

# STEERING

## SERVICE DATA

SS0F3-04

POWER STEERING FLUID		
Fluid level rise	Maximum	5 mm (0.20 in.)
Fluid pressure at idle speed with valve closed	Minimum	8,336 kPa (85 kgf/cm <sup>2</sup> , 1,209 psi)
STEERING WHEEL		
Steering wheel freeplay	Maximum	30 mm (1.18 in.)
Steering effort at idle speed	(Reference)	7 N·m (70 kgf·cm, 61 in.-lbf)
PS VANE PUMP		
2JZ-GE Engine:		
Vane pump rotating torque	Maximum	0.25 N·m (2.5 kgf·cm, 2.2 in.-lbf)
Oil clearance between pump shaft and bushing	STD	0.03 – 0.05 mm (0.0012 – 0.0020 in.)
Oil clearance between pump shaft and bushing	Maximum	0.07 mm (0.0028 in.)
Vane plate height	Minimum	8.6 mm (0.339 in.)
Vane plate thickness	Minimum	1.397 mm (0.0550 in.)
Vane plate length	Minimum	14.991 mm (0.5902 in.)
Clearance between the rotor groove and plate	Maximum	0.033 mm (0.0013 in.)
Vane plate length	Pump rotor and cam ring mark	
	NONE	14.999 – 15.001 mm (0.59051 – 0.59059 in.)
	1	14.997 – 14.999 mm (0.59043 – 0.59051 in.)
	2	14.995 – 14.997 mm (0.59035 – 0.59043 in.)
	3	14.993 – 14.995 mm (0.59027 – 0.59035 in.)
	4	14.991 – 14.993 mm (0.59020 – 0.59027 in.)
Spring free length	Minimum	33.2 mm (1.307 in.)
3UZ-FE Engine:		
Vane pump rotating torque	Maximum	0.25 N·m (2.5 kgf·cm, 2.2 in.-lbf)
Oil clearance between pump shaft and bushing	STD	0.03 – 0.045 mm (0.0012 – 0.0028 in.)
Oil clearance between pump shaft and bushing	Maximum	0.07 mm (0.0028 in.)
Vane plate height	Minimum	8.1 mm (0.318 in.)
Vane plate thickness	Minimum	1.797 mm (0.0707 in.)
Vane plate length	Minimum	14.988 mm (0.5901 in.)
Clearance between the rotor groove and plate	Maximum	0.028 mm (0.0011 in.)
Vane plate length	Pump rotor and cam ring mark	
	NONE	14.996 – 14.998 mm (0.59039 – 0.59047 in.)
	1	14.994 – 14.996 mm (0.59032 – 0.59039 in.)
	2	14.992 – 14.994 mm (0.59024 – 0.59032 in.)
	3	14.990 – 14.992 mm (0.59016 – 0.59024 in.)
	4	14.988 – 14.990 mm (0.59008 – 0.59016 in.)
Spring free length	Minimum	36.0 mm (1.42 in.)
POWER STEERING GEAR		
Steering rack runout	Maximum	0.03 mm (0.0118 in.)
Total preload (Control valve rotating torque)		0.5 – 1.7 N·m (4.7 – 17.2 kgf·cm, 4.1 – 14.9 in.-lbf)
PROGRESSIVE POWER STEERING (PPS)		
PPS solenoid valve resistance		6 – 11 Ω