

9. DRIVE AND DRIVEN PULLEYS

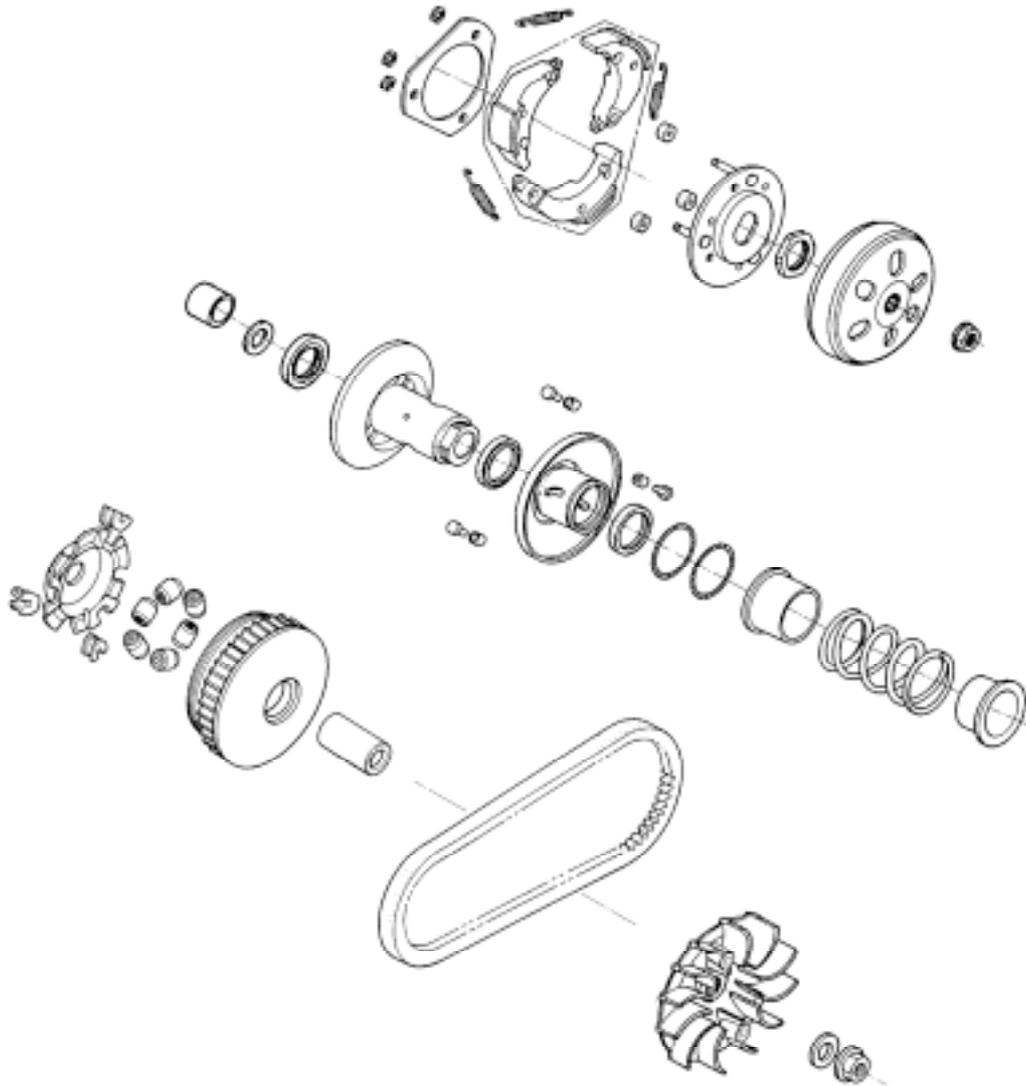


DRIVE AND DRIVEN PULLEYS

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Mongoose/KXR 90/50

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 (Mongoose/KXR 90)

Item	Standard (mm)	Service Limit (mm)
Movable drive face bushing I.D.	23.989_ 24.052	24.06
Drive face collar O.D.	23.96_ 23.974	23.94
Drive belt width	17.5	16.5
Clutch lining thickness	4.5	2.0
Clutch outer I.D.	112.0_ 112.2	112.5
Driven face spring free length	145.5	137.5
Driven face O.D.	33.965_ 33.985	33.94
Movable driven face I.D.	34.000_ 34.025	34.06
Weight roller O.D.	15.92_ 16.08	15.4

SPECIFICATIONS (Mongoose/KXR 50)

Item	Standard (mm)	Service Limit (mm)
Movable drive face bushing I.D.	20.036_ 20.085	20.6
Drive face collar O.D.	20.01_ 20.025	19.98
Drive belt width	18	17.5
Clutch lining thickness	3.5	1.0
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_ 34.025	34.06
Weight roller O.D.	15.92_ 16.08	15.4

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TORQUE VALUES

Drive face nut	5.5_ 6.5kgf-m (Mongoose/KXR 90)
	3.5_ 4.5kgf-m (Mongoose/KXR 50)
Clutch outer nut	3.5_ 4.5kgf-m
Drive plat nut	5.0_ 6.0kgf-m

SPECIAL TOOLS

Universal holder E017	Clutch spring compressor E034
Bearing puller E037	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/KICK STARTER

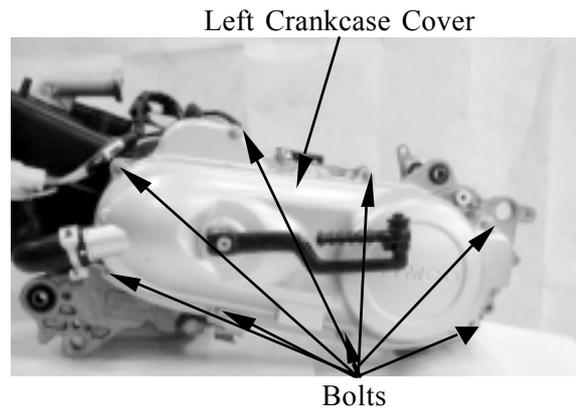
REMOVAL

Remove left foot board. (See page 2-7)

Remove the eight left crankcase cover bolts and left crankcase cover.

Remove the gasket and dowel pins.

* Use specified genuine parts for replacement.

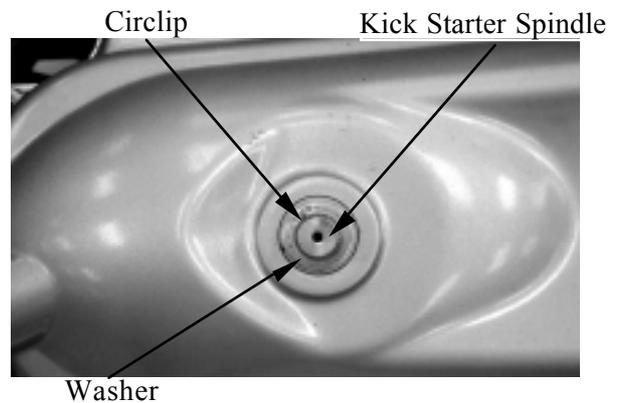


KICK STARTER

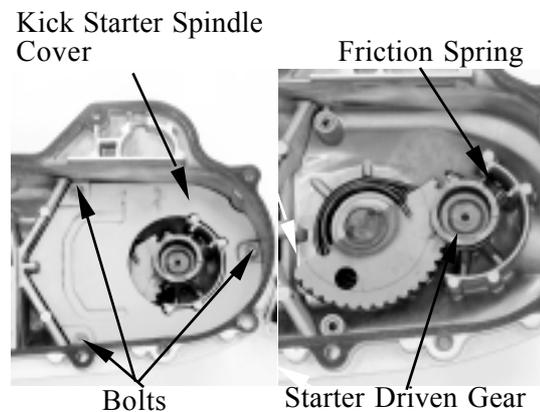
DISASSEMBLY

Remove the kick lever from the kick starter spindle.

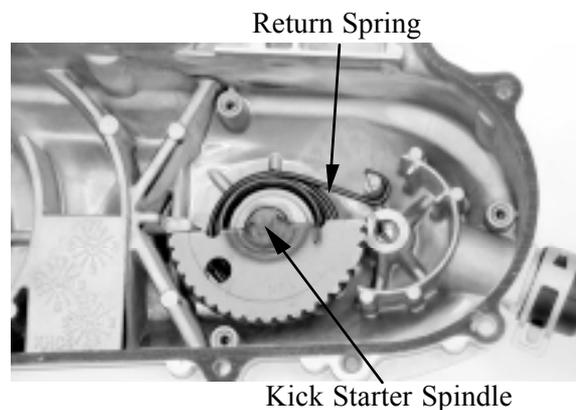
Remove the circlip and washer from the kick starter spindle.



Remove three bolts at the kick starter spindle cover, then remove kick starter spindle cover. 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.

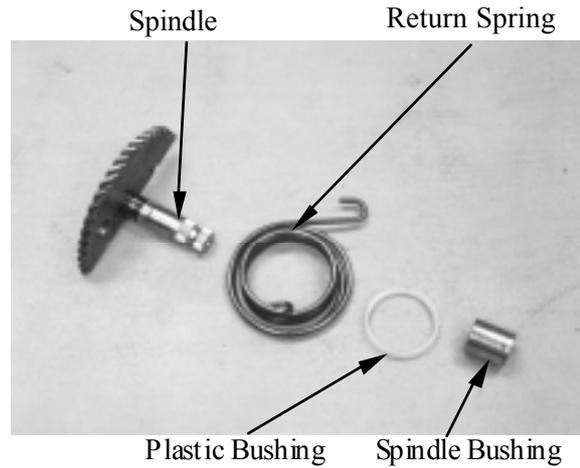


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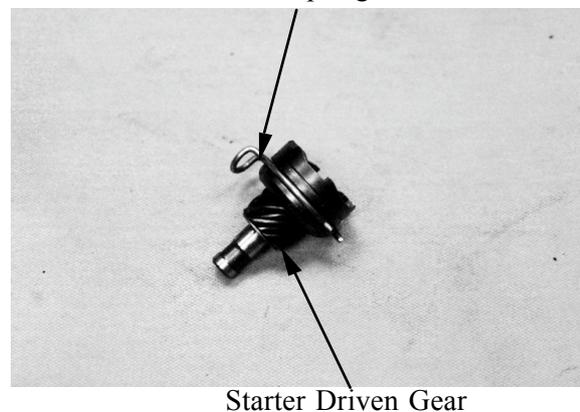
Mongoose/KXR 90/50

INSPECTION

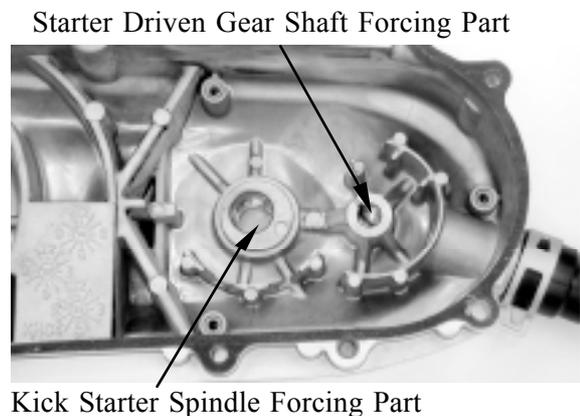
Inspect the kick starter spindle and gear for wear or damage.
 Inspect the return spring for weakness or damage.
 Inspect the kick starter spindle bushings for wear or damage.



Inspect the starter driven gear for wear or damage.
 Inspect the friction spring for wear or damage.



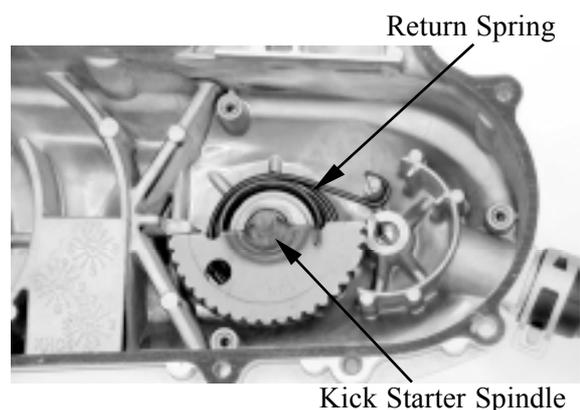
Inspect the kick starter spindle and starter driven gear forcing parts for wear or damage.



ASSEMBLY

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

* Apply grease on to the bushing and spindle teeth.

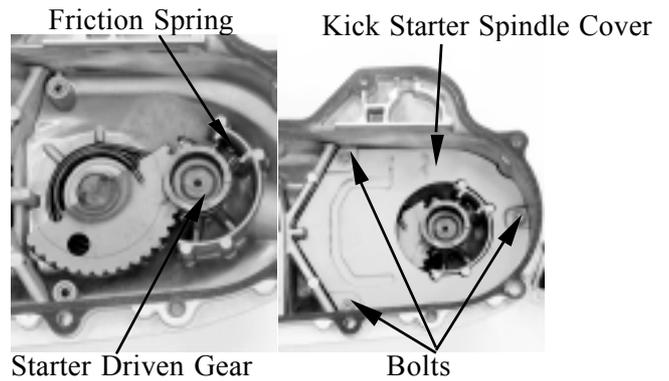


9. DRIVE AND DRIVEN PULLEYS

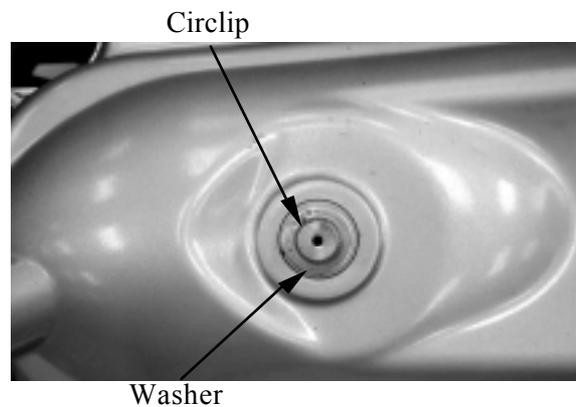
Install the starter driven gear and friction spring onto the left crankcase cover as the figure shown.

Install the kick starter spindle cover and tighten three bolts.

* Apply grease on to the driven gear shaft.

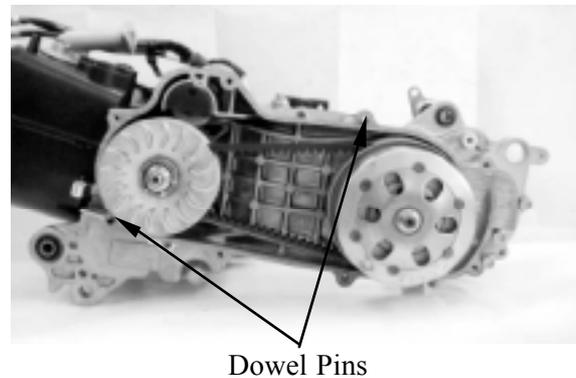


First install the washer and then install the circlip.
Install the kick lever.

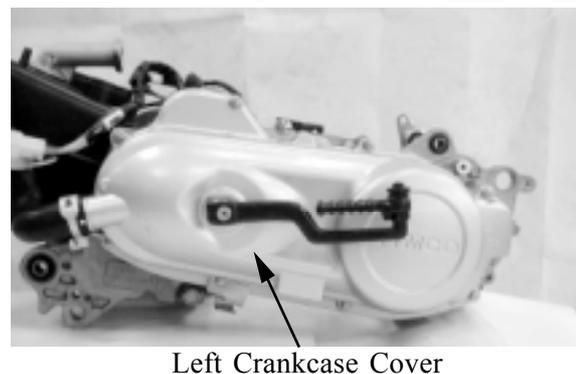


LEFT CRANKCASE COVER INSTALLATION

First install the dowel pins.
Install the gasket.



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



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DRIVE PULLEY

REMOVAL

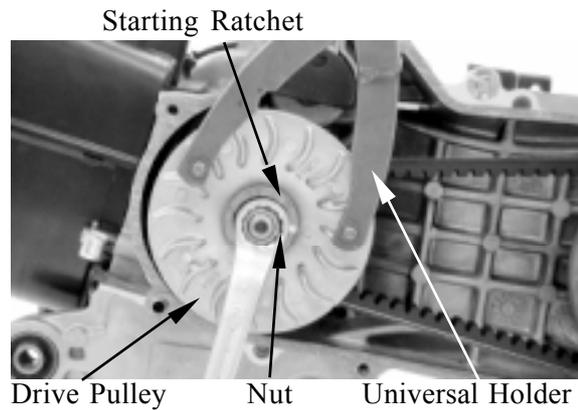
Remove the left crankcase cover. (Refer to the "LEFT CRANKCASE COVER REMOVAL" section in the chapter 9)

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

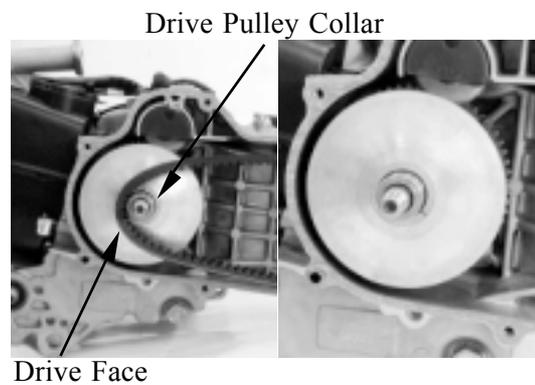
Remove the drive pulley.

Special

Universal Holder E017

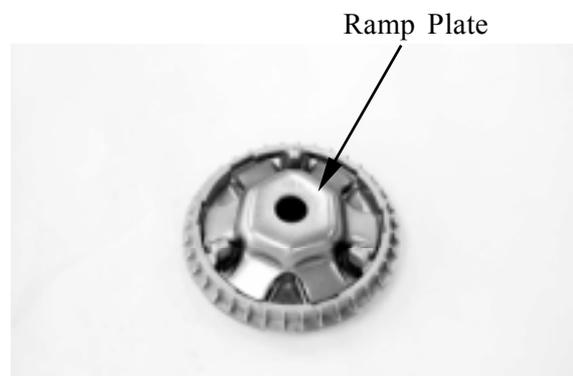


Remove the movable drive face assembly and drive pulley collar.

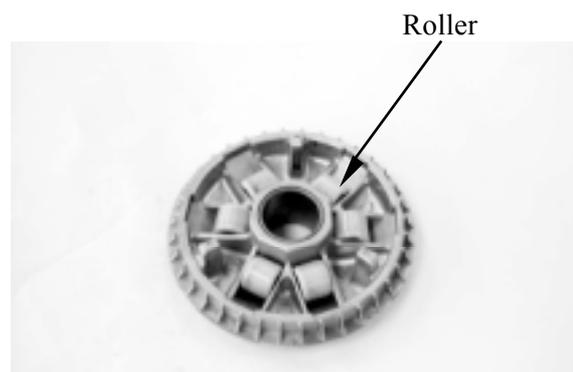


DISASSEMBLY

Remove the ramp plate.



Remove the six weight rollers.

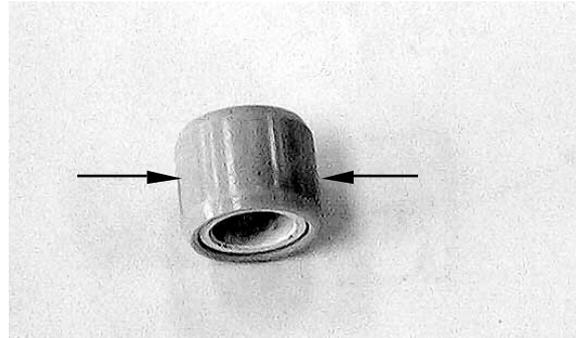


9. DRIVE AND DRIVEN PULLEYS

INSPECTION

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

Service Limit: 15.4mm replace if below.

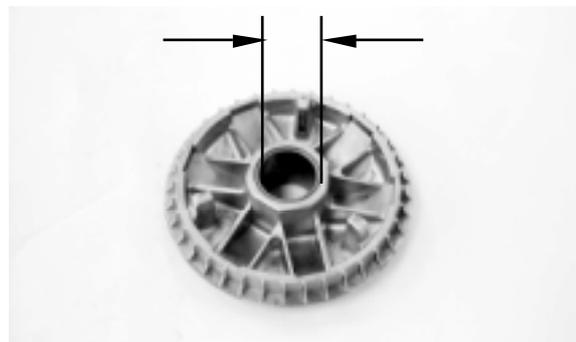


Measure the movable drive face bushing I.D.

Service Limit:

Mongoose/KXR 90: 24.06mm over

Mongoose/KXR 50: 20.06mm over



ASSEMBLY

Install the weight rollers into the movable drive face.

Install the ramp plate.

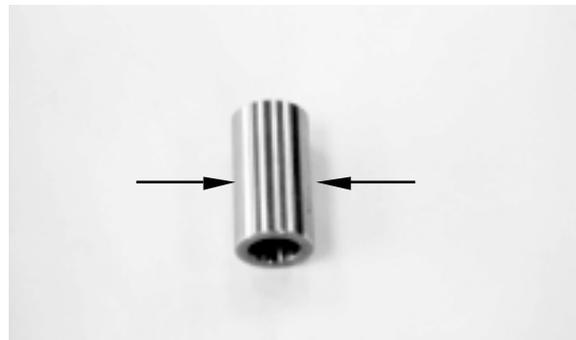
Check the drive pulley collar for wear or damage.

Measure the O.D. of the drive pulley collar sliding surface.

Service Limit:

Mongoose/KXR 90: 23.94mm below

Mongoose/KXR 50: 19.98mm below



INSTALLATION

Install the drive pulley face assembly and collar.

Install the drive pulley, starting ratchet and nut.

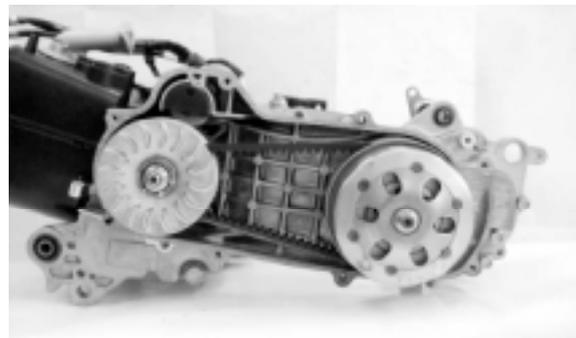
°C

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

Torque:

Mongoose/KXR 90: 5.5_ 6.5kgf-m

Mongoose/KXR 50: 3.5_ 4.5kgf-m



9. DRIVE AND DRIVEN PULLEYS

CLUTCH/DRIVEN PULLEY

REMOVAL

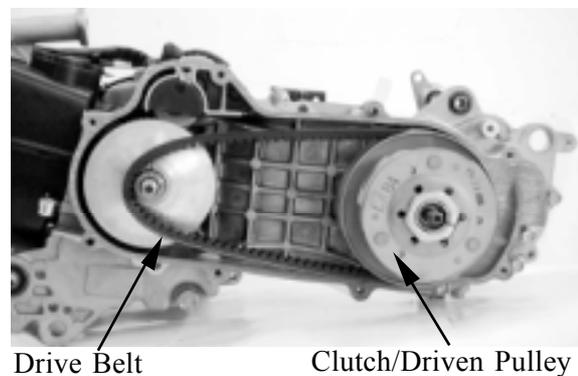
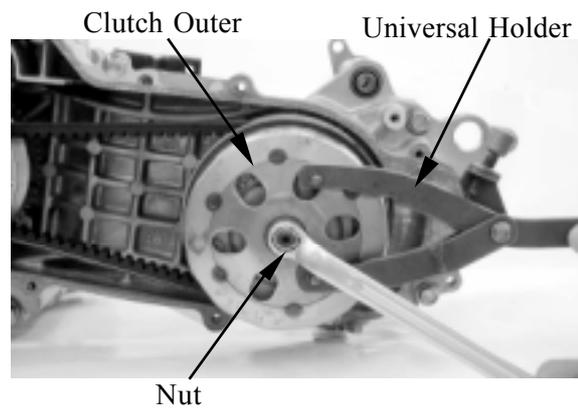
Remove the left crankcase cover. (Refer to the "LEFT CRANKCASE COVER REMOVAL" section in the chapter 9)
 Remove the drive pulley. (Refer to the "DRIVE PULLEY REMOVAL" section in the chapter 9)

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

Special

Universal Holder E017

Remove the clutch/driven pulley and drive belt.



DRIVE BELT INSPECTION

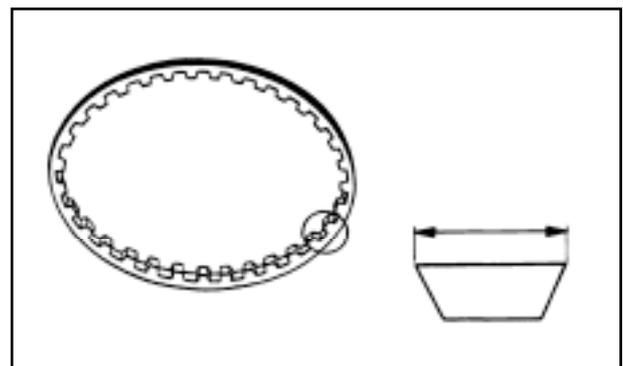
Check the drive belt for cracks, separation or abnormal or excessive wear.
 Measure the drive belt width.

Service Limit:

Mongoose/KXR 90: 16.5mm

Mongoose/KXR 50: 17.5mm

⊙ 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:

Mongoose/KXR 90: 112.5mm

Mongoose/KXR 50: 107.5mm



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CLUTCH/DRIVEN PULLEY DISASSEMBLY

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

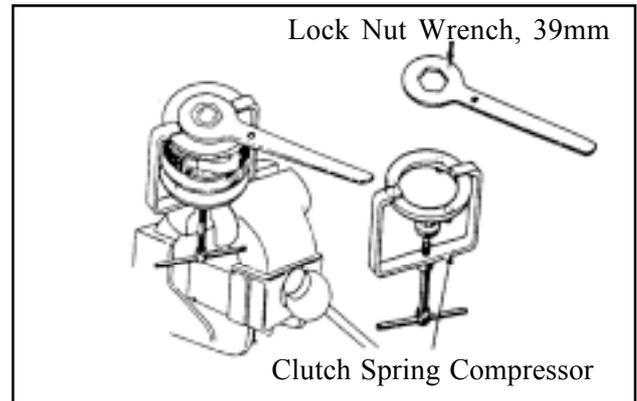
⚠ Be sure to use a clutch spring compressor to avoid spring damage.

Special

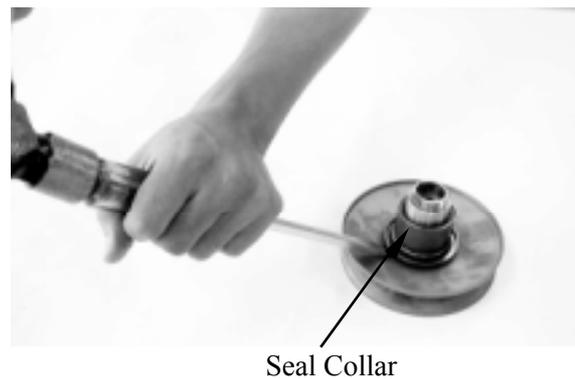
Clutch Spring Compressor E034

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

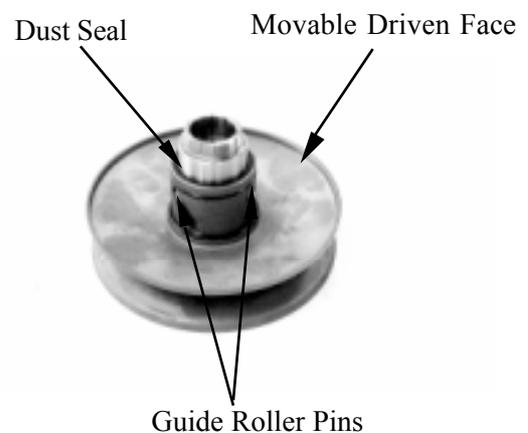
Loosen the clutch spring compressor and disassemble the clutch/driven pulley assembly.



Remove the seal collar.



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



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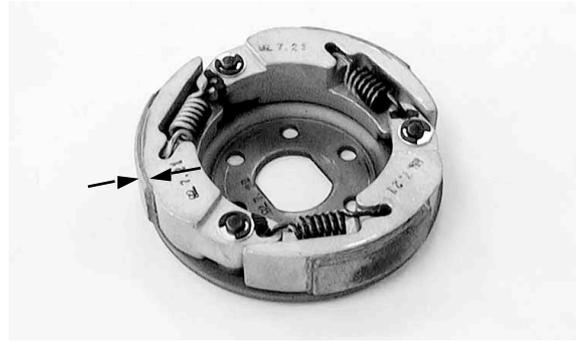
Mongoose/KXR 90/50

Measure the clutch lining thickness.

Service Limit:

Mongoose/KXR 90: 1.5mm replace if below

Mongoose/KXR 50: 1.0mm replace if below



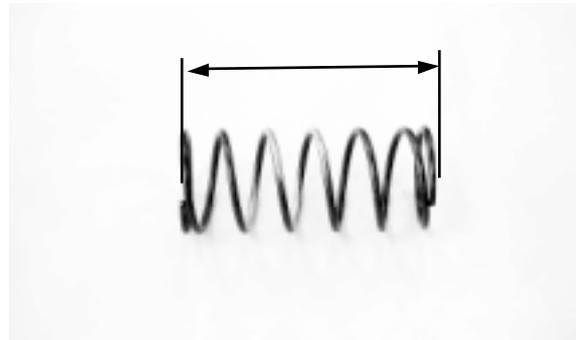
INSPECTION

Measure the driven face spring free length.

Service Limit:

Mongoose/KXR 90: 137.5mm below

Mongoose/KXR 50: 92.8mm below



Check the driven face for wear or damage.

Measure the driven face O.D.

Service Limit: 33.94mm below

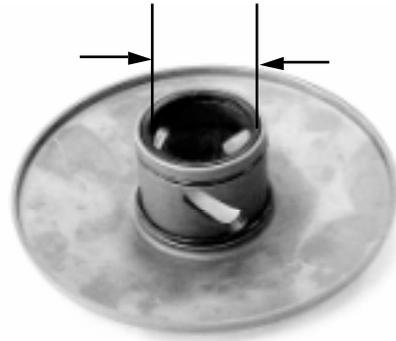


9. DRIVE AND DRIVEN PULLEYS

Check the movable driven face for wear or damage.

Measure the movable driven face I.D.

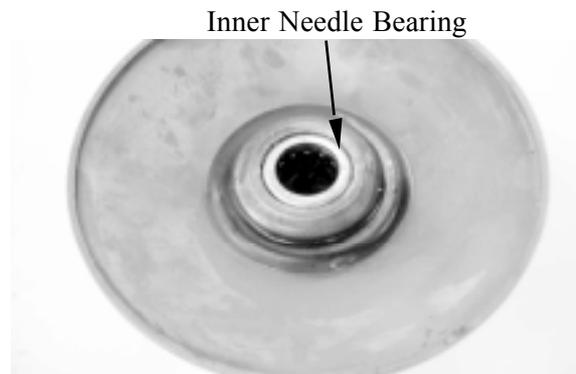
Service Limit: 34.06mm over



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.

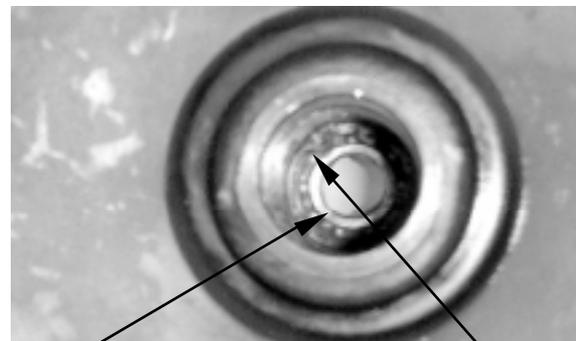


Remove the snap ring and drive the outer bearing out of the driven face.

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

Special

Bearing Puller E037



Outer Bearing

Snap Ring

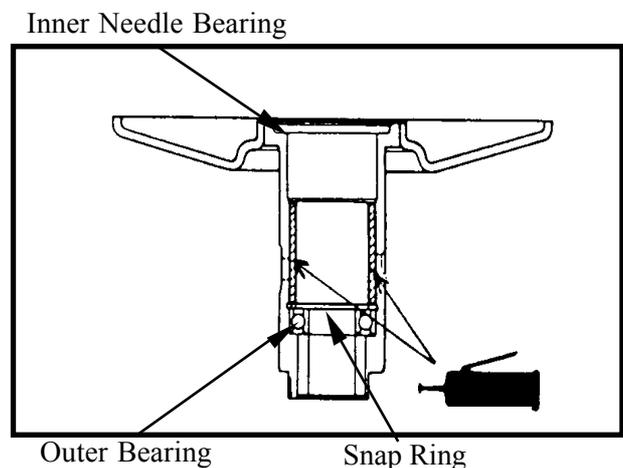
Apply grease to the outer bearing.
 Drive a new outer bearing into the driven face with the sealed end facing up.
 Seat the snap ring in its groove.
 Apply grease to the driven face bore areas.

- 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

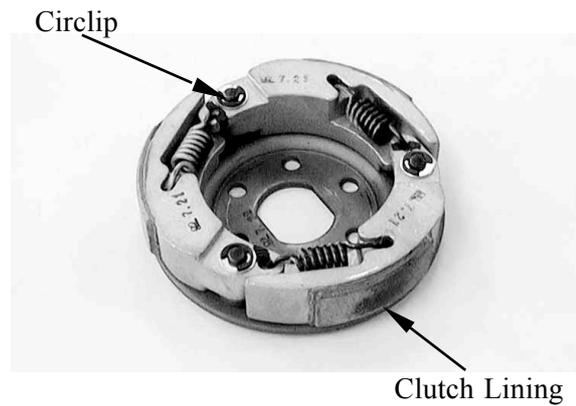


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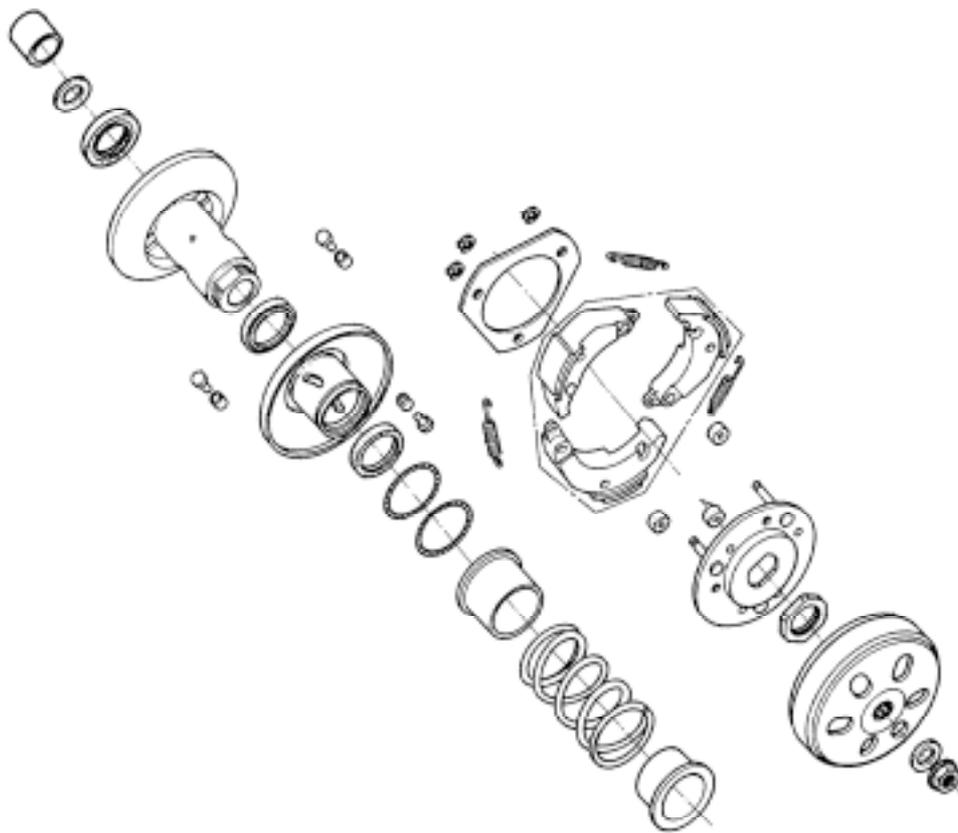
CLUTCH DISASSEMBLY

Remove the circlips to disassemble the clutch.

Keep grease off the clutch linings.



CLUTCH/DRIVEN PULLEY ASSEMBLY



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Install the damper rubbers on the drive plate pins.

Install the clutch weights/shoes and clutch springs.

Set the circlips in the groove.

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

Install the oil seal onto the moveable driven face.

Apply grease onto 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, collar (OFF ROAD), 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.

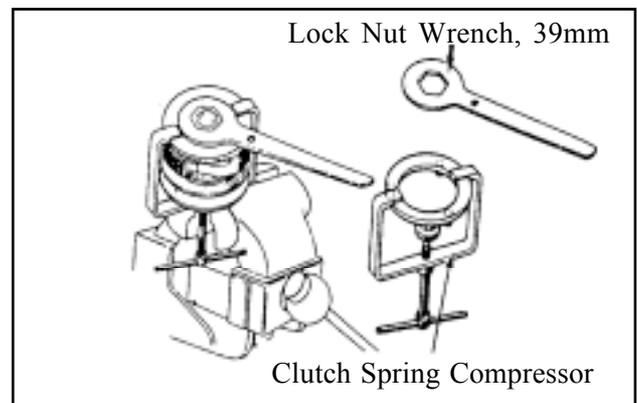
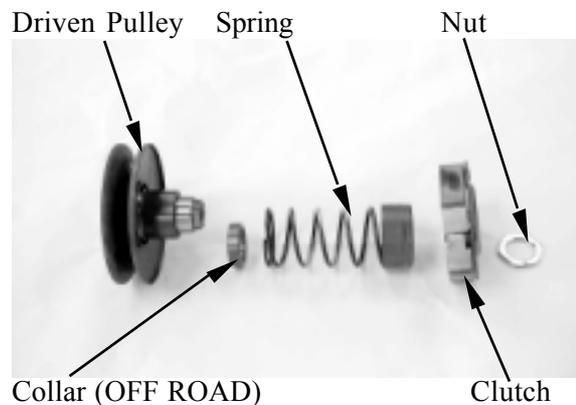
Set the clutch spring compressor in a vise and tighten the drive plate nut to the specified torque.

Torque: 5.0_ 6.0kgf-m

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

Special

Clutch Spring Compressor E027

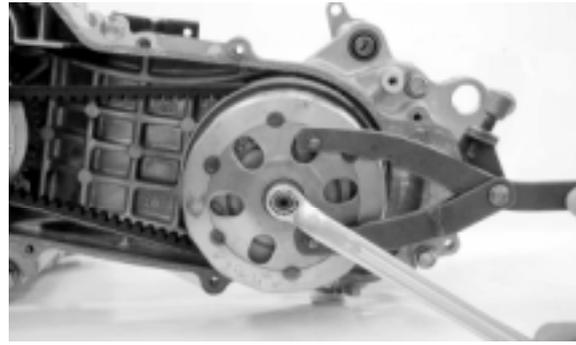


9. DRIVE AND DRIVEN PULLEYS

INSTALLATION

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

- Keep grease off the drive shaft.



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

Torque: 3.5_ 4.5kg-m

Special

Universal Holder E017