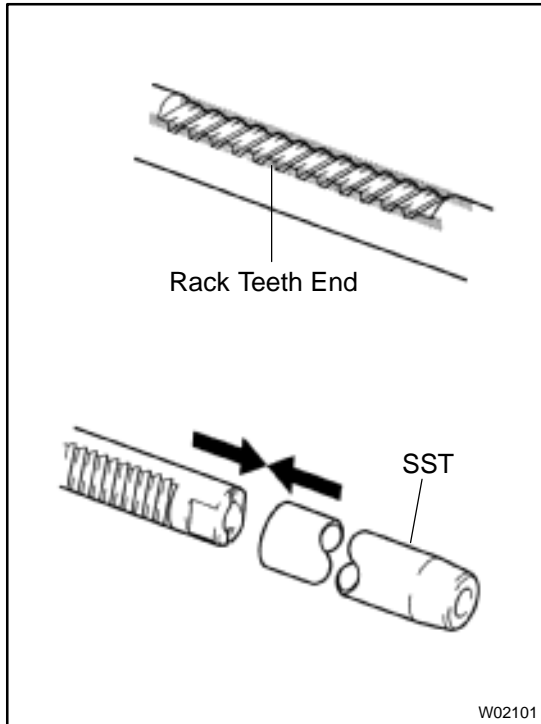


REASSEMBLY

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-32)**



2. INSTALL STEERING RACK

- (a) Install SST to the rack.
SST 09631-10041

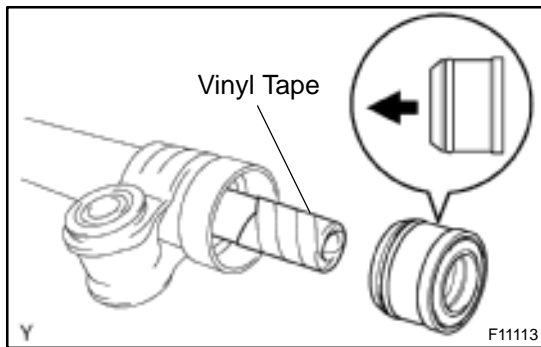
HINT:

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

- (b) Coat SST with power steering fluid.
- (c) Install the steering rack into the rack housing.
- (d) Remove the SST.
SST 09631-10041

3. INSTALL STEERING RACK 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 into the rack housing.

NOTICE:

- **Make sure that the bushing is installed facing in the correct direction.**
- **Be careful not to damage the oil seal lip.**

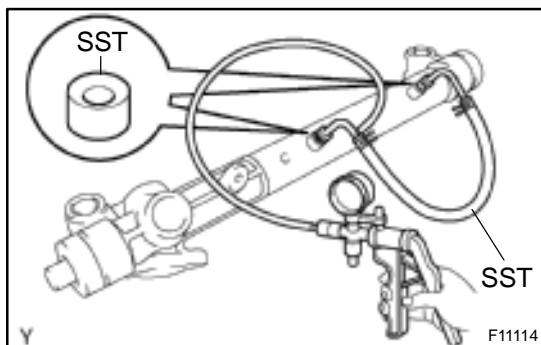
4. INSTALL CYLINDER END STOPPER

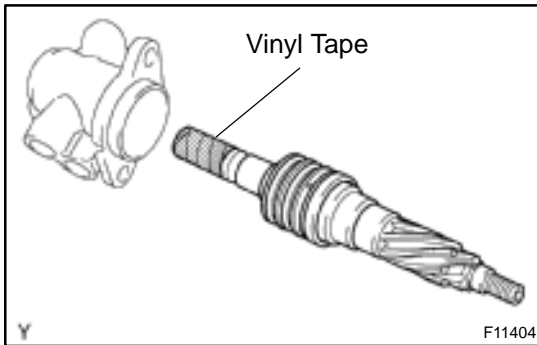
- (a) Push into the cylinder end stopper.
- (b) Using needle nose pliers, install the snap ring.

5. AIR TIGHTNESS TEST

- (a) Install SST to the rack housing.
SST 09631-12071 (09633-00010)
- (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 a change in the vacuum, check the installation of the oil seals.



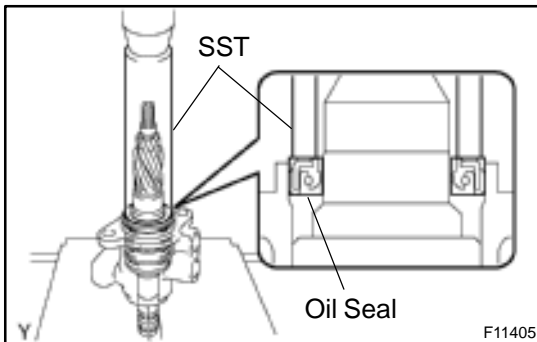


6. INSTALL CONTROL VALVE ASSEMBLY

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

NOTICE:

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

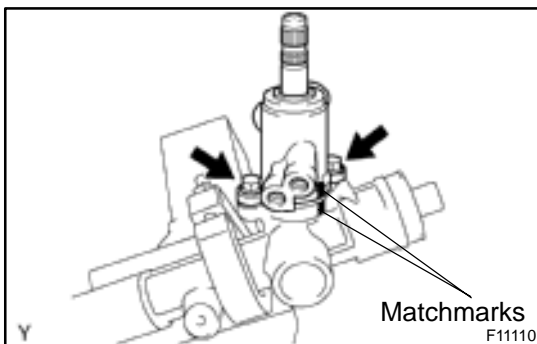


7. INSTALL OIL SEAL OF CONTROL VALVE ASSEMBLY

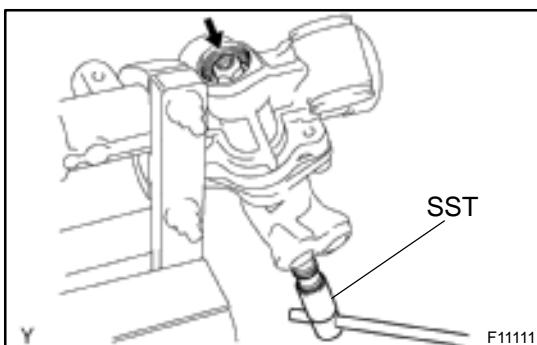
- (a) Coat a new oil seal lip with power steering fluid.
- (b) Using SST, press in the oil seal.
SST 09612-22011

8. INSTALL CONTROL VALVE HOUSING WITH CONTROL VALVE ASSEMBLY

- (a) Install a new gasket.



- (b) Align the matchmarks on the control valve housing and rack housing.
- (c) Push into the control valve housing with control valve assembly.
- (d) Install the 2 bolts.
Torque: 21 N·m (210 kgf-cm, 15 ft-lbf)
- (e) Install the dust seal.



9. INSTALL SELF-LOCKING NUT

Using SST, stop the control valve shaft rotating and install a new self-locking nut.

SST 09616-00010

Torque: 24.5 N·m (250 kgf-cm, 18 ft-lbf)

10. INSTALL RACK HOUSING CAP

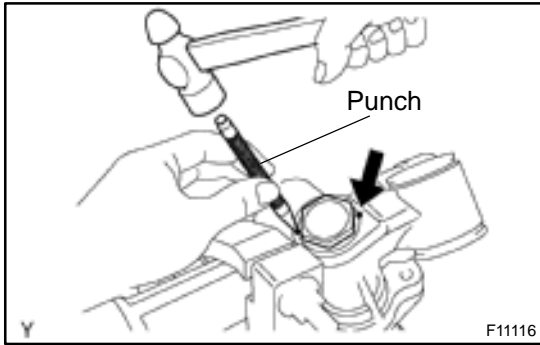
- (a) Apply sealant to 2 or 3 threads of the rack housing cap.

Sealant:

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

- (b) Install the rack housing cap.

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



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

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

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

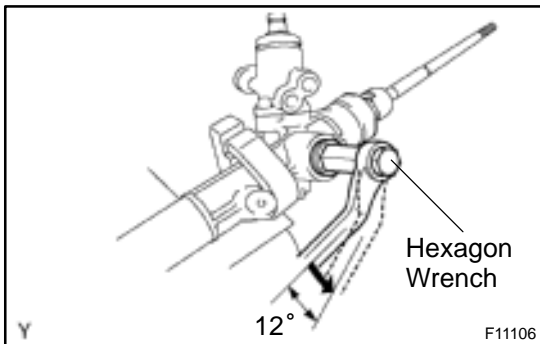
Sealant:

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

- (c) Temporarily install the rack guide spring cap.

12. ADJUST TOTAL PRELOAD

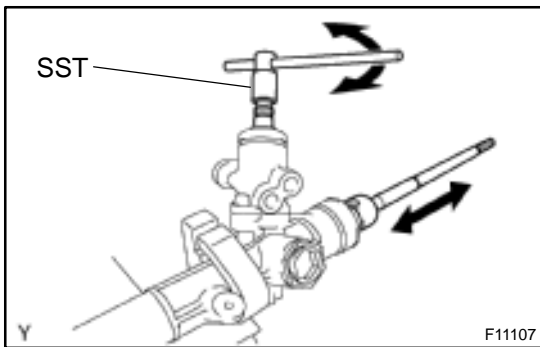
- (a) To prevent the steering rack teeth from damaging the oil seal lip, temporarily install the RH and LH rack ends.



- (b) Using a hexagon wrench (19 mm), torque the rack guide spring cap.

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

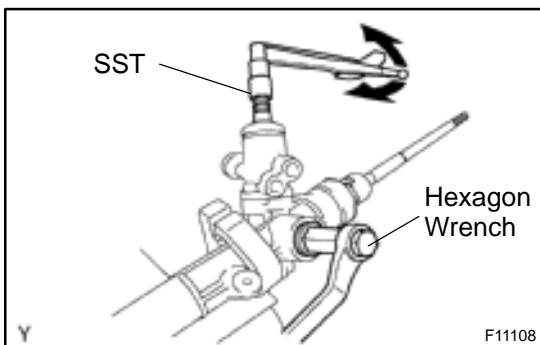
- (c) Using a hexagon wrench (19 mm), return the rack guide spring cap 12°.



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

SST 09616-00011

- (e) Using a hexagon wrench (19 mm), loosen the rack guide spring cap until the rack guide spring is not functioning.



- (f) Using SST, a torque wrench and hexagon wrench (19 mm), tighten the rack guide spring cap until the preload is within the specification.

SST 09616-00010

Preload (turning):

0.8 – 1.3 N·m (8 – 13 kgf·cm, 6.9 – 11.3 in.-lbf)

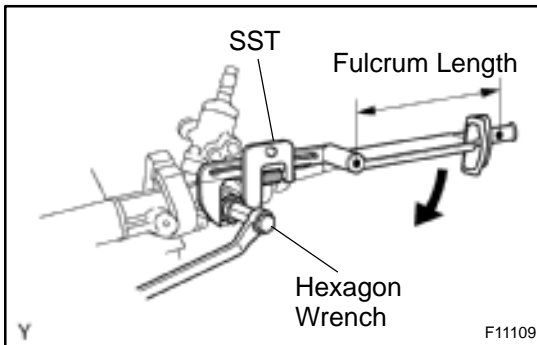
13. INSTALL RACK GUIDE SPRING CAP LOCK NUT

- (a) Apply sealant to 2 or 3 threads of the rack guide spring cap lock nut.

Sealant:

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

- (b) Temporarily install the rack guide spring cap lock nut.



- (c) Using a hexagon wrench (19 mm), hold the rack guide spring cap and using SST, torque the rack guide spring cap lock nut.

SST 09922-10010

Torque: 28 N·m (290 kgf-cm, 21 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.

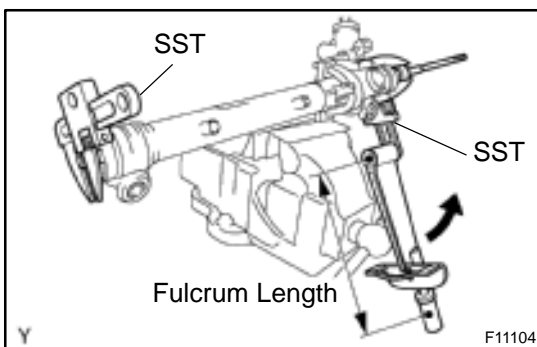
Preload (turning):

0.8 – 1.3 N·m (8 – 13 kgf-cm, 6.9 – 11.3 in.-lbf)

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

14. INSTALL RH AND LH RACK ENDS

- (a) Temporarily install the LH rack end.



- (b) Using SST, hold the steering rack RH side steadily and using another SST, torque the LH rack end.

SST 09922-10010

Torque: 62 N·m (630 kgf-cm, 46 ft-lbf)

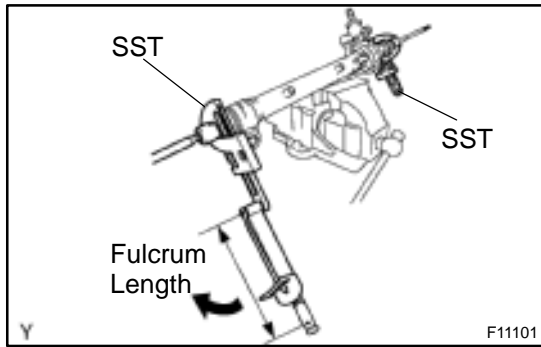
NOTICE:

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) Temporarily install the RH rack end.



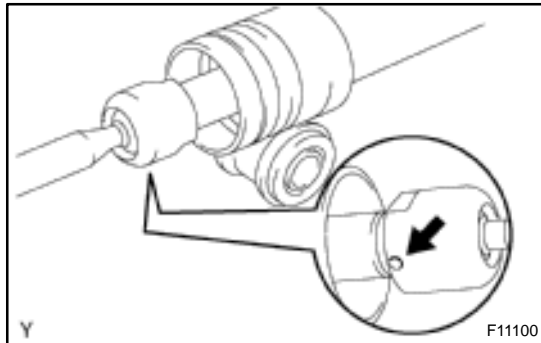
- (d) Using SST, hold the LH rack end steadily and using another SST, torque the RH rack end.
 SST 09922-10010
Torque: 62 N·m (630 kgf·cm, 46 ft·lbf)

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.).



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

- (a) Ensure that the steering rack end hole is not clogged with grease.

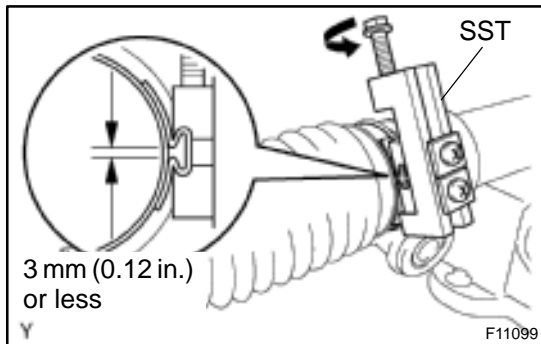
HINT:

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

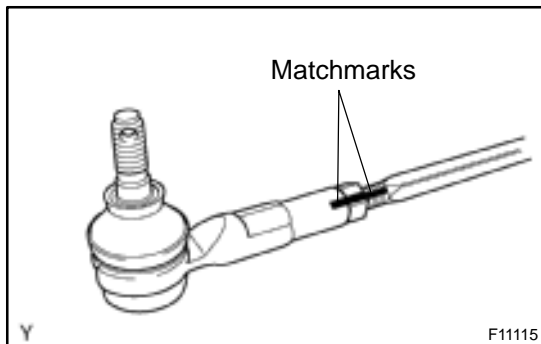
- (b) Install the boot, clip and a new clamp.

NOTICE:

Be careful not to damage or twist the boot.



- (c) Using SST, tighten the clamp as shown in the illustration.
 SST 09521-24010
- (d) Employ the same manner described above to the other side.



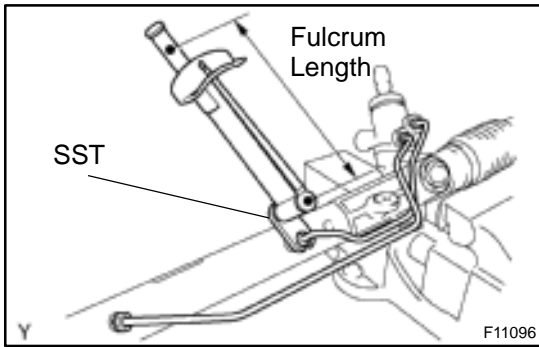
16. INSTALL RH AND LH TIE ROD ENDS AND LOCK NUTS

- (a) Screw the lock nut and tie rod end onto the rack end until the matchmarks are aligned.
- (b) Employ the same manner described above to the other side.
- (c) After adjusting toe-in, torque the nut (See page SA-4).

Torque: 47 N·m (480 kgf·cm, 35 ft·lbf)

17. INSTALL TURN PRESSURE TUBES

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



- (b) Using SST, install the 2 turn pressure tubes.
SST 09023-38200
Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)

HINT:

Use a torque wrench with a fulcrum length of 250 mm (9.84 in.).