

## 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:**

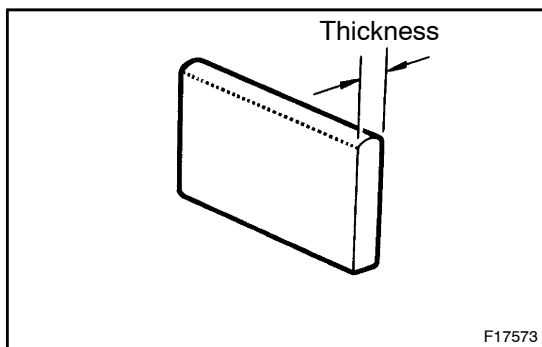
**Front housing and shaft**

**0.070 mm (0.00276 in.)**

**Rear housing and shaft**

**0.080 mm (0.00315 in.)**

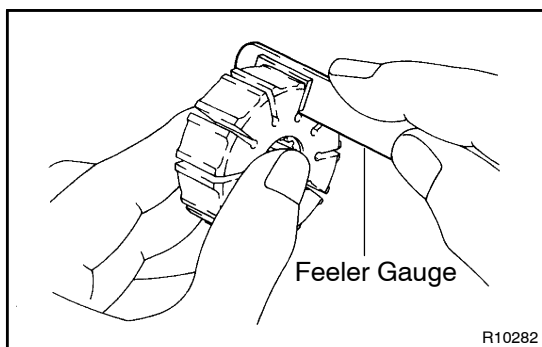
If it is more than the maximum, replace a new vane pump assembly.



### 2. INSPECT VANE PUMP ROTOR AND VANE PLATES

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

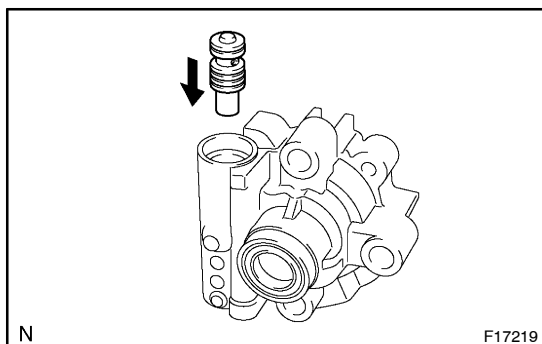
**Minimum thickness: 1.405 mm (0.05531 in.)**



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

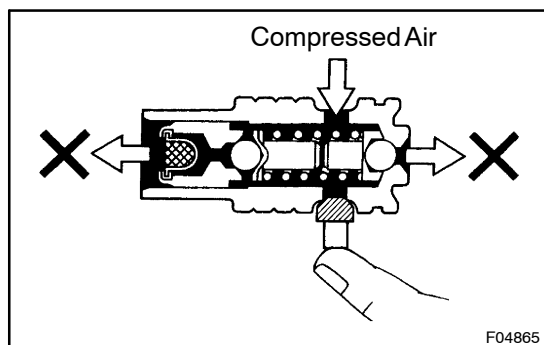
**Maximum clearance: 0.03 mm (0.0012 in.)**

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



### 3. INSPECT FLOW CONTROL VALVE

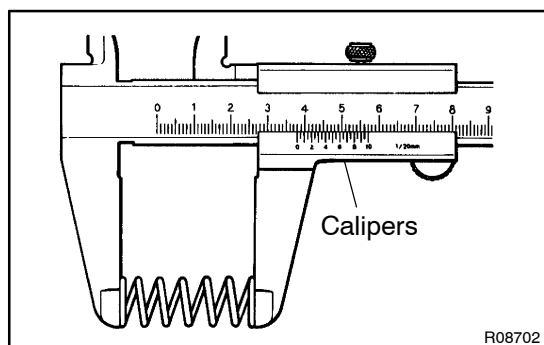
- (a) Coat the valve with power steering fluid and check that it falls smoothly into the valve hole by its own weight.



(b) Check the flow control valve for leakage.

Close one of the holes and apply compressed air 392–490 kPa (4 –5 kgf/cm<sup>2</sup>, 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.