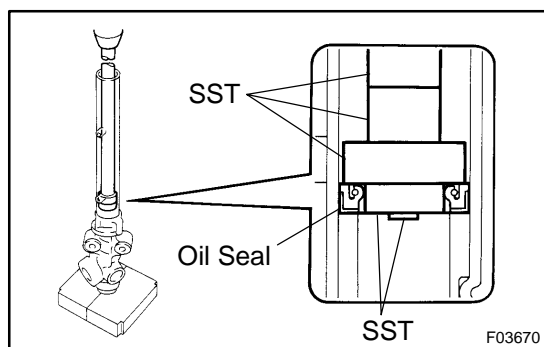


REASSEMBLY

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-45](#))



2. INSTALL OIL SEAL

- (a) Coat a new oil seal lip with power steering fluid.
- (b) Using SST, press in the oil seal.
SST 09951-60010 (09951-00330, 09951-00490, 09952-06010), 09950-70010 (09951-07360)

NOTICE:

- Make sure that the oil seal is installed 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 steering rack.
SST 09631-20102

NOTICE:

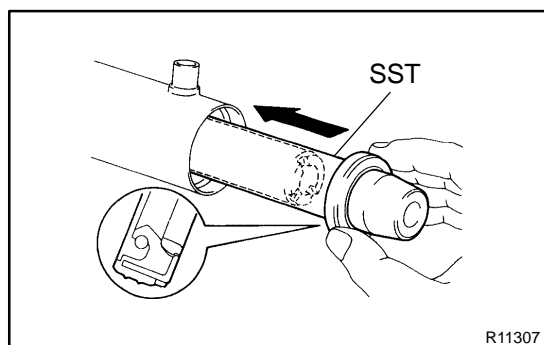
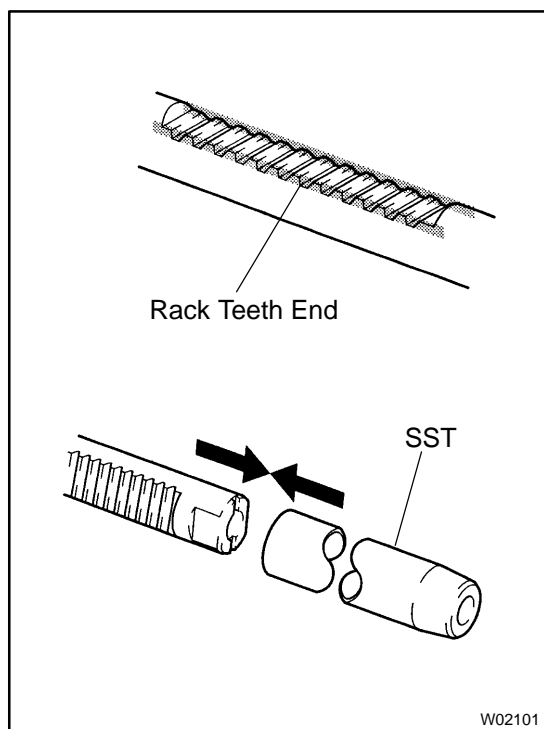
If necessary, scrape the burrs off the steering rack teeth end and burnish.

- (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 09631-20102



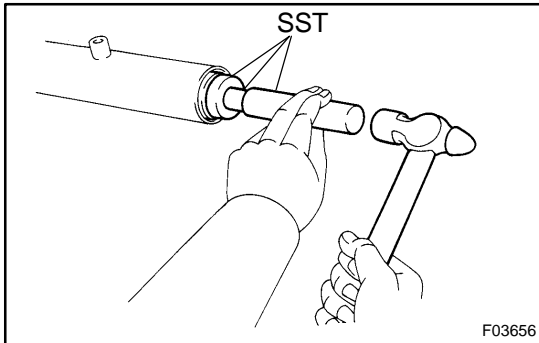
4. INSTALL OIL SEAL

- (a) Install SST to the steering rack opposite end.
SST 09631-20102
- (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:

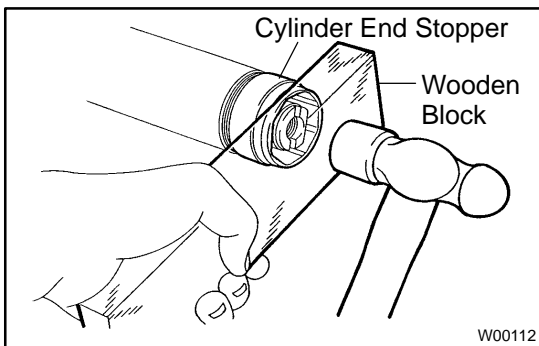
Make sure that the oil seal is installed facing in the correct direction.

- (e) Remove the SST.
SST 09631-20102



5. INSTALL SPACER AND CYLINDER END STOPPER

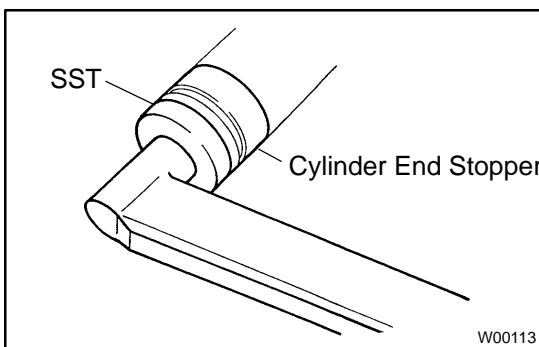
- (a) Using SST and a hammer, drive in the spacer.
SST 09950-60010 (09951-00280, 09951-00420, 09952-06010), 09950-70010 (09951-07200)



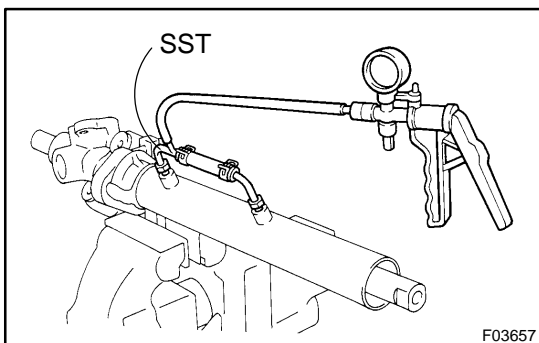
- (b) Coat a new O-ring with power steering fluid, and install it to the cylinder end stopper.
(c) Using a wooden block and a hammer, drive in the cylinder end stopper until it is tightly installed.

NOTICE:

Be careful not to damage the O-ring.

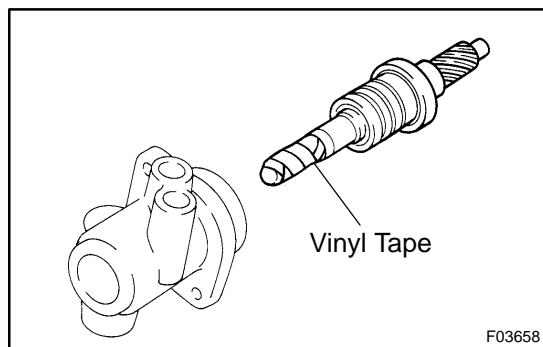


- (d) Using SST, torque the cylinder end stopper.
SST 09631-20120
Torque: 59 N·m (600 kgf-cm, 43 ft-lbf)



6. AIR TIGHTNESS TEST

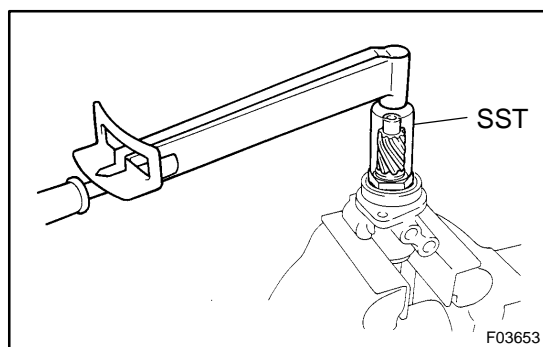
- (a) Install the SST to the unions of the rack housing.
SST 09631-12071
(b) Apply 53 kPa (400 mmHg, 15.75 in.Hg) of vacuum for about 30 seconds.
(c) Check that there is no change in the vacuum.
If there is change in the vacuum, check the installation of the oil seals.

**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 control valve assembly into the control valve housing.

NOTICE:

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



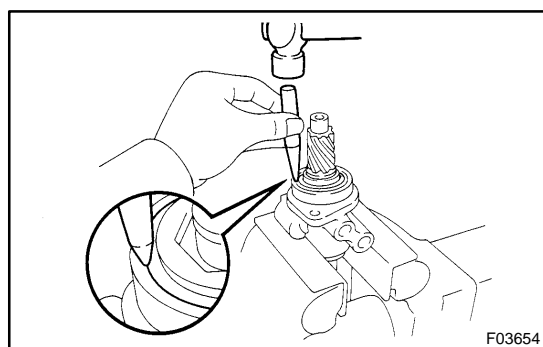
- (d) Coat a new O-ring with power steering fluid, and install it to the bearing guide nut.
- (e) Using SST, torque the bearing guide nut.

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 bearing guide 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 control valve housing.
- (b) Align the matchmarks on the control valve housing and rack housing, and install the control valve housing with the control valve assembly to the rack housing.
- (c) Install the 2 bolts.

Torque: 18 N·m (180 kgf-cm, 13 ft-lbf)

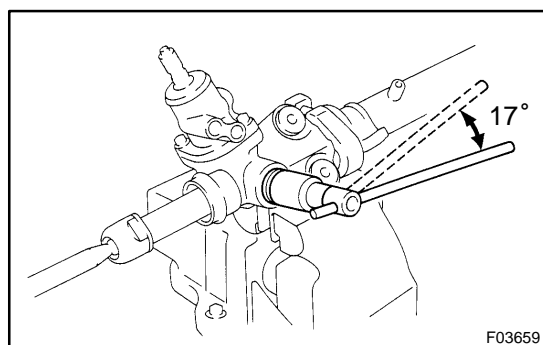
9. INSTALL DUST COVER**10. INSTALL RACK GUIDE SUB-ASSEMBLY, RACK GUIDE SPRING AND RACK GUIDE SPRING CAP**

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

Sealant:

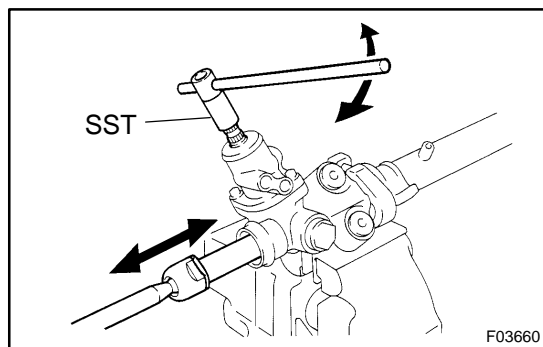
Part No. 08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent

- (b) Temporarily install the rack guide spring 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.
- (c) Return the rack guide spring cap 17°.

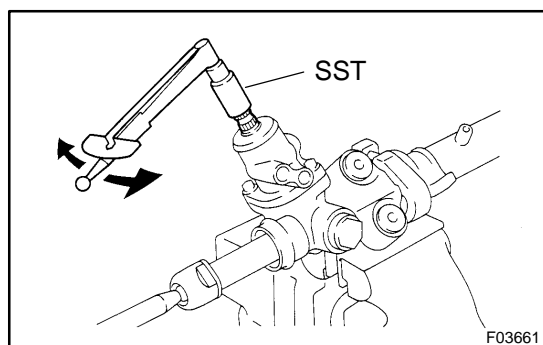
Torque: 25 N·m (250 kgf-cm, 18 ft-lbf)



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

SST 09616-00011

- (e) Loosen the rack guide spring cap until the rack guide spring is not functioning.

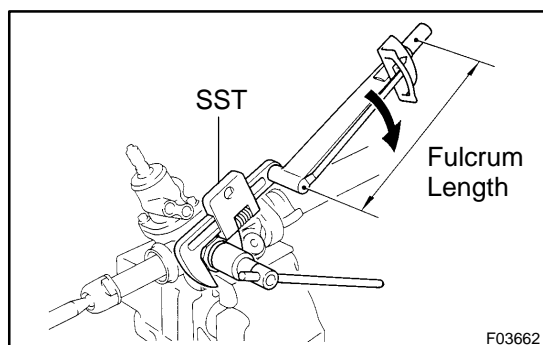


- (f) Using SST and a torque wrench, tighten the rack guide spring cap until the preload is within specification.

SST 09616-00011

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 rack guide spring cap lock 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 (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.).

- (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)

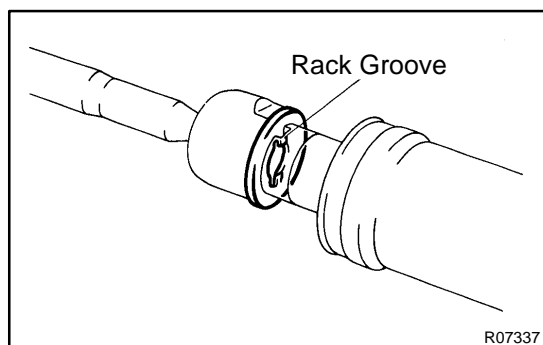
- (d) Remove the RH and LH rack ends.

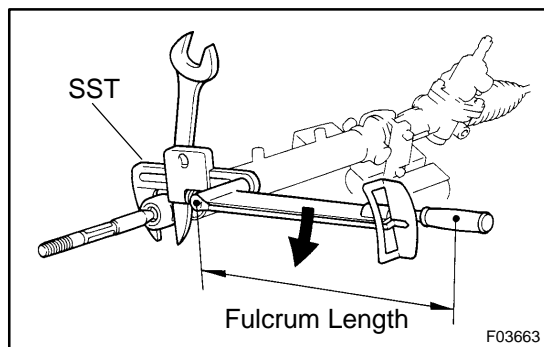
13. INSTALL RH AND LH CLAW WASHERS AND RACK ENDS

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

HINT:

Align the claws of the claw 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

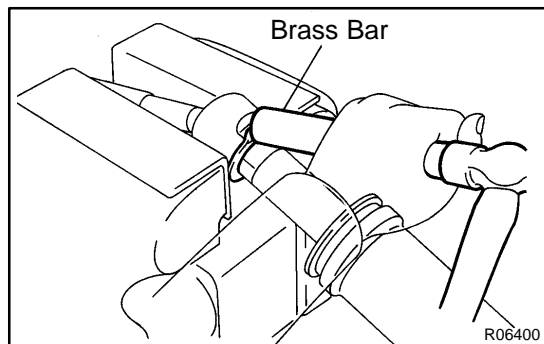
Torque: 76 N·m (770 kgf-cm, 56 ft-lbf)

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.).

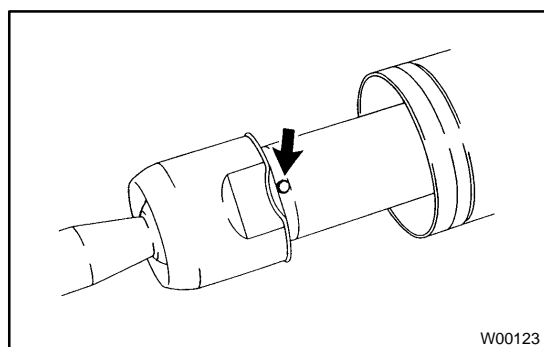


- (c) Using a brass bar and a hammer, stake the claw washer.

NOTICE:

Avoid any impact to the rack.

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

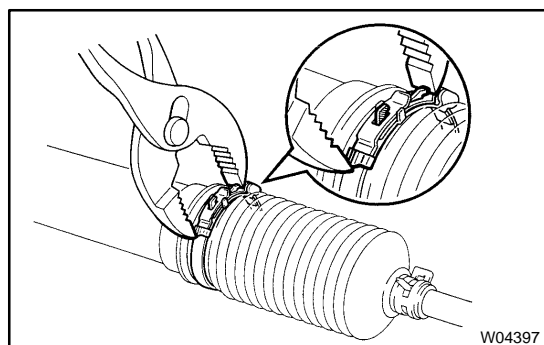


14. INSTALL RH AND LH RACK BOOTS, CLAMPS AND CLIPS

- (a) Ensure that the steering rack 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 rack boot, clip and a new clamp.

NOTICE:

Be careful not to damage or twist the rack boot.

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

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

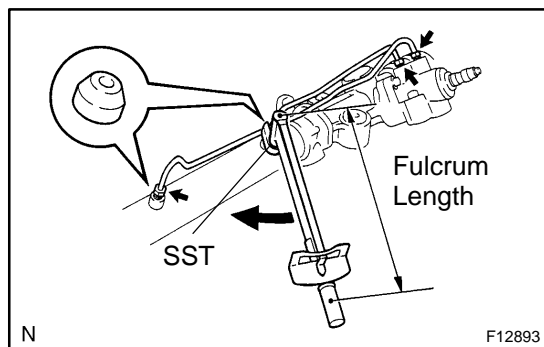
15. INSTALL RH AND LH TIE ROD ENDS AND LOCK NUTS

- (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 lock nut (See page SA-4).

Torque: 56 N·m (570 kgf-cm, 41 ft-lbf)

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

**16. INSTALL 2 TURN PRESSURE TUBES**

- (a) Install 2 new union seats to the rack housing.
- (b) Using SST, install the 2 turn pressure tubes.

SST 09023-38200

Torque: 23 N·m (240 kgf-cm, 17 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.