

9. DRIVE AND DRIVEN PULLEYS

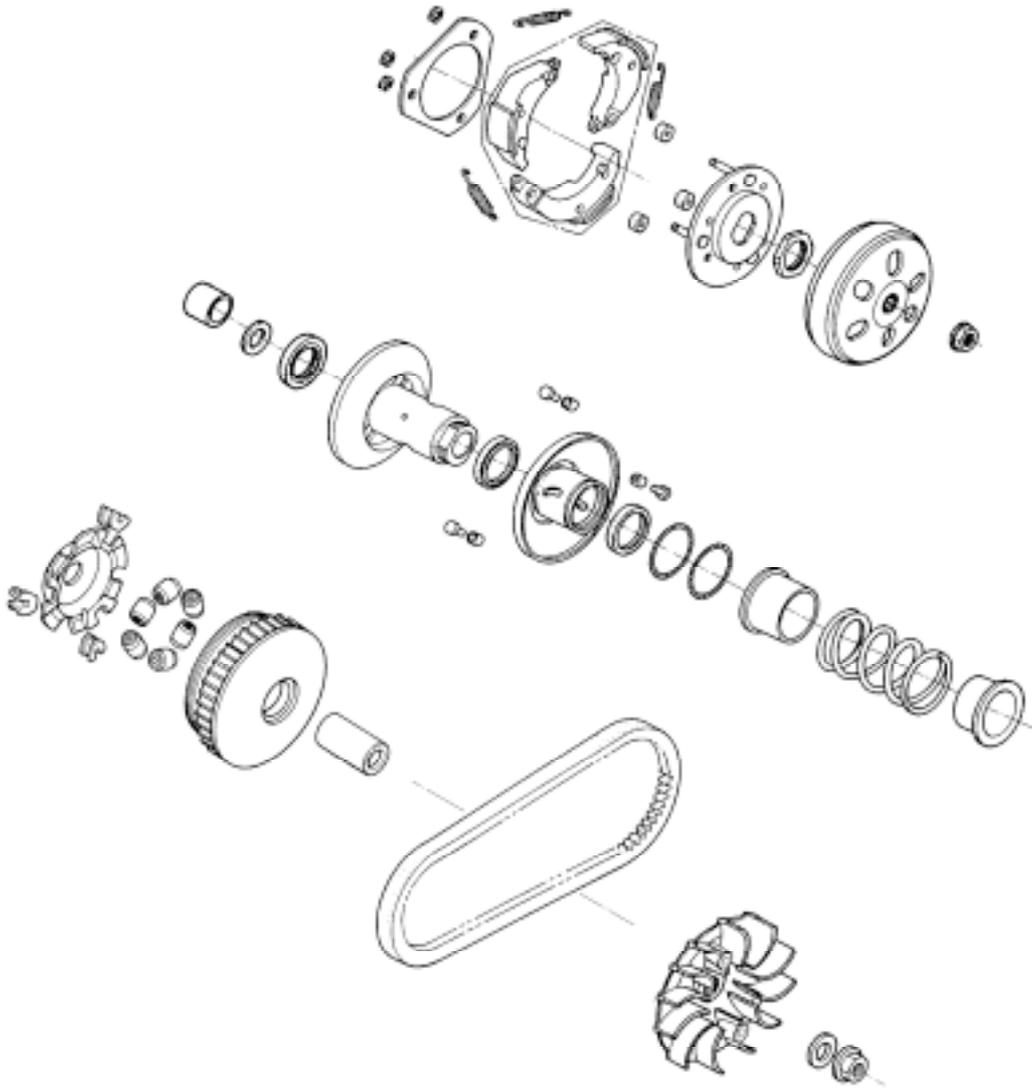


DRIVE AND DRIVEN PULLEYS

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9. DRIVE AND DRIVEN PULLEYS



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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

| Item | Standard (mm) | Service Limit (mm) |
|---------------------------------|----------------|--------------------|
| Movable drive face bushing I.D. | 26.989_ 27.052 | 27.06 |
| Drive face collar O.D. | 26.96_ 26.974 | 26.94 |
| Drive belt width | 23.6_ 24.4 | 22 |
| Clutch lining thickness | □ | 0.5 |
| Clutch outer I.D. | 153.0_ 153.2 | 153.5 |
| Driven face spring free length | □ | 131 |
| Driven face O.D. | 39.965_ 39.985 | 39.94 |
| Movable driven face I.D. | 40.000_ 40.025 | 40.06 |
| Weight roller O.D. | 22.92_ 23.08 | 22.8 |

TORQUE VALUES

| | |
|------------------|----------------|
| Drive face nut | 9.0_ 10.0kgf-m |
| Clutch outer nut | 5.0_ 6.0kgf-m |
| Drive plat nut | 5.0_ 6.0kgf-m |

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

Lack of power

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

Engine stalls or motorcycle creeps

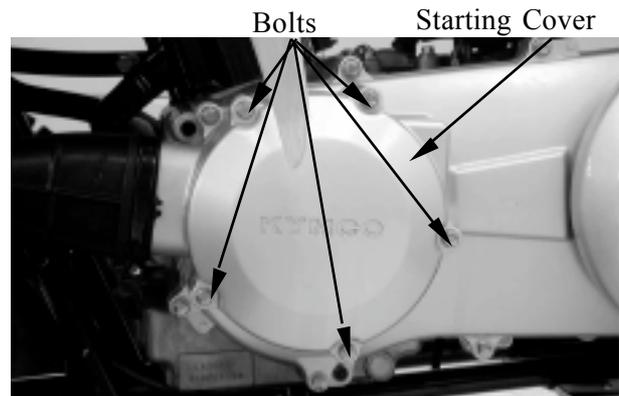
- Broken clutch weight spring

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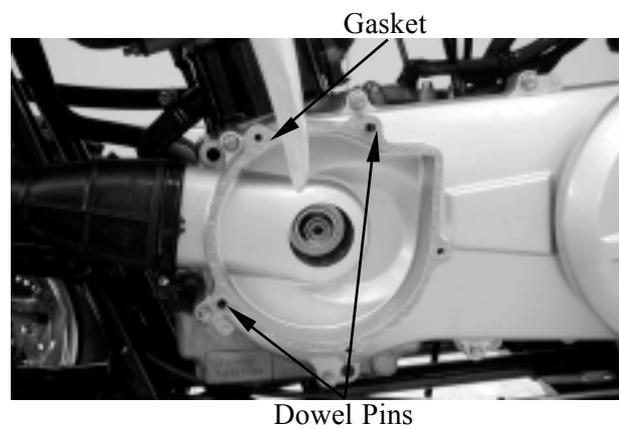
LEFT CRANKCASE COVER

REMOVAL

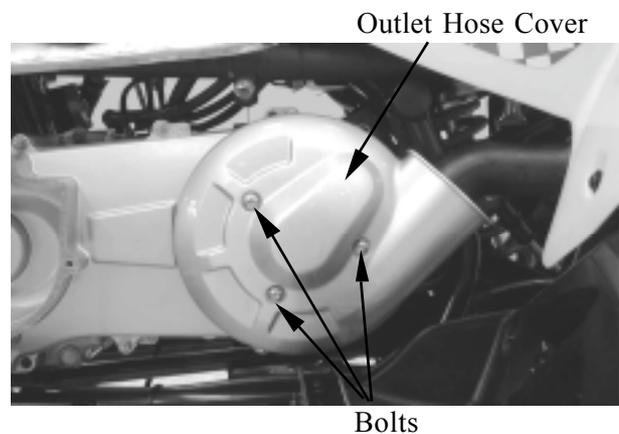
Remove the five bolts.
Remove the starting cover.



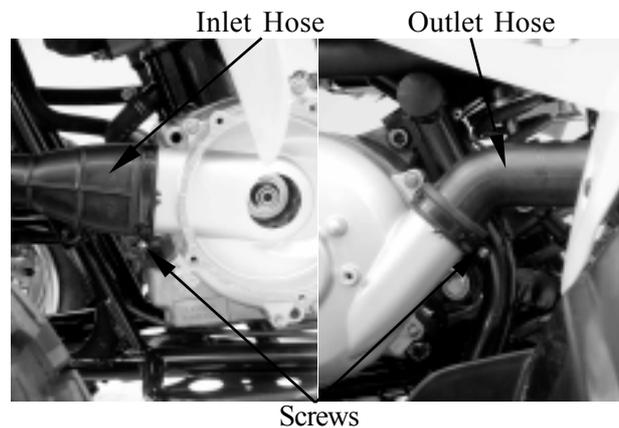
Remove the dowel pins and gasket.



Remove the three bolts.
Remove the outlet hose cover.

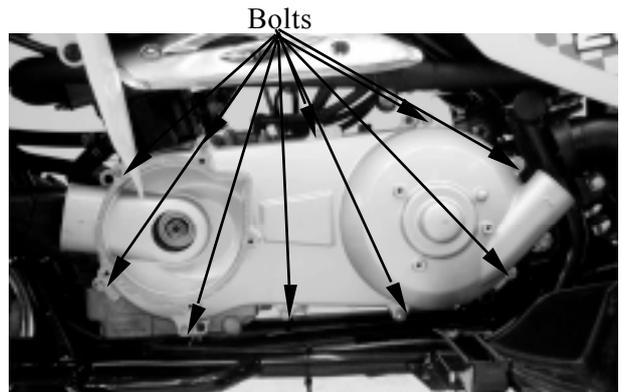


Loosen the drive belt air inlet and outlet hose band screws and disconnect them from the left crankcase cover.



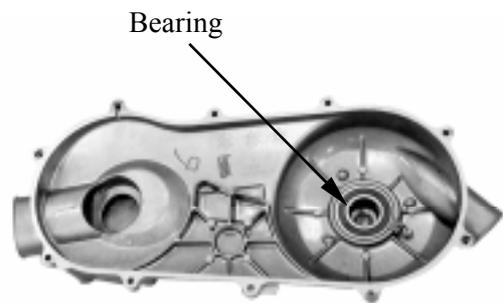
9. DRIVE AND DRIVEN PULLEYS

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



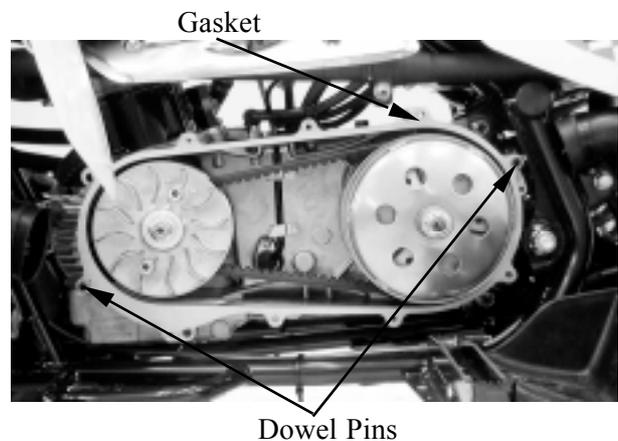
INSPECTION

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 starting cover and outlet hose cover.

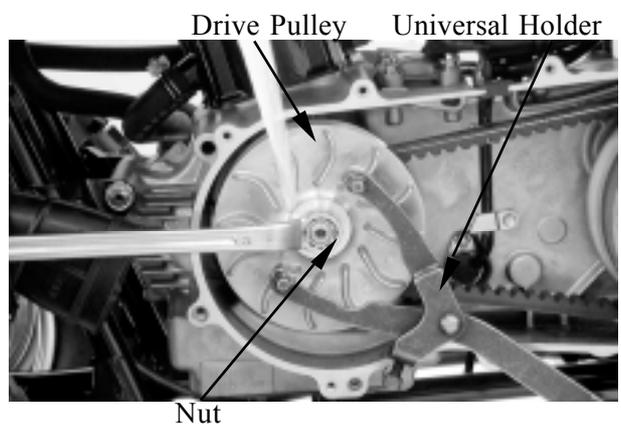


DRIVE PULLEY

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 washer.
Remove the drive pulley.

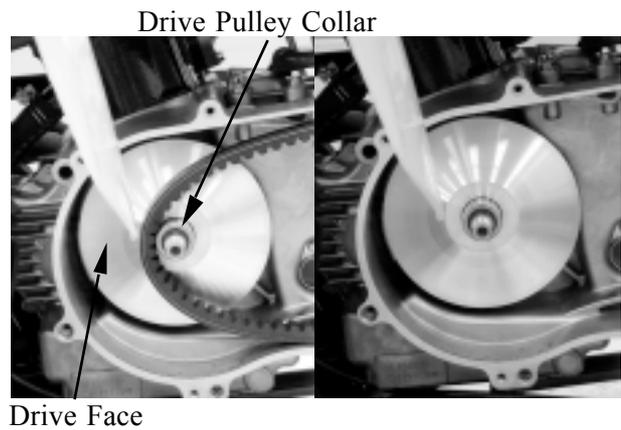


Special

Universal Holder E017

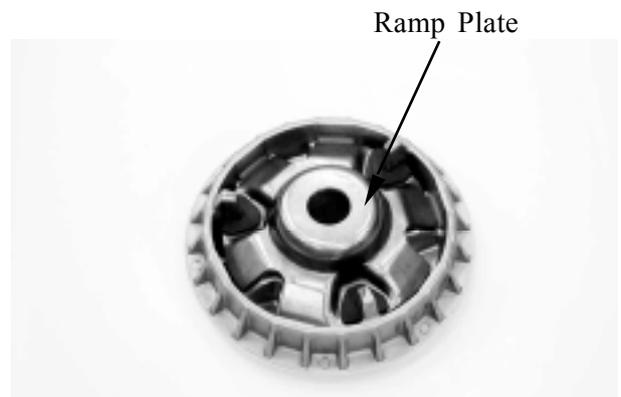
9. DRIVE AND DRIVEN PULLEYS

Remove the movable drive face assembly and drive pulley collar.

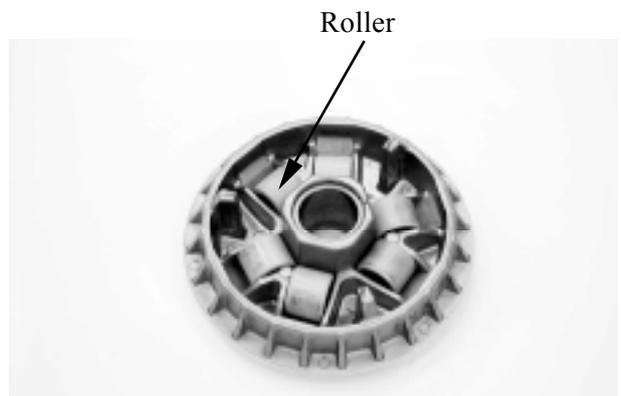


DISASSEMBLY

Remove the ramp plate.



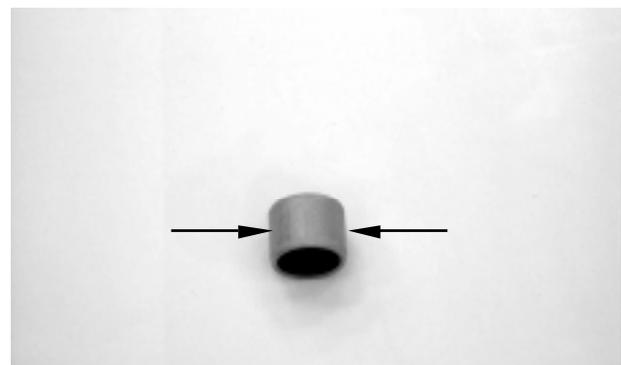
Remove the six weight rollers.



INSPECTION

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

Service Limit: 22.8mm replace if below.

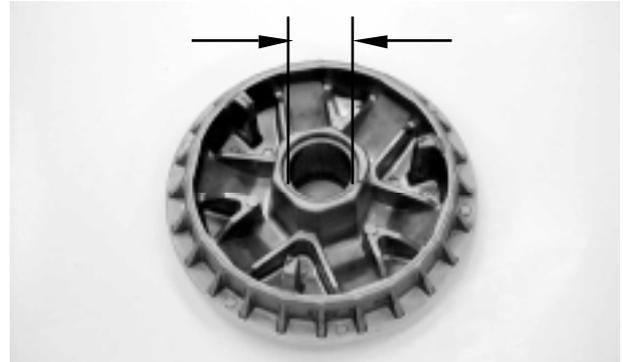


9. DRIVE AND DRIVEN PULLEYS

Measure the movable drive face bushing I.D.
Service Limit: 27.06mm replace if over

ASSEMBLY

Install the weight rollers into the movable drive face.
 Install the ramp plate.

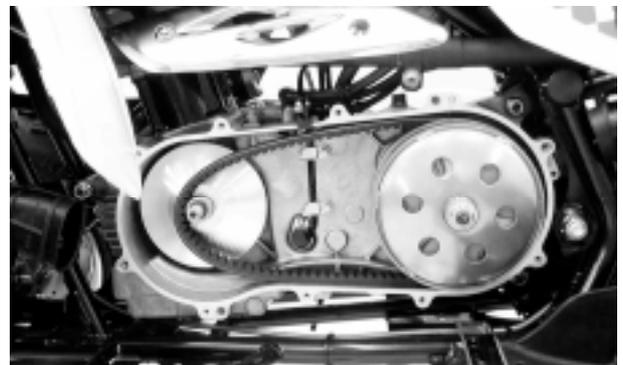


Check the drive pulley collar for wear or damage.
 Measure the O.D. of the drive pulley collar sliding surface.
Service Limit: 26.94mm replace if below



INSTALLATION

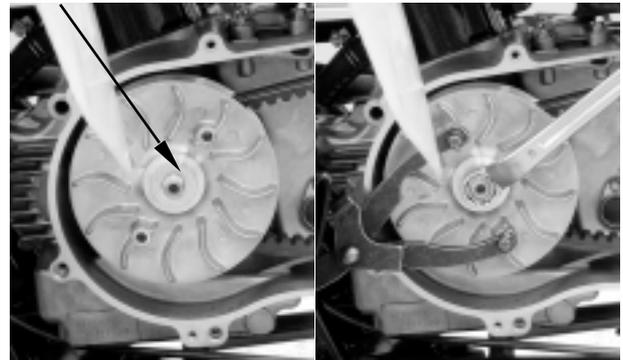
Install the drive pulley face assembly and collar.



Install the drive pulley, wash and nut.

⚠ 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.
 Install the washer with the "OUT SIDE" mark facing out.
 Do not get oil or grease on the drive belt or pulley faces.

Washer



Torque: 9.0_ 10.0kgf-m

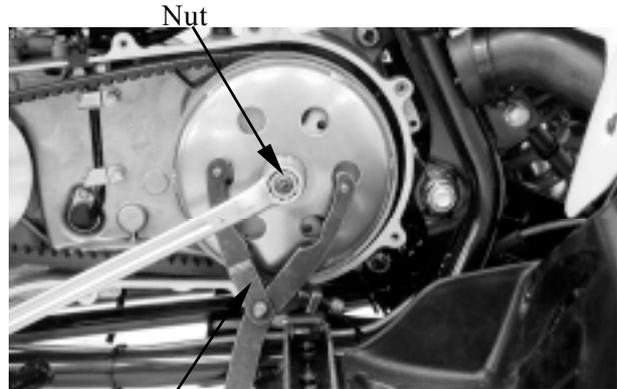
9. DRIVE AND DRIVEN PULLEYS

CLUTCH/DRIVEN PULLEY

REMOVAL

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.

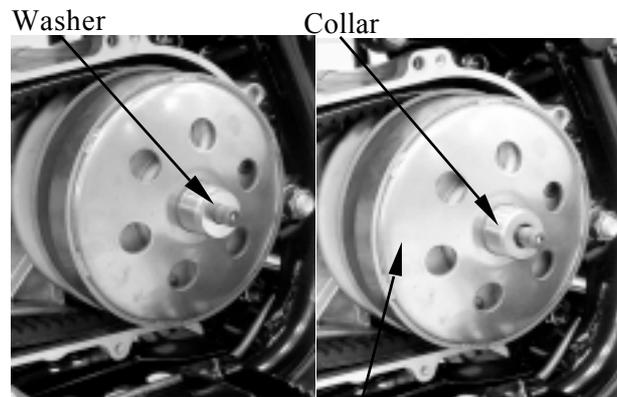


Universal Holder



Universal Holder E017

Remove the wash, collar and clutch outer.

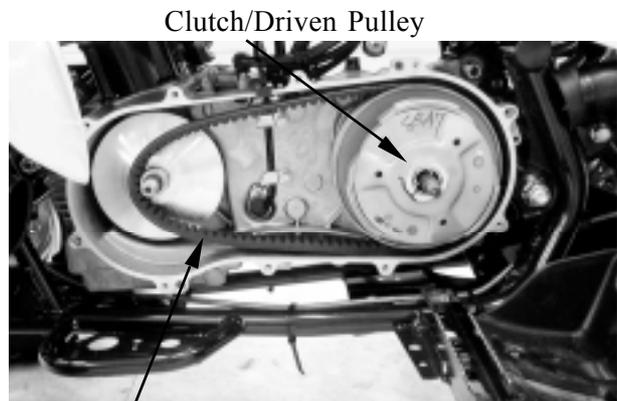


Washer

Collar

Clutch Outer

Remove the clutch/driven pulley and drive belt.



Clutch/Driven Pulley

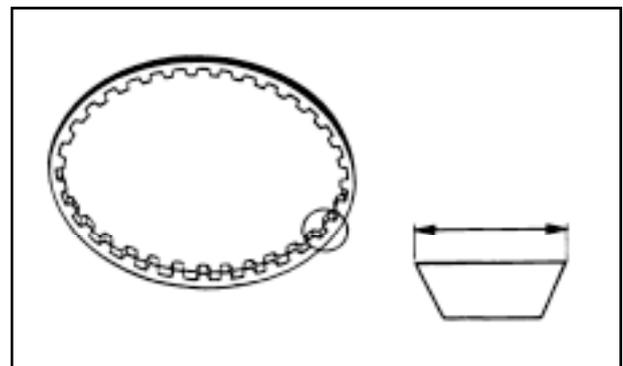
Drive Belt

DRIVE BELT INSPECTION

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

Service Limit: 22.0mm replace if below

Use specified genuine parts for replacement.



9. DRIVE AND DRIVEN PULLEYS

CLUTCH OUTER INSPECTION

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

Service Limit: 153.5mm replace if over



CLUTCH/DRIVEN PULLEY DISASSEMBLY

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

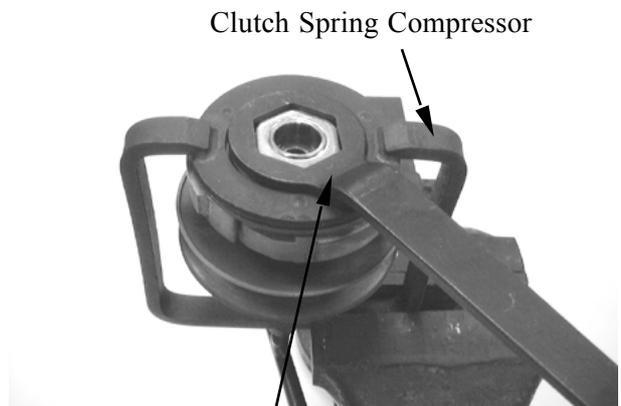
° Be sure to use a clutch spring compressor to avoid spring damage.

Special

Clutch Spring Compressor E027

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

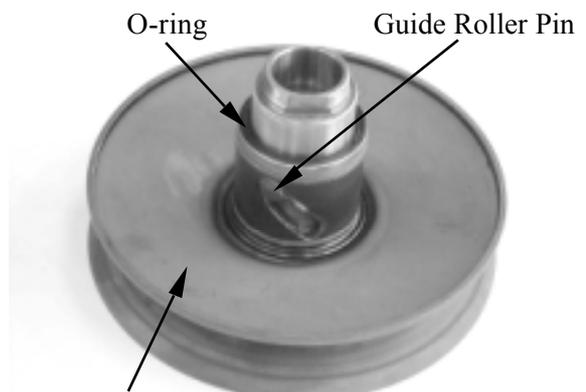
Loosen the clutch spring compressor and disassemble the clutch/driven pulley assembly. Remove the seal collar.



Lock Nut Wrench



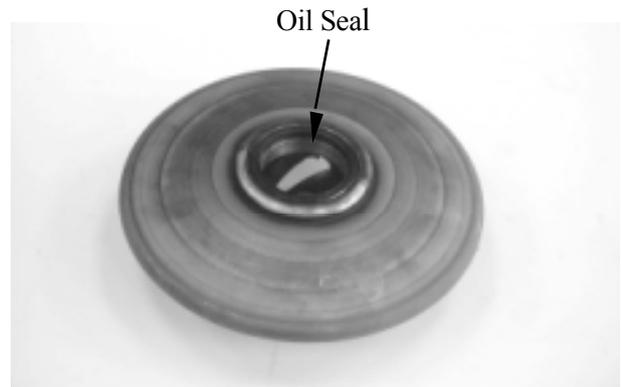
Pull out the guide roller pins and guide rollers. Remove the movable driven face from the driven face.



Movable Driven Face

9. DRIVE AND DRIVEN PULLEYS

Remove the oil seal from the movable driven face.

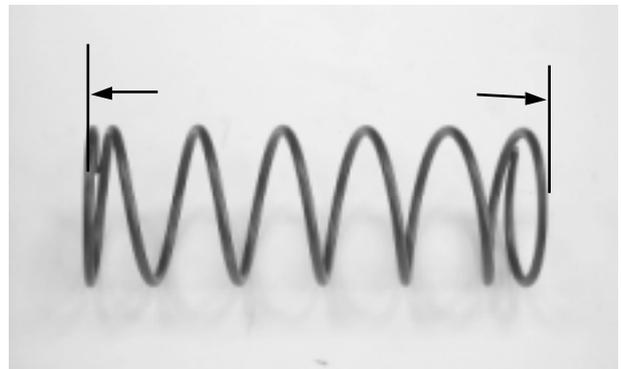


Measure the clutch lining thickness.
Service Limit: 0.5mm replace if below

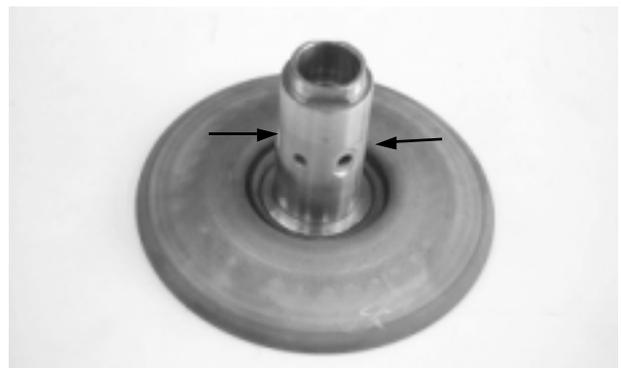


INSPECTION

Measure the driven face spring free length.
Service Limit: 131mm replace if below



Check the driven face for wear or damage.
Measure the driven face O.D.
Service Limit: 39.94mm replace if below

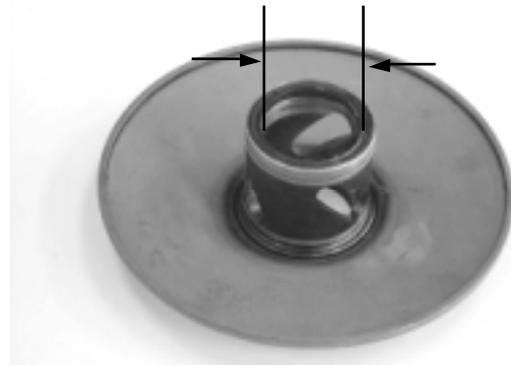


9. DRIVE AND DRIVEN PULLEYS

Check the movable driven face for wear or damage.

Measure the movable driven face I.D.

Service Limit: 40.06mm replace if over



DRIVEN PULLEY FACE BEARING REPLACEMENT

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

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

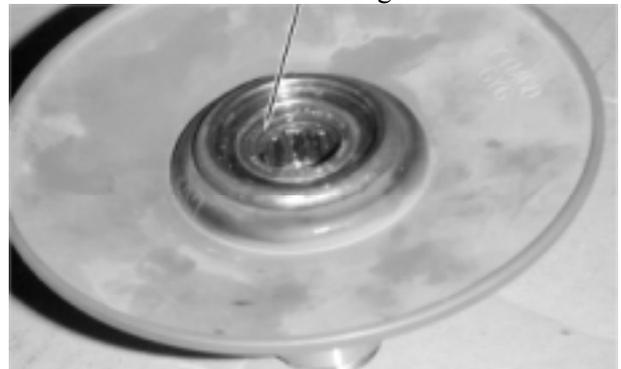
Inner Bearing



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

- °C 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 Puller E008

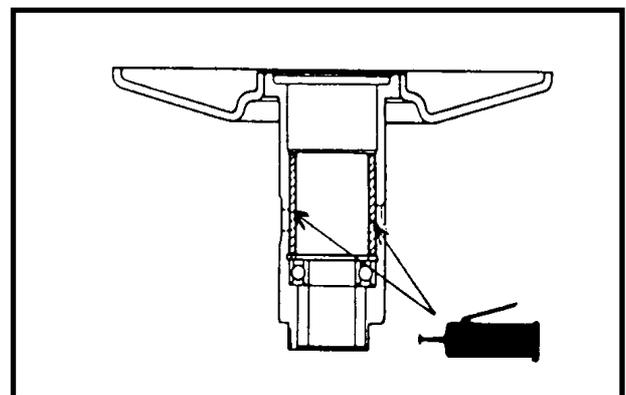
Seat the snap ring in its groove.
Apply grease to the driven face bore areas.

- °C 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

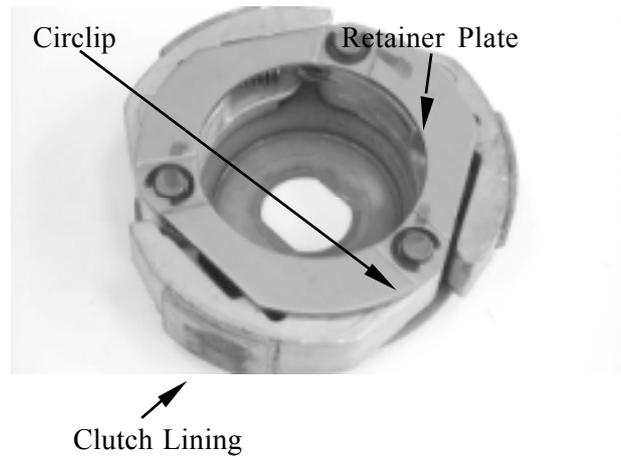


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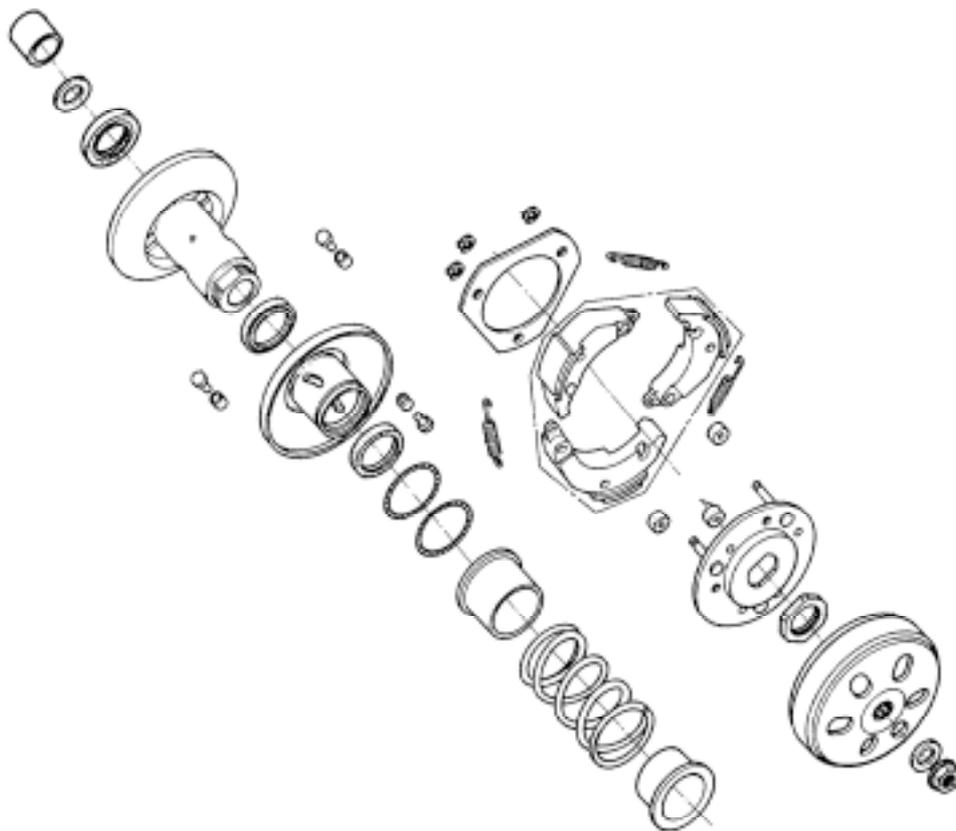
CLUTCH DISASSEMBLY

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

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: 5.0_ 6.0kgf-m

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

 Special

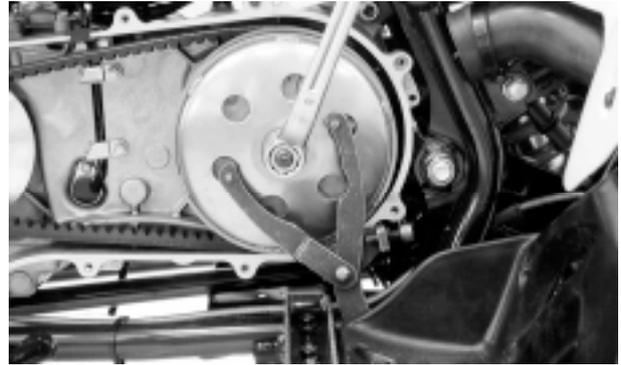
Clutch Spring Compressor E027

9. DRIVE AND DRIVEN PULLEYS

INSTALLATION

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

- Keep grease off the drive shaft.



Install the clutch outer, collar and washer.
Hold the clutch outer with the flywheel holder.

Install and tighten the clutch outer nut.

Torque: 5.0_ 6.0kg-m

Special

Universal Holder E017