

SUSPENSION AND AXLE

Specifications

Cold tire inflation pressure kPa (kgf/cm ² , psi)	Tire size		Front	Rear
	P275/70R 16		220 (2.2, 32)	222 (2.2, 32)
Follow spring and bumper stopper clearance	A: Follow spring clearance (Front) B: Bumper stopper clearance (Rear)		A	B
			36 mm (1.42 in.)	104 mm (4.09 in.)
Front wheel alignment	Camber	Inspection standard Left-right error		1° ± 45' 45' or less
	Steering axis inclination	Inspection standard Left-right error		13°00' ± 45' 45' or less
	Caster	Inspection standard P275/70R 16 Left-right error		3°00' ± 1° 45' or less
	Toe-in	Inspection STD		Adjustment STD
		2 ± 2 mm (0.08 ± 0.08 in.)		2 ± 1 mm (0.08 ± 0.04 in.)
	Wheel angle	Max.	Inside wheel	35°00' ± 0°
			Outside wheel (Reference)	31°00'
	Side slip (Reference only)		Less than 3.0 mm/m (0.118 in./3.3 ft)	
Disc wheel lateral runout		Limit	1.2 mm 0.047 in.	
Wheel bearing preload (starting) (rotating load at hub bolt)		27 — 56 N	2.8 — 5.7 kgf	6.2 — 12.6 lbf
Steering knuckle bearing preload (rotating load at knuckle end, before installing dust seal)		25 — 44 N	2.5 — 4.4 kgf	5.5 — 9.9 lbf

Specifications (Cont'd)

Front differen- tial	Drive pinion bearing preload	at starting	
	New bearing		0.9 – 1.6 N·m 10 – 16 kgf·cm 8.7 – 13.9 in.·lbf
	Reused bearing		0.5 – 0.8 N·m 5 – 8 kgf·cm 4.3 – 6.9 in.·lbf
	Total preload	at starting	Add drive pinion bearing preload
	New and reused bearing		0.4 – 0.6 N·m 4 – 6 kgf·cm 3.5 – 5.2 in.·lbf
	Drive pinion to ring gear backlash		0.13 – 0.18 mm 0.0051 – 0.0071 in.
	Pinion gear to side gear backlash		0.05 – 0.20 mm 0.0020 – 0.0079 in.
	Ring gear runout	Limit	0.10 mm 0.0039 in.
	Companion flange runout	Limit	
		Radial	0.10 mm 0.0039 in.
		Lateral	0.10 mm 0.0039 in.
	Oil seal drive in depth		1.0 mm 0.039 in.
	Side gear thrust washer thickness		1.58 – 1.62 mm 0.0622 – 0.0638 in.
			1.68 – 1.72 mm 0.0661 – 0.0677 in.
			1.78 – 1.82 mm 0.0701 – 0.0717 in.
	Drive pinion adjusting plate washer thickness		1.70 mm 0.0669 in.
			1.73 mm 0.0681 in.
			1.76 mm 0.0693 in.
			1.79 mm 0.0705 in.
			1.82 mm 0.0717 in.
			1.85 mm 0.0728 in.
			1.88 mm 0.0740 in.
			1.91 mm 0.0752 in.
			1.94 mm 0.0764 in.
			1.97 mm 0.0776 in.
			2.00 mm 0.0787 in.
			2.03 mm 0.0799 in.
			2.06 mm 0.0811 in.
			2.09 mm 0.0823 in.
			2.12 mm 0.0835 in.
			2.15 mm 0.0846 in.
			2.18 mm 0.0858 in.
			2.21 mm 0.0870 in.
			2.24 mm 0.0882 in.
			2.27 mm 0.0894 in.
			2.30 mm 0.0906 in.
			2.33 mm 0.0917 in.

Specifications (Cont'd)

Rear differential	Drive pinion bearing preload	at starting	
	New bearing		1.3 – 2.0 N·m 13 – 20 kgf·cm 11.3 – 17.4 in.·lbf
	Reused bearing		0.7 – 1.0 N·m 7 – 10 kgf·cm 6.1 – 8.7 in.·lbf
	Total preload	at starting	Add drive pinion bearing preload
	New and reused bearing		0.4 – 0.6 N·m 4 – 6 kgf·cm 3.5 – 5.2 in.·lbf
	Drive pinion to ring gear backlash		0.15 – 0.20 mm 0.0059 – 0.0079 in.
	Pinion gear to side gear backlash		0.02 – 0.20 mm 0.0008 – 0.0079 in.
	Ring gear runout	Limit	0.10 mm 0.0039 in.
	Companion flange runout	Limit	
		Radial	0.10 mm 0.0039 in.
		Lateral	0.10 mm 0.0039 in.
	Oil seal drive in depth		1.0 mm 0.039 in.
	Side gear thrust washer thickness		1.55 – 1.65 mm 0.0610 – 0.0650 in.
			1.70 – 1.80 mm 0.0669 – 0.0709 in.
			1.85 – 1.95 mm 0.0728 – 0.0768 in.
			2.00 – 2.10 mm 0.0787 – 0.0827 in.
	Drive pinion adjusting plate washer thickness		1.05 mm 0.0413 in.
			1.10 mm 0.0433 in.
			1.15 mm 0.0453 in.
			1.20 mm 0.0472 in.
			1.25 mm 0.0492 in.
			1.30 mm 0.0512 in.
			1.35 mm 0.0531 in.
			1.40 mm 0.0551 in.
			1.45 mm 0.0571 in.
			1.50 mm 0.0591 in.
			1.55 mm 0.0610 in.
Rear axle shaft	Maximum runout		0.8 mm 0.031 in.

Torque Specifications

Part tightened	N·m	kgf·cm	ft·lbf
FRONT AXLE AND SUSPENSION			
Front axle hub x Rotor disc	74	750	54
Front axle hub bearing lock nut	64	650	47
Flange x Axle hub	35	360	26
Disc brake cylinder x Axle carrier	123	1,250	90
Disc brake cylinder x Brake tube	15	155	11
Knuckle arm x Steering knuckle	96	980	71
Third arm x Steering knuckle	96	980	71
Bearing cap x Steering knuckle	96	980	71
knuckle arm x Tie rod	91	925	67
Oil seal set retainer x Steering knuckle	5.4	55	48 in.·lbf
Steering knuckle x Knuckle spindle	47	475	34

Torque Specifications (Cont'd)

Part tightened	N·m	kgf·cm	ft·lbf
FRONT AXLE AND SUSPENSION (Cont'd)			
Propeller shaft x Companion flange	74	750	54
Side bearing cap x Differential carrier	78	800	58
Ring gear x Differential case	97	985	71
Drive pinion x Companion flange	196 – 343	2,000 – 3,500	145 – 253
Differential carrier x Axle housing	25	250	18
Adjusting nut lock x Bearing cap	13	130	9
Spring follow x Frame	9.2	94	82 in.·lbf
Stabilizer bar x Axle housing	25	260	19
Shock absorber x Axle housing	69	700	51
Shock absorber x Body	69	700	51
Stabilizer bracket x Bracket	18	185	13
Stabilizer bracket x Frame	18	185	13
Lateral control rod x Frame	172	1,750	127
Lateral control rod x Body	172	1,750	127
Leading arm x Body	172	1,750	127
Leading arm x Axle housing	172	1,750	127
Hub nut	147	1,500	108
REAR AXLE AND SUSPENSION			
Pinion shaft x Differential case	27	275	20
Differential cover x Axle housing	13	130	9
Parking brake cable clamp x Differential cover	13	130	9
Propeller shaft x Companion flange	88	900	65
Side bearing cap x Differential carrier	78	800	58
Ring gear x Differential case	110	1,125	81
Drive pinion x Companion flange	245 – 441	2,500 – 4,500	181 – 325
Differential carrier x Axle housing	75	740	54
Adjusting nut lock x Bearing cap	13	130	9
LSPV shackle bracket x Differential cover	19	195	14
Spring follow x Frame	15	155	11
Lateral control rod x Axle housing	245	2,500	181
Shock absorber x Bracket	69	700	51
Shock absorber bracket x Frame	50	510	37
Shock absorber x Axle housing	64	650	47
Stabilizer bar bracket x Axle housing	18	185	13
Lateral control x Frame	177	1,800	130
Upper control rod x Frame	177	1,800	130
Upper control rod x Axle housing	177	1,800	130
Stabilizer bar clamp x Frame	15	150	11
Stabilizer bar x Clamp	25	260	19
Hub nut	147	1,500	108
Lower control arm x Frame	177	1,800	130
Lower control arm x Axle housing	177	1,800	130