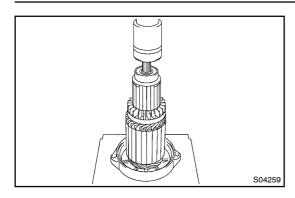
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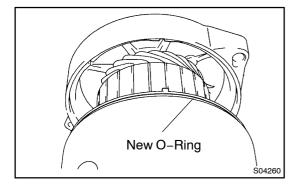
## REASSEMBLY

#### HINT:

Use high-temperature grease to lubricate the bearings and gears when assembling the starter.

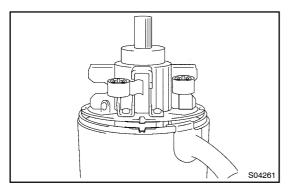
#### 1. PLACE ARMATURE INTO END FRAME

- (a) Apply grease to the armature bearings.
- (b) Using a press, press the armature into the end frame.



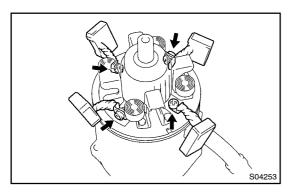
## 2. INSTALL ARMATURE WITH END FRAME TO FIELD FRAME

- (a) Place a new O-ring in position on the field frame.
- (b) Align the claw of the field frame with the groove of the end frame, install the armature end frame.



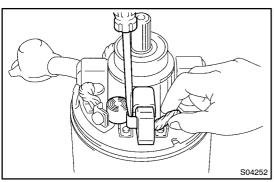
#### 3. INSTALL BRUSH HOLDER

- (a) Align the claw of the brush holder with the claw groove of the field frame.
- (b) Place the brush holder on the field frame.



(c) Install the 4 brushes with the 4 screws.

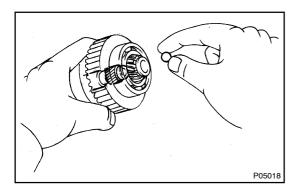
Torque: 3.6 N·m (37 kgf·cm, 32 in.·lbf)



(d) Using a screwdriver, hold the brush spring back, and connect the brush into the brush holder. Connect the 4 brushes.

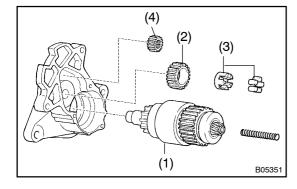
### **NOTICE:**

Check that the positive (+) lead wires are not grounded.



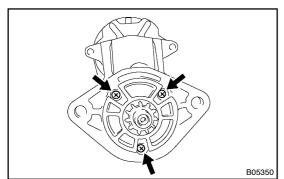
#### 4. INSERT STEEL BALL INTO CLUTCH SHAFT HOLE

- (a) Apply grease to the steel ball.
- (b) Insert the steel ball into the clutch shaft hole.



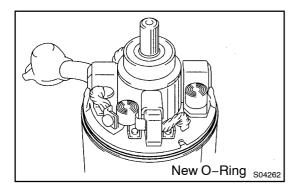
# 5. INSTALL STARTER HOUSING, CLUTCH ASSEMBLY AND GEARS

- (a) Apply grease to the return spring.
- (b) Insert the return spring into the magnetic switch hole.
- (c) Place these parts in position on the starter housing:
  - (1) Clutch assembly
  - (2) Idler gear
  - (3) Bearing
  - (4) Pinion gear



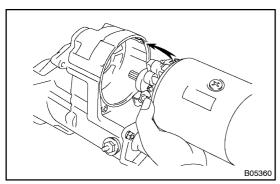
(d) Assemble the starter housing and magnetic switch assembly and install the 3 screws.

Torque: 11.3 N·m (115 kgf·cm, 8.3 ft·lbf)



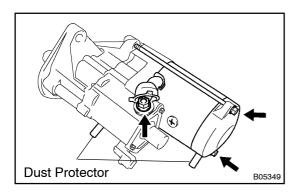
## 6. INSTALL FIELD FRAME AND ARMATURE ASSEMBLY

(a) Place a new O-ring in position on the field frame.



(b) Align the claw of the brush holder with the groove of the magnetic switch, and install the field frame and armature shaft assembly.

1HZ, 1HD-T, 1HD-FTE ENGINE (RM617E)



(c) Install the field frame and armature assembly with the 2 through bolts.

Torque: 14.2 N·m (145 kgf·cm, 10 ft·lbf)

(d) Connect the lead wire to terminal C, and install the nut.

Torque: 24 N·m (245 kgf·cm, 18 ft·lbf)

(e) Install the 2 dust protectors.