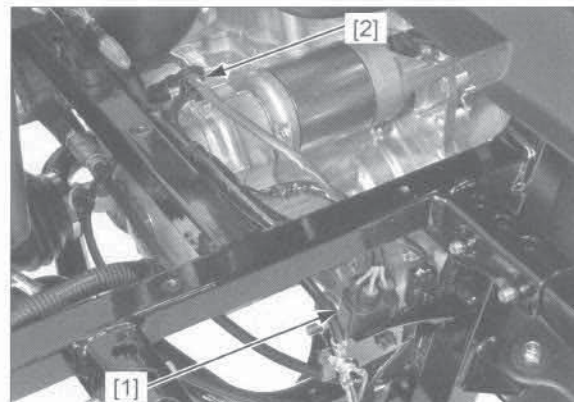


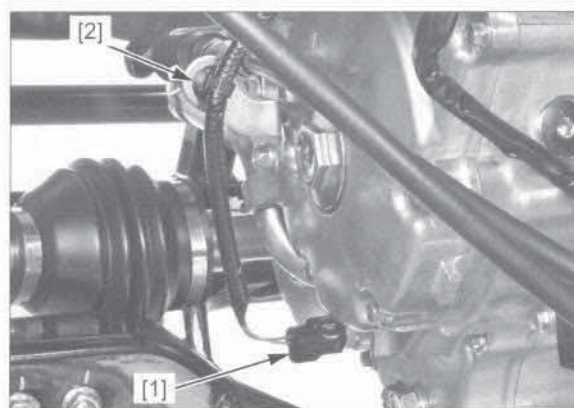
ALTERNATOR STATOR/STARTER REDUCTION GEARS

ALTERNATOR COVER REMOVAL

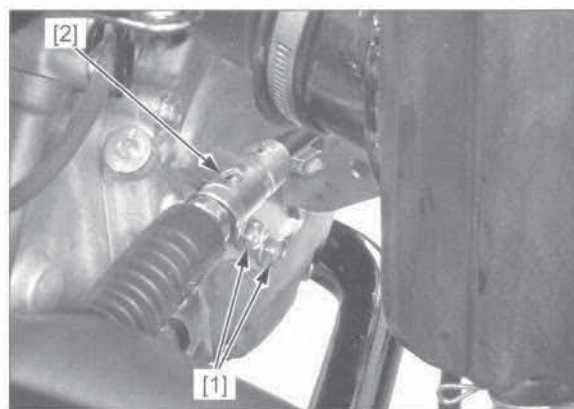
- 4 person type only:* Remove the rear foot wells (page 2-10).
Remove the heat guard plate (page 2-30).
Drain the engine oil (page 3-9).
Disconnect the alternator/CKP sensor 5P (black) connector [1] and release the wires from the clip [2].



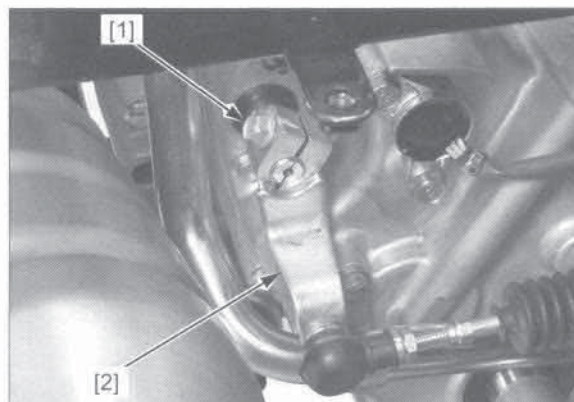
Disconnect the EOT sensor 2P connector [1] and release the wire band [2] from the cable holder.



Shift the sub-transmission into neutral.
Remove the two bolts [1] and cable holder [2].



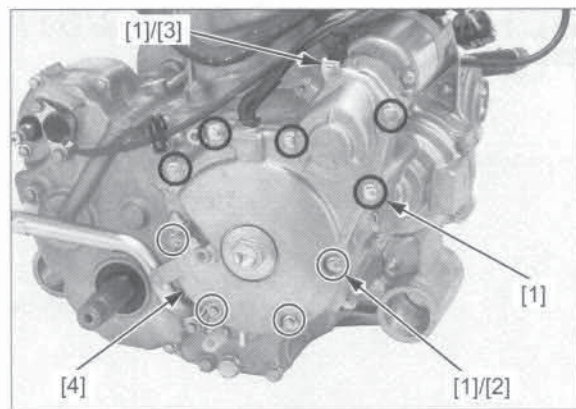
Remove the pinch bolt [1] and release the gear selector arm [2] from the gearshift spindle.



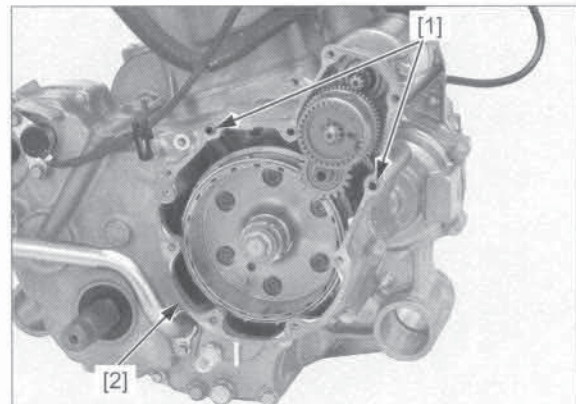
ALTERNATOR/STARTER CLUTCH

The cover (stator) is magnetically attracted to the flywheel, be careful during removal.

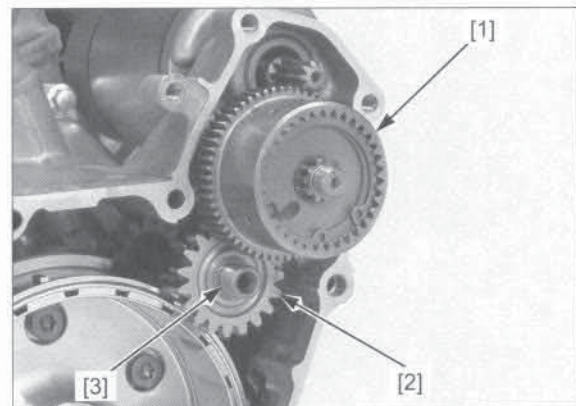
- ten bolts [1], four sealing washers [2] and clip stay [3]
- alternator cover [4]



- dowel pins [1]
- gasket [2]



- starter torque limiter [1]
- reduction gear [2]
- gear shaft [3]

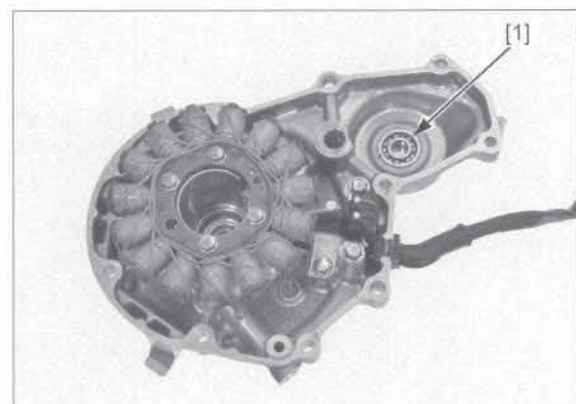


INSPECTION

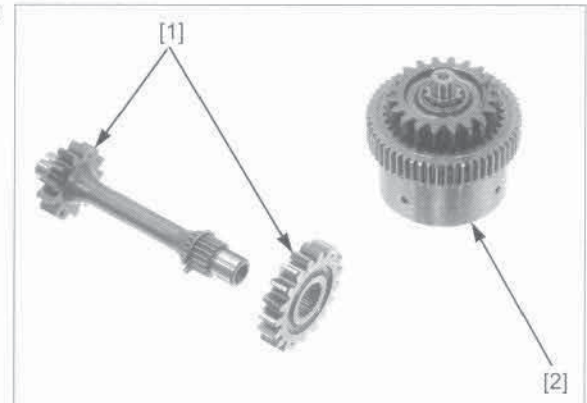
Check the bearings [1] in the alternator and rear crankcase covers.

Turn the inner race of each bearing with your finger. The bearing should turn smoothly and quietly. Also check that the outer race of the bearing fits tightly in the covers.

Torque limiter bearings replacement (page 12-8)



Check the teeth of the reduction gears [1] and torque limiter [2] for abnormal wear or damage.



Replace the torque limiter as an assembly.

Hold the torque limiter [1] in a vise with the special tool.

Check the slip torque with the special tool and a torque wrench.

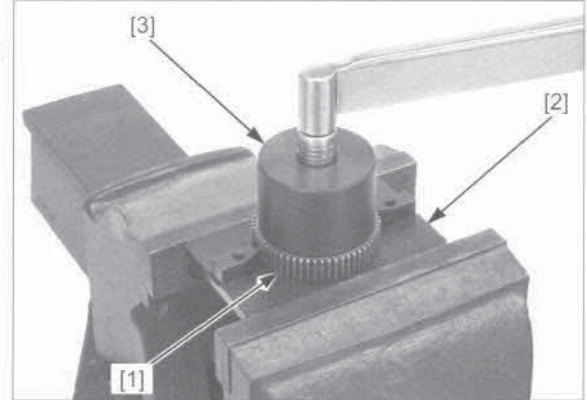
TOOLS:

Torque limiter attachment B 07YMJ-MCF0200 (not available in U.S.A.)

Torque limiter attachment D 070MJ-HN80100 (not available in U.S.A.)

STANDARD SLIP TORQUE:

53 – 84 N·m (5.4 – 8.6 kgf·m, 39 – 62 lbf·ft)

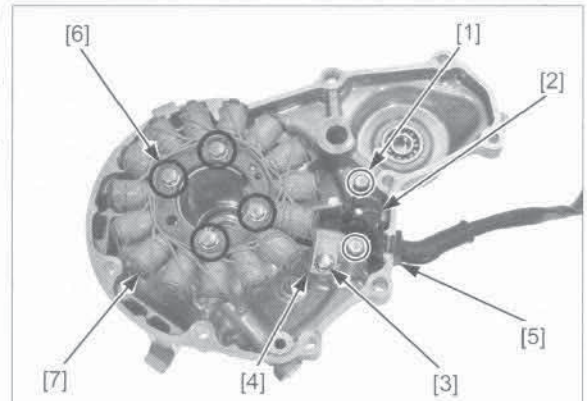


STATOR/CKP SENSOR REMOVAL/INSTALLATION

Remove the CKP sensor mounting bolts [1] and release the CKP sensor [2].

Remove the bolt [3] and wire holder [4], then release the wire grommet [5] off the alternator cover.

Remove the four bolts [6] and alternator stator/CKP sensor assembly [7].



Install the stator/CKP sensor assembly [1] onto the alternator cover.

Apply sealant (Threebond TB1215 or equivalent) to the wire grommet seating surface and install the grommet [2] into the cover groove securely.

Install and tighten the four alternator stator bolts [3] to the specified torque.

TORQUE: 10 N·m (1.0 kgf·m, 7 lbf·ft)

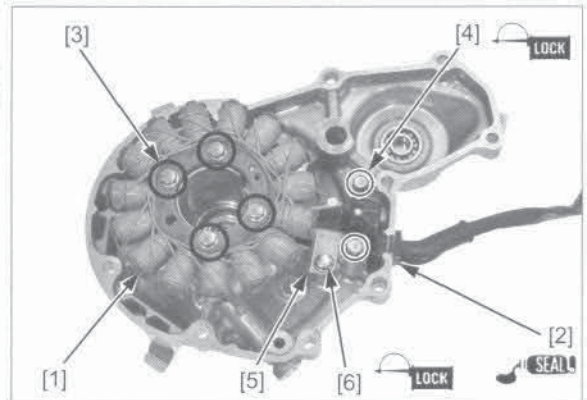
Apply locking agent to the CKP sensor bolt [4] threads, then install and tighten them to the specified torque.

TORQUE: 6 N·m (0.6 kgf·m, 4.4 lbf·ft)

Install the wire holder [5].

Apply locking agent to the wire holder bolt [6] threads, then install and tighten them to the specified torque.

TORQUE: 10 N·m (1.0 kgf·m, 7 lbf·ft)



ALTERNATOR/STARTER CLUTCH

BEARING REPLACEMENT

Remove the torque limiter bearings in the alternator cover and rear crankcase covers, using the special tools [1].

TOOLS:

Bearing remover head, 10 mm 07936-GE00200
Remover shaft, 10 mm 07936-GE00100
Remover weight 07741-0010201

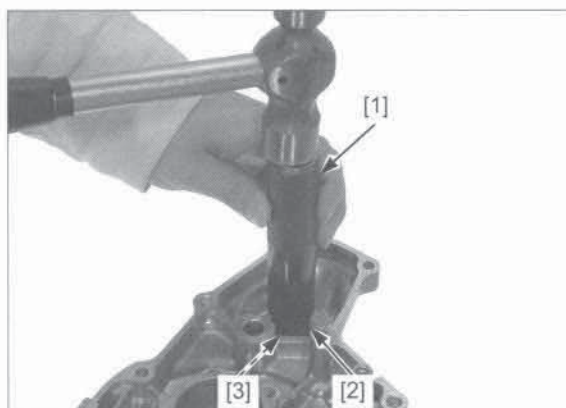
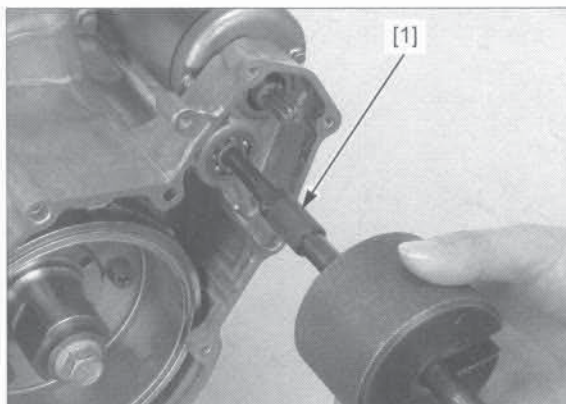
U.S.A. only tools:

Bearing remover, 10 mm 07936-GE0A000
Remover handle 07936-3710100
Remover weight 07936-371020A or
07936-3710200

Drive new Torque limiter bearings in with the marks facing up.

TOOLS:

Driver [1] 07749-0010000
Attachment, 24 x 26 mm [2] 07746-0010700
Pilot, 10 mm [3] 07746-0040100



ALTERNATOR COVER INSTALLATION

NOTE:

- Route the wires and cables properly (page 1-17).

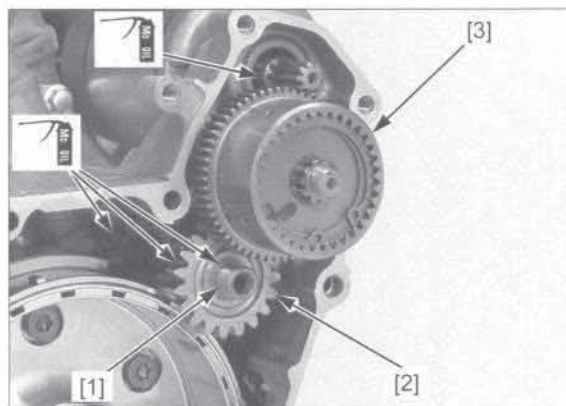
Blow through the oil passage in the alternator cover with compressed air.

Clean the cover mating surfaces.

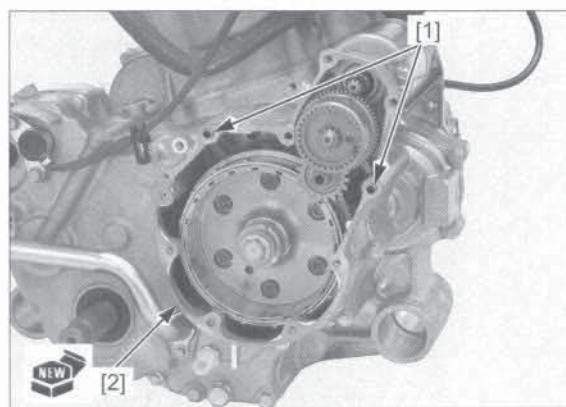
Apply molybdenum oil solution to the gear teeth and splines.

Install the reduction gear shaft [1] into the crankcase and the reduction gear [2] onto the gear shaft.

Install the torque limiter [3].



Install the two dowel pins [1] and a new gasket [2].



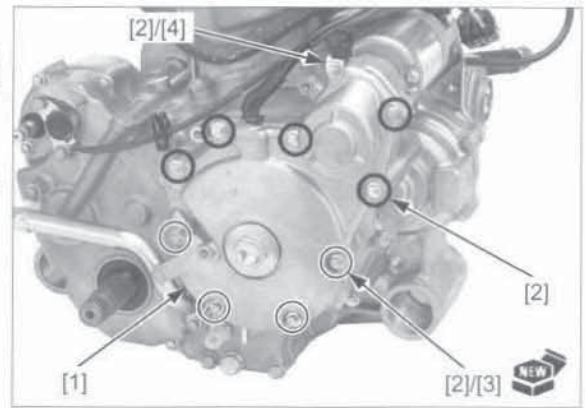
The cover (stator) is magnetically attracted to the flywheel, be careful not to get anything caught between these parts when installing.

Carefully install the alternator cover [1].

Install the ten bolts [2] with four new sealing washers [3] and the clip stay [4], and tighten them in a crisscross pattern in several steps.

NOTE:

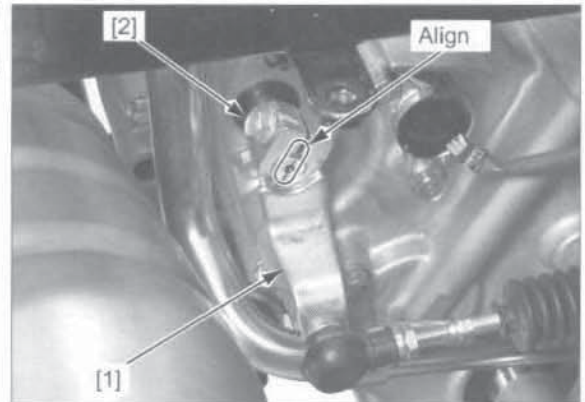
- The location for the bolt with sealing washer is indicated with triangle marks on the cover.



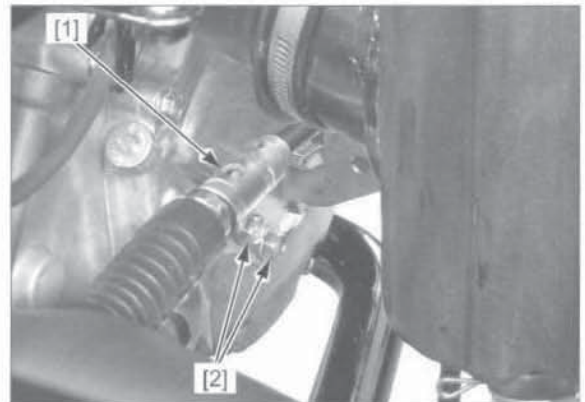
Install the gear selector arm [1] by aligning the slit with the index line of the spindle.

Install the pinch bolt [2] and tighten it to the specified torque.

TORQUE: 16 N·m (1.6 kgf·m, 12 lbf·ft)

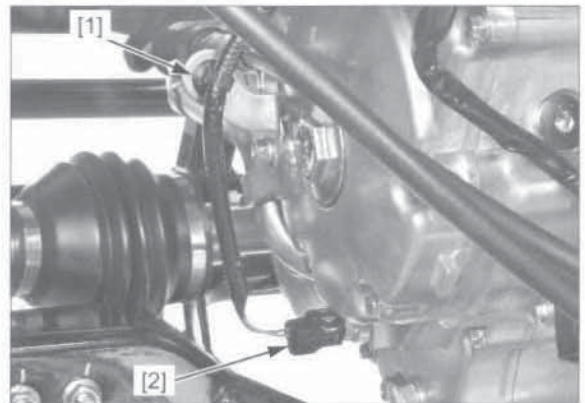


Install the cable holder [1] with the two bolts [2].



Install the wire band [1] into the cable holder.

Connect the EOT sensor 2P connector [2].



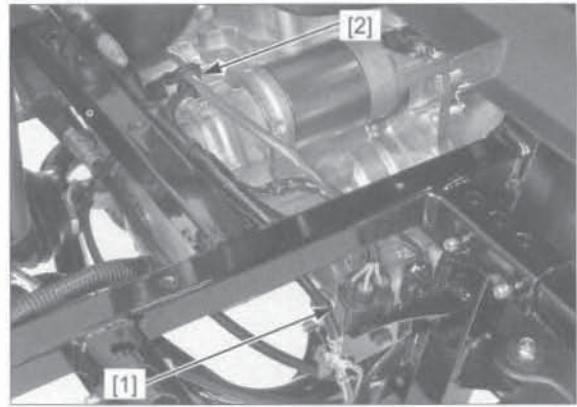
ALTERNATOR/STARTER CLUTCH

Connect the alternator/CKP sensor 5P (black) connector [1] and secure the alternator/CKP sensor and gear position switch wires with the clip [2].

Install the heat guard plate (page 2-30).

4 person type only: Install the rear foot wells (page 2-10).

Fill the engine with the recommended oil (page 3-9).



FLYWHEEL/STARTER CLUTCH

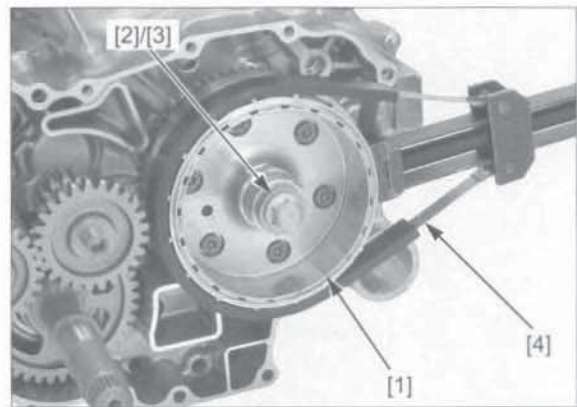
REMOVAL

Remove the rear crankcase cover (page 13-5).

Hold the flywheel [1] with the special tool and remove the bolt [2] and washer [3].

TOOL:

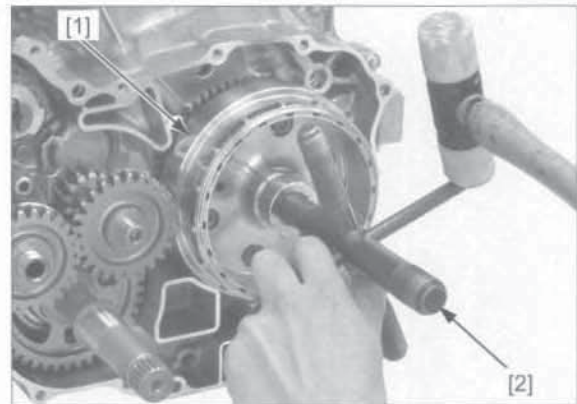
Flywheel holder [4] 07725-0040001



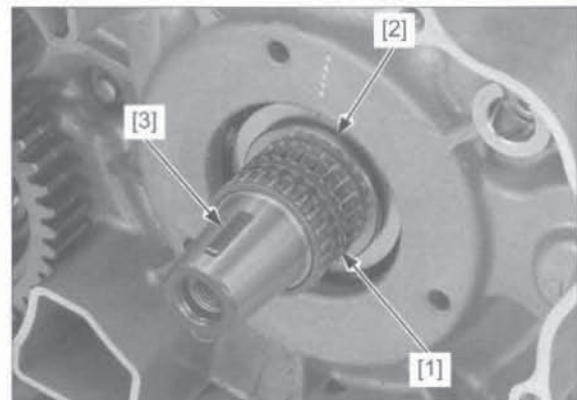
Remove the flywheel [1] and starter driven gear using the special tool.

TOOL:

Rotor puller [2] 07733-0020001 or 07933-3950000 (U.S.A. only)



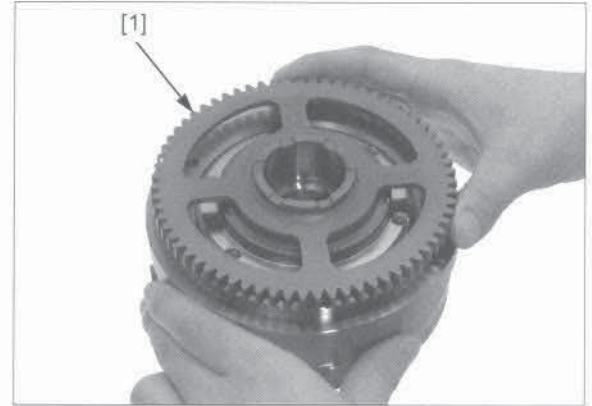
Remove the needle bearing [1], thrust washer [2], and the woodruff key [3].



STARTER CLUTCH DISASSEMBLY/ INSPECTION

Make sure that the starter driven gear [1] turns clockwise smoothly and does not turn counterclockwise.

Remove the driven gear while turning it clockwise.

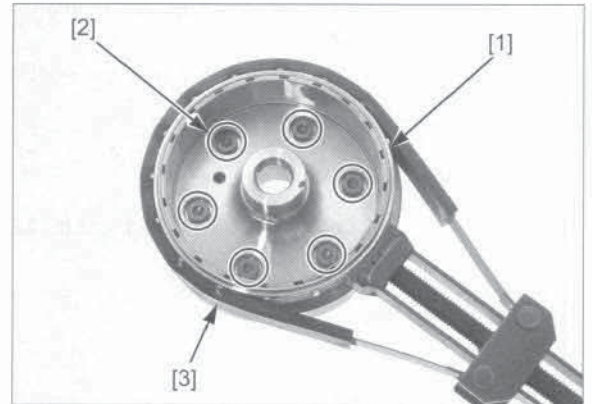


Hold the flywheel [1] with the special tool and remove the starter clutch bolts [2].

TOOL:

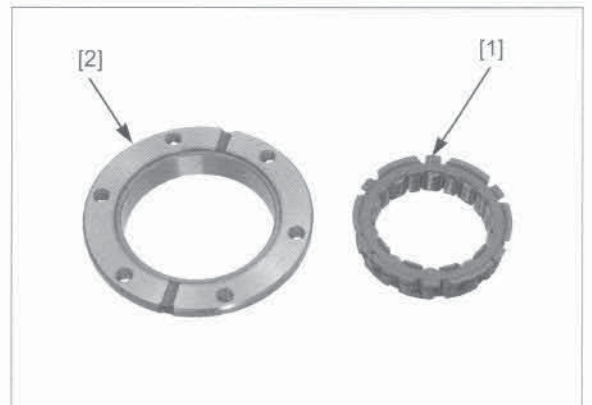
Flywheel holder [3] 07725-0040001

Remove the starter clutch assembly from the flywheel.



Remove the sprag clutch [1] from the clutch outer [2].

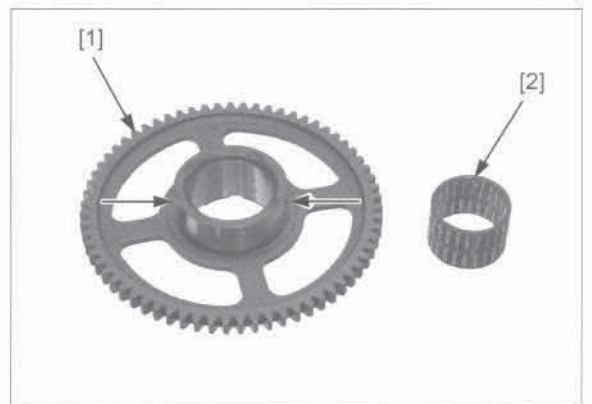
Check the clutch outer and sprag clutch for abnormal wear or damage.



Check the starter driven gear [1] teeth and needle bearing [2] for wear or damage.

Measure driven gear boss O.D.

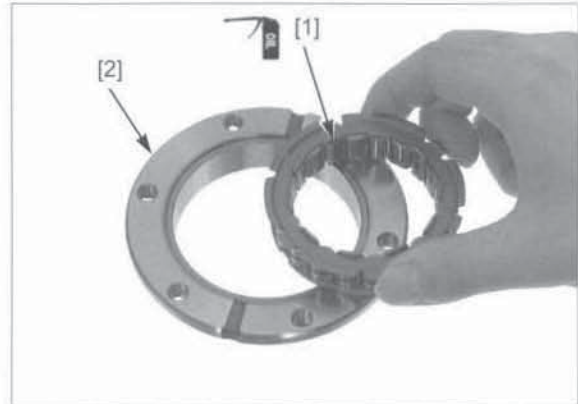
SERVICE LIMIT: 51.61 mm (2.032 in)



ALTERNATOR/STARTER CLUTCH

STARTER CLUTCH ASSEMBLY

Lubricate the sprag clutch [1] with engine oil and install it into the clutch outer [2] with the flanged side facing the flywheel side.



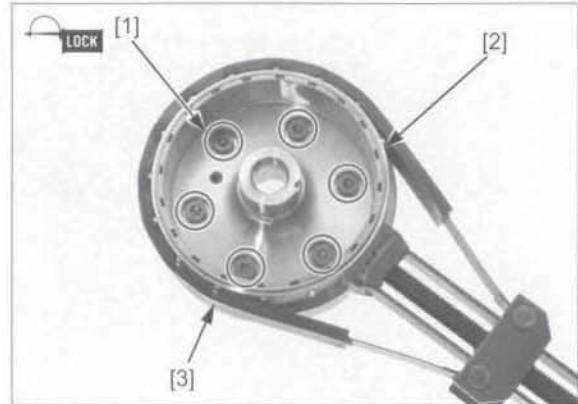
Apply locking agent to the starter clutch bolt [1] threads. Install the flywheel [2] onto the clutch outer and the clutch bolts.

Hold the flywheel with the special tool and tighten the bolts.

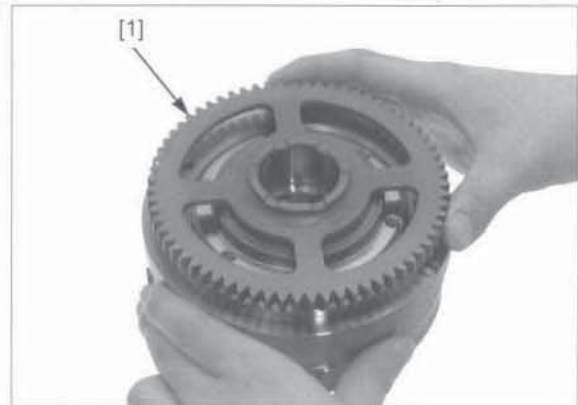
TOOL:

Flywheel holder [3] 07725-0040001

TORQUE: 30 N·m (3.1 kgf·m, 22 lbf·ft)



Install the starter driven gear [1] while turning it clockwise.

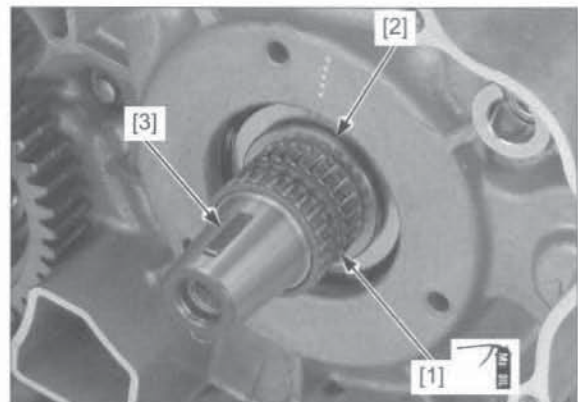


INSTALLATION

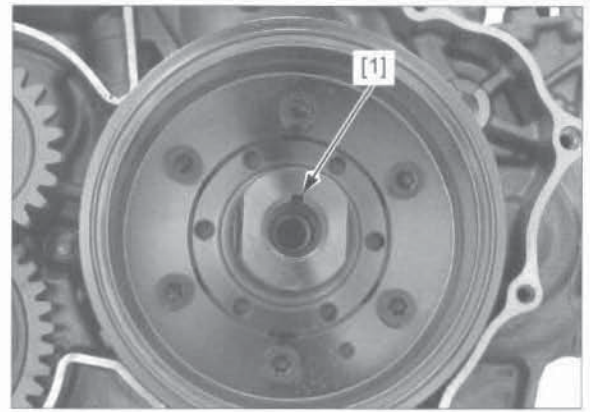
Lubricate the needle bearing [1] with molybdenum oil solution. Install the washer [2] and bearing onto the crankshaft.

Install the woodruff key [3] into the key groove.

Clean any oil from the tapered portion of the crankshaft and flywheel thoroughly.



Install the flywheel/starter driven gear by aligning the key-way [1] with the key on the crankshaft.



Apply engine oil to the flywheel bolt [1] threads and seating surface, then install the washer [2] and bolt.

Hold the flywheel [3] using the special tool and tighten the bolt.

TOOL:

Flywheel holder [4] 07725-0040001

TORQUE: 108 N·m (11.0 kgf·m, 80 lbf·ft)

Install the rear crankcase cover (page 13-7).

