SERVICE SPECIFICATIONS

CLUTCH

Specifications

Pedal height (from asphalt sheet)			162.8 – 172.8 mm	6.409 – 6.803 in.
Release point (from pedal stroke end position)		Minimum	25 mm	0.98 in.
Push rod play at pedal top			1.0 – 5.0 mm	0.039 – 0.197 in.
Pedal freeplay			5 – 15 mm	0.20 – 0.59 in.
Disc rivet head depth		Limit	0.3 mm	0.012 in.
Disc runout		Limit	0.8 mm	0.031 in.
Diaphragm spring out of alignment		Limit	0.5 mm	0.020 in.
Diaphragm spring finger wear	Depth	Limit	0.6 mm	0.024 in.
	Width	Limit	5.0 mm	0.197 in.
Flywheel runout		Limit	0.1 mm	0.004 in.
Clutch release point		Limit	25 mm	0.98 in.

Torque Specifications

Part tightened		N·m	kgf·cm	ft·lbf
Clutch cover x Flywheel		19	195	14
Release cylinder x Body		12	120	9
Clutch line union		15	155	11
Bleeder plug		8.3	85	74 in.·lbf
Master cylinder x Body		13	130	9
Release fork support	C52 Transaxle	37	375	27
	S53 Transaxle	39	400	29
	E150F Transaxle	47	480	35

MANUAL TRANSAXLE (C52)

Specifications

TRANSMISSION ASSEMBLY				
Input shaft				
Roller bearing journal diameter		Limit	24.970 mm	0.9831 in.
3rd gear journal diameter		Limit	30.970 mm	1.2193 in.
4th gear journal diameter		Limit	26.470 mm	1.0421 in.
5th gear journal diameter		Limit	24.870 mm	0.9791 in.
Runout		Limit	0.05 mm	0.0020 in.
Output shaft				
Roller bearing journal diameter		Limit	32.970 mm	1.2980 in.
1st gear journal diameter		Limit	37.970 mm	1.4949 in.
2nd gear journal diameter		Limit	31.970 mm	1.2587 in.
Runout		Limit	0.05 mm	0.0020 in.
Gear thrust clearance	1st	STD	0.10 – 0.40 mm	0.0039 – 0.0157 in.
		Limit	0.45 mm	0.0177 in.
	2nd	STD	0.10 – 0.45 mm	0.0039 – 0.0177 in.
		Limit	0.50 mm	0.0197 in.
	3rd	STD	0.10 – 0.35 mm	0.0039 – 0.0138 in.
		Limit	0.40 mm	0.0157 in.
	4th	STD	0.10 – 0.55 mm	0.0039 – 0.0217 in.
		Limit	0.60 mm	0.0236 in.
	5th	STD	0.10 – 0.57 mm	0.0039 – 0.0224 in.
		Limit	0.65 mm	0.0256 in.
Gear oil clearance				
1st, 2nd, 3rd, 4th and 5th		STD	0.015 – 0.058 mm	0.0006 – 0.0023 in.
		Limit	0.070 mm	0.0028 in.
Shift fork to hub sleeve clearance		Limit	1.0 mm	0.039 in.
Synchronizer ring to gear clearance		Limit	0.6 mm	0.024 in.
Oil seal drive in depth				
Speedometer driven gear			25 mm	0.98 in.
Input shaft snap ring thickness				
No. 2 clutch hub		Mark		
		0	2.30 mm	0.0906 in.
		1	2.36 mm	0.0929 in.
		2	2.42 mm	0.0953 in.
		3	2.48 mm	0.0976 in.
		4	2.54 mm	0.1000 in.
		5	2.60 mm	0.1024 in.
Input rear bearing		Mark		
		A	2.29 mm	0.0902 in.
		B	2.35 mm	0.0925 in.
		C	2.41 mm	0.0949 in.
		D	2.47 mm	0.0972 in.
		E	2.53 mm	0.0996 in.
		F	2.59 mm	0.1020 in.

Specifications (Cont'd)

Output shaft snap ring thickness				
No–1 clutch hub		Mark		
		A	2.50 mm	0.0984 in.
		B	2.56 mm	0.1008 in.
		C	2.62 mm	0.1031 in.
		D	2.68 mm	0.1055 in.
		E	2.74 mm	0.1079 in.
		F	2.80 mm	0.1102 in.
No. 3 clutch hub		Mark		
		A	2.25 mm	0.0886 in.
		B	2.31 mm	0.0909 in.
		C	2.37 mm	0.0933 in.
		D	2.43 mm	0.0957 in.
		E	2.49 mm	0.0980 in.
		F	2.55 mm	0.1004 in.
		G	2.61 mm	0.1028 in.
Side bearing preload (at starting)	New bearing		0.8 – 1.6 N·m	8 – 16 kgf·cm 6.9 – 13.9 in.·lbf
Pinion to side gear backlash	Reused bearing		0.5 – 1.0 N·m	5 – 10 kgf·cm 4.3 – 8.7 in.·lbf
Side gear thrust washer thickness			0.05 – 0.20 mm	0.0020 – 0.0079 in.
			0.95 mm	0.0374 in.
			1.00 mm	0.0394 in.
			1.05 mm	0.0413 in.
			1.10 mm	0.0433 in.
			1.15 mm	0.0453 in.
			1.20 mm	0.0472 in.
Side bearing adjusting shim thickness		Mark		
		A	2.10 mm	0.0827 in.
		B	2.15 mm	0.0846 in.
		C	2.20 mm	0.0866 in.
		D	2.25 mm	0.0886 in.
		E	2.30 mm	0.0906 in.
		F	2.35 mm	0.0925 in.
		G	2.40 mm	0.0945 in.
		H	2.45 mm	0.0965 in.
		J	2.50 mm	0.0984 in.
		K	2.55 mm	0.1004 in.
		L	2.60 mm	0.1024 in.
		M	2.65 mm	0.1043 in.
		N	2.70 mm	0.1063 in.
		P	2.75 mm	0.1083 in.
		Q	2.80 mm	0.1102 in.
		R	2.85 mm	0.1122 in.
		S	2.90 mm	0.1142 in.
		T	2.95 mm	0.1161 in.
		U	3.00 mm	0.1181 in.

Specifications (Cont'd)

Shift lever adjusting shim thickness	Mark			
	A	0.5 mm		0.020 in.
	B	0.6 mm		0.024 in.
	C	0.7 mm		0.028 in.
	D	0.8 mm		0.031 in.
	E	0.9 mm		0.035 in.
	F	1.0 mm		0.039 in.
	G	1.1 mm		0.043 in.
	H	1.2 mm		0.047 in.
	J	1.3 mm		0.051 in.
	K	1.4 mm		0.055 in.
	L	1.5 mm		0.059 in.
	M	1.6 mm		0.063 in.
	N	1.7 mm		0.067 in.
Shift lever preload		0.49 – 1.47 N	60 – 150 gf	0.1 – 0.3 lbf
DIFFERENTIAL ASSEMBLY				
Side gear backlash		0.05 – 0.20 mm		0.0020 – 0.0079 in.
Side gear thrust washer thickness		0.95 mm		0.0374 in.
		1.00 mm		0.0394 in.
		1.05 mm		0.0413 in.
		1.10 mm		0.0433 in.
		1.15 mm		0.0453 in.
		1.20 mm		0.0472 in.

Torque Specifications

Part tightened		N·m	kgf·cm	ft·lbf
Transaxle x Engine	12 mm bolt	64	650	47
	10 mm bolt	46	470	34
Transaxle x Rear end plate	10 mm bolt	24	240	17
	8 mm bolt	11	115	8
Transaxle x Starter		39	400	29
Transaxle x Front engine mounting		77	790	57
Transaxle x Rear engine mounting		77	790	57
Centermember x Engine mounting		64	650	47
LH engine mounting x Transaxle		52	530	38
Mounting insulator x Bracket		87	890	64
LH engine mounting x Bracket		48	490	35
LH engine mounting stay x Transaxle		21	210	15
LH engine mounting stay x LH engine mounting		21	210	15
Output shaft front bearing lock plate bolt		11	115	8
Reverse restrict pin holder		20	200	14
Transaxle case x Transmission case		29	300	22
Reverse shift arm bracket x Transaxle case		17	175	13
Straight screw plug		13	130	9
Lock ball assembly		39	400	29
Reverse idler gear shaft lock bolt		29	300	22

Torque Specifications (Cont'd)

Part tightened	N·m	kgf·cm	ft·lbf
Rear bearing retainer x Transmission case	28	280	20
5th driven gear lock nut	118	1,200	87
Shift fork x Fork shaft	16	160	12
Control shaft cover x Transmission case	20	200	14
Shift and select lever shaft lock bolt	29	300	22
Transmission case cover x Transmission case	18	185	13
Front bearing retainer x Transmission case	11	110	8
Back–up light switch x Transmission case	40	410	30
Speedometer shaft sleeve lock plate bolt	11	115	8
Oil receiver x Transaxle case	17	175	13
Transmission case protector x Transmission case	13	130	9
Drain plug	39	400	29
Filler plug	39	400	29
Oil receiver x Transmission case	11	115	8
Selecting spring cover x Control shift lever retainer	4.9	50	43 in.·lbf
Control shift lever retainer x Plate	12	120	9
Ring gear x Differential case	97	985	71

MANUAL TRANSAXLE (S53)

Specifications

TRANSMISSION ASSEMBLY				
Input shaft				
Roller bearing journal diameter		Limit	29.970 mm	1.1799 in.
3rd gear journal diameter		Limit	33.090 mm	1.3028 in.
4th gear journal diameter		Limit	32.470 mm	1.2783 in.
5th gear journal diameter		Limit	26.970 mm	1.0618 in.
Runout		Limit	0.05 mm	0.0020 in.
Output shaft				
Roller bearing journal diameter		Limit	31.970 mm	1.2587 in.
1st gear journal diameter		Limit	37.970 mm	1.4949 in.
2nd gear journal diameter		Limit	31.990 mm	1.2594 in.
Runout		Limit	0.05 mm	0.0020 in.
Gear thrust clearance	1st	STD	0.10 – 0.29 mm	0.0039 – 0.0114 in.
		Limit	0.35 mm	0.0138 in.
	2nd	STD	0.20 – 0.44 mm	0.0079 – 0.0173 in.
		Limit	0.50 mm	0.0197 in.
	3rd	STD	0.10 – 0.25 mm	0.0039 – 0.0098 in.
		Limit	0.30 mm	0.0118 in.
	4th	STD	0.20 – 0.45 mm	0.0079 – 0.0177 in.
		Limit	0.50 mm	0.0197 in.
	5th	STD	0.20 – 0.40 mm	0.0079 – 0.0157 in.
		Limit	0.45 mm	0.0177 in.
Gear oil clearance				
1st, 2nd, 3rd and 4th		STD	0.009 – 0.053 mm	0.0004 – 0.0021 in.
		Limit	0.070 mm	0.0028 in.
5th		STD	0.009 – 0.050 mm	0.0004 – 0.0020 in.
		Limit	0.070 mm	0.0028 in.
Shift fork to hub sleeve clearance		Limit	1.0 mm	0.039 in.
Synchronizer ring to gear clearance		Limit	0.6 mm	0.024 in.
Input shaft snap ring thickness				
No.2 clutch hub		Mark		
		1	1.95 – 2.00 mm	0.0768 – 0.0787 in.
		2	2.00 – 2.05 mm	0.0787 – 0.0807 in.
		3	2.05 – 2.10 mm	0.0807 – 0.0827 in.
		4	2.10 – 2.15 mm	0.0827 – 0.0846 in.
		5	2.15 – 2.20 mm	0.0846 – 0.0866 in.
		6	2.20 – 2.25 mm	0.0866 – 0.0886 in.
No.3 clutch hub		Mark		
		13	2.20 – 2.25 mm	0.0866 – 0.0885 in.
		14	2.25 – 2.30 mm	0.0885 – 0.0906 in.
		15	2.30 – 2.35 mm	0.0906 – 0.0925 in.
		16	2.35 – 2.40 mm	0.0925 – 0.0945 in.
		17	2.40 – 2.45 mm	0.0945 – 0.0965 in.
		18	2.45 – 2.50 mm	0.0965 – 0.0984 in.
		19	2.50 – 2.55 mm	0.0984 – 0.1004 in.
		20	2.55 – 2.60 mm	0.1004 – 0.1024 in.

Specifications (Cont'd)

Input shaft snap ring thickness (cont'd)				
No–3 clutch hub (cont'd)	Mark			
	21	2.60 – 2.65 mm		0.1024 – 0.1043 in.
	22	2.65 – 2.70 mm		0.1043 – 0.1063 in.
	23	2.70 – 2.75 mm		0.1063 – 0.1083 in.
	24	2.75 – 2.80 mm		0.1083 – 0.1102 in.
	25	2.80 – 2.85 mm		0.1102 – 0.1122 in.
	26	2.85 – 2.90 mm		0.1122 – 0.1142 in.
	27	2.90 – 2.95 mm		0.1142 – 0.1161 in.
Rear bearing	Mark			
	A	2.15 – 2.20 mm		0.0846 – 0.0866 in.
	B	2.20 – 2.25 mm		0.0866 – 0.0886 in.
	C	2.25 – 2.30 mm		0.0886 – 0.0906 in.
	D	2.30 – 2.35 mm		0.0906 – 0.0925 in.
	E	2.35 – 2.40 mm		0.0925 – 0.0945 in.
Side bearing preload (at starting)		1.0 – 1.6 N·m	10 – 16 kgf·cm	8.7 – 13.9 in.·lbf
Side bearing adjusting shim thickness	Mark			
	1	1.90 mm		0.0748 in.
	2	1.95 mm		0.0768 in.
	3	2.00 mm		0.0787 in.
	4	2.05 mm		0.0807 in.
	5	2.10 mm		0.0827 in.
	6	2.15 mm		0.0846 in.
	7	2.20 mm		0.0866 in.
	8	2.25 mm		0.0886 in.
	9	2.30 mm		0.0906 in.
	10	2.35 mm		0.0925 in.
	11	2.40 mm		0.0945 in.
	12	2.45 mm		0.0965 in.
	13	2.50 mm		0.0984 in.
	14	2.55 mm		0.1004 in.
	15	2.60 mm		0.1024 in.
	16	2.65 mm		0.1043 in.
	17	2.70 mm		0.1063 in.
	18	2.75 mm		0.1083 in.
	19	2.80 mm		0.1102 in.
Shift lever preload		0.5 – 1.0 N	50 – 100 gf	0.1 – 0.2 lbf
Shift lever seat shim thickness	Mark			
	A or 3	0.3 mm		0.012 in.
	B or 4	0.4 mm		0.016 in.
	C or 5	0.5 mm		0.020 in.
	D or 6	0.6 mm		0.024 in.
	E or 7	0.7 mm		0.028 in.
	F or 8	0.8 mm		0.031 in.
	G or 9	0.9 mm		0.035 in.
	H or 10	1.0 mm		0.039 in.
	K or 11	1.1 mm		0.043 in.
	L or 12	1.2 mm		0.047 in.

Specifications (Cont'd)

DIFFERENTIAL ASSEMBLY				
Side bearing preload (at starting)		0.8 – 1.6 N·m	8 – 16 kgf·cm	6.9 – 13.9 in.·lbf
Side gear backlash		0.05 – 0.20 mm		0.0020 – 0.0079 in.
Side gear thrust washer thickness		0.95 mm		0.0374 in.
		1.00 mm		0.0394 in.
		1.05 mm		0.0413 in.
		1.10 mm		0.0433 in.
		1.15 mm		0.0453 in.
		1.20 mm		0.0472 in.
Adjusting shim thickness	Mark			
	1	1.90 mm		0.0748 in.
	2	1.95 mm		0.0768 in.
	3	2.00 mm		0.0787 in.
	4	2.05 mm		0.0807 in.
	5	2.10 mm		0.0827 in.
	6	2.15 mm		0.0846 in.
	7	2.20 mm		0.0866 in.
	8	2.25 mm		0.0886 in.
	9	2.30 mm		0.0906 in.
	10	2.35 mm		0.0925 in.
	11	2.40 mm		0.0945 in.
	12	2.45 mm		0.0965 in.
	13	2.50 mm		0.0984 in.
	14	2.55 mm		0.1004 in.
	15	2.60 mm		0.1024 in.
	16	2.65 mm		0.1043 in.
	17	2.70 mm		0.1063 in.
	18	2.75 mm		0.1083 in.
	19	2.80 mm		0.1102 in.

Torque Specifications

Part tightened	N·m	kgf·cm	ft·lbf
Transmission case x Transaxle case	29	300	22
Transmission case x Case cover	29	300	22
Transmission case protector	18	185	13
Rear bearing retainer	42	430	31
Output shaft front bearing lock plate	18	185	13
Input shaft oil receiver	7.4	75	65 in.·lbf
5th driven gear lock nut	123	1,250	90
Reverse idler shaft lock bolt	29	300	22
Control shaft cover	37	375	27
Reverse shift arm bracket	18	185	13
No.3 shift fork x Shift fork shaft	18	185	13

Torque Specifications (Cont'd)

Part tightened	N·m	kgf·cm	ft·lbf
No.1 lock ball assembly lock nut	37	375	27
No.2 lock ball assembly	23	230	17
Filler plug	49	500	36
Drain plug	49	500	36
Back–up light switch	44	450	33
Side bearing retainer	18	185	13
Clutch release bearing retainer	7.4	75	65 in.·lbf
Straight screw plug (Shift fork shaft)	13	130	9
(Reverse restrict pin)	13	130	9
Transaxle x Engine (10 mm bolt)	64	650	47
(12 mm bolt)	46	470	34
Left engine mounting	52	530	38
Drive shaft center bearing bracket	32	330	24
Drive shaft x Side gear shaft	36	370	27
Steering knuckle x Lower arm	113	1,150	83
Engine mounting center member x Body	39	400	23
Engine mounting center member x Engine Mounting	43	440	32
Engine mounting center member x Lower crossmember	39	400	29
Lower cross member x Body	See page SA-51		
Ring gear x Differential case	97	985	71

MANUAL TRANSAXLE (E150F)

Specifications

TRANSMISSION ASSEMBLY				
Input shaft				
Roller bearing journal diameter		Limit	32.930 mm	1.2964 in.
3rd gear journal diameter		Limit	35.950 mm	1.4154 in.
4th gear journal diameter		Limit	35.950 mm	1.4154 in.
Runout		Limit	0.060 mm	0.0024 in.
Output shaft				
1st gear journal diameter		Limit	38.950 mm	1.5335 in.
2nd gear journal diameter		Limit	38.950 mm	1.5335 in.
Runout		Limit	0.060 mm	0.0024 in.
Gear thrust clearance	1st	STD	0.10 – 0.35 mm	0.0039 – 0.0138 in.
		Limit	0.40 mm	0.0157 in.
	2nd	STD	0.10 – 0.45 mm	0.0039 – 0.0177 in.
		Limit	0.50 mm	0.0197 in.
	3rd	STD	0.10 – 0.35 mm	0.0039 – 0.0139 in.
		Limit	0.40 mm	0.0157 in.
	4th	STD	0.10 – 0.55 mm	0.0039 – 0.0217 in.
		Limit	0.60 mm	0.0236 in.
	5th	STD	0.10 – 0.57 mm	0.0039 – 0.0224 in.
		Limit	0.65 mm	0.0256 in.
Gear oil clearance				
1st and 4th gear		STD	0.009 – 0.051 mm	0.0004 – 0.0020 in.
		Limit	0.080 mm	0.0031 in.
2nd and 3rd gear		STD	0.009 – 0.053 mm	0.0004 – 0.0020 in.
		Limit	0.080 mm	0.0031 in.
5th gear		STD	0.009 – 0.050 mm	0.0004 – 0.0020 in.
		Limit	0.070 mm	0.0028 in.
Shift fork to hub sleeve clearance		Limit	1.0 mm	0.039 in.
Synchronizer ring to gear clearance		1st, 4th Limit	0.6 mm	0.024 in.
		2nd, 3rd Limit	0.7 mm	0.028 in.
Oil pump assembly				
Rotor body clearance		STD	0.10 – 0.16 mm	0.0039 – 0.0063 in.
		Limit	0.30 mm	0.0118 in.
Rotor tip clearance		STD	0.08 – 0.15 mm	0.0031 – 0.0059 in.
		Limit	0.30 mm	0.0118 in.
Side clearance		STD	0.03 – 0.08 mm	0.0012 – 0.0031 in.
		Limit	0.15 mm	0.0059 in.
Oil seal drive in depth				
Control shaft cover			0 – 1.0 mm	0 – 0.039 in.
Input shaft snap ring thickness				
No.2 clutch hub		Mark		
		H	2.30 – 2.35 mm	0.0906 – 0.0925 in.
		J	2.35 – 2.40 mm	0.0925 – 0.0945 in.
		K	2.40 – 2.45 mm	0.0945 – 0.0965 in.
		L	2.45 – 2.50 mm	0.0965 – 0.0984 in.
		M	2.50 – 2.55 mm	0.0984 – 0.1004 in.
		N	2.55 – 2.60 mm	0.1004 – 0.1024 in.
		P	2.60 – 2.65 mm	0.1024 – 0.1043 in.

Specifications (Cont'd)

Input shaft snap ring thickness (cont'd)				
4th gear and rear bearing	Mark			
	1	2.35 – 2.40 mm		0.0925 – 0.0945 in.
	2	2.40 – 2.45 mm		0.0945 – 0.0965 in.
	3	2.45 – 2.50 mm		0.0965 – 0.0984 in.
	4	2.50 – 2.55 mm		0.0984 – 0.1004 in.
	5	2.55 – 2.60 mm		0.1004 – 0.1024 in.
	6	2.60 – 2.65 mm		0.1024 – 0.1043 in.
	7	2.65 – 2.70 mm		0.1043 – 0.1063 in.
	8	2.70 – 2.75 mm		0.1063 – 0.1083 in.
No.3 clutch hub	Mark			
	Q	2.25 – 2.30 mm		0.0886 – 0.0906 in.
	R	2.30 – 2.35 mm		0.0906 – 0.0925 in.
	S	2.35 – 2.40 mm		0.0925 – 0.0945 in.
	T	2.40 – 2.45 mm		0.0945 – 0.0965 in.
	U	2.45 – 2.50 mm		0.0965 – 0.0984 in.
	V	2.50 – 2.55 mm		0.0984 – 0.1004 in.
	W	2.55 – 2.60 mm		0.1004 – 0.1024 in.
	X	2.60 – 2.65 mm		0.1024 – 0.1043 in.
	Y	2.65 – 2.70 mm		0.1043 – 0.1063 in.
Output shaft snap ring thickness				
No.1 clutch hub	Mark			
	A	2.80 – 2.85 mm		0.1102 – 0.1122 in.
	B	2.85 – 2.90 mm		0.1122 – 0.1142 in.
	C	2.90 – 2.95 mm		0.1142 – 0.1161 in.
	D	2.95 – 3.00 mm		0.1161 – 0.1181 in.
	E	3.00 – 3.05 mm		0.1181 – 0.1201 in.
	F	3.05 – 3.10 mm		0.1201 – 0.1220 in.
	G	3.10 – 3.15 mm		0.1220 – 0.1240 in.
DIFFERENTIAL ASSEMBLY				
Output shaft preload (at starting)	New bearing	0.78 – 1.57 N·m	8.0 – 16.0 kgf·cm	6.9 – 13.9 in.·lbf
Differential case preload (at starting)	Reused bearing	0.49 – 0.98 N·m	5.0 – 10.0 kgf·cm	4.3 – 8.7 in.·lbf
Left case inner diameter	New bearing	0.2 – 0.4 N·m	1.9 – 3.7 kgf·cm	1.6 – 3.2 in.·lbf
Right case bushing	Reused bearing	0.1 – 0.2 N·m	1.2 – 2.3 kgf·cm	1.0 – 2.0 in.·lbf
Left case bushing				
	STD	111.000 – 111.035 mm		4.3701 – 4.3714 in.
	Limit	110.060 mm		4.3724 in.
	STD	90.500 – 90.535 mm		3.5630 – 3.5644 in.
	Limit	90.560 mm		3.5653 in.
No.2 differential case outer diameter				
Right side	STD	110.929 – 110.964 mm		4.3673 – 4.3687 in.
	Limit	110.850 mm		4.3632 in.
Left side	STD	90.429 – 90.464 mm		3.5602 – 3.5616 in.
	Limit	90.350 mm		3.5571 in.
Differential No.2 case inner diameter				
Side gear bushing	STD	35.000 – 35.025 mm		1.3780 – 1.3789 in.
	Limit	35.030 mm		1.3791 in.

Specifications (Cont'd)

Conical spring washer height			
Left conical spring washer	STD	2.60 – 2.80 mm	0.1024 – 0.1102 in.
	Limit	2.50 mm	0.0984 in.
Right conical spring washer	STD	1.70 – 1.90 mm	0.0669 – 0.0748 in.
	Limit	1.60 mm	0.0630 in.
Right case backlash		0.05 – 0.20 mm	0.0020 – 0.0079 in.
No.2 differential case backlash		0.05 – 0.20 mm	0.0020 – 0.0079 in.
Intermediate case backlash		0.05 – 0.20 mm	0.0020 – 0.0079 in.
Front differential side gear backlash		0.14 – 0.21 mm	0.0055 – 0.0083 in.
Thrust washer thickness			
For right case side gear		0.80 mm	0.0315 in.
		0.85 mm	0.0335 in.
		0.90 mm	0.0354 in.
		0.95 mm	0.0374 in.
		1.00 mm	0.0394 in.
		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.
For intermediate case side gear		0.80 mm	0.0315 in.
		0.85 mm	0.0335 in.
		0.90 mm	0.0354 in.
		0.95 mm	0.0374 in.
		1.00 mm	0.0394 in.
		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.
For No.2 differential case side gear	Mark		
	B	1.00 mm	0.0394 in.
	C	1.05 mm	0.0413 in.
	D	1.10 mm	0.0433 in.
	E	1.15 mm	0.0453 in.
	F	1.20 mm	0.0472 in.
	G	1.25 mm	0.0492 in.
For left case side gear	Mark		
	A	0.95 mm	0.0374 in.
	B	1.00 mm	0.0394 in.
	C	1.05 mm	0.0413 in.
	D	1.10 mm	0.0433 in.
	E	1.15 mm	0.0453 in.

Specifications (Cont'd)

Thrust washer thickness (cont'd)			
For left case side gear (cont'd)	Mark		
	F	1.20 mm	0.0472 in.
	G	1.25 mm	0.0492 in.
	H	1.30 mm	0.0512 in.
	J	1.35 mm	0.0531 in.
	K	1.40 mm	0.0551 in.
Adjusting shim thickness			
For differential preload	Mark		
	0	2.00 mm	0.0787 in.
	1	2.05 mm	0.0807 in.
	2	2.10 mm	0.0827 in.
	3	2.15 mm	0.0846 in.
	4	2.20 mm	0.0866 in.
	5	2.25 mm	0.0886 in.
	6	2.30 mm	0.0906 in.
	7	2.35 mm	0.0925 in.
	8	2.40 mm	0.0945 in.
	9	2.45 mm	0.0965 in.
	A	2.50 mm	0.0984 in.
	B	2.55 mm	0.1004 in.
	C	2.60 mm	0.1024 in.
	D	2.65 mm	0.1043 in.
	E	2.70 mm	0.1063 in.
	F	2.75 mm	0.1083 in.
	G	2.80 mm	0.1102 in.
	H	2.85 mm	0.1122 in.
For output shaft preload	Mark		
	0	0.40 mm	0.0157 in.
	1	0.45 mm	0.0177 in.
	2	0.50 mm	0.0197 in.
	3	0.55 mm	0.0217 in.
	4	0.60 mm	0.0236 in.
	5	0.65 mm	0.0256 in.
	6	0.70 mm	0.0276 in.
	7	0.75 mm	0.0295 in.
	8	0.80 mm	0.0315 in.
	9	0.85 mm	0.0335 in.
	A	0.90 mm	0.0354 in.
	B	0.95 mm	0.0374 in.
	C	1.00 mm	0.0394 in.
	D	1.05 mm	0.0413 in.
	E	1.10 mm	0.0433 in.
	F	1.15 mm	0.0453 in.
	G	1.20 mm	0.0472 in.
	H	1.25 mm	0.0492 in.
	J	1.30 mm	0.0512 in.
	K	1.35 mm	0.0531 in.
	L	1.40 mm	0.0551 in.

Specifications (Cont'd)

Adjusting shim thickness (cont'd)	Mark			
For output shaft preload (cont'd)	M	1.45 mm		0.0571 in.
	N	1.50 mm		0.0591 in.
	P	1.55 mm		0.0610 in.
	Q	1.60 mm		0.0630 in.
TRANSFER ASSEMBLY				
Ring gear backlash		0.13 – 0.18 mm		0.0051 – 0.0071 in.
Ring gear runout	Limit	0.1 mm		0.004 in.
Driven pinion preload (at starting)	New bearing	17.7 – 28.4 N	1.8 – 2.9 kgf	4.0 – 6.4 lbf
Transfer total preload (at starting)	Reused bearing	8.8 – 13.7 N	0.9 – 1.4 kgf	2.0 – 3.1 lbf
(Add driven pinion preload)				
	New bearing	12.7 – 13. 7 N	1.3 – 1.4 kgf	2.9 – 3.1 lbf
	Reused bearing	4.9 – 8.8 N	0.5 – 0.9 kgf	1.1 – 2.0 lbf
Right case bushing inner diameter	STD	69.000 – 69.035 mm		2.7165 – 2.7179 in.
	Limit	69.060 mm		2.7189 in.
Left case bushing inner diameter	STD	69.000 – 69.035 mm		2.7165 – 2.7179 in.
	Limit	69.060 mm		2.7189 in.
Control coupling washer thickness	STD	1.49 – 1.51 mm		0.0587 – 0.0594 in.
	Limit	1.45 mm		0.0571 in.
Oil seal drive in depth				
Extension housing		1.1 – 1.9 mm		0.043 – 0.075 in.
Differential lock shift lever shaft		1.0 – 2.0 mm		0.039 – 0.079 in.
Shift fork shaft		8.5 – 9.5 mm		0.335 – 0.374 in.
Adjusting shim thickness				
For ring gear backlash	Mark			
	1	2.13 mm		0.0839 in.
	2	2.16 mm		0.0850 in.
	3	2.19 mm		0.0862 in.
	4	2.22 mm		0.0874 in.
	5	2.25 mm		0.0886 in.
	6	2.28 mm		0.0898 in.
	7	2.31 mm		0.0909 in.
	8	2.34 mm		0.0921 in.
	9	2.37 mm		0.0933 in.
	10	2.40 mm		0.0945 in.
	11	2.43 mm		0.0957 in.
	12	2.46 mm		0.0968 in.
	13	2.49 mm		0.0980 in.
	14	2.52 mm		0.0992 in.
	15	2.55 mm		0.1004 in.
	16	2.58 mm		0.1016 in.
	17	2.61 mm		0.1028 in.
	18	2.64 mm		0.1039 in.
	19	2.67 mm		0.1051 in.
	20	2.70 mm		0.1063 in.
	21	2.73 mm		0.1075 in.
	22	2.76 mm		0.1087 in.
	23	2.79 mm		0.1098 in.
	24	2.82 mm		0.1110 in.

Specifications (Cont'd)

Adjusting shim thickness (cont'd)				
For tooth contact	Mark			
	A	0.30 mm		0.0118 in.
	B	0.33 mm		0.0130 in.
	C	0.36 mm		0.0142 in.
	D	0.39 mm		0.0154 in.
	E	0.42 mm		0.0165 in.
	F	0.45 mm		0.0177 in.
	G	0.48 mm		0.0189 in.
	H	0.51 mm		0.0201 in.
	J	0.54 mm		0.0213 in.
	K	0.57 mm		0.0224 in.
Shift lever preload		0.49 – 1.47 N	60 – 150 gf	0.1 – 0.3 lbf
Shift lever seat shim thickness	Mark			
	A	0.5 mm		0.020 in.
	B	0.6 mm		0.024 in.
	C	0.7 mm		0.028 in.
	D	0.8 mm		0.031 in.
	E	0.9 mm		0.035 in.
	F	1.0 mm		0.039 in.
	G	1.1 mm		0.043 in.
	H	1.2 mm		0.047 in.
	J	1.3 mm		0.051 in.
	K	1.4 mm		0.055 in.
	L	1.5 mm		0.059 in.
	M	1.6 mm		0.063 in.
	N	1.7 mm		0.067 in.

Torque Specifications

Part tightened	N·m	kgf·cm	ft·lbf
Oil pump x Cover	10	105	8
Oil cooler pipe x Union	34	350	25
Ring gear x Differential case	124	1,260	91
Union x Transaxle	27	275	20
Rear bearing retainer x Transmission case	42	430	31
Straight screw plug	25	250	18
Transmission case x Transaxle case	29	300	22
Reverse restrict pin holder plug	13	130	9
Oil pump assembly x Transaxle case	17	175	13
Control shaft lock bolt	49	500	36
Shift fork x Fork shaft	24	240	17
Reverse idler gear shaft lock bolt	29	300	22
Oil pipe x Housing	17	175	13
Rear bearing retainer x Transmission case	42	430	31
Transmission case x Transmission case cover	29	300	22
5th driven gear lock nut	123	1,250	90
Shift and select lever assembly x Transmission case	20	200	14

Torque Specifications (Cont'd)

Part tightened		N·m	kgf-cm	ft·lbf
Transaxle case receiver x Transaxle case		7.4	75	65 in.·lbf
Bellcrank x Transmission case		20	200	14
Shift arm bracket bolt x Transaxle case		17	175	13
Back–up light switch x Transmission case		40	410	30
Differential right case x Intermediate case		63	640	46
Driven pinion x Bearing cage		See page MT-194		
Ring gear x Ring gear mounting		97	985	71
Driven pinion cage x Transfer case		39	400	29
Transfer case x Transfer right case		44	450	33
Transfer case x Inspection hole cover		16	160	12
Transfer shift lever shaft x Left case		20	200	14
Differential lock sleeve x Shift fork		16	160	12
Transfer right case x Transfer case cover		17	175	13
Transfer oil tube set bolt		13	130	9
Driven pinion cage x Extension housing		25	260	19
Differential lock shift fork shaft lock screw		39	400	29
Extension housing x Dynamic damper		25	260	19
Transaxle assembly x Transfer assembly		69	700	51
Drain plug		39	400	29
Transaxle assembly x Engine	M12 bolt	64	650	47
	M10 bolt	46	470	34
LH engine mounting bracket x Transaxle		52	530	38
Mounting insulator x Mounting bracket		87	890	64
Mounting bracket x Transaxle bracket		63	650	47
R H mounting insulator x Bracket		52	530	38
RH mounting stay bolt		73	740	54
LH mounting stay bolt		21	210	15
Catalytic converter mounting bolt		29	300	22
Converter stay set bolt		59	600	43
Front mounting bracket x Transaxle		77	790	57
Rear mounting bracket x Transaxle		77	790	57
Center member x Body		52	530	38
Center member x Mounting bracket		73	740	54
A/C compressor x Idler pulley bracket		27	280	20
Exhaust pipe x Converter		62	630	46
Exhaust pipe x Center exhaust pipe		43	440	32
Lower crossmember x Body		152	1,500	112
Fuel hose union bolt		29	300	22
Suspension upper brace x Body	Bolt	21	210	15
	Nut	64	650	47
Shift lever retainer x Plate		12	120	9
Selecting spring cover x Shift lever retainer		4.9	50	43 in.·lbf
Shift lever retainer plate x Body		12	120	9

AUTOMATIC TRANSAXLE

Specifications

Line pressure	A241 E	Engine idling	D	373 – 422 kPa	3.8 – 4.3 kgf/cm²	54 – 61 psi
			R	637 – 794 kPa	6.5 – 8.1 kgf/cm²	92 – 115 psi
		At stall	D	716 – 863 kPa	7.3 – 8.8 kgf/cm²	104 – 125 psi
			R	1,334 – 1,579 kPa	13.6 – 16.1 kgf/cm²	193 – 229 psi
	A243 L	Engine idling	D	373 – 422 kPa	3.8 – 4.3 kgf/cm²	54 – 61 psi
			R	549 – 706 kPa	5.6 – 7.2 kgf/cm²	80 – 102 psi
		At stall	D	902 – 1,049 kPa	9.2 – 10.7 kgf/cm²	131 – 152 psi
			R	1,412 – 1,667 kPa	14.4 – 17.0 kgf/cm²	205 – 242 psi

Governor pressure (A243L)	Drive pinion rpm	(Vehicle speed reference)			
	490	approx. 18 km/h 11 mph	20 – 49 kPa	0.2 – 0.5 kgf/cm²	3 – 7 psi
	1,300	approx. 47 km/h 29 mph	176 – 205 kPa	1.79 – 2.09 kgf/cm²	25 – 30 psi
	2,600	approx. 94 km/h 58 mph	412 – 490 kPa	4.2 – 5.0 kgf/cm²	60 – 71 psi

Engine stall revolution	A241 E	2,550 ± 150 rpm
	A243 L	$2{,}650^{+150}_{-350}$ rpm
Time lag	N range → D range	Less than 1.2 seconds
	N range → R range	Less than 1.5 seconds

Engine idle speed (A/C OFF, N range) 5S–FE

	A/C OFF	A/C O N
Electrical Load OFF	700 ± 50 rpm	950 ± 50 rpm
Electrical Load ON	750 ± 50 rpm	950 ± 50 rpm

4A–FE	800 ± 50 rpm	
Throttle cable adjustment (Throttle valve fully opened)	Between boot end face and inner cable stopper	
	0 – 1 mm	0 – 0.04 in.
Torque converter installation Correct distance 4A–FE	22.8 mm	0.898 in.
5S–FE	16.7 mm	0.657 in.
Torque converter sleeve runout	0.3 mm	0.0118 in.
Drive plate runout	0.2 mm	0.0079 in.

Shift schedule (A241E) — Throttle valve fully open [Fully closed] — km/h (mph)

		1 → 2	2 → 3	3 → O/D	[3 → O/D]	[O/D → 3]	O/D → 3	3 → 2	2 → 1
D range	NORM	52-57 (32-35)	99-107 (62-66)	133-142 (83-88)	39-44 (24-27)	18-23 (11-14)	127-136 (79-85)	91-99 (57-62)	43-48 (27-30)
	PW R	52-57 (32-35)	99-107 (62-66)	133-142 (83-88)	63-68 (39-42)	18-23 (11-14)	127-136 (79-85)	94-103 (58-64)	43-48 (27-30)
2 range	NORM PWR	52-57 (32-35)	—	—	—	—	—	—	43-48 (27-30)
L range	NORM PWR	—	—	—	—	—	—	—	34-38 (21-24)

Specifications (Cont'd)

Lock–up point (A241E)			Throttle valve opening 5% km/h (mph)							
			Lock–up oN			Lock–up OFF				
			O/D			O/D				
	D range	NORM	66 – 70 (41 – 43)			60 – 65 (37 – 40)				
		Pw R	77 – 82 (48 – 51)			71 – 76 (44 – 47)				
Shift schedule (A243L)	Differential gear ratio	D range (throttle valve fully open) km/h (mph)								L range
		1 → 2	2 → 3	3 → O/D	Lock-up ON	Lock-up OFF	O/D → 3	3 → 2	2 → 1	2 → 1
	3.034	44 – 59 (27 – 37)	87 – 101 (54 – 63)	—*1	—*2	—*3	—*4	83 – 99 (52 – 62)	32 – 42 (20 – 26)	40 – 51 (25 – 32)

*1 3 → O/D up-shift point with closed accelerator pedal is at 25 – 38 km/h (16 – 24 mph).
*2 Lock-up "ON" point with closed accelerator pedal is at 71 – 80 km/h (44 – 50 mph).
*3 Lock-up "OFF" point with closed accelerator pedal is at 60 – 69 km/h (37 – 43 mph).
*4 O/D → 3 down-shift is possible up to maximum speed.

Torque Specifications

Part tightened	N·m	kgf·cm	ft·lbf
Neutral start switch x Transaxle case	5.4	55	48 in.·lbf
Torque converter x Drive plate	27	280	20
Drive plate x Crank shaft	83	850	61
Valve body x Transaxle case	10	100	7
Manual detent spring x Transaxle case	10	100	7
Oil pan	4.9	50	43 in.·lbf
Neutral start switch x Manual valve shaft	6.9	70	61 in.·lbf
Transaxle housing x Engine	64	650	47

PROPELLER SHAFT

Specifications

Bearing axial play			0.05 mm	0.0020 in.
Front propeller shaft runout		Limit	0.8 mm	0.031 in.
Intermediate shaft runout		Limit	0.8 mm	0.031 in.
Rear propeller shaft runout		Limit	0.8 mm	0.031 in.
Intermediate shaft flange runout		Limit	0.1 mm	0.0039 in.
Snap ring thickness	Color	None	1.475 – 1.525 mm	0.0581 – 0.0600 in.
		Brown	1.525 – 1.575 mm	0.0600 – 0.0620 in.
		Blue	1.575 – 1.625 mm	0.0620 – 0.0640 in.

Torque Specifications

Part tightened		N·m	kgf·cm	ft·lbf
Propeller shaft x Differential		74	750	54
Intermediate shaft x Propeller shaft		74	750	54
Center support bearing x Body		37	375	27
Intermediate shaft x Center support bearing x Joint flange				
	1st	181	1,850	134
	2nd	Loosen nut		
	3rd	69	700	51
Cross groove joint set bolt		65	660	48

SUSPENSION AND AXLE

Specifications

Cold tire inflation pressure kPa (kg/cm^2, psi)	Tire size		Front	Rear
	2WD	185/65R14 85S	200 (2.0, 29)	190 (1.9, 28)
		205/60R14 87H	200 (2.0, 29)	190 (1.9, 28)
		205/55R15 87V	230 (2.3, 33)	220 (2.2, 32)
		215/5015 88V	210 (2.1, 30)	190 (1.9, 28)
	4WD	215/50R15 88V	220 (2.2, 32)	210 (2.1, 30)
Chassis ground clearance mm (in.)	2WD		185.0 (7.283)	251.5 (9.902)
	4WD		187.5 (7.381)	237.0 (9.323)
Front wheel alignment	Toe–in		0 ± 2 mm	0 ± 0.08 in.
			0 ± 0.2°	
	Left–right error		1.0 mm (0.039 in.) or less	
	Camber		–10' ± 45'	
	Left–right error		30' or less	
	Caster	2WD	55' ± 45'	
		4WD	50' ± 45'	
	Left–right error		30' or less	
	Steering axis inclination		14°10' ± 45'	
	Left–right error		30' or less	
	Wheel angle (Maximum)	Outside wheel	29°30'	
		Inside wheel	33°30'	
	Side slip (Reference only)		3.0 mm/m (0.118 in./3.3 ft) or less	
Rear wheel alignment	Toe–in		5 ± 2 mm	0.20 ± 0.08 in.
			0.5° ± 0.2°	
	Left–right error		3.0 mm (0.12 in.) or less	
	Camber		–45' ± 30'	
			30' or less	
Wheel lateral runout			Less than 1.0 mm (0.039 in.)	
Front axle and suspension	Hub bearing axial direction play			
	Limit		0.5 mm	0.0020 in.
	Ball joint rotation condition		1.0 – 2.9 N·m	10 – 30 kgf·cm 9 – 16 in.·lbf
	Ball joint vertical play		0 mm	0 in.
	Drive shaft standard length			
	4A–FE engine A/T	LH	539.7 ± 5.0 mm	21.248 ± 0.197 in.
		RH	855.8 ± 5.0 mm	33.693 ± 0.197 in.
	M/T	LH	541.0 ± 5.0 mm	21.299 ± 0.197 in.
		RH	862.8 ± 5.0 mm	33.968 ± 0.197 in.
	5S–FE engine	LH	558.7 ± 5.0 mm	21.996 ± 0.197 in.
		RH	845.2 ± 5.0 mm	33.276 ± 0.197 in.
	3S–GTE engine		405.4 ± 5.0 mm	15.961 ± 0.197 in.
	Drive shaft grease capacity 4WD			
	Outboard joint		120 g	0.26 lb
	Inboard joint		90 g	0.20 lb
	Side gear shaft		43 g	0.09 lb

Specifications (Cont'd)

Rear– axle and suspension	Hub bearing axial direction play	Limit	0.05 mm	0.0020 in.
	Rear axle hub runout	Limit	0.07 mm	0.0028 in.
	Stabilizer bar link			
	Ball joint rotation condition		0.049 – 0.981 N·m (0.5 – 10.0 kgf·cm, 0.434 – 8.680 in.·lbf)	
	Drive shaft grease capacity	4WD		
	Inboard joint		180 g	0.40 lb
	Outboard joint		120 g	0.26 lb
	Drive shaft standard length	4WD	459.1 mm	18.074 in.
Differential	Drive pinion bearing preload (at Starting)			
	New bearing		1.0 – 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 0.3 – 0.5 N·m (3 – 5 kgf·cm, 2.6 – 4.3 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.
	Ring gear runout	Limit	0.07 mm	0.0028 in.
	Companion flange runout			
	Lateral runout	Limit	0.1 mm	0.004 in.
	Radial runout	Limit	0.1 mm	0.004 in.
	Ring gear installing temperature		90 – 110°C	194 – 230°F
	Drive pinion oil seal drive in depth		2.0 mm	0.079 in.
	Side gear oil seal drive in depth		Flash the carrier end surface	
	Side gear thrust washer thickness		0.95 mm	0.0374 in.
			1.00 mm	0.0394 in.
			1.05 mm	0.0413 in.
			1.10 mm	0.0433 in.
			1.15 mm	0.0453 in.
			1.20 mm	0.0472 in.
	Side bearing adjusting washer thickness		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.

Specifications (Cont'd)

Differential (cont'd)	Side bearing adjusting washer thickness (cont'd)	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.
		2.81 – 2.83 mm	0.1106 – 0.1114 in.
		2.84 – 2.86 mm	0.1118 – 0.1126 in.
		2.87 – 2.89 mm	0.1130 – 0.1138 in.
		2.90 – 2.92 mm	0.1142 – 0.1150 in.
		2.93 – 2.95 mm	0.1154 – 0.1161 in.
		2.96 – 2.98 mm	0.1165 – 0.1173 in.
		2.99 – 3.01 mm	0.1177 – 0.1185 in.
		3.02 – 3.04 mm	0.1189 – 0.1197 in.
		3.05 – 3.07 mm	0.1201 – 0.1209 in.
		3.08 – 3.10 mm	0.1213 – 0.1220 in.
		3.11 – 3.13 mm	0.1224 – 0.1232 in.
		3.14 – 3.16 mm	0.1236 – 0.1244 in.
		3.17 – 3.19 mm	0.1248 – 0.1256 in.
		3.20 – 3.22 mm	0.1260 – 0.1268 in.
	Drive pinion adjusting washer thickness	2.30 mm	0.0906 in.
		2.31 mm	0.0909 in.
		2.32 mm	0.0913 in.
		2.33 mm	0.0917 in.
		2.34 mm	0.0921 in.
		2.35 mm	0.0925 in.
		2.36 mm	0.0929 in.
		2.37 mm	0.0933 in.
		2.38 mm	0.0937 in.
		2.39 mm	0.0941 in.
		2.40 mm	0.0945 in.
		2.41 mm	0.0949 in.
		2.42 mm	0.0952 in.
		2.43 mm	0.0957 in.
		2.44 mm	0.0961 in.
		2.45 mm	0.0965 in.
		2.46 mm	0.0969 in.
		2.47 mm	0.0972 in.
		2.48 mm	0.0976 in.
		2.49 mm	0.0980 in.
		2.50 mm	0.0984 in.
		2.51 mm	0.0988 in.
		2.52 mm	0.0992 in.
		2.53 mm	0.0996 in.
		2.54 mm	0.1000 in.
		2.55 mm	0.1004 in.
		2.56 mm	0.1008 in.
		2.57 mm	0.1012 in.
		2.58 mm	0.1016 in.
		2.59 mm	0.1020 in.
		2.60 mm	0.1024 in.

Specifications (Cont'd)

Differential (cont'd)	Drive pinion adjusting washer thickness (cont'd)	2.61 mm	0.1028 in.
		2.62 mm	0.1031 in.
		2.63 mm	0.1035 in.
		2.64 mm	0.1039 in.
		2.65 mm	0.1043 in.
		2.66 mm	0.1047 in.
		2.67 mm	0.1051 in.
		2.68 mm	0.1055 in.
		2.69 mm	0.1059 in.
		2.70 mm	0.1063 in.
		2.71 mm	0.1067 in.

Torque Specifications

Part tightened	N·m	kgf·cm	ft·lbf
[Front Axle and Suspension]			
Tie rod end lock nut	56	570	41
Ball joint x Steering knuckle	103	1,050	76
Tie rod end x Steering knuckle	49	500	36
Ball joint x Lower arm	127	1,300	94
Shock absorber x Steering knuckle	304	3,100	224
Disc brake caliper x Steering knuckle	107	1,090	79
ABS speed sensor x Steering knuckle (w/ ABS)	7.8	80	69 in.·lbf
Hub bearing lock nut	226	2,300	166
Center bearing case x Center bearing bracket	64	650	47
Piston rod x Suspension support	47	475	34
Suspension support x Body	80	820	59
Front disc brake hose union bolt	30	310	22
Suspension arm shaft x Body	152	1,550	112
Suspension crossmember x Body	152	1,550	112
Lower arm rear bracket x Body	98	1,000	72
Lower arm damper plate bolt	65	660	48
Stabilizer bar x Lower arm	35	360	26
Lower arm front setting nut	212	2,160	156
Lower arm rear nut	137	1,400	101
Stabilizer bracket x Body	18	180	13
Front exhaust pipe support x Body	19	195	14
Front exhaust pipe x Rear exhaust pipe	43	440	32
Hub nut	103	1,050	76
Transmission case protector bolt (4WD)	18	185	13
Drive shaft x Side gear shaft (4WD)	65	660	48
[Rear Axle and Suspension]			
Axle shaft x Axle hub	123	1,250	90
Rear shock absorber x Rear axle carrier	255	2,600	188
Axle hub x Axle carrier	80	820	59
Rear disc brake caliper x Axle carrier	47	475	34
Strut rod x Axle carrier	113	1,150	83

Torque Specifications (Cont'd)

Part tightened		N·m	kgf·cm	ft·lbf
No.1 and No.2 suspension arm x Axle carrier		226	2,300	166
Rear shock absorber x Body		39	400	29
Rear shock absorber x Stabilizer bar link		64	650	47
Rear shock absorber x Holding nut		49	500	36
Rear disc brake hose union bolt		30	310	22
Brake tube flare nut		15	155	11
Suspension arm x Body		113	1,150	83
Fuel tank band x Body		39	400	29
Stabilizer bar bracket x Body		19	195	14
Stabilizer bar link x Stabilizer bar		64	650	47
Hub nut		103	1,050	76
Rear speed sensor x Axle carrier (w/ ABS)		19	195	14
Axle carrier x Backing plate		72	730	53
Parking brake cable x Backing plate		7.8	80	69 in.·lbf
Rear drive shaft x Axle hub		226	2,300	166
Suspension arm x Axle carrier		123	1,250	90
Strut rod x Body		113	1,150	83
Drive shaft x Side gear shaft		69	700	51
Propeller shaft x Companion flange		74	750	54
Rear crossmember x Body		72	730	53
Differential case x Ring gear		97	985	71
Bearing cap x Differential carrier		78	800	58
Differential carrier x Carrier cover		47	475	34
Differential x Support member	Upper side	95	970	70
	Rear side	147	1,500	108
Drain plug		49	500	36
Filler– plug		39	400	29

BRAKE SYSTEM

Specifications

Brake pedal	Pedal height (from to rib of floor panel)		
	M /T	168.6 – 178.6 mm	6.638 – 7.031 in.
	A/T	168.0 – 178.0 mm	6.614 – 7.008 in.
	Stop light switch to pedal clearance	0.5 – 2.4 mm	0.02 – 0.09 in.
	Pedal freeplay	1 – 6 mm	0.04 – 0.24 in.
	Pedal reserve distance		
	at 490 N (50 kgf, 110.2 lbf)		
	w/o ABS	More than 85 mm (3.35 in.)	
	w/ ABS	More than 90 mm (3.54 in.)	
Brake booster	Booster push rod to piston clearance		
	w/SST	0 mm	0 in.
Front brake	Disc thickness STD	25.0 mm	0.984 in.
	Limit	23.0 mm	0.906 in.
	Disc runout Limit	0.07 mm	0.0028 in.
	Pad thickness STD	10.0 mm	0.394 in.
	Limit	1.0 mm	0.039 in.
Rear brake (Drum)	Drum inside diameter STD	200.0 mm	7.874 in.
	Limit	201.0 mm	7.913 in.
	Lining thickness STD	4.0 mm	0.157 in.
	Limit	1.0 mm	0.039 in.
Rear brake (Disc)	Disc thickness STD	10.0 mm	0.394 in.
	Limit	9.0 mm	0.354 in.
	Disc runout Limit	0.15 mm	0.0059 in.
	Pad thickness STD	10.0 mm	0.394 in.
	Limit	1.0 mm	0.039 in.
Parking brake (Drum)	Level travel at 196 N (20 kgf, 44.1 lbf)	4 – 7 clicks	
	Shoe to parking brake shoe lever clearance	0 – 0.35 mm	0 – 0.0138 in.
	Parking brake shoe lever shim thickness	0.2 mm	0.008 in.
		0.3 mm	0.012 in.
		0.4 mm	0.016 in.
		0.5 mm	0.020 in.
		0.6 mm	0.024 in.
		0.9 mm	0.035 in.
Parking brake (Disc)	Rear disc inner diameter STD	170 mm	6.69 in.
	Limit	171 mm	6.73 in.
	Lining thickness STD	2.0 mm	0.079 in.
	Limit	1.0 mm	0.039 in.
	Lever travel at 196 N (20 kgf, 44.1 lbf)	4 – 7 clicks	
	Clearance between rear shoe 2nd lever	0 – 0.35 mm	0 – 0.0138 in.
	Parking brake shoe lever shim thickness	0.3 mm	0.012 in.
		0.6 mm	0.024 in.
		0.9 mm	0.035 in.

Torque Specifications

Part tightened		N·m	kgf·cm	ft·lbf
Master cylinder x Piston stopper bolt		10	100	7
Master cylinder x Reservoir		1.7	17.5	15.2 in.·lbf
Master cylinder x Brake booster		13	130	9
Brake tube union nut		15	155	11
Suspension upper brace	(Bolt)	21	210	15
	(Nut)	37	375	27
Brake booster clevis lock nut		25	260	19
Brake booster x Pedal bracket		13	130	9
Front disc brake cylinder installation bolt		39	400	29
Front disc brake torque plate x Steering knuckle		107	1,090	79
Front disc brake cylinder x Flexible hose		30	310	22
Rear drum brake wheel cylinder x Backing plate		10	100	7
Parking brake cable bracket x Backing plate		7.8	80	69 in.·lbf
Rear disc brake cylinder installation bolt		20	200	14
Rear disc brake torque plate x Rear axle carrier		47	475	34
Rear disc brake cylinder x Flexible hose		30	310	22
Bleeder plug		8.3	85	74 in.·lbf
ABS actuator x Proportioning valve bracket		8.8	90	78 in.·lbf
ABS actuator x 3–way union		16	160	12
Proportioning valve installation bolt		8.8	90	78 in.·lbf
ABS actuator x Actuator bracket		5.4	55	48 in.·lbf
ABS actuator bracket x Body	(Nut)	25	260	19
	(Bolt)	19	195	14
Front speed sensor installation bolt		7.8	80	69 in.·lbf
Rear speed sensor installation bolt		7.8	80	69 in.·lbf
	(2WD)	19	195	14
Rear axle hub installation bolt	(4WD)	80	820	59

STEERING

Specifications

Steering	Steering wheel freeplay		30 mm (1.18 in.) or less		
Steering column	Pawl stopper				
	(Tilt steering column)	Mark			
		1 or A	12.68 – 12.74 mm	0.4992 – 0.5016 in.	
		2 or B	12.61 – 12.67 mm	0.4965 – 0.4988 in.	
		3 or C	12.54 – 12.60 mm	0.4937 – 0.4961 in.	
		4 or D	12.47 – 12.53 mm	0.4909 – 0.4933 in.	
		5 or E	12.40 – 12.46 mm	0.4882 – 0.4906 in.	
		6 or F	12.33 – 12.39 mm	0.4854 – 0.4878 in.	
		7 or G	12.26 – 12.32 mm	0.4827 – 0.4850 in.	
	(Auto tilt away steering column)	Mark			
		1 or A	12.68 – 12.74 mm	0.4992 – 0.5016 in.	
		2 or B	12.61 – 12.67 mm	0.4965 – 0.4988 in.	
		3 or C	12.54 – 12.60 mm	0.4937 – 0.4961 in.	
		4 or D	12.47 – 12.53 mm	0.4909 – 0.4933 in.	
		5 or E	12.40 – 12.46 mm	0.4882 – 0.4906 in.	
		6 or F	12.33 – 12.39 mm	0.4854 – 0.4878 in.	
		7 or G	12.26 – 12.32 mm	0.4827 – 0.4850 in.	
	Collar (Auto tilt away steering column)		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	441 ± 667 N	45 – 68 kgf	100 – 150 lbf
		Used belt	265 ± 441 N	27 – 45 kgf	60 – 100 lbf
	Maximum rise of oil level		Below 5 mm (0.20 in.)		
	Oil pressure	at Idle speed (4A–FE engine)	6,865 kPa (70 kgf/cm², 996 psi)		
		(5S–FE engine)	7,355 kPa (75 kgf/cm², 1,068 psi)		
		(3S–GTE engine)	7,845 kPa (80 kgf/cm², 1,138 psi)		
	Steering effort	USA	39 N	4 kgf	8.8 lbf
		CANADA	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	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.
	Flow control valve spring length	STD	38 mm	1.49 in.
		Minimum	36 mm	1.42 in.
	Pump rotating torque		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	Part tightened		N·m	kgf·cm	ft·lbf
(Non–tilt steering column)	Main shaft x Intermediate shaft		35	360	26
(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 in.·lbf
	Tilt lever bracket installation bolt		2.9	30	26 in.·lbf
	Tilt lever retainer set nut	14 mm	15	150	11
		8 mm	2.9	30	26 in.·lbf
	No. 2 tilt memory plate set nut	14 mm	15	150	11
		10 mm	5.9	60	52 in.·lbf
	Compression spring bushing bolt		7.8	80	69 in.·lbf
	Main shaft x Intermediate shaft		35	360	26
(Removal and installation)	Main shaft x Steering wheel		35	360	26
	Steering wheel pad (w/ airbag)		7.4	75	65 in.·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)

	Part tightened	N·m	kgf·cm	ft·lbf
Power steering (Power steering pump)	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) 12 mm	13	130	9
	14 mm	41	420	30
	Union bolt (4A–FE)	69	700	51
	Suction port union x Pump housing (5S–FE)	13	130	9
	Pressure tube joint bolt	51	525	38
	PS pump x Bracket (4A–FE)	39	400	29
	PS pump x Bracket (5S–FE, 3S–GTE)) Upper	43	440	32
	Lower	39	400	29
	Pressure tube union nut (5S–FE, 3S–GTE))	36	370	27
	Tie rod end x Knuckle arm	49	550	36
	Lower crossmember RH and LH sides	152	1,550	152
	Center	39	740	29
(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	64	650	47
	5S–FE, 3S–GTE	73	740	54
	Lower crossmember RH and LH sides	152	1,550	112
	Center	39	400	29
	Engine mounting x Insulator	87	890	64
	Exhaust front pipe x Manifold	62	630	46
	Exhaust front pipe x Center pipe	43	440	32
	Propeller shaft x Intermediate shaft	74	750	54
	Stabilizer bar x Link	35	360	26
	Stabilizer bar bracket	18	180	13

SRS AIRBAG

Specifications

Terminal	Front airbag sensor resistance
⊕S – ⊕A	755 – 885 Ω
⊕S – ⊖S	∞
⊖S – ⊖A	Less than 1 Ω

Torque Specifications

Part tightened	N·m	kgf–cm	ft–lbf
Steering wheel	35	360	26
Steering wheel pad	7.4	75	65 in.·lbf
Front airbag sensor	25	260	19
Center airbag sensor assembly	13	130	9

BODY

Torque Specifications

Part tightened	N·m	kgf–cm	ft–lbf
SEAT			
Front Seat			
Seat back x Seat adjuster	18	185	13
Seat cushion x Seat adjuster	18	185	13
Seat adjuster x Body	37	375	27
Rear Seat (Fixed type)			
Seat back x Body	19	195	14
Rear Seat (Separate type)			
Seat back lock x Seat back	17	175	13
Seat back lock striker x Body	17	175	13
Seat center hinge x Seat back	7.8	80	69 in.·lbf
Seat center hinge x Body	19	195	14
Seat back hinge x Seat back	19	195	14
Seat back hinge x Body	7.8	80	69 in.·lbf
SEAT BELT			
Front Seat Belt			
ELR x Body	43	440	32
Outer belt shoulder anchor x Body	43	440	32
Outer belt lower anchor x Body	43	440	32
Inner belt x Body	43	440	32
Rear Seat Belt (ELR type)			
ELR x Body	43	440	32
Outer belt shoulder anchor x Body	43	440	32
Outer belt lower anchor x Body	43	440	32
Inner belt x Body	43	440	32
CRS, Tether Anchor	21	210	15