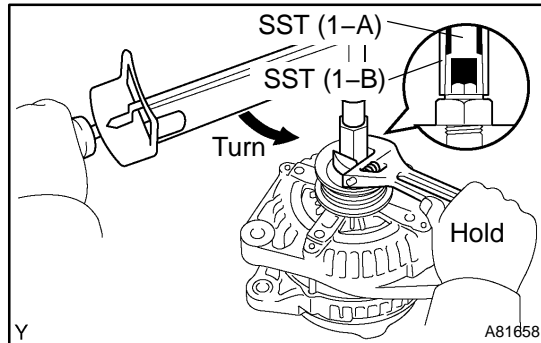


OVERHAUL



1. REMOVE GENERATOR PULLEY

SST 09820-63010 (09820-06010, 09820-06020)

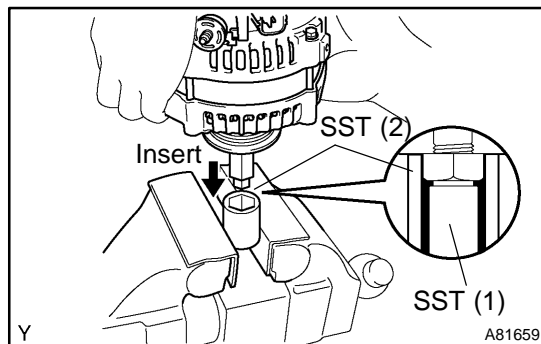
HINT:

SST (1-A, B)	09820-06010
SST (2)	09820-06020

- (a) Hold SST (1-A) with a torque wrench, and tighten SST (1-B) clockwise to the specified torque.

Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)**NOTICE:****Check that SST is secured to the rotor shaft.**

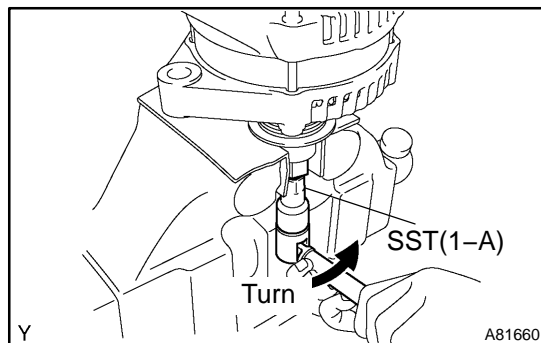
- (b) Clamp SST (2) in a vise.
 (c) Insert SST (1-A, B) into SST (2), and attach the pulley nut to SST (2).



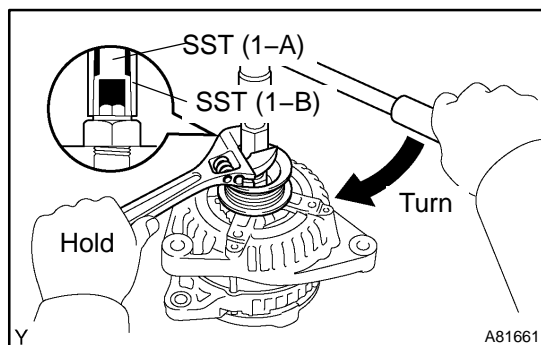
- (d) To loosen the pulley nut, turn SST (1-A) in the direction shown in the illustration.

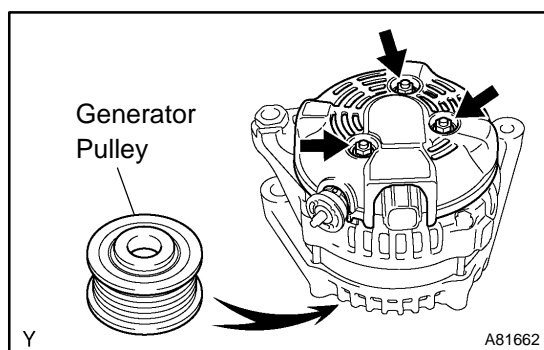
NOTICE:**To prevent damage to the rotor shaft, do not loosen the pulley nut more than one-half turn.**

- (e) Remove the generator from SST (2).



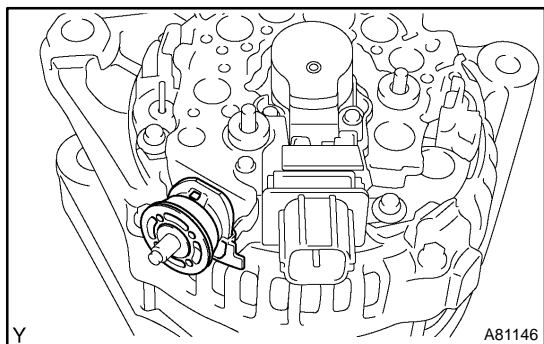
- (f) Turn SST (1-B) and remove SST (1-A, B).
 (g) Remove the pulley nut and generator pulley.





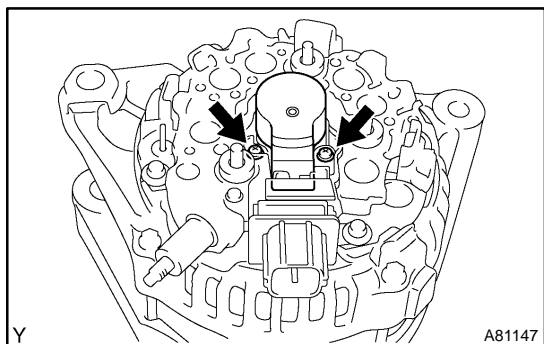
2. REMOVE GENERATOR REAR END COVER

- (a) Place the generator on the generator pulley.
- (b) Remove the 3 nuts and the generator rear end cover.



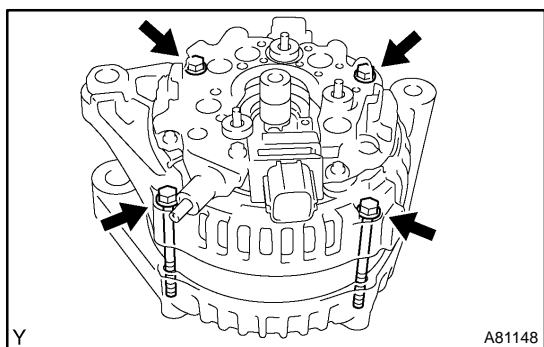
3. REMOVE TERMINAL INSULATOR

- (a) Remove the terminal insulator from the generator rectifier end frame.



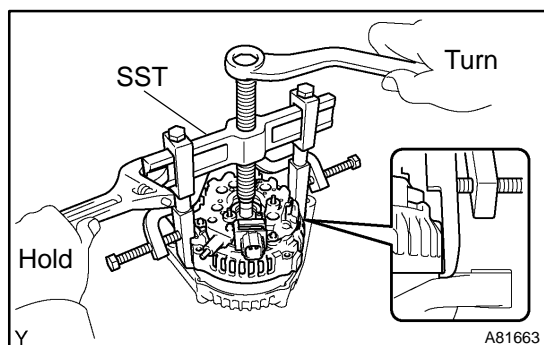
4. REMOVE GENERATOR BRUSH HOLDER ASSY

- (a) Remove the 2 screws and the generator brush holder.

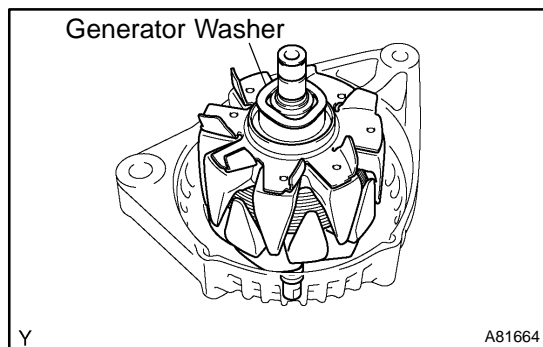


5. REMOVE GENERATOR COIL ASSY

- (a) Remove the 4 bolts.

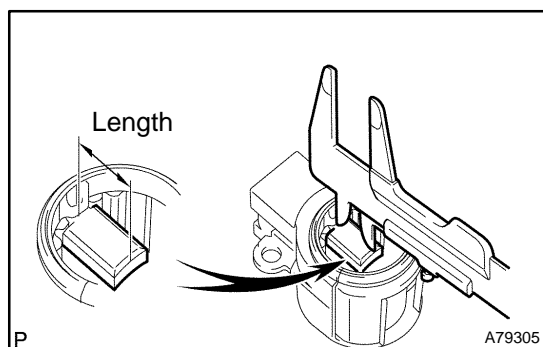


- (b) Using SST, remove the generator rectifier end frame.
SST 09950-40011 (09951-04020, 09952-04010, 09953-04020, 09954-04010, 09955-04071, 09957-04010, 09958-04011)



6. REMOVE GENERATOR ROTOR ASSY

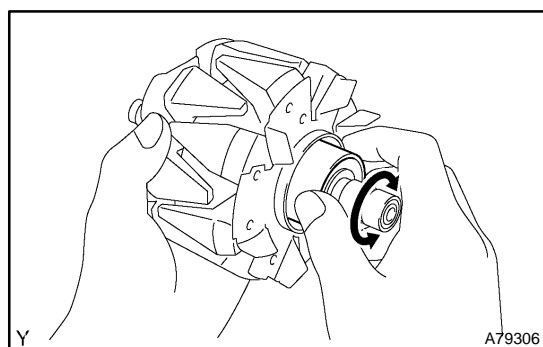
- (a) Remove the generator washer and the generator rotor.



7. INSPECT GENERATOR BRUSH HOLDER ASSY

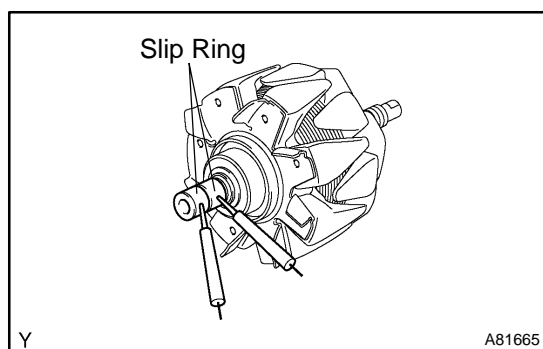
- (a) Check the brush length.
- (1) Using a vernier caliper, measure the exposed brush length.
- Specified brush length: 4.5 to 10.5 mm (0.177 to 0.413 in.)**

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



8. INSPECT GENERATOR ROTOR ASSY

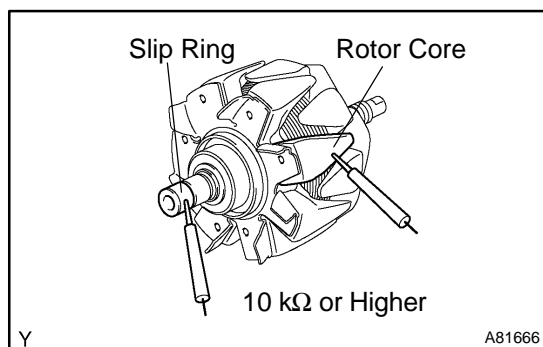
- (a) Check the bearing is not rough or worn.
- If necessary, replace the generator rotor.



- (b) Check the rotor for open circuit.
- (1) Using an ohmmeter, measure the resistance between the slip ring.

Standard: 2.3 to 2.7 Ω at 20°C (68°F)

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

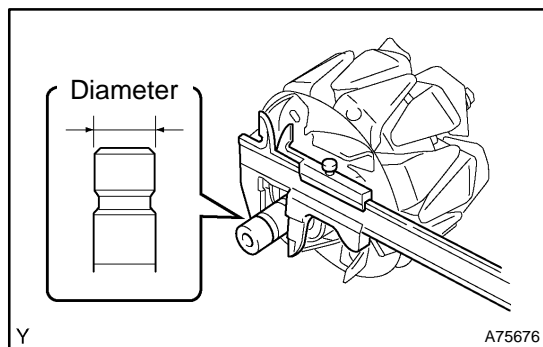


- (c) Check the rotor for ground.
- (1) Using an ohmmeter, check the resistance between the slip ring and the rotor core.

Standard: 10 k Ω or higher

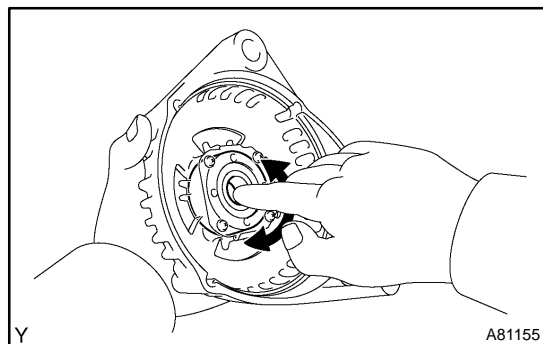
If the resistance is not as specified, replace the generator rotor.

- (d) Inspect slip rings.
- (1) Check that the slip rings are not rough or scored.
- If rough or scored, replace the generator rotor.



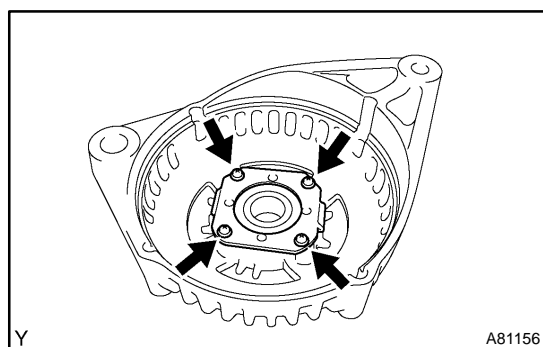
- (e) Check the slip ring diameter.
 (1) Using a vernier caliper, measure the slip ring diameter.
Specified diameter: 14.0 to 14.4 mm (0.551 to 0.567 in.)

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



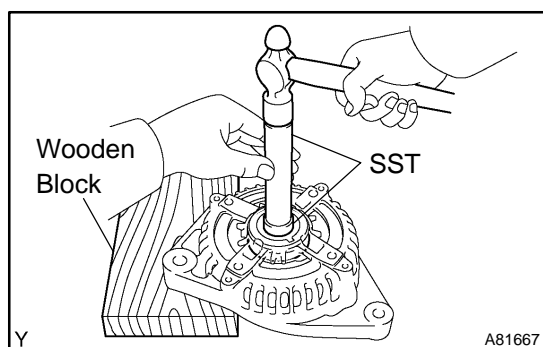
9. INSPECT GENERATOR DRIVE END FRAME BEARING

- (a) Check the bearing is not rough or worn.
 If necessary, replace the bearing.

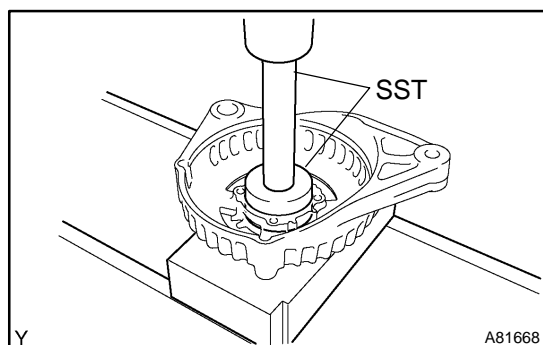


10. REMOVE GENERATOR DRIVE END FRAME BEARING

- (a) Remove the 4 screws and the retainer plate.

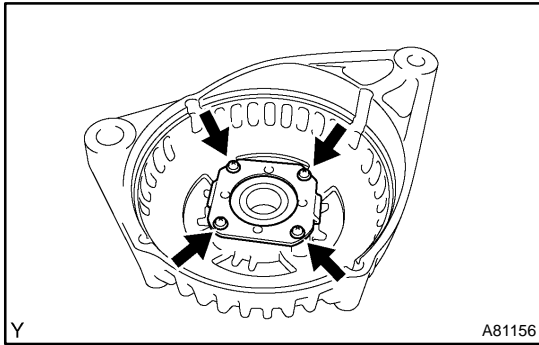


- (b) Using SST, tap out the bearing.
 SST 09950-60010 (09951-00250), 09950-70010 (09951-07100)

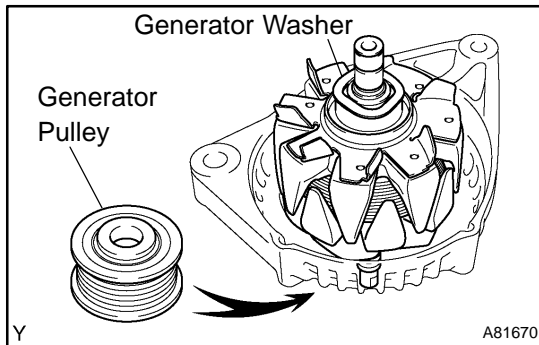


11. INSTALL GENERATOR DRIVE END FRAME BEARING

- (a) Using SST and a press, press in a new bearing.
 SST 09950-60010 (09951-00470), 09950-70010 (09951-07100)

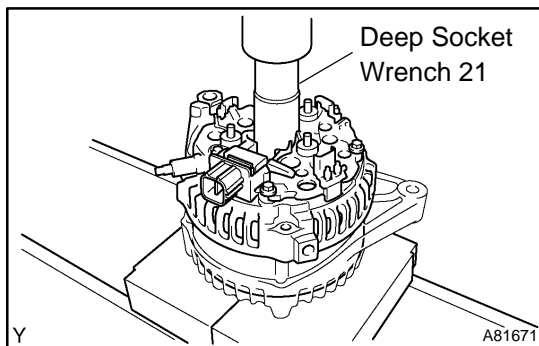


- (b) Install the retainer plate with the 4 screws.
Torque: 2.3 N·m (23 kgf·cm, 20 in.-lbf)



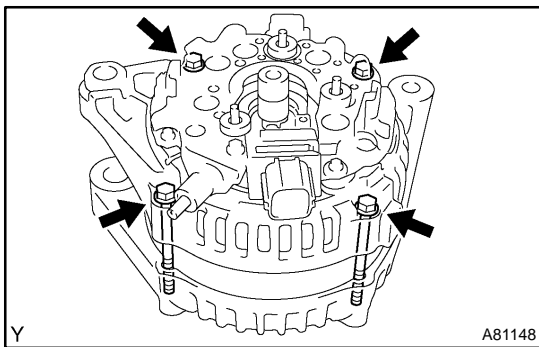
12. INSTALL GENERATOR ROTOR ASSY

- (a) Place the generator drive end frame on the generator pulley.
 (b) Install the generator rotor and the generator washer.

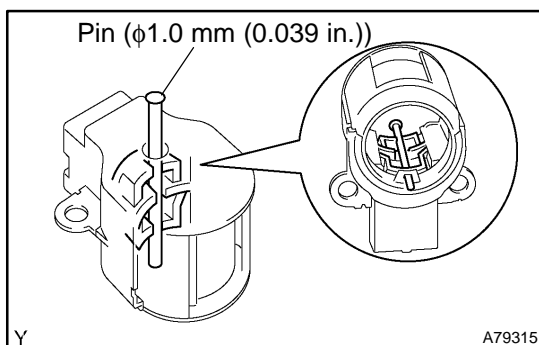


13. INSTALL GENERATOR COIL ASSY

- (a) Using a deep socket wrench 21 and a press, press in the generator rectifier end frame carefully.

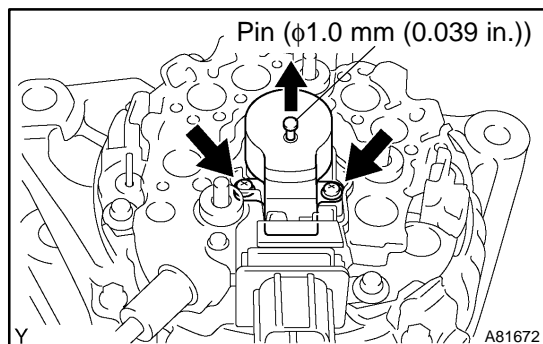


- (b) Tighten the 4 bolts.
Torque: 5.8 N·m (59 kgf·cm, 51 in.-lbf)

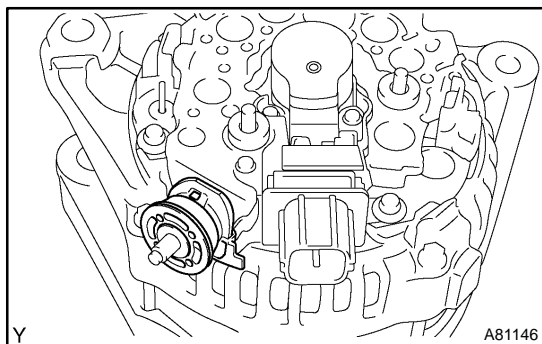


14. INSTALL GENERATOR BRUSH HOLDER ASSY

- (a) While pushing the 2 brushes to inside the brush holder, insert a pin (φ1.0 mm (0.039 in.)) into the brush holder hole.



- (b) Install the generator brush holder with the 2 screws.
Torque: 1.8 N·m (18 kgf·cm, 16 in.-lbf)
- (c) Pull out the pin (φ1.0 mm (0.039 in.)) from the generator brush holder.

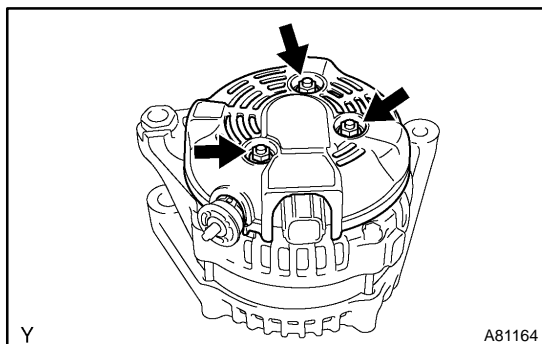


15. INSTALL TERMINAL INSULATOR

- (a) Install the terminal insulator to the generator rectifier end frame.

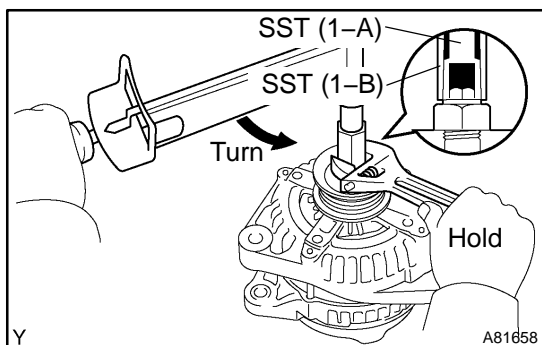
NOTICE:

Pay attention the mounting orientation of the terminal insulator.



16. INSTALL GENERATOR REAR END COVER

- (a) Install the generator rear end cover with the 3 nuts.
Torque: 4.6 N·m (47 kgf·cm, 41 in.-lbf)



17. INSTALL GENERATOR PULLEY

SST 09820-63010 (09820-06010, 09820-06020)

HINT:

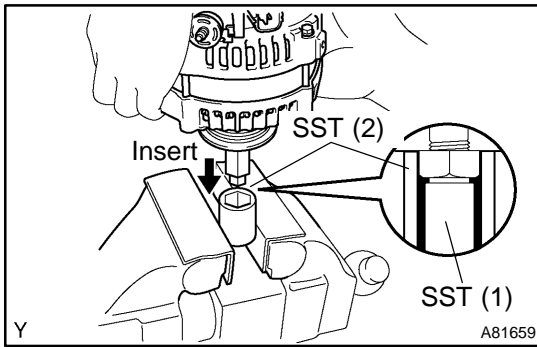
SST (1-A, B)	09820-06010
SST (2)	09820-06020

- (a) Install the generator pulley to the rotor shaft by tightening the pulley nut by hand.
- (b) Hold SST (1-A) with a torque wrench, and tighten SST (1-B) clockwise to the specified torque.

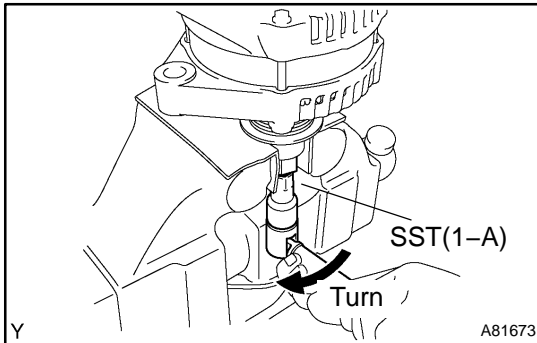
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

NOTICE:

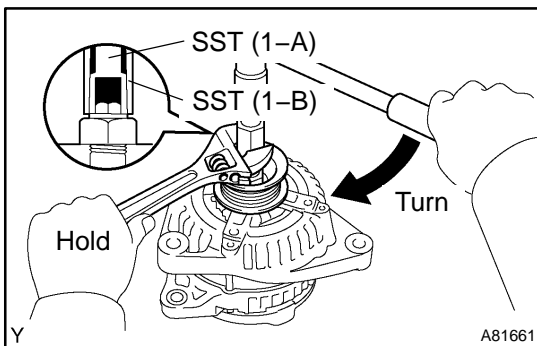
Check that SST is secured to the rotor shaft.



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



- (e) Tighten the pulley nut by turning SST (1-A) in the direction shown in the illustration.
Torque: 111 N·m (1,125 kgf·cm, 81 ft·lbf)
- (f) Remove the generator from SST (2).



- (g) Turn SST (1-B), and remove SST (1-A, B).
- (h) Turn the generator pulley and check that the generator pulley moves smoothly.