

INSPECTION

NOTICE:

When using a vise, do not overtighten it.

1. MEASURE OIL CLEARANCE BETWEEN VANE PUMP SHAFT AND BUSHING

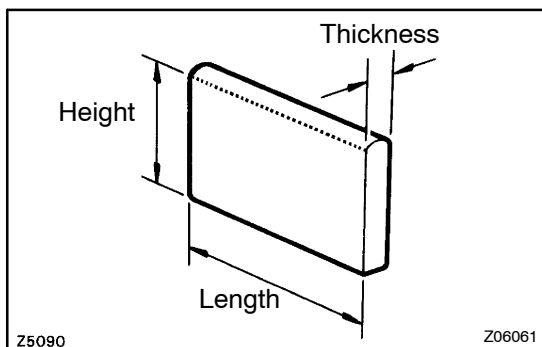
Using a micrometer and caliper gauge, measure the oil clearance.

Standard clearance:

0.03 – 0.045 mm (0.0012 – 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.



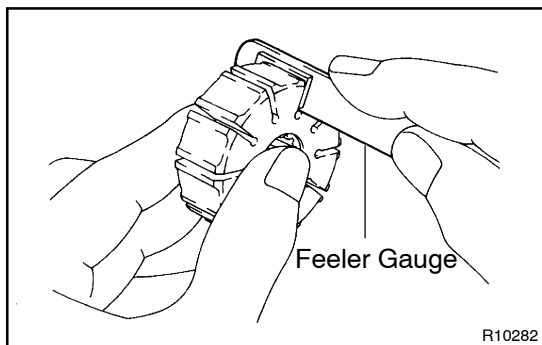
2. INSPECT VANE PUMP ROTOR AND VANE PLATES

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

Minimum height: 8.1 mm (0.319 in.)

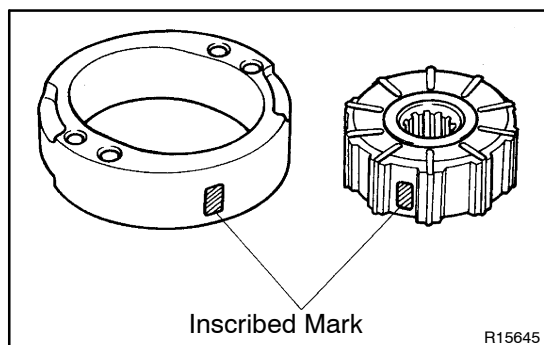
Minimum thickness: 1.797 mm (0.0707 in.)

Minimum length: 14.988 mm (0.5901 in.)



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

Maximum clearance: 0.028 mm (0.0011 in.)



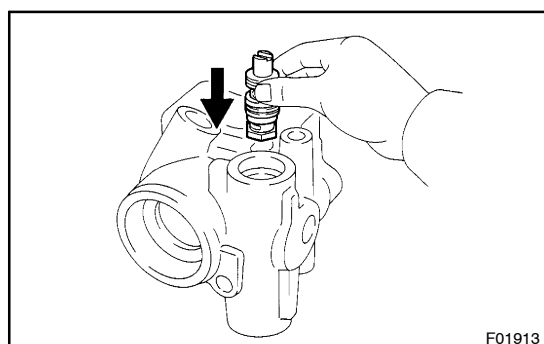
If it is more than the maximum, replace the vane plate and/or vane pump rotor with the one having the same mark stamped on the cam ring.

Inscribed mark: 1, 2, 3, 4 or None

HINT:

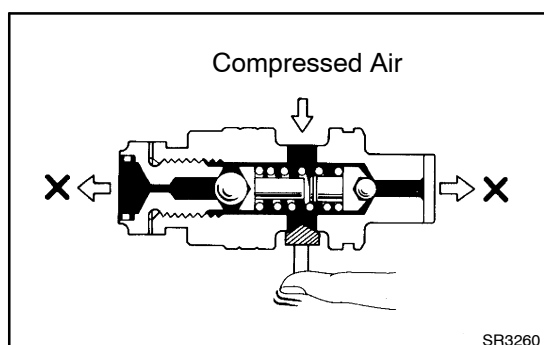
There are 5 vane lengths with the following rotor and cam ring marks:

Vane pump rotor and cam ring mark	Vane plate part number	Vane plate length mm (in.)
None	44345-12010	14.996 – 14.998 (0.59039 – 0.59047)
1	44345-12020	14.994 – 14.996 (0.59032 – 0.59039)
2	44345-12030	14.992 – 14.994 (0.59024 – 0.59032)
3	44345-12040	14.990 – 14.992 (0.59016 – 0.59024)
4	44345-12050	14.988 – 14.990 (0.59008 – 0.59016)

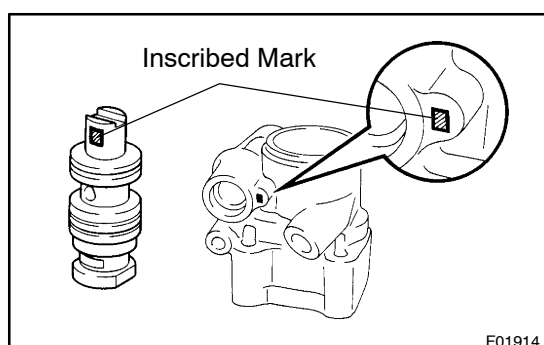


3. INSPECT FLOW CONTROL VALVE

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

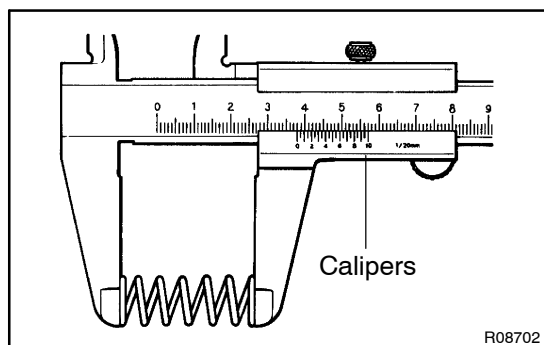


- (b) Check the flow control valve for leakage. Close one of the holes and apply 392 – 490 kPa (4 – 5 kgf/cm², 57 – 71 psi) of compressed air into the opposite side hole, and confirm that air does not come out from the end holes.



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 calipers, measure the free length of the spring.

Minimum free length: 36.0 mm (1.42 in.)

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