

SERVICE SPECIFICATIONS

SERVICE DATA

Steering wheel freeplay (Maximum)	30 mm (1.18 in.) or less
TILT STEERING COLUMN	
Pawl stopper mark	
1 or A	12.65–12.75 mm (0.4980–0.5020 in.)
2 or B	12.55–12.65 mm (0.4941–0.4980 in.)
3 or C	12.45–12.55 mm (0.4902–0.4941 in.)
4 or D	12.35–12.45 mm (0.4862–0.4902 in.)
5 or E	12.25–12.35 mm (0.4823–0.4862 in.)
MANUAL GEAR HOUSING	
Sector shaft thrust clearance	0.05 mm 0.0020 in.
Thrust washer thickness (2WD)	1.95 mm (0.0768 in.)
	2.00 mm (0.0787 in.)
	2.05 mm (0.0807 in.)
	2.10 mm (0.0827 in.)
	2.15 mm (0.0847 in.)
Thrust washer thickness (4WD)	1.95 mm (0.0768 in.)
	2.00 mm (0.0787 in.)
	2.05 mm (0.0807 in.)
Worm bearing preload (2WD) at Starting	0.3–0.5 N·m (3–5 kgf·cm, 2.6–4.3 in.·lbf)
(4WD) at Starting	0.3–0.5 N·m (3.5–5 kgf·cm, 3.0–4.3 in.·lbf)
Total preload (2WD) at Starting	0.8–1.0 N·m (8–10.5 kgf·cm, 6.9–9.1 in.·lbf)
(4WD) at Starting	0.8–1.1 N·m (8–11.0 kgf·cm, 6.9–9.5 in.·lbf)
Sector shaft end cover bushing inside diameter (4WD)	
Maximum	36.07 mm 1.4201 in.
PS ON-VEHICLE INSPECTION	
Drive belt tension (New belt)	441–667 N·m (45–68 kgf, 100–150 lbf)
Drive belt tension (Used belt)	265–441 N·m (27–45 kgf, 60–100 lbf)
Maximum rise of oil level	5 mm (0.20 in.)
Oil pressure at idle speed with valve closed (Minimum) 3VZ Engine	7,845 kPa (80 kgf/cm ² , 1,138 psi)
Ex. 3VZ Engine	7,355 kPa (75 kgf/cm ² , 1,067 psi)
Steering effort (w/ PPS)	29 N·m (3 kgf, 8.8 lbf)
PS PUMP	
Rotor shaft bushing oil clearance (STD)	0.01–0.03 mm (0.0004–0.0012 in.)
Rotor shaft bushing oil clearance (Maximum)	0.07 mm (0.0028 in.)
Rotor to cam ring oil clearance RN series (Maximum)	0.06 mm (0.0024 in.)
Vane plate to rotor groove clearance (Maximum)	0.03 mm (0.0012 in.)
Vane plate length (Minimum)	14.988 mm (0.5901 in.)
Vane plate height (Minimum)	8.1 mm (0.319 in.)
Vane plate thickness (Minimum)	1.797 mm (0.0707 in.)
Vane plate length (Cam ring and rotor mark)	
None	14.996–14.998 mm (0.59039–0.59047 in.)
1	14.994–14.996 mm (0.59031–0.59039 in.)
2	14.992–14.994 mm (0.59024–0.59031 in.)
3	14.990–14.992 mm (0.59016–0.59024 in.)

4	14.988–14.990 mm (0.59008–0.59016 in.)
Flow control valve spring length (STD)	37 mm (1.46 in.)
Flow control valve spring length (Minimum)	35 mm (1.38 in.)
Pump rotating torque (Maximum)	0.3 N·m (2.8 kgf·cm, 2.4 in.·lbf)
PS GEAR HOUSING (2WD)	
Total preload	0.5–0.9 N·m (5.0–9.5 kgf·cm, 4.3–8.3 in.·lbf) or less
PS GEAR HOUSING (4WD)	
Worm gear valve body ball clearance	0.15 mm (0.059 in.)
Cross shaft adjusting screw thrust clearance	0.03–0.05 mm (0.0012–0.0020 in.)
Worm gear preload	0.3–0.5 N·m (3–5.5 kgf·cm, 2.6–4.8 in.·lbf)
Total preload	0.5–0.9 N·m (5–9.5 kgf·cm, 4.3–8.3 in.·lbf)

TORQUE SPECIFICATIONS

Part tightened	N·m	kgf·cm	ft·lbf
STEERING COLUMN			
Steering main shaft X Intermediate shaft	35	360	26
Column tube X Body	25	260	19
Steering wheel	34	350	25
Breakaway bracket X Body	25	260	19
Column hole cover X Body	7.8	80	69 in.·lbf
Intermediate shaft X Worm shaft	35	360	26
Turn signal bracket X Upper column tube	7.8	80	69 in.·lbf
Tilt pawl set nut	5.9	60	52 in.·lbf
Tilt lever retainer set nut	15	150	11
Compression spring bushing bolt	7.8	80	69 in.·lbf
Protector X Breakaway bracket	19	195	14
Tilt lever assembly installation bolt	2.0	20	17 in.·lbf
POWER STEERING PUMP			
Return hose clamp (RN series)	1.5	15	13 in.·lbf
Return hose clamp (VZN series)	3.9	40	35 in.·lbf
PS pump X Pressure tube (RN/series/4WD)	36	370	27
Pressure tube union bolt	47	475	34
Pulley set nut	43	440	32
PS pump X Bracket			
(RN series)	39	400	29
(VZN series) Through bolt	58	590	43
(VZN series) Adjusting bolt	39	400	29
PS pump X Adjusting stay (VZN series)	41	420	30
Reservoir tank X PS pump (VZN series)			
12 mm bolt	13	130	9
14 mm bolt	41	420	30
Section port union (RN series)	13	130	9
Air control valve	36	370	27
Pressure port union	69	700	51
Front housing X Rear housing (RN series)	46	470	34
POWER STEERING GEAR HOUSING			
Pressure tube	44	450	33
Return tube (Union bolt)	47	475	34
Return tube (Others)	49	500	36
Return hose clamp (4WD)	3.9	40	35 in.·lbf
Intermediate shaft X Worm shaft	35	360	26
Gear housing X Body (2WD)	118	1,200	87
Gear housing X Body (4WD)	142	1,450	105
Pitman arm X Cross shaft	177	1,800	130
Cross shaft adjusting screw set nut	46	470	34
Cross shaft end cover set bolt	46	470	34
Bleeder plug	7.8	80	69 in.·lbf
Plunger guide nut	20	205	15
Worm gear valve body set bolt	46	470	34

STEERING – SERVICE SPECIFICATIONS

Solenoid valve set bolt (w/PPS)	10	100	7
Tie rod end X Steering knuckle	90	920	67
STEERING LINKAGE (2WD)			
Pitman arm X Sector shaft (Manual Steering)	123	1,250	90
(Power Steering)	177	1,800	130
Pitman arm X Relay rod	90	920	67
Tie rod tube clamp bolt	25	260	19
Tie rod X Relay rod	90	920	67
Tie rod X Knuckle arm	90	920	67
Tie rod X Knuckle arm	90	920	67
Knuckle arm X Steering knuckle	108	1,100	80
Steering damper X Frame	13	130	9
Steering damper X Relay rod	59	600	43
Idler arm X Idler arm bracket	78	800	58
Idler arm bracket X Frame	118	1,200	87
STEERING LINKAGE (4WD)			
Pitman arm X Sector shaft	177	1,800	130
Pitman arm X Relay rod	90	920	67
Tie rod tube clamp bolt	25	260	19
Tie rod X Relay rod	90	920	67
Tie rod X Knuckle arm	90	920	67
Relay rod X Idler arm	59	600	43
Relay rod X Steering damper	59	600	43
Knuckle arm X Steering knuckle	183	1,870	135
Idler arm X Idler arm bracket	78	800	58
Idler arm bracket Frame	142	1,450	105