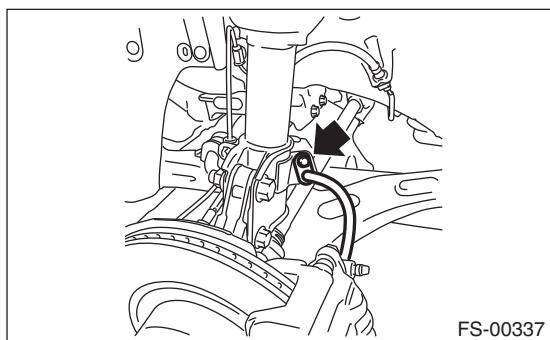


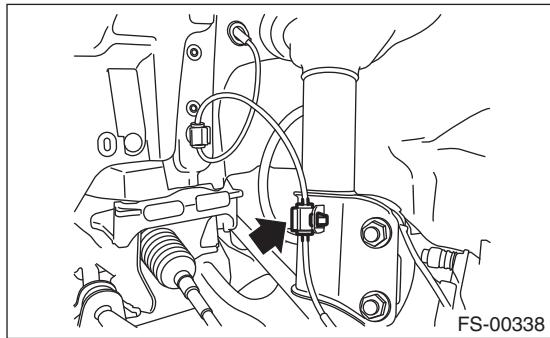
7. Front Strut

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.



- 4) Remove the ABS wheel speed sensor harness.

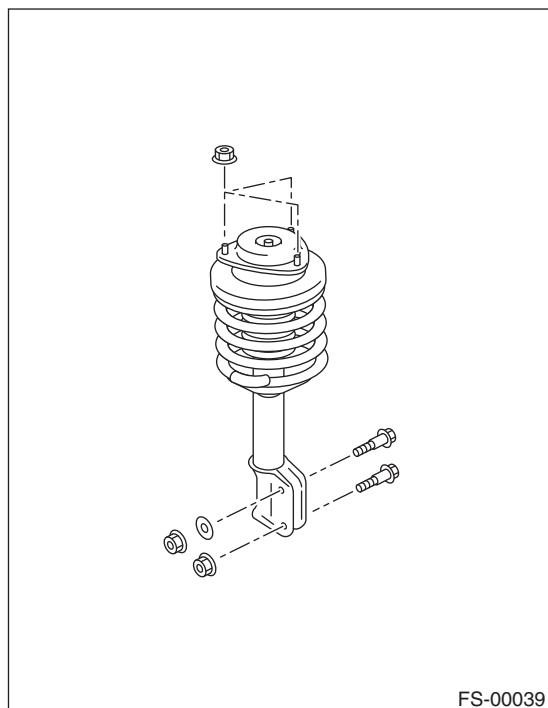


- 5) Remove the two bolts securing the housing to the strut.

NOTE:

While holding the head of the adjusting bolt, loosen the self-locking nut.

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



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 self-locking nuts, install the strut to the housing.

NOTE:

While holding the head of adjusting bolt, tighten the self-locking nut.

Tightening torque:

155 N·m (15.8 kgf·m, 114.3 ft-lb)

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

- 4) Install the brake hose bracket.

Tightening torque:

33 N·m (3.4 kgf·m, 24.3 ft-lb)

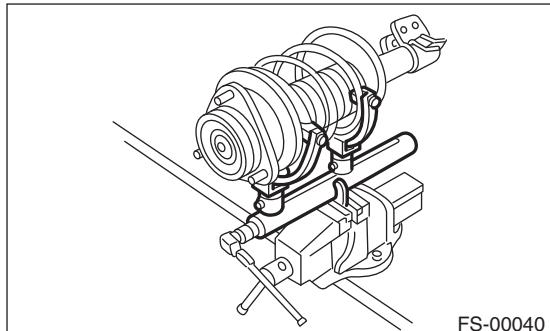
- 5) Install the front wheels.
- 6) Inspect the wheel alignment and adjust if necessary.

Front Strut

FRONT SUSPENSION

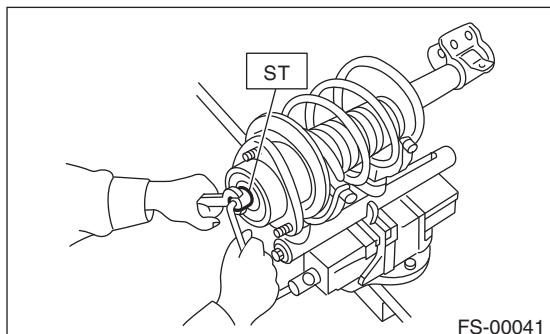
C: DISASSEMBLY

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



FS-00040

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



FS-00041

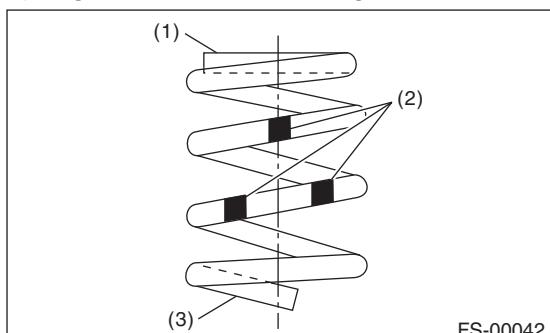
- 3) Remove the strut mount, spacer and upper spring seat from the strut.
- 4) Gradually decrease the compression force of compressor, and remove the coil spring.
- 5) Remove the dust cover and helper.

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.



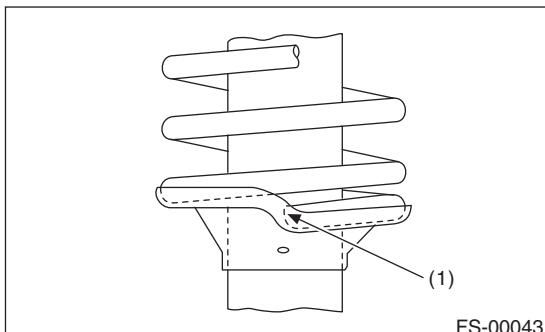
FS-00042

(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.



FS-00043

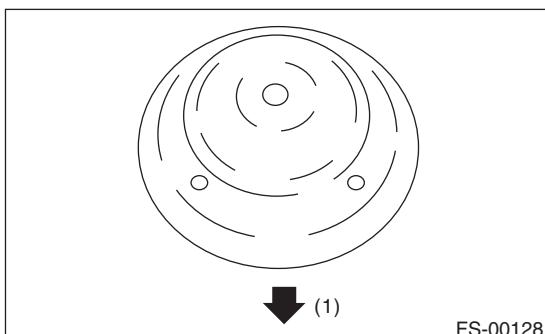
(1) Coil spring end face

- 3) Install the dust cover and helper 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.



FS-00128

(1) Outside of body

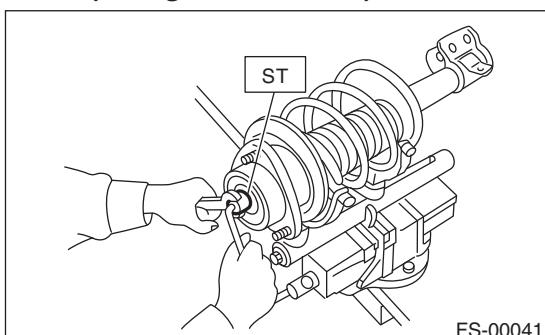
- 5) Install the spacer and strut mount to the piston rod, and temporarily tighten a new self-locking nut.

- 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)



FS-00041

- 7) Loosen the coil spring compressor carefully.

E: INSPECTION

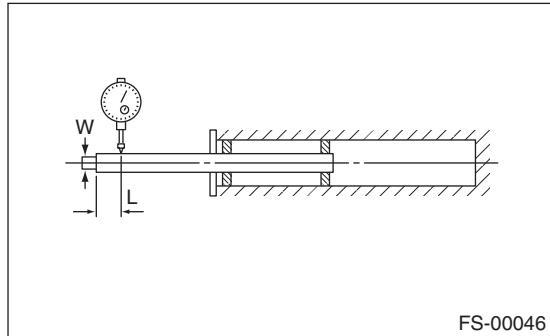
Check the removed part for wear, damage and cracks, and then repair or replace it if defective.

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, abnormal cracks or deterioration, and then replace it with a new part if defective.

3. DUST COVER

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

4. COIL SPRING

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

5. HELPER

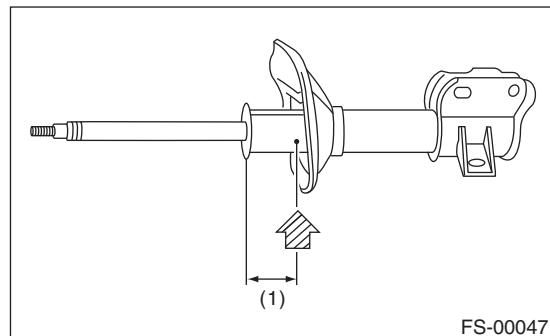
If abnormal cracks or damage are found, replace it with a new part.

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 holes in areas shown in the figure.



(1) 40 mm (1.57 in)