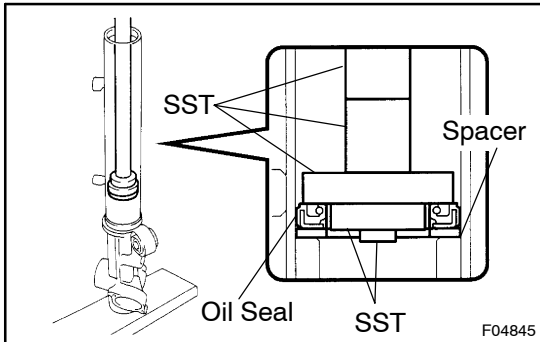


## REASSEMBLY

### NOTICE:

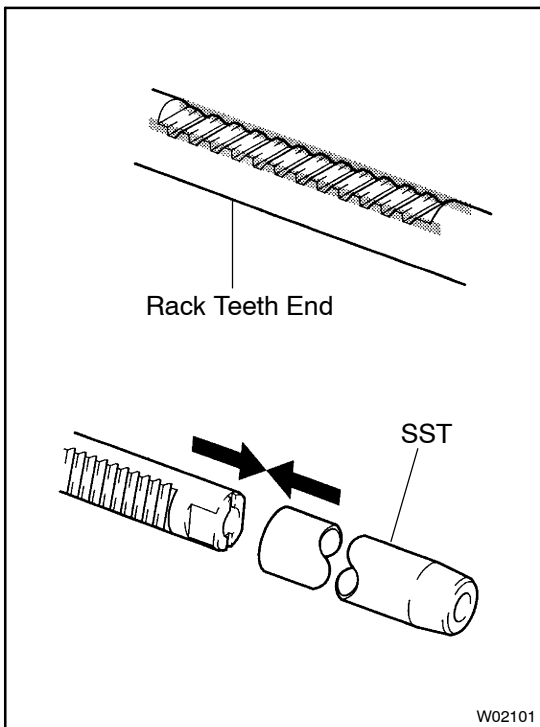
When using a vise, do not overtighten it.

1. **COAT WITH POWER STEERING FLUID OR MOLYBDENUM DISULFIDE LITHIUM BASE GREASE**  
(See [page SR-110](#))



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



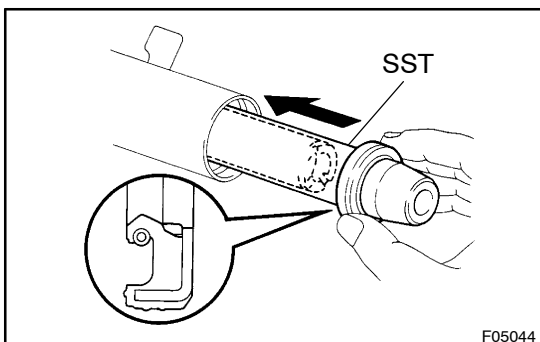
3. **INSTALL STEERING RACK**

- (a) Install SST to the rack.  
SST 09631-00350

### 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.



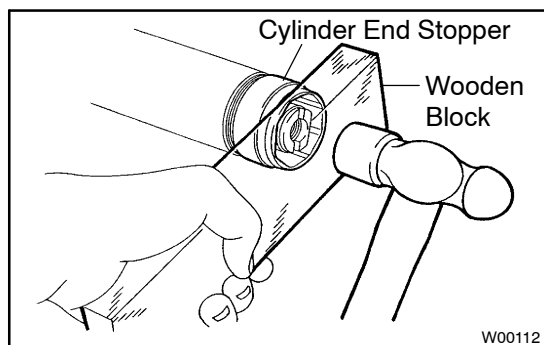
4. **INSTALL OIL SEAL**

- (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 tilt-ing.

### NOTICE:

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

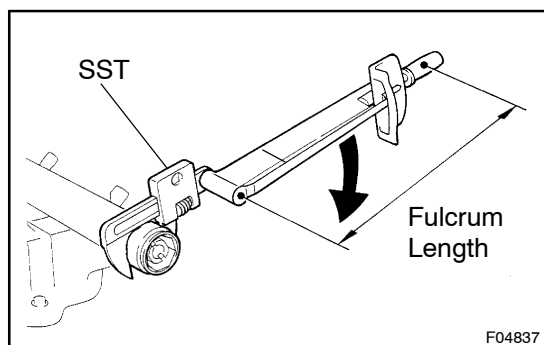
- (e) Remove the SST.

**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

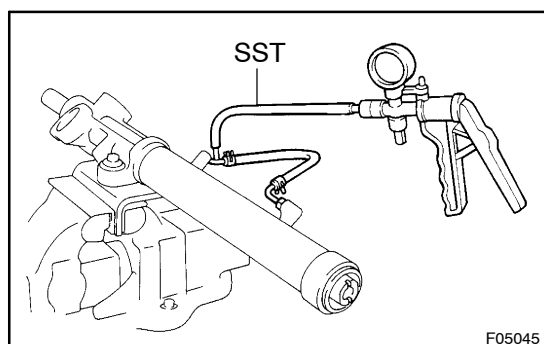
**Torque: 66 N·m (677 kgf·cm, 49 ft·lbf)**

**NOTICE:**

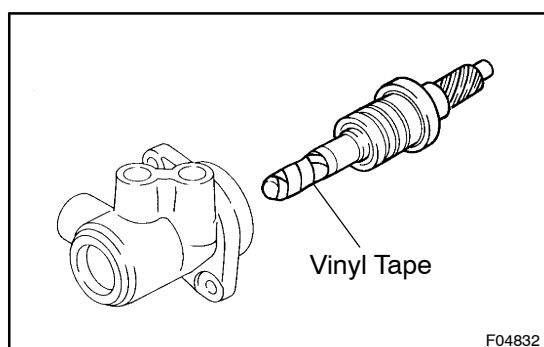
**Use SST 09922-10010 in the direction shown in the illustration.**

**HINT:**

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

**6. AIR TIGHTNESS TEST**

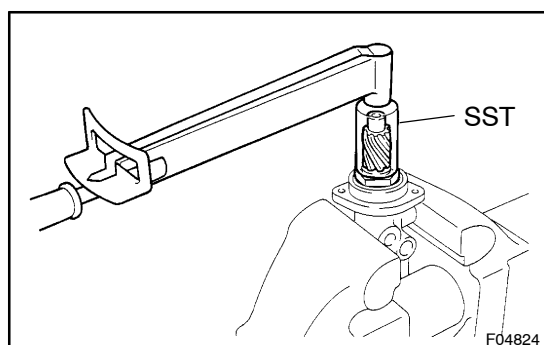
- (a) Install SST to the unions of the rack housing.  
SST 09631-12071
  - (b) Apply 53 kPa (400 mmHg, 15.75 in.Hg) of vacuum for about 30 seconds.
  - (c) Check that there is no change in the vacuum.
- If there is change in the vacuum, check the installation of the oil seals.

**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.

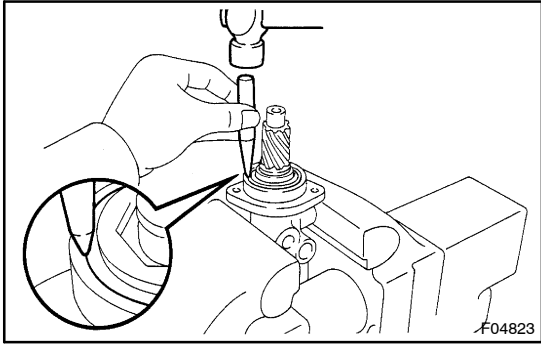
- (e) Using SST, torque the nut.

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 valve housing and rack housing, and install the valve housing with the valve assembly to the rack housing.
- (c) Torque the 2 bolts.

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

**9. INSTALL DUST COVER**

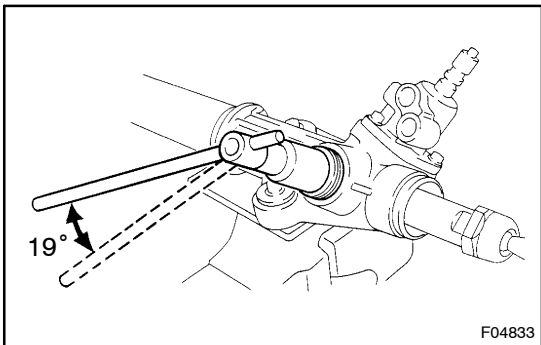
**10. INSTALL RACK GUIDE SUB-ASSEMBLY, RACK GUIDE SPRING AND RACK GUIDE SPRING CAP**

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

**Sealant:**

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

- (b) Temporarily install the cap.



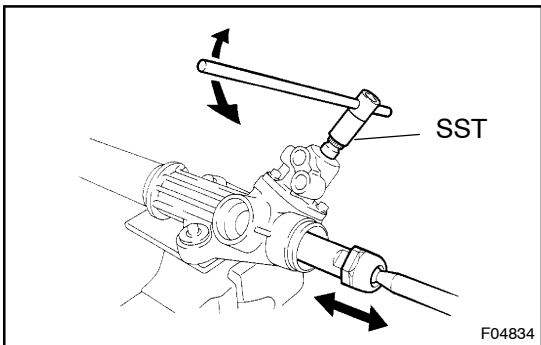
**11. ADJUST TOTAL PRELOAD**

- (a) To prevent the steering rack teeth from damaging the oil seal lip, temporarily install the RH and LH rack ends.

- (b) Torque the rack guide spring cap.

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

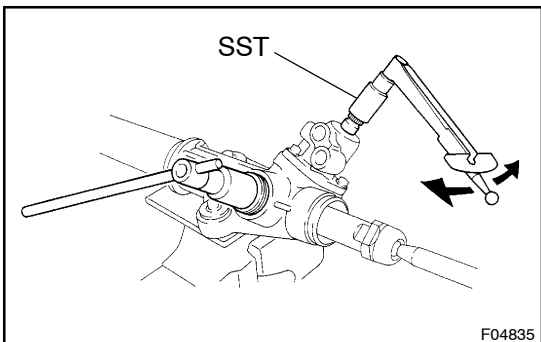
- (c) Return the cap 19°.



- (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.

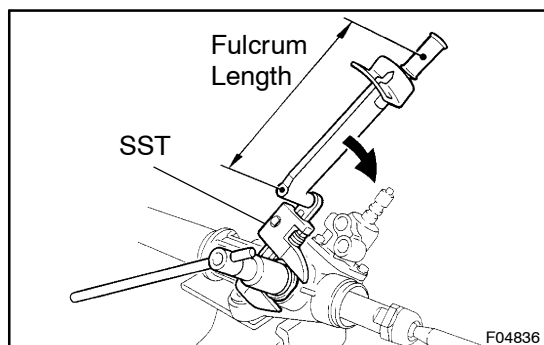


- (f) Using SST and a torque wrench, tighten the cap until the preload is within specification.

**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 nut.

**Sealant:**

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

- (b) 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:**

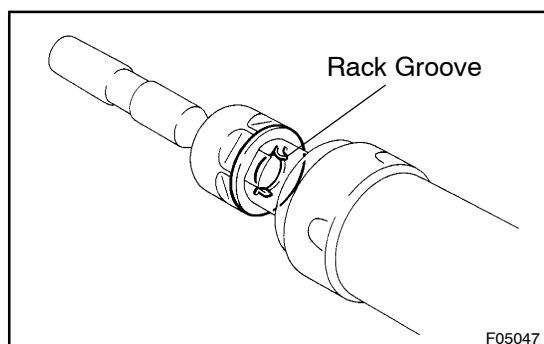
Use a torque wrench with a fulcrum length of 345 mm (13.58 in.).

- (c) Recheck the total preload.

**Preload (turning):**

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

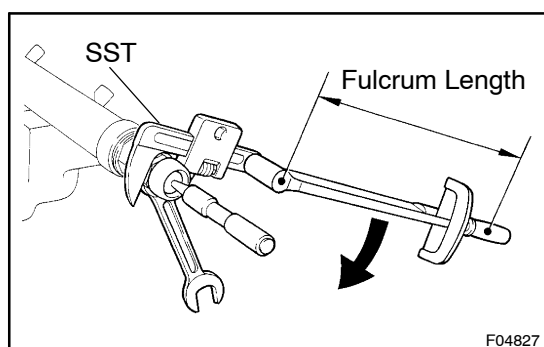
- (d) Remove the RH and LH rack ends.

**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, hold the steering rack steadily 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.**

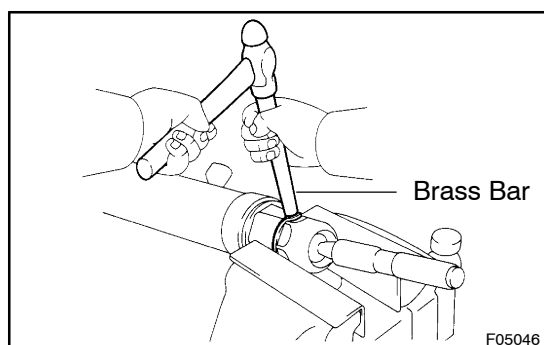
**HINT:**

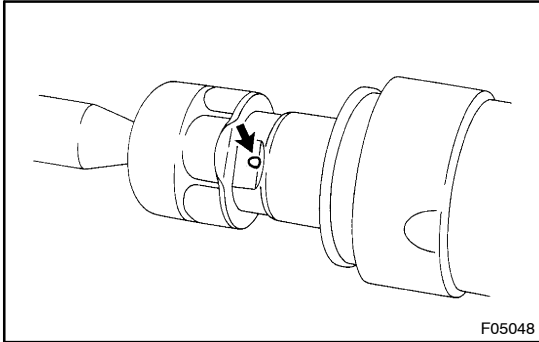
Use a torque wrench with a fulcrum length of 345 mm (13.58 in.).

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

**NOTICE:**

**Avoid any impact to the rack.**



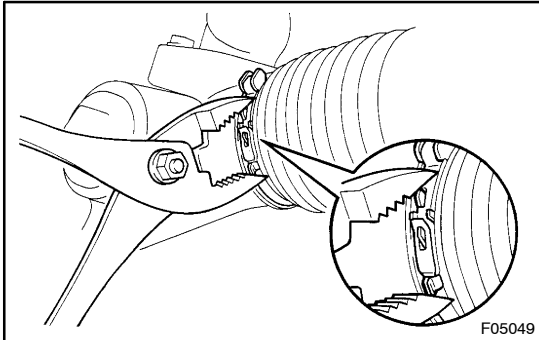


#### 14. INSTALL RH AND LH RACK BOOTS, CLAMPS AND CLIPS

- (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) Install the boot.

##### NOTICE:

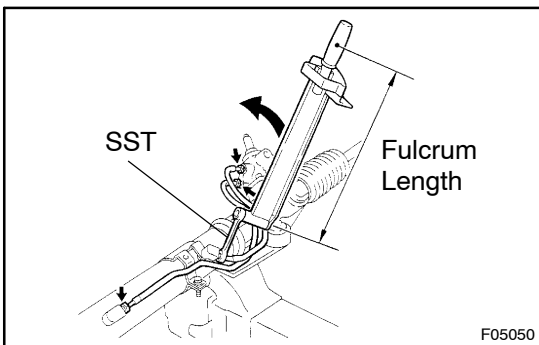
**Be careful not to damage or twist the boot.**

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

#### 15. INSTALL TUBE SUPPORT RETAINER

Torque the bolt.

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



#### 16. INSTALL 2 TURN PRESSURE TUBES

Using SST, install the tube.

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.