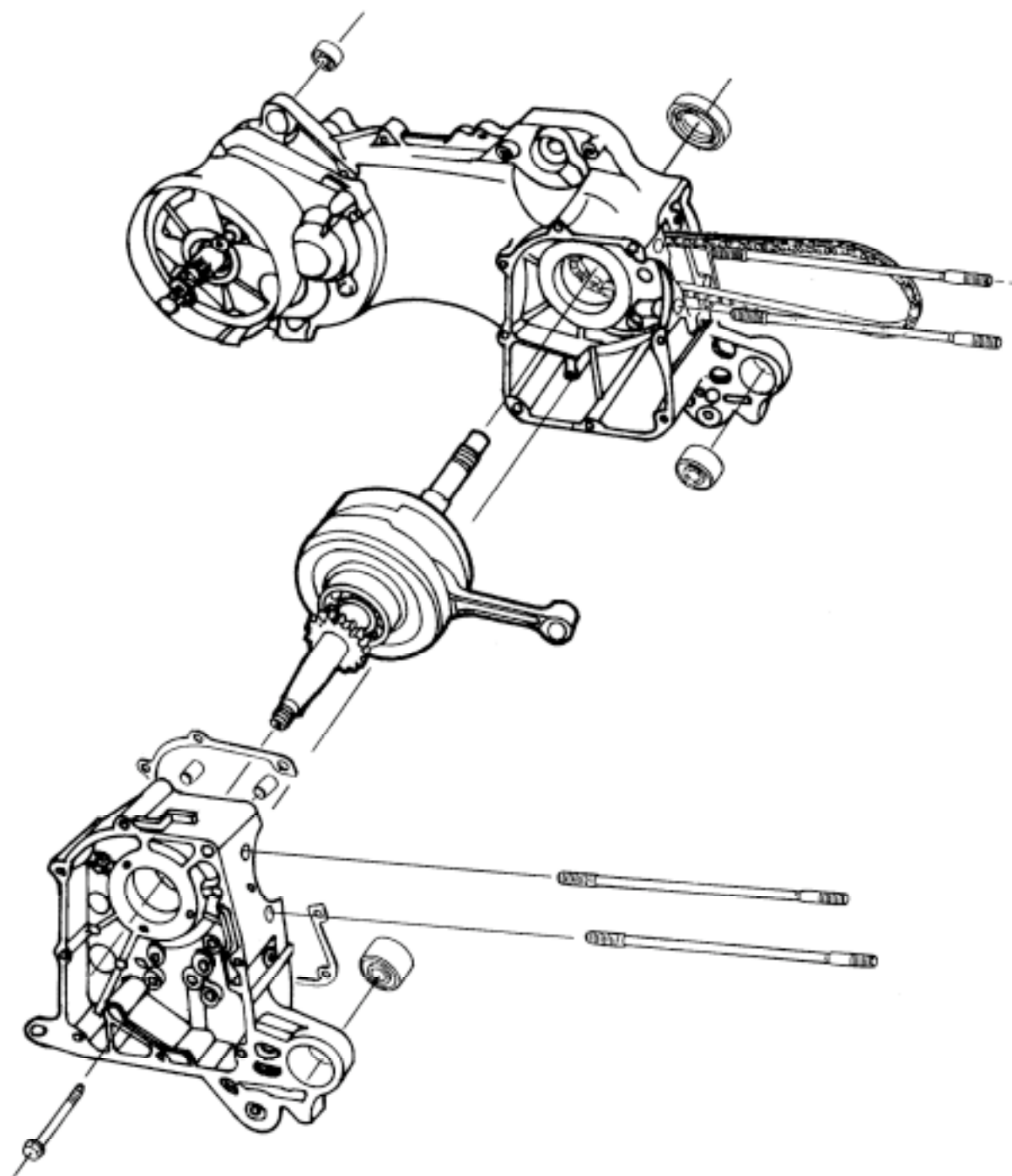


11. CRANKCASE/CRANKSHAFT



11

11. CRANKCASE/CRANKSHAFT

FILLY LX 50

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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

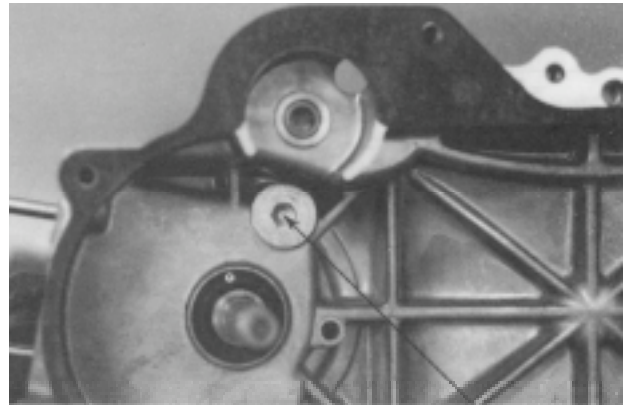
- Excessive bearing play
- Excessive crankpin bearing play

11. CRANKCASE/CRANKSHAFT

FILLY LX 50

CRANKCASE SEPARATION

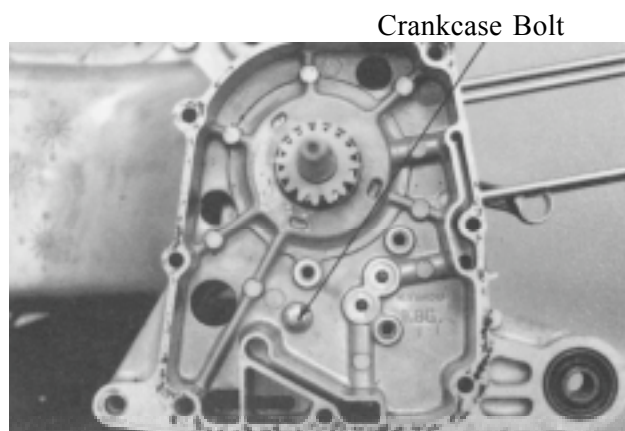
Remove the cam chain tensioner slipper bolt and cam chain tensioner slipper.



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.



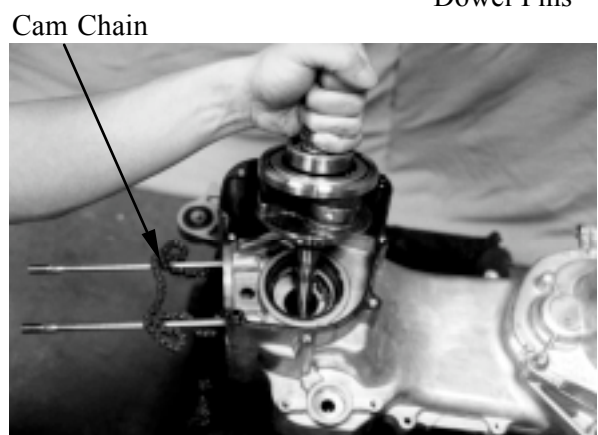
Crankcase Bolt

Remove the gasket and dowel pins.



Dowel Pins

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



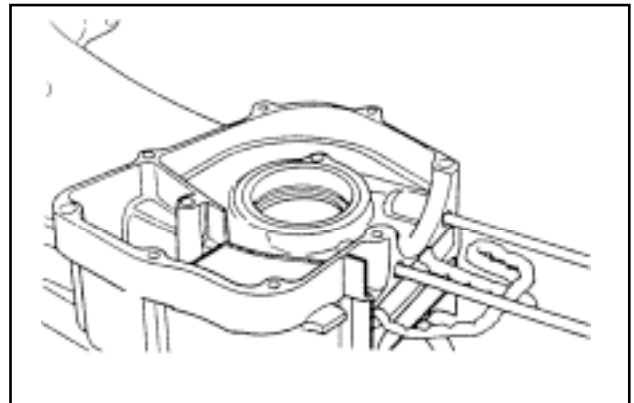
Cam Chain

11. CRANKCASE/CRANKSHAFT

FILLY LX 50

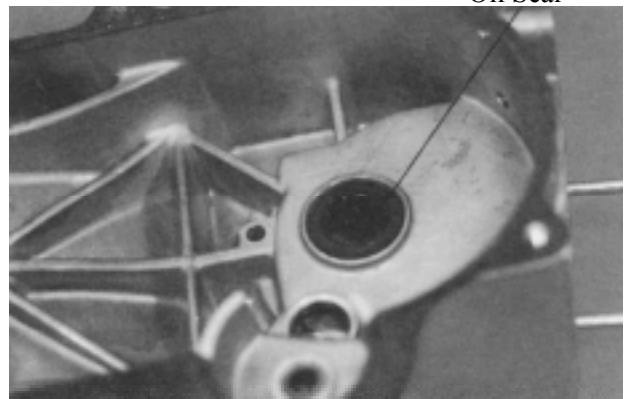
Clean off all gasket material from the crankcase mating surfaces.

- * Avoid damaging the crankcase mating surfaces.



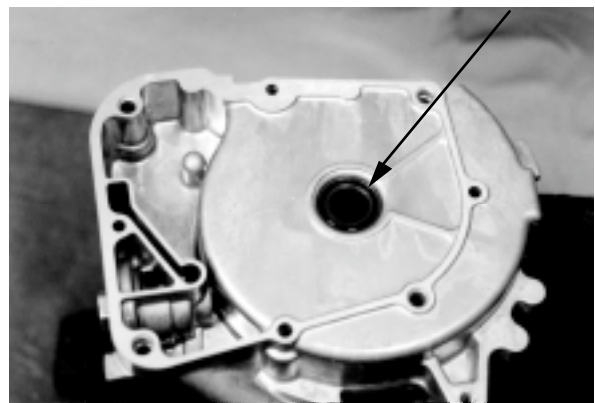
Remove the oil seal from the left crankcase.

Oil Seal



Remove the oil seal from the right crankcase.

Oil Seal



CRANKSHAFT

Measure the connecting rod big end side clearance.

Service Limit: 0.55mm replace if over



Connecting Rod Big End

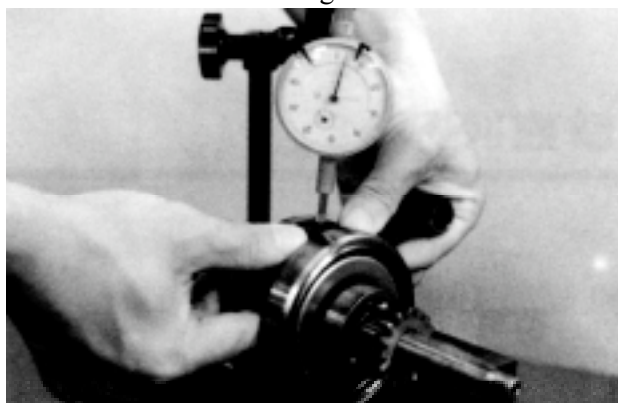
11. CRANKCASE/CRANKSHAFT

FILLY LX 50

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

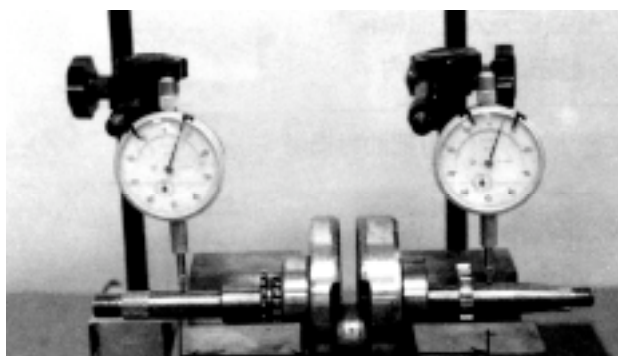
Service Limit: 0.05mm replace if over

Measuring Location



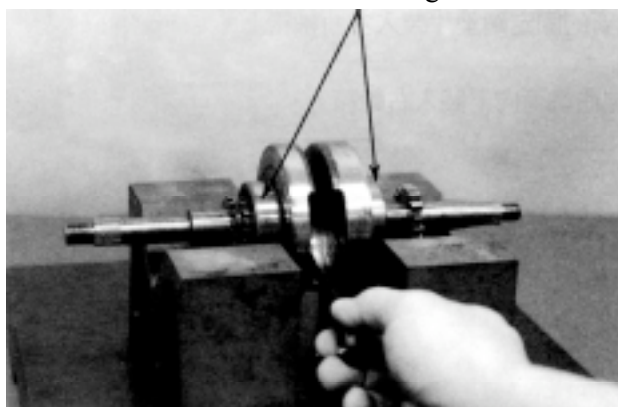
Measure the crankshaft runout.

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.

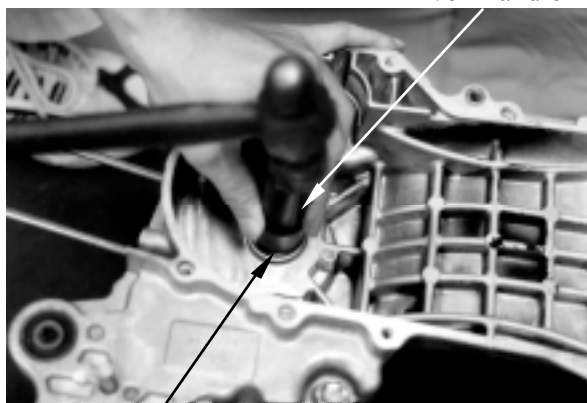
Crankshaft Bearings



CRANKCASE ASSEMBLY

Install new oil seals into the right and left crankcase .

Driver Handle A



Outer Driver

11. CRANKCASE/CRANKSHAFT

FILLY LX 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.

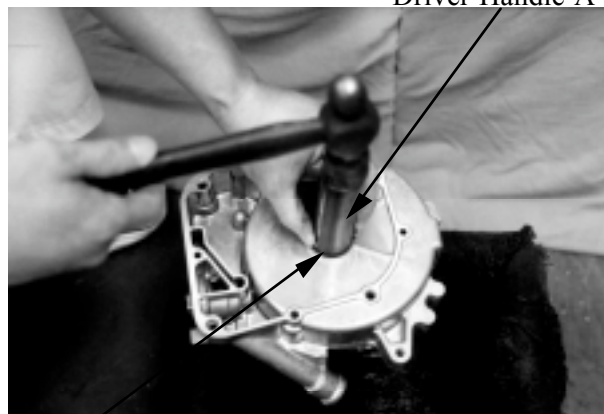
Install the dowel pins and a new gasket onto the left crankcase.

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

Tighten the crankcase attaching bolt.

Torque: 0.8~1.2kgf-m

Driver Handle A



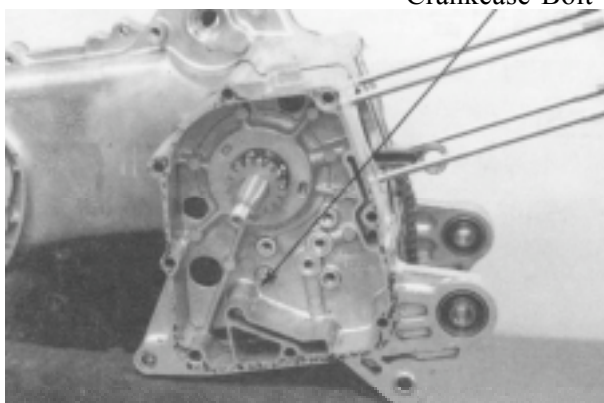
Outer Driver
Cam Chain



Gasket



Dowel Pins
Crankcase Bolt

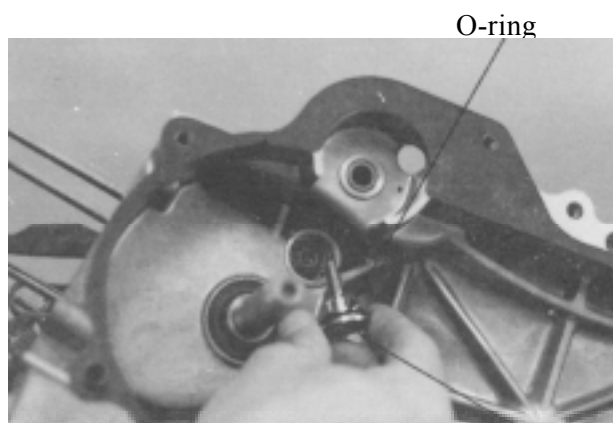


11. CRANKCASE/CRANKSHAFT

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