

INSPECTION

1. CHECK OIL CLEARANCE BETWEEN VANE PUMP SHAFT AND BUSHING OF FRONT HOUSING AND REAR HOUSING

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

Standard clearance:

Front housing and shaft

0.020 – 0.077 mm (0.00079 – 0.00303 in.)

Rear housing and shaft

0.020 – 0.077 mm (0.00079 – 0.00303 in.)

Maximum clearance:

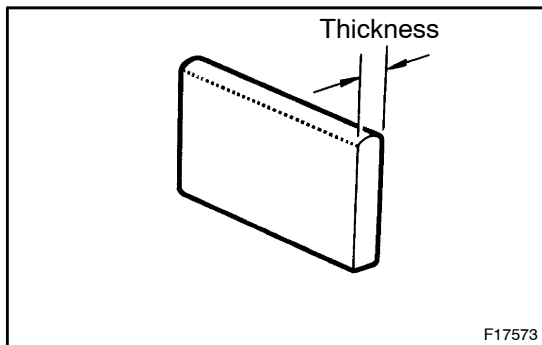
Front housing and shaft

0.070 mm (0.00276 in.)

Rear housing and shaft

0.080 mm (0.00315 in.)

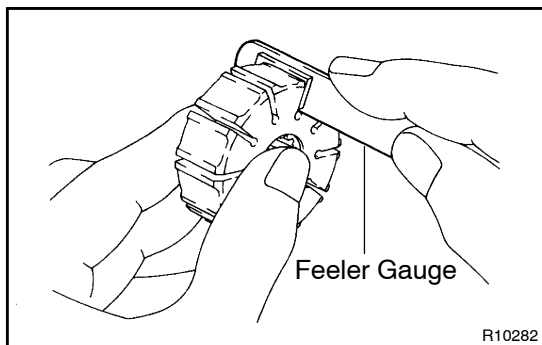
If it is more than the maximum, replace a new vane pump assembly.



2. INSPECT VANE PUMP ROTOR AND VANE PLATES

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

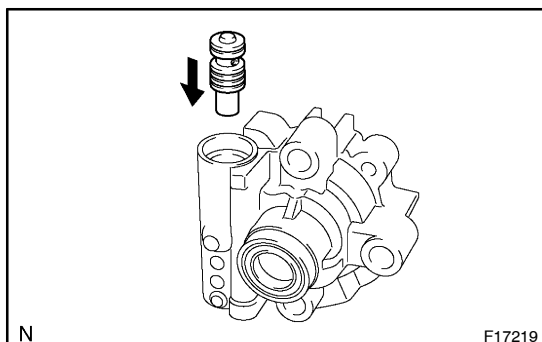
Minimum thickness: 1.405 mm (0.05531 in.)



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

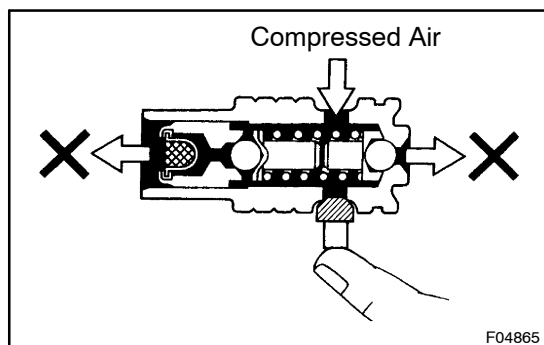
Maximum clearance: 0.03 mm (0.0012 in.)

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



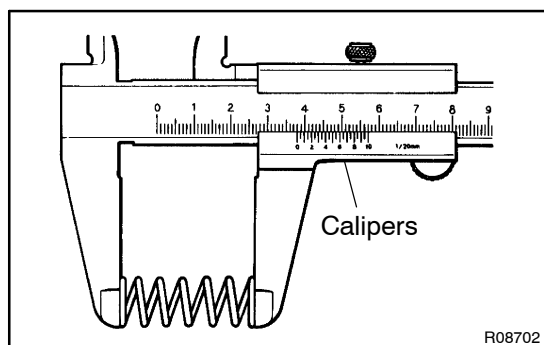
3. INSPECT FLOW CONTROL VALVE

- (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: 31.3 mm (1.2323 in.)

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