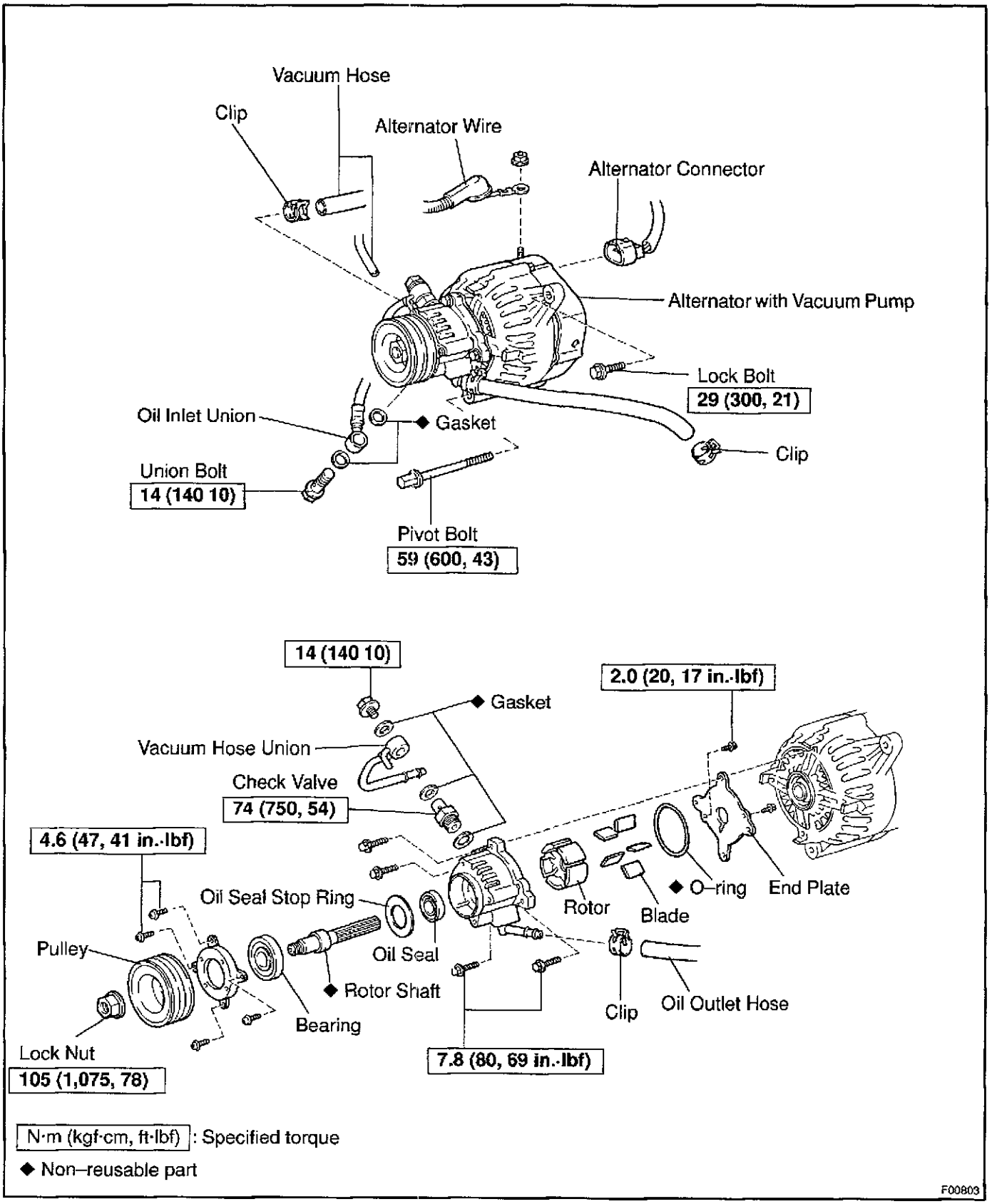
VACUUM PUMP

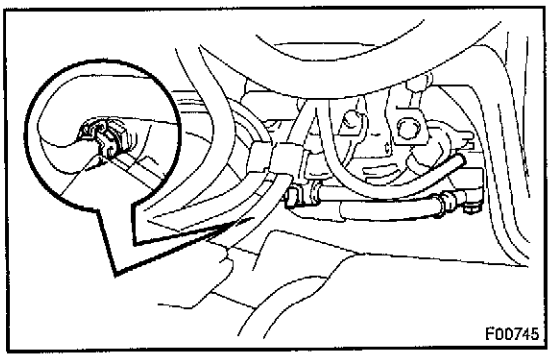
COMPONENTS

BR0EY-01



BR0EW-01

REMOVAL

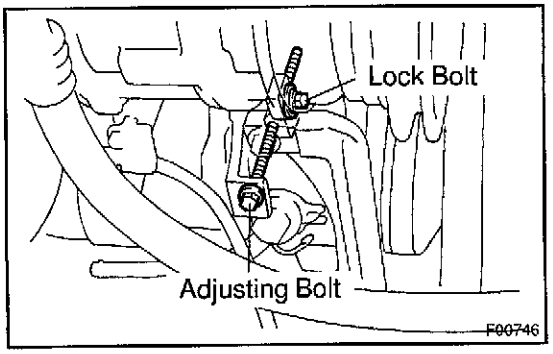


1. REMOVE ALTERNATOR WITH VACUUM PUMP

(a) Remove the union bolt, 2 gaskets and oil inlet union.
Torque: 14 N·m (140 kgf·cm, 10 ft·lbf)

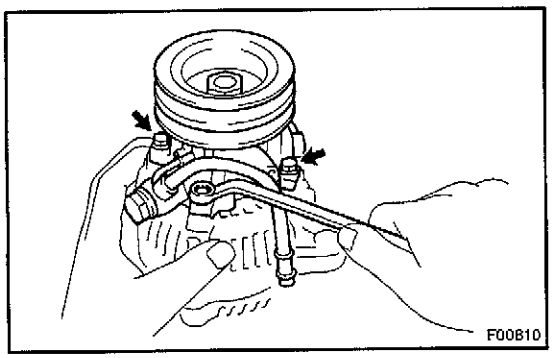
(b) Disconnect the 2 vacuum hoses, alternator connector and oil outlet hose.

(c) Remove the nut and disconnect the alternator wire from the alternator.



(d) Loosen the pivot bolt and adjusting bolt, and remove the alternator drive belt.

(e) Remove the pivot bolt and adjusting bolt, and remove the alternator with vacuum pump.
Torque:
Pivot bolt: 59 N·m (600 kgf·cm, 43 ft·lbf)
Lock bolt: 29 N·m (300 kgf·cm, 21 ft·lbf)

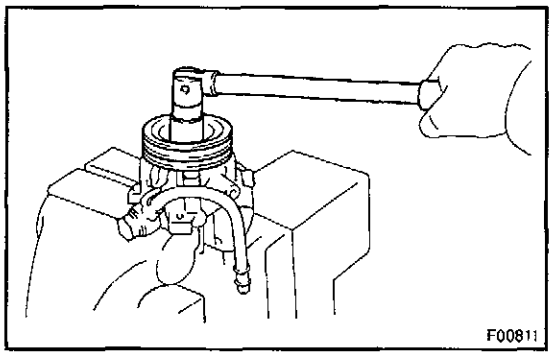


2. REMOVE VACUUM PUMP FROM ALTERNATOR

Remove the 4 bolts and vacuum pump from the alternator.
Torque: 7.8 N·m (80 kgf·cm, 69 in.·lbf)

BR05X-01

DISASSEMBLY

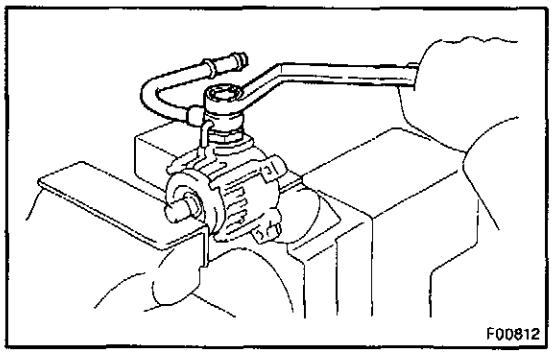


1. REMOVE PULLEY

Using soft jaws on the vise, remove the pulley lock nut and pulley.

Torque: 105 N·m (1,075 kgf·cm, 78 ft·lbf)

2. DISCONNECT OIL OUTLET HOSE



3. REMOVE VACUUM HOSE UNION

Using soft jaws on the vise, remove the union bolt, union and 2 gaskets.

Torque: 14 N·m (140 kgf·cm, 10 ft·lbf)

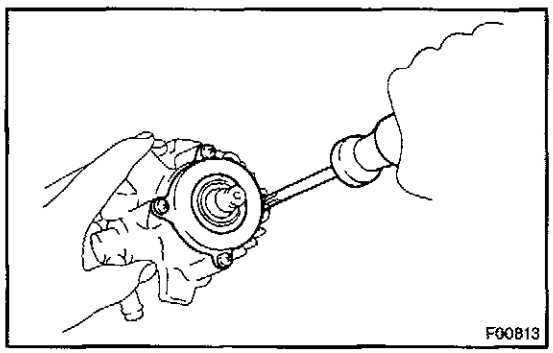
HINT:

At the time of installation, align and insert the union pin into the matching hole of the casing.

4. REMOVE CHECK VALVE

Remove the check valve and gasket.

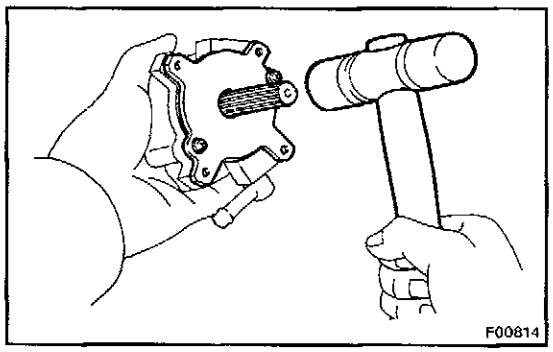
Torque: 74 N·m (750 kgf·cm, 54 ft·lbf)



5. REMOVE END COVER

Remove the 4 screws and end cover.

Torque: 4.6 N·m (47 kgf·cm, 41 in.·lbf)



6. REMOVE ROTOR SHAFT WITH BEARING

Using a plastic hammer, tap out the rotor shaft with bearing.

7. REMOVE OIL SEAL STOP RING

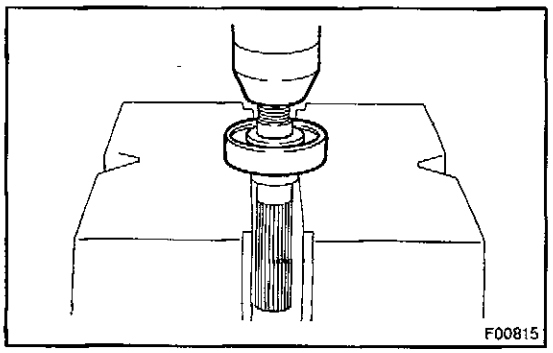
8. REMOVE END PLATE

Remove the 2 screws and end plate.

Torque: 2.0 N·m (20 kgf·cm, 17 in.·lbf)

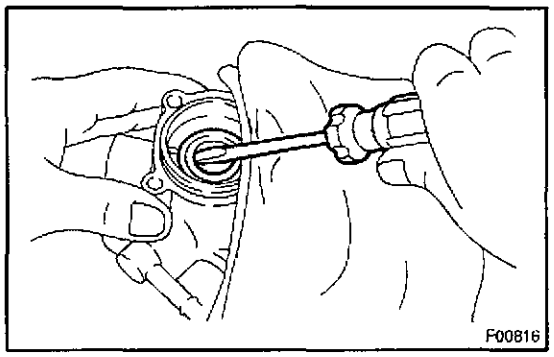
9. REMOVE O–RING

10. REMOVE ROTOR AND 5 BLADES



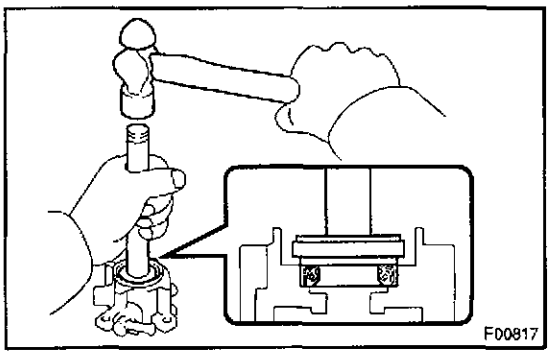
11. IF NECESSARY, REMOVE BEARING

Using a press, remove the bearing from the rotor shaft.



12. REMOVE OIL SEAL

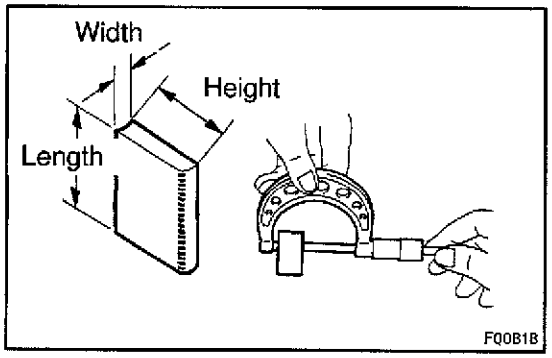
Using a screwdriver, remove the oil seal.

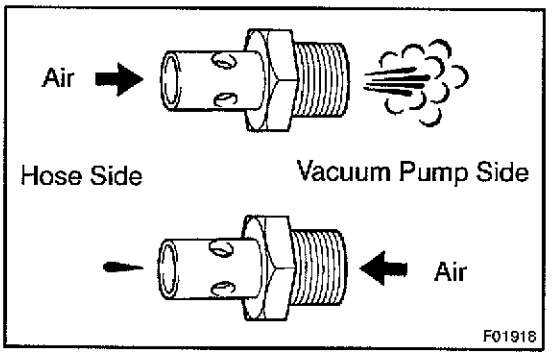


HINT:

At the time of reassembly, use SST and a hammer, tap in the oil seal.

SST 09950–60010 (09951–00400),
09950–70010 (09951–07150)





BR0EY-01

INSPECTION

1. INSPECT BLADE

(a) Check the blades for wear or damage.

(b) Using a micrometer, measure the height, width and length of the blades.

Minimum height: 12.20 mm (0.4803 in.)
Minimum width: 4.95 mm (0.1949 in.)
Minimum length: 22.98 mm (0.4047 in.)

If necessary, replace the blade.

2. INSPECT CHECK VALVE OPERATION

(a) Check that air flows from the hose side to the pump side.

(b) Check that air does not flow from the pump side to the hose side.

If necessary, replace the check valve.

BR0EZ–01

REASSEMBLY

Assembly is in the reverse order of disassembly (See page BR–27).

BR0F0-01

INSTALLATION

Installation is in the reverse order of removal (See page BR–26).
AFTER INSTALLATION, ADJUST BELT TENSION