

INSPECTION

1. MEASURE OIL CLEARANCE BETWEEN VANE PUMP SHAFT AND BUSHING

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

Standard clearance:

Front housing and shaft

0.021 – 0.043 mm (0.00079 – 0.00169 in.)

Rear housing and shaft

0.020 – 0.077 mm (0.00079 – 0.00303 in.)

Maximum clearance:

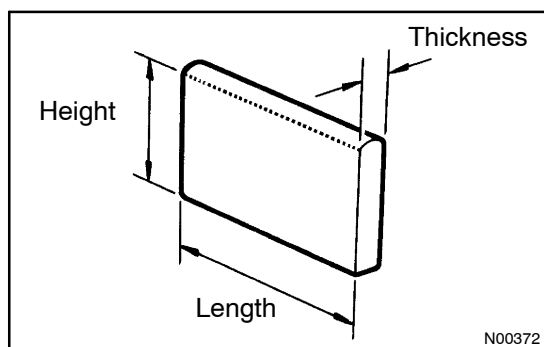
Front housing and shaft

0.070 mm (0.00276 in.)

Rear housing and shaft

0.080 mm (0.003 15 in.)

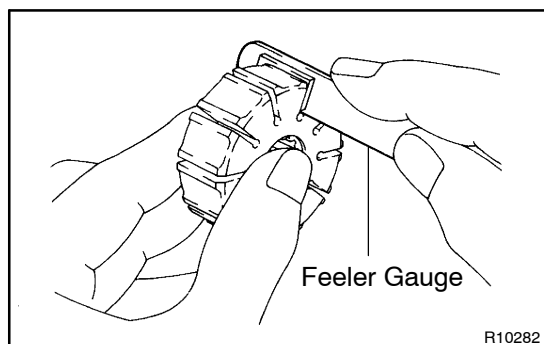
If it is more than the maximum, replace a new vane pump assembly.



2. INSPECT VANE PUMP ROTOR AND 10 VANE PLATES

- (a) Using a micrometer, measure the height, thickness and length of the plate.

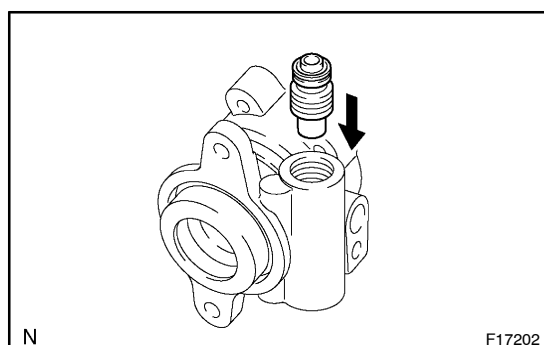
Minimum thickness: 1.405 mm (0.0553 1 in.)



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

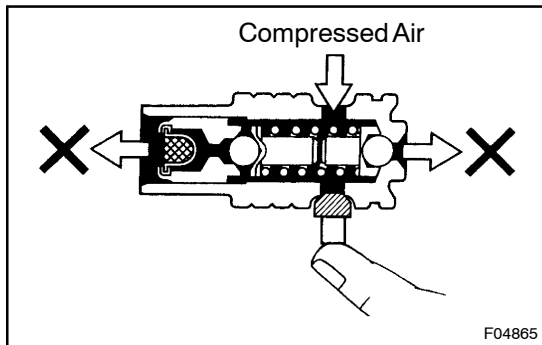
Maximum clearance: 0.033 mm (0.00 130 in.)

If it is more than the maximum, replace a new vane pump assembly.

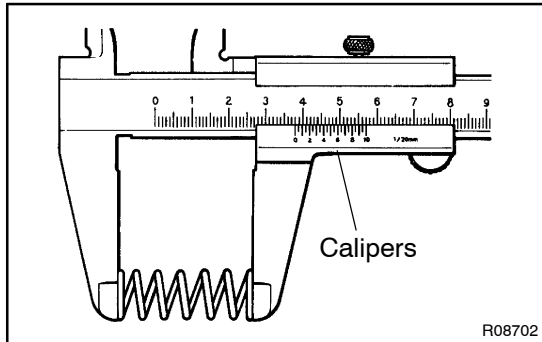


3. INSPECT FLOW CONTROL VALVE

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



- (b) Check the flow control valve for leakage. Close one of the holes and apply compressed air 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 holes. If necessary, replace a new vane pump assembly.

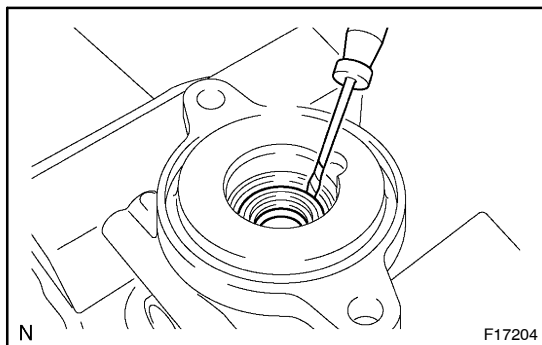


4. INSPECT SPRING

Using calipers, measure the free length of the spring.

Minimum free length: 3 1.3 mm (1.2323 in.)

If it is not within the specification, replace a new vane pump assembly.

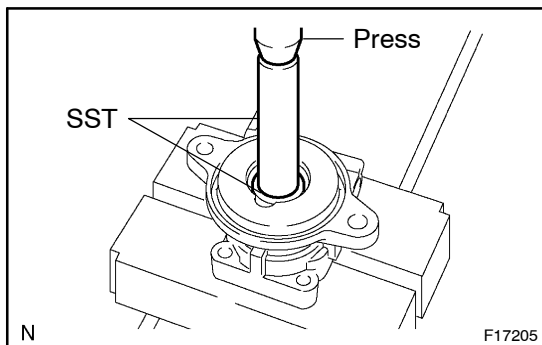


5. IF NECESSARY, REPLACE OIL SEAL

- (a) Using a screwdriver with vinyl tape wound around its tip and hammer, tap out the oil seal from the front housing.

NOTICE:

Be careful not to damage the housing.



- (b) Coat a new oil seal lip with power steering fluid.
(c) Using SST, press in the oil seal as shown in the illustration.

SST 09950 -60010 (09951 -00320),
09950-70010 (09951 -07100)

NOTICE:

- **Make sure to install the oil seal facing the correct direction.**
- **Be careful not to damage the front housing.**