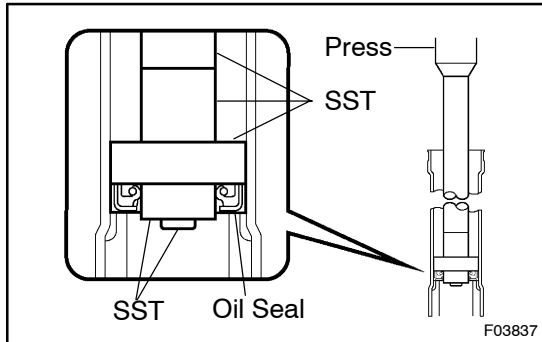


REASSEMBLY

NOTICE:

When using a vise, do not overtighten it.

1. COAT PARTS INDICATED BY ARROWS WITH POWER STEERING FLUID OR MOLYBDENUM DISULFIDE LITHIUM BASE GREASE (See page SR-39)



2. INSTALL OIL SEAL

- (a) Coat a new oil seal lip with power steering fluid.
- (b) Using SST, press in the oil seal.
SST 09950-60010 (09951-00240, 09951-00430, 09952-06010), 09950-70010 (09951-07360)

NOTICE:

- Make sure that the oil seal is installed facing in the correct direction.
- Take care that the oil seal does not get reversed as you install it.

3. INSTALL STEERING RACK

- (a) Install SST to the steering rack.
SST 09631-20102

HINT:

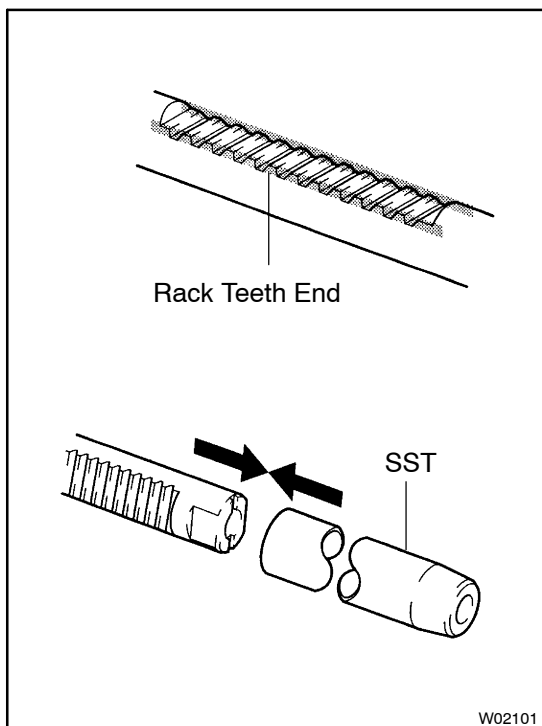
If necessary, scrape the burrs off the rack teeth end and bur-nish.

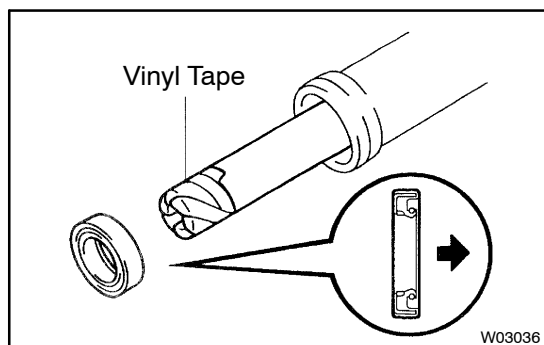
- (b) Coat SST with power steering fluid.
- (c) Install the steering rack into the rack housing.

NOTICE:

Be careful not to damage the oil seal lip.

- (d) Remove the SST.
SST 09631-20102





4. INSTALL OIL SEAL

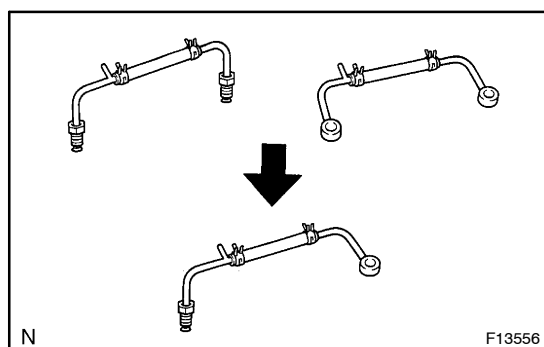
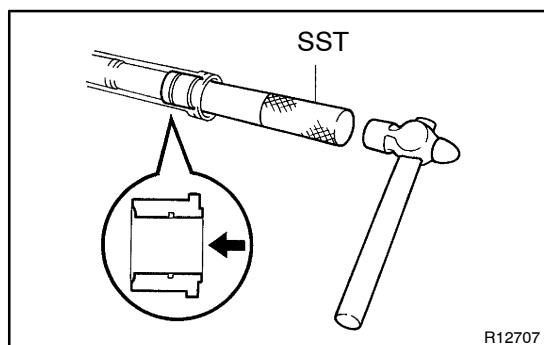
- Coat a new oil seal lip with power steering fluid.
- To prevent oil seal lip damage, wind vinyl tape on the steering rack end, and apply power steering fluid.
- Install the oil seal by pushing it into the rack housing without tilting.

NOTICE:

- Make sure that the oil seal is installed facing in the correct direction.
- Be careful not to damage the oil seal lip.

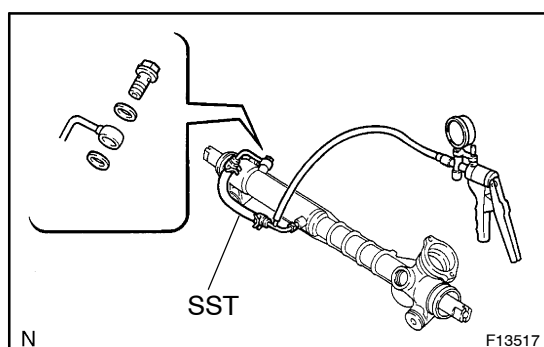
5. INSTALL CYLINDER END STOPPER

- Using SST and a hammer, drive in the cylinder end stopper.
SST 09612-22011
- Using snap ring pliers, install the snap ring to the rack housing.



6. AIR TIGHTNESS TEST

- Connect the 2 SST as shown in the illustration.
SST 09631-12071, 09631-22030
- Install SST to the rack housing.



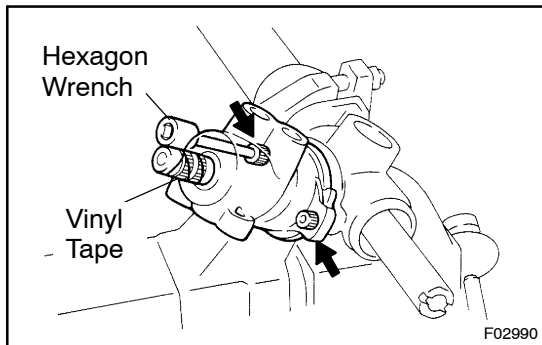
- Apply 53 kPa (400 mmHg, 15.75 in.Hg) of vacuum for about 30 seconds.
- Check that there is no change in the vacuum.
If there is change in the vacuum, check the installation of the oil seals.

7. INSTALL CONTROL VALVE ASSEMBLY

- Coat the teflon rings of the control valve assembly with power steering fluid.
- To prevent oil seal lip damage, wind vinyl tape on the serrated part of the control valve shaft.
- Install the control valve assembly into the control valve housing.

NOTICE:

Be careful not to damage the teflon rings and oil seal.

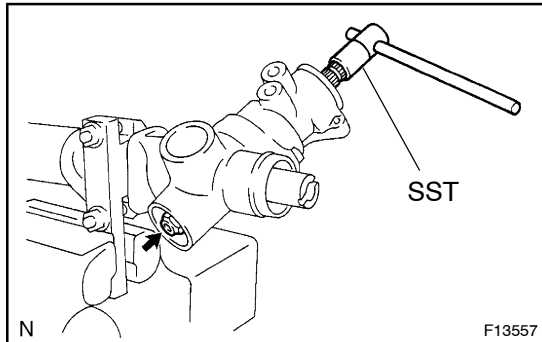
**8. INSTALL CONTROL VALVE HOUSING**

- (a) Coat a new O-ring with power steering fluid and install it to the control valve housing.
- (b) Using a hexagon wrench (6 mm), install the control valve housing with the 2 bolts.

Torque: 18 N·m (180 kgf·cm, 13 ft·lbf)

9. INSTALL DUST COVER**10. INSTALL BEARING AND SPACER**

Install the spacer and a new bearing to the rack housing.

**11. INSTALL SELF-LOCKING NUT**

Using SST, stop the control valve shaft rotating and install a new self-locking nut.

SST 09616-00011

Torque: 59 N·m (600 kgf·cm, 43 ft·lbf)

12. INSTALL RACK HOUSING CAP

- (a) Apply sealant to 2 or 3 threads of the rack housing cap.

Sealant:

Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

- (b) Install the rack housing cap.

Torque: 69 N·m (700 kgf·cm, 51 ft·lbf)

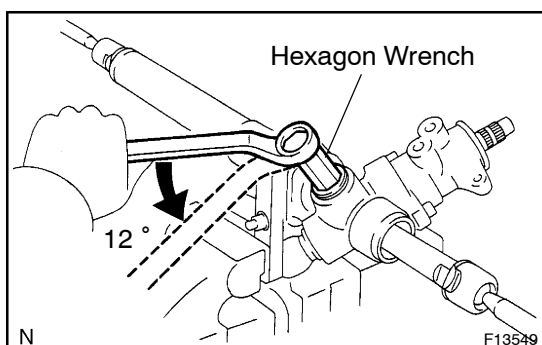
13. INSTALL RACK GUIDE SUB-ASSEMBLY, RACK GUIDE SPRING AND RACK GUIDE SPRING CAP

- (a) Install the rack guide sub-assembly and rack guide spring.
- (b) Apply sealant to 2 or 3 threads of the rack guide spring cap.

Sealant:

Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

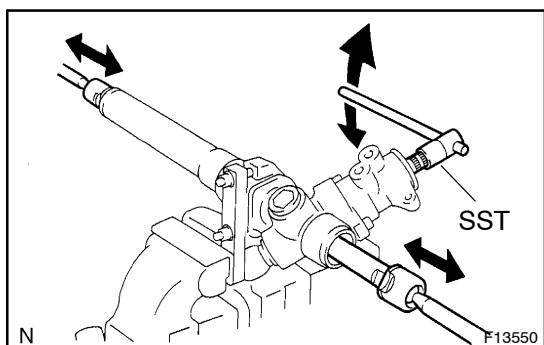
- (c) Temporarily install the rack guide spring cap.

**14. ADJUST TOTAL PRELOAD**

- (a) To prevent the steering rack teeth from damaging the oil seal lip, temporarily install the RH and LH rack ends.
- (b) Using a hexagon wrench (24 mm), torque the rack guide spring cap.

Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)

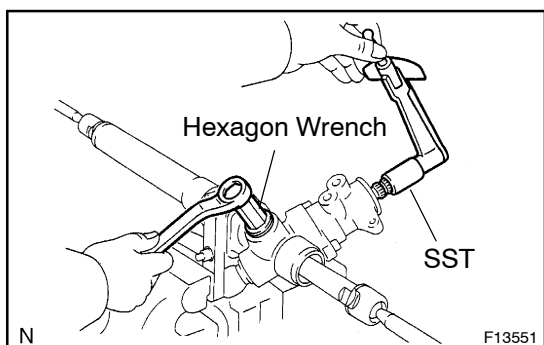
- (c) Using a hexagon wrench (24 mm), return the rack guide spring cap 12°.



- (d) Using SST, turn the control valve shaft right and left 1 or 2 times.

SST 09616-00011

- (e) Using a hexagon wrench (24 mm), loosen the rack guide spring cap until the rack guide spring is not functioning.



- (f) Using SST, a torque wrench and hexagon wrench (24 mm), tighten the rack guide spring cap until the preload is within specification.

SST 09616-00011

Preload (turning):

0.8 – 1.6 N·m (8 – 16 kgf·cm, 7.0 – 13.9 in.·lbf)

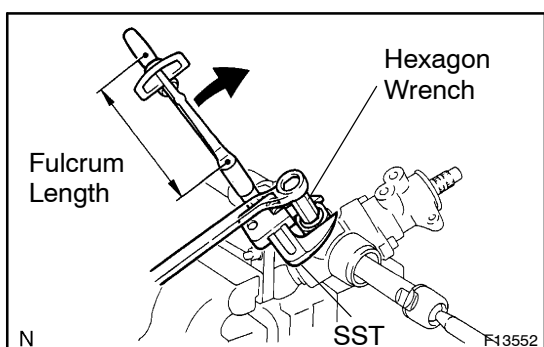
15. INSTALL RACK GUIDE SPRING CAP LOCK NUT

- (a) Apply sealant to 2 or 3 threads of the rack guide spring cap lock nut.

Sealant:

Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

- (b) Temporarily install the rack guide spring cap lock nut.



- (c) Using a hexagon wrench (24 mm), hold the rack guide spring cap and using SST, torque the rack guide spring cap lock nut.

SST 09922-10010

Torque: 50 N·m (510 kgf·cm, 37 ft·lbf)

NOTICE:

Use SST 09922-10010 in the direction shown in the illustration.

HINT:

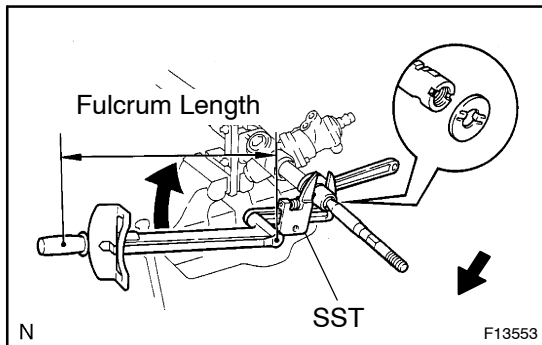
Use a torque wrench with a fulcrum length of 345 mm (13.58 in.).

- (d) Recheck the total preload.

Preload (turning):

0.8 – 1.6 N·m (8 – 16 kgf·cm, 7.0 – 13.9 in.·lbf)

- (e) Remove the RH and LH rack ends.



16. INSTALL RH AND LH CLAW WASHERS AND RACK ENDS

- (a) Install a new claw washer, and temporarily install the rack end.

HINT:

Align the claws of the washer with the steering rack grooves.

- (b) Using a wrench, hold the steering rack steadily and using SST, torque the rack end.

SST 09922-10010

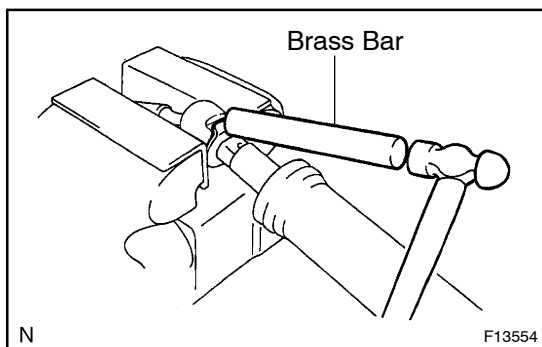
Torque: 95 N·m (970 kgf·cm, 70 ft·lbf)

NOTICE:

Use SST 09922-10010 in the direction shown in the illustration.

HINT:

Use a torque wrench with a fulcrum length of 380 mm (14.96 in.).

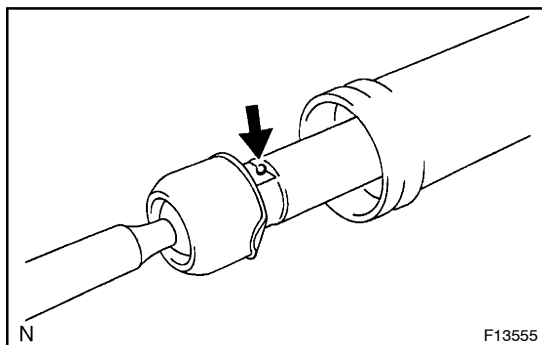


- (c) Using a brass bar and hammer, stake the washer.

NOTICE:

Avoid any impact on the steering rack.

- (d) Employ the same manner described above to the other side.



17. INSTALL RH AND LH RACK BOOTS, WIRES AND CLIPS

- (a) Ensure that the steering rack hole is not clogged with grease.

HINT:

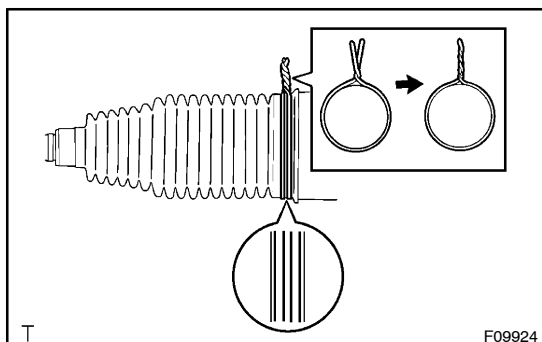
If the hole is clogged, the pressure inside the boot will change after it is assembled and the steering wheel is turned.

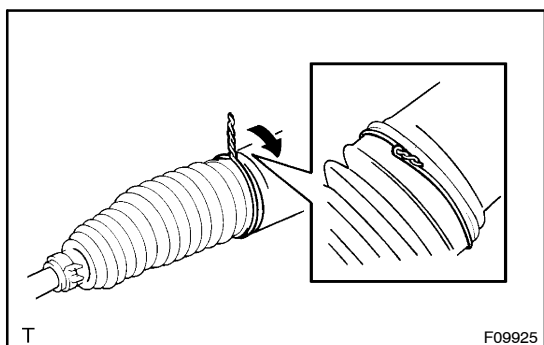
- (b) Install the boot, clip and wire.

NOTICE:

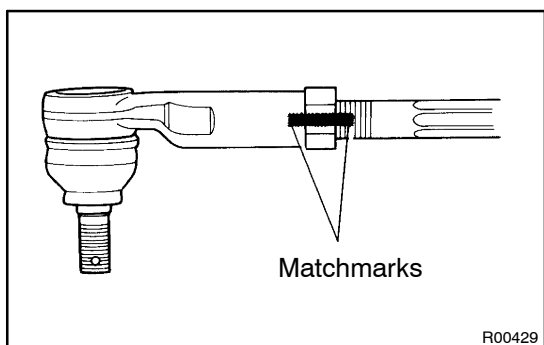
Be careful not to damage or twist the boot.

- (c) After winding and tightening the wire around the circumference of the boot twice, twist it several times, and install it.



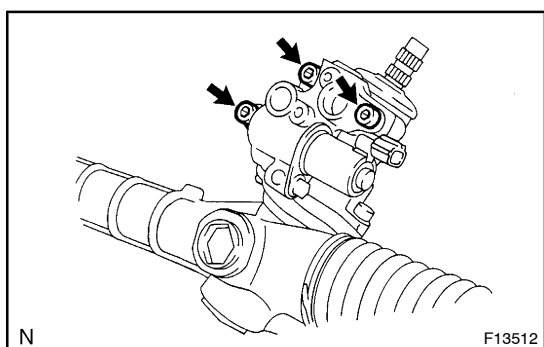


- (d) As shown in the illustration, bend the wire to the circular direction to prevent damage to the boot.
- (e) Employ the same manner described above to the other side.



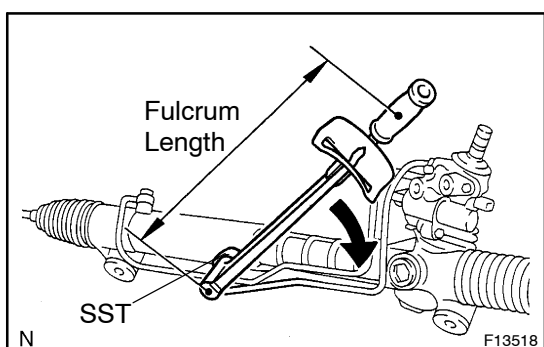
18. INSTALL RH AND LH TIE ROD ENDS AND LOCK NUTS

- (a) Screw the lock nut and tie rod end onto the rack end until the matchmarks are aligned.
 - (b) After adjusting toe-in, torque the nut. [See page SA-5](#)
- Torque: 56 N·m (570 kgf·cm, 41 ft·lbf)**
- (c) Employ the same manner described above to the other side.



19. INSTALL PRESSURE CONTROL VALVE

- (a) Coat 4 new O-rings with power steering fluid and install them to the pressure control valve.
 - (b) Using hexagon wrench (6 mm), install the pressure control valve with the 3 bolts.
- Torque: 18 N·m (180 kgf·cm, 13 ft·lbf)**
- (c) Remove the SST.
- SST 09612-00012



20. INSTALL 2 TURN PRESSURE TUBES

- (a) Using SST, connect the turn pressure tube.
- SST 09023-38200
- Torque: 23 N·m (235 kgf·cm, 17 ft·lbf)**

HINT:

- Use a torque wrench with a fulcrum length of 300 mm (11.81 in.).
 - This torque value is effective in case that SST is parallel to a torque wrench.
- (b) Install the 2 turn pressure tubes and 6 gaskets with the 3 bolts.
- Torque: 34 N·m (350 kgf·cm, 25 ft·lbf)**
- (c) Install the tube clamp.