

# STEERING

## SERVICE DATA

SS055-02

DRIVE BELT		
Drive belt tension	New belt	135–180 lbf
Drive belt tension	Used belt	85–120 lbf
POWER STEERING FLUID		
Oil level rise	Maximum	Below 5 mm (0.20 in.)
Oil 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	Maximum	4.9 N·m (50 kgf·cm, 43 in.-lbf)
PS VANE PUMP		
2RZ-FE and 3RZ-FE:		
Pump shaft and front housing bushing oil clearance	STD	0.03–0.05 mm (0.0012–0.0020 in.)
Pump shaft and front housing bushing oil clearance	Maximum	0.07 mm (0.0028 in.)
Vane plate height	Minimum	8.6 mm (0.339 in.)
Vane plate thickness	Minimum	1.397 mm (0.05500 in.)
Vane plate length	Minimum	14.991 mm (0.59020 in.)
Vane plate and pump rotor groove clearance	Maximum	0.035 mm (0.0014 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.)
Flow control valve spring length	Minimum	33.2 mm (1.307 in.)
Pump rotating torque	Maximum	0.25 N·m (2.5 kgf·cm, 2.2 in.-lbf) or less
5VZ-FE:		
Pump shaft and front housing bushing oil clearance	STD	0.03–0.05 mm (0.0012–0.0020 in.)
Pump shaft and front housing bushing oil clearance	Maximum	0.07 mm (0.0028 in.)
Vane plate height	Minimum	8.6 mm (0.339 in.)
Vane plate thickness	Minimum	1.397 mm (0.05500 in.)
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Flow control valve spring length	Minimum	33.2 mm (1.307 in.)
Pump rotating torque	Maximum	0.27 N·m (2.8 kgf·cm, 2.4 in.-lbf) or less
MANUAL STEERING GEAR		
Steering rack runout	Maximum	0.3 mm (0.0118 in.)
Total preload	Turning	1.3 N·m (13 kgf·cm, 11.3 in.-lbf) or less

PS GEAR		
2WD:		
Steering rack runout	Maximum	0.3 mm (0.0118 in.)
Total preload	Turning	0.9–1.5 N·m (9–15 kgf·cm, 7.8–13.0 in.·lbf)
4WD and Pre runner:		
Steering rack runout	Maximum	0.3 mm (0.0118 in.)
Total preload	Turning	0.5–1.7 N·m (4.7–17.2 kgf·cm, 4.1–14.9 in.·lbf)