

**9. DRIVE AND DRIVEN PULLEYS**

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**DRIVE AND DRIVEN PULLEYS**

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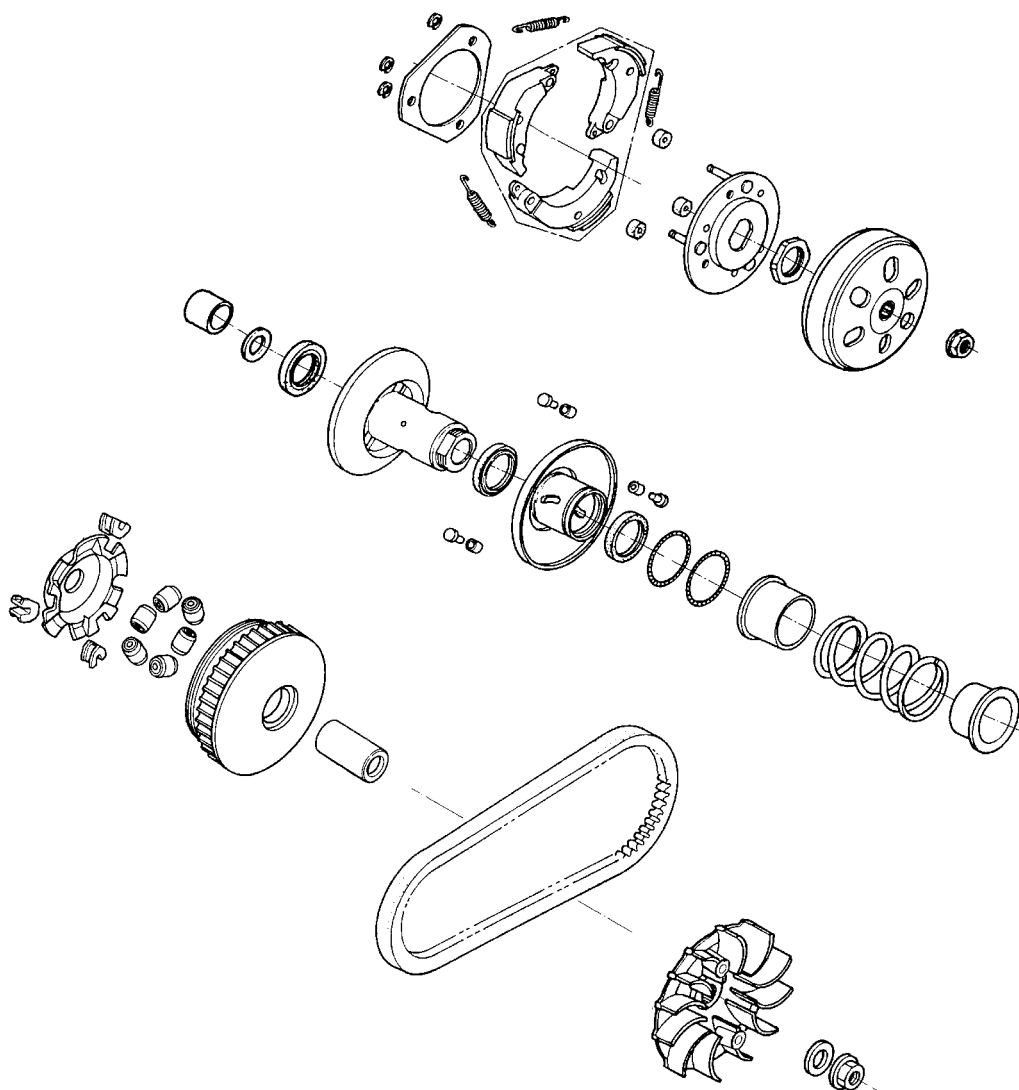
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## 9. DRIVE AND DRIVEN PULLEYS

MXU 250



## 9. DRIVE AND DRIVEN PULLEYS

**MXU 250**

### SERVICE INFORMATION

#### GENERAL INSTRUCTIONS

- The drive pulley, clutch and driven pulley can be serviced with the engine installed in the frame.
- 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

Unit: mm (in)

Item	Standard	Service Limit
Movable drive face bushing I.D.	26.989~27.052 (1.07956~1.08208)	27.06 (1.0824)
Drive face collar O.D.	26.96~26.974 (1.0784~1.07896)	26.94 (1.0776)
Drive belt width	23.6~24.4 (0.944~0.976)	22 (0.88)
Clutch lining thickness	—	0.5 (0.02)
Clutch outer I.D.	153~153.2 (6.12~6.128)	153.5 (6.14)
Driven face spring free length	—	131 (5.24)
Driven face O.D.	39.965~39.985 (1.5986~1.5994)	39.94 (1.5976)
Movable driven face I.D.	40~40.025 (1.6~1.601)	40.06 (1.6024)
Weight roller O.D.	22.92~23.08 (0.9168~0.9232)	22.8 (0.912)

#### TORQUE VALUES

Drive face nut	9.5 kgf-m (95 Nm, 68 lbf-ft)
Clutch outer nut	5.5 kgf-m (55 Nm, 40 lbf-ft)
Drive plat nut	5.5 kgf-m (55 Nm, 40 lbf-ft)

#### SPECIAL TOOLS

Universal holder	E017	Clutch spring compressor	E027
Bearing puller	E008	Oil seal and bearing install	E014

#### 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

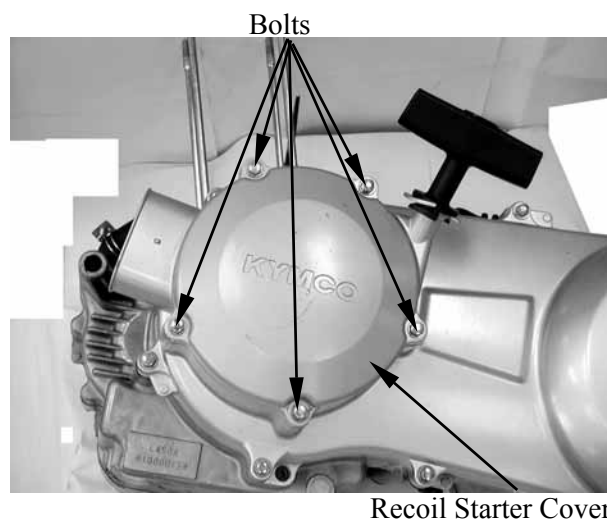
MXU 250

### LEFT CRANKCASE COVER

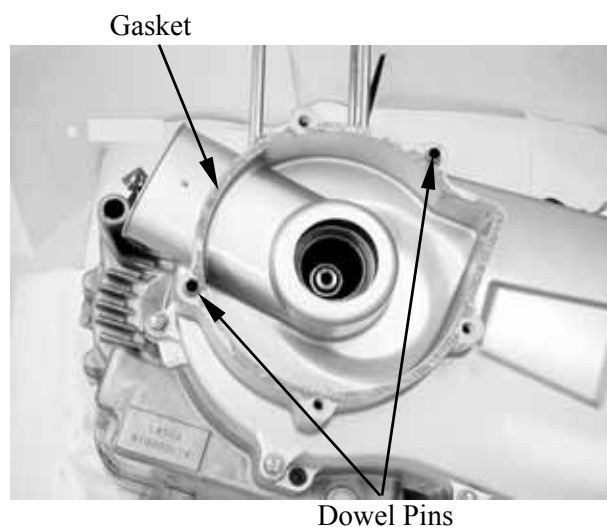
#### REMOVAL

Remove the five bolts.

Remove the recoil starter cover.



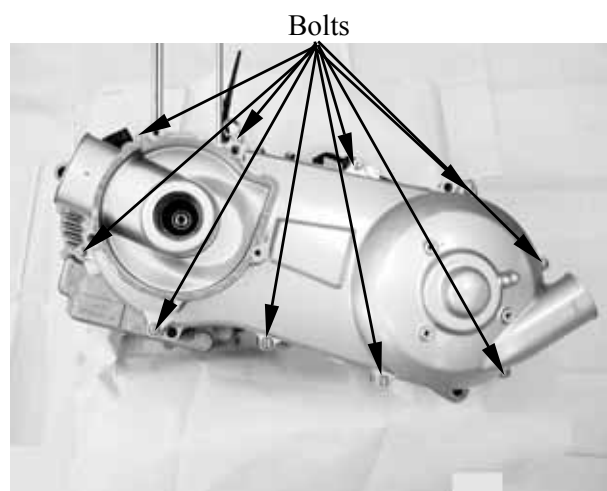
Remove the dowel pins and gasket.



Disconnect drive belt air inlet and outlet hose from left crankcase cover (see page 6-5).

Remove the left crankcase cover bolts and left crankcase cover.

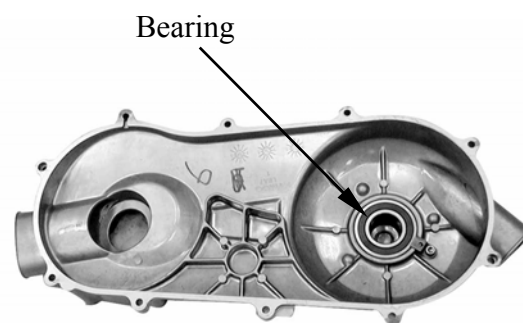
Remove the gasket and dowel pins.



## 9. DRIVE AND DRIVEN PULLEYS

### INSPECTION

Inspect the bearing for allow play in the left crankcase cover or the bearing turns roughly  
→ Replace.



### INSTALLATION

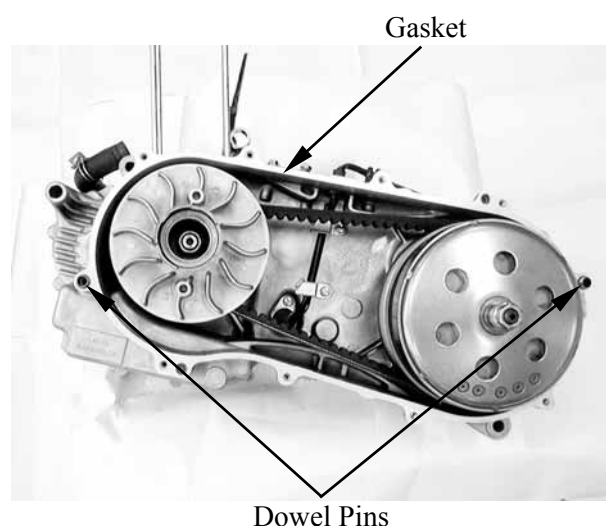
Install the dowel pins and new gasket.

Reverse the “LEFT CRANKCASE COVER REMOVAL” procedures.

Install the left crankcase cover and tighten the bolts.

Connect the drive belt air inlet and outlet hose and tighten band screws.

Install the recoil starter cover and outlet hose cover.

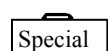


### DRIVE PULLEY/DRIVEN PULLEY

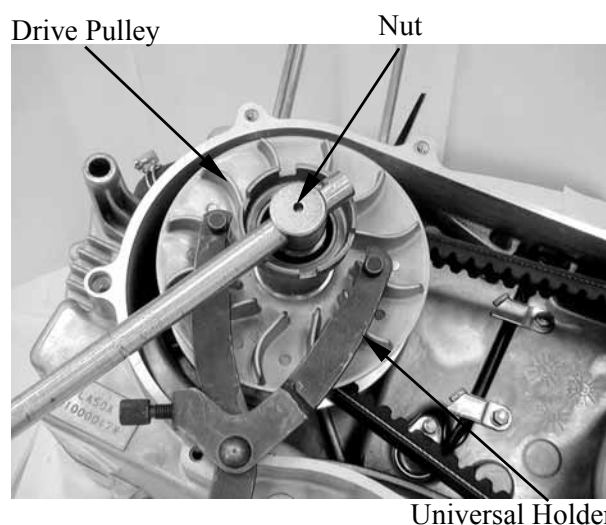
#### REMOVAL

Remove the left crankcase cover. (Refer to the “LEFT CRANKCASE COVER REMOVAL” section in the chapter 9)

Hold the drive pulley using a universal holder and remove the drive face nut and ratchet. Remove the drive pulley.



Universal Holder E017



## 9. DRIVE AND DRIVEN PULLEYS

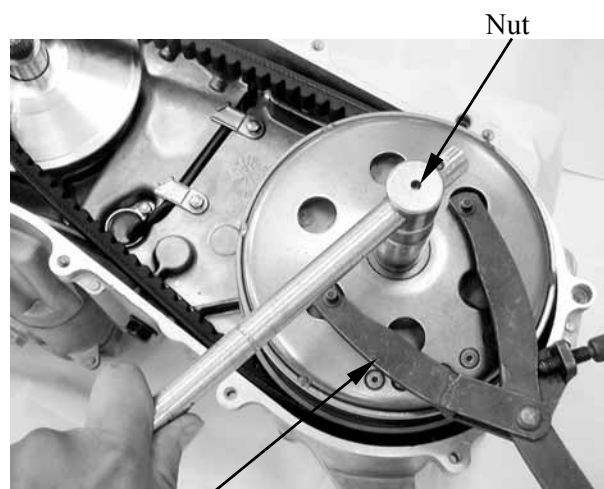
MXU 250

Remove the left crankcase cover. (Refer to the “LEFT CRANKCASE COVER REMOVAL” section in the chapter 9)  
Remove the drive pulley. (Refer to the “DRIVE PULLEY REMOVAL” section in the chapter 9)

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

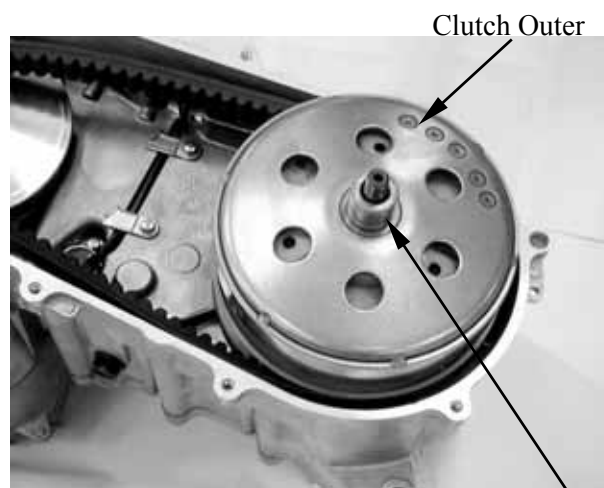
**Special**

Universal Holder E017



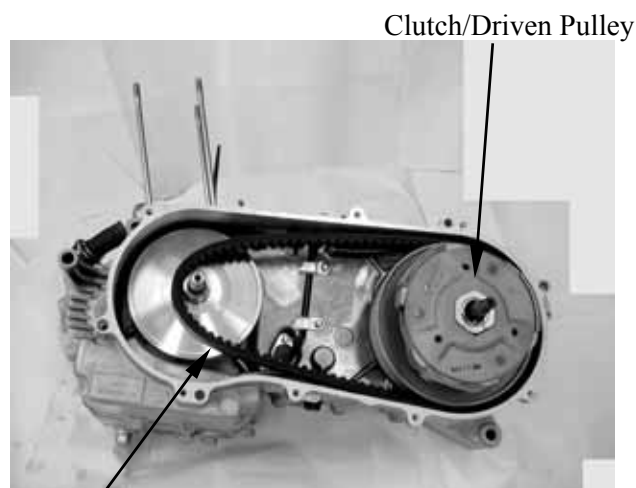
Universal Holder

Remove the collar and clutch outer.



Collar

Remove the clutch/driven pulley and drive belt.

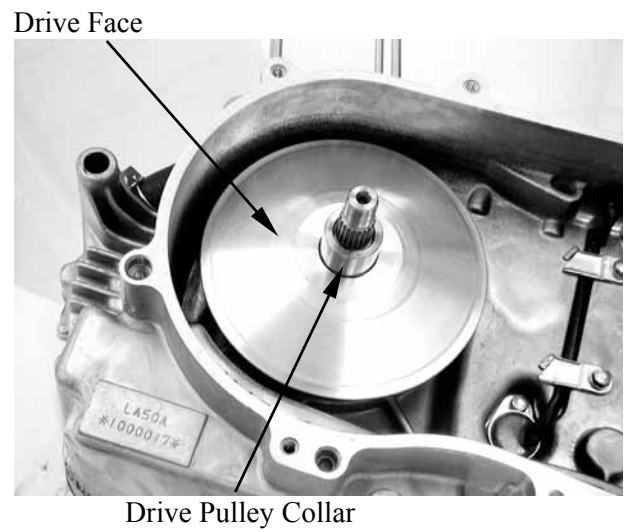


Drive Belt

## 9. DRIVE AND DRIVEN PULLEYS

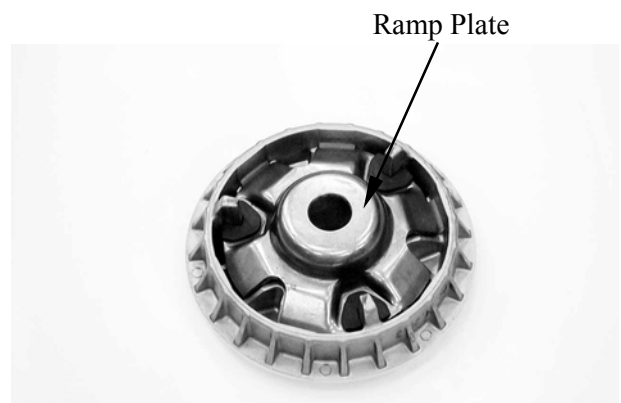
**MXU 250**

Remove the movable drive face assembly and drive pulley collar.

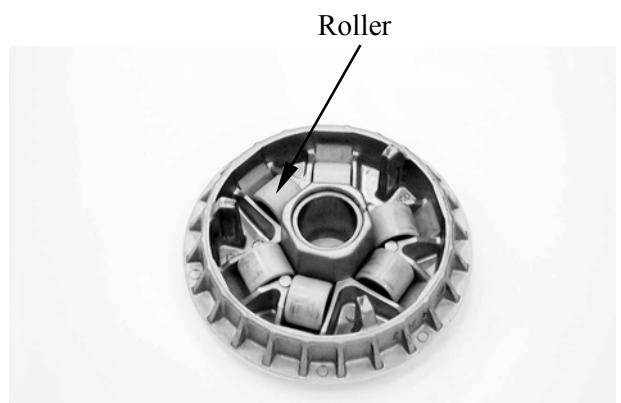


### **DISASSEMBLY**

Remove the ramp plate.



Remove the six weight rollers.



## 9. DRIVE AND DRIVEN PULLEYS

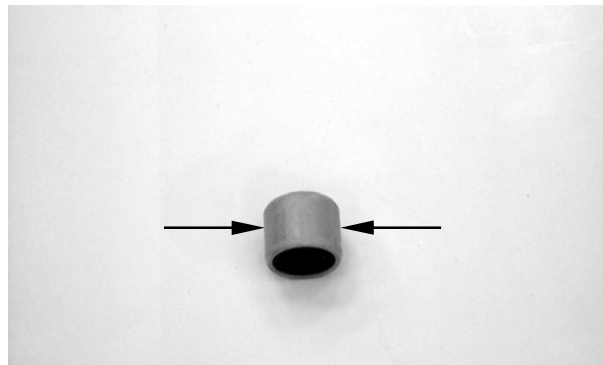
MXU 250

### INSPECTION

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

**Service Limit** (replace if below):

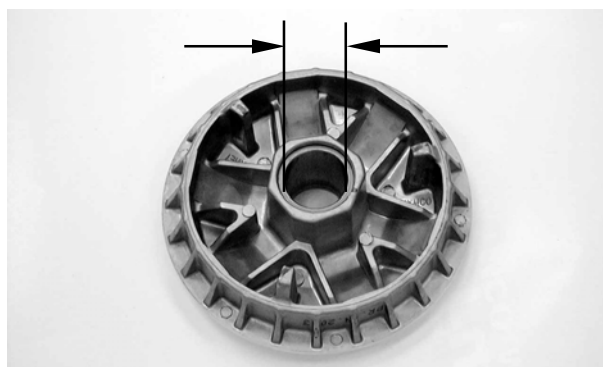
22.8 mm (0.912 in)



Measure the movable drive face bushing I.D.

**Service Limit** (replace if over):

27.06 mm (1.0824 in)



### ASSEMBLY

Install the weight rollers into the movable  
drive face.

Install the ramp plate.

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

**Service Limit** (replace if below):

26.94 mm (1.0776 in)





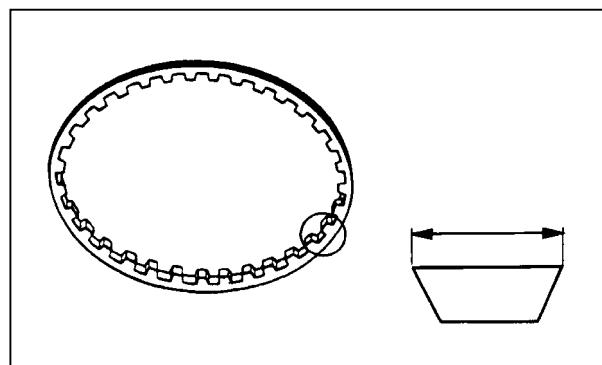
## 9. DRIVE AND DRIVEN PULLEYS

### DRIVE BELT INSPECTION

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

**Service Limit** (replace if below):  
22 mm (0.88 in)

\* Use specified genuine parts for replacement.



### CLUTCH OUTER INSPECTION

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

**Service Limit** (replace if over):  
153.5 mm (6.14 in)



### CLUTCH/DRIVEN PULLEY DISASSEMBLY

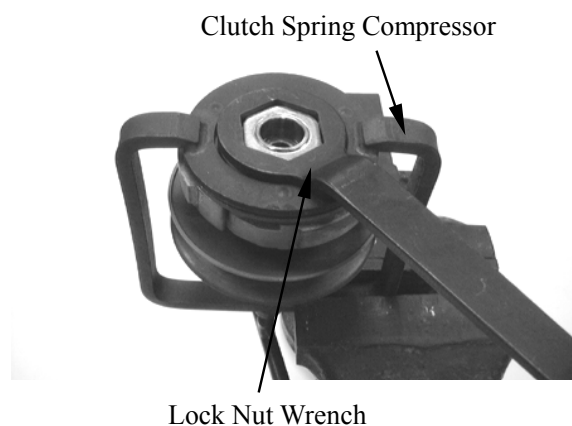
Hold the clutch/driven pulley assembly with the clutch spring compressor.

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

**Special**

Clutch Spring Compressor E027

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



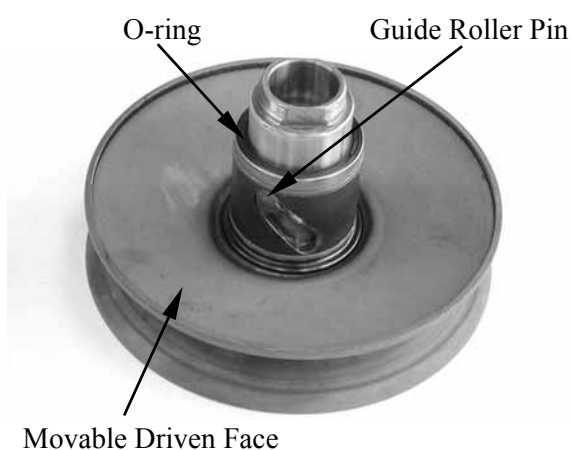
## 9. DRIVE AND DRIVEN PULLEYS

MXU 250

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



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.

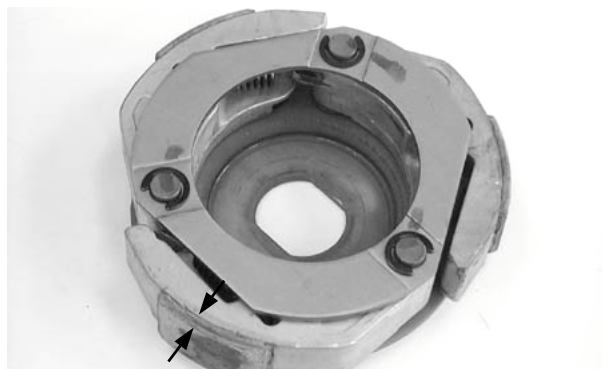


## 9. DRIVE AND DRIVEN PULLEYS

Measure the clutch lining thickness.

**Service Limit** (replace if below):

0.5 mm (0.02 in)

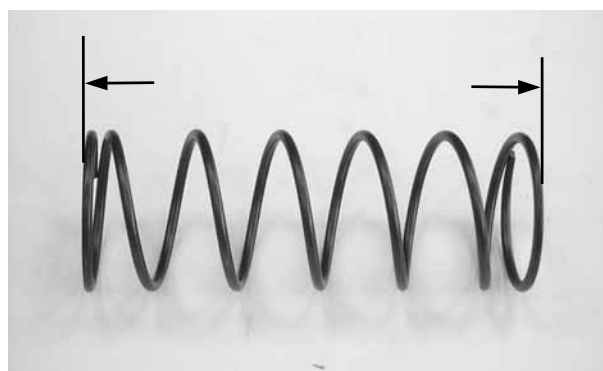


### INSPECTION

Measure the driven face spring free length.

**Service Limit** (replace if below):

131 mm (5.24 in)



Check the driven face for wear or damage.

Measure the driven face O.D.

**Service Limit** (replace if below):

39.94 mm (1.5976 in)



## 9. DRIVE AND DRIVEN PULLEYS

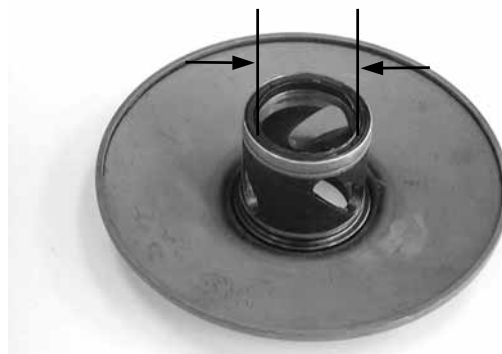
MXU 250

Check the movable driven face for wear or damage.

Measure the movable driven face I.D.

**Service Limit** (replace if over):

40.06 mm (1.6024 in)



### 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.



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

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

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

**Special**

Bearing Puller E008



## 9. DRIVE AND DRIVEN PULLEYS

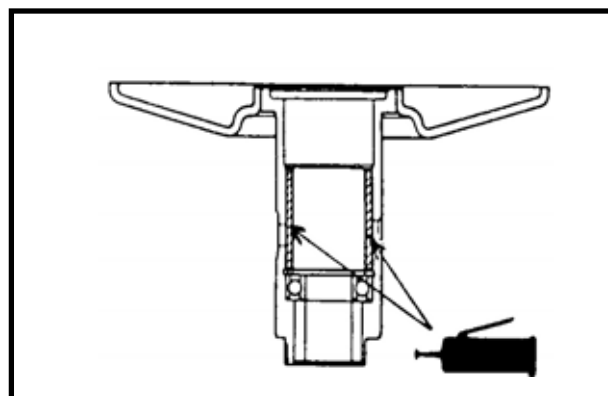
Seat the snap ring in its groove.  
Apply grease to the driven face bore areas.

- \* Pack all bearing cavities with proper grease.  
Specified grease: Heat resistance 230°C

Press a new needle bearing into the driven face.

**Special**

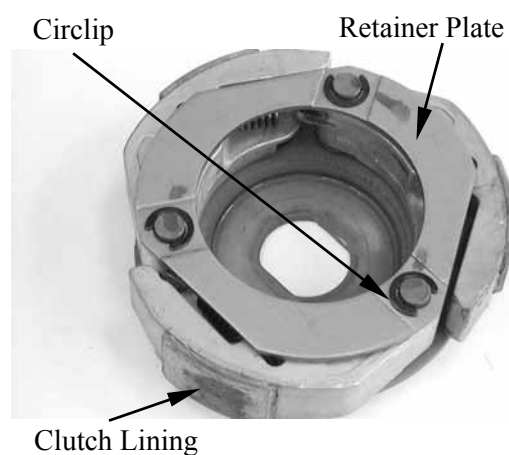
Oil Seal And Bearing Install E014



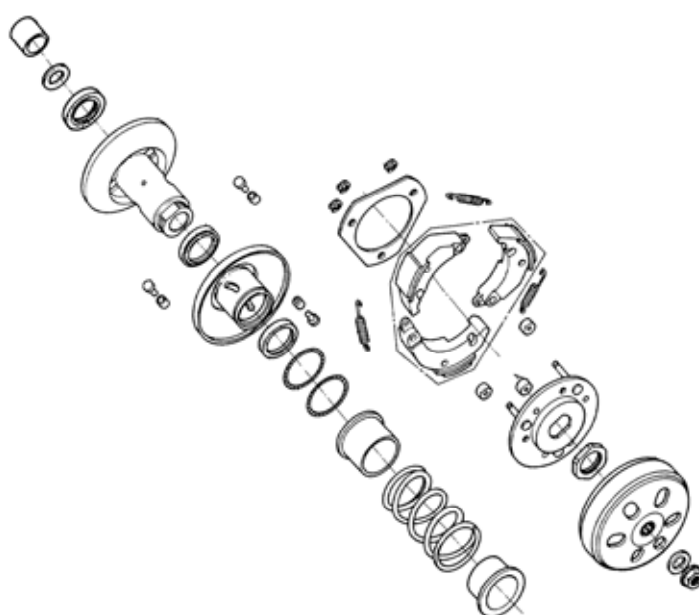
### CLUTCH DISASSEMBLY

Remove the circlips and retainer plate to disassemble the clutch.

- \* Keep grease off the clutch linings.



### CLUTCH / DRIVEN PULLEY ASSEMBLY



## 9. DRIVE AND DRIVEN PULLEYS

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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.

Clean the driven pulley faces and remove any grease from them.

Install the oil seal onto the moveable driven face.

Apply grease to the Oil seal and install them onto the moveable driven face.

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 clutch spring compressor and install the drive plate nut.

Set the clutch spring compressor in a vise and tighten the drive plate nut to the specified torque.

**Torque:** 5.5 kgf-m (55Nm, 40lbf-ft)

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

 Special

Clutch Spring Compressor E027

## 9. DRIVE AND DRIVEN PULLEYS

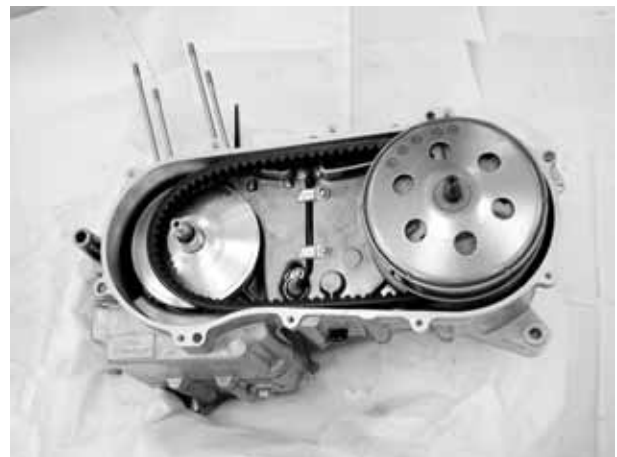
### INSTALLATION

Install the drive pulley face assembly and collar.



Install the clutch/driven pulley and driven belt onto the drive shaft.

\* Keep grease off the drive shaft.



Install the clutch outer, collar.  
Hold the clutch outer with the flywheel holder.  
Install and tighten the clutch outer nut.  
**Torque:** 5.5 kgf-m (55 Nm, 40 lbf-ft)

**Special**

Universal Holder E017



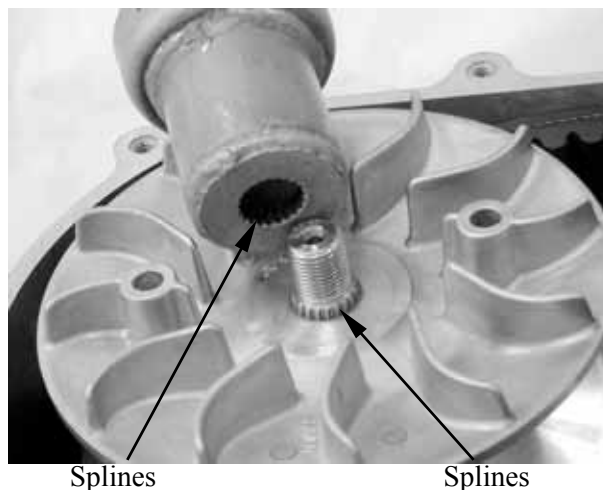
## 9. DRIVE AND DRIVEN PULLEYS

MXU 250

Install the drive pulley and ratchet.

\*

When installing the drive pulley face, compress it to let the drive belt move downward to the lowest position so that the drive pulley can be tightened. Make sure the ratchet into the splines on the crankshaft when the ratchet is installed. Do not get oil or grease on the drive belt or pulley faces.



Install and tighten the nut.

**Torque: 9.5 kgf-m (95 Nm, 68 lbf-ft)**

