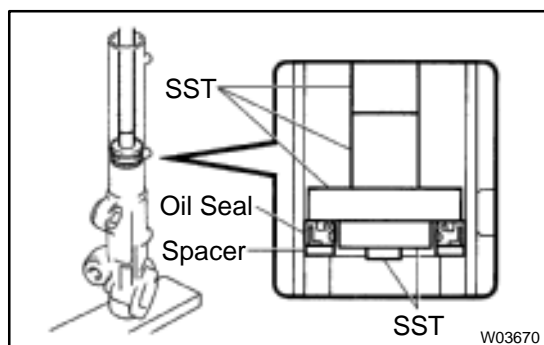


REASSEMBLY

NOTICE:

When using a vise, do not overtighten it.

1. **COAT WITH POWER STEERING FLUID OR MOLYBDENUM DISULFIDE LITHIUM BASE GREASE**
(See pages [SR-90](#))



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 (09951-00330, 09951-00490, 09952-06010), 09951-70010 (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.**

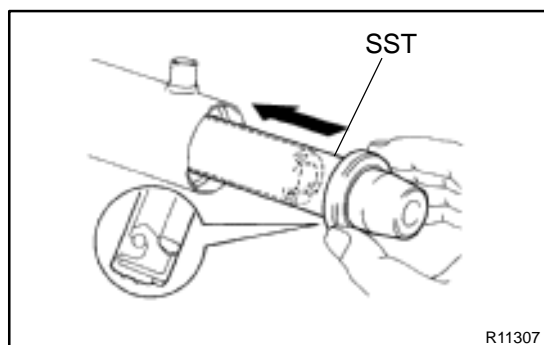
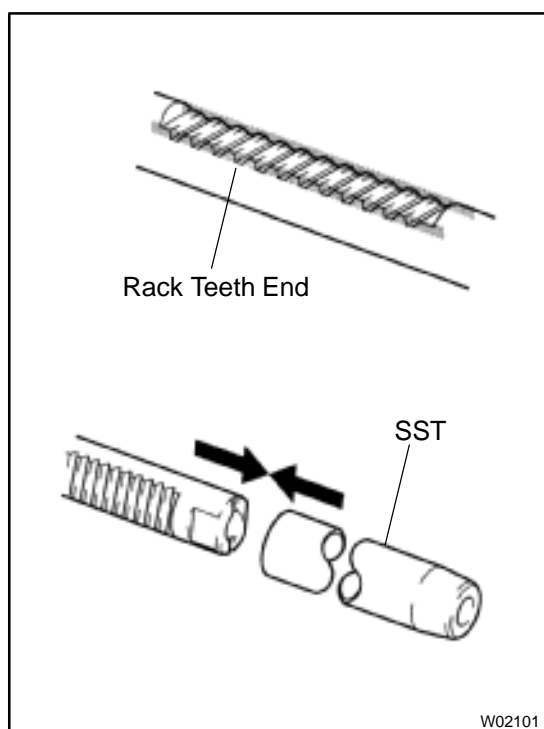
3. INSTALL STEERING RACK

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

HINT:

If necessary, scrape the burrs off the rack teeth end and burish.

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

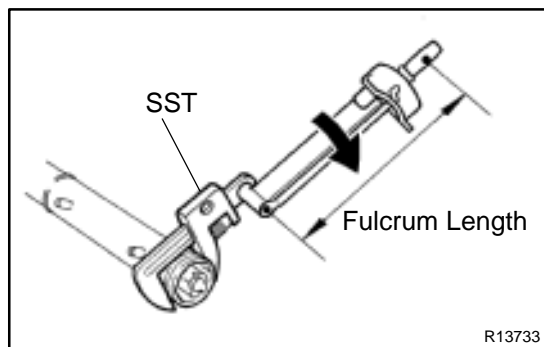


4. INSTALL OIL SEAL

- (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, and install it by pushing it onto the SST without tilting.

NOTICE:

- Make sure to install the oil seal facing the correct direction.**
- (d) Remove the SST.



5. INSTALL CYLINDER END STOPPER

- Coat a new O-ring with power steering fluid, and install it to the stopper.
- Using SST, torque the stopper.

SST 09922-10010

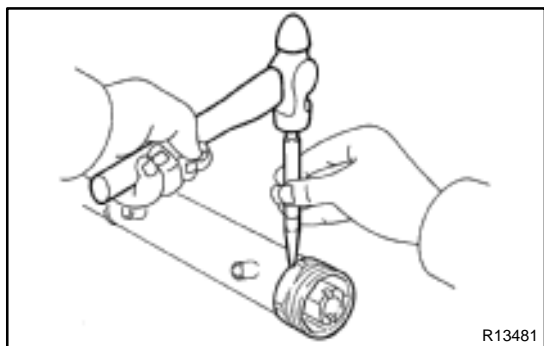
Torque: 59 N·m (597 kgf·cm, 43 ft·lbf)

NOTICE:

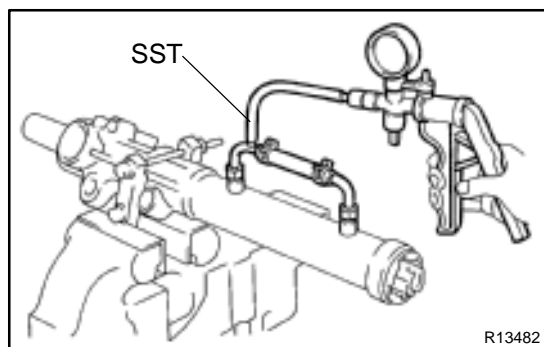
Use SST 09922-10010 in the direction shown in the illustration.

HINT:

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

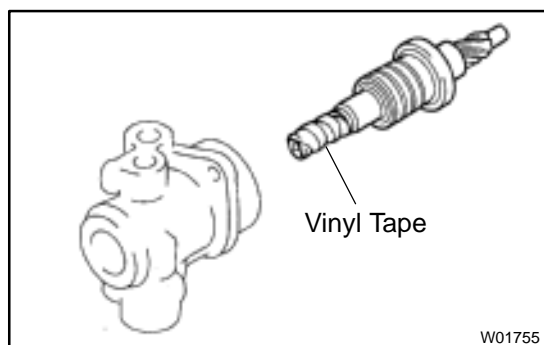


- Using a punch and hammer, stake the rack housing.



6. AIR TIGHTNESS TEST

- Install SST to the unions of 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.

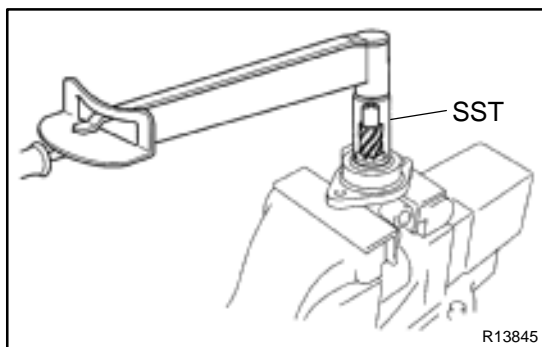


7. INSTALL CONTROL VALVE ASSEMBLY

- 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.
- 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.

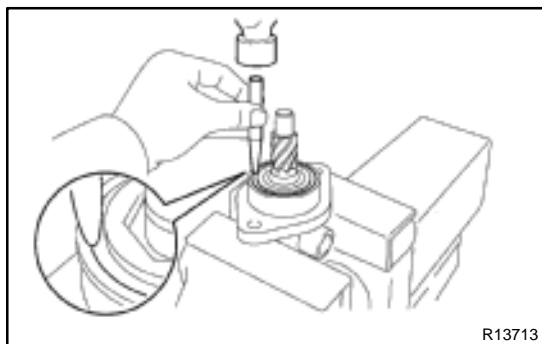
(e) Using SST, torque the nut.

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

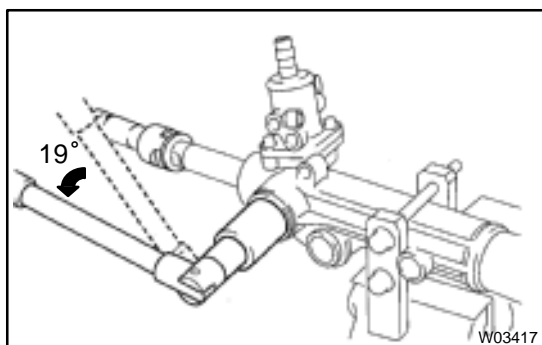
10. INSTALL RACK GUIDE, RACK GUIDE SPRING AND RACK GUIDE SPRING CAP

(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.



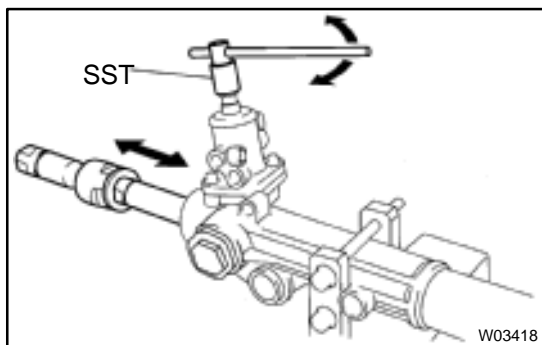
11. ADJUST TOTAL PRELOAD

(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)

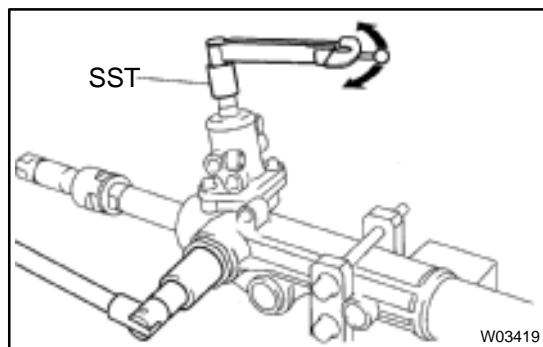
(c) Return the cap 19°.



(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.

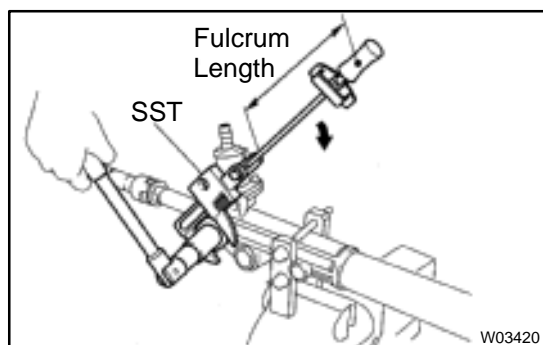


- (f) Using SST and a torque wrench, tighten the cap until the preload is within specification.

SST 09616-00010

Preload (turning):

0.5 – 1.7 N·m (4.7 – 17.2 kgf·cm, 4.1 – 14.9 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:

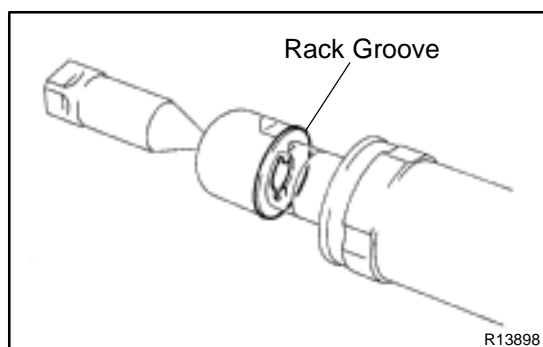
Use a torque wrench with a fulcrum length of 345 mm (13.58 in.).

- (c) Recheck the total preload.

Preload (turning):

0.5 – 1.7 N·m (4.7 – 17.2 kgf·cm, 4.1 – 14.9 in.-lbf)

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

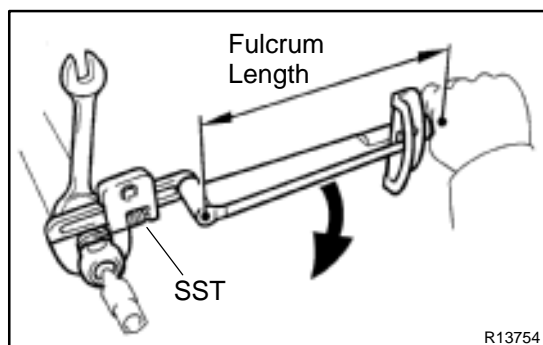


13. INSTALL RH AND LH CLAW WASHERS AND RACK ENDS

- (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 to hold the steering rack steady, and using SST, torque the rack end.

SST 09922-10010

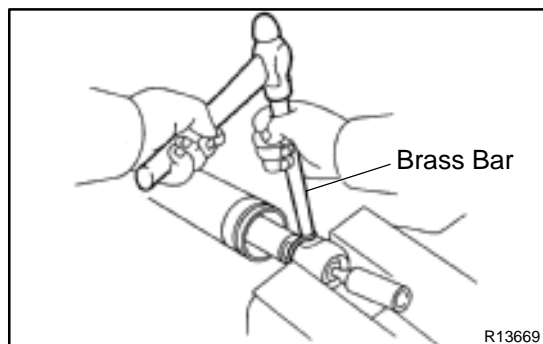
Torque: 76 N·m (770 kgf·cm, 56 ft-lbf)

NOTICE:

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

HINT:

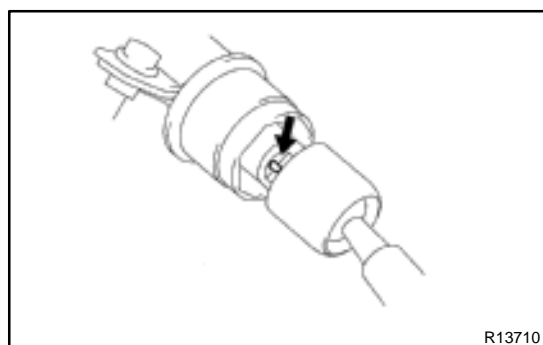
Use a torque wrench with a fulcrum length of 345 mm (13.58 in.).



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

NOTICE:

Avoid any impact to the rack.

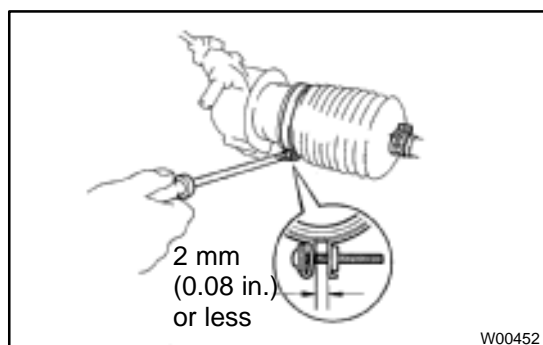


14. INSTALL RH AND LH RACK BOOTS, CLAMPS AND CLIPS

(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) Tighten a new clamp, as shown in the illustration.

15. 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-9](#))

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

16. INSTALL 2 TURN PRESSURE TUBES

(a) Install a new union seat to the rack housing.

(b) Install a new union seat to the control valve housing.

(c) 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.

