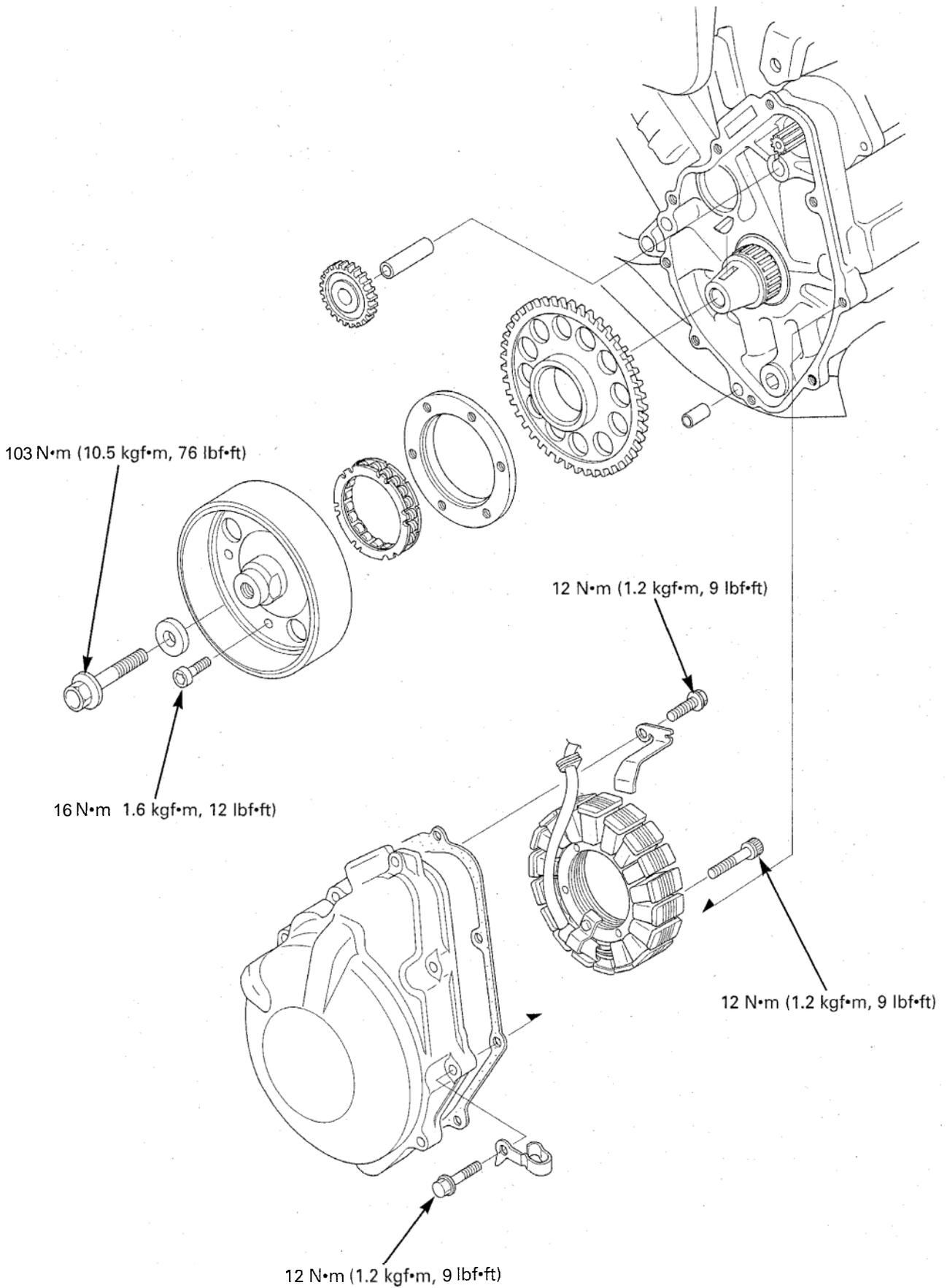


ALTERNATOR/STARTER CLUTCH



10. ALTERNATOR/STARTER CLUTCH

SERVICE INFORMATION	10-1	FLYWHEEL REMOVAL	10-3
TROUBLESHOOTING	10-1	STARTERCLUTCH	10-5
ALTERNATOR COVER REMOVAL	10-2	FLYWHEEL INSTALLATION	10-7
STATOR	10-2	ALTERNATOR COVER INSTALLATION	10-8

SERVICE INFORMATION

GENERAL

- This section covers service of the alternator, flywheel and starter clutch. All service can be done with the engine installed in the frame.
- Refer to section 16 for alternator stator inspection.

SPECIFICATIONS

Unit: mm (in)

ITEM	STANDARD	SERVICE LIMIT
Starter driven gear boss O.D.	51.699 - 51.718 (2.0354-2.0361)	51.684 (2.0348)

10

TORQUE VALUES

Alternator wire clamp bolt	12 N•m (1.2 kgf•m, 9 lbf•ft)	CT bolt
Flywheel flange bolt	103 N•m (10.5 kgf•m, 76 lbf•ft)	Apply oil to the threads.
Stator mounting socket bolt	12 N•m (1.2 kgf•m, 9 lbf•ft)	
Starter one-way clutch torx bolt	16 N•m (1.6 kgf•m, 12 lbf•ft)	Apply a locking agent to the threads.
Alternator cover mounting bolt	12 N•m (1.2 kgf•m, 9 lbf•ft)	

TOOLS

Flywheel holder	07725-0040000	or equivalent commercially available in U.S.A.
Rotor puller	07733-0020001	or 07933-3950000 (U.S.A. only)

TROUBLESHOOTING

Engine does not turn

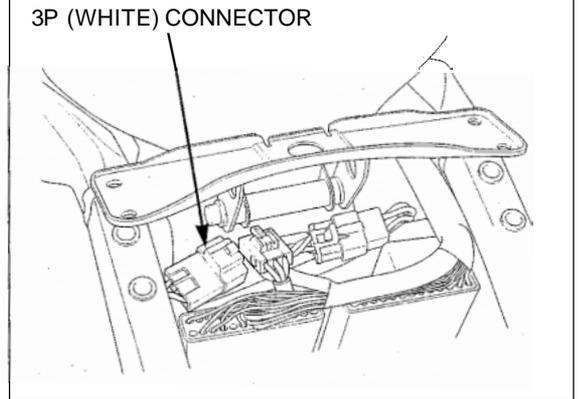
- Faulty starter clutch
- Damaged idle gear/shaft

ALTERNATOR COVER REMOVAL

Remove the ECM cover (page 5-87).
Remove the lower cowl (page 2-7).

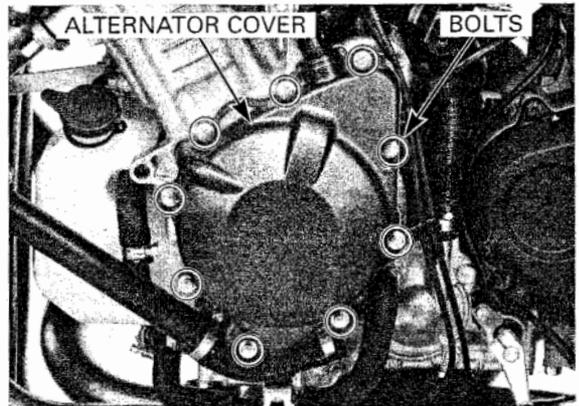
The alternator cover (stator) is magnetically attached to the flywheel, be careful during removal

Disconnect the alternator 3P (White) connector.

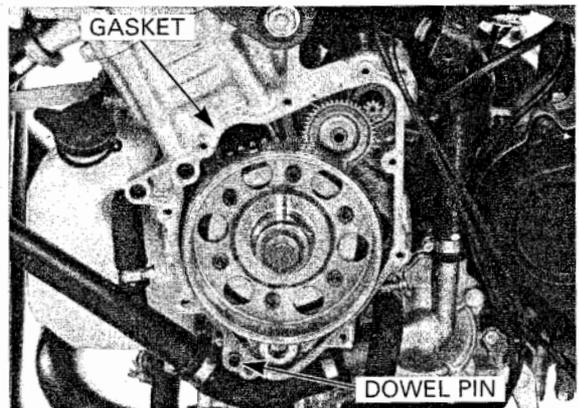


Remove the alternator cover SH bolts and alternator cover.

The engine oil will run out when the alternator cover is removed. Set a clean oil pan under the engine and add the recommended oil to the specified level after installation.



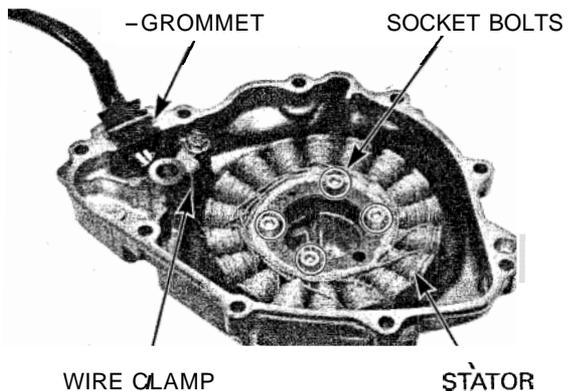
Remove the gasket and dowel pin.



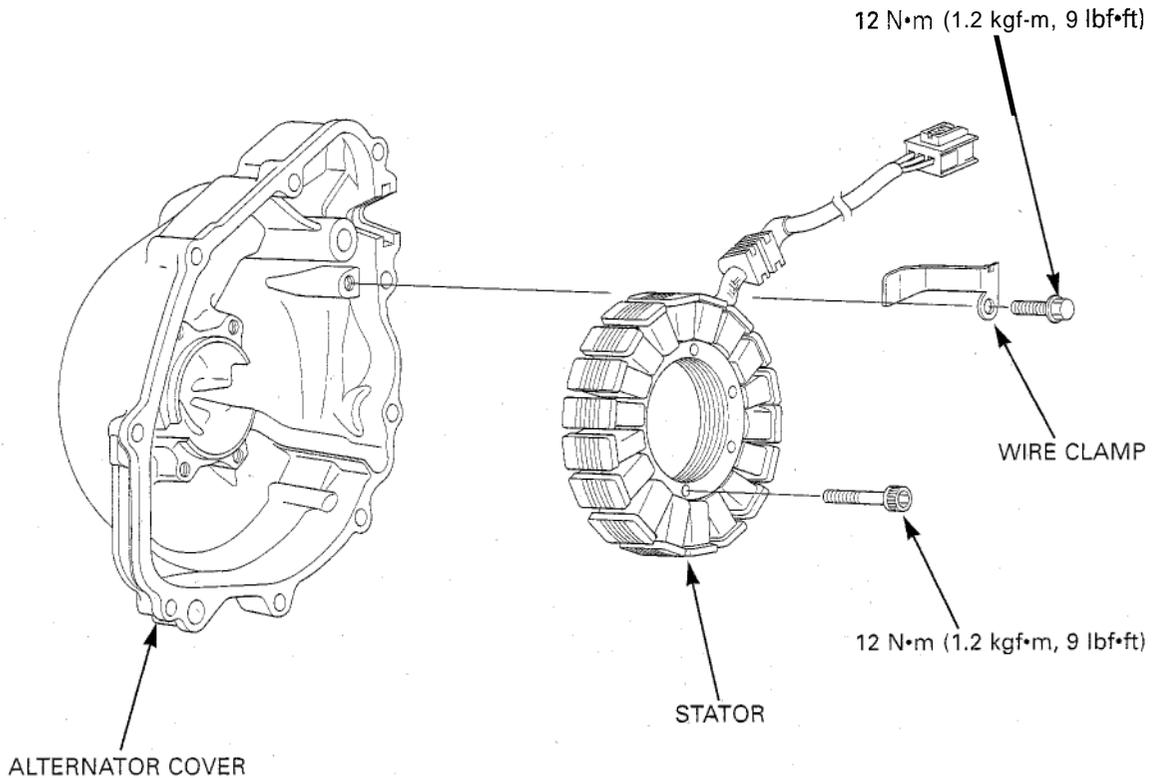
STATOR

REMOVAL

Remove the alternator wire grommet from the alternator cover.
Remove the bolt and stator wire clamp.
Remove the socket bolts and stator.



INSTALLATION



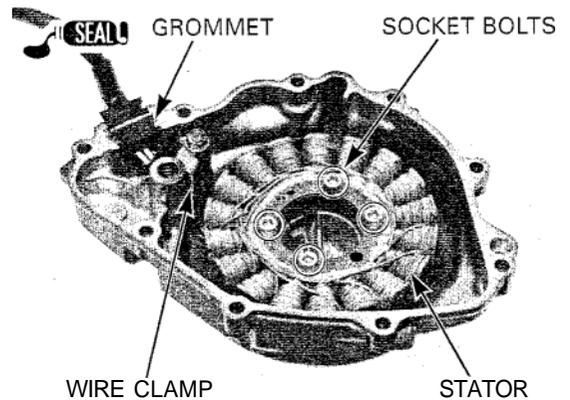
Install the stator into the alternator cover.

Apply sealant to the wire grommet, then install the wire grommet into the alternator groove securely. Install and tighten the stator mounting socket bolts to the specified torque.

TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)

Install the wire clamp and tighten the bolt to the specified torque.

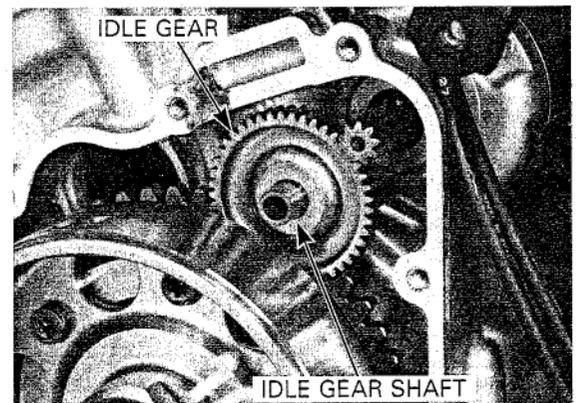
TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)



FLYWHEEL REMOVAL

Remove the alternator cover (page 10-2).

Remove the starter idle gear shaft and idle gear.



ALTERNATOR/STARTER CLUTCH

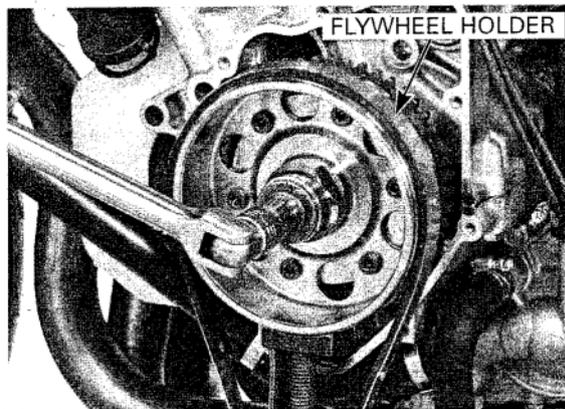
Hold the flywheel using the flywheel holder, then remove the flywheel bolt.

TOOL:

Flywheel holder

07725-0040000
(Equivalent commercially available in U.S.A.)

Remove the washer.

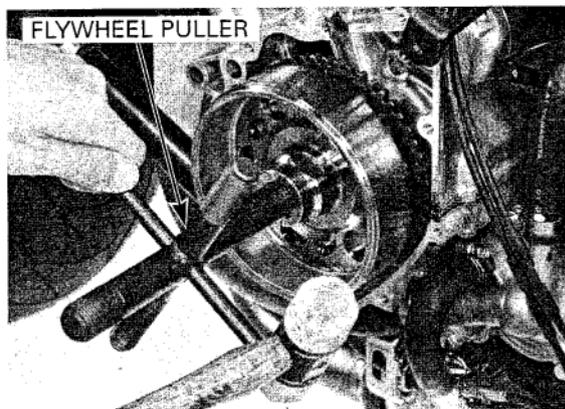


Remove the flywheel using the special tool.

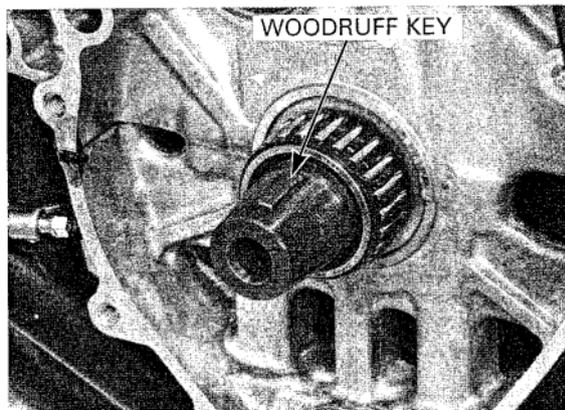
TOOL:

Rotor puller

07733-0020001 or
07933-3950000
(U.S.A. only)



Remove the woodruff key.



Check the starter idle gear and shaft for wear or damage.

IDLE GEAR

IDLE GEAR SHAFT



STARTER CLUTCH

INSPECTION

Check the operation of the one-way clutch by turning the driven gear.

You should be able to turn the driven gear counter-clockwise smoothly, but the gear should not turn clockwise.

DISASSEMBLY

Remove the starter driven gear by turning it counter-clockwise.

Hold the flywheel with a flywheel holder, and remove the starter clutch mounting torx bolts.

TOOL:

Flywheel holder

07725-0040000
(Equivalent commercially available in U.S.A.)

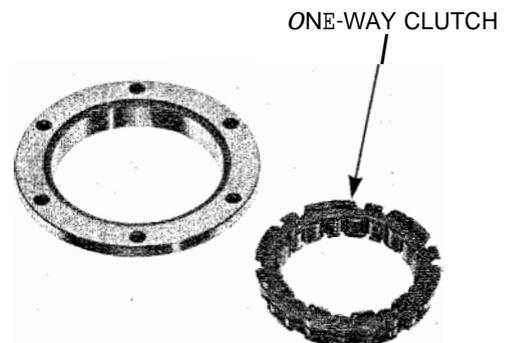
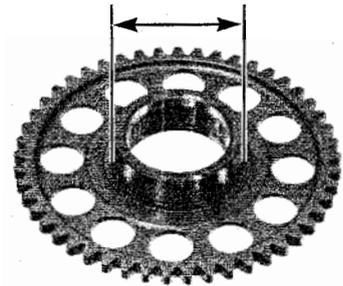
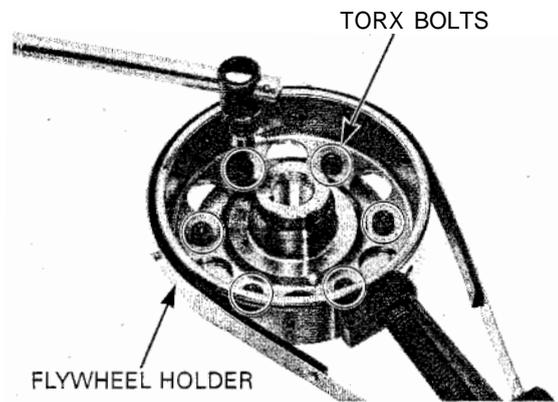
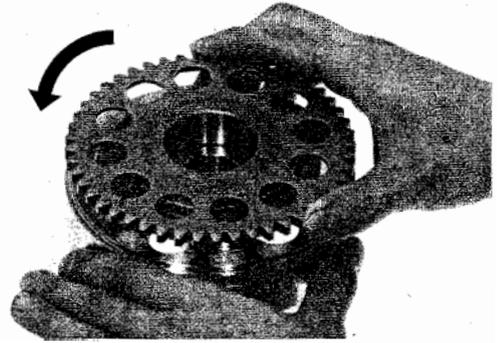
Remove the starter one-way clutch assembly.

Check the starter driven gear for abnormal wear or damage.

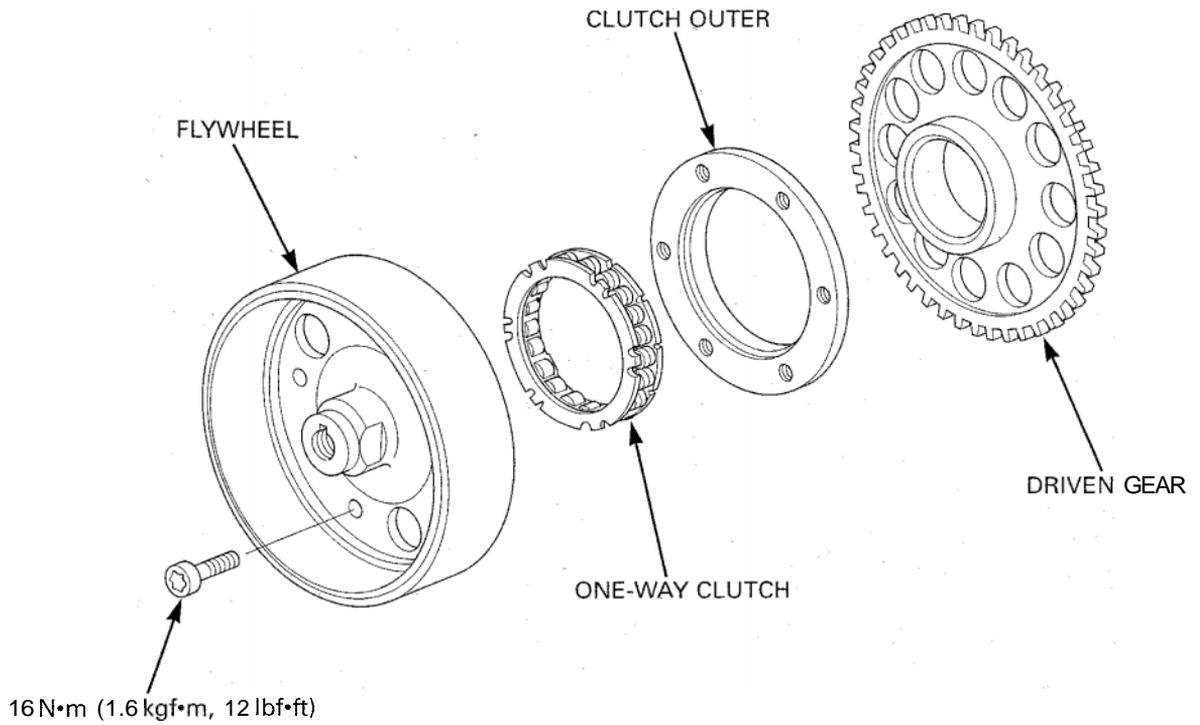
Measure the starter driven gear boss O.D.

SERVICE LIMIT: 51.684 mm (2.0348 in)

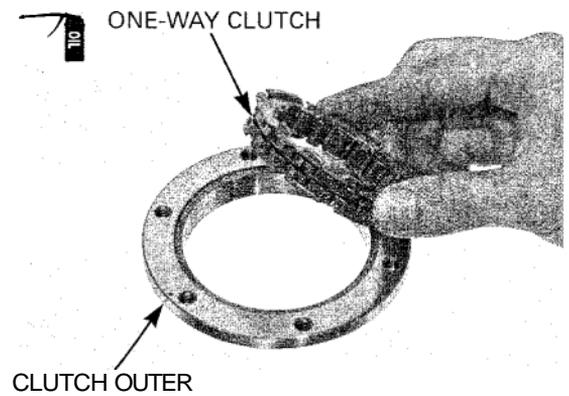
Check the one-way clutch for wear or damage and replace if necessary.



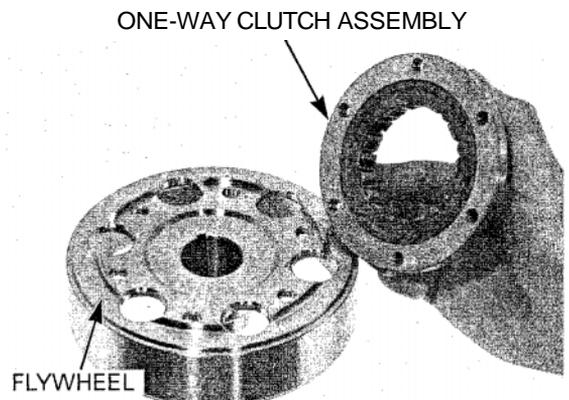
ASSEMBLY



Apply oil to the starter one-way clutch.
Install the one-way clutch into the clutch outer with the flange side facing out.



Install the starter one-way clutch assembly onto the flywheel.

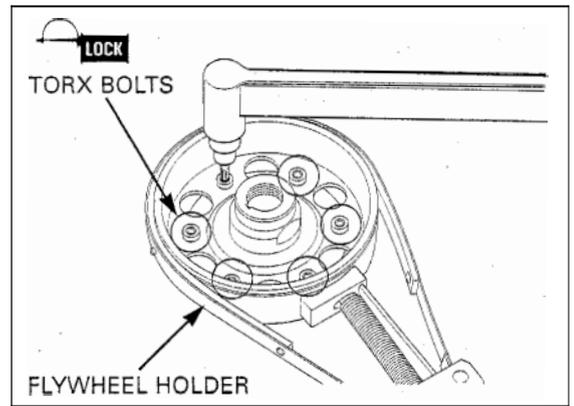


Apply a locking agent to the starter clutch outer mounting bolt threads.
Hold the flywheel with a flywheel holder, and tighten the starter clutch mounting torx bolts.

TOOL:
Flywheel holder

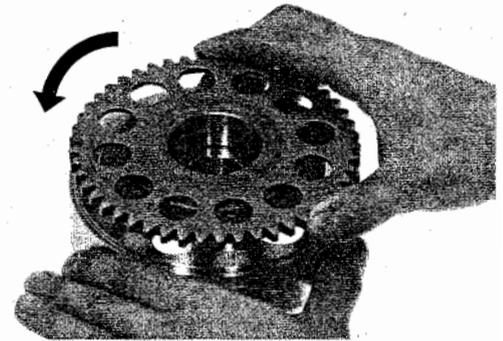
07725-0040000
(Equivalent commercially available in U.S.A.)

TORQUE: 16 N·m (1.6 kgf·m, 12 lbf·ft)



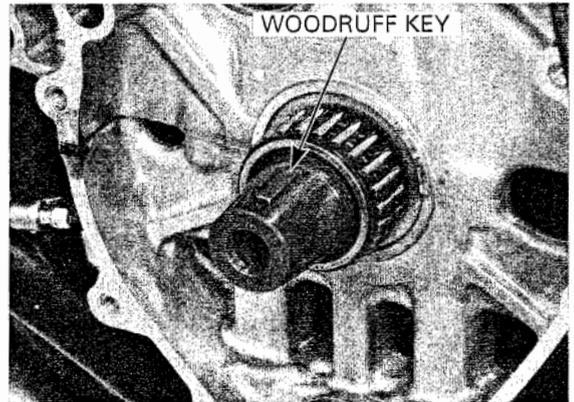
Install the starter driven gear into the one-way clutch.

Recheck the one-way clutch operation (page 10-5).



FLYWHEEL INSTALLATION

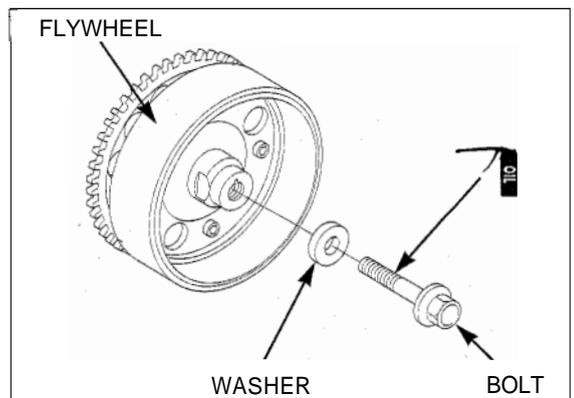
Clean any oil from the crankshaft taper.
Install the woodruff key on the crankshaft.



Install the flywheel aligning the key way in the flywheel with the woodruff key on the crankshaft.

Apply oil to the flywheel bolt threads and seating surface.

Install the washer and flywheel bolt.



ALTERNATOR/STARTER CLUTCH

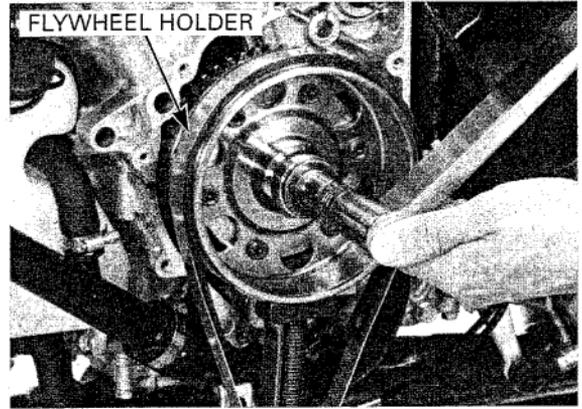
Hold the flywheel using the flywheel holder, then tighten the bolt to the specified torque.

TOOL:

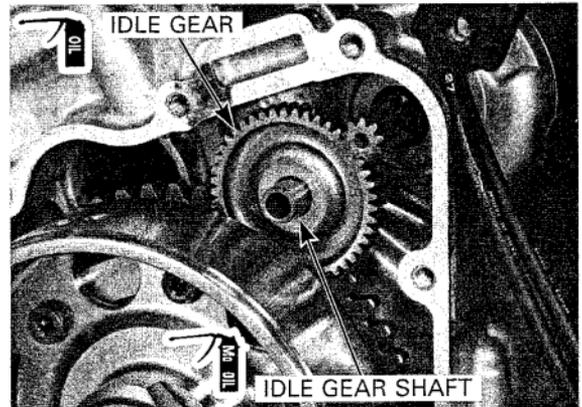
Flywheel holder

07725-0040000
(Equivalent commercially available in U.S.A.)

TORQUE: 103 N·m (10.5 kgf·m, 76 lbf·ft)

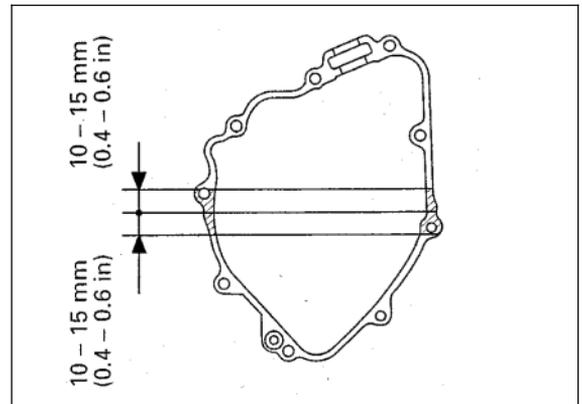


Apply molybdenum disulfide oil to the starter idle gear shaft.
Apply oil to the starter idle gear.
Install the starter idle gear and shaft onto the crankcase.

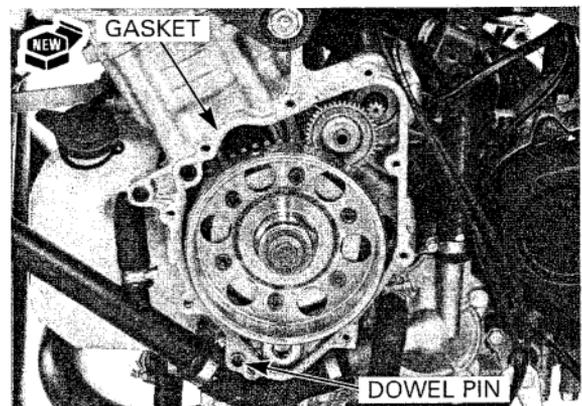


ALTERNATOR COVER INSTALLATION

Apply sealant to the mating surface of the crankcase as shown.



Install the dowel pin and new gasket.

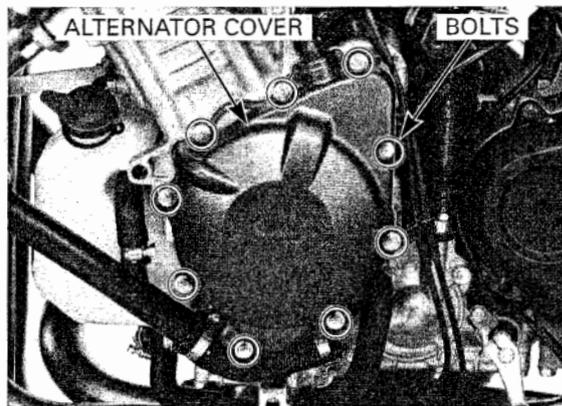


The alternator cover (stator) is magnetically attached to the flywheel, be careful during installation

Install the alternator cover.

Install and tighten the SH bolts to the specified torque.

TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)



Connect the alternator 3P (White) connector.

install the lower cowl (page 2-7).
Install the ECM cover (page 5-87).

