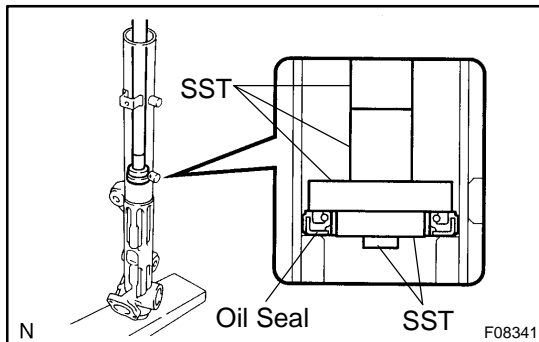


## REASSEMBLY

### 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 pages [SR-70](#))



### 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 (09951-00330, 09951-00490, 09952-06010), 09950-70010 (09951-07360)

### NOTICE:

- Make sure to install the oil seal 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 09631-20051

### HINT:

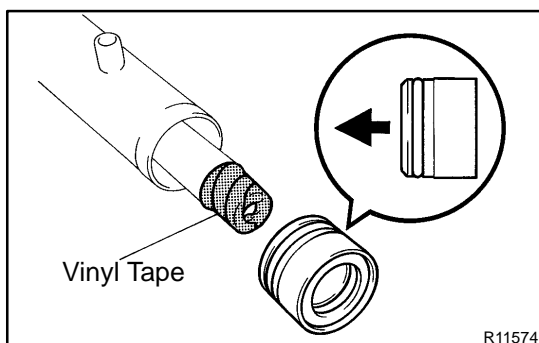
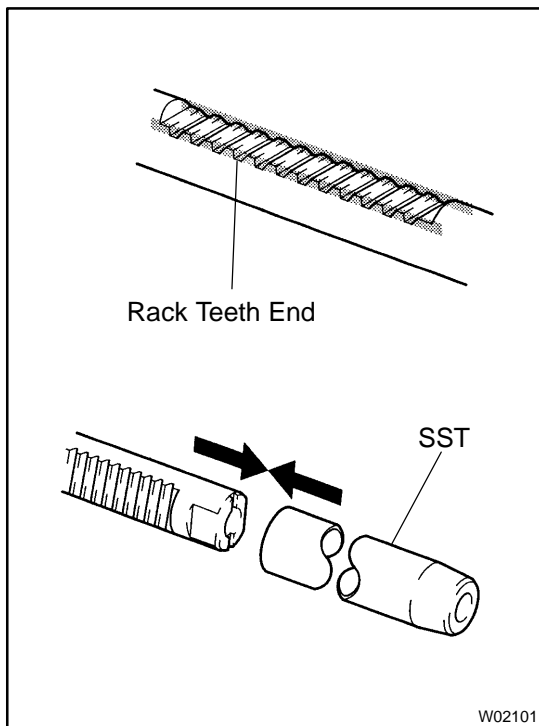
If necessary, scrape the burrs off the rack teeth end and bur-nish.

- (b) Coat the 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 09631-20051

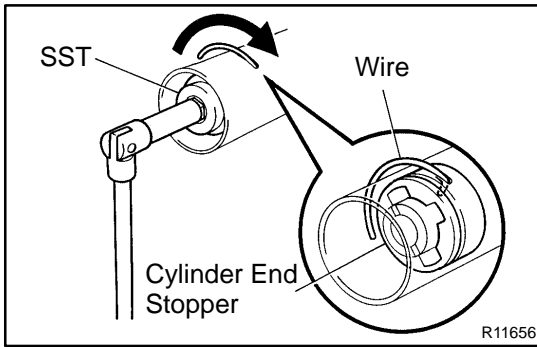


### 4. INSTALL BUSHING

- (a) Coat a new O-ring with power steering fluid and install it to the bushing.
- (b) To prevent oil seal lip damage, wind vinyl tape on the steering rack end, and apply power steering fluid.
- (c) Install the bushing.

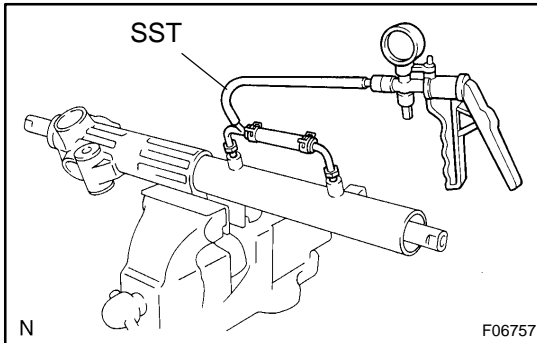
### NOTICE:

- Make sure to install the bushing in the correct direction.
- Be careful not to damage the oil seal lip.



### 5. INSTALL CYLINDER END STOPPER

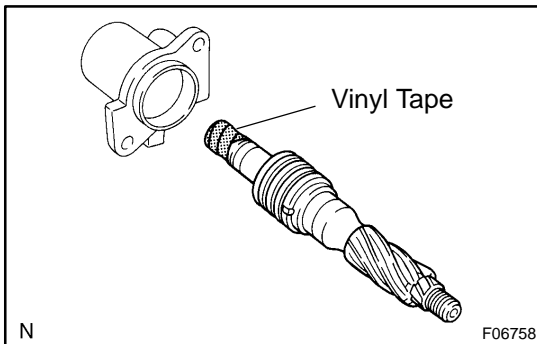
- Align the installation hole for the wire of the stopper with the slot of the rack housing.
- Install a new wire into the stopper.
- Using SST, turn the stopper clockwise 400° to 500°.  
SST 09631-16010



### 6. AIR TIGHTNESS TEST

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

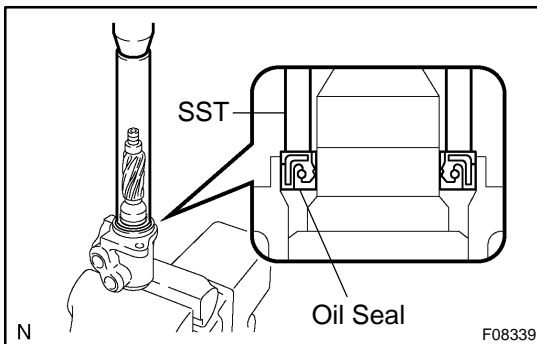


### 7. INSTALL CONTROL VALVE ASSEMBLY

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

#### NOTICE:

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



### 8. INSTALL OIL SEAL

- Coat a new oil seal lip with power steering fluid.
- Using SST, press in the oil seal.  
SST 09612-22011

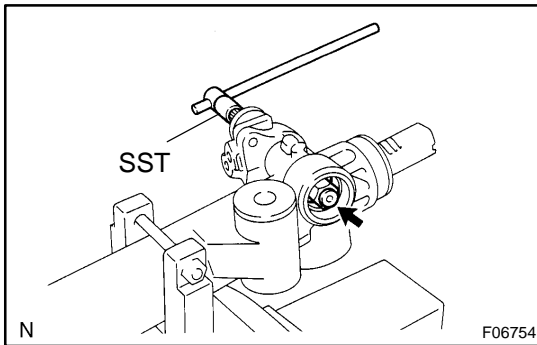
#### NOTICE:

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

### 9. INSTALL CONTROL VALVE HOUSING WITH CONTROL VALVE ASSEMBLY

- Place a new gasket on the rack housing.
- Align the matchmark on the control valve housing with control valve assembly and rack housing.
- Install the 2 bolts.

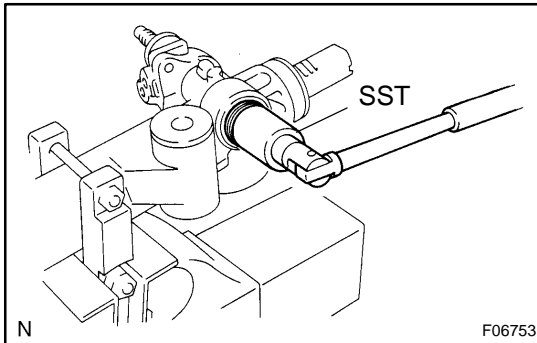
**Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)**

**10. INSTALL SELF-LOCKING NUT**

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

SST 09616-00011

**Torque: 30 N·m (300 kgf-cm, 22 ft-lbf)**

**11. INSTALL DUST COVER****12. INSTALL RACK HOUSING CAP**

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

**Sealant:**

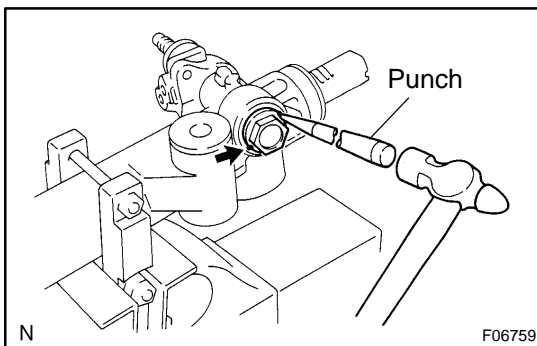
**Part No.08833-00080, THREE BOND 1344,**

**LOCTITE 242 or equivalent**

(b) Using SST, install the rack housing cap.

SST 09816-30010

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



(c) Using a punch and hammer, stake the 2 parts of the cap.

**13. INSTALL RACK GUIDE, RACK GUIDE SPRING AND RACK GUIDE SPRING CAP**

(a) Install the rack guide and rack guide spring.

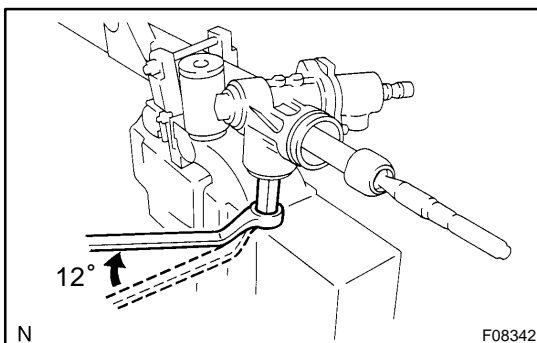
(b) Apply sealant to 2 or 3 threads of the rack guide spring cap.

**Sealant:**

**Part No.08833-00080, THREE BOND 1344,**

**LOCTITE 242 or equivalent**

(c) Temporarily install the rack guide spring cap.

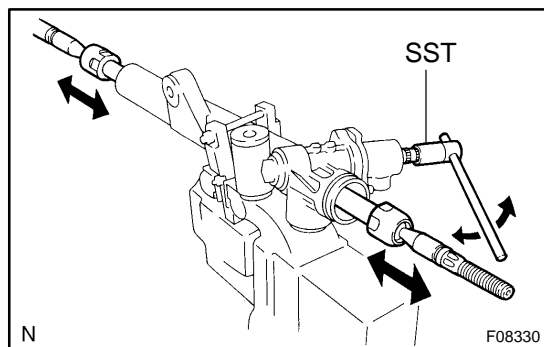
**14. ADJUST TOTAL PRELOAD**

(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, install the rack guide spring cap.

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

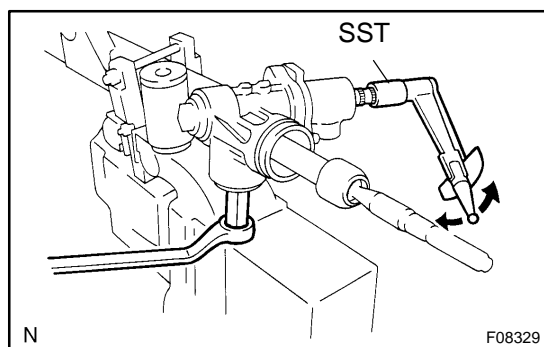
(c) Using a hexagon wrench, return the rack guide spring cap 12°.



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

SST 09616-00011

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

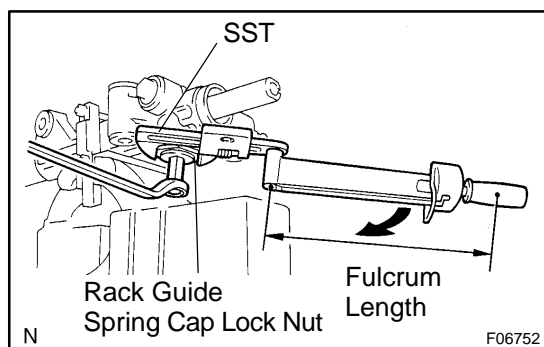


- (f) Using SST, torque wrench and hexagon wrench, tighten the rack guide spring cap until the preload is within specification.

SST 09616-00011

**Preload (turning):**

**1.0 to 1.45 N·m (10 to 14.5 kgf·cm, 8.7 to 12.6 in.-lbf)**



#### 15. 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) Using a hexagon wrench to hold the rack guide spring cap, and using SST, tighten the lock nut.

SST 09922-10010

**Torque: 51 N·m (520 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):**

**1.0 to 1.45 N·m (10 to 14.5 kgf·cm, 8.7 to 12.6 in.-lbf)**

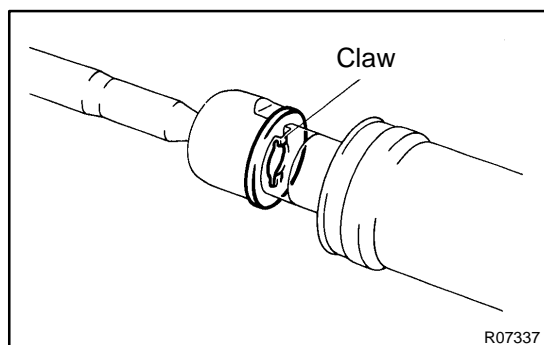
- (e) Remove the RH and LH rack ends.

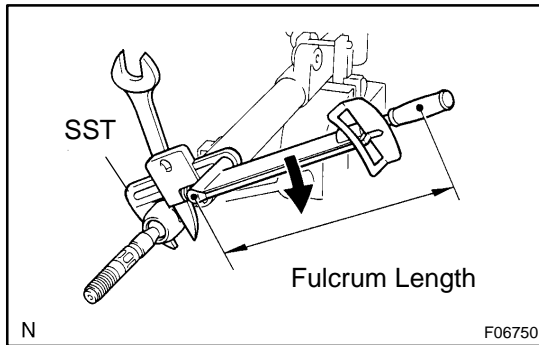
#### 16. INSTALL RH AND LH CLAW WASHERS AND RACK ENDS

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

**HINT:**

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





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

SST 09922-10010

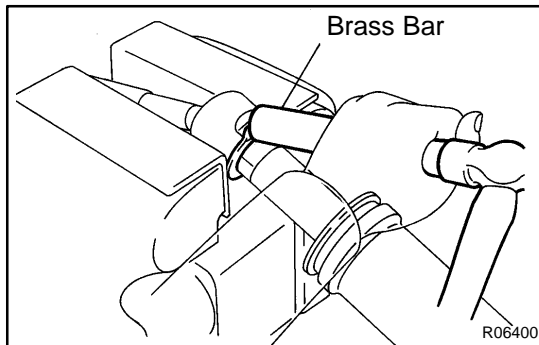
**Torque: 76 N·m (770 kgf-cm, 56 ft-lbf)**

**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.).

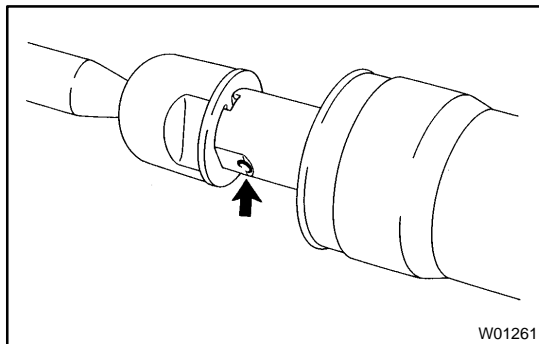


- (c) Using a brass bar and hammer, stake the washer.

**NOTICE:**

**Avoid any impact on the rack.**

- (d) Perform the same procedure on the other side.



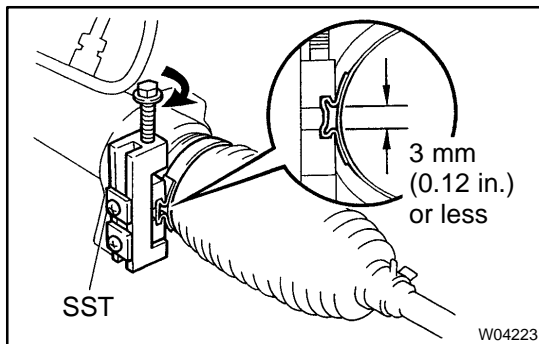
**17. INSTALL RH AND LH RACK BOOTS, CLAMPS AND CLIPS**

- (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) 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 SST, tighten the clamp as shown in the illustration.

SST 09521-24010

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

- (f) Perform the same procedure on the other side.

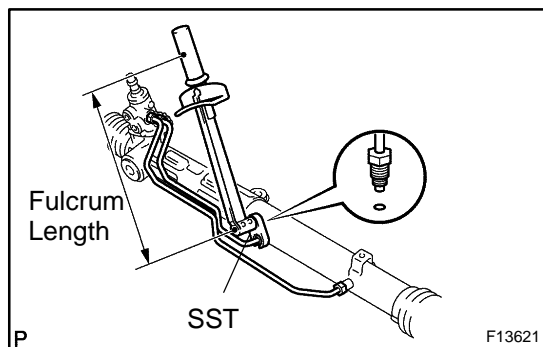
**18. INSTALL RH AND LH TIE ROD ENDS AND LOCK NUTS**

- (a) Screw the lock nut and tie rod end onto the rack end until the matchmarks are aligned.

- (b) After adjusting toe-in, tighten the nut

(See page [SA-5](#)).

**Torque: 55 N·m (560 kgf-cm, 41 ft-lbf)**

**19. INSTALL 2 TURN PRESSURE TUBES**

- (a) Coat 4 new O-rings with power steering fluid and install them to the turn pressure tubes.
- (b) Using SST, install the 2 turn pressure tubes.

SST 09023-34201

**Torque: 13 N·m (135 kgf·cm, 10 ft·lbf)**

**HINT:**

- Use a torque wrench with a fulcrum length of 250 mm (9.84 in.).
- This torque value is effective in case that SST is parallel to a torque wrench.