

STEERING

Specifications

Steering column	Steering wheel freeplay Pawl stopper	Maximum Mark	30 mm	1.18 in.	
		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.	
Manual gear housing	Sector shaft thrust clearance	Maximum	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.	
	Thrust washer thickness (4WD)		2.15 mm	0.0847 in.	
			1.95 mm	0.0768 in.	
			2.00 mm	0.0787 in.	
	Worm bearing preload (2WD) at Starting		2.05 mm	0.0807 in.	
		(4WD) at Starting	0.3 - 0.5 N·m 3 - 5 kgf·cm	2.6 - 4.3 in.·lbf	
Total preload (2WD) at Starting		0.3 - 0.5 N·m 3.5 - 5 kgf·cm	3.0 - 4.3 in.·lbf		
	(4WD) at Starting	0.8 - 1.0 N·m 8 - 10.5 kgf·cm	6.9 - 9.1 in.·lbf		
Sector shaft end cover bushing inside diameter (4WD)	Maximum	0.8 - 1.1 N·m 8 - 11.0 kgf·cm	6.9 - 9.5 in.·lbf		
		36.07 mm	1.4201 in.		
Power steering	Drive belt tension	New belt	441 - 667 N·m	45 - 68 kgf	100 - 150 lbf
		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	Minimum	7,335 kPa	75 kgf/cm ²	1,067 psi
	Steering effort (w/o PPS)	Maximum	39 N	4 kgf	8.8 lbf
		(w/ PPS) Maximum	29 N	3 kgf	6.6 lbf
	Rotor shaft bushing oil clearance	STD	0.01 - 0.03 mm	0.0004 - 0.0012 in.	
		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	Minimum length	14.988 mm	0.5901 in.
		Minimum height	8.1 mm	0.319 in.	
		Minimum thickness	1.797 mm	0.0707 in.	
	Vane plate length	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.	

Specifications (Cont'd)

Power steering (cont'd)	Flow control valve spring length		37 mm	1.46 in.
		STD	35 mm	1.38 in.
		Minimum	0.3 N·m	2.8 kgf·cm 2.4 in.·lbf
	Pump rotating torque	Maximum	0.15 mm	0.0059 in.
	Worm gear valve body ball clearance		0.03 – 0.05 mm	0.0012 – 0.0020 in.
	Cross shaft adjusting screw thrust clearance		0.3 – 0.5 N·m	3 – 5.5 kgf·cm 2.6 – 4.8 in.·lbf
	Worm gear preload	at Starting	0.5 – 0.9 N·m	5 – 9.5 kgf·cm 4.3 – 8.3 in.·lbf
Total preload	at Starting			

Torque Specifications

Steering column	Part tightened	N·m	kgf·cm	ft·lbf
	Steering wheel set nut	34	350	25
	Column tube x Body	25	260	19
	Breakaway bracket x Body	25	260	19
	Column hole cover x Body	7.8	80	69 in.·lbf
	Main shaft x Intermediate shaft	35	360	26
	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
	Compression spring set bolt	7.8	80	69 in.·lbf
	Tilt lever retainer set nut	15	150	11
	Protector x Breakaway bracket	19	195	14
	Tilt lever assembly installation bolt	2.0	20	17 in.·lbf
Manual gear housing	[2WD]			
	Gear housing x Body	118	1,200	87
	Intermediate shaft x Worm shaft	35	360	26
	Relay rod x Pitman arm	90	920	67
	Pitman arm x Sector shaft	123	1,250	90
	Worm bearing adjusting screw lock nut	109	1,110	80
	End cover set bolt	18	185	13
	Sector shaft adjusting screw lock nut	27	275	20
	Bleeder plug	7.4	75	65 in.·lbf
	[4WD]			
	Gear housing x Body	142	1,450	105
	Intermediate shaft x Worm shaft	35	360	26
	Pitman arm x Sector shaft	177	1,800	130
	Relay rod x Pitman arm	90	920	67
	Worm bearing adjusting screw lock nut	109	1,110	80
	End cover set bolt	93	1,000	72
Sector shaft adjusting screw lock nut	44	450	33	
Bleeder plug	20	200	14	

Torque Specifications (Cont'd)

Power steering (PS pump)	Part tightened	N·m	kgf·cm	ft·lbf
	Pressure tube x PS pump (RN series/4WD)	36	370	27
	Return hose clamp (RN series)	1.5	15	13 in.·lbf
	(VZN series)	3.9	40	35 in.·lbf
	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
	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
	Suction 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
	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
	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
	Solenoid valve set bolt (wl PPS)	10	100	7
Steering linkage (2WD)	Pitman arm x Sector shaft MS	123	1,250	90
	PS	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
	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

Torque Specifications (Cont'd)

Steering linkage (4WD)	Part tightened	N·m	kgf·cm	ft·lbf
	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 x Frame	142	1,450	105

BODY Torque Specifications

Part tightened	N·m	kgf·cm	ft·lbf
MOON ROOF			
Removable roof hinge case x Body	3.4	35	30 in·lbf
Removable roof lock base x Body	5.9	60	52 in·lbf
Removable roof hinge x Removable roof	2.9	30	26 in·lbf
Removable roof handle x Removable roof	2.9	30	26 in·lbf
ONE-TOUCH TAIL GATE			
Tail gate stay x Tail gate	14	140	10
SEAT			
Front Seat			
Seat adjuster x Body	37	375	27
Rear Jump Seat (Extra Cab)			
Back panel trim x Body	4.9	50	43 in·lbf
Seat cushion x Body	4.9	50	43 in·lbf
SEAT BELT			
Seat belt anchor x Body	43	440	32
Seat belt guide x Body	43	440	32
Buckle x Body	43	440	32