

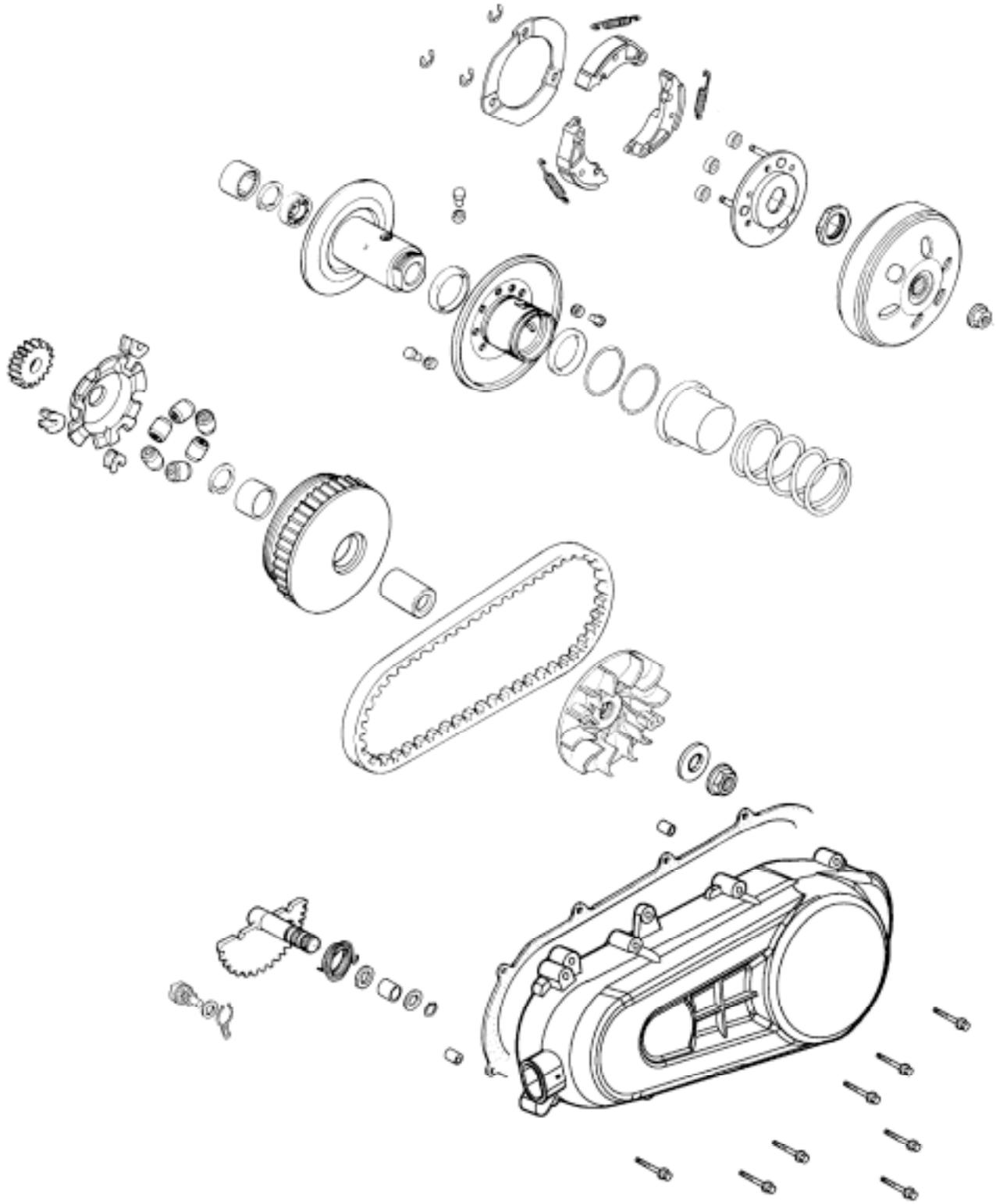
8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

DRIVE AND DRIVEN PULLEYS/ KICK STARTER

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8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

SCHEMATIC DRAWING



8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

SERVICE INFORMATION

GENERAL INSTRUCTIONS

- The drive pulley, clutch and driven pulley can be serviced with the engine installed.
- Avoid getting grease and oil on the drive belt and pulley faces. Remove any oil or grease from them to minimize the slipping of drive belt and drive pulley.

SPECIFICATIONS

Item	Standard (mm)	Service Limit (mm)
Movable drive face bushing I.D.	33.000_ 33.025	33.06
Drive face collar O.D.	32.006_ 32.009	31.90
Drive belt width	19.0	17.5
Clutch lining thickness	3.963_ 4.037	2.0
Clutch outer I.D.	130.0_ 130.2	130.5
Driven face spring free length	88.3	83.2
Driven face O.D.	33.965_ 33.985	33.94
Movable driven face I.D.	34.00_ 34.025	34.06
Weight roller O.D.	16.99_ 17.00	16.00

TORQUE VALUES

Drive face nut	49.0_	58.8N-m
Clutch outer nut	49.0_	58.8N-m
Clutch drive plate nut	49.0_	58.8N-m

SPECIAL TOOLS

Universal holder	Clutch spring compressor
Bearing driver	Lock nut wrench, 39mm
	Kick starter spring remover

TROUBLESHOOTING

Engine starts but motorcycle won't move

- Worn drive belt
- Broken ramp plate
- Worn or damaged clutch lining
- Broken driven face spring

Lack of power

- Worn drive belt
- Weak driven face spring
- Worn weight roller
- Faulty driven face

Engine stalls or motorcycle creeps

- Broken clutch weight spring

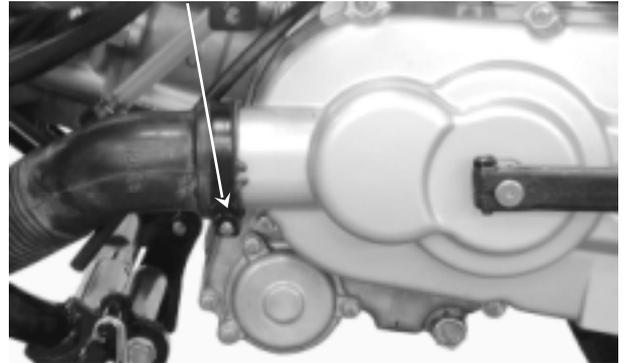
8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

LEFT CRANKCASE COVER

REMOVAL

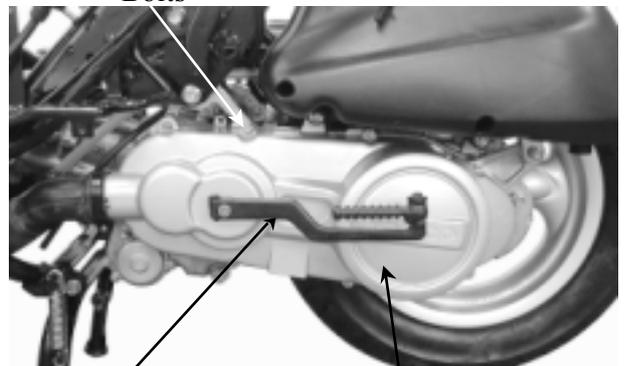
Loosen the drive belt air tube band screw.

Air Tube Band



Remove the left crankcase cover bolts and left crankcase cover.
Remove the seal rubber and dowel pins.

Bolts



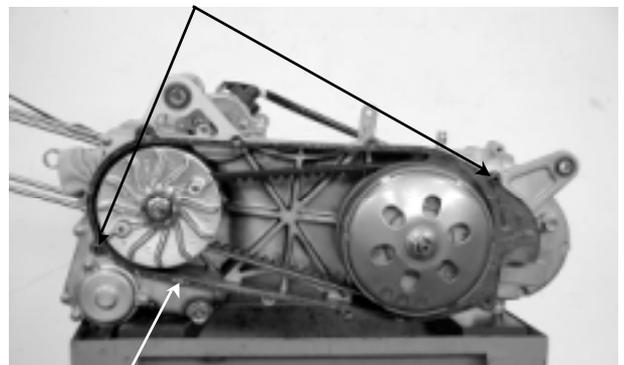
Kick Lever

Left Crankcase Cover

INSTALLATION

Install the dowel pins and the gasket.

Dowel Pins



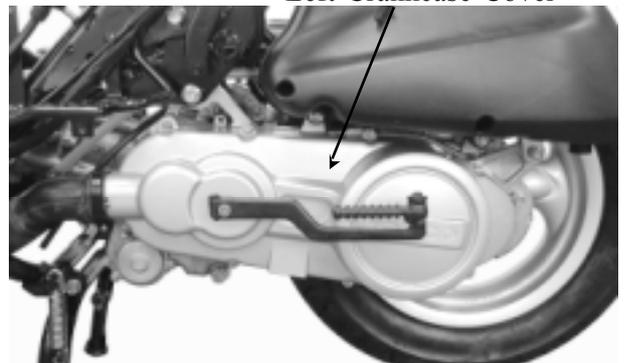
Gasket

Install the left crankcase cover.

- * Do not pull out the kick starter spindle. Press in the kick starter spindle when installing the left crankcase cover.

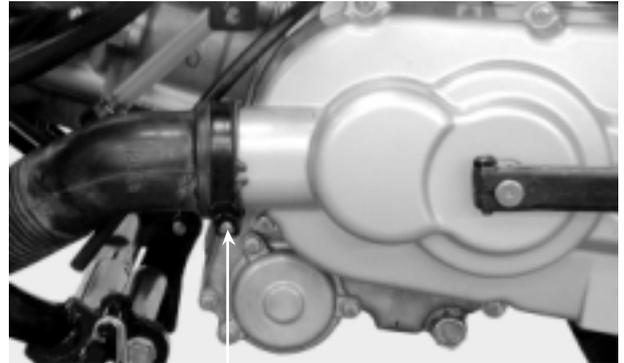
Install the cable clamp to the specified location. Install and tighten the left crankcase cover bolts.

Left Crankcase Cover



8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Install the drive belt air tube and tighten the tube band screw.



Tube Band Screw

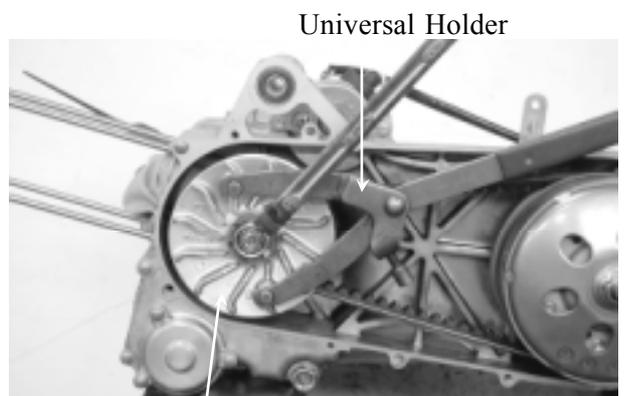
DRIVE PULLEY

REMOVAL

Remove the left crankcase cover.
Hold the drive pulley using an universal holder and remove the drive face nut and washer.
Remove the drive pulley face.

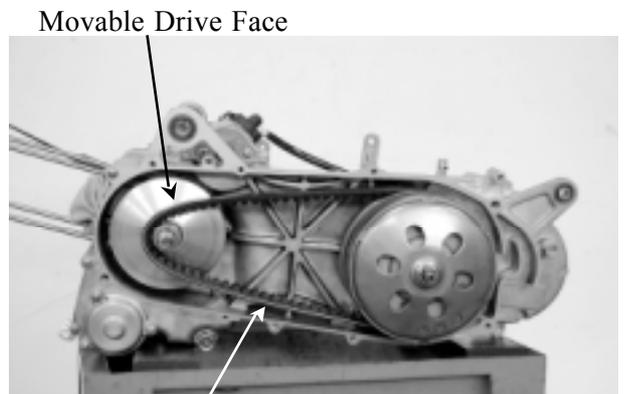
Special

Universal Holder



Drive Pulley Face

Remove the drive belt from the movable drive face.



Drive Belt

INSPECTION

Check the drive belt for cracks, separation or abnormal or excessive wear.
Measure the drive belt width.

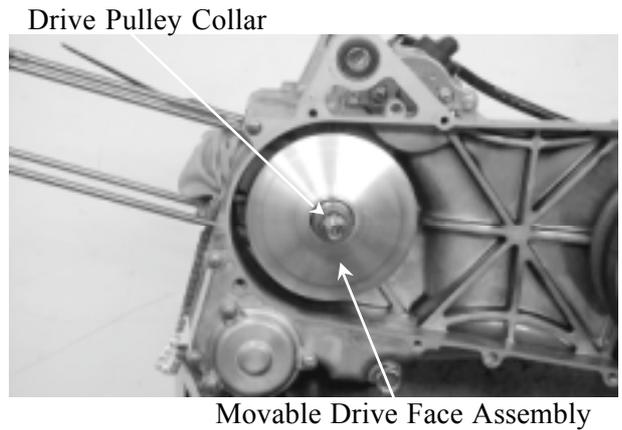
Service Limit: 17.5mm replace if below

- * Use specified genuine parts for replacement.



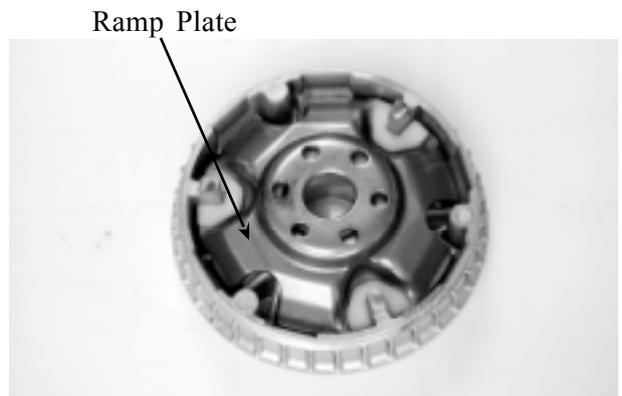
8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Remove the movable drive face assembly.
Remove the drive pulley collar.

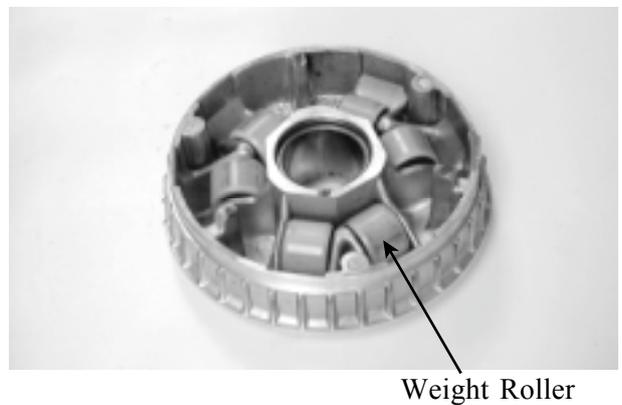


DISASSEMBLY

Remove the ramp plate.



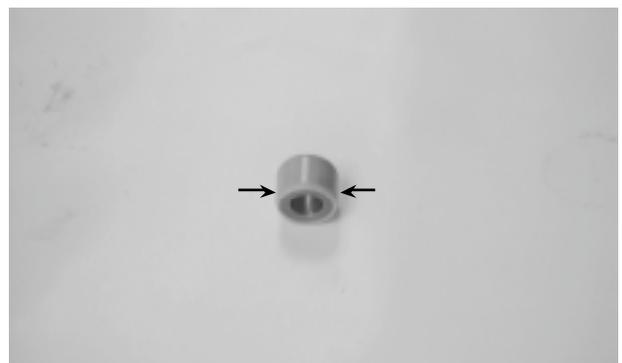
Remove the weight rollers.



INSPECTION

Check each weight roller for wear or damage.
Measure each weight roller O.D.

Service Limit: 16.00mm replace if below



8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Measure the movable drive face bushing assembly I.D.

Service Limit: 27.20mm replace if over

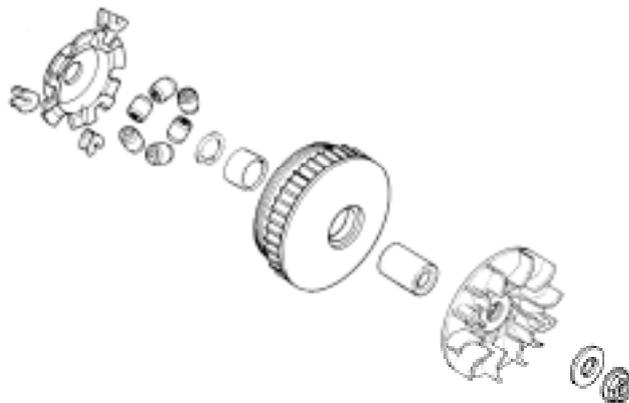


Check the drive pulley collar for wear or damage.
Measure the O.D. of the drive pulley collar sliding surface.

Service Limit: 26.90mm replace if below



ASSEMBLY



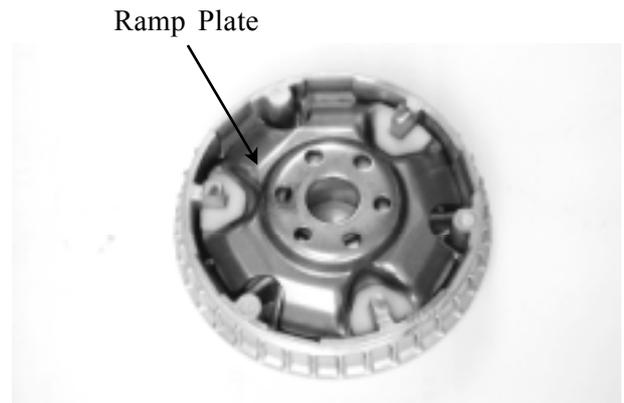
Install the weight rollers into the movable drive face.



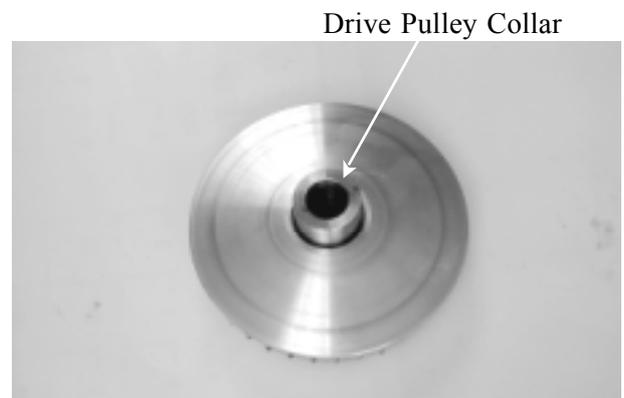
Weight Roller

8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Install the ramp plate.

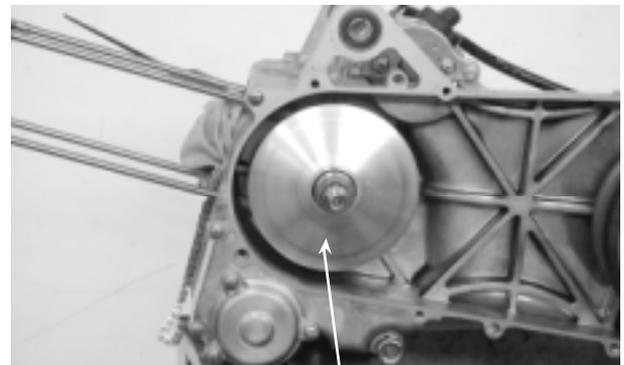


Insert the drive pulley collar into the movable drive face.

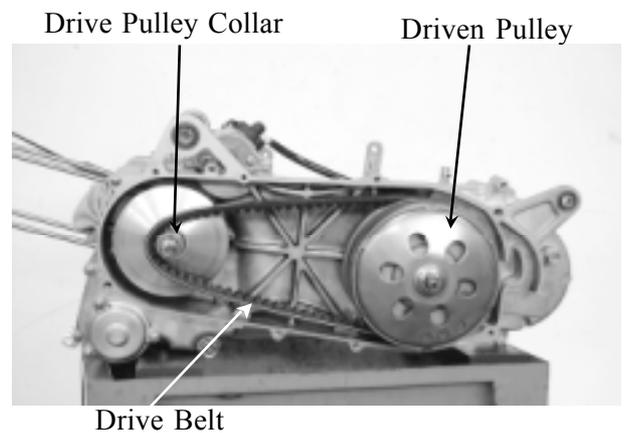


INSTALLATION

Install the movable drive face onto the crankshaft.

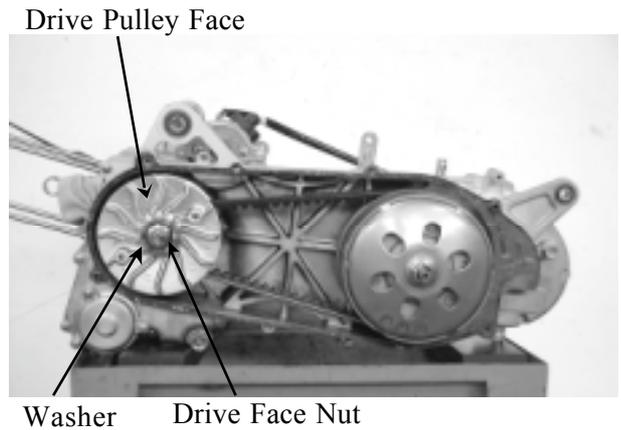


Lay the drive belt on the driven pulley.
Set the drive belt on the drive pulley collar.



8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Install the drive pulley face, washer and drive face nut.



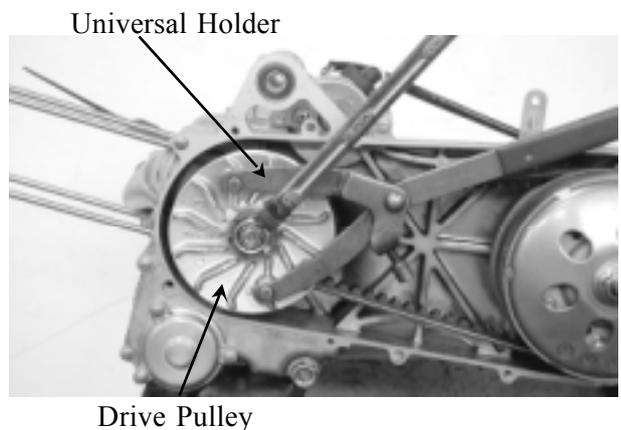
Hold the drive pulley with the universal holder and tighten the drive face nut.

Torque: 49.0_ 58.5N-m

Special

Universal Holder

- * Do not get oil or grease on the drive belt or drive pulley faces.



CLUTCH/DRIVEN PULLEY

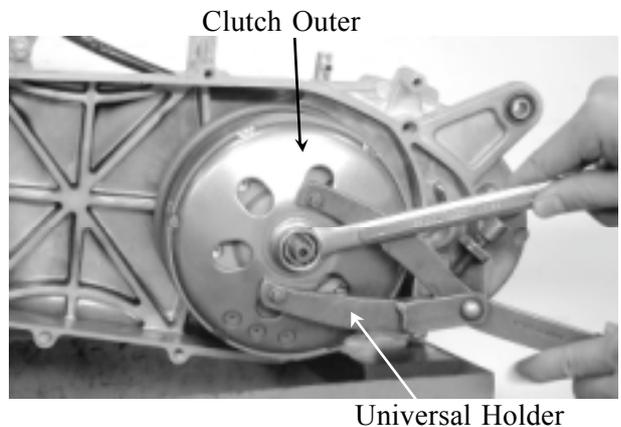
Remove the left crankcase cover. (⇒8-3)
Remove the drive pulley and drive belt. (⇒8-4)

Hold the clutch outer with the universal holder and remove the clutch outer nut.

Special

Universal Holder

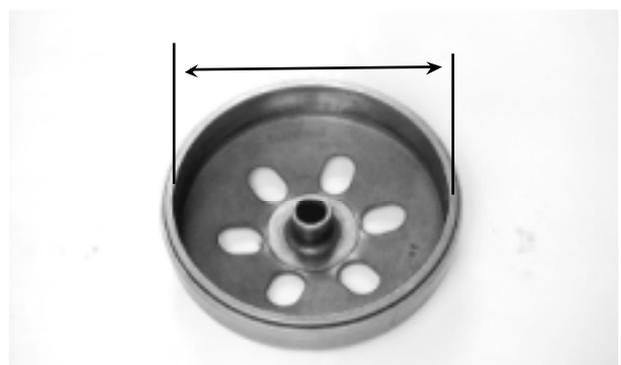
Remove the clutch outer.



INSPECTION

Inspect the clutch outer for wear or damage.
Measure the clutch outer I.D.

Service Limit: 130.5mm replace if over



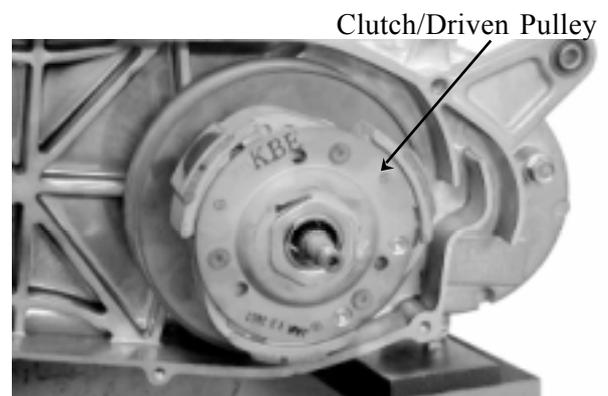
8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Check the clutch shoes for wear or damage.
Measure the clutch lining thickness.

Service Limit: 2.0mm replace if below



CLUTCH/DRIVEN PULLEY DISASSEMBLY



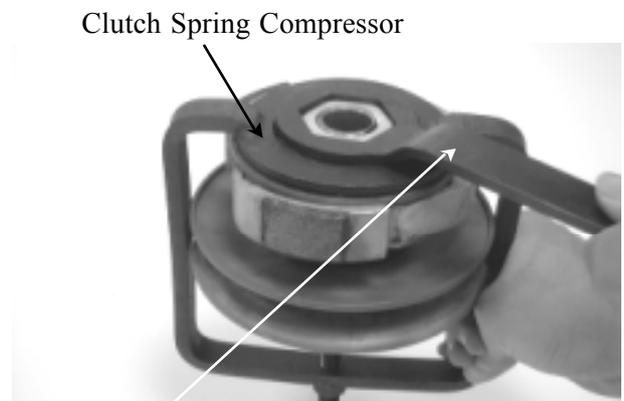
Hold the clutch/driven pulley assembly with
the clutch spring compressor.

- * Be sure to use a clutch spring compressor to avoid spring damage.

Special

Clutch Spring Compressor

Set the tool in a vise and remove the clutch
drive plate nut.



Lock Nut Wrench

Special

Lock Nut Wrench, 39mm

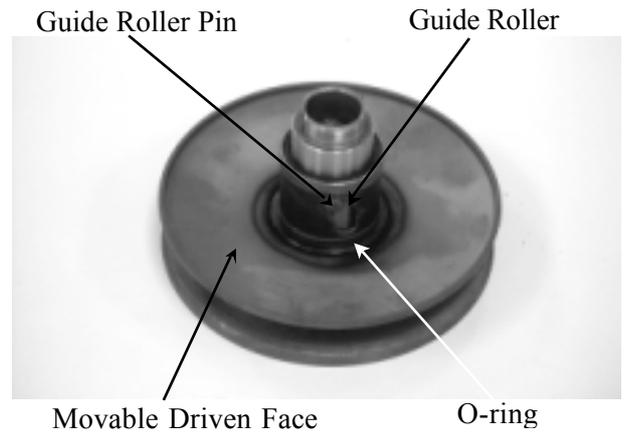
Loosen the clutch spring compressor and
disassemble the clutch/driven pulley
assembly.

Remove the seal collar.

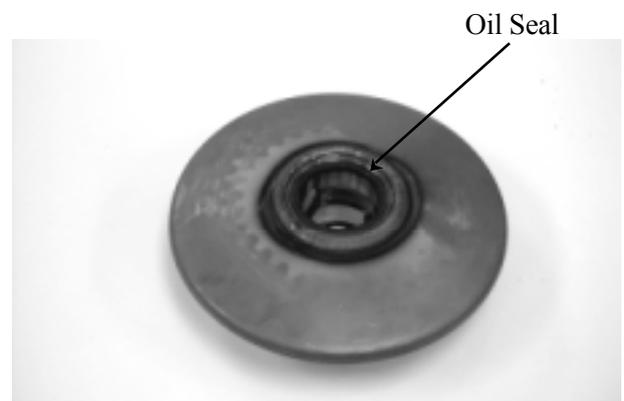


8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Pull out the guide roller pins and guide rollers.
Remove the movable driven face from the
driven face.

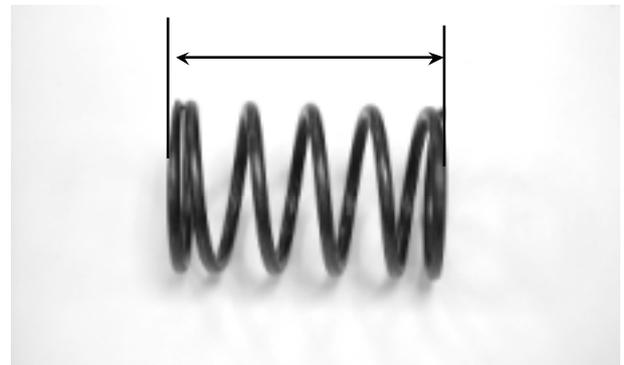


Remove the oil seal from the movable driven
face.

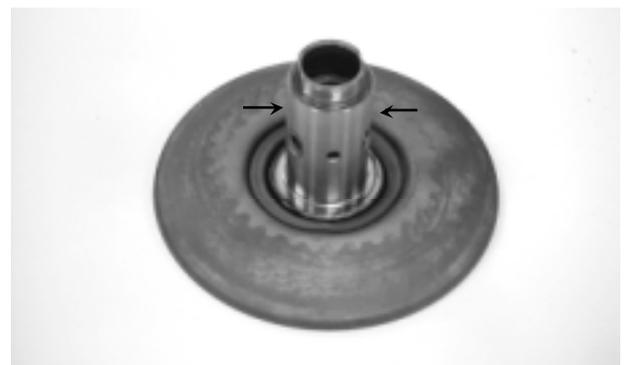


INSPECTION

Measure the driven face spring free length.
Service Limit: 83.2mm replace if below

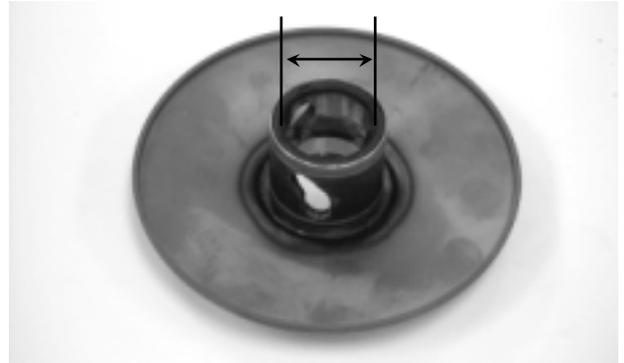


Check the driven face assembly for wear or
damage.
Measure the driven face O.D.
Service Limit: 33.94mm replace if below



8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

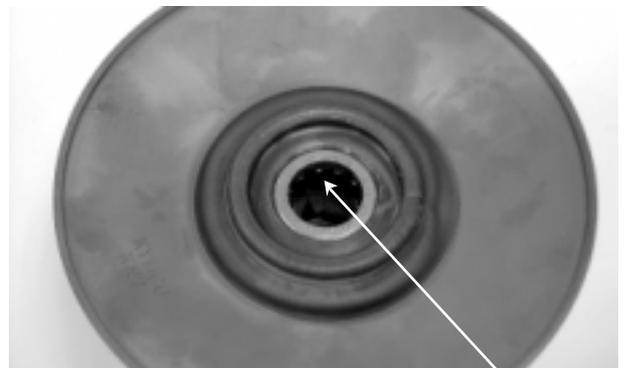
Check the movable driven face for wear or damage.
Measure the movable driven face I.D.
Service Limit: 34.06mm replace if over



DRIVEN PULLEY FACE BEARING REPLACEMENT

Check the bearings for play and replace them if they have excessive play.
Drive the inner needle bearing out of the driven pulley face.

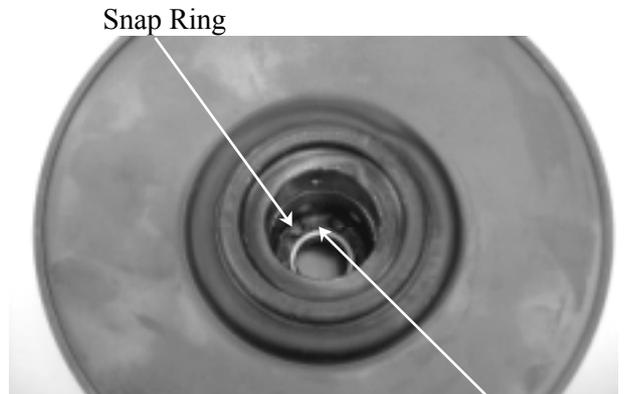
- * Discard the removed bearing and replace with a new one.



Inner Bearing

Remove the snap ring and drive the outer bearing out of the driven face.

- * Discard the removed bearing and replace with a new one.



Outer Bearing

Apply grease to the outer bearing.
Drive a new outer bearing into the driven face with the sealed end facing up.

Special

Bearing Driver

Seat the snap ring in its groove.
Apply grease to the driven face bore areas.

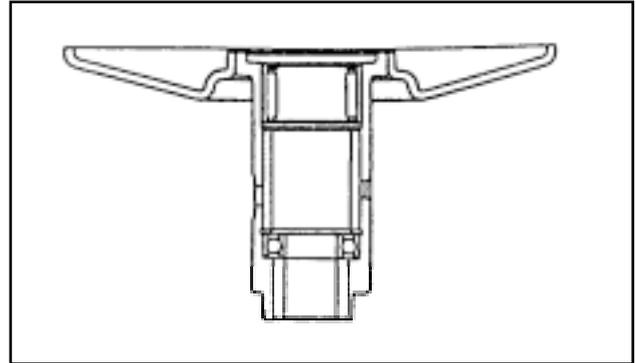
- * Pack all bearing cavities with 9_ 9.5g grease.

8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Press a new needle bearing into the driven face.

Special

Bearing Driver

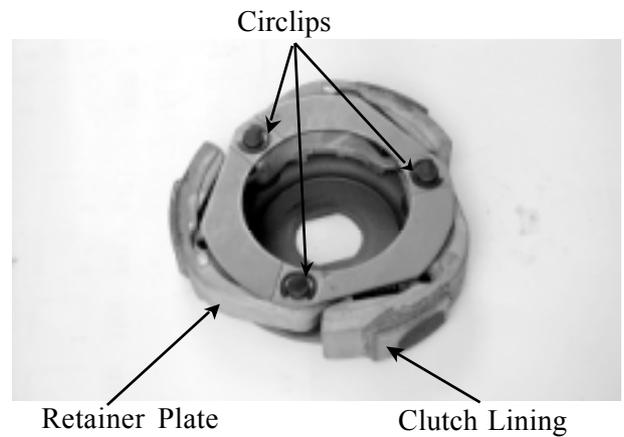


CLUTCH DISASSEMBLY

Remove the circlips and retainer plate to disassemble the clutch.

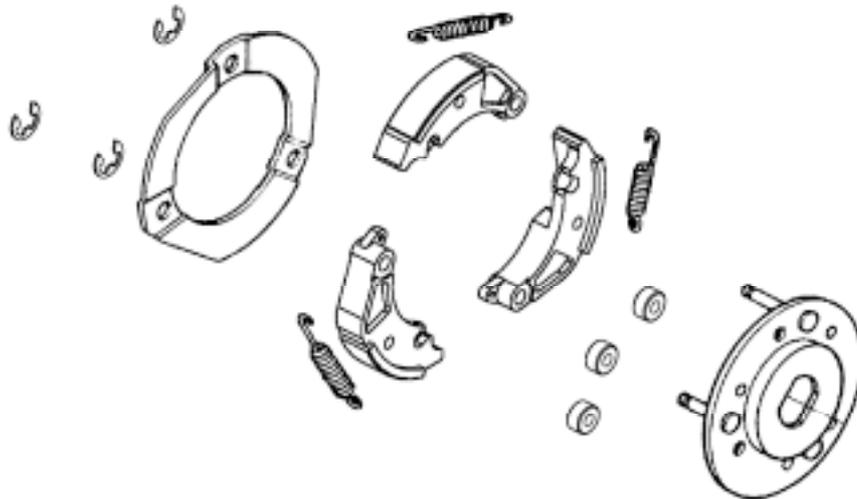
- *

• Keep grease off the clutch linings.

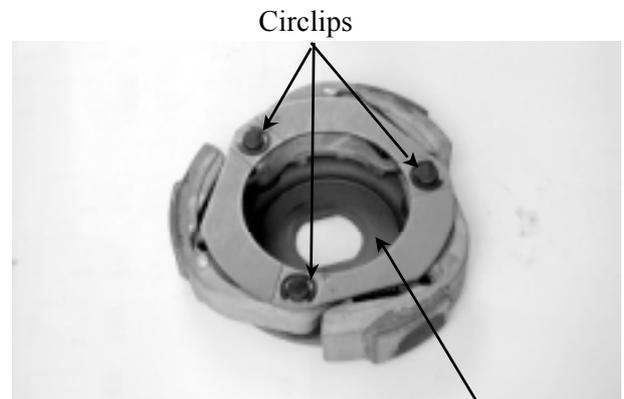


8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

CLUTCH ASSEMBLY

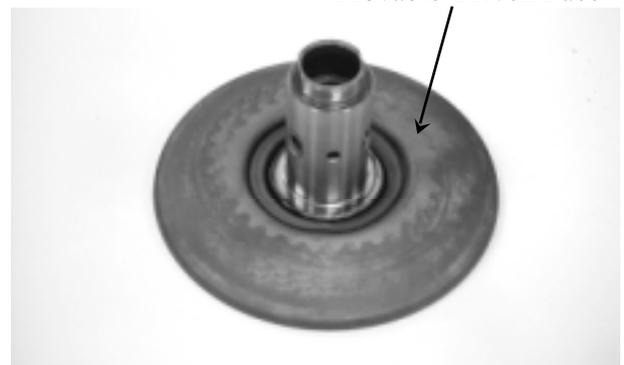


Install the damper rubbers on the drive plate pins.
Install the clutch weights/shoes and clutch springs onto the drive plate.
Install the retainer plate and secure with the circlips.



Drive Plate

Movable Driven Face

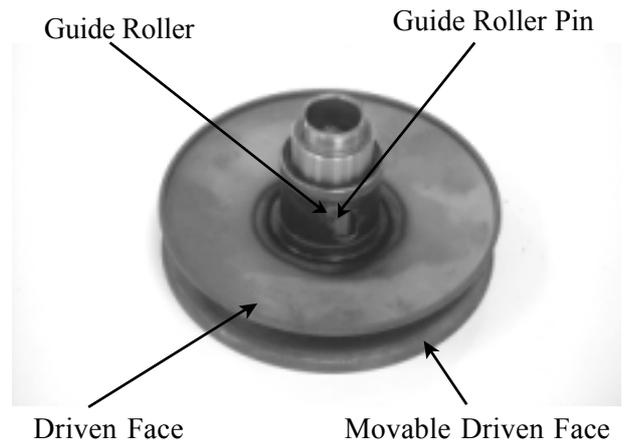


CLUTCH/DRIVEN PULLEY ASSEMBLY

Clean the pulley faces and remove any grease from them.
Apply grease to the O-rings and install them onto the moveable driven face.

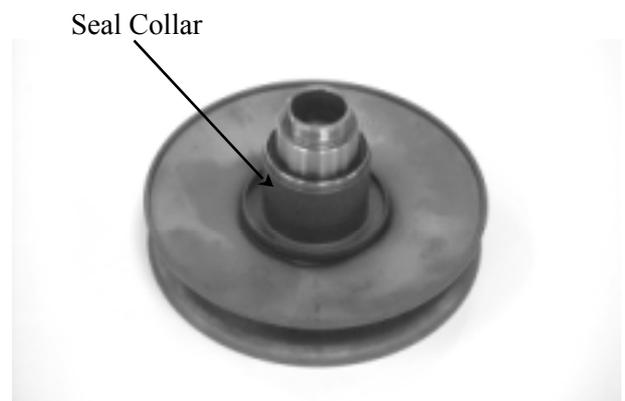
8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Install the movable driven face onto the driven face.
Apply grease to the guide rollers and guide roller pins and then install them into the holes of the driven face.



Install the seal collar.
Remove any excessive grease.

- * Be sure to clean the driven face off any grease.



Set the driven pulley assembly, driven face spring and clutch assembly onto the clutch spring compressor.

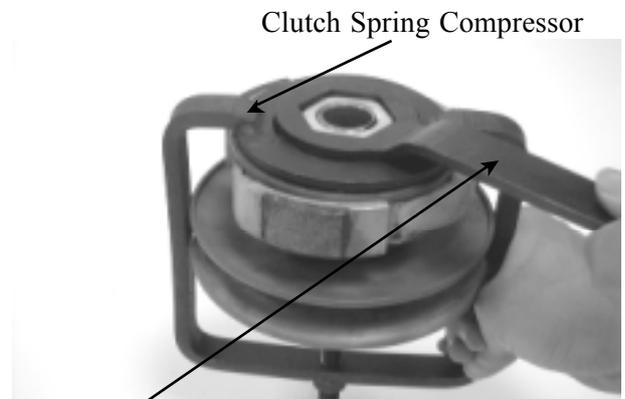
- * Align the flat surface of the driven face with the flat on the clutch drive plate.

Compress the tool and install the drive plate nut.

Set the tool in a vise and tighten the drive plate nut to the specified torque.

Torque: 49.0_ 58.8N-m

- * Be sure to use a clutch spring compressor to avoid spring damage.



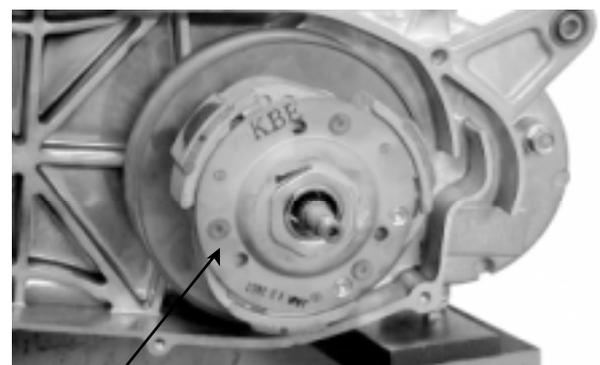
Special

Clutch Spring Compressor
Outer Driver, 32x35mm

INSTALLATION

Install the clutch/driven pulley onto the drive shaft.

- * Keep grease off the drive shaft.



Clutch/Driven Pulley

8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Install the clutch outer.
Hold the clutch outer with the universal
holder.

Install and tighten the clutch outer nut.

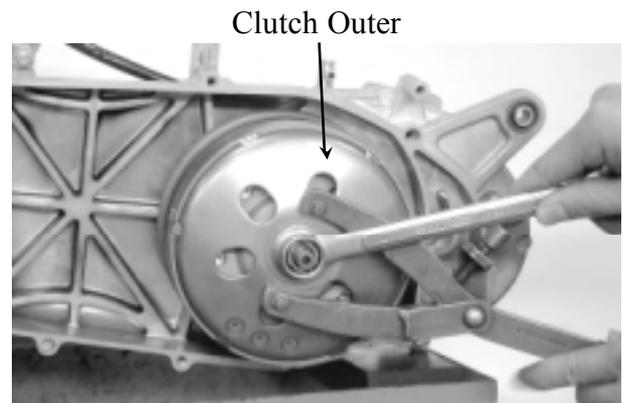
Torque: 49.0_ 58.8kg-m

Special

Universal Holder

Install the drive belt. (⇒8-7)

Install the left crankcase cover. (⇒8-3)



KICK STARTER

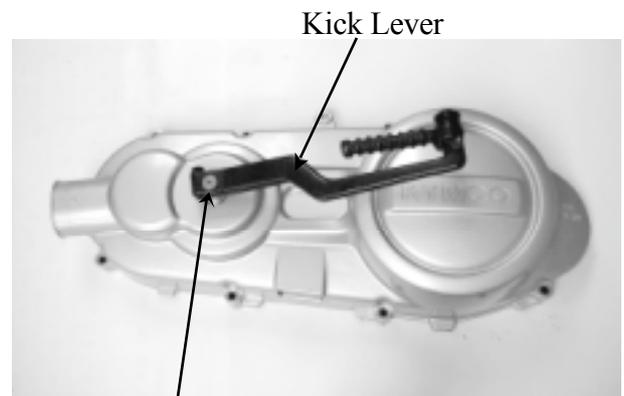
REMOVAL

Remove the left crankcase cover. (⇒8-3)

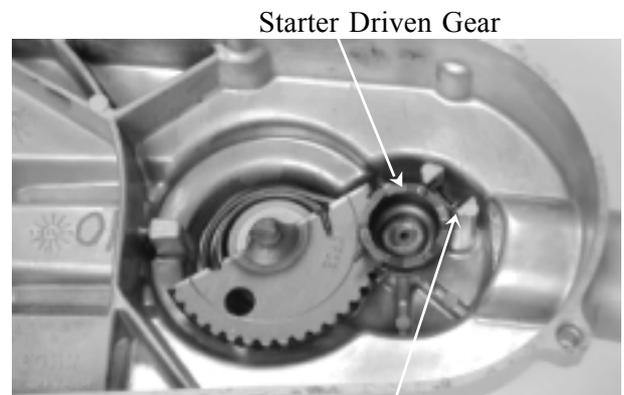
Remove the seal rubber and dowel pins.

Remove the kick lever.

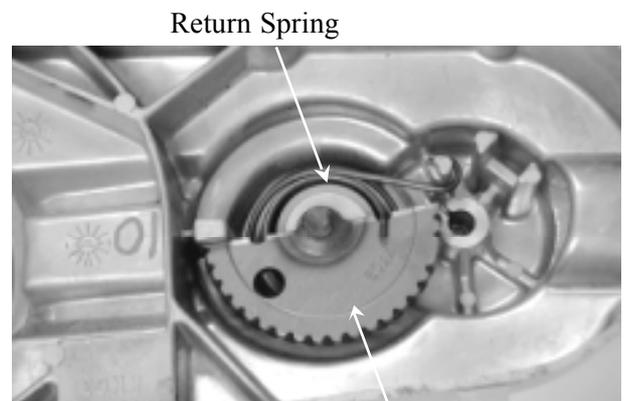
Remove the circlip and washer from the kick
starter spindle.



Gently turn the kick starter spindle to remove
the starter driven gear together with the
friction spring.



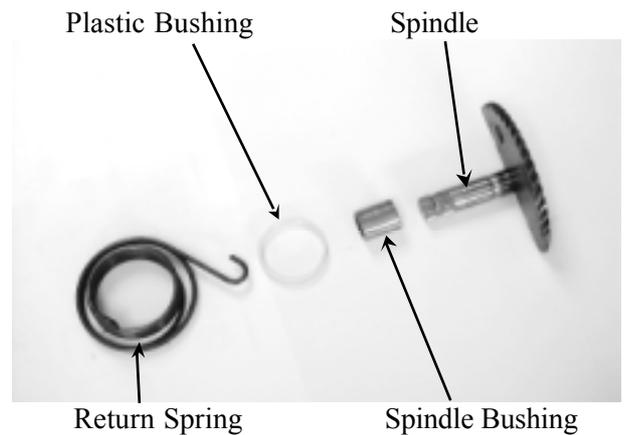
Remove the kick starter spindle and return
spring from the left crankcase cover.
Remove the kick starter spindle bushing.



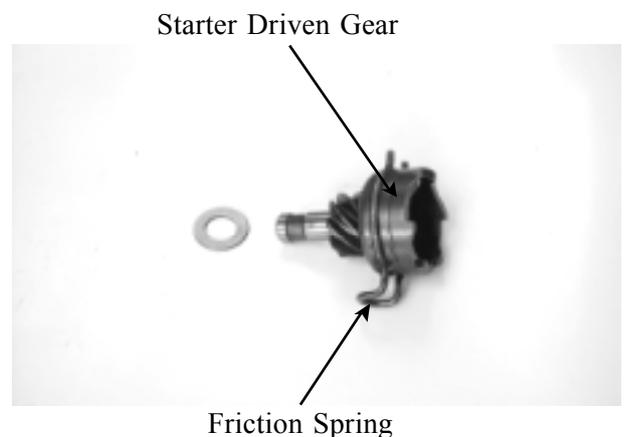
8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

INSPECTION

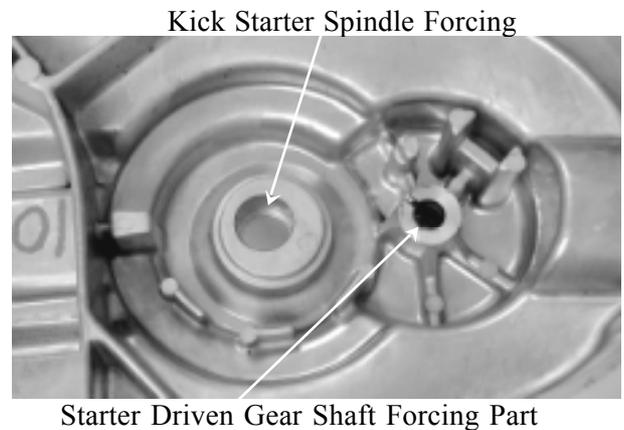
Inspect the kick starter spindle and gear for wear or damage.
Inspect the return spring for weakness or damage.
Inspect the kick starter spindle bushings for wear or damage.



Inspect the starter driven gear for wear or damage.
Inspect the friction spring for wear or damage.



Inspect the kick starter spindle and starter driven gear forcing parts for wear or damage.

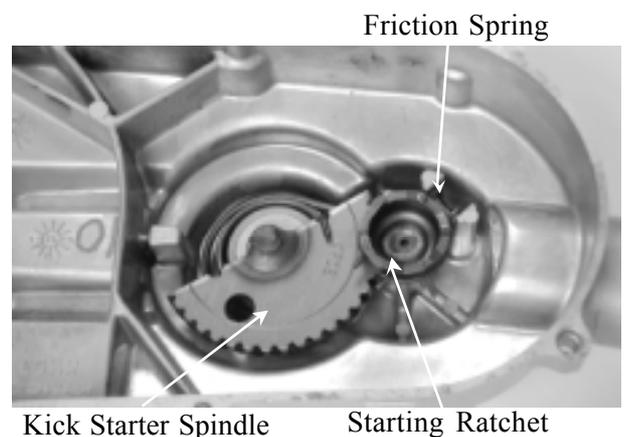


INSTALLATION

Install the kick starter spindle bushings and return spring onto the left crankcase cover.

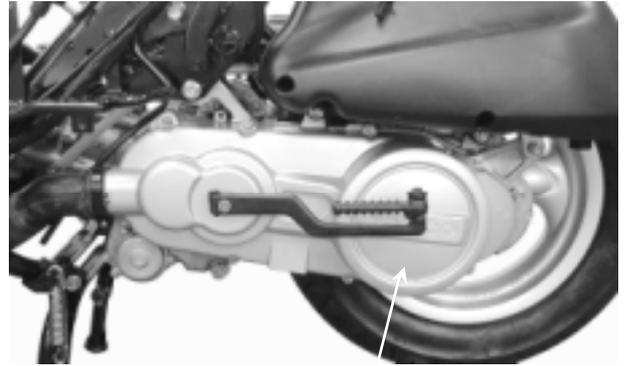
* When installing the return spring, use a screw driver to press the inward and outward return spring hooks into their original positions respectively.

Install the starter driven gear and friction spring as the figure shown.



8. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Install the kick lever.
Install the left crankcase cover and tighten the cover bolts diagonally.
Connect the drive belt air tube and tighten the band screw.



Left Crankcase Cover

LEFT CRANKCASE COVER BEARING INSPECTION

Inspect the bearing into the left crankcase cover for loose, wear or damage.
If any abnormal problem is found, replace the bearing with a new one.

