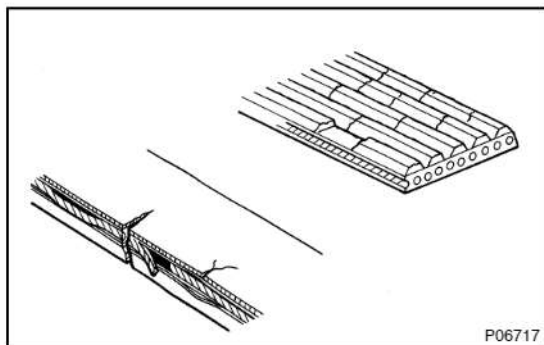

STEERING

DRIVE BELT	SR-1
POWER STEERING FLUID	SR-2
TILT STEERING COLUMN	SR-6
POWER STEERING VANE PUMP (1ZZ-FE, 3ZZ-FE)	SR-8
POWER STEERING VANE PUMP (1AZ-FSE)	SR-19

REFER TO FOLLOWING REPAIR MANUALS:

Manual Name	Pub. No.
AVENSIS/CORONA Chassis and Body Repair Manual	RM599E
AVENSIS/CORONA Chassis and Body Repair Manual Supplement (Aug., 1999)	RM698E

NOTE: The above pages contain only the points which differ from the above listed manuals.



DRIVE BELT INSPECTION

SR08H-06

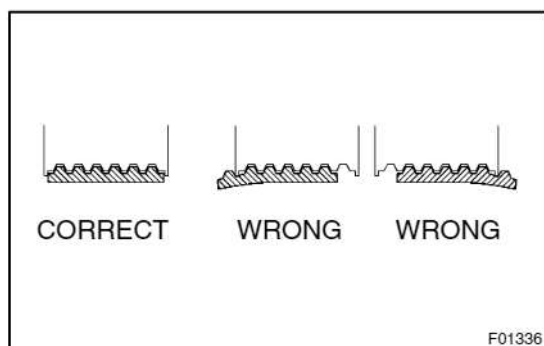
INSPECT DRIVE BELT

Visually check the drive belt for excessive wear, frayed cords, etc.

If any defect has been found, replace the drive belt.

HINT:

- Cracks on the rib side of a belt are considered acceptable. If the missing chunks from the ribs are found on the drive belt, it should be replaced.



- After installing a drive belt, check that it fits properly in the ribbed grooves.
- Check with your hand to confirm that the drive belt has not slipped out of the groove on the bottom of the pulley.

POWER STEERING FLUID BLEEDING

SR08-07

1. **CHECK FLUID LEVEL** (See page SR-3)
2. **JACK UP FRONT OF VEHICLE AND SUPPORT IT WITH STANDS**

3. **TURN STEERING WHEEL**

With the engine stopped, turn the steering wheel slowly from lock to lock several times.

4. **LOWER VEHICLE**

5. **START ENGINE**

Run the engine at idle for a few minutes.

6. **TURN STEERING WHEEL**

- (a) With the engine idling, turn the steering wheel to left or right full lock position and keep it there for 2–3 seconds, then turn the steering wheel to the opposite full lock position and keep it there for 2–3 seconds.

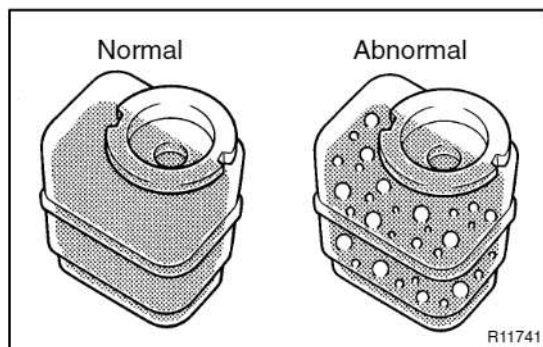
- (b) Repeat (a) several times.

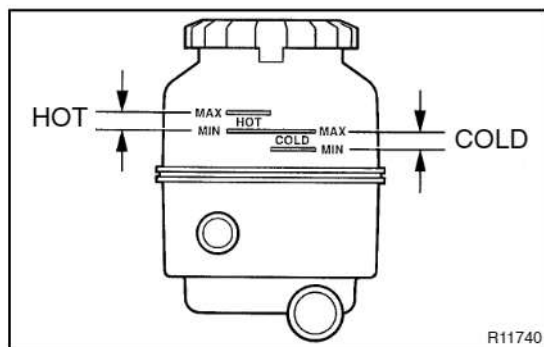
7. **STOP ENGINE**

8. **CHECK FOR FOAMING OR EMULSIFICATION**

If the system has to be bled twice specifically because of foaming or emulsification, check for fluid leaks in the system.

9. **CHECK FLUID LEVEL** (See page SR-3)





INSPECTION

1. CHECK FLUID LEVEL

- Keep the vehicle level.
- With the engine stopped, check the fluid level in the oil reservoir.

If necessary, add fluid.

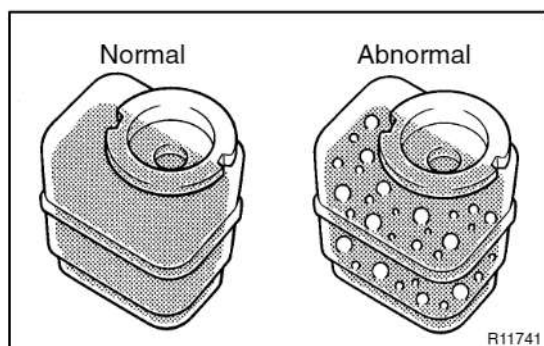
Fluid: ATF DEXRON® II or III

HINT:

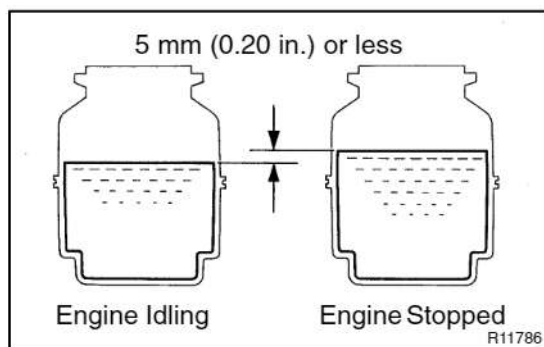
Check that the fluid level is within the HOT LEVEL range on the reservoir. If the fluid is cold, check that it is within the COLD LEVEL range.

- Start the engine and run it at idle.
- Turn the steering wheel from lock to lock several times to boost fluid temperature.

Fluid temperature: 80°C (176°F)



- Check for foaming or emulsification. If there is foaming or emulsification, bleed power steering system (See page SR-2).



- With the engine idling, measure the fluid level in the oil reservoir.
- Stop the engine.
- Wait a few minutes and remeasure the fluid level in the oil reservoir.

Maximum fluid level rise: 5 mm (0.20 in.)

If a problem is found, bleed power steering system (See page SR-2).

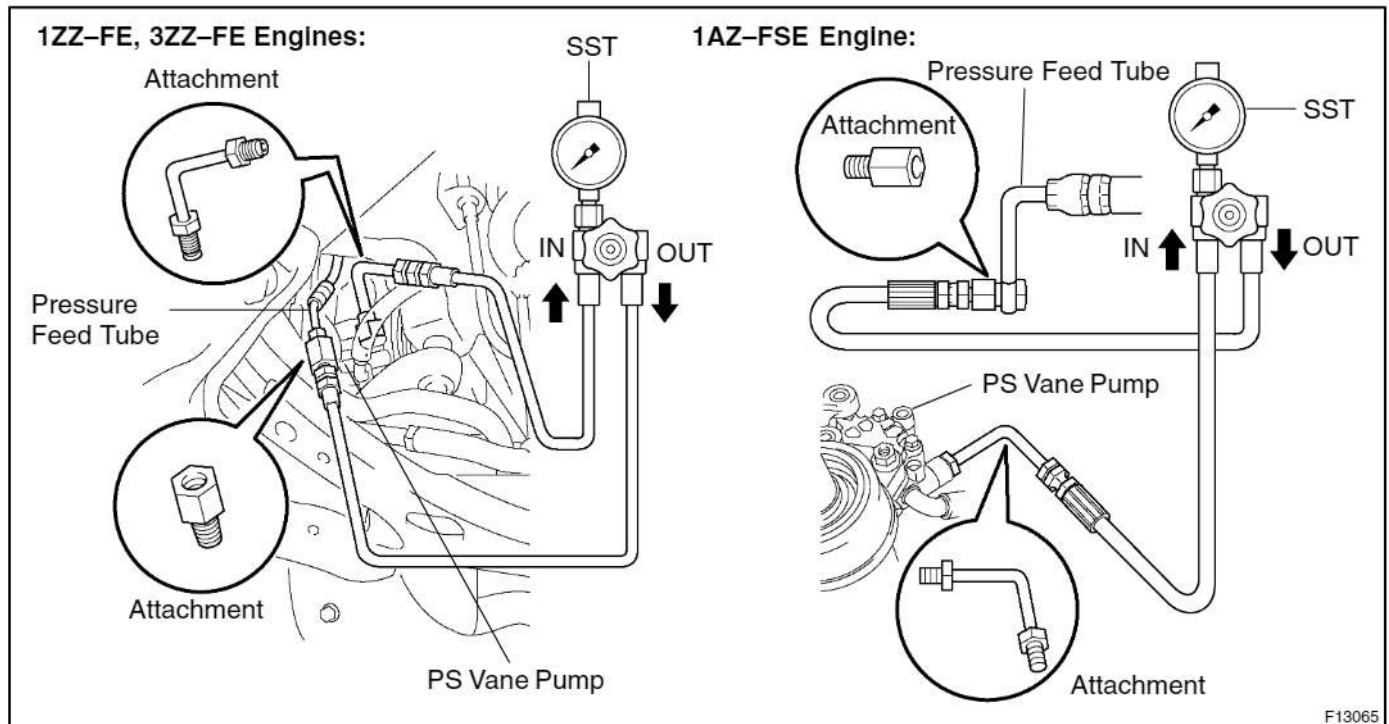
- Check the fluid level.

2. CHECK STEERING FLUID PRESSURE

- (a) Disconnect the pressure feed tube from the PS vane pump.
(1ZZ-FE, 3ZZ-FE Engines: See page SR-10)
(1AZ-FSE Engine: See page SR-21)
- (b) Connect SST, as shown in the illustration below.
SST 09640-10010 (09641-01010, 09641-01030, 09641-01060)

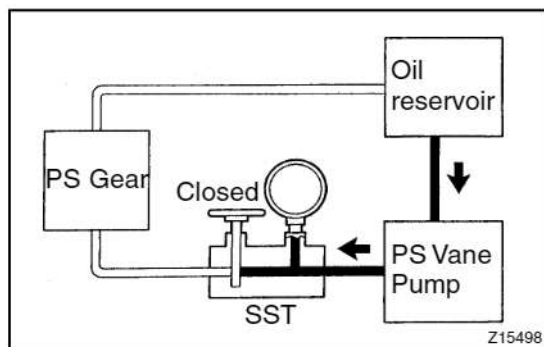
NOTICE:

Check that the valve of the SST is in the open position.



- (c) Bleed the power steering system (See page SR-2).
- (d) Start the engine and run it at idle.
- (e) Turn the steering wheel from lock to lock several times to boost fluid temperature.

Fluid temperature: 80 °C (176 °F)



- (f) With the engine idling, close the valve of the SST and observe the reading on the SST.

Minimum fluid pressure:

1ZZ-FE, 3ZZ-FE Engines:

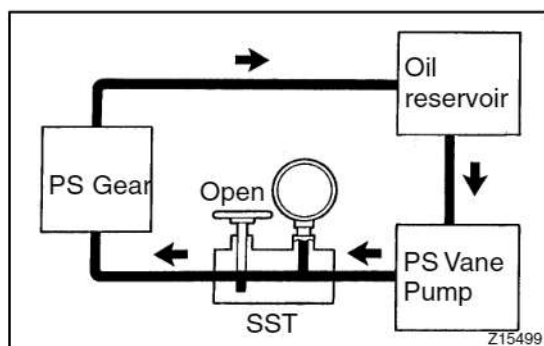
8,300 kPa (85 kgf/cm², 1209 psi)

1AZ-FSE Engine:

8,800 kPa (90 kgf/cm², 1280 psi)

NOTICE:

- Do not keep the valve closed for more than 10 seconds.
- Do not let the fluid temperature become too high.



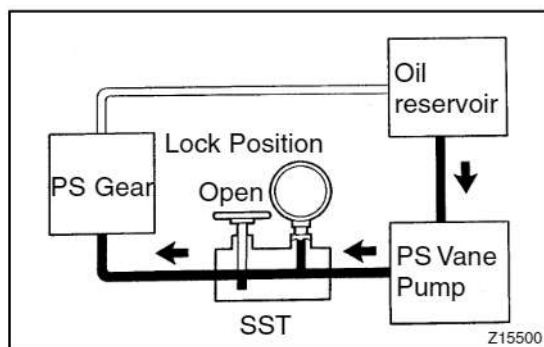
- (g) With the engine idling, open the valve fully.
(h) Measure the fluid pressure at engine speeds of 1,000 rpm and 3,000 rpm.

Difference fluid pressure:

490 kPa (5 kgf/cm², 71 psi) or less

NOTICE:

Do not turn the steering wheel.



- (i) With the engine idling and valve fully opened, turn the steering wheel to full lock.

Minimum fluid pressure:

1ZZ-FE, 3ZZ-FE Engines:

8,300 kPa (85 kgf/cm², 1209 psi)

1AZ-FSE Engine:

8,800 kPa (90 kgf/cm², 1280 psi)

NOTICE:

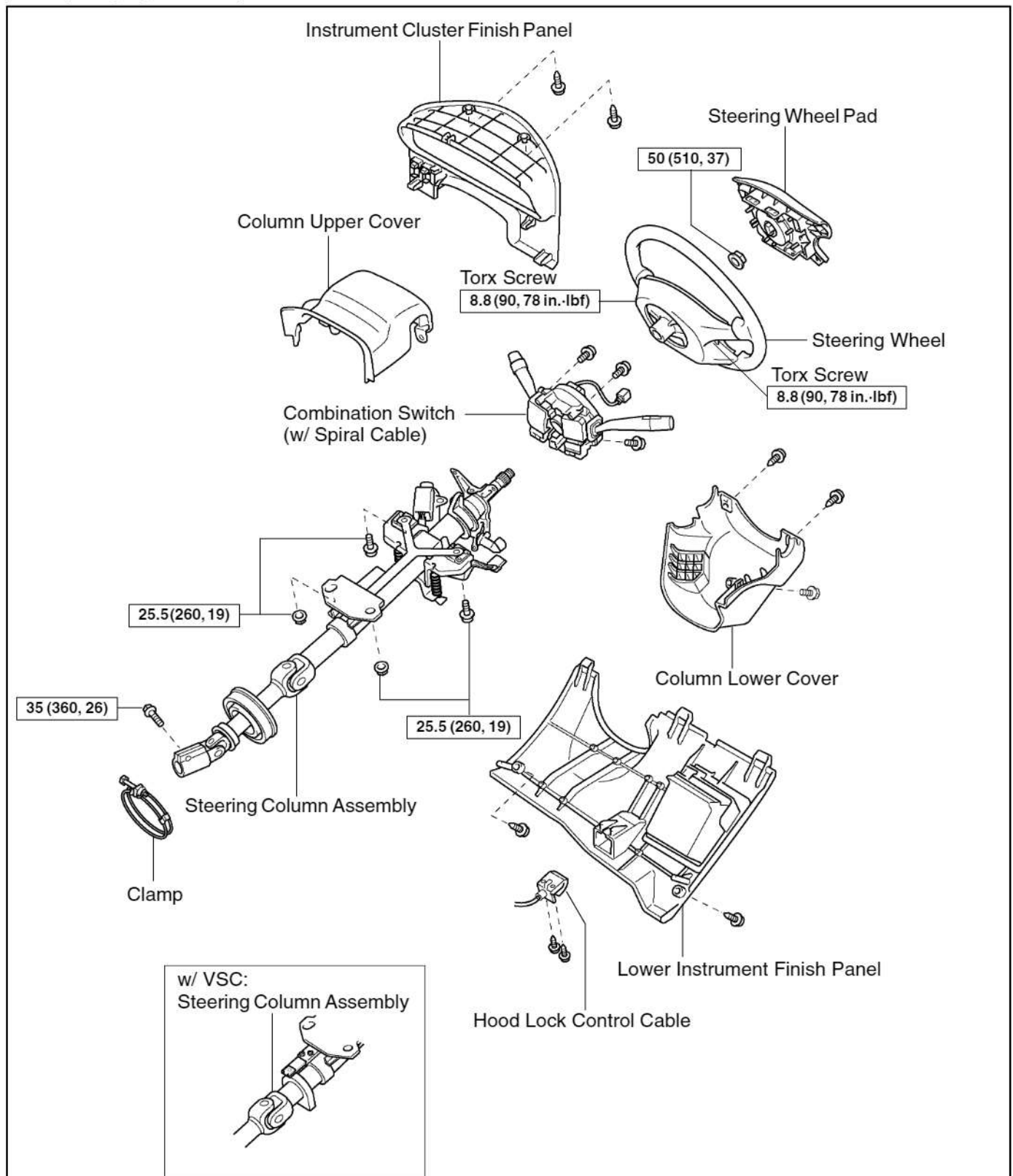
- Do not maintain lock position for more than 10 seconds.
 - Do not let the fluid temperature become too high.
- (j) Disconnect the SST.
SST 09640-10010 (09641-01010, 09641-01030, 09641-01060)
- (k) Connect the pressure feed tube to the PS vane pump.
(1ZZ-FE, 3ZZ-FE Engines: See page SR-18)
(1AZ-FSE Engine: See page SR-29)
- (l) Bleed the power steering system (See page SR-2).

TILT STEERING COLUMN COMPONENTS

SR01B-02

HINT:

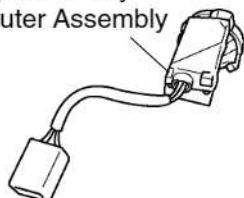
If the steering column assembly (w/ VSC) is removed or replaced, calibrate the steering angle sensor zero point (See page DI-171).



Y **N·m (kgf·cm, ft·lbf) : Specified torque**

AVENSIS/CORONA SUP (RM781E)

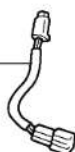
F13066

w/ Engine Immobiliser System:Transponder Key
Computer Assembly**w/ Shift Lock System:**

Key Inter Lock Solenoid

Transponder Key
Computer Case

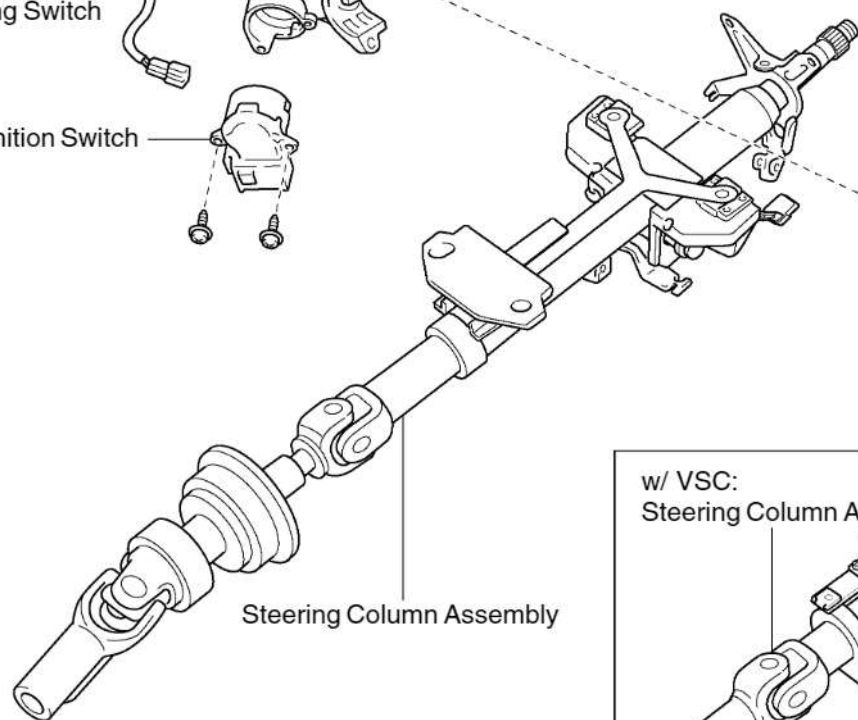
Key Cylinder

Key Unlock
Warning Switch

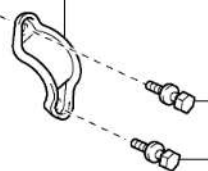
Ignition Switch



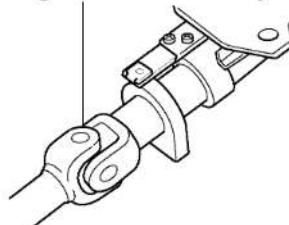
Column Upper Bracket



Column Upper Clamp



◆ Tapered-head Bolt

w/ VSC:
Steering Column Assembly

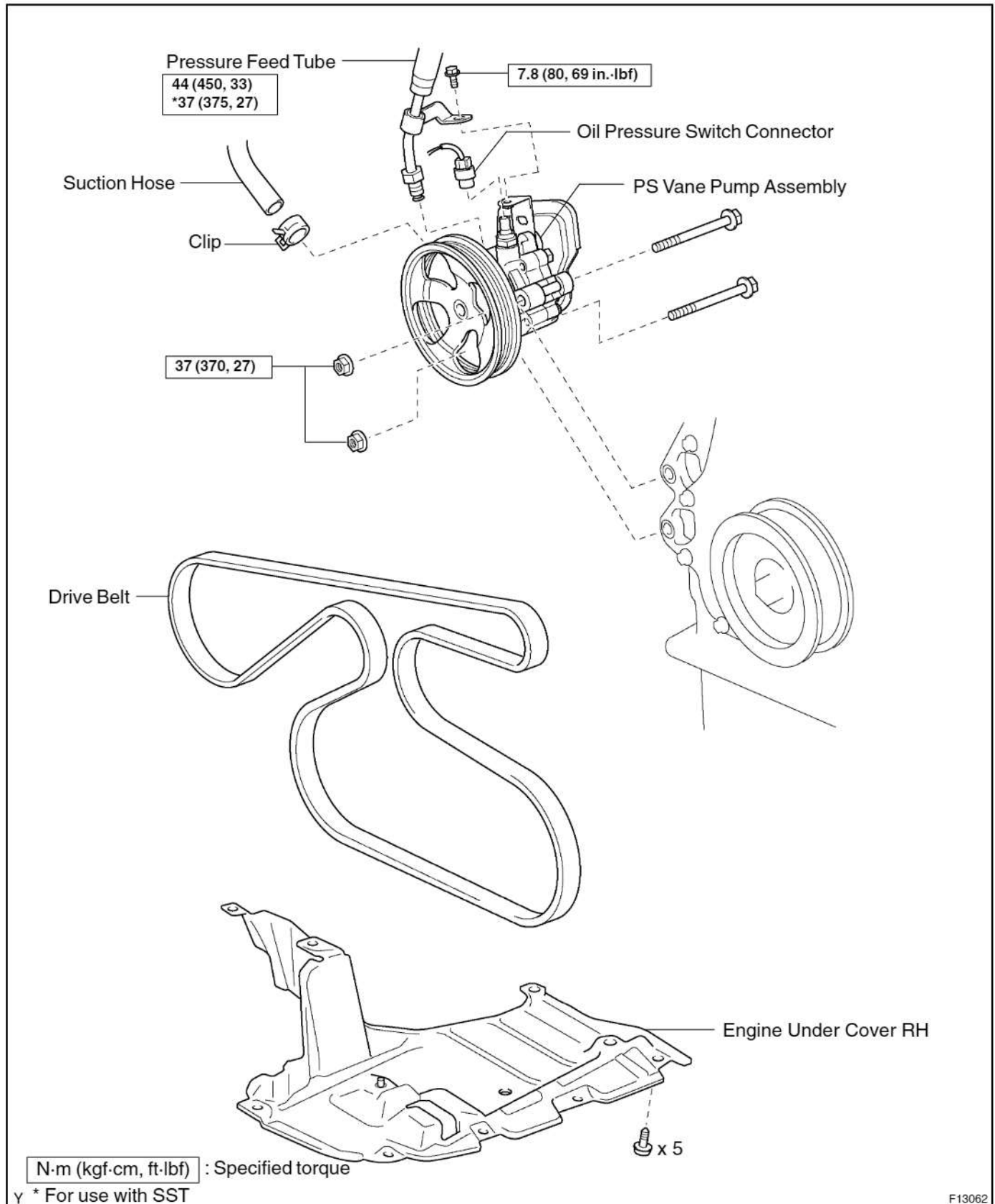
Y

◆ Non-reusable part

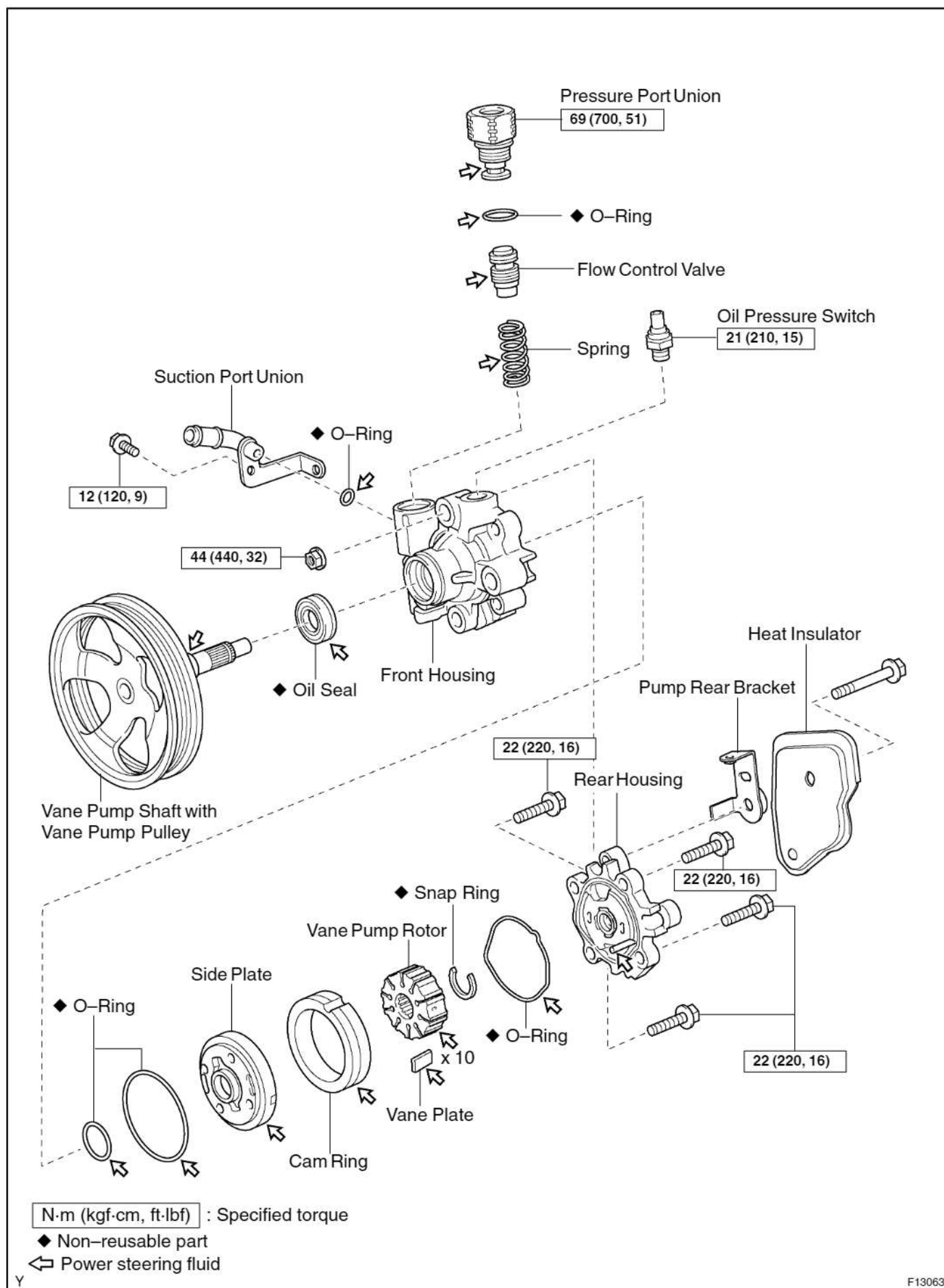
F13067

POWER STEERING VANE PUMP (1ZZ-FE, 3ZZ-FE) COMPONENTS

SR0Y0-05



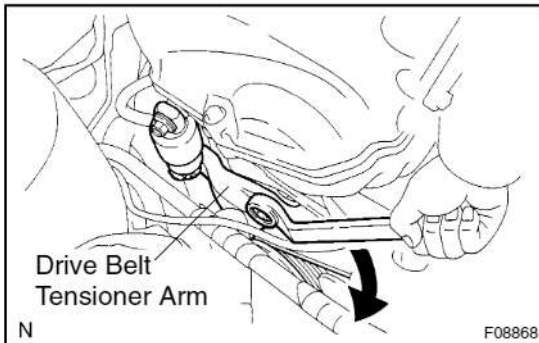
F13062



REMOVAL

1. REMOVE ENGINE UNDER COVER RH

Remove the 5 bolts and engine under cover RH.



2. REMOVE DRIVE BELT

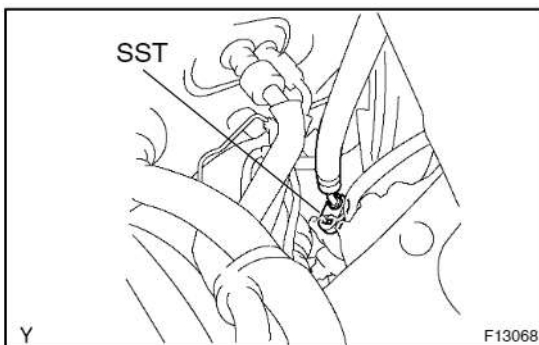
Loosen the drive belt tension by turning the drive belt tensioner arm clockwise, and remove the drive belt.

3. DISCONNECT SUCTION HOSE

Remove the clip and disconnect the suction hose.

NOTICE:

Take care not to spill fluid on the drive belt.



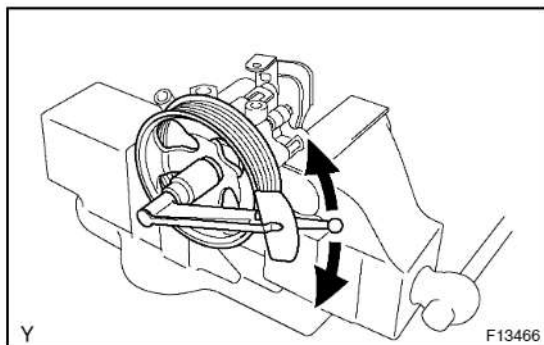
4. DISCONNECT PRESSURE FEED TUBE

- Using SST, disconnect the pressure feed tube.
SST 09023-12700
- Remove the bolt and disconnect the pressure feed tube clamp.

5. DISCONNECT OIL PRESSURE SWITCH CONNECTOR

6. REMOVE PS VANE PUMP ASSEMBLY

Remove the 2 pump assembly set bolts, nuts and PS vane pump assembly.



DISASSEMBLY

NOTICE:

When using a vise, do not overtighten it.

1. MEASURE PS VANE PUMP ROTATING TORQUE

- (a) Check that the pump rotates smoothly without abnormal noise.
- (b) Using a torque wrench, check the pump rotating torque.

Rotating torque:

0.27 N·m (2.8 kgf·cm, 2.4 in.-lbf) or less

2. REMOVE SUCTION PORT UNION

- (a) Remove the bolt and suction port union.
- (b) Remove the O-ring from the suction port union.

3. REMOVE PRESSURE PORT UNION, FLOW CONTROL VALVE AND SPRING

- (a) Remove the pressure port union, flow control valve and spring.
- (b) Remove the O-ring from the pressure port union.

4. REMOVE OIL PRESSURE SWITCH

NOTICE:

Be careful not to drop the oil pressure switch.

If the oil pressure switch is dropped or strongly damaged, replace it with a new one.

5. REMOVE REAR HOUSING

- (a) Remove the bolt, nut, heat insulator and pump rear bracket.
- (b) Remove the 4 bolts and rear housing.
- (c) Remove the O-ring from the rear housing.

6. REMOVE CAM RING, 10 VANE PLATES, VANE PUMP ROTOR AND SIDE PLATE

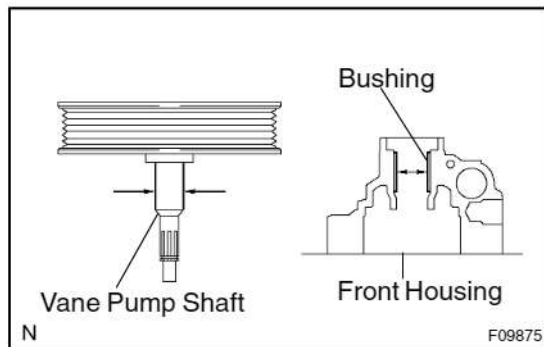
- (a) Remove the cam ring and 10 vane plates.

NOTICE:

Take care not to drop the vane plate.

- (b) Using a screwdriver, remove the snap ring, vane pump rotor and side plate.
- (c) Remove the 2 O-rings from the side plate.

7. REMOVE VANE PUMP SHAFT WITH VANE PUMP PULLEY



INSPECTION

1. MEASURE OIL CLEARANCE BETWEEN VANE PUMP SHAFT AND BUSHING

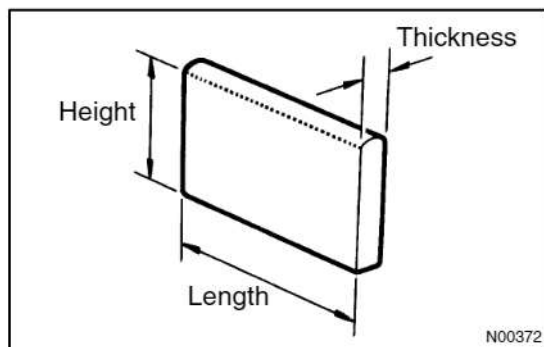
Using a micrometer and a caliper gauge, measure the oil clearance.

Standard clearance:

0.021 – 0.043 mm (0.0008 – 0.0017 in.)

Maximum clearance: 0.07 mm (0.0028 in.)

If it is more than the maximum, replace the front housing and vane pump shaft.



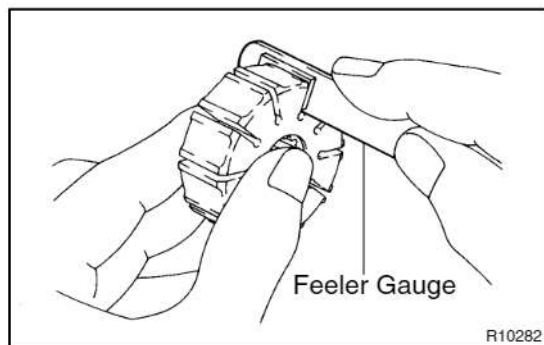
2. INSPECT VANE PUMP ROTOR AND VANE PLATES

- (a) Using a micrometer, measure the height, thickness and length of the 10 vane plates.

Minimum height: 7.6 mm (0.299 in.)

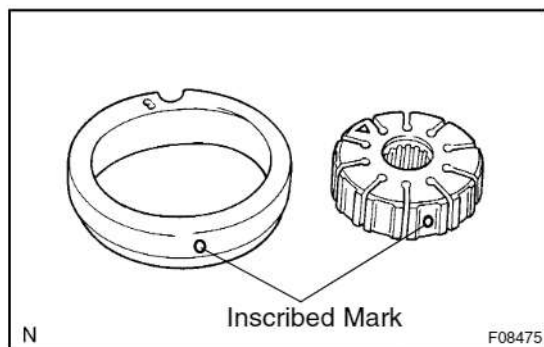
Minimum thickness: 1.405 mm (0.0553 in.)

Minimum length: 11.993 mm (0.4722 in.)



- (b) Using a feeler gauge, measure the clearance between the vane pump rotor groove and vane plate.

Maximum clearance: 0.03 mm (0.0012 in.)



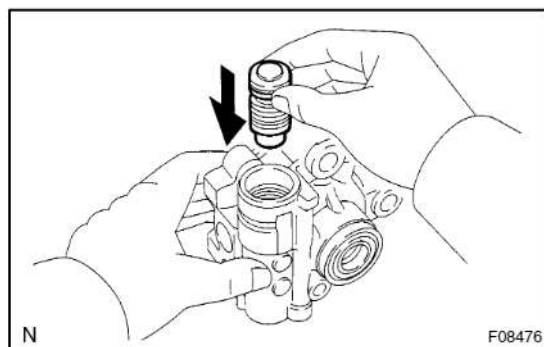
If it is more than the maximum, replace the vane plate and/or vane pump rotor with the one having the same mark stamped on the cam ring.

Inscribed mark: 0, 1, 2, 3, or 4

HINT:

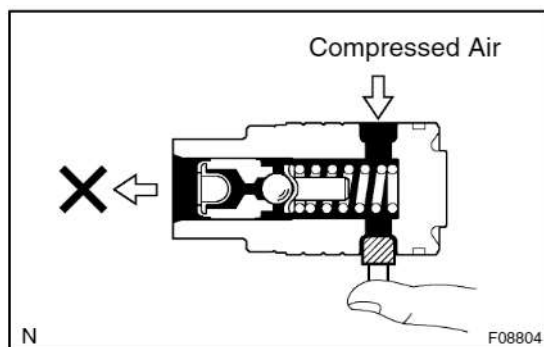
There are 5 vane plate lengths corresponding to the following vane pump rotor and cam ring marks:

Vane pump rotor and cam ring mark	Vane plate part number	Vane plate length mm (in.)
0	44345-02110	12.001 – 12.003 (0.47248 – 0.47256)
1	44345-02120	11.999 – 12.001 (0.47240 – 0.47248)
2	44345-02130	11.997 – 11.999 (0.47232 – 0.47240)
3	44345-02140	11.995 – 11.997 (0.47224 – 0.47232)
4	44345-02150	11.993 – 11.995 (0.47216 – 0.47224)

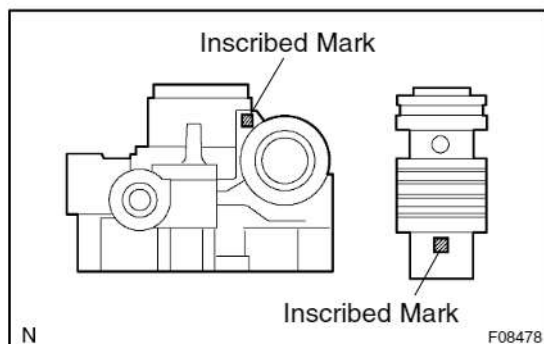


3. INSPECT FLOW CONTROL VALVE

- (a) Coat the flow control valve with power steering fluid and check that it falls smoothly into the valve hole of the front housing by its own weight.

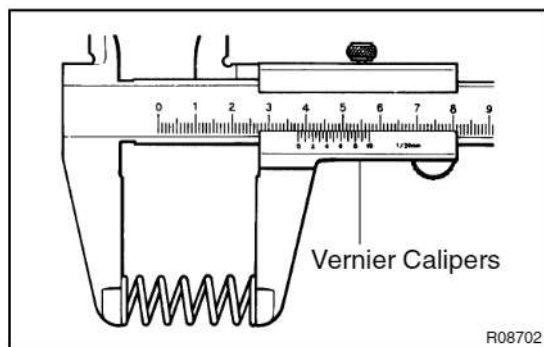


- (b) Check the flow control valve for leakage. Close one of the holes and apply compressed air of 392 – 490 kPa (4 – 5 kgf/cm², 57 – 71 psi) into the opposite side hole, and confirm that air does not come out from the end hole.



If necessary, replace the flow control valve with the one having the same letter as inscribed on the front housing.

Inscribed mark: A, B, C, D, E or F

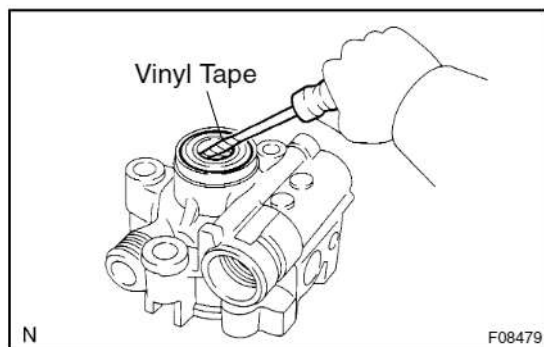


4. INSPECT SPRING

Using vernier calipers, measure the free length of the spring.

Minimum free length: 35.8 mm (1.409 in.)

If it is not within the specification, replace the spring.



REPLACEMENT

NOTICE:

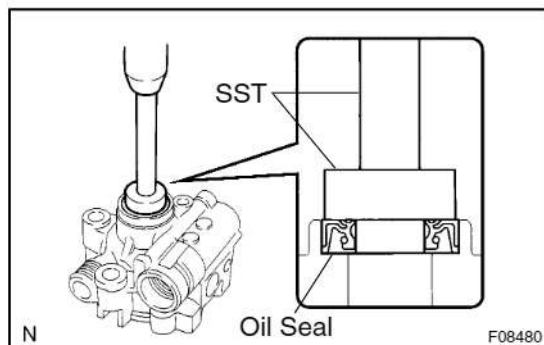
When using a vise, do not overtighten it.

IF NECESSARY, REPLACE OIL SEAL

- (a) Using a screwdriver with vinyl tape wound around its tip, remove the oil seal.

NOTICE:

Be careful not to damage the bushing of the front housing.



- (b) Coat a new oil seal lip with power steering fluid.

- (c) Using SST, press in the oil seal.

SST 09950-60010 (09951-00280),
09950-70010 (09951-07100)

NOTICE:

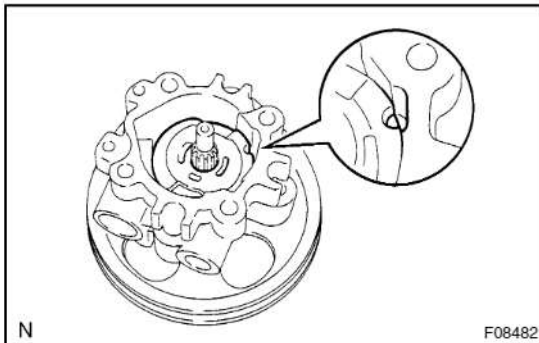
Make sure that the oil seal is installed facing in the correct direction.

REASSEMBLY

NOTICE:

When using a vise, do not overtighten it.

1. **COAT PARTS INDICATED BY ARROWS WITH POWER STEERING FLUID** (See page SR-8)
2. **INSTALL VANE PUMP SHAFT WITH VANE PUMP PULLEY**

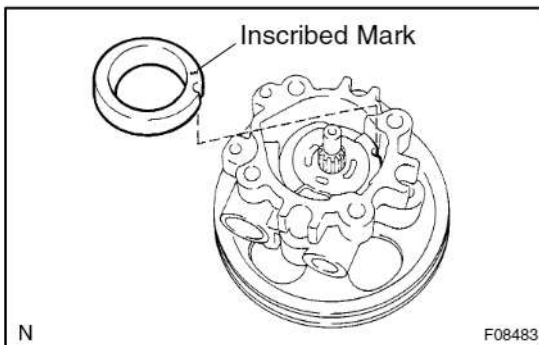


3. INSTALL SIDE PLATE

- (a) Coat 2 new O-rings with power steering fluid, and install them to the side plate.
- (b) Align the dent of the side plate with the dent of the front housing, and install the side plate.

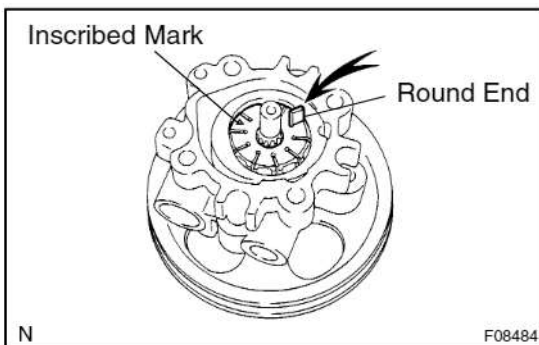
NOTICE:

Make sure that the side plate is installed facing in the correct direction.



4. INSTALL CAM RING

Align the dent of the cam ring with the dent of the side plate, and install the cam ring with the inscribed mark facing outward.



5. INSTALL VANE PUMP ROTOR

- (a) Install the vane pump rotor with the inscribed mark facing outward.
- (b) Install a new snap ring to the vane pump shaft.

6. INSTALL 10 VANE PLATES

Install the 10 vane plates with the round end facing outward.

7. INSTALL REAR HOUSING

- (a) Coat a new O-ring with power steering fluid, and install it to the rear housing.
- (b) Align the straight pin of the rear housing with the dents of the cam ring, side plate and front housing, and install the rear housing with the 4 bolts.

Torque: 22 N·m (220 kgf·cm, 16 ft·lbf)

- (c) Install the rear bracket and heat insulator with the bolt and nut.

Torque: 44 N·m (440 kgf·cm, 32 ft·lbf)

8. INSTALL OIL PRESSURE SWITCH**Torque: 21 N·m (210 kgf·cm, 15 ft·lbf)****9. INSTALL SPRING, FLOW CONTROL VALVE AND PRESSURE PORT UNION**

- (a) Install the spring.
- (b) Install the flow control valve facing in the correct direction (See page SR-8).
- (c) Coat a new O-ring with power steering fluid, and install it to the pressure port union.
- (d) Install the pressure port union.

Torque: 69 N·m (700 kgf·cm, 51 ft·lbf)**10. INSTALL SUCTION PORT UNION**

- (a) Coat a new O-ring with power steering fluid, and install it to the suction port union.
- (b) Install the suction port union with the bolt.

Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)**11. MEASURE PS VANE PUMP ROTATING TORQUE (See page SR-11)**

INSTALLATION

1. INSTALL PS VANE PUMP ASSEMBLY

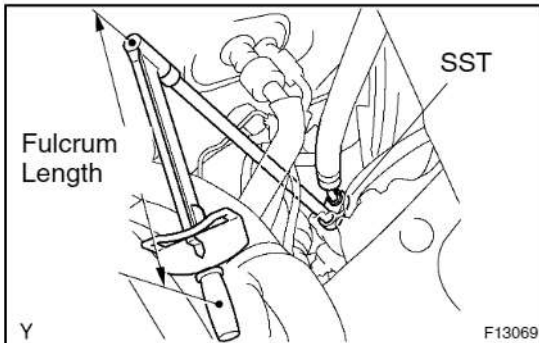
Install the PS vane pump assembly with the 2 pump assembly set bolts and nuts.

Torque: 37 N·m (370 kgf·cm, 27 ft·lbf)

2. CONNECT OIL PRESSURE SWITCH CONNECTOR

NOTICE:

Be careful to prevent oil from being attached to the connector.



3. CONNECT PRESSURE FEED TUBE

(a) Connect the pressure feed tube clamp with the bolt.

Torque: 7.8 N·m (80 kgf·cm, 69 in·lbf)

(b) Using SST, connect the pressure feed tube.

SST 09023-12700

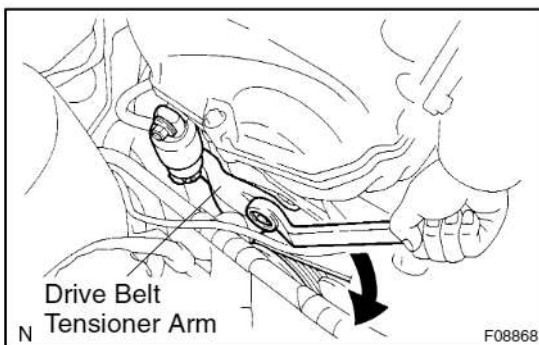
Torque: 37 N·m (375 kgf·cm, 27 ft·lbf)

HINT:

- Use a torque wrench with a fulcrum length of 345 mm (11.81 in).
- This torque value is effective in case that SST is parallel to a torque wrench.

4. CONNECT SUCTION HOSE

Connect the suction hose with the clip.



5. INSTALL DRIVE BELT

Loosen the drive belt tension by turning the drive belt tensioner arm clockwise, and install the drive belt.

6. INSTALL ENGINE UNDER COVER RH

Install the engine under cover RH with 5 bolts.

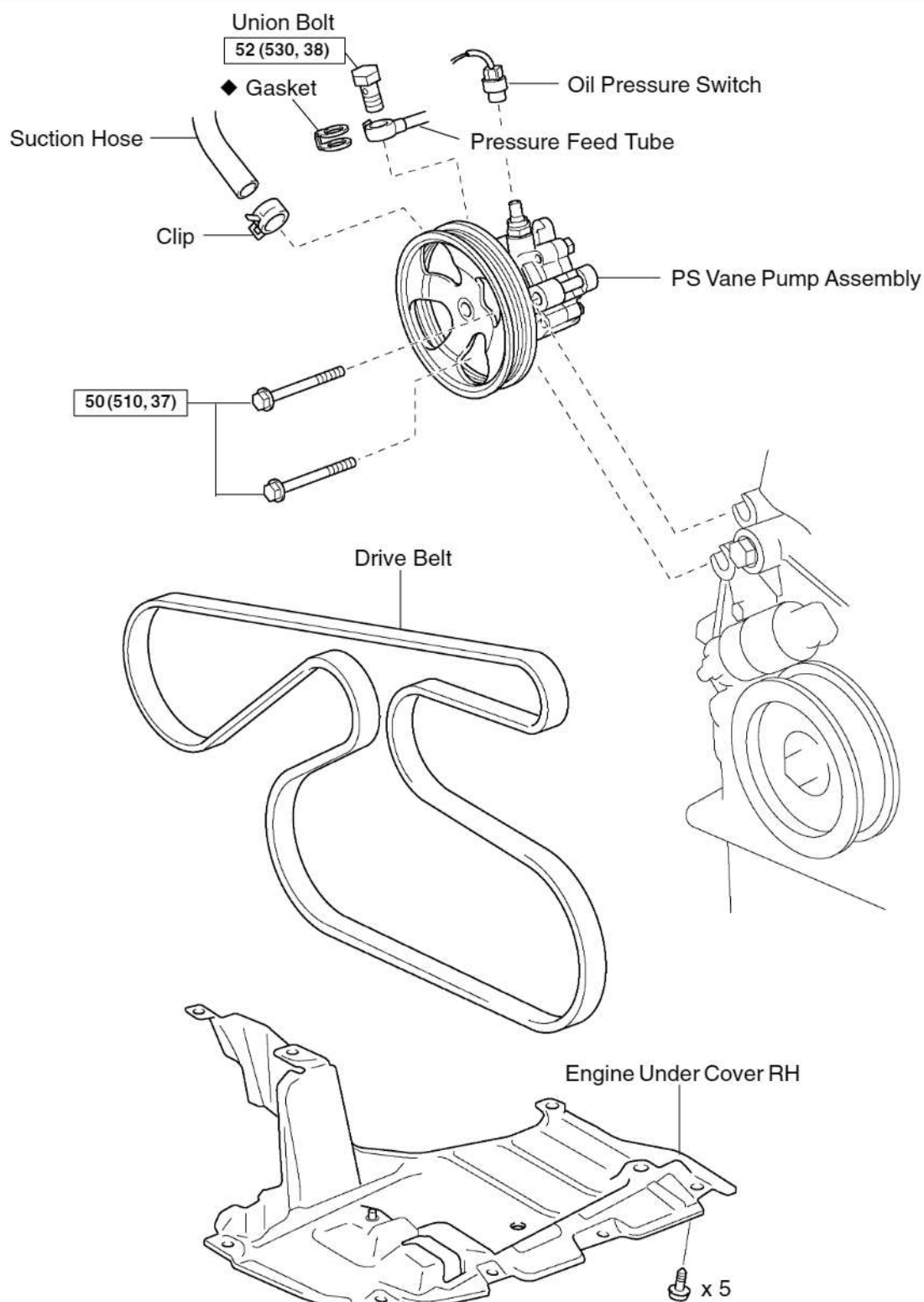
7. BLEED POWER STEERING SYSTEM

(See page SR-2)

POWER STEERING VANE PUMP (1AZ-FSE)

COMPONENTS

SR19E-02

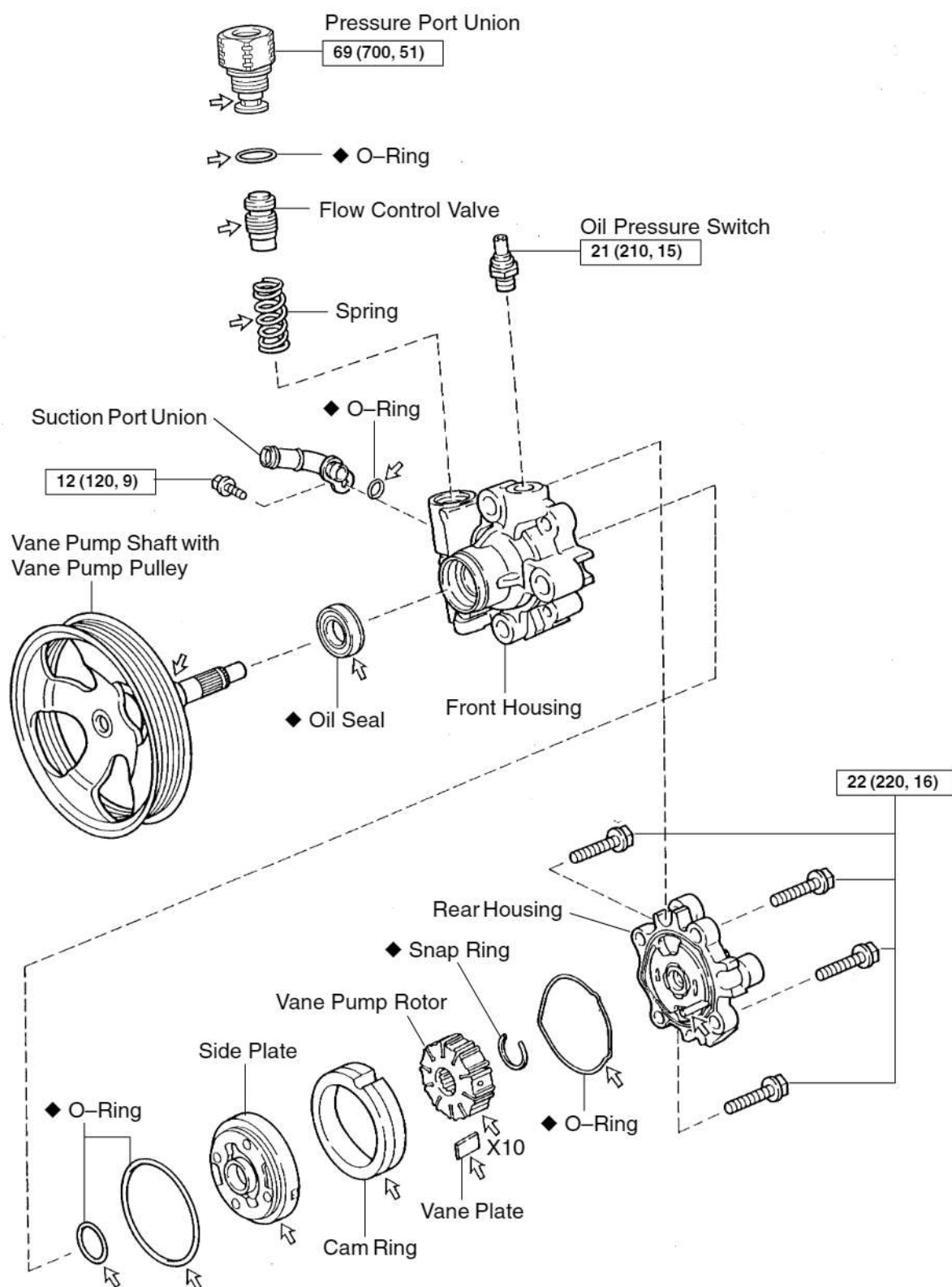


N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

γ * For use with SST

F13064



N·m (kgf·cm, ft·lbf) : Specified torque

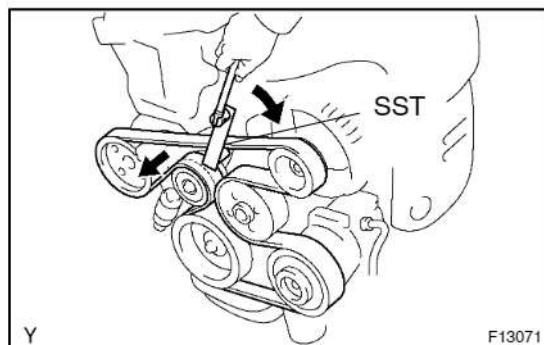
◆ Non-reusable part

⇨ Power steering fluid

REMOVAL

1. REMOVE ENGINE UNDER COVER RH

Remove the 5 bolts and engine under cover RH.



2. REMOVE DRIVE BELT

Using SST, loosen the drive belt tension by turning the drive belt tensioner arm clockwise, and remove the drive belt.

SST 09249-63010

3. DISCONNECT SUCTION HOSE

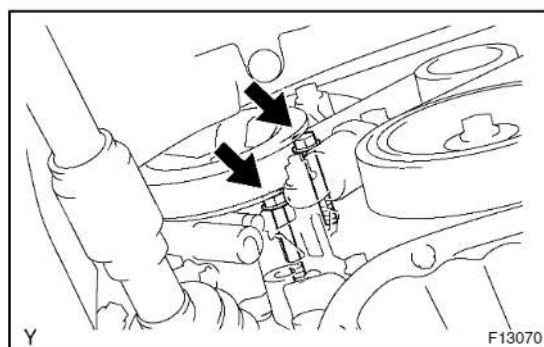
Remove the clip and disconnect the suction hose.

NOTICE:

Take care not to spill fluid on the drive belt.

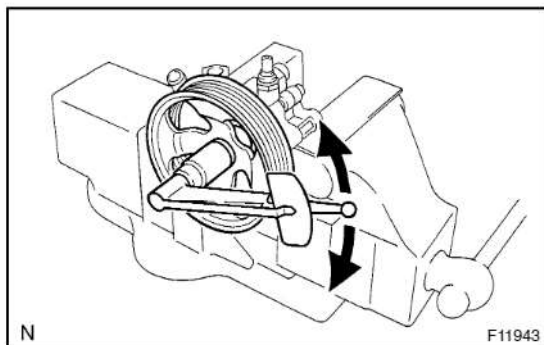
4. REMOVE PRESSURE FEED TUBE

Remove the union bolt, gasket and pressure feed tube.



5. REMOVE PS VANE PUMP ASSEMBLY

Loosen the 2 bolts and PS vane pump assembly.



DISASSEMBLY

NOTICE:

When using a vise, do not overtighten it.

1. MEASURE PS VANE PUMP ROTATING TORQUE

- Check that the pump rotates smoothly without abnormal noise.
- Using a torque wrench, check the pump rotating torque.

Rotating torque:

0.27 N·m (2.8 kgf·cm, 2.4 in.-lbf) or less

2. REMOVE SUCTION PORT UNION

- Remove the bolt and suction port union.
- Remove the O-ring from the suction port union.

3. REMOVE PRESSURE PORT UNION, FLOW CONTROL VALVE AND SPRING

- Remove the pressure port union, flow control valve and spring.
- Remove the O-ring from the pressure port union.

4. REMOVE OIL PRESSURE SWITCH

NOTICE:

Be careful not to drop the oil pressure switch.

If the oil pressure switch is dropped or strongly damaged, replace it with a new one.

5. REMOVE REAR HOUSING

- Remove the 4 bolts and rear housing.
- Remove the O-ring from the rear housing.

6. REMOVE CAM RING, 10 VANE PLATES, VANE PUMP ROTOR AND SIDE PLATE

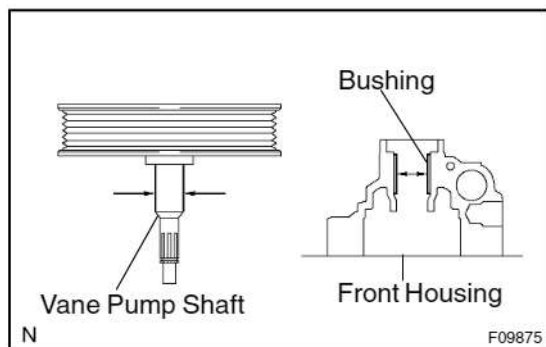
- Remove the cam ring and 10 vane plates.

NOTICE:

Take care not to drop the vane plate.

- Using a screwdriver, remove the snap ring, vane pump rotor and side plate.
- Remove the 2 O-rings from the side plate.

7. REMOVE VANE PUMP SHAFT WITH VANE PUMP PULLEY



INSPECTION

1. MEASURE OIL CLEARANCE BETWEEN VANE PUMP SHAFT AND BUSHING

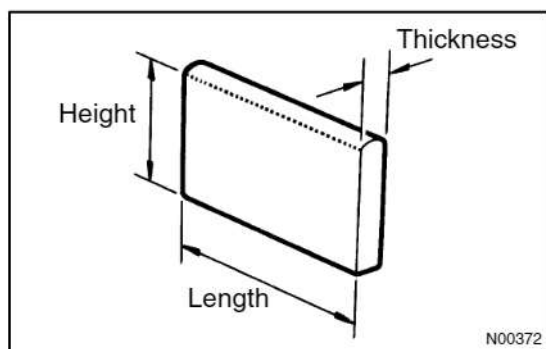
Using a micrometer and a caliper gauge, measure the oil clearance.

Standard clearance:

0.021 – 0.043 mm (0.0008 – 0.0017 in.)

Maximum clearance: 0.07 mm (0.0028 in.)

If it is more than the maximum, replace the front housing and vane pump shaft.



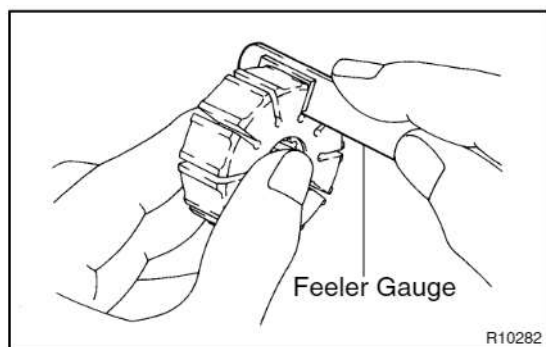
2. INSPECT VANE PUMP ROTOR AND VANE PLATES

- (a) Using a micrometer, measure the height, thickness and length of the 10 vane plates.

Minimum height: 7.6 mm (0.299 in.)

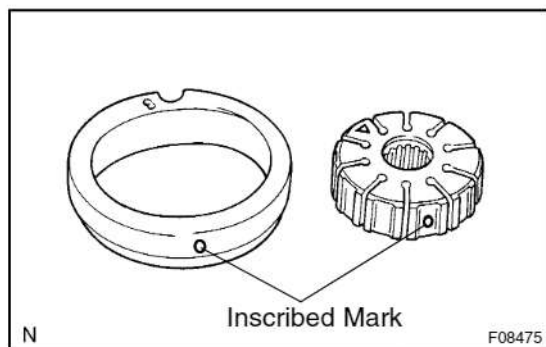
Minimum thickness: 1.405 mm (0.0553 in.)

Minimum length: 11.993 mm (0.4722 in.)



- (b) Using a feeler gauge, measure the clearance between the vane pump rotor groove and vane plate.

Maximum clearance: 0.03 mm (0.0012 in.)



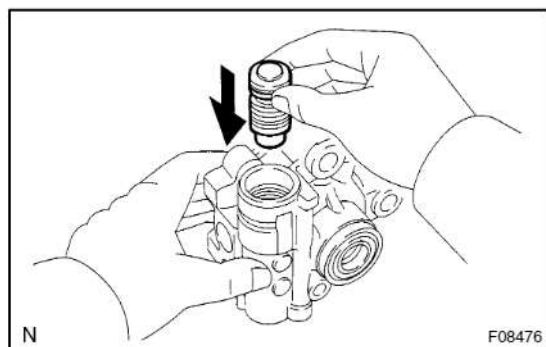
If it is more than the maximum, replace the vane plate and/or vane pump rotor with the one having the same mark stamped on the cam ring.

Inscribed mark: 0, 1, 2, 3, or 4

HINT:

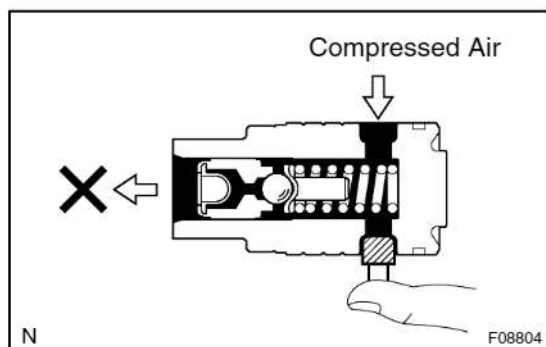
There are 5 vane plate lengths corresponding to the following vane pump rotor and cam ring marks:

Vane pump rotor and cam ring mark	Vane plate part number	Vane plate length mm (in.)
0	44345-02110	12.001 – 12.003 (0.47248 – 0.47256)
1	44345-02120	11.999 – 12.001 (0.47240 – 0.47248)
2	44345-02130	11.997 – 11.999 (0.47232 – 0.47240)
3	44345-02140	11.995 – 11.997 (0.47224 – 0.47232)
4	44345-02150	11.993 – 11.995 (0.47216 – 0.47224)

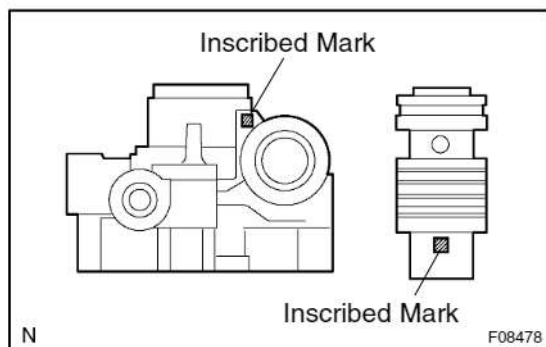


3. INSPECT FLOW CONTROL VALVE

- (a) Coat the flow control valve with power steering fluid and check that it falls smoothly into the valve hole of the front housing by its own weight.

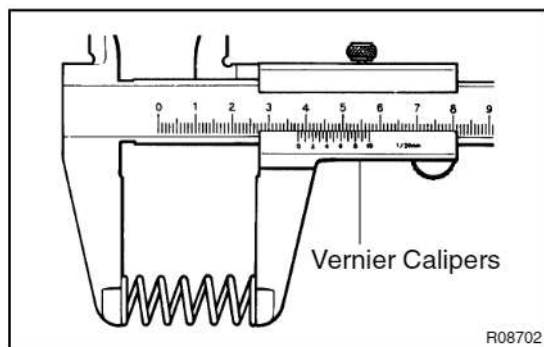


- (b) Check the flow control valve for leakage. Close one of the holes and apply compressed air of 392 – 490 kPa (4 – 5 kgf/cm², 57 – 71 psi) into the opposite side hole, and confirm that air does not come out from the end hole.



If necessary, replace the flow control valve with the one having the same letter as inscribed on the front housing.

Inscribed mark: A, B, C, D, E or F

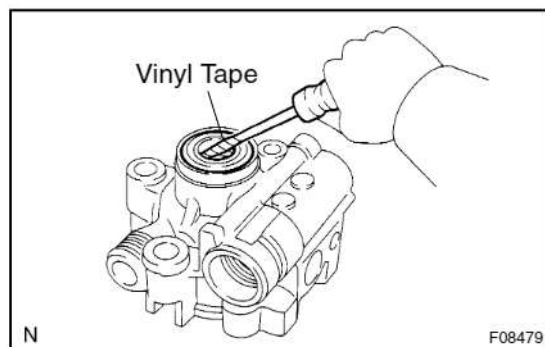


4. INSPECT SPRING

Using vernier calipers, measure the free length of the spring.

Minimum free length: 35.8 mm (1.409 in.)

If it is not within the specification, replace the spring.



REPLACEMENT

NOTICE:

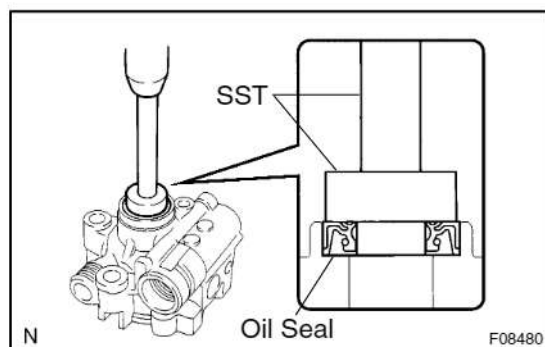
When using a vise, do not overtighten it.

IF NECESSARY, REPLACE OIL SEAL

- (a) Using a screwdriver with vinyl tape wound around its tip, remove the oil seal.

NOTICE:

Be careful not to damage the bushing of the front housing.



- (b) Coat a new oil seal lip with power steering fluid.

- (c) Using SST, press in the oil seal.

SST 09950-60010 (09951-00280),
09950-70010 (09951-07100)

NOTICE:

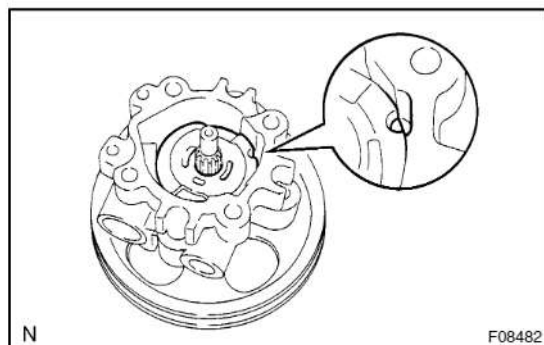
Make sure that the oil seal is installed facing in the correct direction.

REASSEMBLY

NOTICE:

When using a vise, do not overtighten it.

1. **COAT PARTS INDICATED BY ARROWS WITH POWER STEERING FLUID** (See page SR-19)
2. **INSTALL VANE PUMP SHAFT WITH VANE PUMP PULLEY**

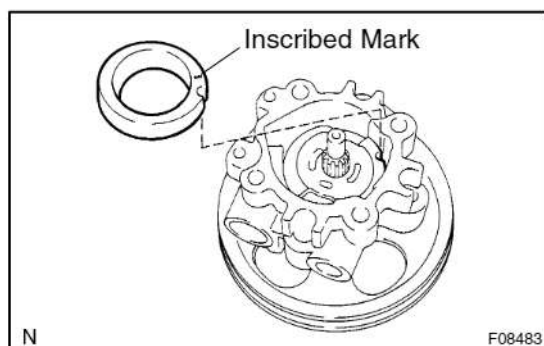


3. INSTALL SIDE PLATE

- (a) Coat 2 new O-rings with power steering fluid, and install them to the side plate.
- (b) Align the dent of the side plate with the dent of the front housing, and install the side plate.

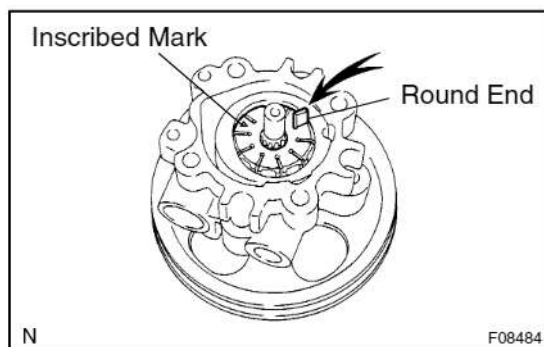
NOTICE:

Make sure that the side plate is installed facing in the correct direction.



4. INSTALL CAM RING

Align the dent of the cam ring with the dent of the side plate, and install the cam ring with the inscribed mark facing outward.



5. INSTALL VANE PUMP ROTOR

- (a) Install the vane pump rotor with the inscribed mark facing outward.
- (b) Install a new snap ring to the vane pump shaft.

6. INSTALL 10 VANE PLATES

Install the 10 vane plates with the round end facing outward.

7. INSTALL REAR HOUSING

- (a) Coat a new O-ring with power steering fluid, and install it to the rear housing.
- (b) Align the straight pin of the rear housing with the dents of the cam ring, side plate and front housing, and install the rear housing with the 4 bolts.

Torque: 22 N·m (220 kgf·cm, 16 ft·lbf)

8. INSTALL OIL PRESSURE SWITCH

Torque: 21 N·m (210 kgf·cm, 15 ft·lbf)

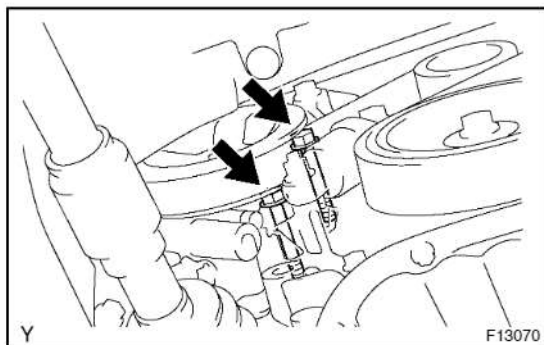
9. INSTALL SPRING, FLOW CONTROL VALVE AND PRESSURE PORT UNION

- (a) Install the spring.
- (b) Install the flow control valve facing in the correct direction (See page SR-19).
- (c) Coat a new O-ring with power steering fluid, and install it to the pressure port union.
- (d) Install the pressure port union.

Torque: 69 N·m (700 kgf·cm, 51 ft·lbf)**10. INSTALL SUCTION PORT UNION**

- (a) Coat a new O-ring with power steering fluid, and install it to the suction port union.
- (b) Install the suction port union with the bolt.

Torque: 12 N·m (120 kgf·cm, 9 ft·lbf)**11. MEASURE PS VANE PUMP ROTATING TORQUE
(See page SR-22)**



INSTALLATION

1. INSTALL PS VANE PUMP ASSEMBLY

- (a) Insert the 2 bolts to the PS vane pump assembly.
- (b) Install the PS vane pump assembly.
- (c) Tighten the 2 bolts.

Torque: 50 N·m (510 kgf·cm, 37 ft·lbf)

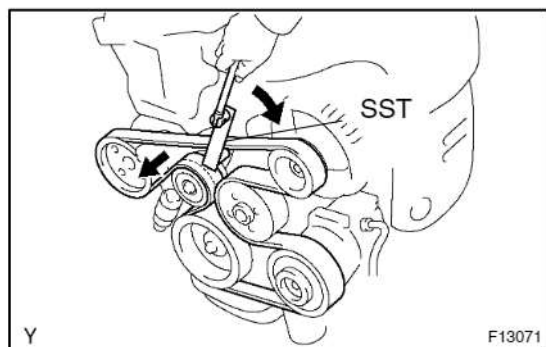
2. INSTALL PRESSURE FEED TUBE

Install the pressure feed tube and gasket to the PS vane pump assembly with union bolt.

Torque: 52 N·m (530 kgf·cm, 38 ft·lbf)

3. CONNECT SUCTION HOSE

Connect the suction hose with the clip.



4. INSTALL DRIVE BELT

Using SST, loosen the drive belt tension by turning the drive belt tensioner arm clockwise, and install the drive belt.

SST 09249-63010

5. INSTALL ENGINE UNDER COVER RH

Install the engine under cover RH with 5 bolts.

6. BLEED POWER STEERING SYSTEM

(See page SR-2)

