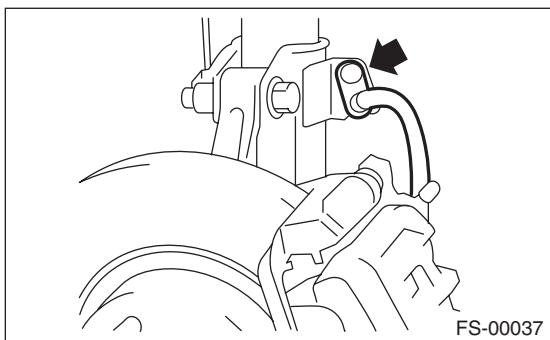


7. Front Strut

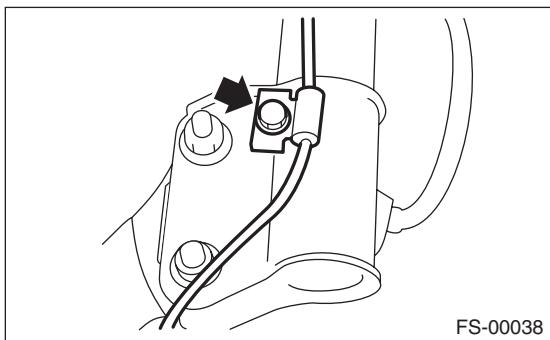
A: REMOVAL

- 1) Lift up the vehicle, and then remove the front wheels.
- 2) Place an alignment mark on the camber adjusting bolt and strut.
- 3) Remove the brake hose bracket.



FS-00037

- 4) Remove the bolt securing the ABS wheel speed sensor harness.



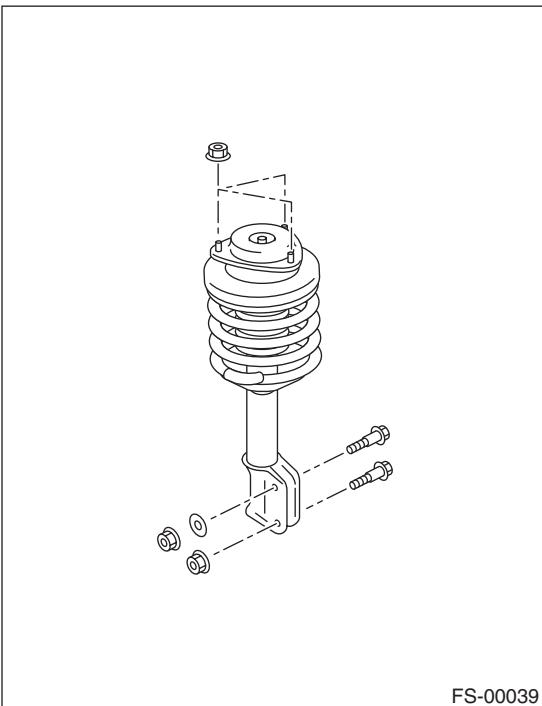
FS-00038

- 5) Remove the two bolts securing the housing to the strut.

NOTE:

While holding the head of the adjusting bolt, loosen the flange nut.

- 6) Remove the three nuts securing strut mount to body.



FS-00039

B: INSTALLATION

- 1) Install the strut mount at the upper side of strut to body, and tighten it with new self-locking nuts.

Tightening torque:

20 N·m (2.0 kgf·m, 14.8 ft-lb)

- 2) Align alignment marks on the camber adjusting bolt and strut.

Using new flange nuts, install the strut to the housing.

NOTE:

While holding the head of adjusting bolt, tighten the flange nut.

Tightening torque:

155 N·m (15.8 kgf·m, 114.3 ft-lb)

- 3) Secure the ABS wheel speed sensor harness to the strut.

Tightening torque:

33 N·m (3.4 kgf·m, 24.3 ft-lb)

- 4) Install the brake hose bracket.

Tightening torque:

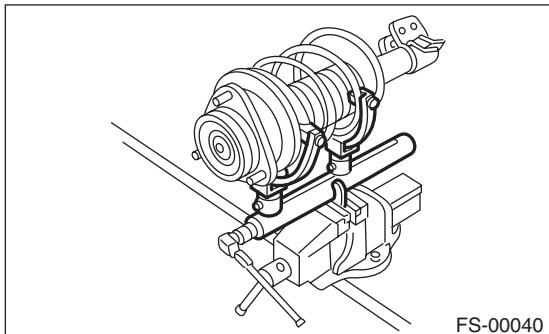
33 N·m (3.4 kgf·m, 24.3 ft-lb)

- 5) Install the front wheels.

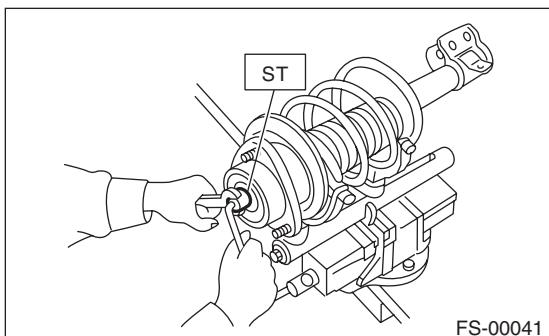
6) Inspect the wheel alignment and adjust if necessary.

C: DISASSEMBLY

1) Using a coil spring compressor, compress the coil spring.



2) Using the ST, remove the self-locking nut.
ST 20399AG000 STRUT MOUNT SOCKET



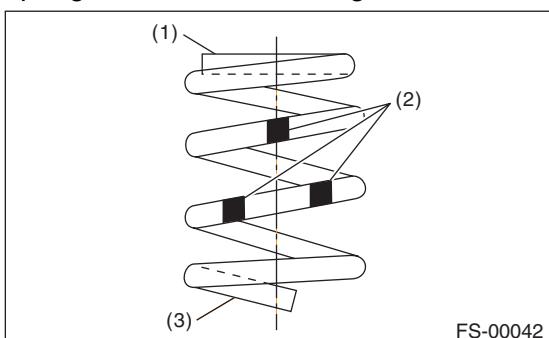
3) Remove the strut mount and upper spring seat from strut.
4) Gradually decrease the compression force of compressor, and remove the coil spring.
5) Remove the dust cover.

D: ASSEMBLY

1) Using a coil spring compressor, compress the coil spring.

NOTE:

Make sure that the vertical install direction of the coil spring is as shown in the figure.

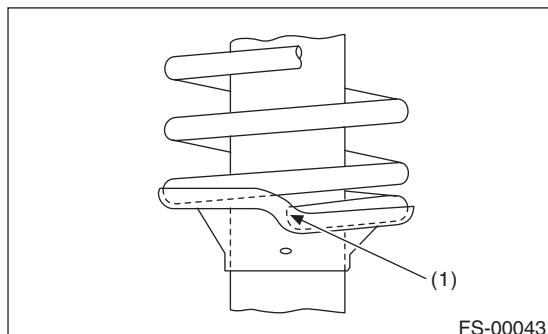


(1) Diameter is small (upper part)

(2) Identification paint

(3) Diameter is large (bottom part)

2) Set the coil spring correctly so that its end face seats well in the spring seat as shown in the figure.

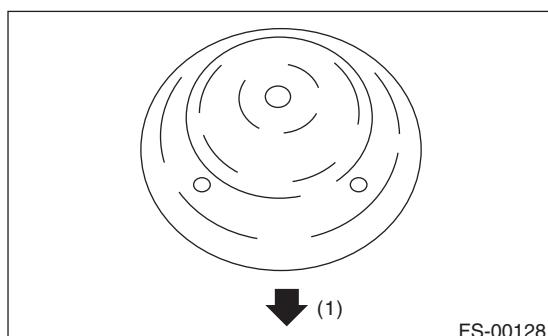


(1) Coil spring end face

3) Install the dust cover to the piston rod.
4) Pull the piston rod fully upward, and install the spring seat.

NOTE:

Position the upper spring seat as shown in the figure.



(1) Outside of body

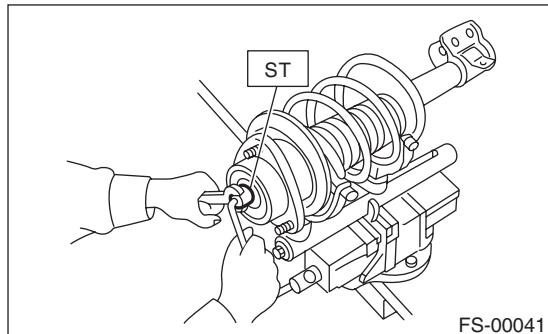
5) Install the strut mount and spacer to piston rod, and temporarily attach and tighten a new self locking nut.

6) Using a hexagon wrench to prevent strut rod from turning, tighten the new self-locking nut with ST.

ST 20399AG000 STRUT MOUNT SOCKET

Tightening torque:

55 N·m (5.6 kgf·m, 40.6 ft·lb)



7) Loosen the coil spring compressor carefully.

E: INSPECTION

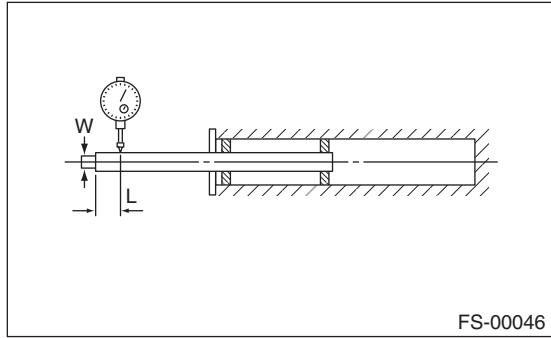
Check the removed part for wear, damage and cracks, and then repair or replace it if defective.

1. STRUT

- 1) Check for oil leaks.
- 2) Move the piston rod up and down to check that it operates smoothly without any hitch.
- 3) Piston rod play

- Measure the play as follows:

Fix the outer shell in place and fully extend the rod. Set a dial gauge at the end of rod L [10 mm (0.39 in)], and then read the dial gauge indication P_1 while applying a force of W [20 N (2 kgf, 4 lbf)] to the threaded portion. Apply a force of 20 N (2 kgf, 4 lbf) from the opposite direction of "W", and then read the dial gauge indication P_2 .



Play limit ($P_1 + P_2$):
0.8 mm (0.031 in)

If the play exceeds limit, replace the strut.

2. STRUT MOUNT

Check the rubber part for deformation, cracks or deterioration, and then replace it with a new part if defective.

3. DUST COVER

If cracks or damage are found, replace with a new part.

4. COIL SPRING

If a permanent strain is found, replaced it with a new part.

5. HELPER

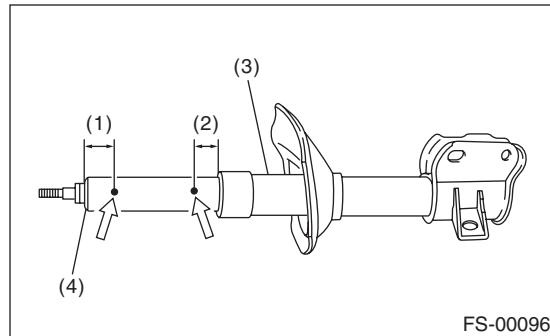
If major cracks or damage are found, replace it with a new part. (Except for STI model)

F: DISPOSAL

CAUTION:

- Before handling struts, be sure to wear goggles to protect eyes from gas, oil and cutting powder.
- Do not disassemble the strut damper or throw into flames.
- When discarding gas filled struts, drill holes in them to purge the gas.

- 1) Place the strut on a level surface with the piston rod fully expanded.
- 2) Using a 2 — 3 mm (0.08 — 0.12 in) dia. drill, make a hole into the position (1) first, and then (2).



(1) 20 mm (0.78 in)
(2) 10 mm (0.39 in)
(3) Strut
(4) Damping tube