

# 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

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MX'er 50

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## KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

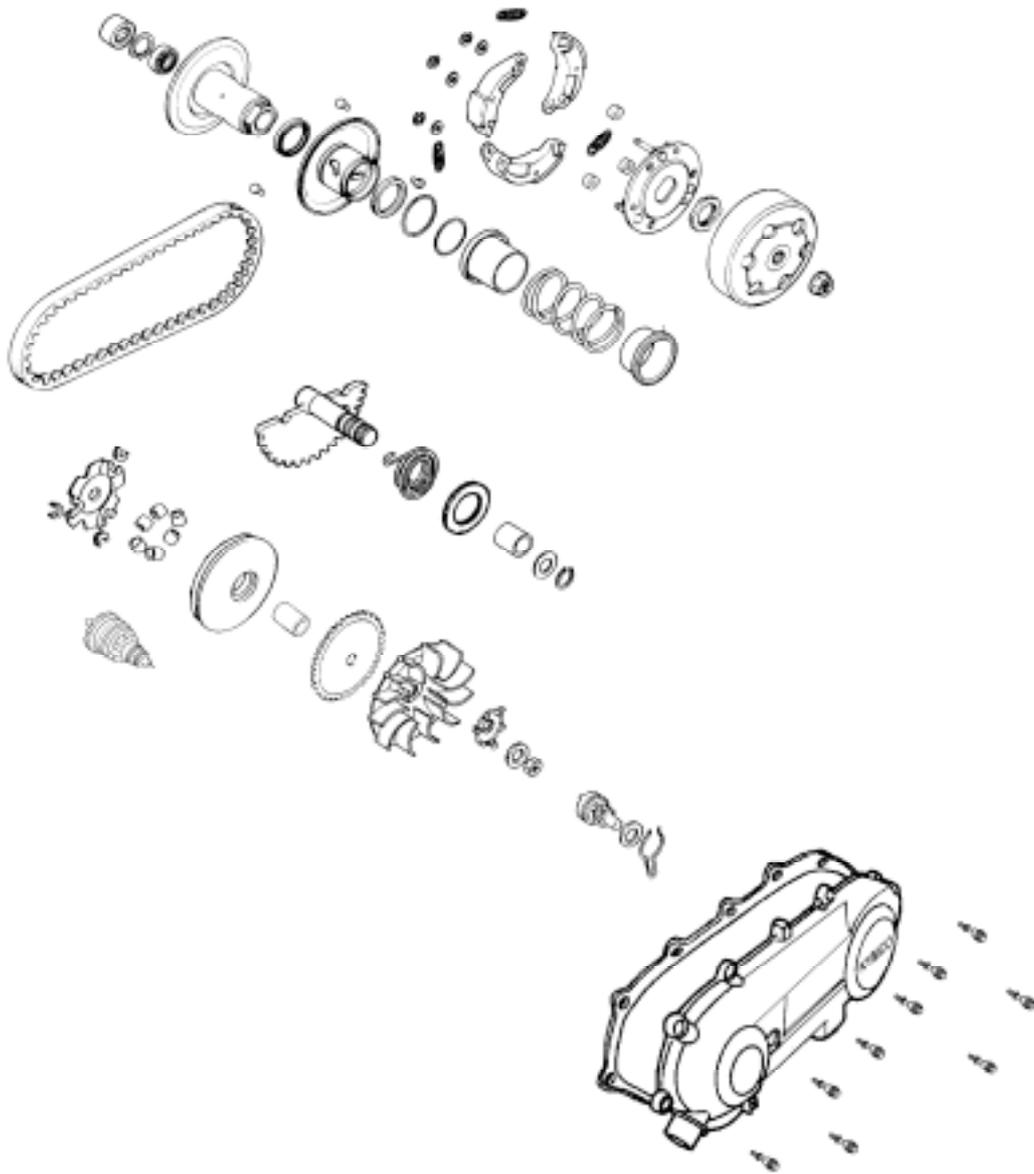
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# 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

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# 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY



MX'er 50

## SERVICE INFORMATION

### GENERAL INSTRUCTIONS

- Avoid getting grease and oil on the drive belt and pulley faces.

SPECIFICATIONS	MX'er 50	
	Standard (mm)	Service Limit (mm)
Drive pulley collar O.D.	20.01_ 20.025	19.97
Movable drive face I.D.	20.035_ 20.085	20.24
Weight roller O.D.	13.0	12.4
Clutch outer I.D.	107_ 107.2	107.5
Driven face spring free length	98.1	92.8
Driven face O.D.	33.965_ 33.985	33.94
Movable driven face I.D.	34.0_ 34.25	34.4
Drive belt width	17.5	16.5

### TORQUE VALUES

- |                        |              |
|------------------------|--------------|
| Drive face nut         | 3.5_ 4.0kg-m |
| Clutch outer nut       | 3.5_ 4.5kg-m |
| Clutch drive plate nut | 5.0_ 6.0kg-m |

### SPECIAL TOOLS

- |                              |                              |
|------------------------------|------------------------------|
| Lock nut wrench, 39mm        | Universal holder             |
| Clutch spring compressor     | Lock nut socket wrench, 32mm |
| Bearing outer driver 37x40mm | Bearing driver pilot, 17mm   |
| One-way clutch puller        | Outer driver, 24x26mm        |

### TROUBLESHOOTING

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

- Worn drive belt
- Broken ramp plate
- Worn or damaged clutch lining

#### Engine stalls or motorcycle creeps

- Broken clutch weight spring

#### Poor performance at high speed or lack of power

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

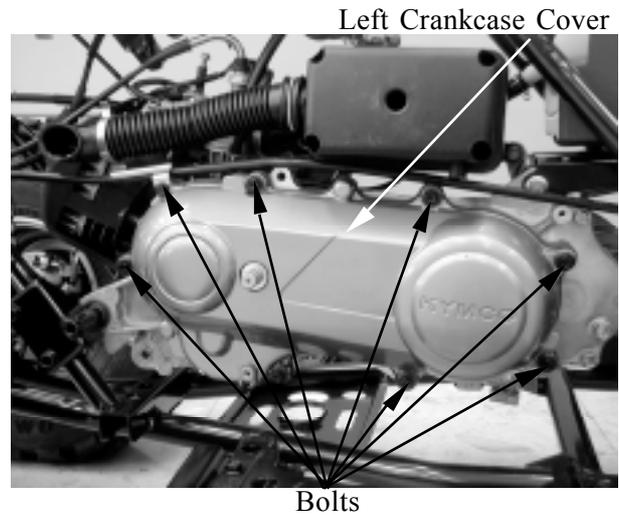
## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

### KICK STARTER

#### LEFT CRANKCASE COVER REMOVAL

Remove the left crankcase cover bolts, left crankcase cover and dowel pins.

Inspect the left crankcase cover seal rubber for damage or deterioration.



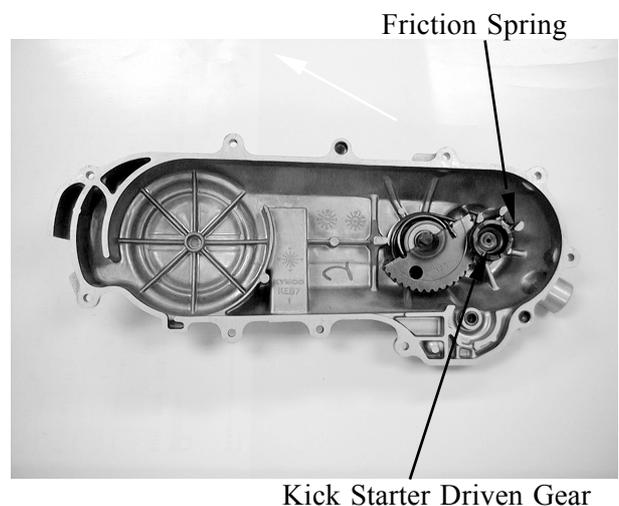
#### KICK STARTER SPINDLE REMOVAL

Remove the kick lever from the kick starter spindle.

Remove the circlip and washer from the kick starter spindle.

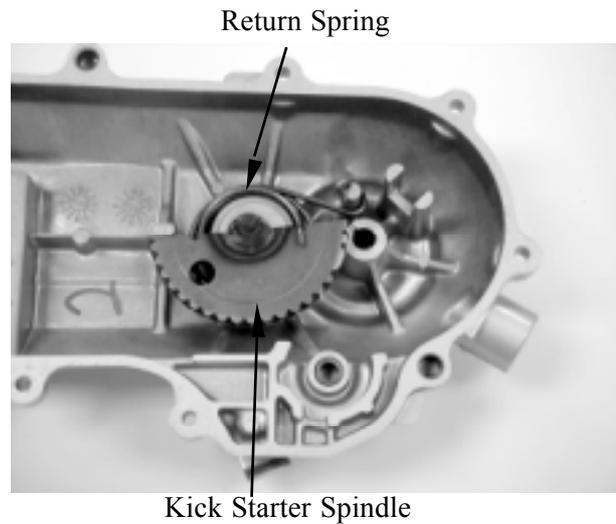


Slightly rotate the kick starter spindle to remove the kick starter driven gear together with the friction spring.



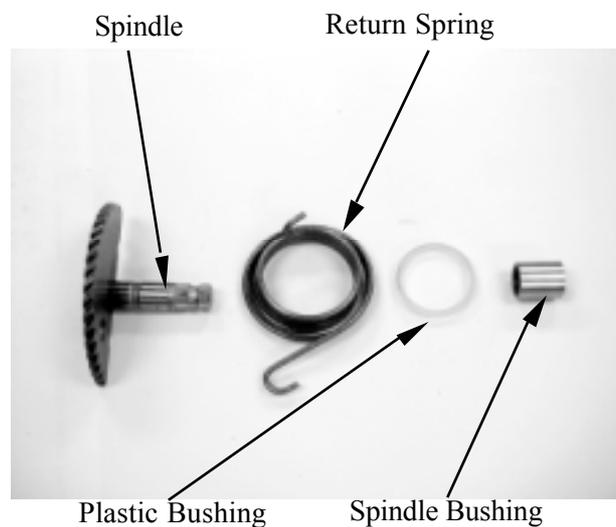
## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

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

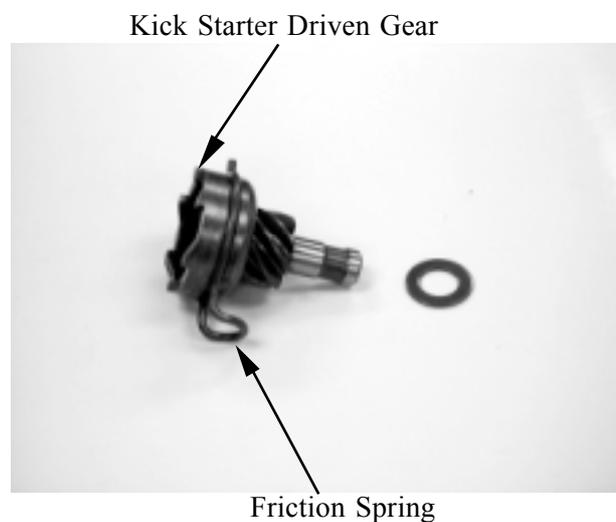


### **KICK STARTER SPINDLE INSPECTION**

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



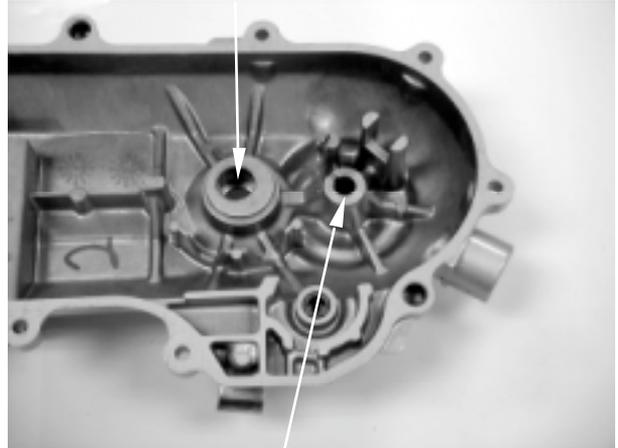
Check the kick starter driven gear for wear or damage.  
Check the friction spring for wear or damage.



## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

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

Kick Starter Spindle Forcing Part



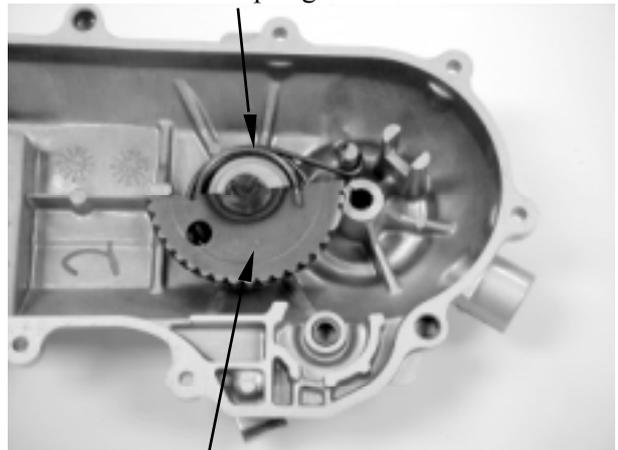
Kick Starter Driven Gear Forcing Part

### KICK STARTER INSTALLATION

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

ⓘ If the hooks of the return spring can not be installed properly, use a screw driver to press them into their locations respectively.

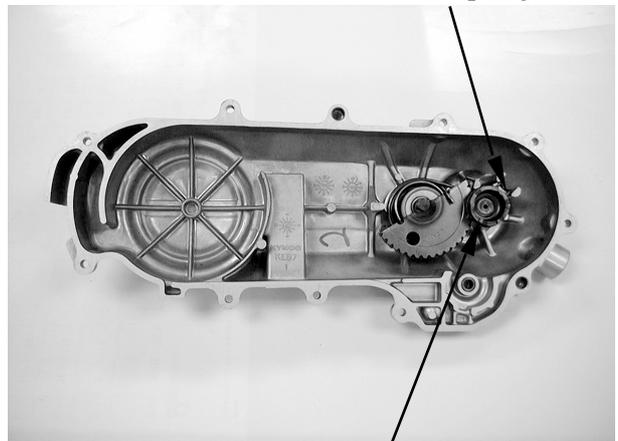
Friction Spring



Kick Starter Spindle

Properly install the kick starter driven gear and friction spring as the figure shown.

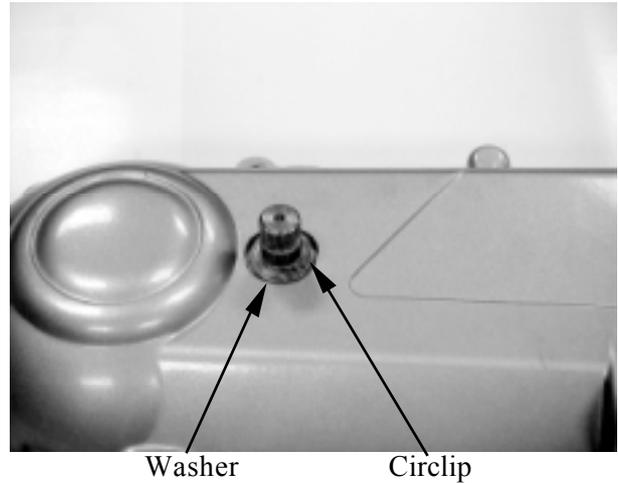
Friction Spring



Kick Starter Driven Gear

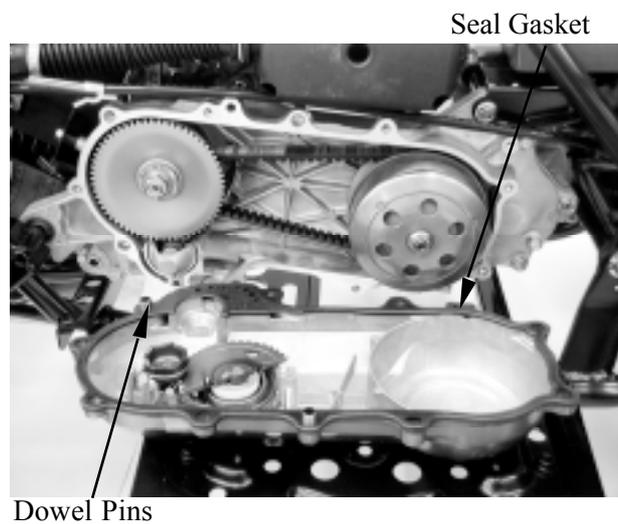
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First install the washer and then the circlip onto the kick starter spindle.  
Install the kick lever.



### LEFT CRANKCASE COVER INSTALLATION

First install the dowel pins and then the seal gasket.



Install the left crankcase cover and tighten the ten bolts diagonally.

⊕ For drum brake, note the location of the brake cable clamp and install the rear brake cable in place with the clamp.



Driven Pulley

## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

### DRIVE BELT

Remove the left crankcase cover.

### INSPECTION

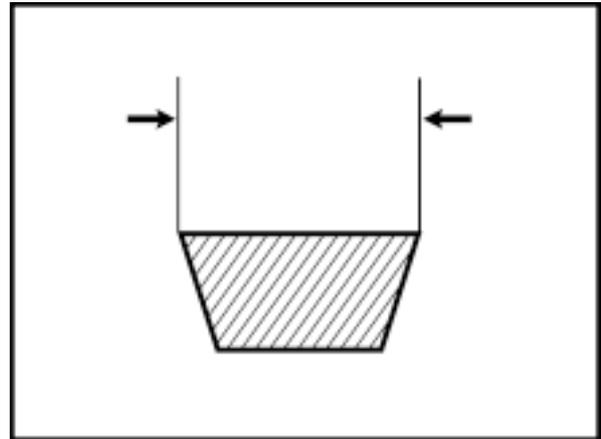
Check the drive belt for cracks, separation or abnormal or excessive wear.

Measure the drive belt width.

**Service Limit:** 16.5mm replace if below



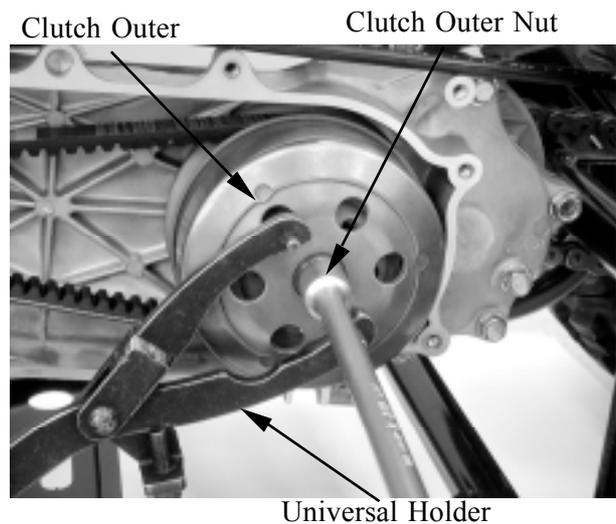
Use specified genuine parts for replacement.



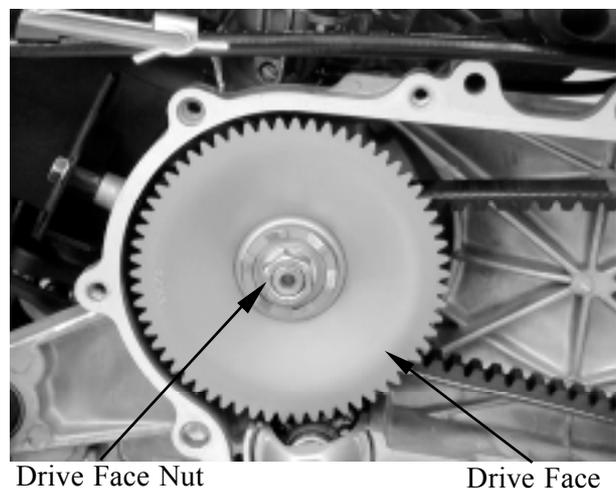
### REPLACEMENT

Remove the left crankcase cover bolts and left crankcase cover. (⇒9-3)

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

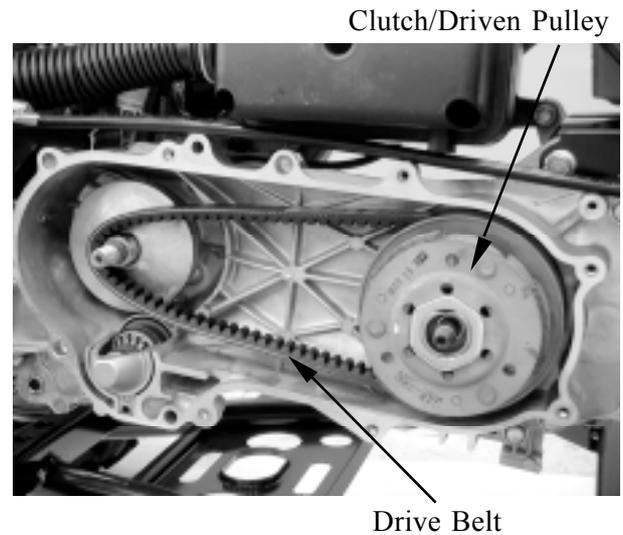


Hold the drive pulley with the holder and remove the drive face nut. Remove the drive pulley face.



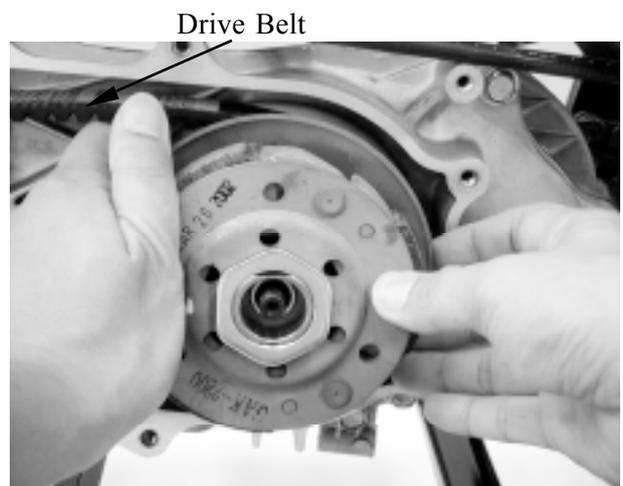
## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

Remove the drive belt from the clutch/ driven pulley.

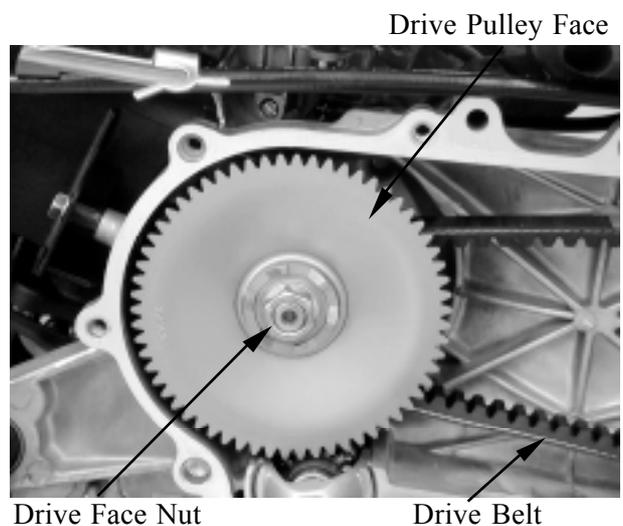


### DRIVE BELT INSTALLATION

Turn the driven pulley clockwise and lift it up to expand the drive belt groove and then install a new drive belt.



Set the drive belt on the drive pulley.  
Install the drive pulley face, then tighten the drive face nut.



## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

### DRIVE PULLEY

#### REMOVAL

Hold the drive pulley with the holder and remove the drive face nut.

Remove the drive pulley face.

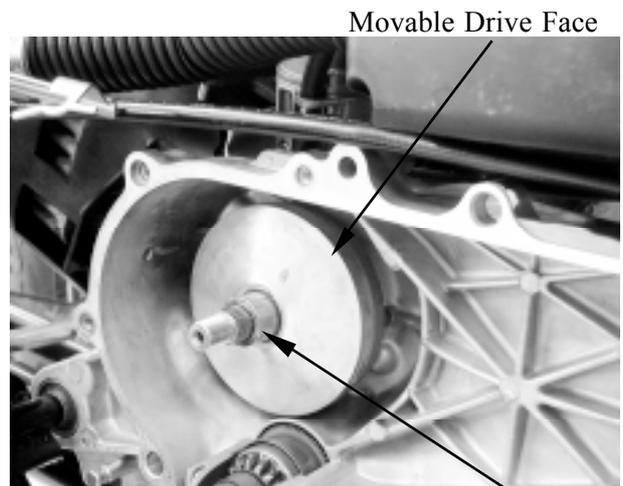


Drive Face Nut

Drive Pulley Face

#### MOVABLE DRIVE FACE DISASSEMBLY

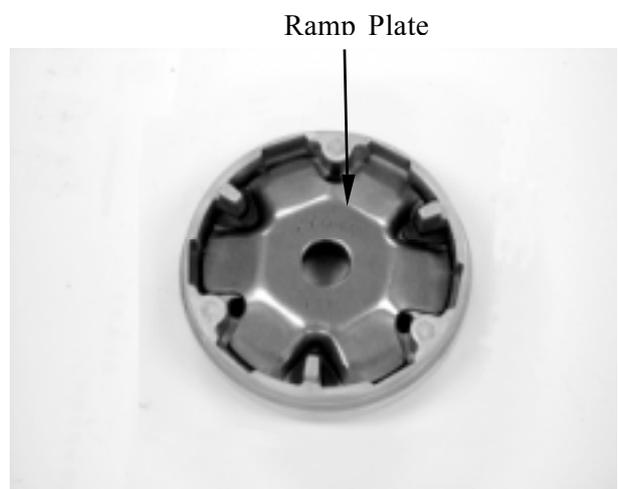
Remove the movable drive face and drive pulley collar from the crankshaft.



Movable Drive Face

Drive Pulley Collar

Remove the ramp plate.



Ramp Plate

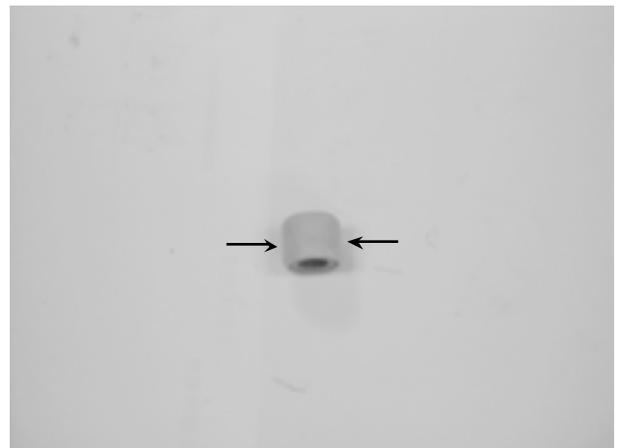
## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

Remove the weight rollers.

Weight Roller



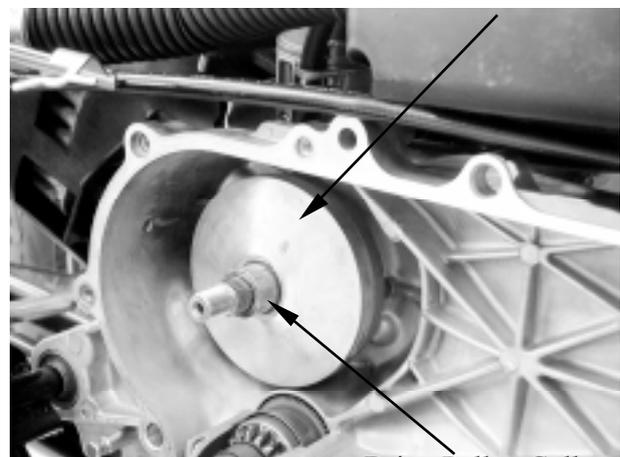
Remove the weight rollers.  
Check each weight roller for wear or damage.  
Measure each roller O.D.  
**Service Limit:** 12.4mm replace if below



### DRIVE PULLEY INSTALLATION

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

Movable Drive Face



Drive Pulley Collar

## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

Install the drive belt on the crankshaft.  
Install the drive face, then tighten the drive  
face nut.

**Torque:** 3.5\_ 4.0kg-m



Keep grease or oil off the drive belt and  
drive pulley faces.



Drive Face Nut

Drive Pulley Face

### STARTER PINION

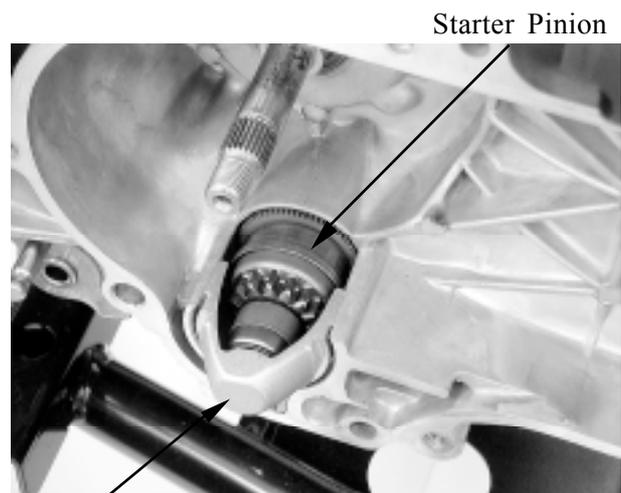
#### REMOVAL

Remove the left crankcase cover. (⇒9-3)

Remove the drive pulley. (⇒9-9)

Remove the starter pinion cover.

Remove the starter pinion.



Starter Pinion

Starter Pinion Cover

#### INSPECTION

Inspect the starter pinion seat for wear.

Inspect the starter pinion for smooth  
operation.

Inspect the starter pinion shaft forcing parts  
for wear and damage.

#### INSTALLATION

Apply a small amount of grease to the starter  
pinion teeth.

Install the starter pinion in the reverse order  
of removal.



Shaft Forcing Parts

Starter Pinion

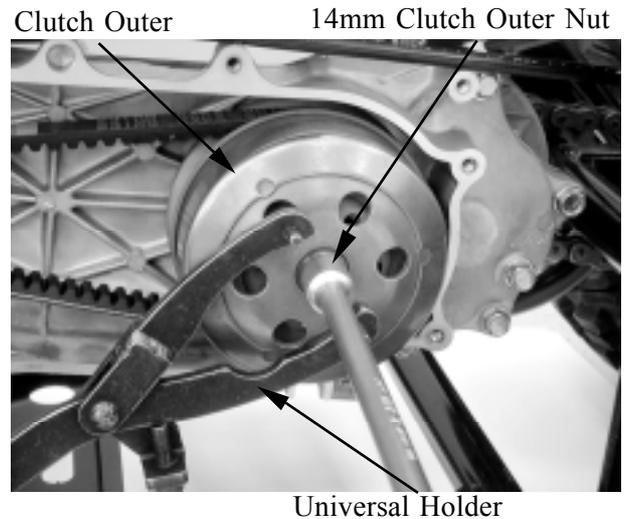
## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

### CLUTCH/DRIVEN PULLEY CLUTCH/DRIVEN PULLEY REMOVAL

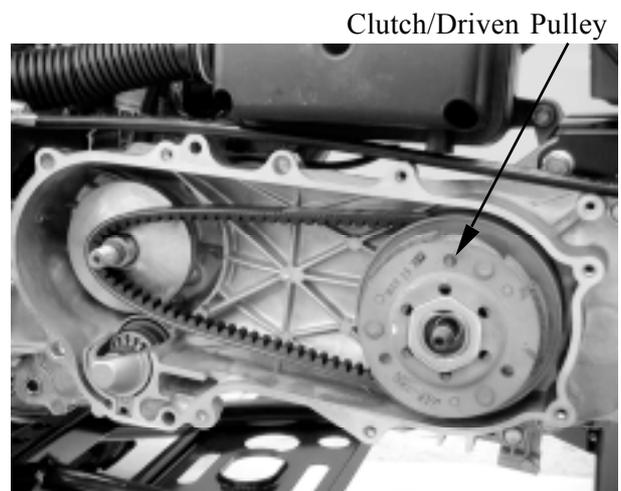
Remove the drive pulley. (⇒9-9)

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

Remove the clutch outer.



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



### CLUTCH/DRIVEN PULLEY DIS- ASSEMBLY

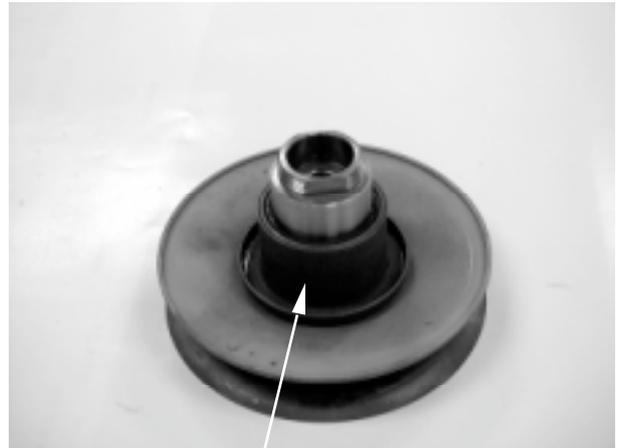
Compress the clutch/driven pulley spring with the clutch spring compressor and remove the 39mm drive plate nut.

Remove the driven face spring.



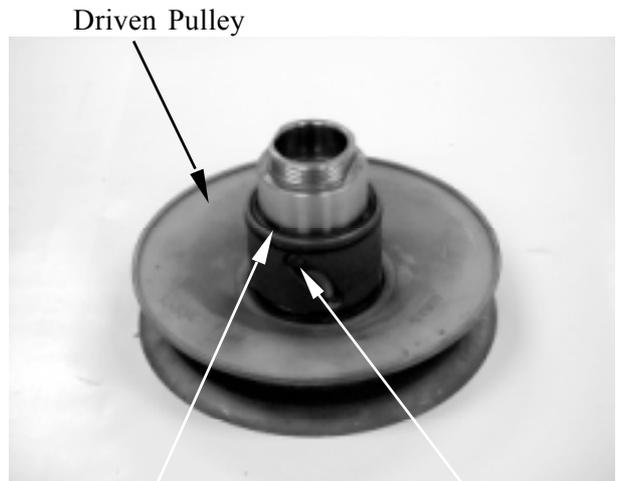
## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

Remove the seal collar.



Seal Collar

Pull out the guide roller pins from the driven pulley and then remove the O-rings and oil seal from the driven pulley.



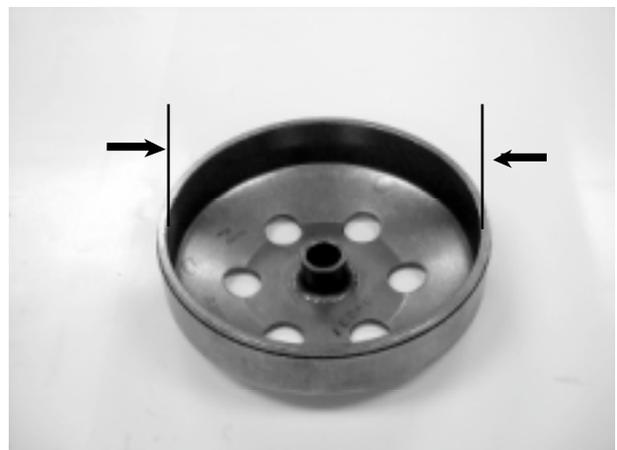
O-rings

Guide Roller Pin

### CLUTCH/DRIVEN PULLEY INSPECTION

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

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

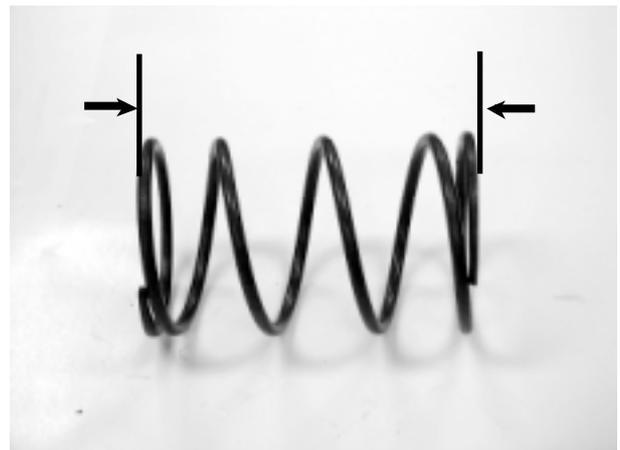


## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

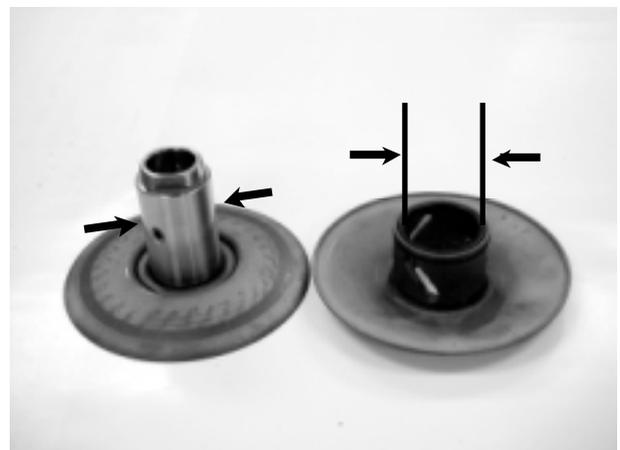
Check the clutch shoes for wear or damage.  
Measure the clutch lining thickness.  
**Service Limit:** 2.0mm replace if below



Measure the driven face spring free length.  
**Service Limit:** 92.8mm replace if below



Check the driven face assembly 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:** 34.4mm replace if over  
Check the guide roller pins for stepped wear.



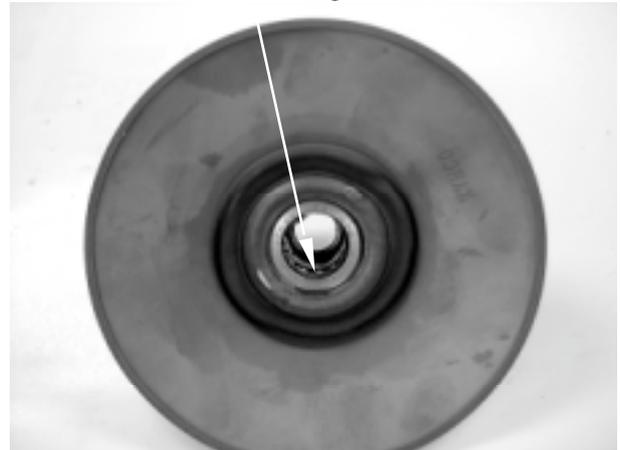
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### DRIVEN PULLEY FACE BEARING REPLACEMENT

Check the needle bearings in the driven face and replace them if they have excessive play, damage or abnormal noise.

Drive the inner bearing out of the driven pulley face.

Inner Bearing



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



Outer Bearing

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

Seat the snap ring in its groove.

Bearing Outer Driver



⓪ Pack all bearing cavities with 5.0\_ 5.6g grease.  
Specified grease: 230ϕJ Heat-resistant grease

## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

Drive in a new needle bearing into the driven face with the mark facing up

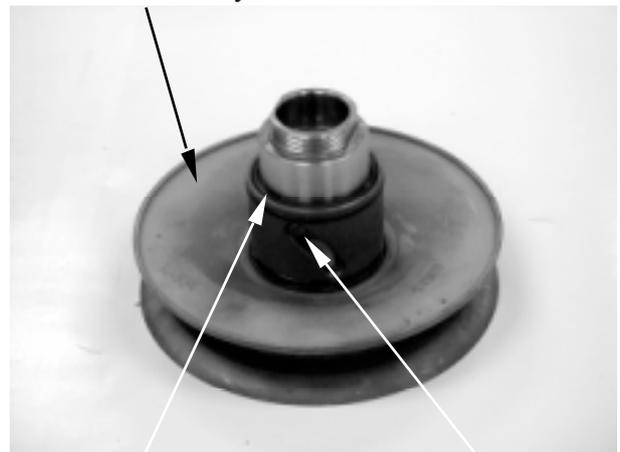
Bearing Driver Pilot



### CLUTCH/DRIVEN PULLEY ASSEMBLY

First install the movable driven face onto the driven face. Then, install the guide roller pins, O-rings and a new oil seal.

Driven Pulley



O-rings

Guide Roller Pin

Install the seal collar.



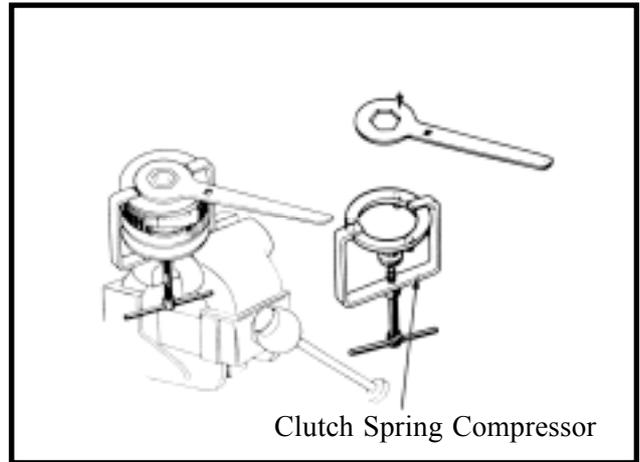
Seal Collar

## 9. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

Set the driven pulley, driven face spring and clutch assembly onto the clutch spring compressor. Compress the tool and install the 39mm drive plate nut.

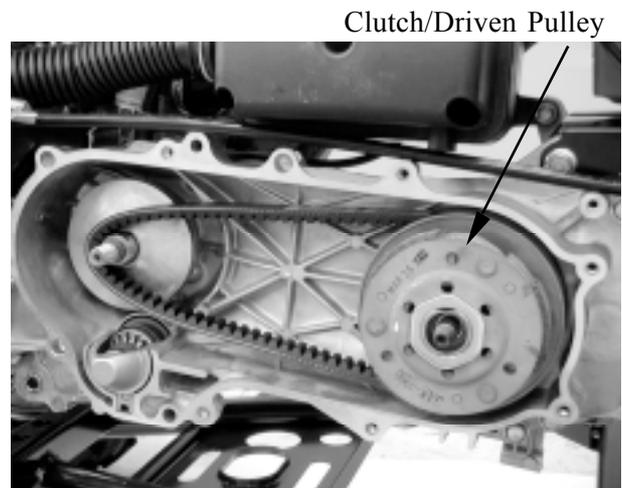
Tighten the 39mm nut to the specified torque.

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



### CLUTCH/DRIVEN PULLEY INSTALLATION

Install the drive belt on the clutch/driven pulley and then 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 clutch outer nut.

**Torque:** 3.5\_ 4.0kg-m

Install the left crankcase cover. (⇒9-6)

