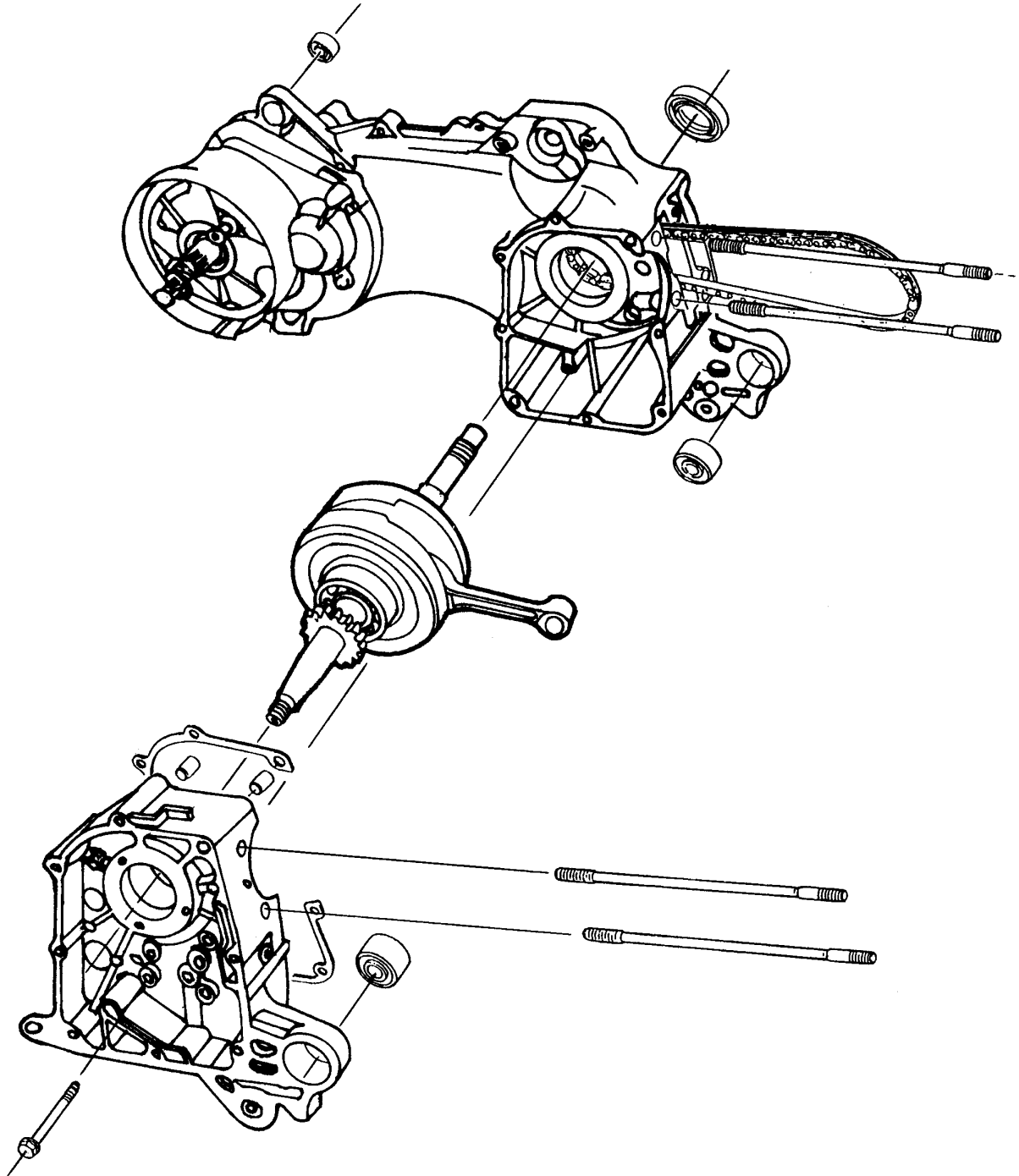


# 11. CRANKCASE/CRANKSHAFT



**11**

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## SERVICE INFORMATION

### GENERAL INSTRUCTIONS

- This section covers crankcase separation to service the crankshaft. The engine must be removed for this operation.
- The following parts must be removed before separating the crankcase.
  - Cylinder head (⇒Section 7)
  - Cylinder/piston (⇒Section 8)
  - Drive and driven pulleys (⇒Section 9)
  - A.C. generator (⇒Section 14)
  - Carburetor/air cleaner (⇒Section 5)
  - Rear wheel/rear shock absorber (⇒Section 13)
  - Starter motor (⇒Section 16)
  - Oil pump (⇒Section 4)

### SPECIFICATIONS

	Item	Standard (mm)	Service Limit (mm)
Crankshaft	Connecting rod big end side clearance	0.10~0.35	0.55
	Connecting rod big end radial clearance	0-0.008	0.05
	Runout	—	0.10

### TORQUE VALUES

Crankcase bolt	0.8~1.2kgf-m
Cam chain tensioner slipper bolt	0.8~1.2kgf-m

### TROUBLESHOOTING

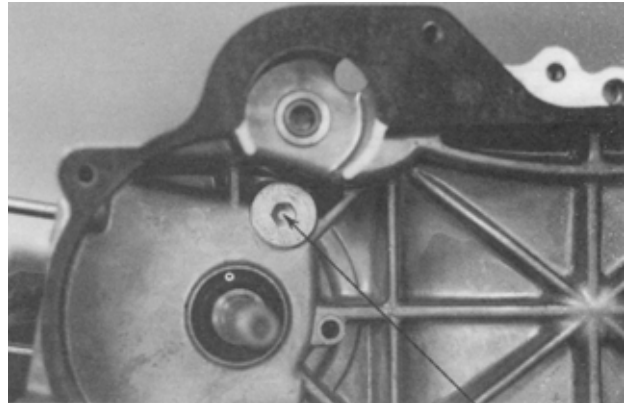
#### Excessive engine noise

- Excessive bearing play
- Excessive crankpin bearing play

# 11. CRANKCASE/CRANKSHAFT

## CRANKCASE SEPARATION

Remove the cam chain tensioner slipper bolt and cam chain tensioner slipper.

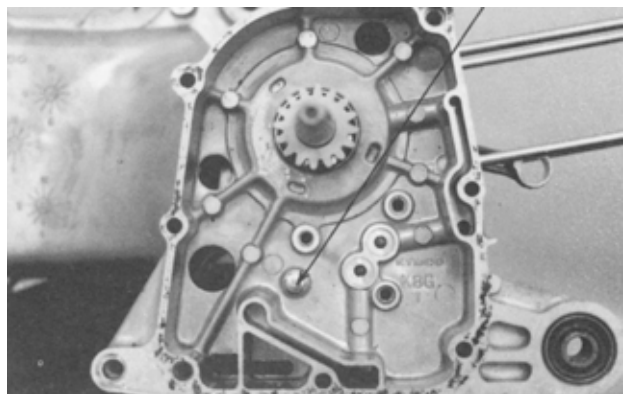


Cam Chain Tensioner Slipper Bolt

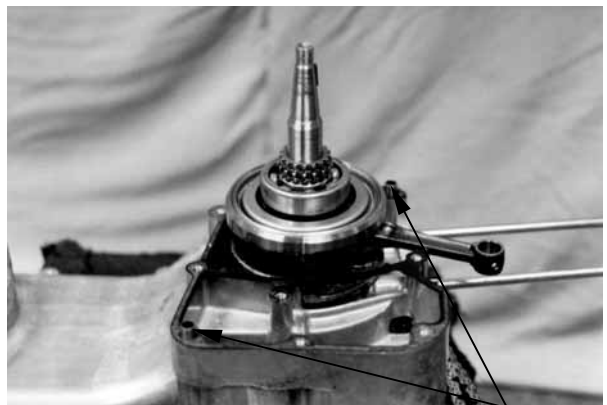
Remove the crankcase attaching bolt. Separate the left and right crankcase halves.

- \* \_\_\_\_\_
- Do not damage the crankcase gasket surface.
  - Never use a driver to pry the crankcase mating surfaces apart.

Crankcase Bolt



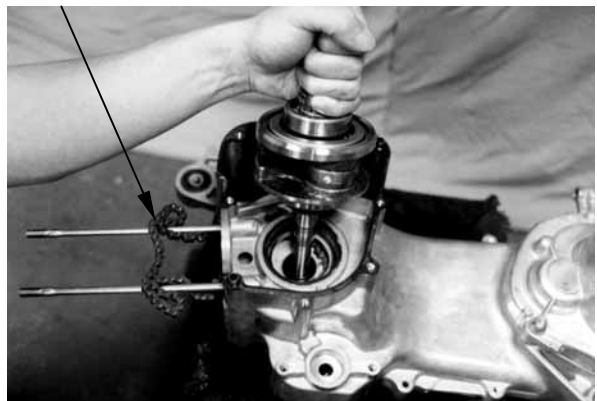
Remove the gasket and dowel pins.



Dowel Pins

Remove the crankshaft from the left crankcase.  
Remove the cam chain.

Cam Chain

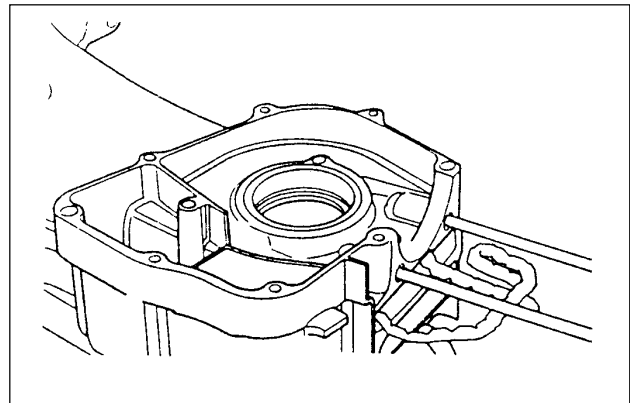


# 11. CRANKCASE/CRANKSHAFT

AGILITY 50

Clean off all gasket material from the crankcase mating surfaces.

\* Avoid damaging the crankcase mating surfaces.



Remove the oil seal from the left crankcase.



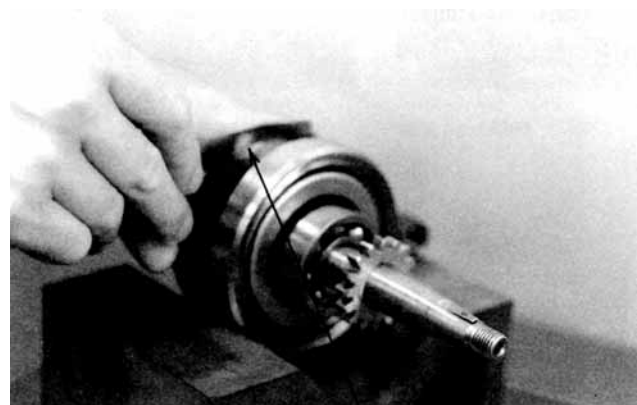
Remove the oil seal from the right crankcase.



## CRANKSHAFT

Measure the connecting rod big end side clearance.

**Service Limit:** 0.55mm replace if over



Connecting Rod Big End

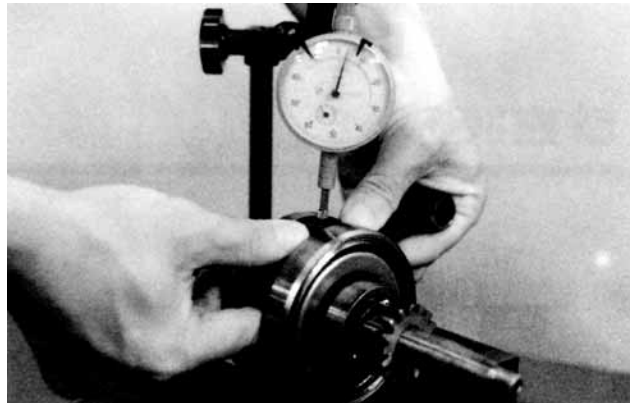
# 11. CRANKCASE/CRANKSHAFT

AGILITY 50

Measure the connecting rod big end radial clearance at two points at right angels to the shaft.

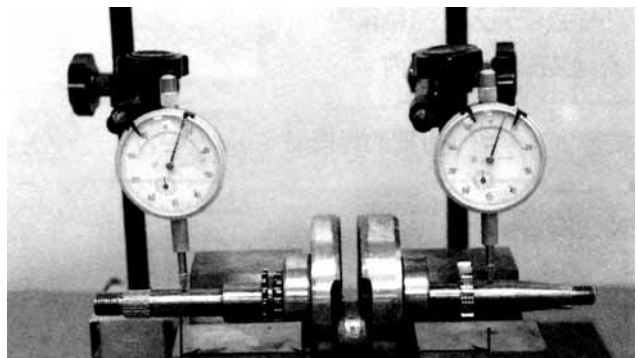
**Service Limit:** 0.05mm replace if over

Measuring Location



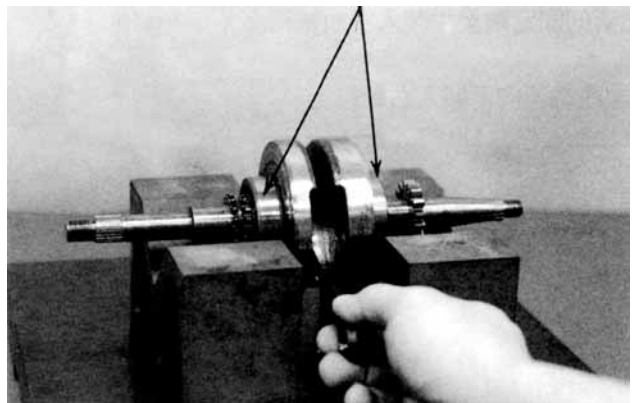
Measure the crankshaft runout.

**Service Limit:** 0.10mm replace if over



Turn the crankshaft bearings and check for excessive play.  
If they do not turn smoothly, quietly or if they fit loosely in the crankshaft, replace the crankshaft as a set.

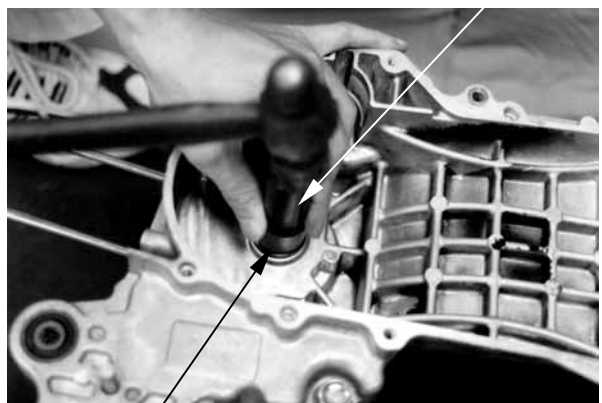
Crankshaft Bearings



## CRANKCASE ASSEMBLY

Install new oil seals into the right and left crankcase .

Driver Handle A



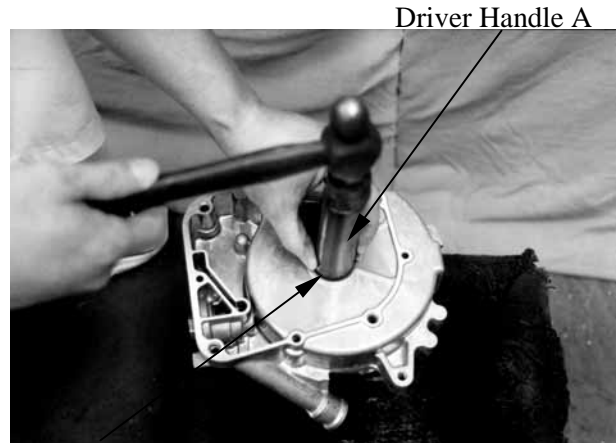
Outer Driver

# 11. CRANKCASE/CRANKSHAFT

AGILITY 50

Install the cam chain into the left crankcase.  
Install the crankshaft into the left crankcase.

\* When installing the cam chain, be careful not to damage the oil seal.



Outer Driver  
Cam Chain



Gasket

Install the dowel pins and a new gasket onto the left crankcase.

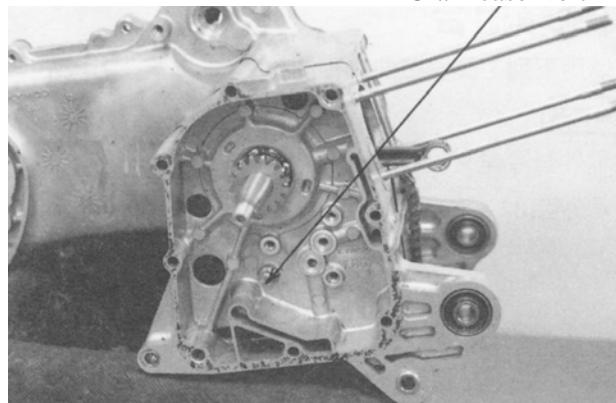
\* Place the right crankcase over the crankshaft and onto the left crankcase.



Dowel Pins  
Crankcase Bolt

Tighten the crankcase attaching bolt.

**Torque:** 0.8~1.2kgf-m

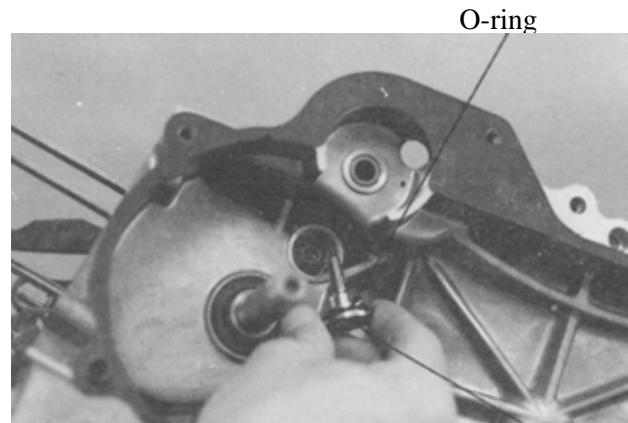


## 11. CRANKCASE/CRANKSHAFT

Install the cam chain tensioner slipper.  
Install a new O-ring onto the cam chain tensioner slipper bolt.  
Apply engine oil to the O-ring and tighten the bolt.

**Torque:** 0.8~1.2kgf-m

★ Be sure to install the O-ring into the groove.



Cam Chain Tensioner Slipper Bolt