### GENERATOR

### COMPONENTS



# REMOVAL

- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE FAN AND GENERATOR V BELT (See page EM-5)
- 3. REMOVE GENERATOR ASSEMBLY
  - (a) Remove the terminal cap.
  - (b) Remove the nut, then remove the generator wire.
  - (c) Disconnect the generator connector.

(d) Remove the 2 bolts, then remove the generator.







# DISASSEMBLY

1. REMOVE GENERATOR PULLEY SST 09820-63010 (09820-06010, 09820-06020) HINT:

SST 1-A and B	09820-06010
SST 2	09820-06020

 (a) Hold SST 1-A with a torque wrench, and tighten SST 1-B clockwise with the specified torque.
 Torque: 39 N\*m (400 kgf\*cm, 29 ft.\*lbf) NOTICE:

Check that the SST is secured to the generator rotor shaft.

- (b) Mount SST 2 in a vise.
- (c) Insert SST 1-A and B into SST 2, and attach the generator pulley nut to SST 2.

half turn.





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- (d) To loosen the generator pulley nut, turn SST 1-A in the direction shown in the illustration.
  NOTICE:
  To prevent damage to the rotor shaft, do not loosen the generator pulley nut more than one-
- (e) Remove the generator from SST 2.
- (f) Turn SST 1-B, and remove SST 1-A and B.
- (g) Remove the generator pulley nut and generator pulley.

- 2. REMOVE GENERATOR BRUSH HOLDER ASSEMBLY
  - (a) Remove the nut and terminal insulator.
  - (b) Remove the nut, screw and rectifier plate.
  - (c) Remove the 2 nuts and rear end cover.

- (d) Remove the brush cover from the generator brush holder assembly.
- (e) Remove the 3 screws and generator brush holder assembly.
- (f) Remove the plate seal.

### 3. REMOVE GENERATOR REGULATOR ASSEMBLY

(a) Remove the 2 screws and generator regulator assembly.









# **REMOVE GENERATOR HOLDER WITH RECTIFIER** (a) Remove the 3 screws and generator rectifier holder.

### 5. REMOVE GENERATOR ROTOR ASSEMBLY

- (a) Remove the 3 terminal insulators from the rectifier end frame.
- (b) Remove the 4 nuts.

- (c) Using SST, remove the rectifier end frame. **SST 09286-46011**
- (d) Remove the plate retainer.
- (e) Remove the generator rotor assembly from the drive end frame.

### NOTICE:

**Do not drop the generator rotor assembly.** HINT:

If the generator rotor is engaged too firmly, lightly tap the generator rotor shaft to remove it using a plastic hammer.

### INSPECTION

#### 1. INSPECT GENERATOR BRUSH HOLDER ASSEMBLY

(a) Using vernier calipers, measure the exposed brush length.

Standard exposed length:

9.5 to 11.5 mm (0.374 to 0.453 in.)

Minimum exposed length:

4.5 mm (0.177 in.)

If the exposed length is less than the minimum, replace the generator brush holder assembly.

### INSPECT GENERATOR REGULATOR ASSEMBLY

(a) Using an ohmmeter, check the continuity between terminals F and B.

Standard:

When the positive and negative poles between terminals F and B are exchanged, there is continuity in one way but no continuity in another way.

If the continuity is not specified, replace the generator regulator assembly.







(b) Using an ohmmeter, check the continuity between terminals F and E.

#### Standard:

When the positive and negative poles between terminals F and B are exchanged, there is continuity in one way but no continuity in another way.

If the continuity is not specified, replace the generator regulator assembly.

### 3. INSPECT GENERATOR HOLDER WITH RECTIFIER

(a) Using an ohmmeter, check the continuity between terminals P1, P2, P3, P4 and B, and between P1, P2, P3, P4 and E.

### Standard

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Terminals	Specified Condition
P1, P2, P3, P4 and B	Continuity in one direction but no continuity in the other direction
P1, P2, P3, P4 and E	Continuity in one direction but no continuity in the other direction

If the continuity is not as specified, replace the generator rectifier holder.

### 4. INSPECT GENERATOR ROTOR ASSEMBLY

- (a) Check for open in the generator rotor circuit.
  - (1) Using an ohmmeter, measure the resistance between the slip rings.
    - Standard resistance: 1.7 to 2.1 Ω at 20°C(68°F)

If the resistance is not as specified, replace the generator rotor assembly.

- (b) Check for short in the generator rotor circuit.
  - Using an ohmmeter, check that there is no continuity between the slip ring and generator rotor assembly.

If there is continuity, replace the generator rotor assembly.

- (c) Inspect slip rings.
  - (1) Check that the slip rings are not rough or scored.

If rough or scored, replace the generator rotor assembly.







(2) Using vernier calipers, measure the slip ring diameter.

Standard diameter: 14.2 to 14.4 mm (0.559 to 0.567 in) Minimum diameter: 14.0 mm (0.551 in)

If the diameter is less than the minimum, replace the generator rotor assembly.

