

# SUSPENSION AND AXLE

## SERVICE DATA

SS04N-03

Cold tire inflation pressure	Tire size		
	P225/75R15	Front	200 kPa (2.0 kgf/cm <sup>2</sup> , 29 psi)
		Rear	200 kPa (2.0 kgf/cm <sup>2</sup> , 29 psi)
	P265/70R16	Front	220 kPa (2.2 kgf/cm <sup>2</sup> , 32 psi)
		Rear	220 kPa (2.2 kgf/cm <sup>2</sup> , 32 psi)
Wheel alignment	Vehicle height		
	2WD	A*1 - B*2	72.2 mm (2.843 in.)
		C*3 - D*4	52.0 mm (2.047 in.)
	4WD	A*1 - B*2	69.9 mm (2.752 in.)
		C*3 - D*4	50.7 mm (1.996 in.)
	Camber		-0° 15' ± 45' (-0.25° ± 0.75°)
		Left-right error	30' (0.5°) or less
	Caster		2WD 3° 15' ± 45' (3.25° ± 0.75°)
		4WD 3° 05' ± 45' (3.06° ± 0.75°)	
		Left-right error	30' (0.5°) or less
	Steering axis inclination		11° 00' ± 45' (11° ± 0.75°)
		Left-right error	30' (0.5°) or less
	Toe-in (total)		0° 12' ± 12' (0.2° ± 0.2°, 2 ± 2 mm, 0.08 ± 0.08 in.)
		Tie rod end length difference	1.5 mm (0.059 in.) or less
	Wheel angle (Max.)		
		Inside wheel	35° (33° - 36°)
		Outside wheel	31°
Front drive shaft	Front drive shaft length		530.8 ± 5.0 mm (20.898 ± 0.197 in.)
Front suspension	Upper suspension ball joint turning torque		0.7 - 4.4 N·m (7 - 45 kgf·cm, 6 - 39 in.-lbf)
	Lower suspension ball joint turning torque		0.1 - 2.5 N·m (1 - 25 kgf·cm, 0.8 - 21.7 in.-lbf)
	Stabilizer bar link ball joint turning torque		0.05 - 2.0 N·m (0.5 - 20 kgf·cm, 0.4 - 17 in.-lbf)
	Lower suspension ball joint excessive play	Max.	0.5 mm (0.020 in.)
Rear axle shaft	Shaft runout	Max.	2.0 mm (0.079 in.)
	Flange runout	Max.	0.1 mm (0.004 in.)
	Axle shaft bearing backlash	Max.	0.7 mm (0.027 in.)

\*1: Ground clearance of spindle center

\*2: Ground clearance of front adjusting cam bolt center

\*3: Ground clearance of rear axle shaft center

\*4: Ground clearance of lower control arm front bushing center

Front differential	Companion flange vertical runout	Max.	0.10 mm (0.0039 in.)
	Companion flange lateral runout	Max.	0.10 mm (0.0039 in.)
	Drive pinion preload (at starting)	New bearing Reused bearing	1.2 - 1.9 N·m (12 - 19 kgf·cm, 10.4 - 16.5 in.-lbf) 0.6 - 1.0 N·m (6 - 10 kgf·cm, 5.2 - 8.7 in.-lbf)
	Total preload (at starting)		Drive pinion preload plus 0.4 - 0.6 N·m (4 - 6 kgf·cm, 3.5 - 5.2 in.-lbf)
	Drive pinion to ring gear backlash		0.10 - 0.18 mm (0.0039 - 0.0071 in.)
	Side gear backlash		0 - 0.20 mm (0 - 0.0079 in.)
	Rear oil seal drive in depth		4.5 mm (0.177 in.)
	Side oil seal drive in depth		0 mm (0 in.)
	Side tube oil seal drive in depth		5.5 mm (0.217 in.)
	Side gear thrust washer thickness		0.96 - 1.04 mm (0.0378 - 0.0409 in.) 1.06 - 1.14 mm (0.0417 - 0.0449 in.) 1.16 - 1.24 mm (0.0457 - 0.0488 in.) 1.26 - 1.34 mm (0.0496 - 0.0528 in.)
	Side bearing adjusting washer thickness		2.00 - 2.02 mm (0.0787 - 0.0795 in.) 2.03 - 2.05 mm (0.0799 - 0.0807 in.) 2.06 - 2.08 mm (0.0811 - 0.0819 in.) 2.09 - 2.11 mm (0.0823 - 0.0831 in.) 2.12 - 2.14 mm (0.0835 - 0.0843 in.) 2.15 - 2.17 mm (0.0846 - 0.0854 in.) 2.18 - 2.20 mm (0.0858 - 0.0866 in.) 2.21 - 2.23 mm (0.0870 - 0.0878 in.) 2.24 - 2.26 mm (0.0882 - 0.0890 in.) 2.27 - 2.29 mm (0.0894 - 0.0902 in.) 2.30 - 2.32 mm (0.0906 - 0.0913 in.) 2.33 - 2.35 mm (0.0917 - 0.0925 in.) 2.36 - 2.38 mm (0.0929 - 0.0937 in.) 2.39 - 2.41 mm (0.0941 - 0.0949 in.) 2.42 - 2.44 mm (0.0953 - 0.0961 in.) 2.45 - 2.47 mm (0.0965 - 0.0972 in.) 2.48 - 2.50 mm (0.0976 - 0.0984 in.) 2.51 - 2.53 mm (0.0988 - 0.0996 in.) 2.54 - 2.56 mm (0.1000 - 0.1008 in.) 2.57 - 2.59 mm (0.1012 - 0.1020 in.) 2.60 - 2.62 mm (0.1024 - 0.1031 in.) 2.63 - 2.65 mm (0.1035 - 0.1043 in.) 2.66 - 2.68 mm (0.1047 - 0.1055 in.) 2.69 - 2.71 mm (0.1059 - 0.1067 in.) 2.72 - 2.74 mm (0.1071 - 0.1079 in.) 2.75 - 2.77 mm (0.1083 - 0.1091 in.) 2.78 - 2.80 mm (0.1094 - 0.1102 in.)

## SERVICE SPECIFICATIONS - SUSPENSION AND AXLE

Front differential (cont'd)	Drive pinion bearing adjusting washer thickness	1.69 - 1.71 mm (0.0665 - 0.0673 in.) 1.72 - 1.74 mm (0.0677 - 0.0685 in.) 1.75 - 1.77 mm (0.0689 - 0.0697 in.) 1.78 - 1.80 mm (0.0701 - 0.0709 in.) 1.81 - 1.83 mm (0.0713 - 0.0720 in.) 1.84 - 1.86 mm (0.0724 - 0.0732 in.) 1.87 - 1.89 mm (0.0736 - 0.0744 in.) 1.90 - 1.92 mm (0.0748 - 0.0756 in.) 1.93 - 1.95 mm (0.0760 - 0.0768 in.) 1.96 - 1.98 mm (0.0772 - 0.0780 in.) 1.99 - 2.01 mm (0.0783 - 0.0791 in.) 2.02 - 2.04 mm (0.0795 - 0.0803 in.) 2.05 - 2.07 mm (0.0807 - 0.0815 in.) 2.08 - 2.10 mm (0.0819 - 0.0827 in.) 2.11 - 2.13 mm (0.0831 - 0.0839 in.) 2.14 - 2.16 mm (0.0843 - 0.0850 in.) 2.17 - 2.19 mm (0.0854 - 0.0862 in.) 2.20 - 2.22 mm (0.0866 - 0.0874 in.) 2.23 - 2.25 mm (0.0878 - 0.0886 in.) 2.26 - 2.28 mm (0.0890 - 0.0898 in.) 2.29 - 2.31 mm (0.0902 - 0.0909 in.) 2.32 - 2.34 mm (0.0913 - 0.0921 in.)
	w/ A.D.D.      A.D.D. sleeve fork to clutch sleeve clearance Differential case needle bearing press in depth	0.35 mm (0.0138 in.) 0.3 ± 0.3 mm (0.012 ± 0.012 in.)

Rear differential	Companion flange vertical runout	Max.	0.10 mm (0.0039 in.)
	Companion flange lateral runout	Max.	0.10 mm (0.0039 in.)
	Ring gear runout	Max.	0.07 mm (0.0028 in.)
	Differential case runout	Max.	0.07 mm (0.0028 in.)
	Drive pinion preload (at starting)	New bearing Reused bearing	0.9 - 1.6 N·m (10 - 16 kgf·cm, 8.7 - 13.9 in.-lbf) 0.5 - 0.8 N·m (5 - 8 kgf·cm, 4.3 - 6.9 in.-lbf)
	Total preload (at starting)		Drive pinion preload plus 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.)
	Side gear backlash		0.05 - 0.20 mm (0.0020 - 0.0079 in.)
	Shift fork to sleeve clearance		0.15 - 0.35 mm (0.006 - 0.0014 in.)
	Oil seal drive in depth		1.0 mm (0.039 in.)
	Side gear thrust washer thickness		0.9 mm (0.035 in.) 1.0 mm (0.039 in.) 1.1 mm (0.043 in.) 1.2 mm (0.047 in.) 1.3 mm (0.051 in.)
	Drive pinion preload adjusting shim 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.)