
**KICK STARTER/DRIVE PULLEY/
CLUTCH/DRIVEN PULLEY**

7

SERVICE INFORMATION.....	7- 1
TROUBLESHOOTING.....	7- 1
KICK STARTER.....	7- 2
DRIVE BELT	7- 6
DRIVE PULLEY.....	7- 8
STARTER PINION	7-10
CLUTCH/DRIVEN PULLEY	7-11

7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

SERVICE INFORMATION

GENERAL INSTRUCTIONS

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

SPECIFICATIONS	Standard (mm)		Service Limit (mm)	
	SH10DA	SF10DA	SH10DA	SF10DA
Drive pulley collar O.D.	20.01_	20.025	19.97	
Movable drive face I.D.	20.035_	20.085	20.21	
Weight roller O.D.	13.0		12.4	
Clutch outer I.D.	107_	107.2	107.5	
Driven face spring free length	87.9		82.6	
Driven face O.D.	33.965_	33.985	33.94	
Movable driven face I.D.	34.0_	34.025	34.06	
Drive belt width	18		17	

TORQUE VALUES

Drive face nut	34.3_	39.2N-m
Clutch outer nut	34.3_	44.1N-m
Clutch drive plate nut	49.0_	58.8N-m

SPECIAL TOOLS

Lock nut wrench, 28mm	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

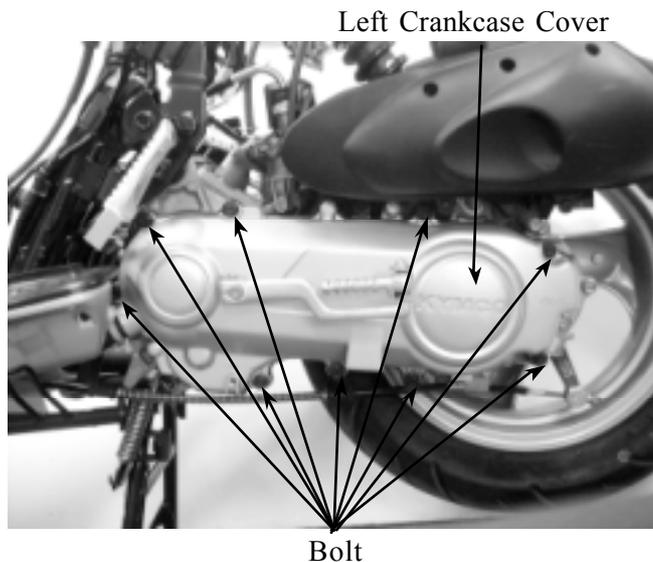
- Worn drive belt
- Weak driven face spring
- Worn weight roller
- Faulty driven face

7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

KICK STARTER

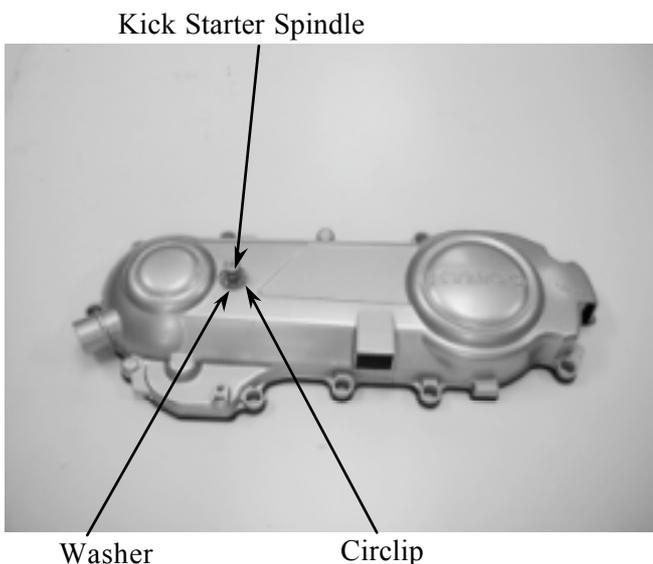
LEFT CRANKCASE COVER REMOVAL

Remove the drive belt cooling air tube connector circlip.
Remove the nine left crankcase cover bolts, left crankcase cover and dowel pins.
Inspect the left crankcase cover seal rubber for damage or deterioration.

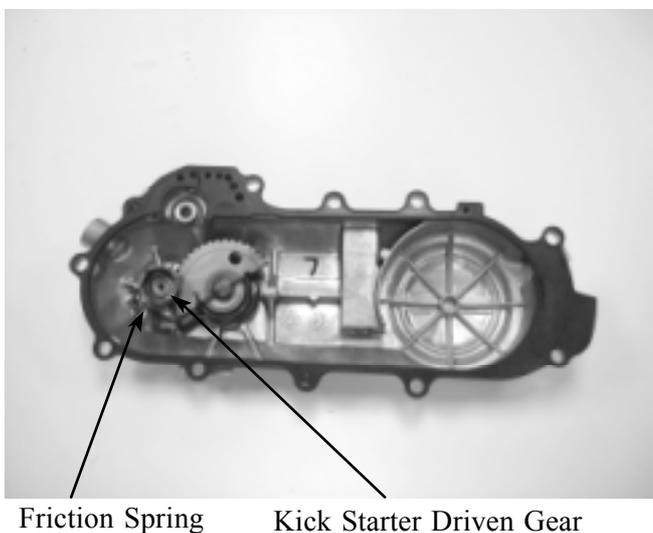


KICK STARTER SPINDLE REMOVAL

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

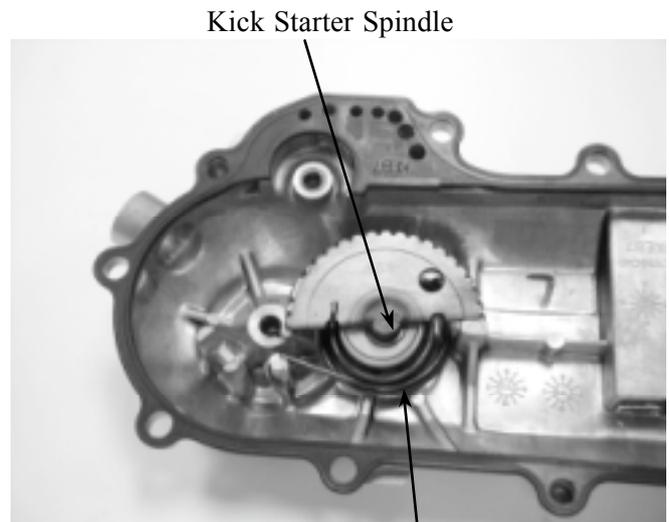


Slightly rotate the kick starter spindle to remove the kick starter driven gear together with the friction spring.



7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

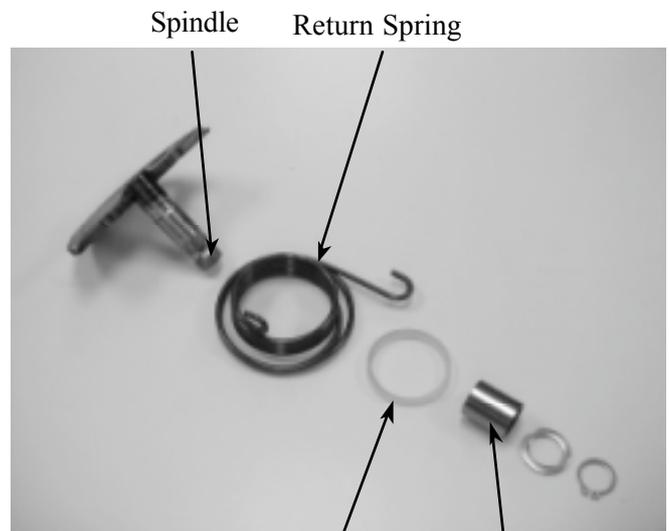
Remove the kick starter spindle and return spring from the left crankcase cover.
Remove the kick starter spindle bushing.



Return Spring

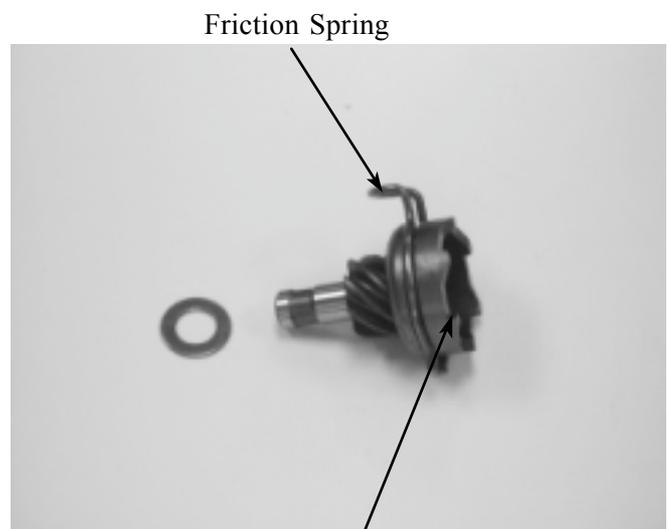
KICK STARTER SPINDLE INSPECTION

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.



Plastic Bushing Spindle Bushing

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

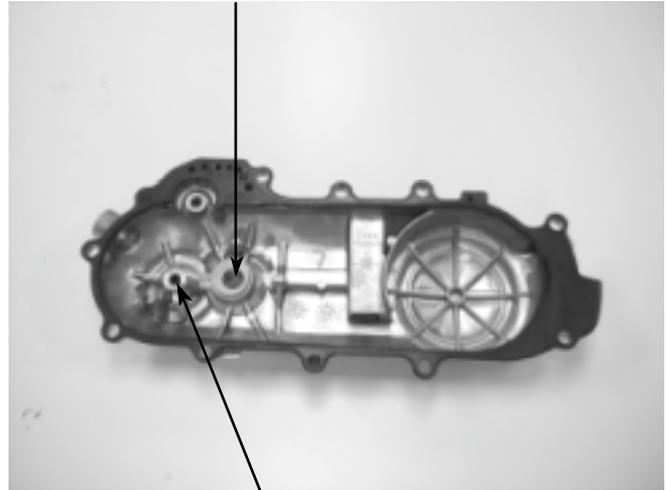


Kick Starter Driven Gear

7. 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

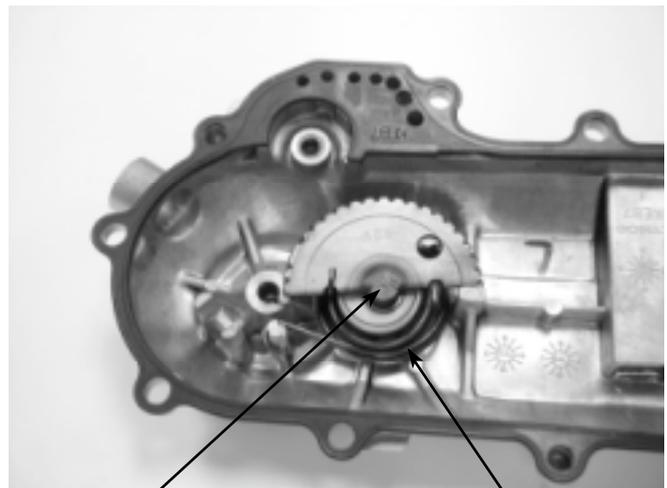


Kick Starter Driven Gear Forcing Part

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.

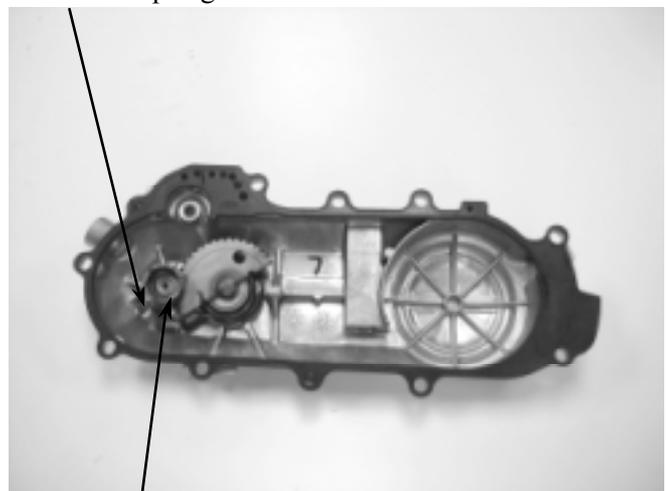


Kick Starter Spindle

Friction Spring

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

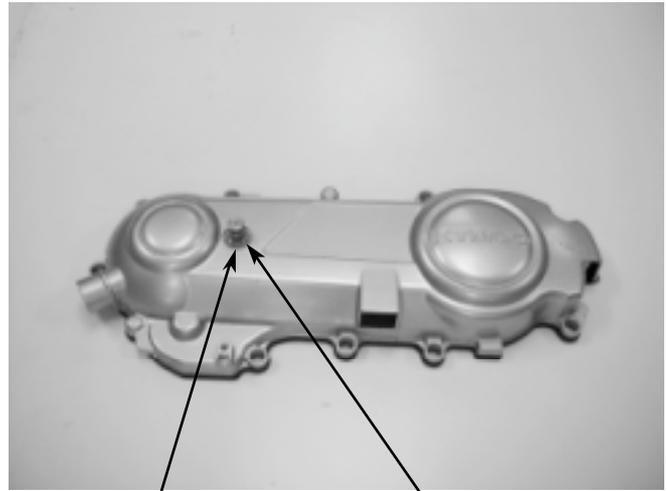
Friction Spring



Kick Starter Driven Gear

7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

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

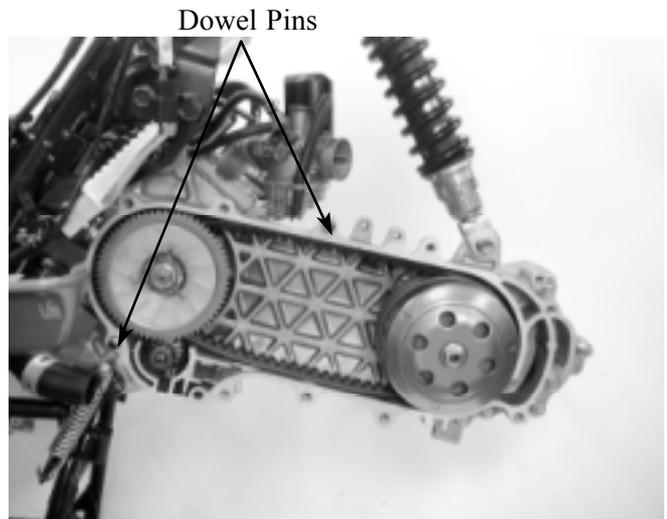


Washer

Circlip

LEFT CRANKCASE COVER INSTALLATION

First install the dowel pins and then the seal rubber.



Dowel Pins

Install the left crankcase cover and tighten the nine bolts diagonally. Connect the drive belt cooling air tube and install the circlip.



Left Crankcase Cover

7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

DRIVE BELT

Remove the left crankcase cover.

INSPECTION

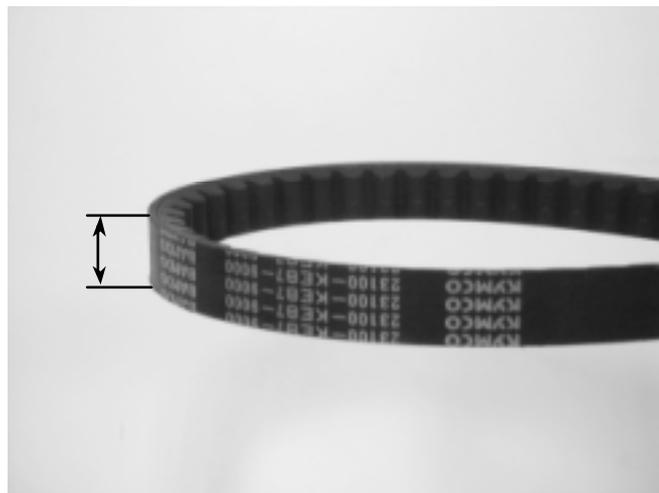
Check the drive belt for cracks, separation or abnormal or excessive wear.
Measure the drive belt width.

Service Limit:

SH10DA: 17mm replace if below

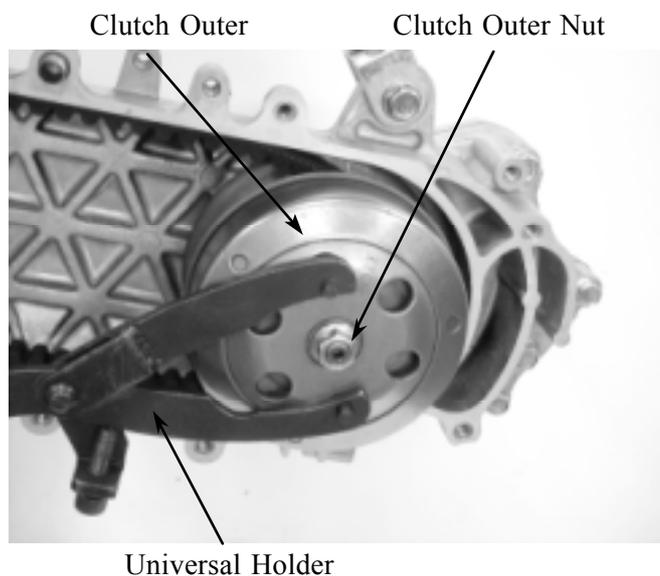
SF10DA: 17mm replace if below

* Use specified genuine parts for replacement.

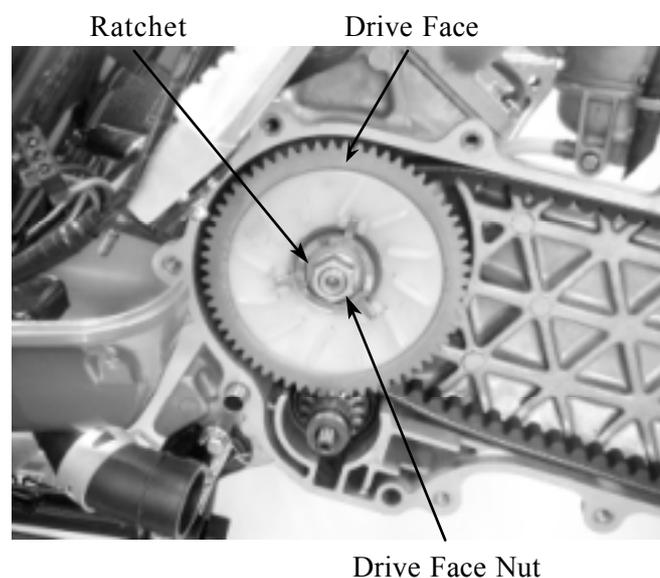


REPLACEMENT

Remove the nine left crankcase cover bolts and left crankcase cover. (⇒7-2)
Hold the clutch outer with the universal holder and remove the 14mm clutch outer nut and clutch outer.

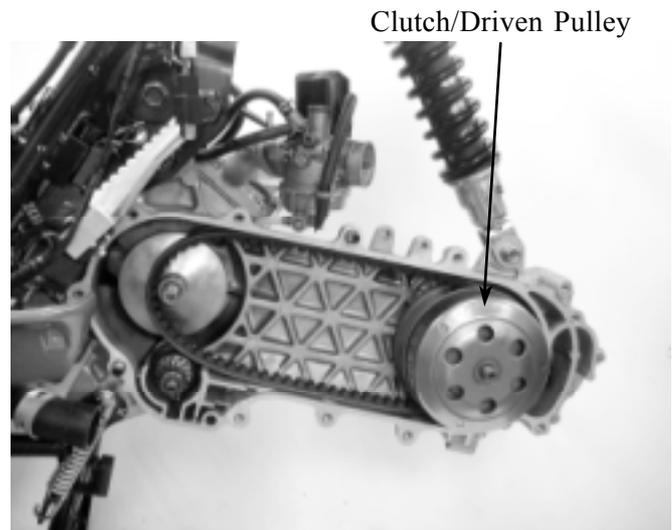


Hold the drive pulley with the holder and remove the 17mm drive face nut.
Remove the starting ratchet.
Remove the drive pulley face.



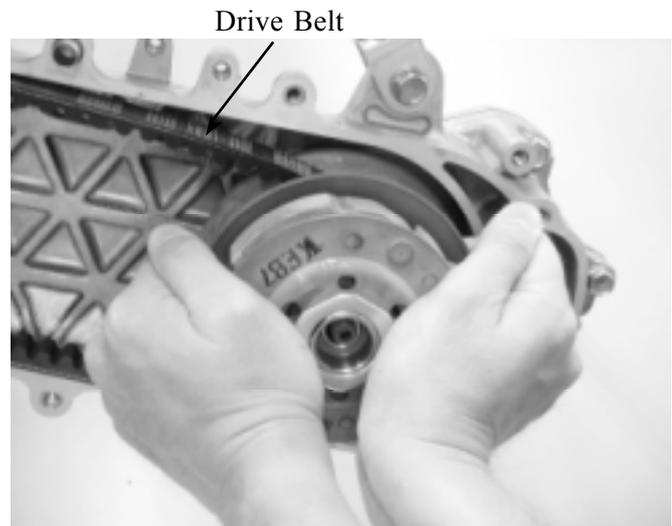
7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

Remove the drive belt from the clutch/
driven pulley.



DRIVE BELT INSTALLATION

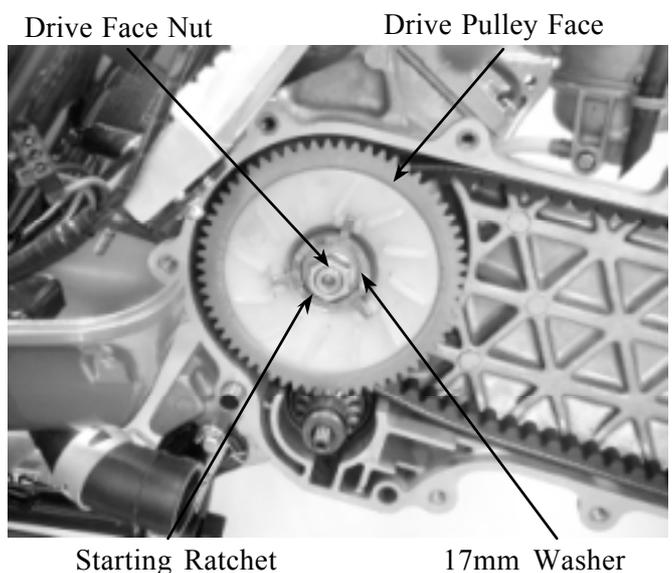
Turn the driven pulley clockwise and lift it
up to expand the drive belt groove and then
install a new drive belt.



Set the drive belt on the drive pulley.
Install the drive pulley face, starting ratchet
and 17mm washer, then tighten the drive
face nut.

Torque: 34.3_ 39.2N-m

* When installing the drive face nut, make
sure that the tooth spaces of the drive
pulley face and starting ratchet align
with the teeth of the crankshaft.

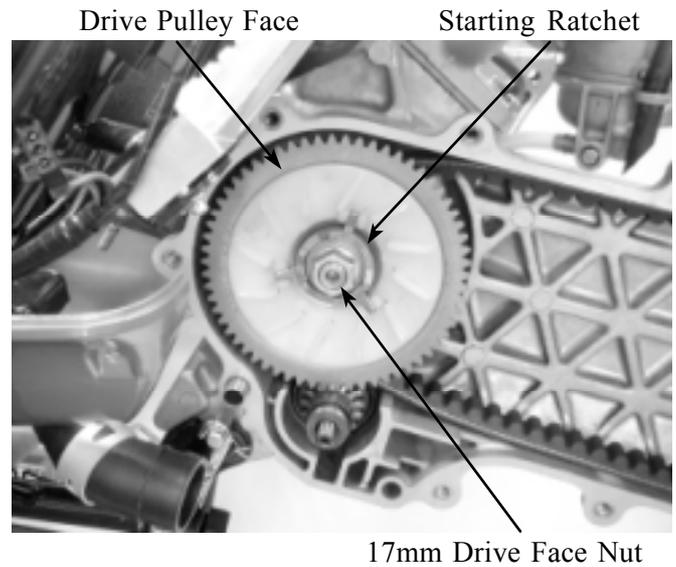


7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

DRIVE PULLEY

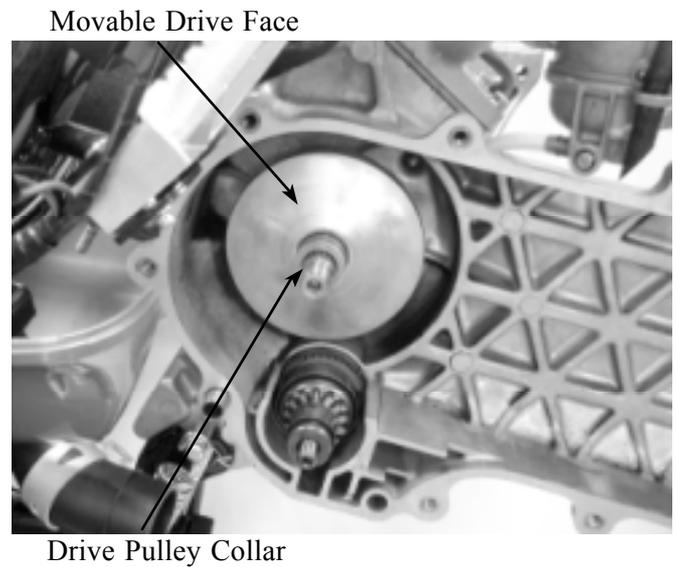
REMOVAL

Hold the drive pulley with the holder and remove the 17mm drive face nut. Remove the starting ratchet, 17mm washer and drive pulley face.

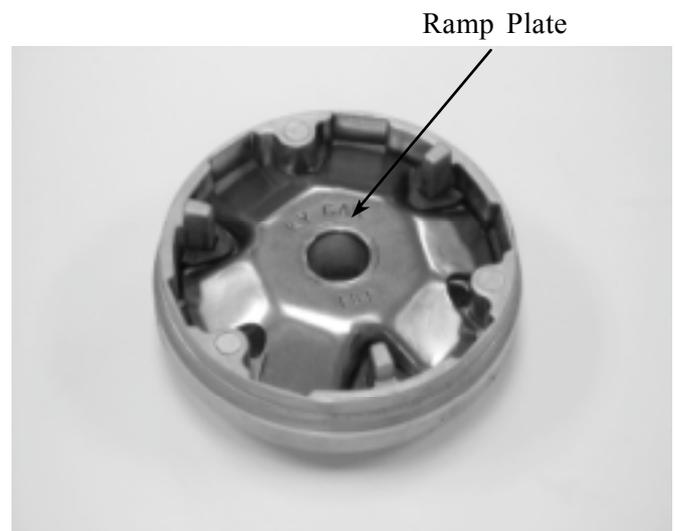


MOVABLE DRIVE FACE DISASSEMBLY

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



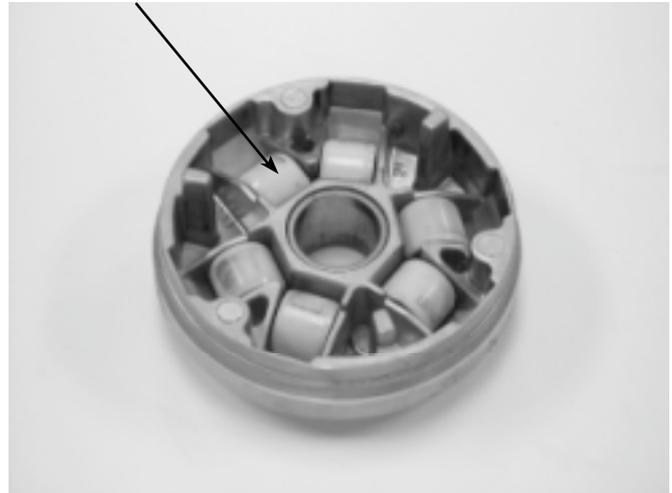
Remove the ramp plate.



7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

Remove the weight rollers.

Weight Roller



MOVABLE DRIVE FACE INSPECTION

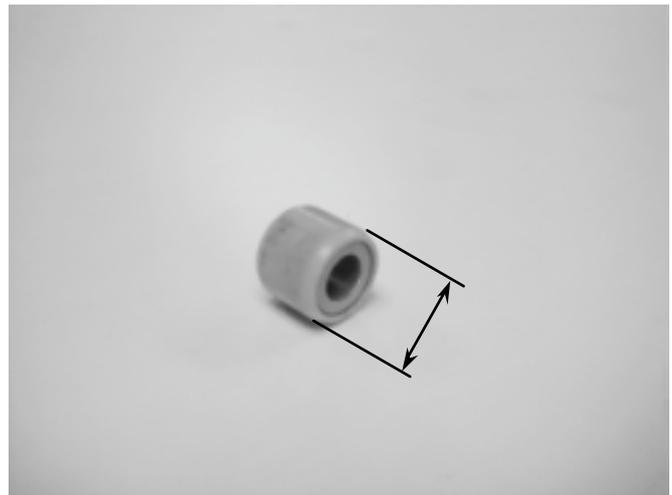
Check each weight roller for wear or damage.

Measure each roller O.D.

Service Limit:

SH10DA: 12.4mm replace if below

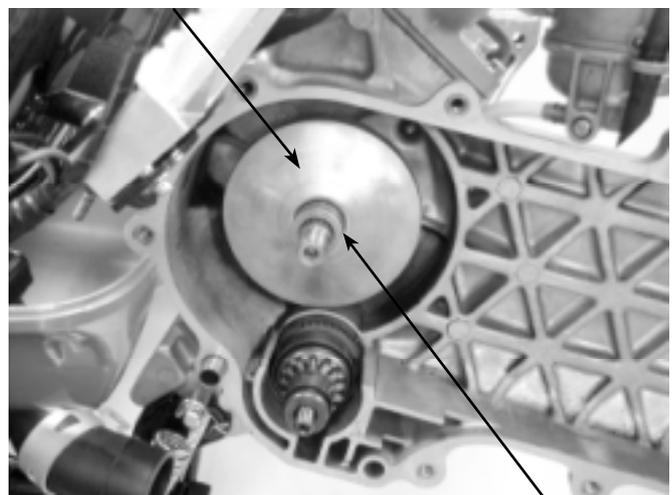
SF10DA: 12.4mm replace if below



DRIVE PULLEY INSTALLATION

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

Movable Drive Face



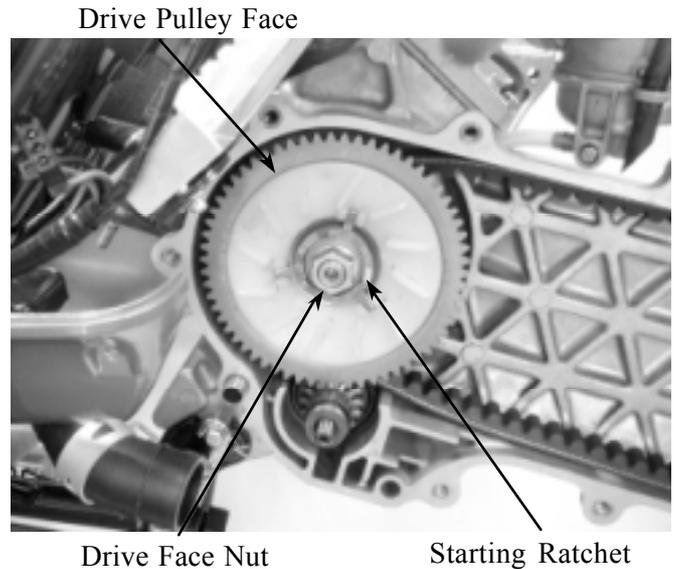
Drive Pulley Collar

7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

Install the drive belt on the crankshaft.
Install the drive face, starting ratchet and
washer, then tighten the 17mm drive face
nut.

Torque: 34.3_ 39.2N-m

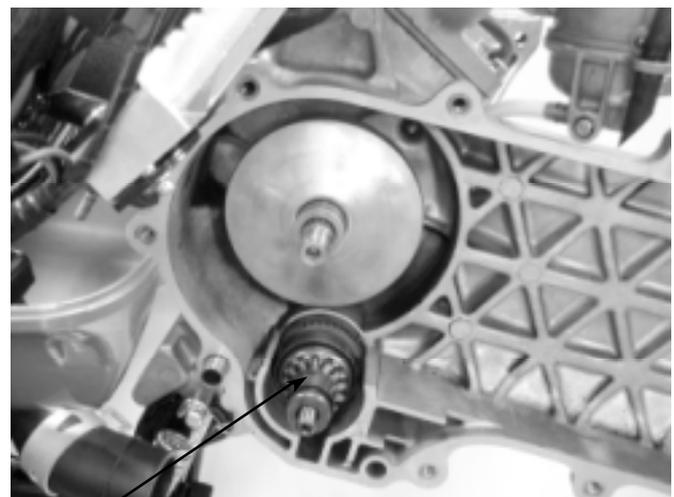
Keep grease or oil off the drive belt and
drive pulley faces.



STARTER PINION

REMOVAL

Remove the left crankcase cover. (⇒7-2)
Remove the drive pulley. (⇒7-6)
Remove the starter pinion.



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.

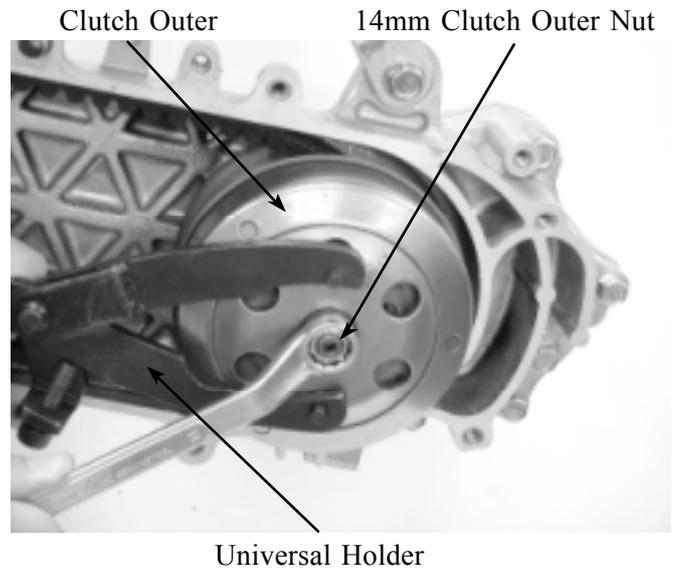


7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

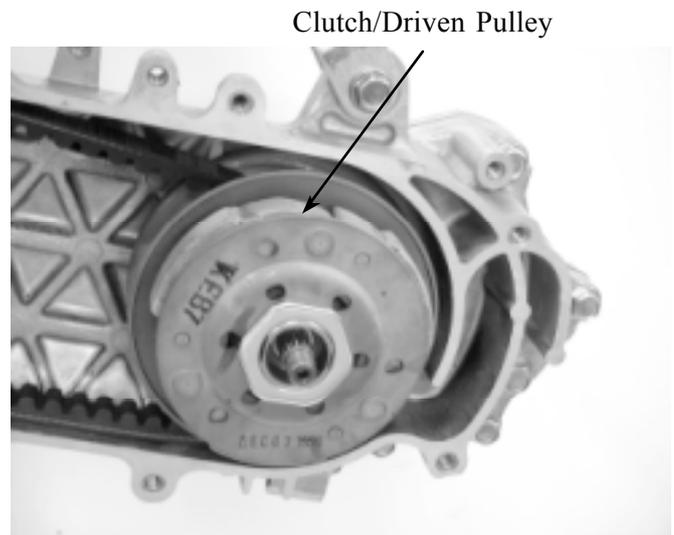
CLUTCH/DRIVEN PULLEY

CLUTCH/DRIVEN PULLEY REMOVAL

Remove the drive pulley. (⇒7-6)
Hold the clutch outer with the universal holder and remove the 14mm clutch outer nut.
Remove the clutch outer.

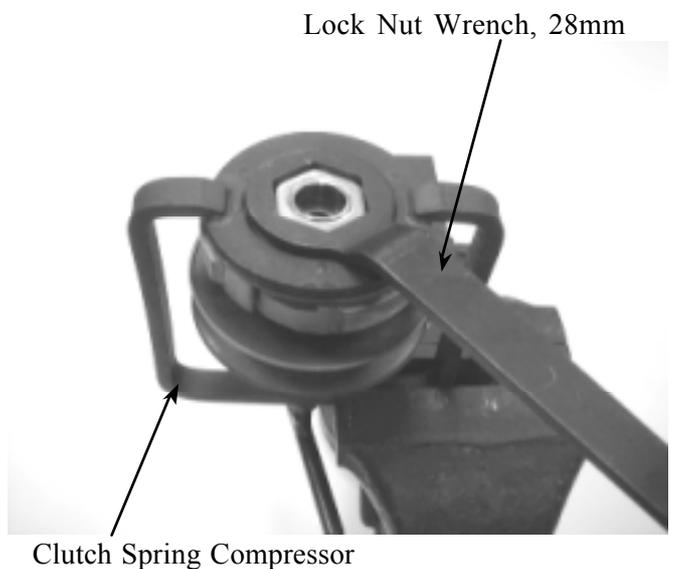


Remove the clutch/driven pulley.
Remove the drive belt from the clutch/driven pulley.



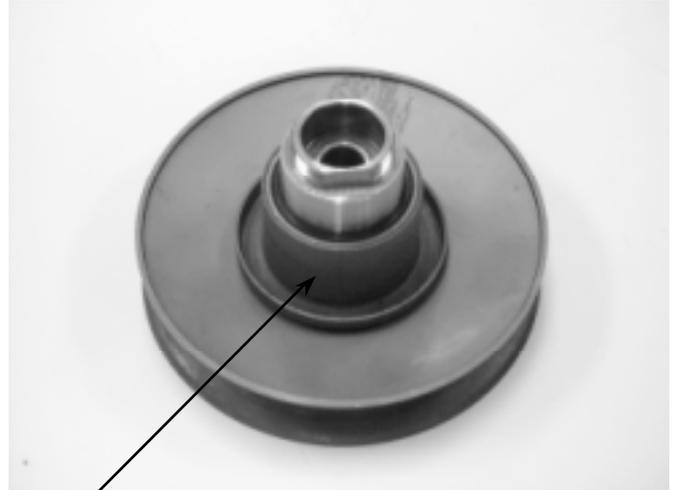
CLUTCH/DRIVEN PULLEY DISASSEMBLY

Compress the clutch/driven pulley spring with the clutch spring compressor and remove the 28mm drive plate nut.
Remove the driven face spring.



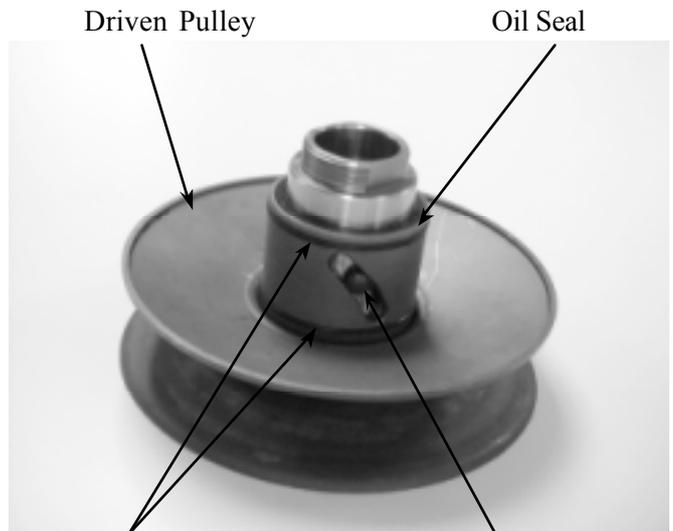
7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

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:

SH10DA: 107.5mm replace if over

SF10DA: 107.5mm replace if over



7. 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

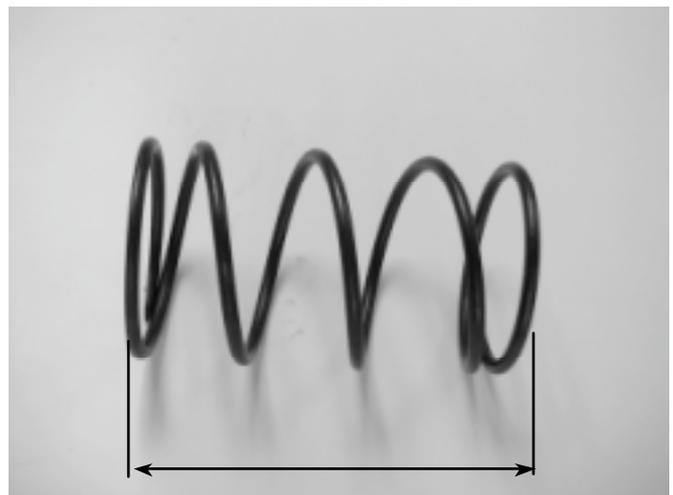


Measure the driven face spring free length.

Service Limit:

SH10DA: 82.6mm replace if below

SF10DA: 82.6mm replace if below



Check the driven face assembly for wear or damage.

Measure the driven face O.D.

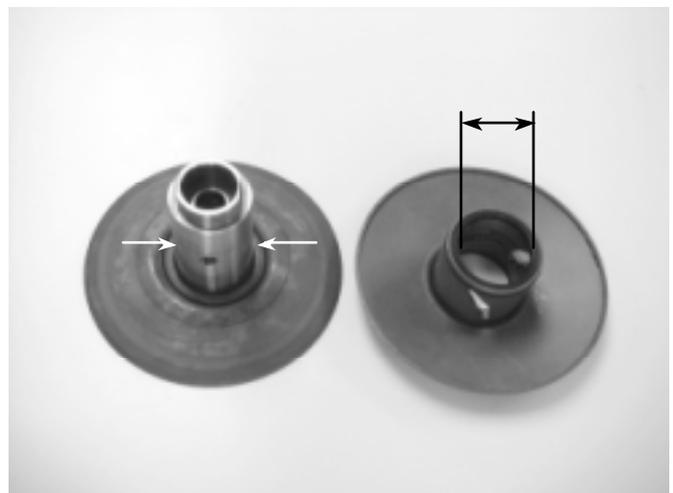
Service Limit: 33.94mm replace if below

Check the movable driven face for wear or damage.

Measure the movable driven face I.D.

Service Limit: 34.06mm replace if over

Check the guide roller pins for stepped wear.



7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

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 drive outer bearing out of the driven face.

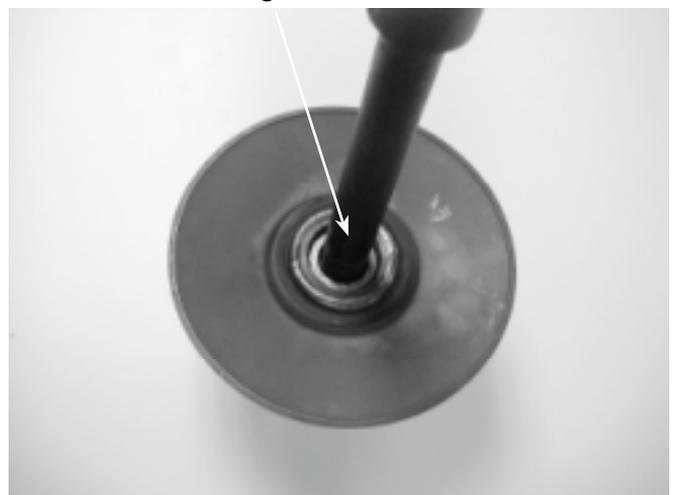


Outer Bearing

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

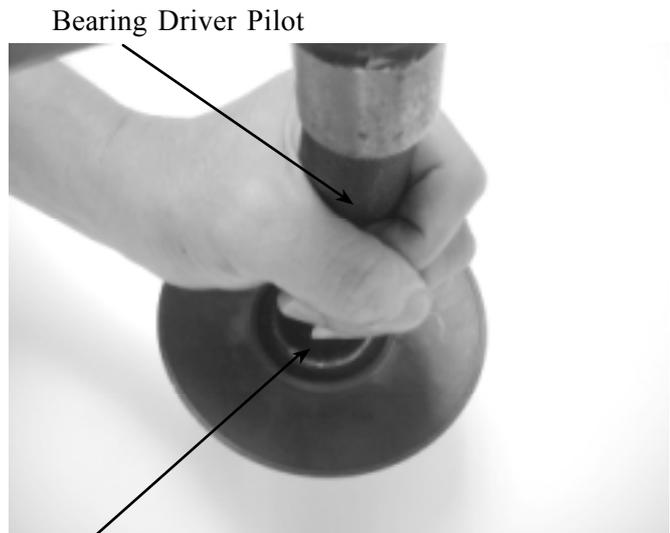
* Pack all bearing cavities with
5.0_ 5.6g grease.
Specified grease: 230°C Heat-resistant
grease

Bearing Outer Driver



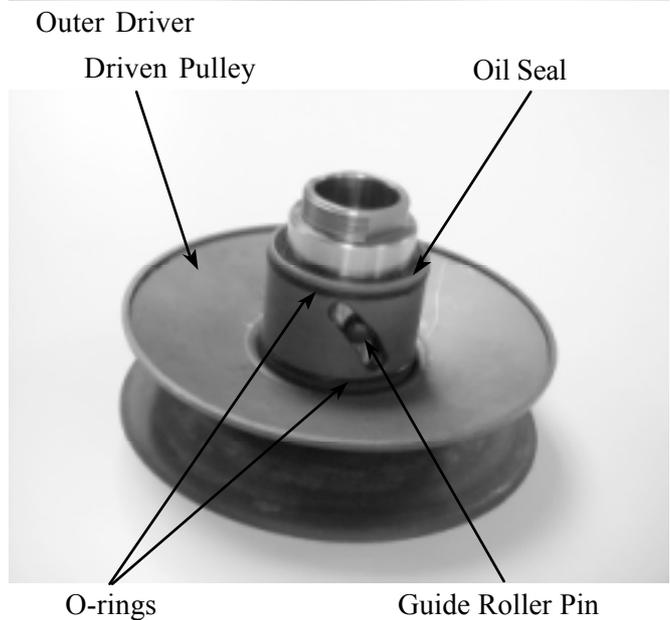
7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

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

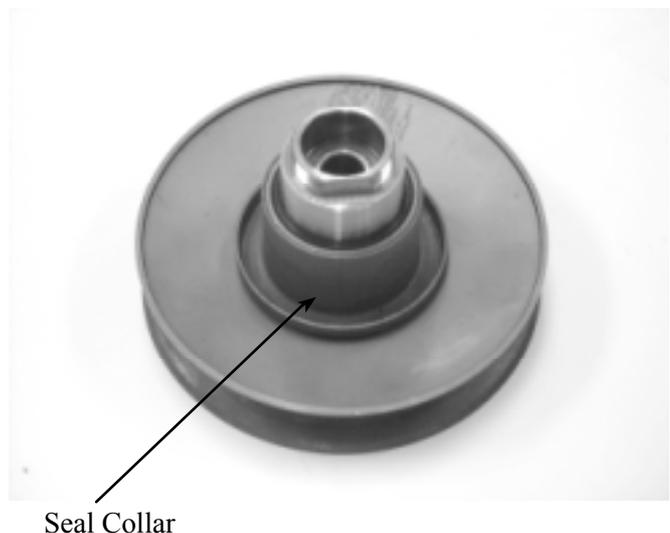


CLUTCH/DRIVEN PULLEY ASSEMBLY

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



Install the seal collar.



7. KICK STARTER/DRIVE PULLEY/ CLUTCH/DRIVEN PULLEY

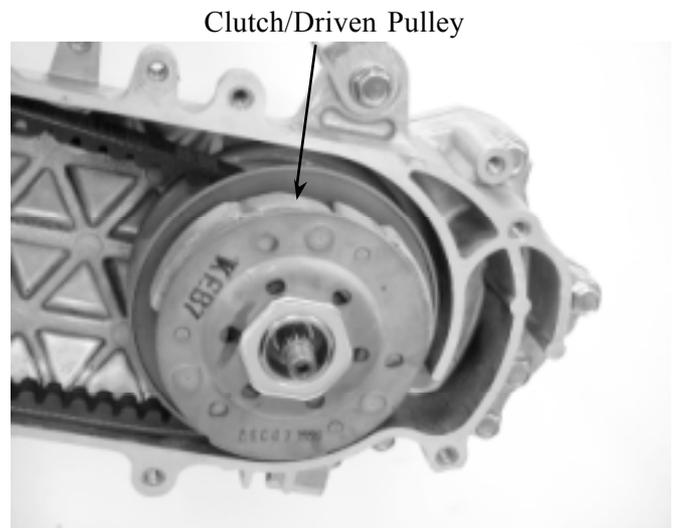
Set the driven pulley, driven face spring and clutch assembly onto the clutch spring compressor. Compress the tool and install the 28mm drive plate nut. Tighten the 28mm nut to the specified torque.

Torque: 49.0_ 58.8N-m



CLUTCH/DRIVEN PULLEY INSTALLATION

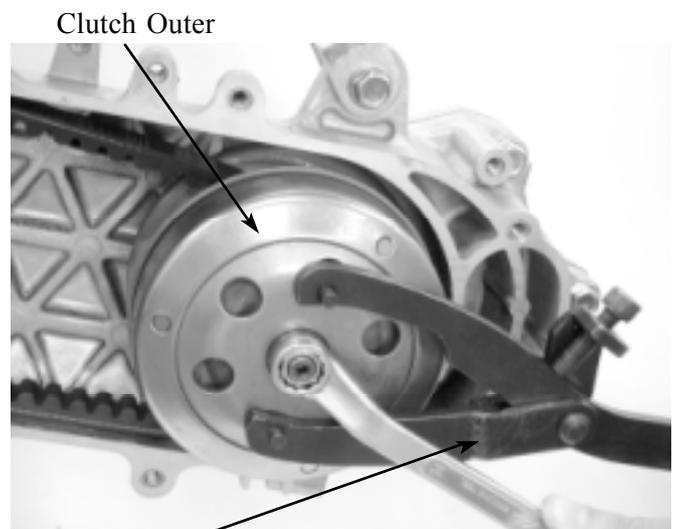
Install the drive belt on the clutch/driven pulley and then install the clutch/driven pulley onto the drive shaft.



Install the clutch outer.
Hold the clutch outer with the universal holder.
Install and tighten the 10mm clutch outer nut.

Torque: 34.3_ 44.1N-m

Install the left crankcase cover. (⇒7-5)



Universal Holder