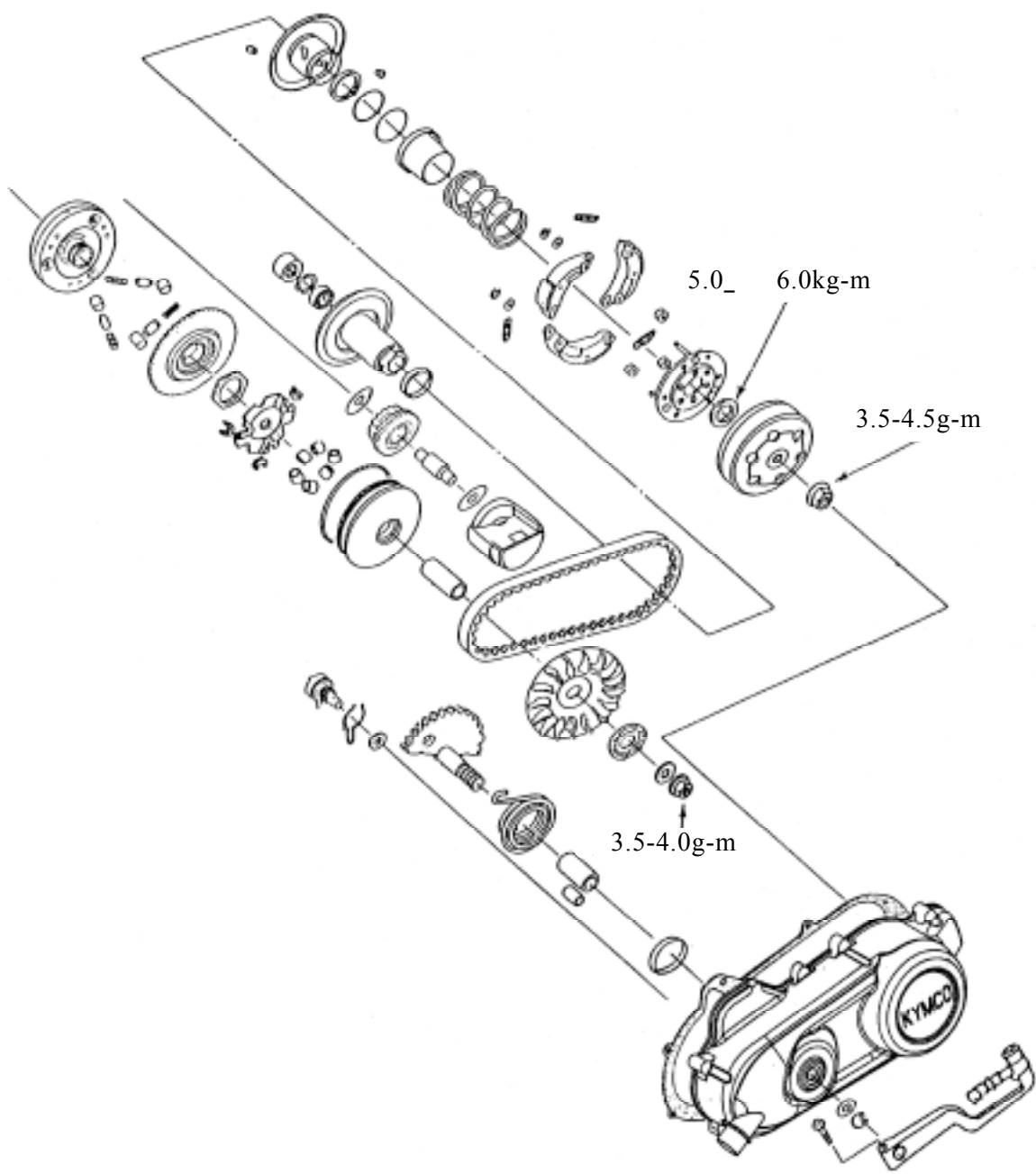


9. DRIVE AND DRIVEN PULLEYS/  
KICK STARTER



9

## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

FILLY LX 50

SERVICE INFORMATION .....	9-1	DRIVE BELT .....	9-5
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### 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.	23.989~24.025	24.06
Drive face collar O.D.	23.960~23.974	23.94
Drive belt width	17.5	16.5
Clutch lining thickness	□	1.5
Clutch outer I.D.	107.0-107.2	107.5
Driven face spring free length	□	154.6
Driven face O.D.	33.965-33.485	33.94
Movable driven face I.D.	34.0-34.025	34.06
Weight roller O.D.	15.920~16.080	15.4

#### TORQUE VALUES

Drive face nut	5.5~6.5kgf-m
Clutch outer nut	3.5~4.5kgf-m
Clutch drive plate nut	5.0-6.0kg-m

#### SPECIAL TOOLS

Universal holder

Clutch spring compressor

### TROUBLESHOOTING

#### Engine starts but motorcycle won't move

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

#### Engine stalls or motorcycle creeps

- Broken clutch weight spring

#### Lack of power

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

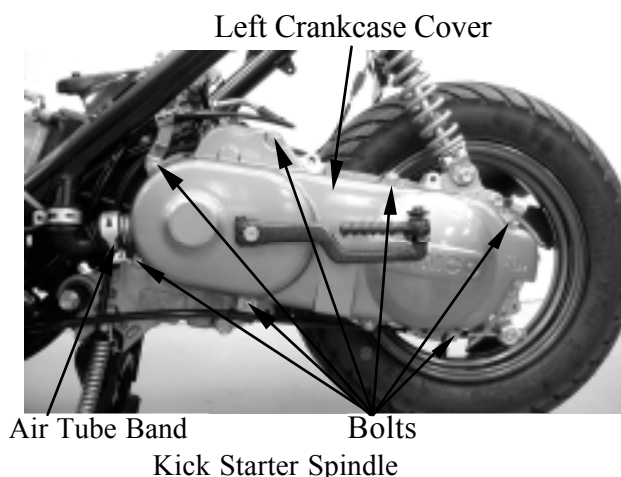
## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

### LEFT CRANKCASE COVER

#### REMOVAL

Loosen the drive belt air tube band screw.  
Remove the eight left crankcase cover bolts and left crankcase cover.  
Remove the seal rubber and dowel pins.  
Inspect the seal rubber for damage or deterioration.

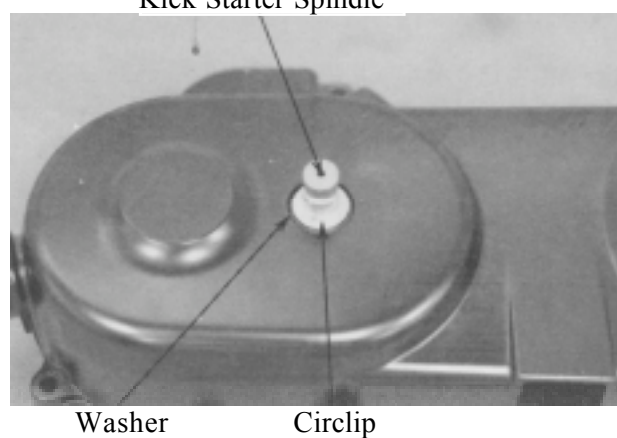
\* Use specified genuine parts for replacement.



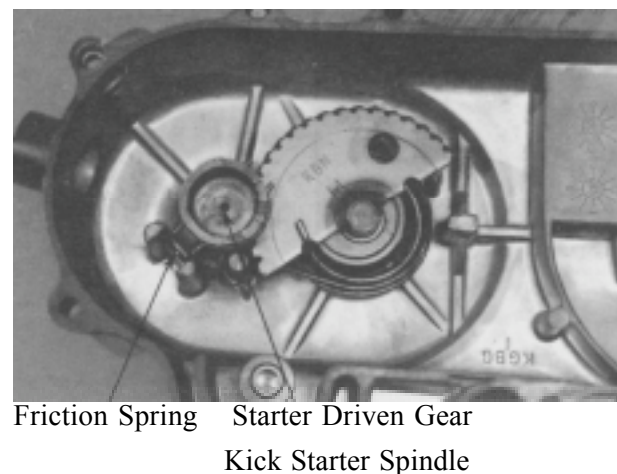
### KICK STARTER

#### REMOVAL

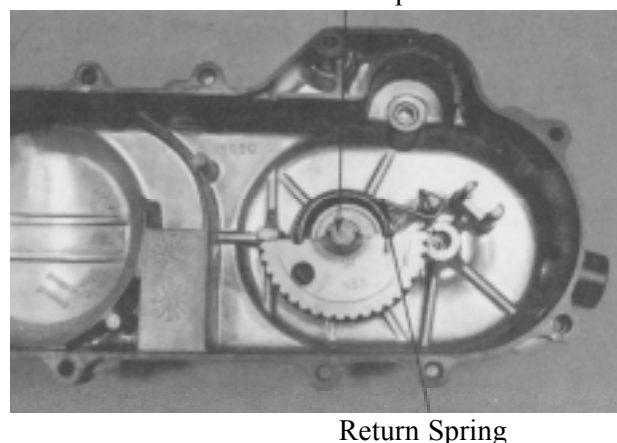
Remove the kick lever from the kick starter spindle.  
Remove the circlip and washer from the kick starter spindle.



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 bushings.



## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

### INSPECTION

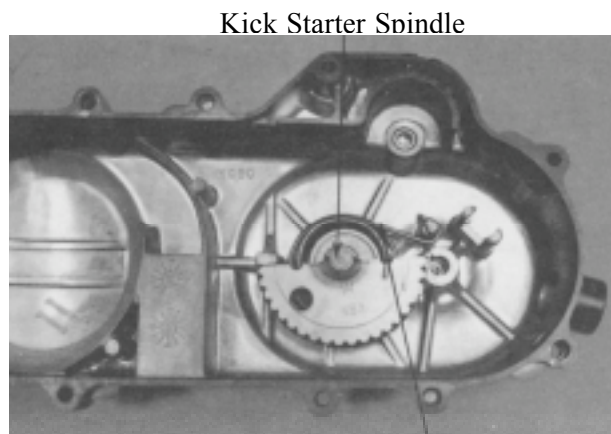
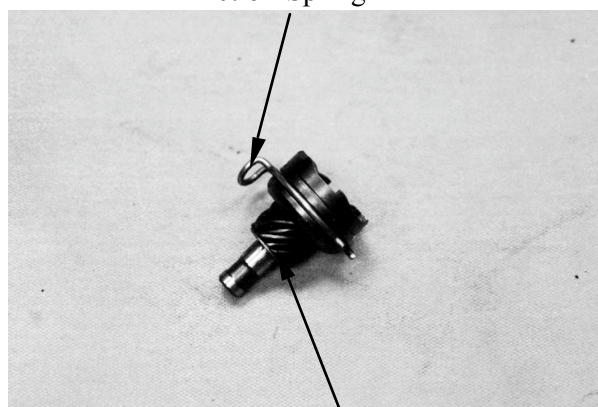
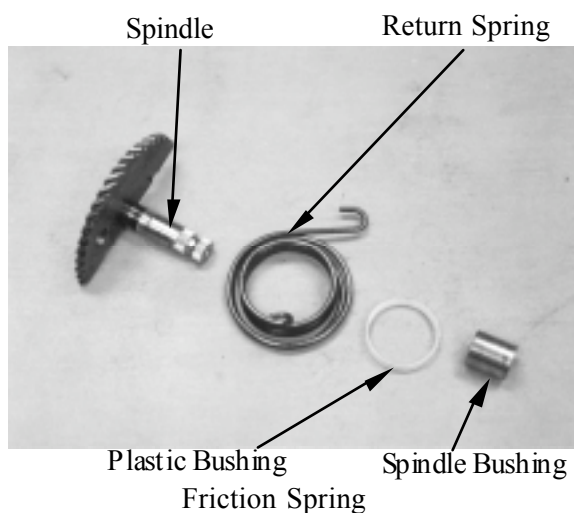
Inspect the kick starter spindle and gear for wear or damage.  
Inspect the return spring for weakness or damage.  
Inspect the kick starter spindle bushings for wear or damage.

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.

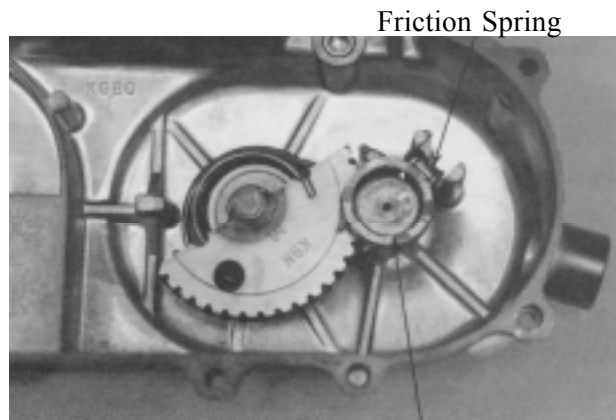
### INSTALLATION

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



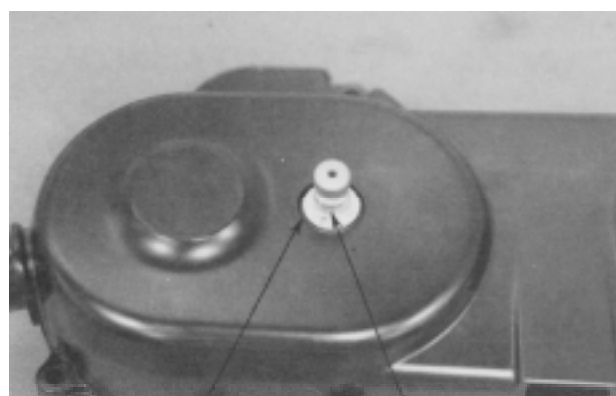
## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Install the starter driven gear and friction spring onto the left crankcase cover as the figure shown.



Starter Driven Gear

First install the washer and then install the circlip.  
Install the kick lever.

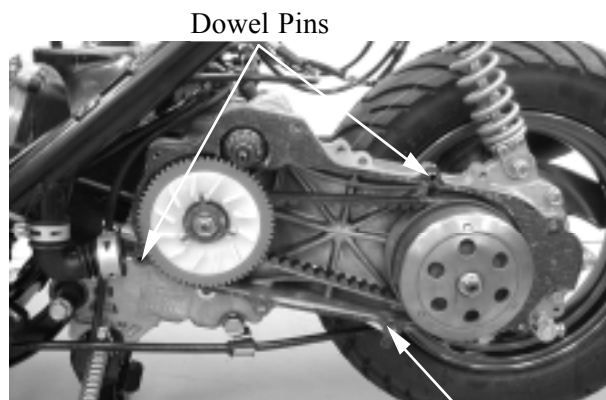


Washer

Circlip

### LEFT CRANKCASE COVER INSTALLATION

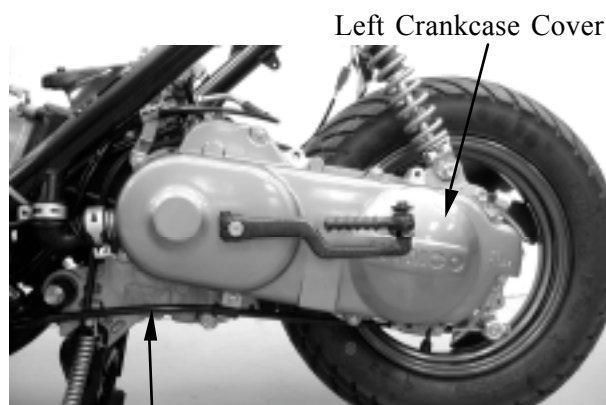
First install the dowel pins.  
Install the seal rubber.



Dowel Pins

Seal Rubber

Install the left crankcase cover and tighten the eight left crankcase cover bolts diagonally.  
Connect the drive belt air tube and tighten the tube band screw.  
Install the rear brake cable clamp.



Left Crankcase Cover

Rear Brake Cable Clamp



## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

### DRIVE BELT

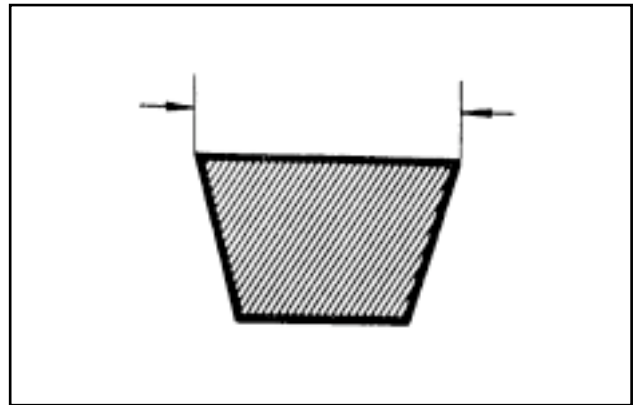
#### REMOVAL

Remove the left crankcase cover.

#### INSPECTION

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

**Service Limit:** 16.5mm



#### REPLACEMENT

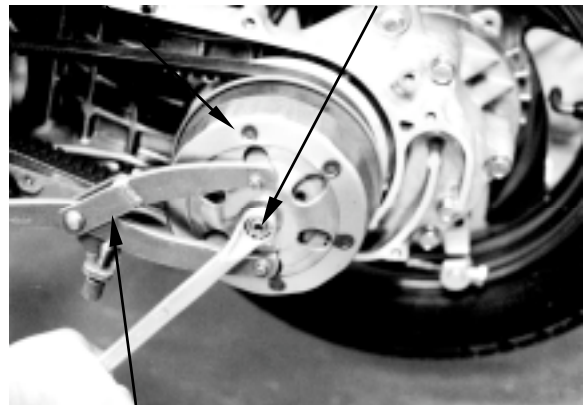
Remove the eight left crankcase cover bolts and left crankcase cover. (⇒9-2)  
Hold the clutch outer with an universal holder and remove the clutch outer nut.



Universal Holder

Clutch Outer

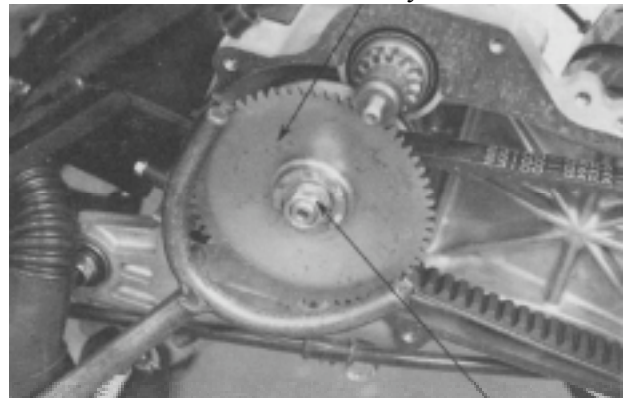
Nut



Universal Holder

Hold the drive pulley using a holder and remove the drive face nut, starting ratchet and washer.  
Remove the drive pulley face.

Drive Pulley Face



Drive Face Nut

Clutch/Driven Pulley

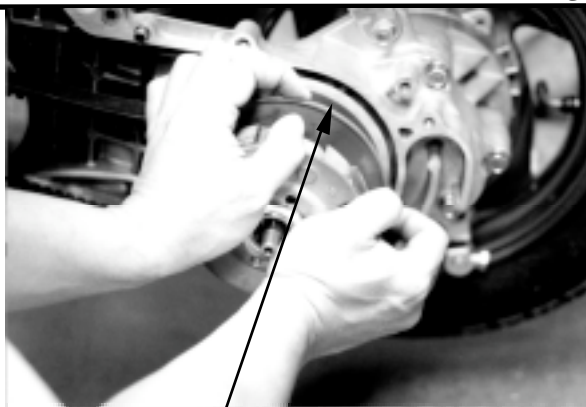
Remove the drive belt from the clutch/driven pulley.



## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

### INSTALLATION

Turn the driven pulley clockwise to widen the drive belt groove and lay a new drive belt on the driven pulley.

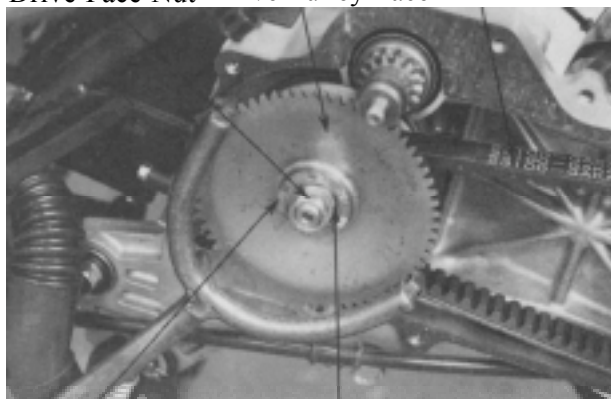


Drive Belt

Set the drive belt on the drive pulley face collar.  
Install the drive pulley face, starting ratchet washer. Install and tighten the drive face nut.

- \* When installing, align the tooth space of the drive pulley face and starting ratchet with the crankshaft tooth and then tighten the nut.

Drive Face Nut Drive Pulley Face Drive Belt



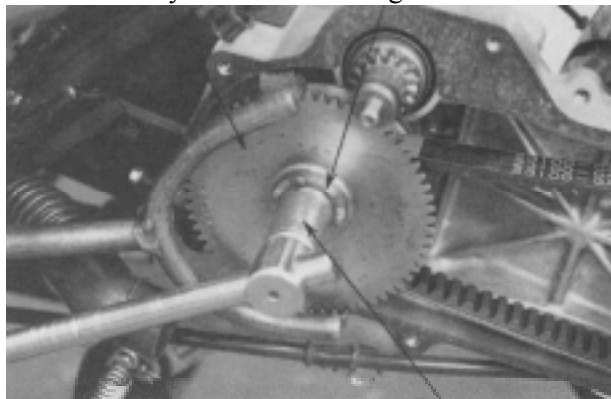
Starting Ratchet 10mm Washer

Drive Pulley Face Starting Ratchet

### DRIVE PULLEY

#### REMOVAL

Hold the drive pulley using a holder and remove the drive face nut, starting ratchet and washer.  
Remove the drive pulley face.

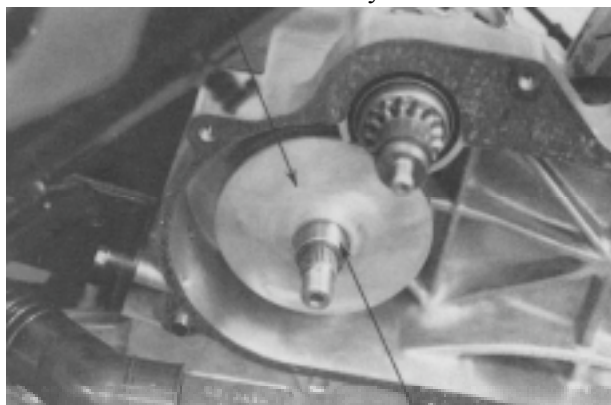


Drive Face Nut (10mm)

Movable Drive Face Assembly

#### DISASSEMBLY

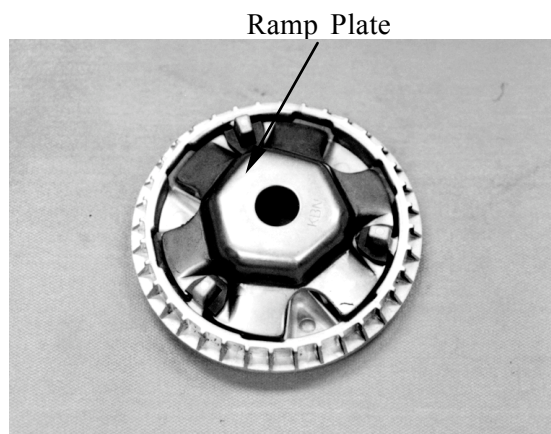
Remove the movable drive face assembly and drive pulley collar from the crankshaft.



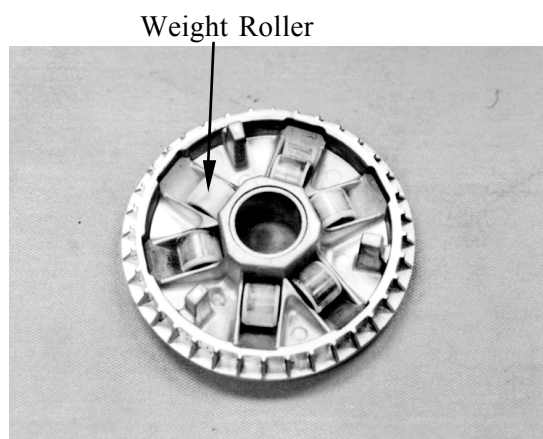
Drive Pulley Collar

## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Remove the ramp plate.



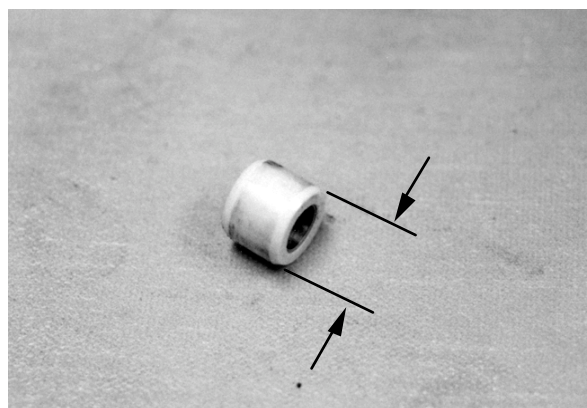
Remove the weight rollers.



### INSPECTION

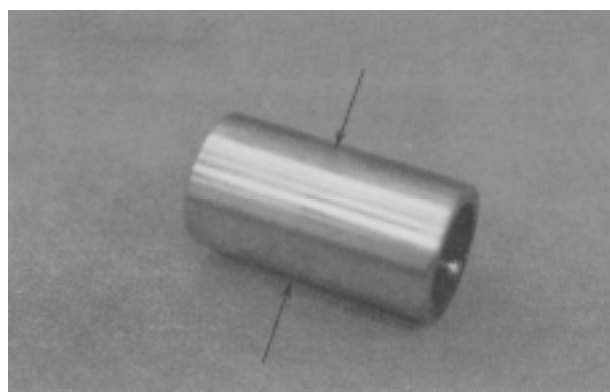
Check each weight roller for wear or damage.  
Measure each weight roller O.D.

**Service Limit:** 12.4mm replace if below



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

**Service Limit:** 19.97mm replace if below



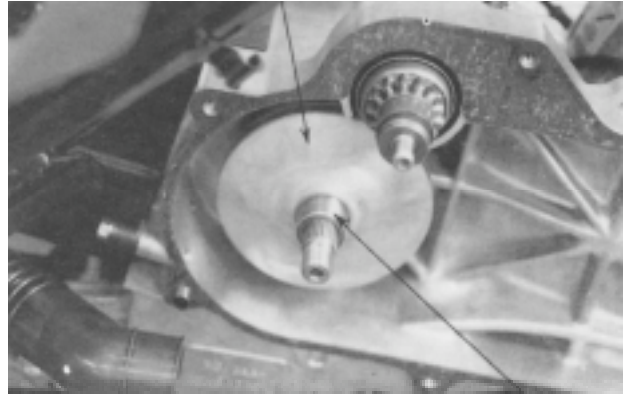


## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

### INSTALLATION

Install the drive pulley collar and movable drive face onto the crankshaft.

Movable Drive Face

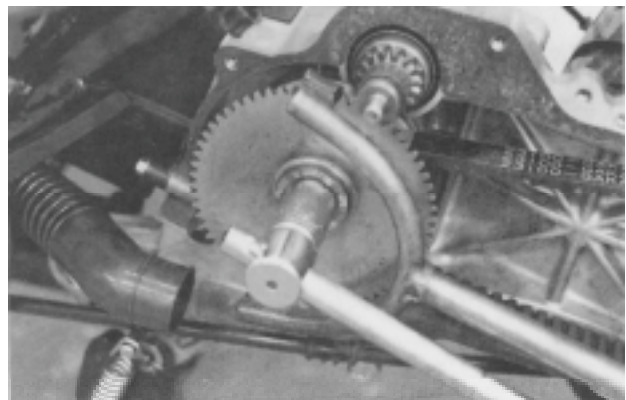


Drive Pulley Collar

Set the drive belt on the drive pulley collar. Install the drive pulley face and tighten the drive face nut. (⇒9-6)

**Torque:** 5.5~6.5kgf-m

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



### STARTER PINION

#### REMOVAL

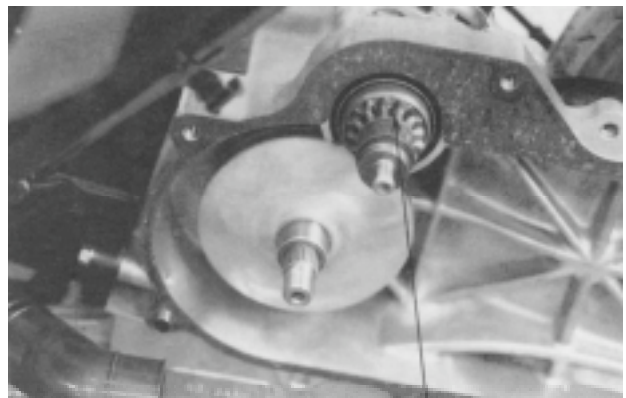
Remove the left crankcase cover.  
Remove the drive pulley.  
Remove the starter pinion holder.  
Remove the starter pinion.

#### INSPECTION

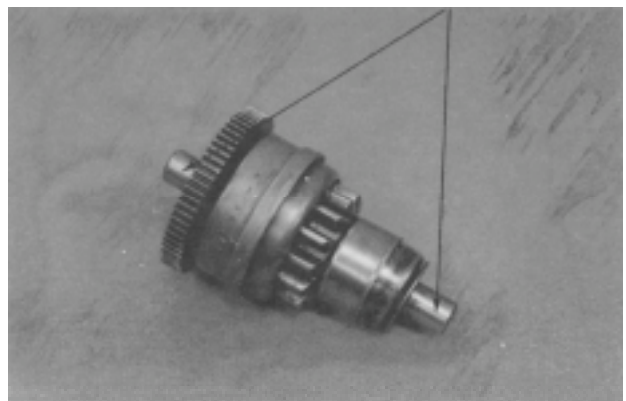
Inspect the starter pinion shaft forcing part for wear or damage.  
Inspect the starter pinion for smooth operation.  
Inspect the starter pinion and shaft for wear or damage.

#### INSTALLATION

Apply a small amount of grease to the starter pinion shaft and install it in the reverse order of removal.



Starter Pinion  
Starter Pinion Shaft



## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

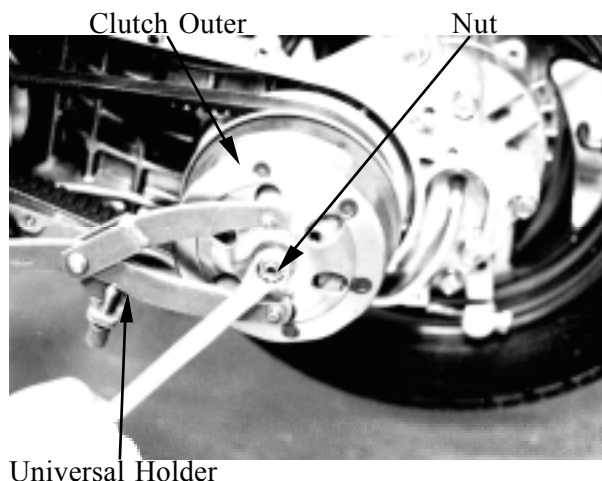
### CLUTCH/DRIVEN PULLEY

#### REMOVAL

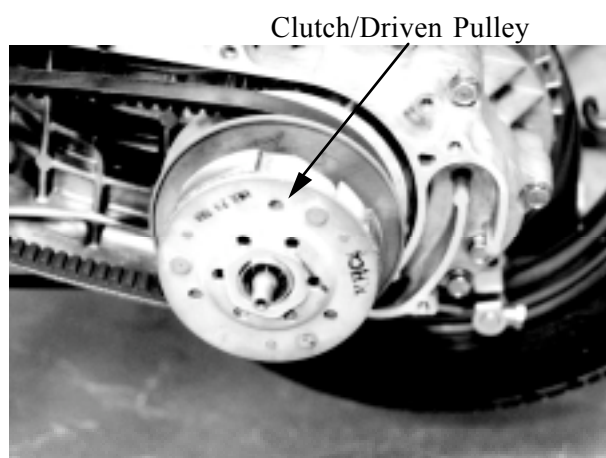
Remove the drive pulley. (⇒9-6)  
Hold the clutch outer with the universal holder and remove the clutch outer nut.  
Remove the clutch outer.

Special

Universal Holder



Remove the clutch/driven pulley assembly  
Remove the drive belt from the clutch/driven pulley assembly.

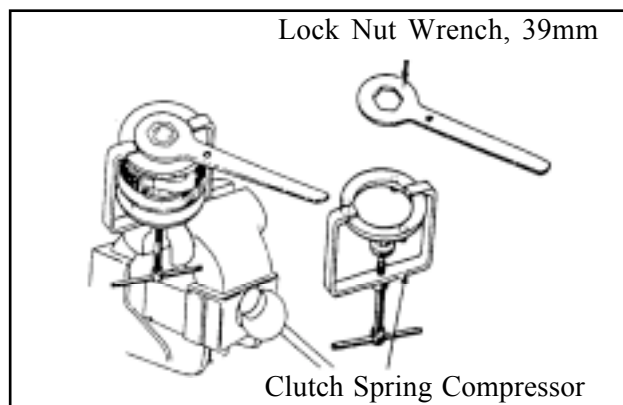


#### DISASSEMBLY

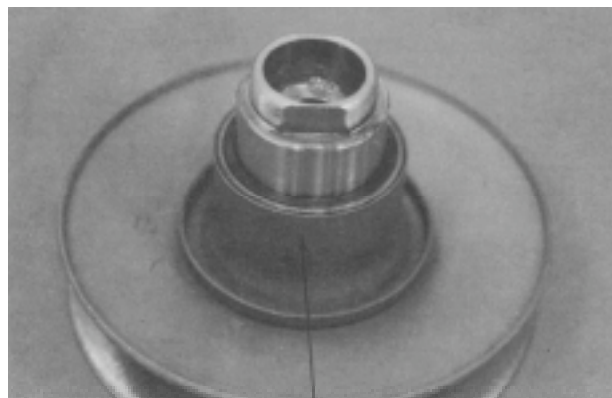
Hold the clutch/driven pulley assembly with the clutch spring compressor.  
Set the clutch spring compressor in a vise and remove the 39mm clutch drive plate nut.  
Loosen the clutch spring compressor and disassemble the driven pulley assembly.

Special

Clutch Spring Compressor



Remove the seal collar.



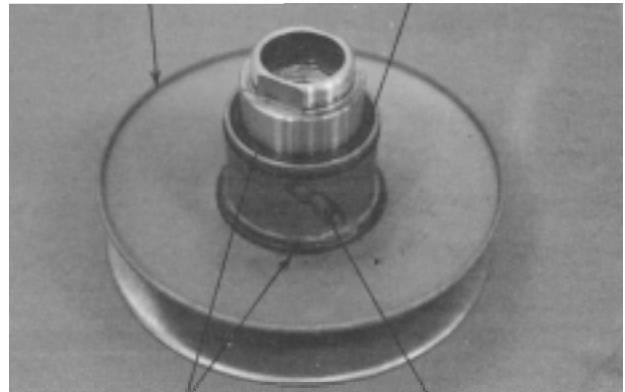
Seal Collar

## 9. 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 O-rings and oil seal from the movable driven face.

Movable Driven Face

Oil Seal



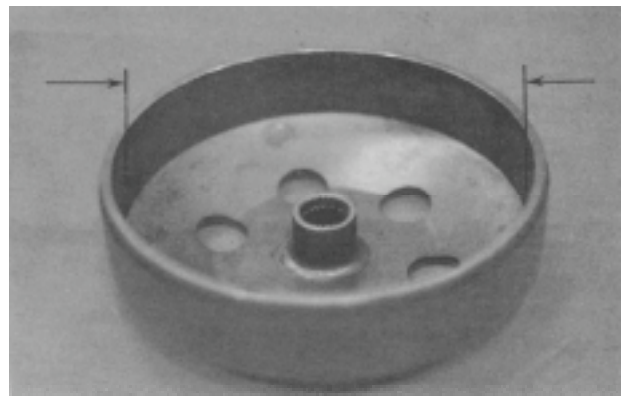
O-rings

Guide Roller Pin

### INSPECTION

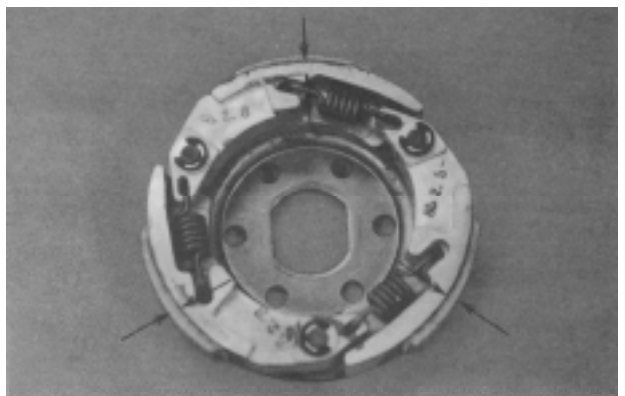
Inspect the clutch outer for wear or damage.  
Measure the clutch outer I.D.

**Service Limit:** 107.5mm replace if over



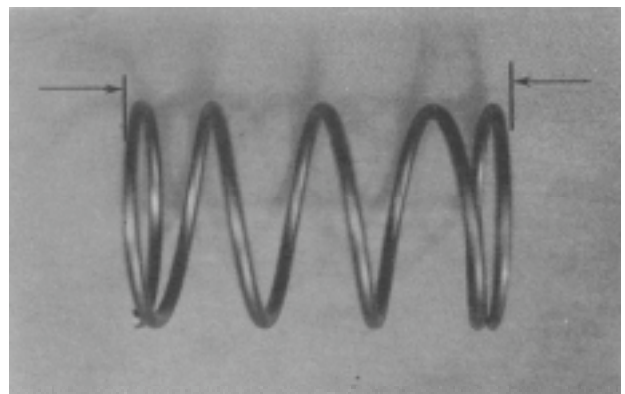
Check the clutch shoes for wear or damage.  
Measure the clutch lining thickness.

**Service Limit:** 2.0mm replace if below



Measure the driven face spring free length.

**Service Limit:** 92.8mm replace if below



## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

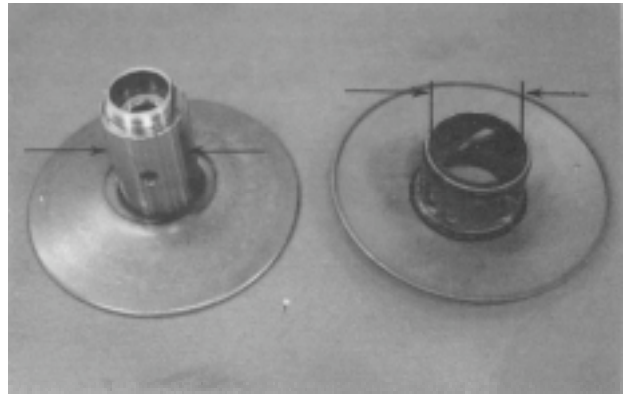
Check the driven face for wear or damage.  
Measure the driven face O.D.

**Service Limit:** 33.94mm replace if below

Check the movable driven face for wear or damage.

Measure the movable driven face I.D.

**Service Limit:** 34.06mm replace if over

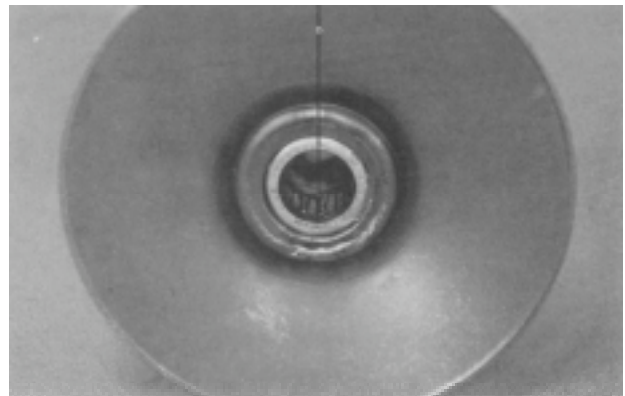


### DRIVEN PULLEY FACE BEARING REPLACEMENT

Drive the inner needle bearing out of the  
driven pulley face.

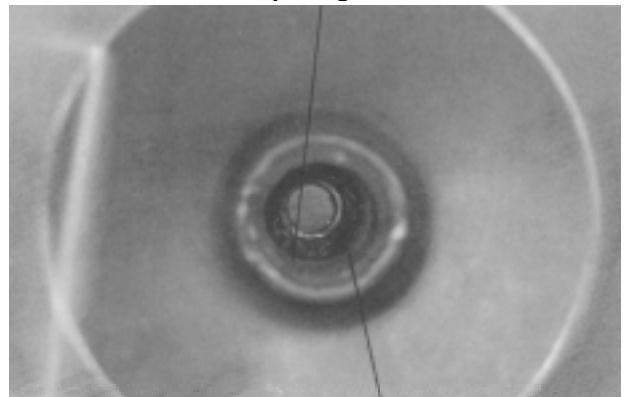
Discard the removed bearing and replace with  
a new one.

Inner Bearing



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

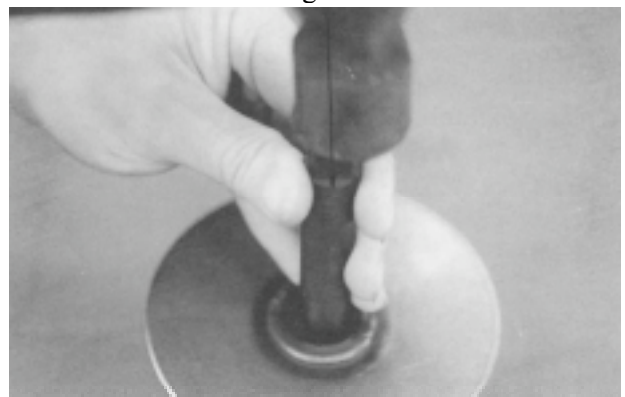
Snap Ring



Outer Bearing  
Bearing Remover

Apply grease to the outer bearing.  
Drive a new outer bearing into the driven face  
with the sealed end facing up.  
Seat the snap ring in its groove.

- \* Pack all bearing cavities with  
5.0\_ 5.6g grease.  
Specified grease: Heat resistance 230°C

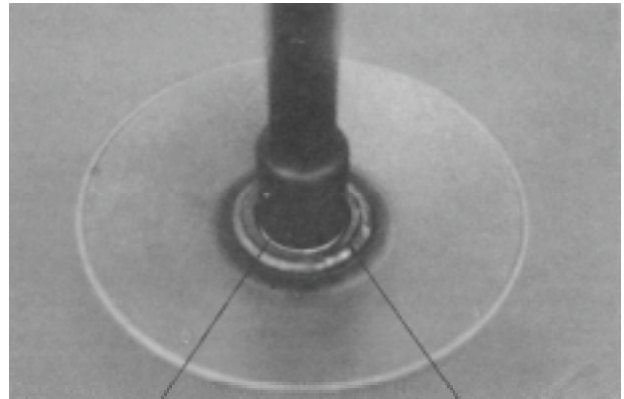




## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

Press a new needle bearing into the driven face.

Driver Handle



Outer Driver, 24x26mm

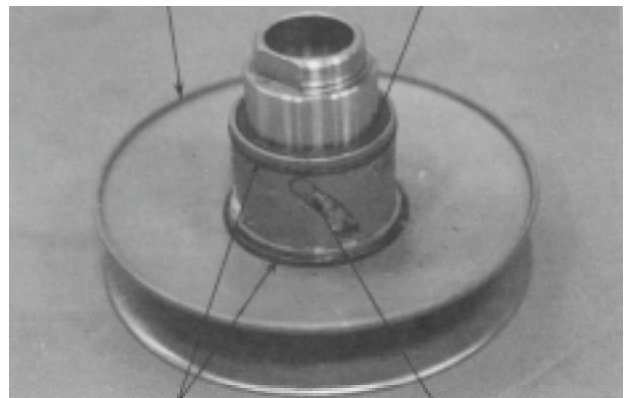
Pilot, 17mm

Movable Driven Face

Oil Seal

### ASSEMBLY

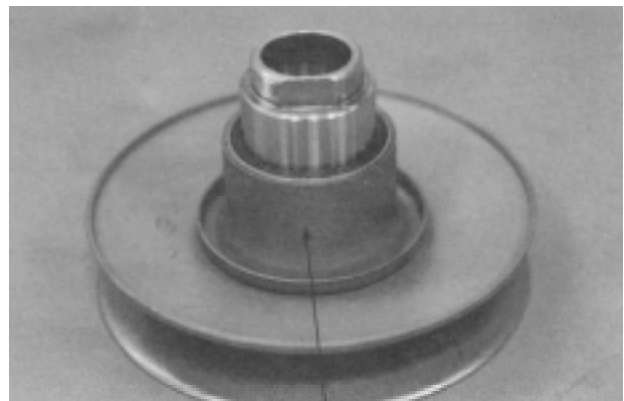
Install the movable driven face onto the driven face.  
Install the O-rings, guide rollers and guide roller pins.  
Install the a new oil seal.



O-rings

Guide Roller Pin

Install the seal collar.



Seal Collar

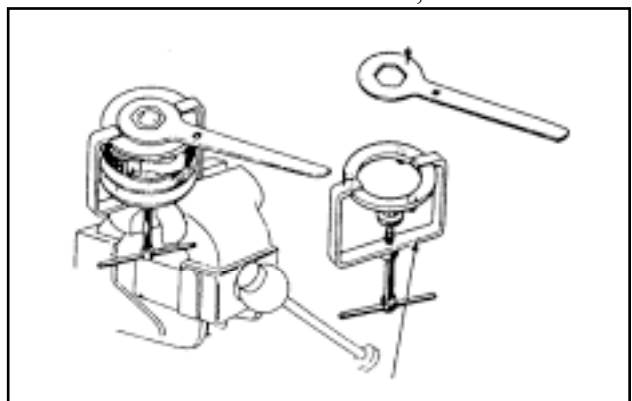
Lock Nut Wrench, 39mm

Set the driven pulley assembly, driven face spring and clutch assembly onto the clutch spring compressor.  
Compress the clutch spring compressor and install the 39mm drive plate nut.  
Set the clutch spring compressor in a vise and tighten the drive plate nut to the specified torque.

**Torque:** 5.0\_ 6.0kgf-m

Special

Clutch Spring Compressor

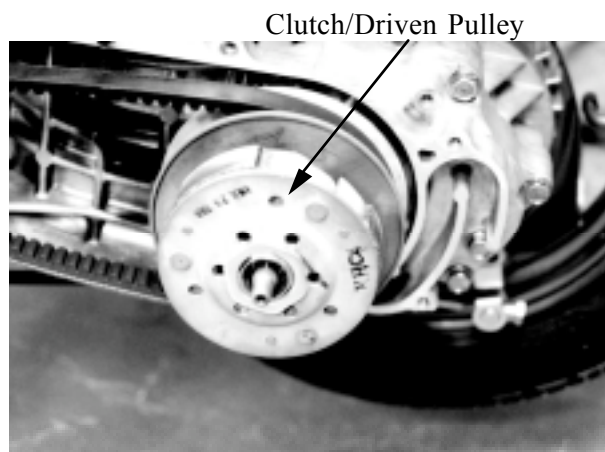


Clutch Spring Compressor

## 9. DRIVE AND DRIVEN PULLEYS/ KICK STARTER

### INSTALLATION

Lay the drive belt on the driven pulley and install the clutch/driven pulley onto the drive shaft.



Install the clutch outer.  
Hold the clutch outer with the universal holder.  
Install and tighten the 10mm clutch outer nut.  
**Torque:** 3.5~4.5kgf-m  
Install the left crankcase cover. (⇒9-4)

