

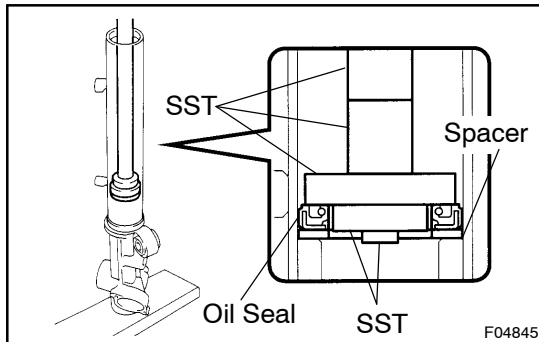
REASSEMBLY

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-47](#))



2. INSTALL SPACER AND OIL SEAL

- (a) Coat a new oil seal lip with power steering fluid.
- (b) Using SST, press in the oil seal and spacer.

SST 09951-60010 (09951-00350, 09951-00550, 09952-06010), 09950-70010 (09951-07360)

NOTICE:

- Make sure to install the oil seal 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 rack.

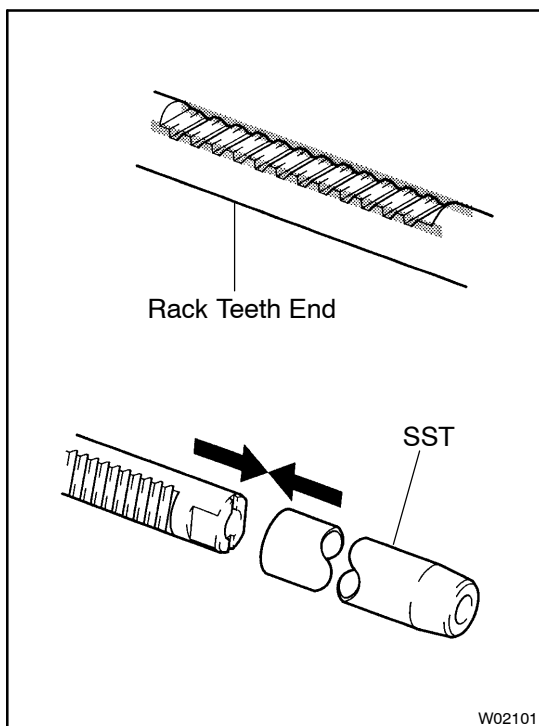
SST 09631-00350

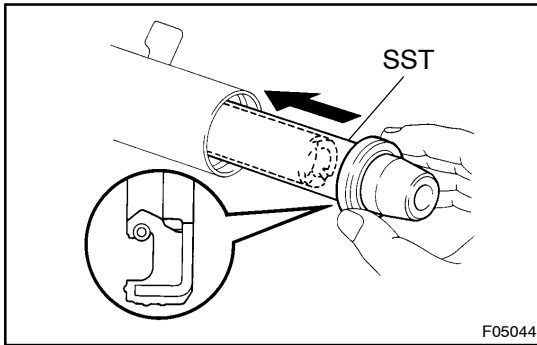
HINT:

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.
- (d) Remove the SST.

SST 09631-00350





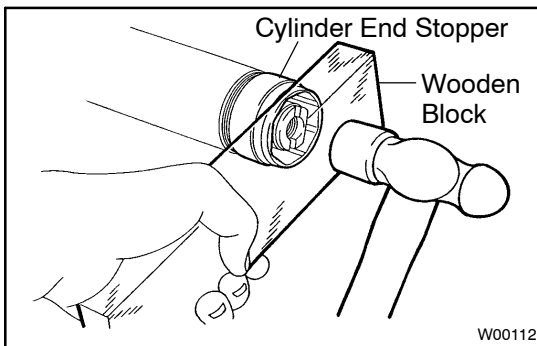
4. INSTALL OIL SEAL

- (a) Install SST to the steering rack opposite end.
SST 09631-00350
- (b) Coat SST with power steering fluid.
- (c) Coat a new oil seal lip with power steering fluid.
- (d) Install the oil seal by pushing it onto the SST without tilting.

NOTICE:

Make sure to install the oil seal facing in the correct direction.

- (e) Remove the SST.
SST 09631-00350

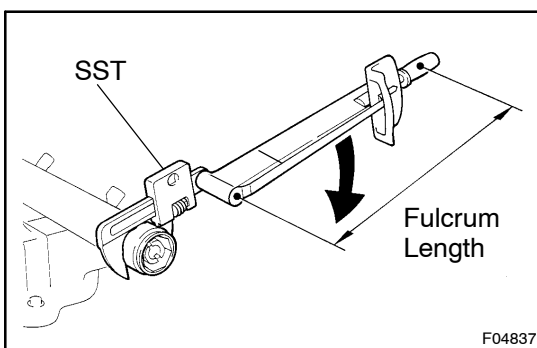


5. INSTALL SPACER AND CYLINDER END STOPPER

- (a) Install the spacer.
- (b) Coat a new O-ring with power steering fluid, and install it to the stopper.
- (c) Using a wooden block and hammer, drive in the stopper until it is tightly installed.

NOTICE:

Be careful not to damage the O-ring.



- (d) Using SST, torque the stopper.

SST 09922-10010

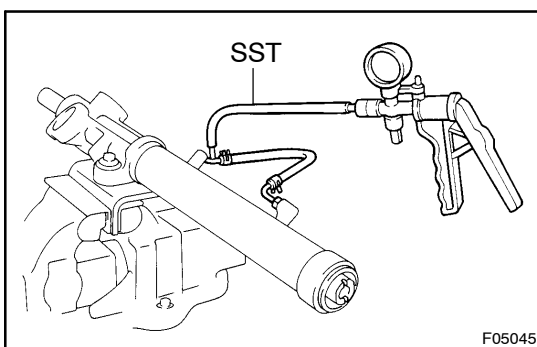
Torque: 66 N·m (677 kgf·cm, 49 ft·lbf)

NOTICE:

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

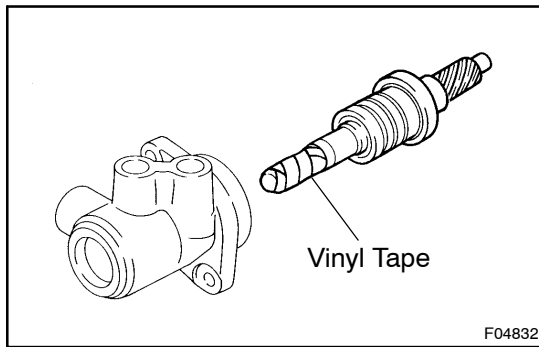
HINT:

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



6. AIR TIGHTNESS TEST

- (a) Install SST to the unions of the rack housing.
SST 09631-12071
 - (b) Apply 53 kPa (400 mmHg, 15.75 in.Hg) of vacuum for about 30 seconds.
 - (c) Check that there is no change in the vacuum.
- If there is change in the vacuum, check the installation of the oil seals.

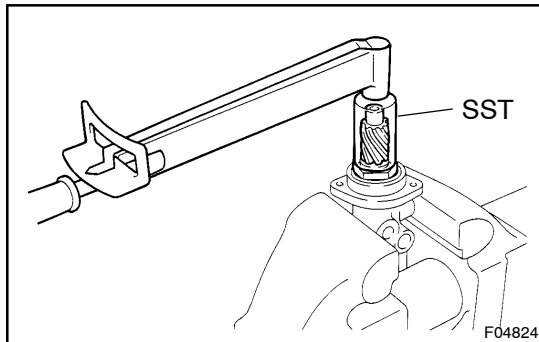


7. INSTALL CONTROL VALVE ASSEMBLY

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

NOTICE:

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



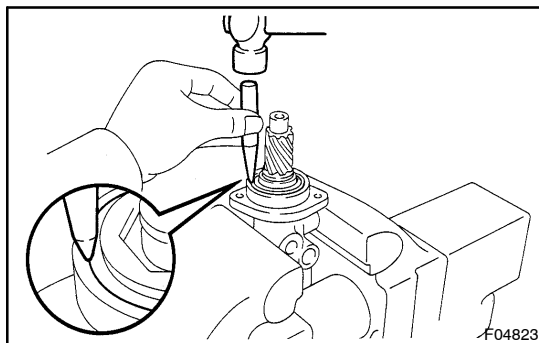
- (d) Coat a new O-ring with power steering fluid, and install it to the bearing guide nut.
- (e) Using SST, torque the nut.

SST 09631-20060

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

NOTICE:

Be careful not to damage the oil seal lip.



- (f) Using a punch, stake the nut.

8. INSTALL CONTROL VALVE HOUSING WITH CONTROL VALVE ASSEMBLY

- (a) Coat a new O-ring with power steering fluid, and install it to the valve housing.
- (b) Align the matchmarks on the control valve housing with control valve assembly and rack housing, and install the valve housing with the valve assembly to the rack housing.
- (c) Install the 2 bolts.

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

9. INSTALL DUST COVER

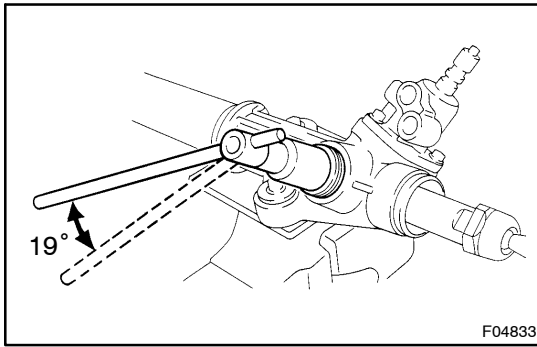
10. INSTALL RACK GUIDE SUB-ASSEMBLY, RACK GUIDE SPRING AND RACK GUIDE SPRING CAP

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

Sealant:

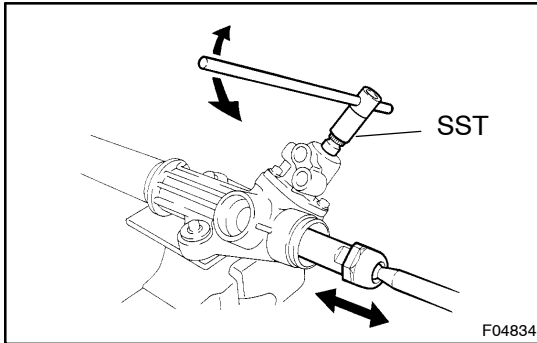
Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

- (c) Temporarily install the cap.

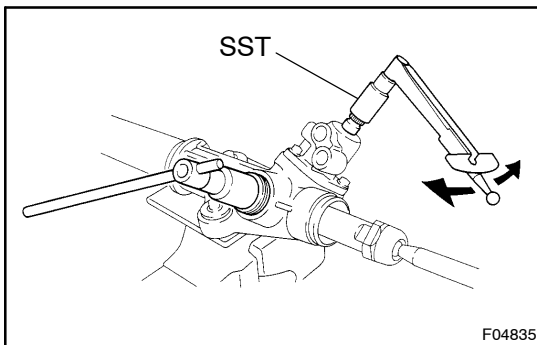


11. ADJUST TOTAL PRELOAD

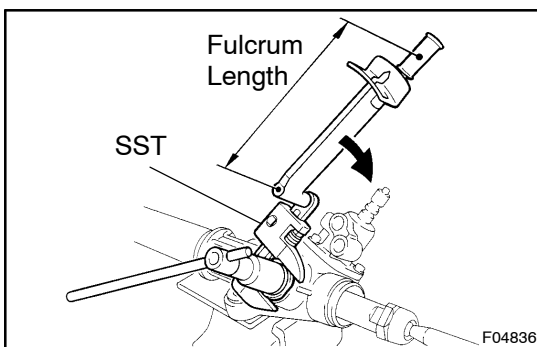
- (a) To prevent the steering rack teeth from damaging the oil seal lip, temporarily install the RH and LH rack ends.
- (b) Install the rack guide spring cap.
Torque: 25 N·m (250 kgf·cm, 18 ft·lbf)
- (c) Return the cap 19°.



- (d) Using SST, turn the control valve shaft right and left 1 or 2 times.
SST 09616-00010
- (e) Loosen the cap until the rack guide spring is not functioning.



- (f) Using SST and a torque wrench, tighten the cap until the preload is within specification.
SST 09616-00010
Preload (turning):
1.3 - 1.8 N·m (13.3-18.4 kgf·cm, 11.5-16.0 in·lbf)



12. INSTALL RACK GUIDE SPRING CAP LOCK NUT

- (a) Apply sealant to 2 or 3 threads of the lock nut.
Sealant:
Part No.08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent
- (b) Temporarily install the lock nut.
- (c) Holding the rack guide spring cap rotating, and using SST, torque the nut.
SST 09922-10010
Torque: 51 N·m (521 kgf·cm, 38 ft·lbf)

NOTICE:

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

HINT:

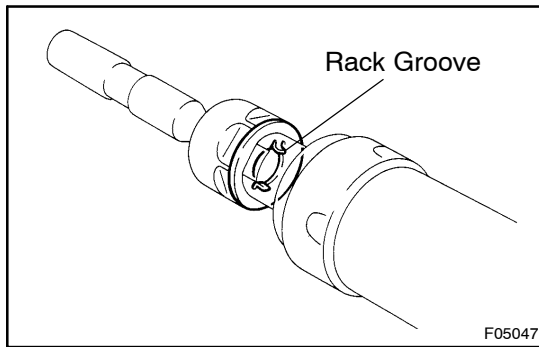
Use a torque wrench with a fulcrum length of 345 mm (13.58 in.).

- (d) Recheck the total preload.

Preload (turning):

1.3 - 1.8 N·m (13.3-18.4 kgf·cm, 11.5-16.0 in·lbf)

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

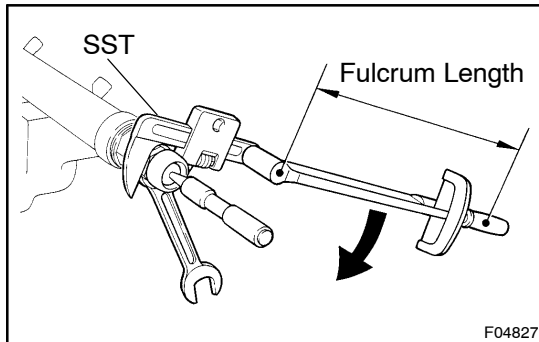


13. INSTALL RH AND LH CLAW WASHERS AND RACK ENDS

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

HINT:

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



- (b) Using a spanner to hold the steering rack steady, and using SST, torque the rack end.

SST 09922-10010

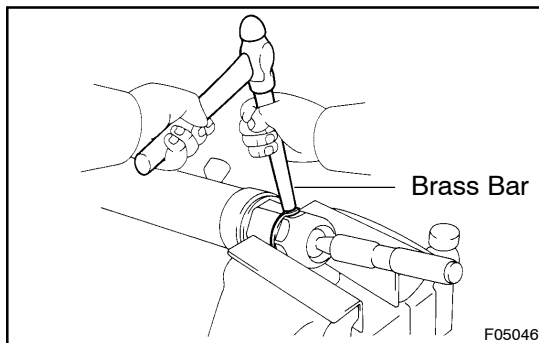
Torque: 76 N·m (770 kgf·cm, 56 ft·lbf)

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.).

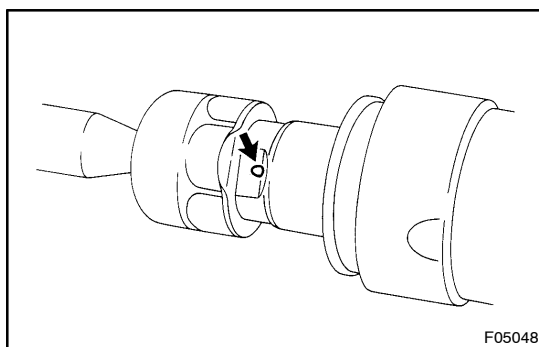


- (c) Using a brass bar and hammer, stake the washer.

NOTICE:

Avoid any impact to the rack.

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



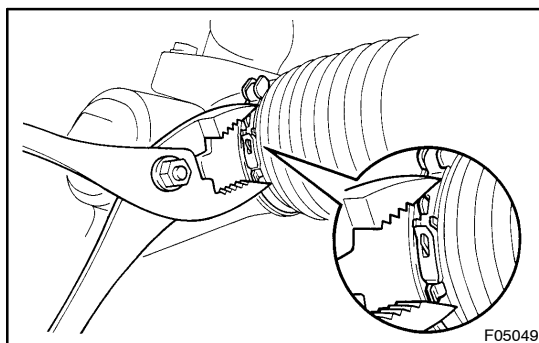
14. INSTALL RH AND LH RACK BOOTS, CLAMPS AND CLIPS

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

HINT:

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

- (b) Set a new clamp to the groove of the rack boot.



- (c) Install the boot.

NOTICE:

Be careful not to damage or twist the boot.

- (d) Using pliers tighten a new clamp, as shown in the illustration.

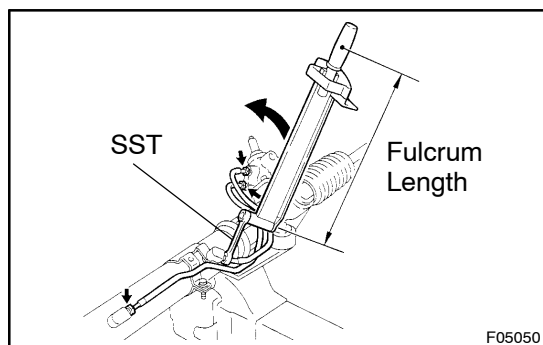
- (e) Install the clip to the rack boot.

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

15. INSTALL TUBE SUPPORT RETAINER

Install the tube support retainer with the bolt.

Torque: 19 N·m (195 kgf·cm, 14 ft·lbf)

**16. INSTALL 2 TURN PRESSURE TUBES**

Using SST, install the 2 turn pressure tubes.

SST 09633-00020

Torque: 20 N·m (203 kgf·cm, 15 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.