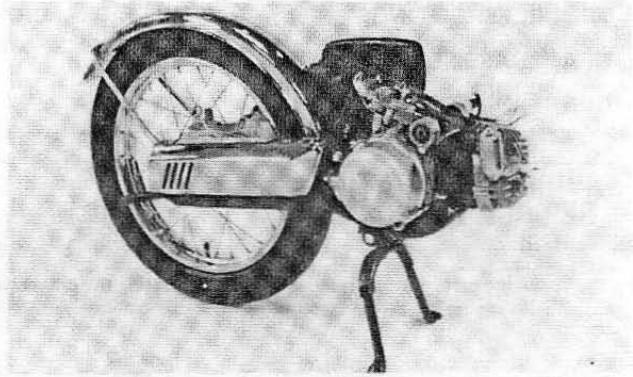


## CRANKCASE SEPARATION

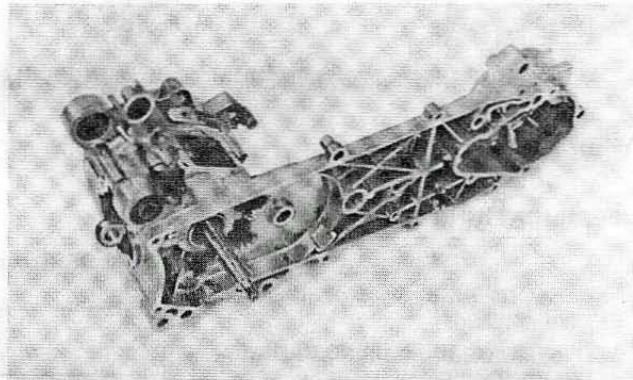
Perform the following operations:

- Engine removal (Page 5-2)
- Oil pump removal (Page 2-5)
- Reed valve removal (Page 4-9)
- Rear wheel removal (Page 12-2)

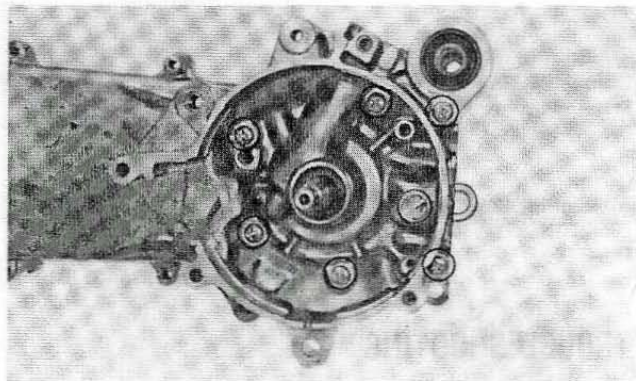
Remove the engine mounting bracket.  
Remove the center stand bracket.



- Remove the cylinder head, cylinder and piston (Page 6-2, 3).
- Remove the alternator. (Page 7-2).
- Remove the kick starter driven gear (Page 8-11, 17).
- Remove the final reduction assembly (Page 9-2).

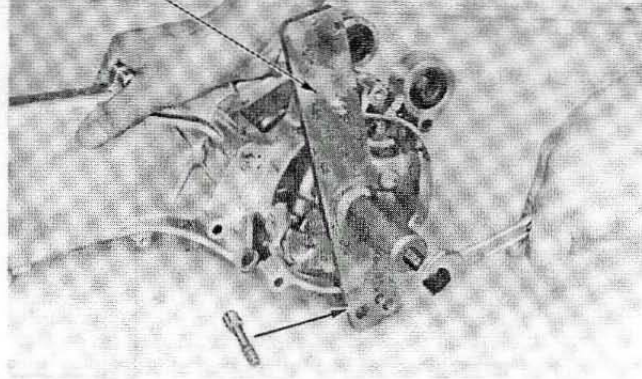


Remove the crankcase attaching bolts.



Attach the special tool on the right crankcase as shown.  
Separate the crankcase halves.

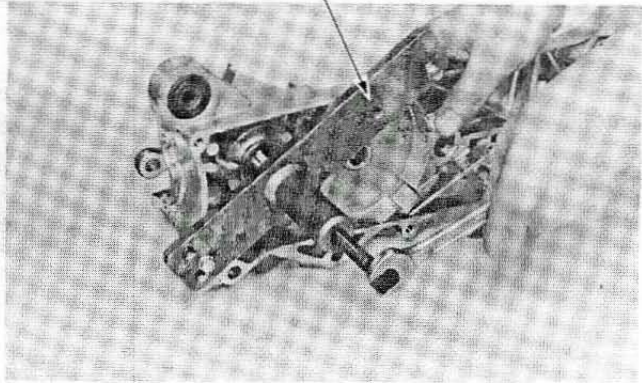
CASE PULLER 07935-1870000  
OR MODIFIED 07933-1470000



### CRANKSHAFT REMOVAL

Attach the special tool on the left crankcase as shown.  
Remove the crankshaft from the left crankcase.

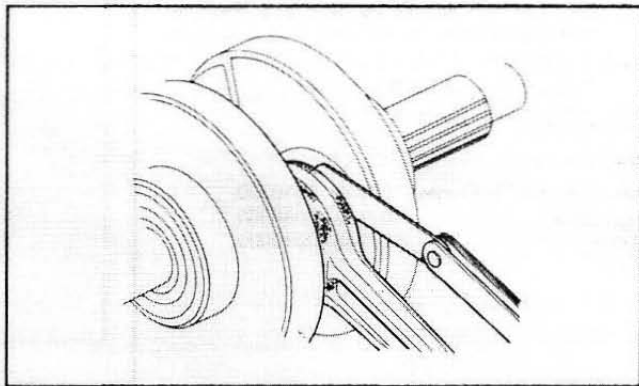
CASE PULLER 07935-1870000



### CRANKSHAFT INSPECTION

Measure the connecting rod big end side clearance with a feeler gauge.

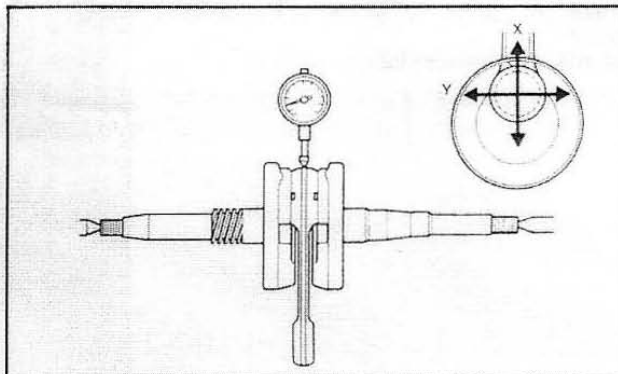
SERVICE LIMIT: 0.60 mm (0.024 in)



**CRANKCASE/CRANKSHAFT**

Measure the connecting rod big end radial clearance at two points in the X and Y directions.

**SERVICE LIMIT: 0.05 mm (0.002 in)**



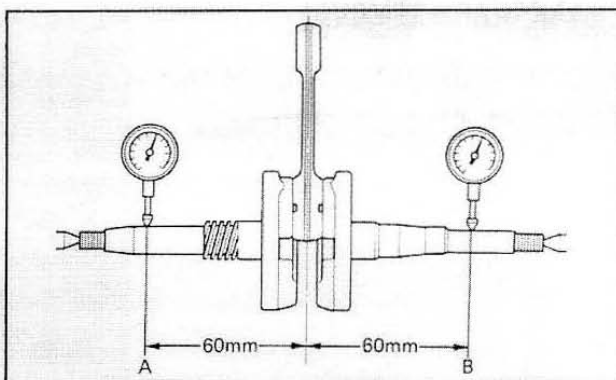
Set the crankshaft on a stand or V-blocks as shown and read runout using a dial gauge.

The actual runout is 1/2 of the total indicator reading.

**SERVICE LIMITS:**

A: 0.15 mm (0.006 in)

B: 0.10 mm (0.004 in)



Spin the crankshaft bearing by hand and check for play. The bearing must be replaced if it is noisy or has excessive play.

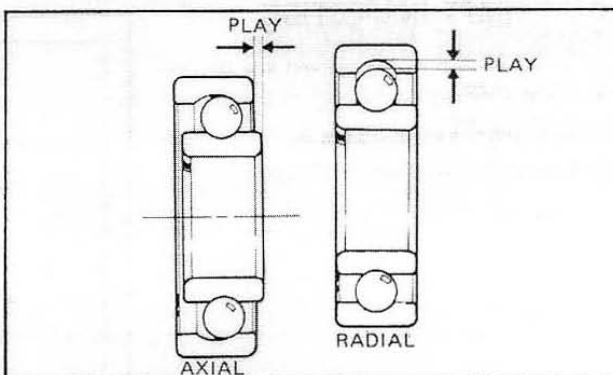
**TOOLS (Bearing Installation)**

Common

Attachment, 42 x 47 mm 07746-0010300

Pilot, 20 mm 07746-0040500

Driver 07749-0010000



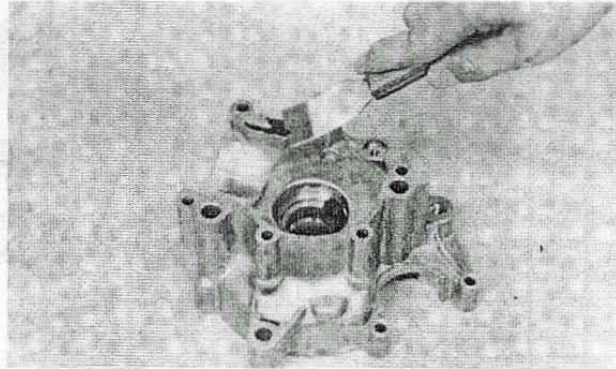


## CRANKCASE ASSEMBLY

Wash the crankshaft in solvent and blow dry with compressed air. Check for cracks or other faults.

Remove all gasket material from the crankcase mating surfaces. Dress any roughness or irregularities with an oil stone.

Apply clean engine oil to all moving and sliding surfaces.

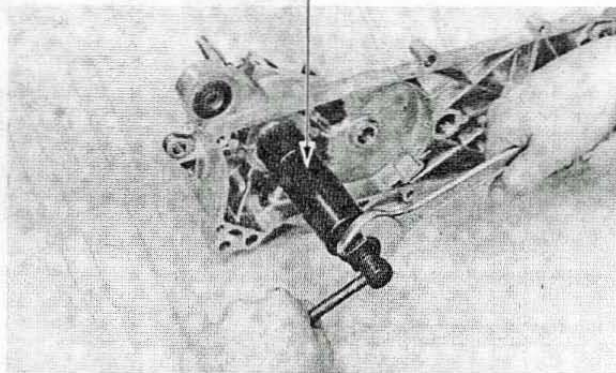


Install the crankshaft into the left crankcase.

### NOTE

Lubricate the crankshaft main and journal bearings with Honda 2-stroke injector oil or equivalent.

SEAL AND CASE ASSEMBLING TOOL 07965-1480010



Install a new gasket and the dowel pin to the crankcase mating surface and assemble the crankcase halves.

Assemble the removed parts in the reverse order of removal (Page 10-2).

SEAL AND CASE ASSEMBLING TOOL 07965-1480010

