

# STEERING

## Specifications

Steering	Steering wheel freeplay	30 mm (1.18 in.) or less
Steering column	Pawl stopper  (Tilt steering column) Mark 1 or A 2 or B 3 or C 4 or D 5 or E 6 or F 7 or G  (Auto tilt away steering column) Mark 1 or A 2 or B 3 or C 4 or D 5 or E 6 or F 7 or G  Collar (Auto tilt away steering column)	12.68 – 12.74 mm      0.4992 – 0.5016 in. 12.61 – 12.67 mm      0.4965 – 0.4988 in. 12.54 – 12.60 mm      0.4937 – 0.4961 in. 12.47–12.53 mm      0.4909 – 0.4933 in. 12.40 – 12.46 m m      0.4882 – 0.4906 in. 12.33 – 12.39 mm      0.4854 – 0.4878 in. 12.26 – 12.32 mm      0.4827 – 0.4850 in.  12.68 – 12.74 mm      0.4992 – 0.5016 in. 12.61 – 12.67 mm      0.4965 – 0.4988 in. 12.54 – 12.60 mm      0.4937 – 0.4961 in. 12.47 – 12.53 mm      0.4909 – 0.4933 in. 12.40 – 12.46 mm      0.4882 – 0.4906 in. 12.33 – 12.39 mm      0.4854 – 0.4878 in. 12.26 – 12.32 mm      0.4827 – 0.4850 in. 12.75 – 12.85 mm      0.5020 – 0.5059 in. 12.55 – 12.65 mm      0.4941 – 0.4980 in. 12.35 – 12.45 mm      0.4862 – 0.4902 in. 12.15 – 12.25 mm      0.4783 – 0.4823 in. 11.95 – 12.05 mm      0.4705 – 0.4744 in. 11.75 – 11.85 mm      0.4610 – 0.4665 in. 11.55 – 11.65 mm      0.4547 – 0.4587 in. 11.25 – 11.35 mm      0.4429 – 0.4468 in.
Power steering (On-vehicle inspection)	Drive belt tension      New belt Used belt  Maximum rise of oil level Oil pressure      at Idle speed (4A-FE engine) (5S-FE engine) (3S-GTE engine)	441 ± 667 N      45 – 68 kgf      100 – 150 lbf 265 ± 441 N      27 – 45 kgf      60 – 100 lbf Below 5 mm 10.20 in.)  6,865 kPa (70 kgf/cm <sup>2</sup> , 996 psi) 7,355 kPa (75 kgf/cm <sup>2</sup> , 1,068 psi) 7,845 kPa (80 kgf/cm <sup>2</sup> , 1,138 psi)
	Steering effort      USA CANADA	39 N      4 kgf      8.8 lbf 6.9 N –m      70 kgf–cm      61 in.–lbf

### Specifications (Cont'd)

(Power steering pump)	Rotor shaft bushing oil clearance STD		0.01 – 0.03 mm	0.0004 – 0.0012 in.
	Maximum		0.07 mm.	0.0028 in.
	Vane plate to rotor groove clearance		0.03 mm	0.0012 in.
	Vane plate Minimum height		8.0 mm	0.315 in.
	Minimum thickness		1.77 mm	0.0697 in.
	Minimum length		14.97 mm	0.5894 in.
	Vane plate length Rotor and cam ring mark	None		
		1		
		2		
		3	14.996 – 14.998 mm	0.59039 – 0.59047 in.
	4	14.994 – 14.996 mm	0.59032 – 0.59039 in.	
Flow control valve spring length	STD Minimum		14.992 – 14.994 mm	0.59024 – 0.59032 in.
			14.990 – 14.992 mm	0.59016 – 0.59024 in.
			14.988 – 14.990 mm	0.59008 – 0.59016 in.
			38 mm	1.49 in.
Pump rotating torque		36 mm	1.42 in.	
		0.3 N-m (2.8 kgf-cm, 2.4 in.-lbf) or less		
(Gear housing)	Steering rack runout	Maximum	0.3 mm	0.012 in.
	Bearing preload (turning)		0.4 – 0.6 N-m (4.5 – 6.5 kgf-cm, 3.9 – 5.6 in.-lbf)	
	Total preload (turning)		0.9 – 1.2 N-m (9 – 12 kgf-cm, 7.8 – 10.4 in.-lbf)	

### Torque Specifications

Steering column (Non-tilt steering column)	Part tightened	N-m	kgf-cm	ft-lbf	
	Main shaft x Intermediate shaft	<b>35</b>	360	<b>26</b>	
(Tilt steering column)	Tilt lever assembly installation bolt	2.9	30	26 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	
	Main shaft x Intermediate shaft	35	360	26	
(Auto tilt away steering column)	Tilt memory bolt	6.4	65	56 i n.-l bf	
	Tilt lever bracket installation bolt	2.9	30	26 in.-lbf	
	Tilt lever retainer set nut	14 mm	15	11	
		8 mm	2.9	30	26 in.-lbf
	No. 2 tilt memory plate set nut	14 mm	15	60	11
		10 mm	5.9	80	52 in.-lbf
	Compression spring bushing bolt	7.8	360	69 in.-lbf	
Main shaft x Intermediate shaft	35		26		
(Removal and installation)	Main shaft x Steering wheel	35	360	26	
	Steering wheel pad (w/ airbag)	7.4	75	65 i n.-lbf	
	Column tube x Body	25	260	19	
	Column tube attachment x Brake pedal bracket	12	120	9	
	Universal joint	35	360	26	

## Torque Specifications (Cont'd)

Power steering (Power steering pump)	Part tightened	N-m	kgf-cm	ft. lbf	
	Pressure port union x Front housing	69	700	51	
	Air control valve x Pump housing	36	370	27	
	Drive pulley nut	43	440	32	
	Reservoir tank x Housing (4A-FE)	13	130	9	
		12 mm	41	420	30
		14 mm	69	700	51
				130	9
	Union bolt (4A-FE)	13	525	38	
	Suction port union x Pump housing (5S-FE)	51	400	29	
	Pressure tube joint bolt	39	440	32	
	PS pump x Bracket (4A-FE)	43	400	29	
	PS pump x Bracket (5S-FE, 3S-GTE))	Upper	39	370	27
		Lower	36	550	36
	Pressure tube union nut (5S-FE, 3S-GTE))	49	1,550	152	
	Tie rod end x Knuckle arm	152	740	29	
	Lower crossmember	R H and LH sides	39		
		Center			
	(Gear housing)	Control valve housing x Rack housing	31	315	23
		Bearing guide lock nut	56	570	41
		Rack guide spring cap lock nut	56	570	41
Rack x Rack end		72	730	53	
Turn pressure tube x Gear housing		20	200	14	
Tie rod end lock nut		56	570	41	
Gear housing x Body		59	600	43	
Gear housing x Return line		44	450	33	
Gear housing x Pressure line		44	450	33	
Center member x Body		52	530	38	
Tie rod end x Knuckle arm		49	500	36	
Control valve shaft x Universal joint		35	360	26	
Lower crossmember		152	1,550	112	
Tube clamp set bolt		13	130	9	
Engine x Engine mounting		77	790	57	
Engine mounting x Center member					
		4A-FE			
		5S-FE, 3S-GTE			
Lower crossmember R H and LH sides		64	650	47	
Center		73	740	54	
Engine mounting x Insulator		152	1,550	112	
Exhaust front pipe x Manifold		39	400	29	
Exhaust front pipe x Center pipe		87	890	64	
Propeller shaft x Intermediate shaft		62	630	46	
Stabilizer bar x Link		43	440	32	
Stabilizer bar bracket		74	750	54	
		35	360	26	
		18	180	13	