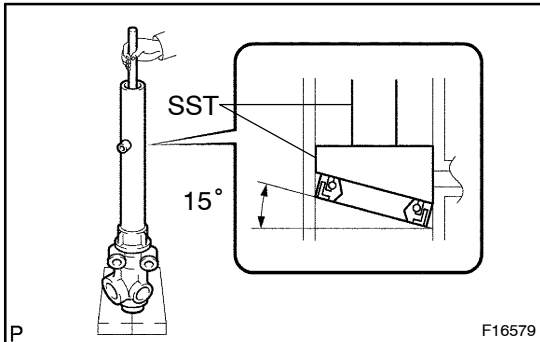


REASSEMBLY

NOTICE:

When using a vise, do not overtighten it.

1. **COAT WITH POWER STEERING FLUID OR MOLYBDENUM DISULFIDE LITHIUM BASE GREASE**
(See page SR-29)



2. INSTALL OIL SEAL

- (a) Apply power steering fluid to a new oil seal, and install the oil seal on the rack housing at an angle.

NOTICE:

Install the oil seal in the correct direction.

HINT:

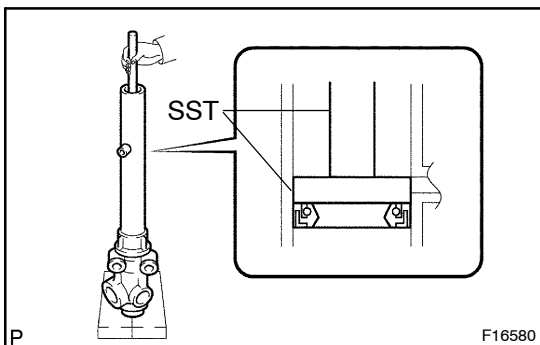
Install the oil seal so that the port faces downward with approx. 15 degrees.

- (b) Using SST, push in the oil seal by hand until it passes through the 2 ports.

SST 09631-00180, 09950-70010 (09951-07360)

NOTICE:

Do not turn SST when inserting the oil seal.

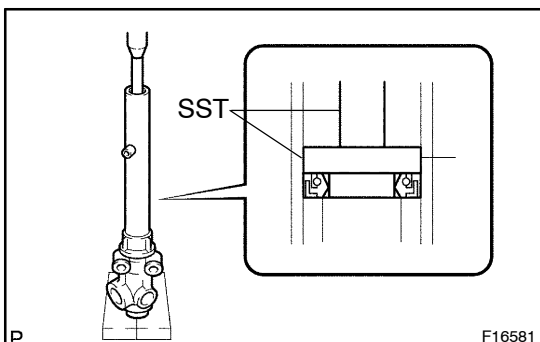


- (c) After the oil seal has passed through the ports, push in the oil seal by hand until it becomes level, using SST.

SST 09950-60010 (09951-00490), 09950-70010 (09951-07360)

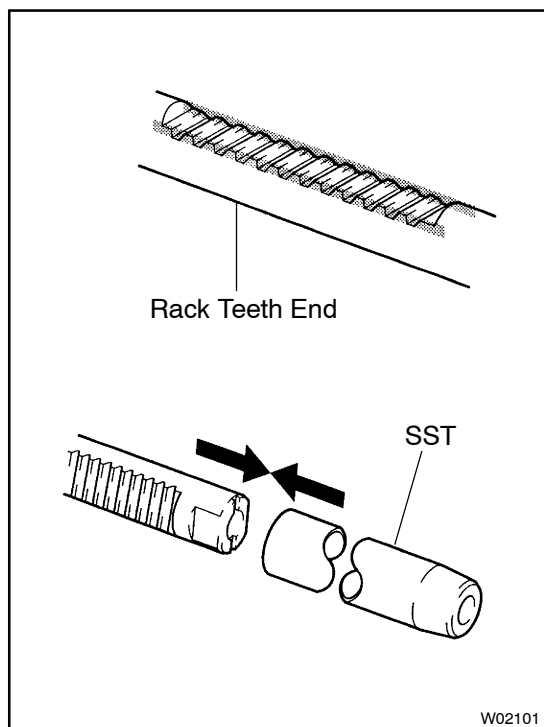
NOTICE:

When SST is set, do not damage the inside surface of the rack housing.



- (d) After the oil seal has become level, using SST and press, install the oil seal.

SST 09950-60010 (09951-00490), 09950-70010 (09951-07360)



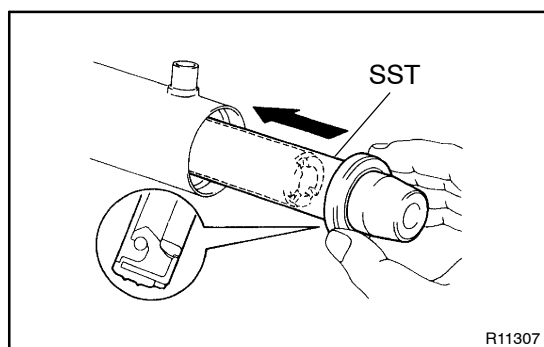
3. INSTALL STEERING RACK

- (a) Install SST to the rack.
SST 09631-20102

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 09631-20102
- (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 tilt-ing.

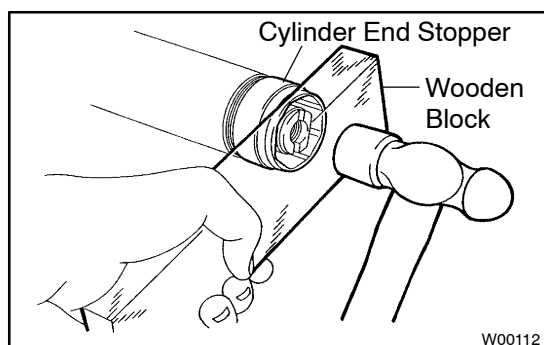
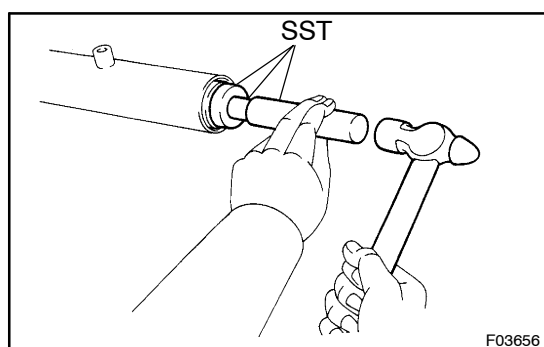
NOTICE:

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

- (e) Remove the SST.

5. INSTALL SPACER AND CYLINDER END STOPPER

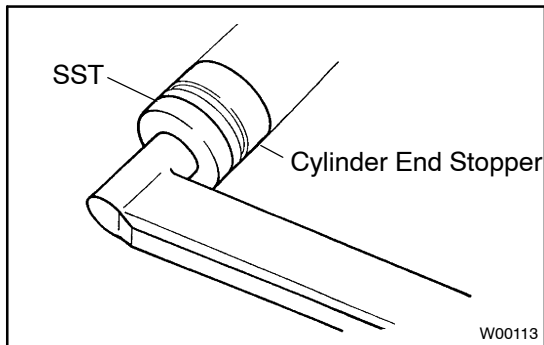
- (a) Using SST and a hammer, drive in the spacer.
SST 09950-60010 (09951-00280, 09951-00420,
09952-06010), 09950-70010 (09951-07200)



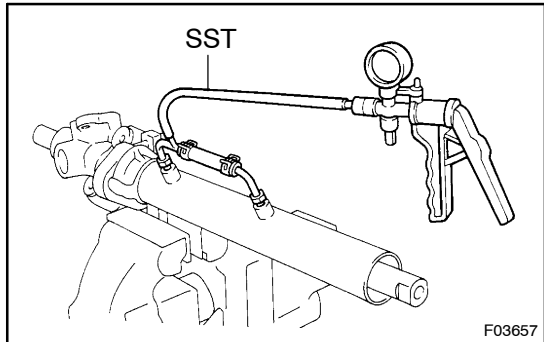
- (b) Coat a new O-ring with power steering fluid, and install it to the stopper.
- (c) Using a wooden block and hammer, drive in the stopper until it is tightly installed.

NOTICE:

Be careful not to damage the O-ring.

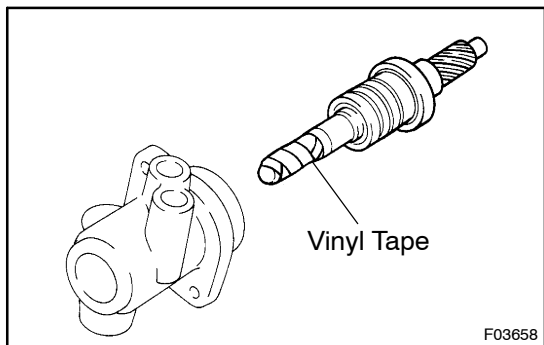


- (d) Using SST, torque the stopper.
 SST 09631-20090
Torque: 59 N·m (600 kgf·cm, 43 ft·lbf)



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.

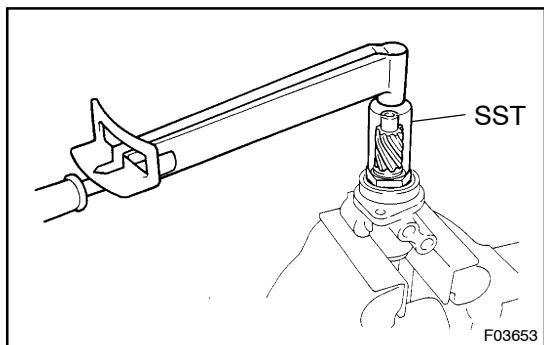


7. INSTALL CONTROL VALVE ASSEMBLY

- (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.

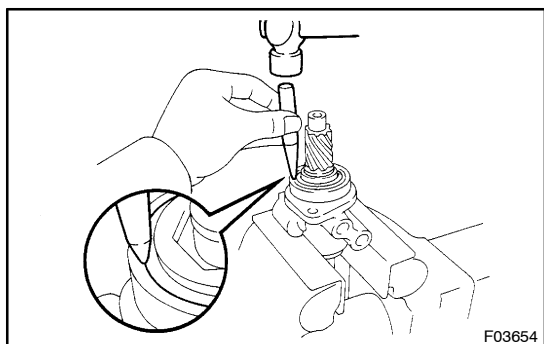


- (d) Coat a new O-ring with power steering fluid, and install it to the bearing guide nut.
 (e) Using SST, torque the nut.
 SST 09631-20060

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

NOTICE:

Be careful not to damage the oil seal lip.



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)

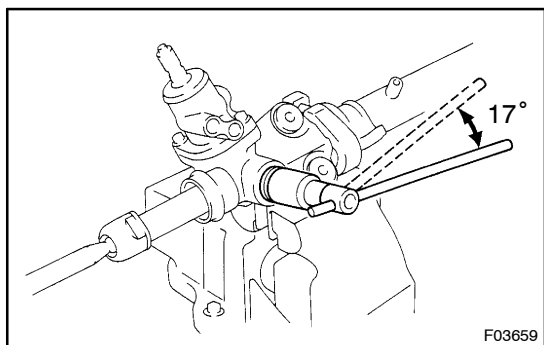
9. INSTALL DUST COVER
10. INSTALL RACK GUIDE SUB-ASSEMBLY, RACK GUIDE SPRING AND RACK GUIDE SPRING CAP

- (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.



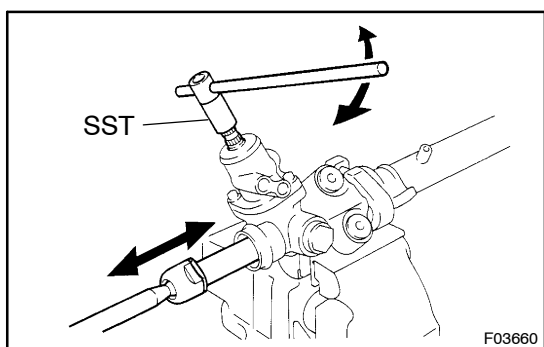
11. ADJUST TOTAL PRELOAD

- (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)

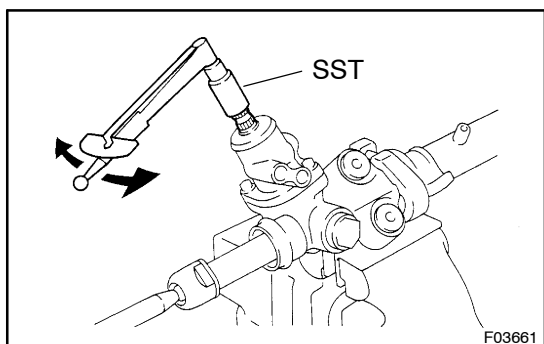
- (c) Return the cap 17°.



- (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.

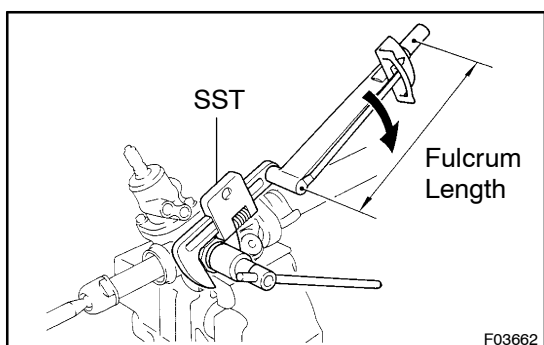


- (f) Using SST and a torque wrench, tighten the cap until the preload is within specification.

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)

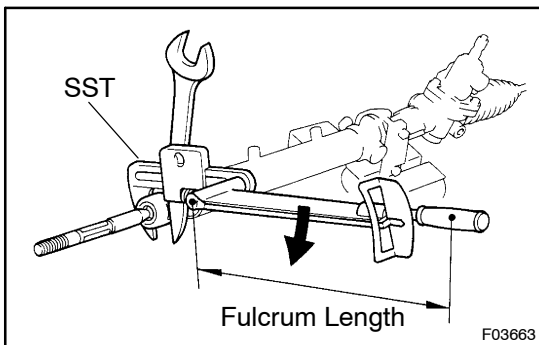
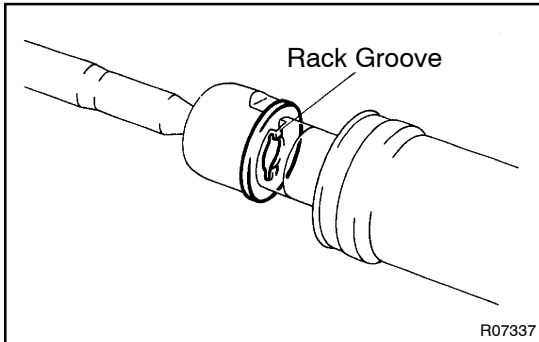
- (d) Remove the RH and LH rack ends.

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.

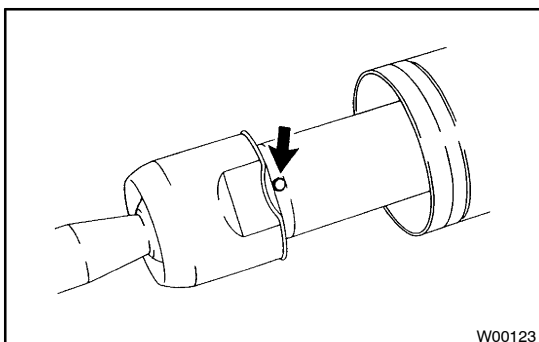
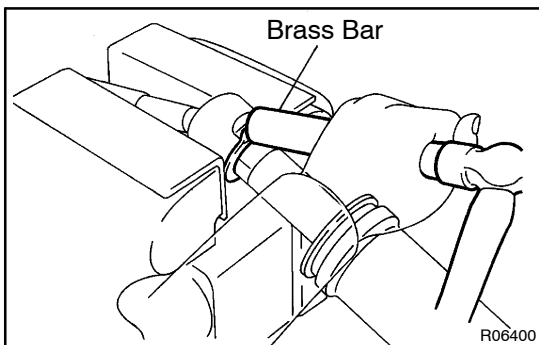
HINT:

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.

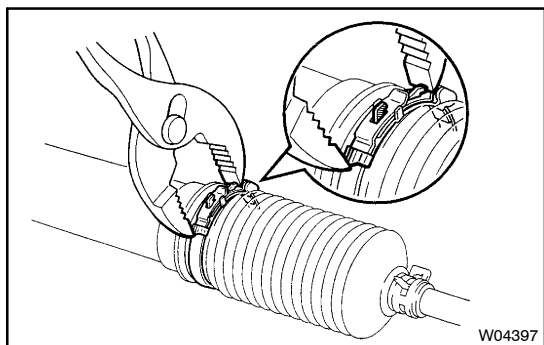


14. INSTALL RH AND LH RACK BOOTS, CLAMPS AND CLIPS

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

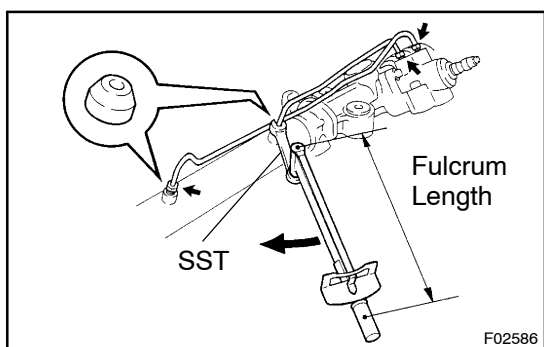
15. INSTALL RH AND LH TIE ROD ENDS AND LOCK NUTS

(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-4)

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) 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.