

REASSEMBLY

NOTICE:

When using a vise, do not overtighten it.

1. **COAT WITH POWER STEERING FLUID OR MOLYBDENUM DISULFIDE LITHIUM BASE GREASE**

(See page [SR-54](#))

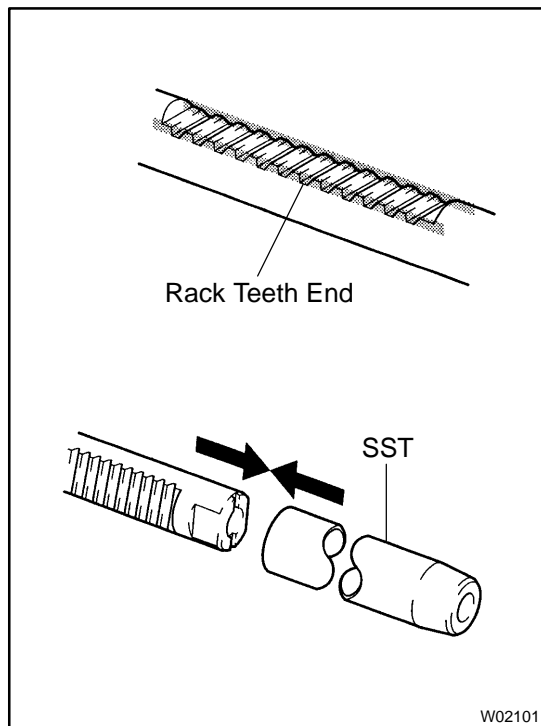
2. **INSTALL OIL SEAL**

- (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 to install the oil seal facing 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 rack.
SST 09631-20102

HINT:

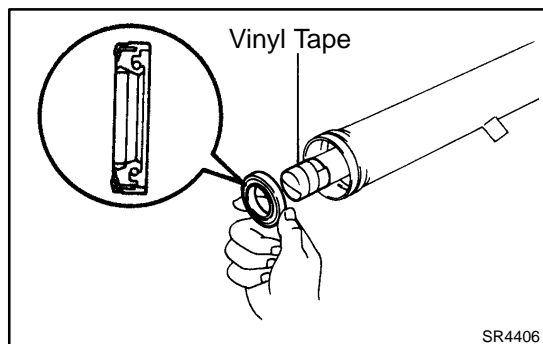
If necessary, scrape the burrs off the rack teeth end and bur-nish.

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

NOTICE:

Be careful not to damage the oil seal lip.

- (d) Remove the SST.

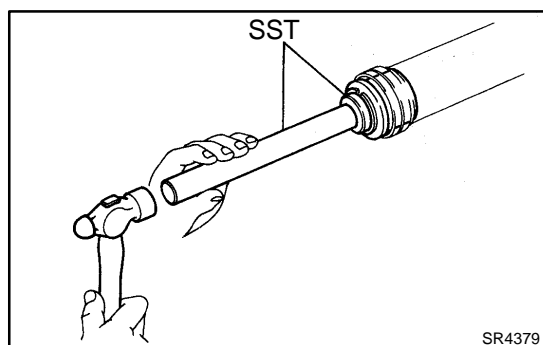


4. INSTALL OIL SEAL AND SPACER

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

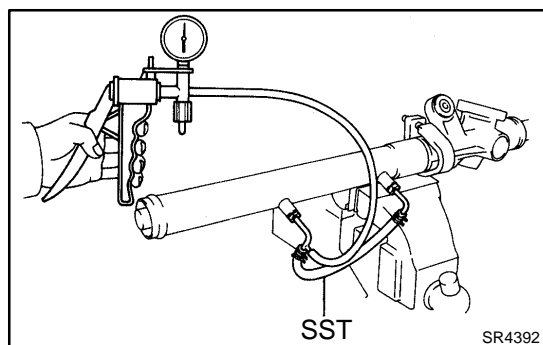
NOTICE:

- Make sure to install the oil seal facing the connect direction.
 - Be careful not to damage the oil seal lip.
- Install the spacer into the rack housing.



5. INSTALL CYLINDER END STOPPER

- Using SST and a hammer, drive in the stopper.
SST 09950-60010 (09951-00310),
09950-70010 (09951-07200)
- Using snap ring pliers, install the snap ring to the rack housing.



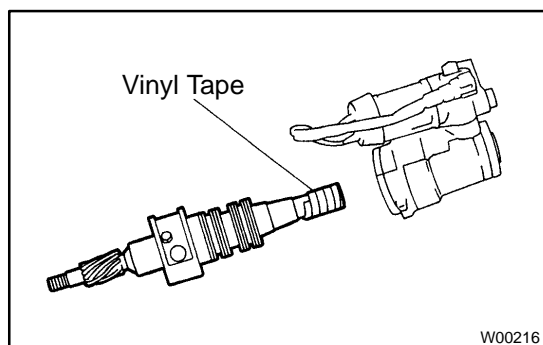
6. AIR TIGHTNESS TEST

- Install SST to the rack housing.
SST 09631-12071

NOTICE:

Do not install union seats.

- Apply 53.3 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.

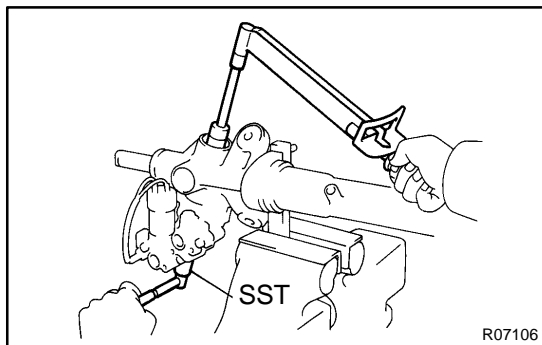


7. INSTALL CONTROL VALVE ASSEMBLY

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

NOTICE:

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



8. INSTALL CONTROL VALVE HOUSING WITH CONTROL VALVE ASSEMBLY

- (a) Coat a new O-ring with power steering fluid and install it to the housing.

- (b) Using a hexagon wrench (6 mm), torque the 2 bolts.

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

9. INSTALL LOWER BEARING, SPACER AND SELF-LOCKING NUT

Using SST to stop the control valve shaft rotating, torque a new nut.

SST 09616-00010

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

10. INSTALL RACK HOUSING CAP

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

Sealant:

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

- (b) Torque the cap.

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

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

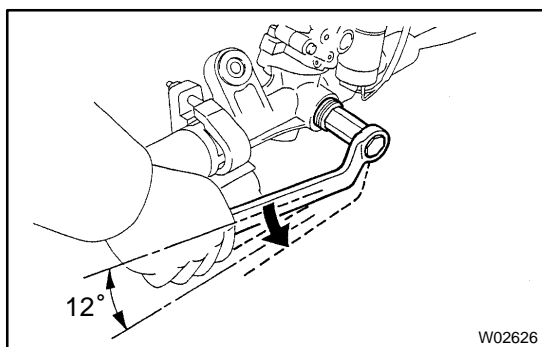
- (a) Install the seat to the guide.

- (b) Apply sealant to 2 or 3 threads of the cap.

Sealant:

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

- (c) Temporarily install the cap.



12. 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 cap 12°.

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

SST 09616-00010

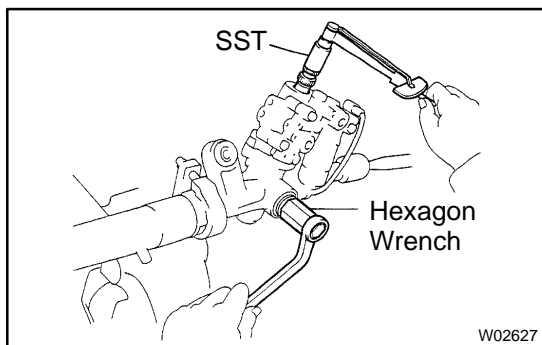
- (e) Using a hexagon wrench (24 mm), loosen the cap until the rack guide spring is not functioning.

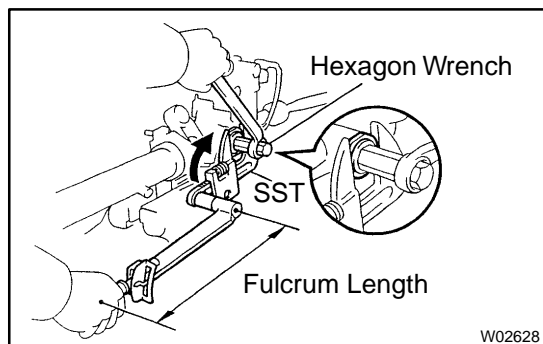
- (f) Using SST, a torque wrench and hexagon wrench (24 mm), tighten the cap until the preload is within the specification.

SST 09616-00010

Preload (turning):

1.0 – 1.9 N·m (10 – 20 kgf·cm, 8.7 – 17.4 in.-lbf)



**13. INSTALL RACK GUIDE SPRING CAP LOCK NUT**

- (a) Apply sealant to 2 or 3 threads of the nut.

Sealant:

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

- (b) Using a hexagon wrench (24 mm) hold the rack guide spring cap, and using SST torque the nut.
SST 09922-10010

Torque: 50 N·m (513 kgf·cm, 37 ft·lbf)

NOTICE:

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

HINT:

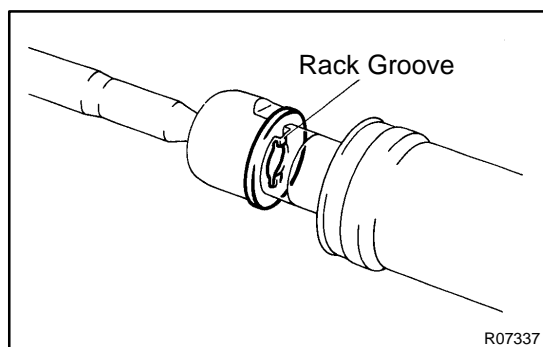
Use a torque wrench with a fulcrum length of 345 mm (13.58 in.).

- (c) Recheck the total preload.

Preload (turning):

1.0 – 1.9 N·m (10 – 20 kgf·cm, 8.7 – 17.4 in.-lbf)

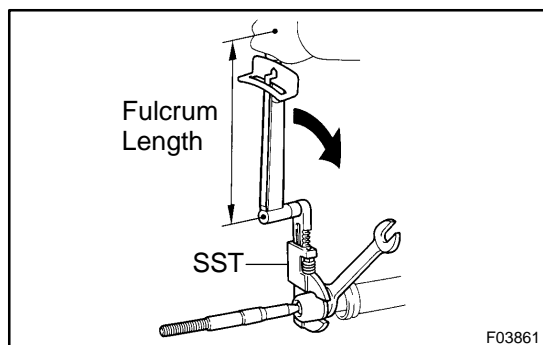
- (d) Remove the RH and LH rack ends.

**14. INSTALL DUST COVER****15. 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 spanner (22 mm) hold the steering rack steadily, and using SST torque the rack end.

SST 09922-10010

Torque: 77 N·m (782 kgf·cm, 57 ft·lbf)

NOTICE:

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

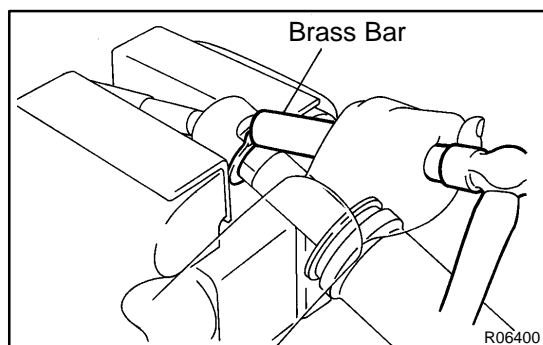
HINT:

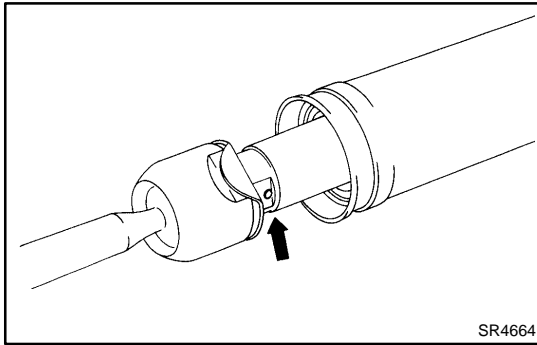
Use a torque wrench with a fulcrum length of 380 mm (14.96 in.).

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

NOTICE:

Avoid any impact on the rack.





16. INSTALL RH AND LH RACK BOOTS, CLAMPS AND CLIPS

- Make sure 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.

- Install the boot.

NOTICE:

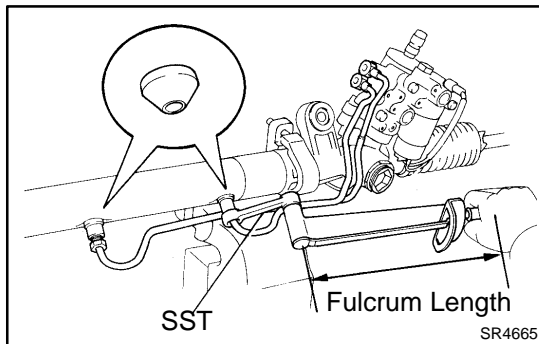
Be careful not to damage or twist the boot.

- Install the clamp and clip to the boot.

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

- Screw the lock nut and tie rod end onto the rack end until the matchmarks are aligned.
- After adjusting toe-in, torque the nut.
(See page [SA-4](#))

Torque: 56 N·m (570 kgf-cm, 41 ft-lbf)



18. INSTALL 2 TURN PRESSURE TUBES

- Install the 2 union seats.
- Using SST, install the tube.

SST 09633-00020

Torque: 24 N·m (243 kgf-cm, 18 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.
- Torque the union bolt over 2 new gaskets.

Torque: 34 N·m (350 kgf-cm, 25 ft-lbf)