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This file was not scanned to deprive Mazda of any money – it was scanned due to the rareness of the original manuals and the overwhelming need of the RX-7 owner to have this information so that they can accurately troubleshoot problems. Perhaps if Mazda's dealerships could support the Rotary Engine it wouldn't be so necessary for the owners to do so.

Many thanks to Anh Diep for scanning this file.

TECHNICAL DATA

87U30X-001

0. MEASUREMENTS

Item			Specification
Overall length		mm (in)	4,290 (168.9) 4,310 (169.7) (With license plate holder)
Overall width		mm (in)	1,690 (66.5)
Overall height		mm (in)	1,265 (49.8)
Wheelbase		mm (in)	2,430 (95.7)
Tread	mm (in)	Front	1,450 (57.1)
		Rear	1,440 (56.7)

1. ENGINE

Item \ Engine model				RE 13B (TURBO)	RE 13B (NON-TURBO)
Type				Rotary engine	
Displacement			cc (cu in)	654 x 2 (40.0 x 2)	
Number of rotors and arrangement				2 rotors, longitudinal	
Combustion chamber type				Bath tub	
Compression ratio				8.5 : 1	9.4 : 1
Port timing	Intake	Open	Primary	32°ATDC	
			Secondary	32°ATDC	
			Auxiliary	—	45°ATDC
		Close	Primary	50°ABDC	40°ABDC
			Secondary	50°ABDC	30°ABDC
			Auxiliary	—	80°ABDC
	Exhaust	Open		75°BBDC	
		Close		48°ATDC	
Compression pressure kPa (kg/cm², psi)—rpm	Limit			588 (6.0, 85.2)—250	
	Limit of difference between chambers			147 (1.5, 21.3)—250	
Side housing (Front, intermediate and rear housing)	Distortion limit		mm (in)	0.04 (0.0016)	
	Side seal wear limit		mm (in)	0.10 (0.0039)	
	Side seal wear limit, overlapping oil seal wear		mm (in)	0.01 (0.0004)	
	Side seal wear limit, outside oil seal wear		mm (in)	0.10 (0.0039)	
	Oil seal wear limit		mm (in)	0.02 (0.0008)	
Rotor housing	Width		mm (in)	79.970—80.010 (3.1485—3.1500)	
	Difference limit of width		mm (in)	0.06 (0.0024)	
Rotor	Width (Apex)		mm (in)	79.80—79.85 (3.142—3.144)	
	Clearance of side housing and rotor mm (in)		Standard	0.12—0.21 (0.0047—0.0083)	
			Limit	0.10 (0.0039)	
	Diameter of corner seal groove mm (in)			11.000—11.018 (0.4331—0.04338)	
	Width of side seal groove mm (in)			0.714—0.739 (0.0281—0.0291)	
	Width of apex seal groove mm (in)			1.995—2.012 (0.0785—0.0792)	
Apex seal and spring	Width		mm (in)	1.910—1.939 (0.0752—0.0763)	
	Height (upper and lower) mm (in)		Standard	8.0 (0.315)	
			Limit	6.5(0.256)—Refer to ENGINE INSPECTION section	
	Clearance of apex seal and rotor groove mm (in)		Standard	0.051—0.101 (0.0020—0.0040)	0.062—0.102 (0.0024—0.0040)
			Limit	0.15 (0.0059)	
	Warpage limit (With two pieces)			0.06 (0.0024)	
	Spring free height mm	Long	Standard	6.25 (0.246)	
			Limit	4.6 (0.181)	
		Short	Standard	3.3 (0.130)	
			Limit	1.7 (0.067)—Refer to ENGINE INSPECTION section	

Item	Engine model		RE 13B (TURBO)	RE 13B (NON-TURBO)
Side seal and spring	Thickness	mm (in)	0.661—0.686 (0.0260—0.0270)	
	Clearance of side seal and rotor groove mm (in)	Standard	0.028—0.078 (0.0011—0.0031)	
		Limit	0.10 (0.0039)	
	Height	mm (in)	2.85—3.15 (0.1122—0.1240)	
	Protrusion limit	mm (in)	0.50 (0.020)	
	Clearance of side seal and corner seal mm (in)	Standard	0.05—0.15 (0.0020—0.0059)	
		Limit	0.40 (0.016)	
Corner seal and spring	Outer diameter	mm (in)	10.990—11.014 (0.4327—0.4336)	
	Height	mm (in)	6.8—7.0 (0.268—0.276)	
	Protrusion limit	mm (in)	0.50 (0.020)	
Rotor oil seal and spring	Height	mm (in)	5.6—5.8 (0.220—0.228)	
	Width limit of oil seal lip	mm (in)	0.50 (0.020)	
	Protrusion limit	mm (in)	0.50 (0.020)	
Main bearing	Inner diameter	mm (in)	43.025—43.050 (1.6939—1.6949)	
Rotor bearing	Inner diameter	mm (in)	74.025—74.050 (2.9144—2.9154)	
Eccentric shaft	Eccentricity of rotor	mm (in)	15 (0.59)	
	Run-out limit	mm (in)	0.12 (0.0047)	
	End-play mm (in)	Standard	0.040—0.070 (0.0016—0.0028)	
		Limit	0.09 (0.0035)	
	Main journal diameter	mm (in)	42.970—42.985 (1.6918—1.6923)	
	Clearance of main journal mm (in)	Standard	0.04—0.08 (0.0016—0.0031)	
		Limit	0.10 (0.0039)	
	Rotor journal diameter	mm (in)	73.970—73.985 (2.9122—2.9128)	
	Clearance of rotor journal mm (in)	Standard	0.04—0.08 (0.0016—0.0031)	
		Limit	0.10 (0.0039)	
Drive belt deflection mm (in)-N(kg, lb)	Alternator		14—17 (0.55—0.67)	
	Air pump		8—10 (0.31—0.39)	11—13 (0.43—0.51)
	A/C compressor		6—8 (0.24—0.32)	
	P/S pump		11—13 (0.43—0.51)	

TIGHTENING TORQUE	N·m	m-kg	ft-lb
Front stationary gear plate	16—23	1.6—2.3	12—17
Rear stationary gear	16—23	1.6—2.3	12—17
Tension bolt	31—39	3.2—4.0	23—29
Flywheel lock bolt (M/T)	390—490	40—50	290—360
Counter weight lock bolt (A/T)	390—490	40—50	290—360
Drive gear (A/T)	43—61	4.4—6.2	32—45
Oil pump	7—10	0.7—1.0	5.1—7.2
Oil pump driven sprocket	31—46	3.2—4.7	23—34
Front cover	16—23	1.6—2.3	12—17
Eccentric shaft lock bolt	108—132	11—13.5	80—98
Oil pressure control plug	39—49	4.0—5.0	29—36
Pressure regulator valve	67—78	7.0—8.0	51—59
Oil strainer	7—10	0.7—1.0	5.1—7.2
Oil pan	8—11	0.8—1.1	5.8—8.0
Right engine bracket	63—93	6.4—9.5	46—69
EGR valve	19—25	1.9—2.6	14—19
Oil inlet pipe to front housing (Turbo)	19—25	1.9—2.6	14—19
Vacuum piping	19—25	1.9—2.6	14—19
Water pump	18—26	1.8—2.7	13—20
Eccentric shaft pulley	8—11	0.8—1.1	5.8—8.0
Metering oil pump	8—11	0.8—1.1	5.8—8.0
Intake manifold	19—25	1.9—2.6	14—19
Exhaust manifold	31—46	3.2—4.7	23—34

TIGHTENING TORQUE		N·m	m-kg	ft-lb
Exhaust manifold insulator		8—11	0.8—1.1	5.8—8.0
Turbocharger		44—54	4.5—5.5	32—40
Turbocharger heat insulator		8—11	0.8—1.1	5.8—8.0
Turbocharger oil inlet pipe		24—35	2.4—3.6	17—26
Turbocharger oil outlet pipe		18—27	1.8—2.8	13—20
Primary fuel distribution pipe		19—25	1.9—2.6	14—19
Throttle and dynamic chamber		19—25	1.9—2.6	14—19
Housing oil nozzle		16—23	1.6—2.3	12—17
Front stationary gear plate		16—23	1.6—2.3	12—17
Rear stationary gear		16—23	1.6—2.3	12—17
Tension bolt		31—39	3.2—4.0	23—29
Flywheel lock bolt		390—490	40—50	290—360
Oil pump		7—10	0.7—1.0	5.1—7.2
Oil pump driven sprocket		31—46	3.2—4.7	23—34
Front cover		16—23	1.6—2.3	12—17
Eccentric shaft lock bolt		108—132	11—13.5	80—98
Oil pressure control plug		39—49	4.0—5.0	29—36
Oil strainer		7—10	0.7—1.0	5.1—7.2
Oil pan		8—11	0.8—1.1	5.8—8.0
Right engine bracket		63—93	6.4—9.5	46—69
Manifold oil nozzle		16—23	1.6—2.3	12—17
Metering oil tube (to pump)		10—14	1.0—1.4	7.2—10.1
Clutch disc cover		18—26	1.8—2.7	13—20
Alternator strap		22—30	2.2—3.1	16—22
Alternator	Long bolt	37—52	3.8—5.3	27—38
	Short bolt	19—26	1.9—2.6	14—19
Air pump bracket		19—25	1.9—2.6	14—19
Air pump strap		19—25	1.9—2.6	14—19
Air pump	Long bolt	16—23	1.6—2.3	12—17
	Short bolt	24—30	2.4—3.1	17—22
Crank angle sensor		8—11	0.8—1.1	5.8—8.0
Oil filter body		8—11	0.8—1.1	5.8—8.0
Spark plug		13—18	1.3—1.8	9.4—13
Left engine bracket		55—80	5.6—8.2	41—59
A/C compressor, P/S pump bracket	M10	31—46	3.2—4.7	23—34
	M12	55—80	5.6—8.2	41—59

2. LUBRICATION SYSTEM

Item \ Engine model			RE 13B (TURBO)	RE 13B (NON-TURBO)
Lubrication system			Forced-fed	
Oil pump	Type		Trochoid	
	Lobe clearance of outer rotor and inner rotor mm (in)	Standard	0.03—0.12 (0.0012—0.0047)	
		Limit	0.15 (0.0059)	
	Clearance of outer rotor and pump body mm (in)	Standard	0.20—0.25 (0.0079—0.098)	
		Limit	0.30 (0.0118)	
	End float mm (in)	Standard	0.03—0.13 (0.0012—0.0051)	
		Limit	0.15 (0.0059)	
Pressure control valve	Relief pressure kPa (kg/cm², psi)		1,080 (11.0, 156)	
Oil cooler	Type		Air cooled, with bypass valve	
	Relief temperature °C (°F)		60—65 (140—149) or below	
	Relief pressure dif. kPa (kg/cm², psi)		349 (3.56, 50) at 60°C (140°F)	
	Bypass valve protrusion mm (in)		5.0 (0.2) or more	

Item \ Engine model			RE 13B (TURBO)	RE 13B (NON-TURBO)
Regulator valve	Relief pressure kPa (kg/cm², psi)		490 (5.0, 71)	
Oil filter	Type		Full flow, paper element	
	Relief pressure dif. kPa (kg/cm², psi)		98 (1.0, 14)	
Eccentric shaft bypass valve	Relief temperature °C (°F)		60 (140) or below	
	Protrusion mm (in)		6 (0.24) or more	
Metering oil pump	Rod end clearance mm (in)		0—1 (0—0.039)	
	Oil discharge (for one nozzle with the connecting rod up to its maximum) cc (cu in)/2,000 rpm/5 min		2.6—3.3 (0.16—0.20)	2.1—2.8 (0.13—0.17)
Engine oil	Capacity liters(US qt, Imp qt)	Total (dry engine)	5.8 (6.1, 5.1)	
		Oil pan	4.4 (4.7, 3.9)	
		Oil cooler	0.8 (0.85, 0.70)	
		Oil filter	0.3 (0.32, 0.26)	
	Classification		API service "Fuel efficient" SF	
	−10°C (15°F) or over		20W—40, 20W—50	
	−25—30°C (−10—85°F)		10W—30	
	−25°C (−10°F) or over		10W—40, 10W—50	
	0°C (32°F) or below		5W—30	

TIGHTENING TORQUE		N·m	m-kg	ft-lb
Oil filter		By hand		
Oil pump		7—10	0.7—1.0	5.1—7.2
Oil pressure gauge		11—16	1.1—1.6	8—12
Metering oil pump		8—11	0.8—1.1	5.8—8.0
Housing oil nozzle		16—23	1.6—2.3	12—17
Manifold oil nozzle		16—23	1.6—2.3	12—17
Metering oil tube (to pump)		10—14	1.0—1.4	7.2—10.1
Oil cooler		7—10	0.7—1.0	5.1—7.2
Oil cooler inlet pipe	To front cover	44—54	4.5—5.5	33—40
	To oil cooler	54—69	5.5—7.0	40—51
Oil cooler outlet pipe	To oil cooler	54—69	5.5—7.0	40—51
	To rear housing	54—78	5.5—8.0	40—58
Oil pressure control valve		39—49	4.0—5.0	29—36

3. COOLING SYSTEM

Item \ Engine model		RE 13B (TURBO)	RE 13B (NON-TURBO)
Cooling method		Water cooled, forced circulation	
Water pump	Type	Centrifugal impeller	
	Pulley ratio (Speed)	1 : 1.23	
Thermostat	Type	Wax, bottom bypass	
	Opening temperature °C (°F)	80.5—83.5 (177—183)	
	Full open temperature °C(°F)	95 (203)	
	Full open lift mm (in)	8—10 (0.315—0.394)	
Radiator	Type	Corrugated fin	
Coolant filler cap	Relief pressure kPa (kg/cm², psi)	73—103 (0.75—1.05, 10.7—14.9)	
Cooling fan	Cooling fan	Thermo-modulated	
	Number of blades	8	
	Outer diameter mm (in)	390 (15.35)	

Item \ Engine model			RE 13B (TURBO)	RE 13B (NON-TURBO)
Electrical fan	Type		Electrical	
	Capacity W		90	
	Number of blades		5	
	Outer diameter mm (in)		255 (10.04)	
Fan belt	Deflection at 98N (10 kg, 22 lb) mm (in)	For alternator	14—17 (0.55—0.67)	
		For air pump	8—10 (0.31—0.39)	11—13 (0.43—0.51)
Coolant	Capacity liters (US qt, Imp qt)		8.7 (9.2, 7.7)	7.3 (7.7, 6.4)

Anti-freeze solution	Mixture	Mixture percentage %		Specific gravity at 20°C (68°F)
	Protection	Water	Solution	
	Above −4°C (25°)	80	20	1.028
	Above −16°C (3°)	65	35	1.054
	Above −26°C (−15°F)	55	45	1.066
	Above −40°C (−40°)	45	55	1.078

TIGHTENING TORQUE	N·m	m-kg	ft-lb
Water pump	18—26	1.8—2.7	13—20
Water pump shaft housing	20—23	2.0—2.3	14—17
Thermostat cover	19—23	2.0—2.3	14—17
Water thermo-switch	20—25	2.0—2.5	14.5—18.1
Cooling fan	8—11	0.8—1.1	5.8—8.0
Temperature gauge unit	7—8	0.7—0.8	5.1—5.8
Coolant level sensor	1.5—3.0	0.15—0.30	1.1—2.2
Radiator switch	6—12	0.6—1.2	4.3—8.7
Electrical fan	8—12	0.8—1.2	5.8—8.7
Radiator	16—21	1.6—2.1	12—15

4A. FUEL AND EMISSION CONTROL SYSTEMS (EGI)

Item			Specification
Fuel tank capacity	liters (US gal, Imp gal)		63 (16.6, 13.9)
Fuel filter	Type	Low pressure	Nylon 6—164 and 45 mesh
		High pressure	Filter paper
Fuel pump	Type		Impeller (intank)
	Output pressure kPa (kg/cm^2, psi)		441—588 (4.5—6.0, 64.0—85.3)
	Feeding capacity liters (US gal, Imp gal)/min.		at least 1.3 (0.34, 0.29)
Pressure regulator	Type		Diaphragm
	Regulated pressure kPa (kg/cm^2, psi)		245.2—255.0 (2.5—2.6, 35.6—37.0)
Throttle body	Type		Horizontal-draft (2 stages, 3 barrel)
	Throat diameter	Primary mm (in)	45 (1.772)
		Secondary mm (in)	45 (1.772) x 2
	Water thermo valve operation temp. °C (°F)		M/T; 58—62 (136.4—143.6) or more A/T; 66—70 (150.8—158.0) or more
Air cleaner	Element type		Long life dry
Accelerator cable	Deflection mm (in)		1—3 (0.04—0.12)
Idle speed	rpm		725—775 (with BAC valve) (A/T; in N range)
Dashpot	Adjustment speed rpm		2,700—3,100
Injector (Primary and secondary)	Drive		Voltage drive
	Injection volume cc (cu in)/15 sec.		111—118 (6.8—7.2)
	Resistance Ω		12—16

Item				Specification
Air flow meter	Resistance at full closed	$E_2 \leftrightarrow V_s$	Ω	50—500
		$E_2 \leftrightarrow V_{ref}$	Ω	200—500
		$E_1 \leftrightarrow F_c$	Ω	∞
	Resistance at full open	$E_2 \leftrightarrow V_s$	Ω	50—500
		$E_1 \leftrightarrow F_c$	Ω	0
Water thermo sensor	Resistance	−20°C (−4°F)	kΩ	16.2 ± 1.62
		20°C (68°F)	kΩ	2.45 ± 0.24
		80°C (176°F)	kΩ	0.32 ± 0.032
Water temperature switch		°C (°F)		Continuity; above 15—19 (59—66.2)
Heat hazard sensor	Operation temperature	°C (°F)		105—115 (221—239)
Intake air temperature sensor	Air flow meter	−20°C (−4°F)	Ω	10,000—20,000
		0°C (32°F)	Ω	4,000—7,000
		20°C (68°F)	Ω	2,000—3,000
		40°C (104°F)	Ω	900—1,300
		60°C (140°F)	Ω	400—700
	Dynamic chamber	20°C (68°F)	Ω	37,350—45,650
		50°C (122°F)	Ω	10,660—13,040
		85°C (185°F)	Ω	3,150—3,850
Throttle sensor	Resistance	A—B	kΩ	Idle position; approx. 1 Full open; approx. 5 ± 1
		A—C	kΩ	approx. 5 ± 1
Crank angle sensor	Resistance	G_1—G_2	Ω	110—210
		Ne_1—Ne_2	Ω	110—210
BAC valve	Resistance		Ω	10.7—12.3
Air bypass solenoid valve	Resistance		Ω	9.2—11.3
Circuit opening relay	Resistance	STA ↔ E_1	Ω	15—30
		B ↔ F_c	Ω	80—150
Sub-zero starting assist fluid				Anti-freeze 90% water 10%

TIGHTENING TORQUE	N-m (m-kg ft-lb)
Intake manifold	19.1—26.0 (1.95—2.65, 15—19)
Exhaust manifold	31.4—46.1 (3.2—4.7, 24—33)

4B. FUEL AND EMISSION CONTROL SYSTEMS (EGI TURBO)

Item			Specification
Fuel tank capacity	liters (US gal, Imp gal)		63 (16.6, 13.9)
Fuel filter	Type	Low pressure	Nylon 6—164 and 45 mesh
		High pressure	Filter paper
Fuel pump	Type		Impeller (intank)
	Output pressure kPa (kg/cm², psi)		490—637 (5.0—6.5, 71.1—92.4)
	Feeding capacity liters (US gal, Imp gal)/min.		2.2—3.3 (0.58—0.87, 0.48—0.73)
Pressure regulator	Type		Diaphragm
	Regulated pressure kPa (kg/cm², psi)		245.2—255.0 (2.5—2.6, 35.6—37.0)
Throttle body	Type		Horizontal-draft (2 stage, 3 barrel)
	Throat diameter	Primary mm (in)	45 (1.772)
		Secondary mm (in)	45 (1.772) x 2
	Water thermo valve operation temp. °C (°F)		58—62 (136.4—143.6) or more

Item			Specification
Air cleaner	Element type		Long life dry
Accelerator cable	Deflection	mm (in)	1—3 (0.04—0.12)
Idle speed		rpm	725—775 (with BAC valve)
Dashpot	Adjustment	kΩ	1.8—3.8 (Throttle sensor)
Injector (Primary and secondary)	Drive		Voltage drive
	Injection volume	cc (cu in)/15 sec.	133—142 (8.1—8.7)
	Resistance	Ω	12—16
Air flow meter	Resistance at full closed	$E_2 \leftrightarrow V_s$ Ω	200—600
		$E_2 \leftrightarrow V_{ref}$ Ω	200—400
		$E_1 \leftrightarrow F_c$ Ω	∞
	Resistance at full open	$E_2 \leftrightarrow V_s$ Ω	20—1,000
		$E_1 \leftrightarrow F_c$ Ω	0
Water thermo sensor	Resistance	−20°C (−4°F) kΩ	16.2 ± 1.62
		20°C (68°F) kΩ	2.45 ± 0.24
		80°C (176°F) kΩ	0.32 ± 0.032
Water temperature switch		°C (°F)	Continuity: above 15—19 (59—66.2)
Heat hazard sensor	Operation temperature	°C (°F)	105—115 (221—239)
Intake air temperature sensor	Air flow meter	−20°C (−4°F) Ω	10,000—20,000
		0°C (32°F) Ω	4,000—7,000
		20°C (68°F) Ω	2,000—3,000
		40°C (104°F) Ω	900—1,300
		60°C (140°F) Ω	400—700
	Dynamic chamber	20°C (68°F) Ω	37,350—45,650
		50°C (122°F) Ω	10,660—13,040
		85°C (185°F) Ω	3,150—3,850
Throttle sensor	Resistance	A—B kΩ	Idle position; approx. 1 Full open; approx. 5 ± 1
		A—C kΩ	approx. 5 ± 1
Crank angle sensor	Resistance	G_1—G_2 Ω	110—210
		Ne_1—Ne_2 Ω	110—210
BAC valve	Resistance	Ω	10.7—12.3
Air bypass solenoid valve	Resistance	Ω	16.2—19.8
Air supply valve	Resistance	Ω	16.2—19.8
Circuit opening relay	Resistance	STA ↔ E_1 Ω	15—30
		B ↔ F_c Ω	80—150
Turbocharger	Type		Water cooled
	Lubrication		Engine oil
	Boost pressure	kPa (kg/cm², psi)	45.2 (0.46, 6.56)
Waste gate valve			Incorporated with turbocharger
Intercooler	Type		Air cooled
Knock control system knocking frequency		kHz	3.5 ± 0.3
Fuel pump resistor relay	Resistance	a—b Ω	0
		c—d Ω	68—92
		e—f Ω	0.64
Sub-zero starting assist fluid			Anti-freeze 90% water 10%

TIGHTENING TORQUE	N·m (m-kg ft-lb)
Intake manifold	19.1—26.0 (1.95—2.65, 15—19)
Exhaust manifold	31.4—46.1 (3.2—4.7, 24—33)
Turbocharger	44.1—53.9 (4.5—5.5, 33—39)

5. ENGINE ELECTRICAL SYSTEM

Item \ Model				M/T (EGI)	A/T (EGI)	M/T (EGI TURBO)
Charging system						
Battery	Type			Maintenance free, 50D20L, 65D23L (65D23L: Coldproof area)		
	Voltage		V	12		
	Capacity		Ah	55 (65D23L) 50 (50D20L)		
	Specific gravity at 20°C (68°F)	Recharge at		1.230		
		Fully charged		1.280		
	Charging current		A	50D20L: Max. 5 65D23L; Max. 5.5		
Alternator	Type			A/C type		
	Voltage-capacity		V-A	12—70		
	Pulley ratio			1 : 2.08		
	No-load test	Voltage	V	13.5		
		Current	A	20, 55, 66		
		Speed	rpm	1,300 2,500 5,000		
	Load test	Current	A	Min. 55		
		Speed	rpm	2,500		
	Regulated voltage	Alternator (Engine) speed	rpm	5,000		
		In no-load	V	14.4—15.0		
	Brush	Number		2		
		Length mm (in)	Standard	16.5 (0.650)		
			Limit	8 (0.315)		
		Spring force	N (kg, lb)	2.9—4.3 (0.3—0.44, 0.66—0.97)		
Starter system						
Starter	Output		kW	1.2	2.0	1.2
	Free running test	Voltage	V	11.0		
		Current	A	Max. 90		
		Speed	rpm	Min. 3,000		
	Lock test	Voltage	V	4		
		Current	A	Min. 780	Min. 980	Min. 780
		Torque N·m (m-kg, ft-lb)		Min. 17.6 (1.79, 13.0)	Min. 22.5 (2.29, 16.6)	Min. 17.6 (1.79, 13.0)
	Brush	Number		4		
		Length mm (in)	Standard	17.5 (0.689)		
			Limit	10.0 (0.394)		
		Spring force	N (kg, lb)	14—23 (1.4—2.4, 3.1—5.2)		
	Mica depth mm (in)		Standard	0.5—0.8 (0.02—0.03)		
			Limit	0.2 (0.008)		
	Pinion gap (magnetic clutch engaged) mm (in)			0.5—2.0 (0.02—0.08)		
	Operation of magnetic switch			Max. 8V		
Ignition system						
Ignition timing	Leading		ATDC	5°		
	Trailing		ATDC	20°		
Timing mark location				Eccentric shaft pulley		
Spark plug	Type	NGK		Trailing: SD11A, Leading: SD10A		
	Gap		mm (in)	2.0 (0.08)		
Ignition coil	Resistance	Primary	Ω	0.2—1.0		
High-tension lead	Resistance		Ω/1 m (3.3 ft)	16,000		
V belt	Deflection	New		12—15 (0.472—0.591)		
		Old		14—17 (0.551—0.669)		

TIGHTENING TORQUE	N·m	m-kg	ft-lb
Spark plug	12.7—17.7	1.3—1.8	10—13
Starter (Bolt)	31.4—46.1	3.2—4.7	24—33
B terminal	9.8—11.7	1.0—1.2	8
Alternator (Long bolt)	37.3—52.0	3.8—5.3	28—38
Alternator (Short bolt)	18.6—25.5	1.9—2.6	14—18

6. CLUTCH

Item				Specification	
				Turbo model	Non-turbo model
Clutch pedal	Pedal ratio			6.25 : 1	
	Stroke		mm (in)	135 (5.315)	
	Height		mm (in)	236—241 (9.291—9.488)	220—225 (8.660—8.860)
	Free play		mm (in)	5—13 (0.197—0.512)	0.6—3.0 (0.02—0.12)
	Engagement height		mm (in)	95 (3.74)	More than 82 (3.23)
Clutch cover	Set load		N (kg, lb)	5494 (560, 1232)	4807 (490, 1078)
Clutch disc	Facing (outer)		mm (in)	240 (9.45)	225 (8.86)
	Facing (inner)		mm (in)	160 (6.30)	150 (5.91)
Clutch disc	Thickness	Pressure plate side	mm (in)	3.5 (0.14)	4.1 (0.16)
		Flywheel side	mm (in)	3.5 (0.14)	3.5 (0.14)
	Run-out limit		mm (in)	1.0 (0.039)	
	Wear limit		mm (in)	0.3 (0.012)	
Master cylinder	Bore		mm (in)	15.87 (0.625)	
Release cylinder	Bore		mm (in)	19.05 (0.750)	

TIGHTENING TORQUE		Turbo and Non-turbo model
Clutch cover	N·m (m-kg, ft-lb)	18—27 (1.8—2.7, 13—20)
Flywheel	N·m (m-kg, ft-lb)	400—500 (40—50, 289—362)

7A. MANUAL TRANSMISSION

Item		Specification	
		Turbo model	Non-turbo model
Gear ratio	First	3.483	3.475
	Second	2.015	2.002
	Third	1.391	1.366
	Fourth	1.000	
	Fifth	0.762	0.697
	Reverse	3.288	3.493
Oil capacity	liters (US pt, Imp. pt.)	2.5 (2.6, 2.2)	2.0 (2.1, 1.8)
Mainshaft	Max. permissible run-out mm (in)	0.2 (0.0079)	0.03 (0.0012)
	Clearance between mainshaft and gear (or bush) Wear limit mm (in)	0.15 (0.0059)	
Reverse idle gear	Clearance between reverse idle gear bushing and shaft Wear limit mm (in)	0.15 (0.0059)	
Shift fork and rod	Clearance between shift fork and clutch sleeve Wear limit mm (in)	0.5 (0.0197)	
	Clearance between shift rod gate and control lever Wear limit mm (in)	0.8 (0.0315)	

Item		Specification	
		Turbo model	Non-turbo model
Synchronizer ring	Clearance between synchronizer ring and side of gear when fitted Standard mm (in) Wear limit mm (in)	1.5 (0.0591) 0.8 (0.0315)	
Lubricant	Above −18°C (0°F)	API Service GL-4 or GL-5 SAE90	
	Below −18°C (0°F)	API Service GL-4 or GL-5 SAE80W	
	All seasons	API Service GL-4 or GL-5 SAE80W-90	

TIGHTENING TORQUE		Turbo model	Non-turbo model
Plug for interlock pin hole	N·m (m-kg, ft-lb)	19—27 (1.9—2.7, 14—20)	10—15 (1.0—1.5, 7—11)
Shift fork set bolts	N·m (m-kg, ft-lb)	39—59 (4—6, 29—43)	12—16 (1.2—1.6, 9—12)
Mainshaft lock nut	N·m (m-kg, ft-lb)	157—235 (16—24, 116—174)	130—210 (13.3—21.4, 94—152)
Top switch	N·m (m-kg, ft-lb)	25—35 (2.5—3.6, 18—25)	
Overdrive switch	N·m (m-kg, ft-lb)	25—35 (2.5—3.6, 18—25)	
Back-up lamp switch	N·m (m-kg, ft-lb)	25—35 (2.5—3.6, 18—25)	
Bearing cover 8T bolts	N·m (m-kg, ft-lb)	18—26 (1.8—2.7, 13—20)	

7B AUTOMATIC TRANSMISSION

Item \ Model			L4N71B
Gear ratio	First		2.841
	Second		1.541
	Third		1.000
	OD (Fourth)		0.720
	Reverse		2.400
Fluid	Type		Dexron II
	Capacity liters (US qt, Imp. qt)		7.5 (7.9, 6.6)
Oil pump	Body clearance mm (in)	Standard	0.02—0.04 (0.00078—0.0015)
		Limit	0.08 (0.0031)
	Tip clearance mm (in)	Standard	0.14—0.21 (0.0055—0.0082)
		Limit	0.25 (0.0098)
	Side clearance mm (in)	Standard	0.05—0.20 (0.0019—0.0078)
		Limit	0.25 (0.0098)
	Seal ring and groove clearance mm (in)	Standard	0.04—0.16 (0.0015—0.0062)
		Limit	0.40 (0.015)
Direct clutch	Total clearance mm (in)		1.6— 1.8 (0.062—0.070)
	Retaining plate size mm (in)		5.6 (0.220), 5.8 (0.228), 6.0 (0.236), 6.2 (0.244), 6.4 (0.252), 6.6 (0.260), 6.8 (0.268), 7.0 (0.276)
	End play mm (in)		0.5—0.8 (0.019—0.031)
	Thrust washer size mm (in)		1.3 (0.051), 1.5 (0.059), 1.7 (0.066), 1.9 (0.074), 2.1 (0.082), 2.3 (0.090), 2.5 (0.098), 2.7 (0.106)
Front clutch	Total clearance mm (in)		1.6—1.8 (0.062—0.070)
	Retaining plate size mm (in)		5.0 (0.197), 5.2 (0.205), 5.4 (0.213), 5.6 (0.221), 5.8 (0.228), 6.0 (0.236), 6.2 (0.244)
	End play mm (in)		0.5—0.8 (0.019—0.031)
	Thrust washer size mm (in)		1.3 (0.051), 1.5 (0.059), 1.7 (0.066), 1.9 (0.074), 2.1 (0.082), 2.3 (0.090), 2.5 (0.098), 2.7 (0.106)
Rear clutch	Total clearance mm (in)		0.8—1.5 (0.031—0.059)
Low and reverse brake	Total clearance mm (in)		0.8—1.05 (0.031 —0.041)
	Retaining plate variation size mm (in)		7.2 (0.28), 7.4 (0.29), 7.6 (0.30) 7.8 (0.307), 8.0 (0.315), 8.2 (0.32)

Item		Model	L4N71B				
OD gear train	End play mm (in)		0.25—0.50 (0.0098—0.019)				
	Bearing race variation size mm (in)		1.2 (0.047), 1.4 (0.055), 1.6 (0.062), 1.8 (0.070), 2.0 (0.078), 2.2 (0.086)				
Gear assembly	End play mm (in)		0.25—0.50 (0.0098—0.019)				
	Bearing race variation size mm (in)		1.2 (0.047), 1.4 (0.055), 1.6 (0.062), 1.8 (0.070), 2.0 (0.078), 2.2 (0.086)				
	Planetary play limit mm (in)	Standard	0.2—0.7 (0.0078—0.0275)				
		Limit	0.8 (0.0314)				
Valve spring			Outer dia. mm (in)	Free length mm (in)	No. of Coils	Wire dia. mm (in)	Color
Control valve body	Pressure regulator		11.7 (0.46)	43.0 (1.69)	15.0	1.2 (0.047)	—
	1-2 Shift		6.55 (0.26)	32.0 (1.26)	18.7	0.55 (0.022)	—
	2-3 Shift		6.9 (0.27)	39.0 (1.55)	19.1	0.7 (0.028)	—
	3-4 Shift		7.3 (0.29)	25.0 (0.98)	13.0	0.9 (0.035)	—
	Throttle back-up		7.3 (0.29)	31.8 (1.25)	15.5	0.8 (0.031)	—
	Solenoid downshift		5.55 (0.22)	21.9 (0.86)	14.0	0.55 (0.022)	—
	2nd Lock		5.55 (0.22)	33.5 (1.32)	18.0	0.55 (0.022)	—
	Throttle relief		6.5 (0.26)	26.8 (1.06)	16.0	0.90 (0.035)	—
	Orifice check		5.0 (0.20)	15.5 (0.61)	12.0	0.23 (0.0091)	—
	3-2 Timing		7.5 (0.30)	23.2 (0.91)	10.8	0.80 (0.031)	—
OD control			4.95 (0.19)	23.0 (0.91)	14.8	0.65 (0.026)	—
Lock-up control			5.5 (0.22)	24.7 (0.97)	15.5	0.7 (0.03)	—
Accumulator piston			14.85 (0.58)	39.7 (1.56)	9.3	1.8 (0.07)	—
2nd Band servo		Return	—	38.7 (1.52)	—	3.5 (0.14)	—
		Cushion	14.9 (0.59)	42.8 (1.69)	11.2	2.3 (0.09)	—
Primary governor valve			8.75 (0.34)	21.8 (0.86)	7.0	0.45 (0.018)	—
Secondary governor valve			9.2 (0.36)	25.2 (0.99)	7.5	0.7 (0.028)	—

Shift speed		
Throttle condition (Manifold vacuum)	Gear	Vehicle speed km/h (mph)
Fully opened 0—100 mm-Hg 0—3.94 in-Hg	$D_1 \rightarrow D_2$	54—61 (34—38)
	$D_2 \rightarrow D_3$	99—106 (62—66)
	$D_3 \rightarrow D_2$	91—98 (57—61)
	$D_2 \rightarrow D_1$	40—46 (25—29)
Half throttle 190—210 mm-Hg 7.41—8.19 in-Hg	$D_1 \rightarrow D_2$	11—18 (7—11)
	$D_2 \rightarrow D_3$	30—37 (19—23)
	$D_3 \rightarrow D_4$	48—54 (30—34)
Fully closed	$D_2 \rightarrow D_1$	11—18 (7—11)
	$1_2 \rightarrow 1_1$	38—45 (24—28)
Lock-up on		71—77 (44—48)
Governor pressure		
Vehicle speed km/h (mph)		Pressure kPa (kg/cm², psi)
30 (19)		69—128 (0.7—1.3, 10—18)
55 (34)		147—226 (1.5—2.3, 21—33)
85 (53)		196—392 (2.0—4.0, 28—57)
Line pressure		
Shift position	Engine speed	Pressure kPa (kg/cm², psi)
R	Idle	392—686 (4.0—7.0, 57—100)
	Stall	1,569—1,863 (16.0—19.0, 229—272)
D	Idle	294—392 (3.0—4.0, 43—57)
	Stall	883—1,079 (9.0—11.0, 129—157)
2	Idle	785—1,177 (8.0—12.0, 114—171)
	Stall	785—1,177 (8.0—12.0, 114—171)
Engine stall revolution rpm		2,000—2,300

Vacuum diaphragm	Clearance between body and throttle valve mm (in)	Adjusting rod length mm (in)
	Below 25.65 (1.0099)	29.0 (1.14)
	25.65—26.15 (1.0099—1.0295)	29.5 (1.16)
	26.15—26.65 (1.0295—1.0492)	30.0 (1.18)
	26.65—27.15 (1.0492—1.0689)	30.5 (1.20)
	27.15 (1.0689) or over	31.0 (1.22)

TIGHTENING TORQUE	N·m	m-kg	ft-lb
Drive plate to engine	81—93	8.3—9.5	60—69
Drive plate to torque converter	34	3.5	25
Converter housing to engine	31—46	3.2—4.7	23—34
Converter housing to transmission case	44—54	4.5—5.5	33—40
Extension housing to transmission case	20—25	2.0—2.5	15—18
Oil pan	4.9—6.9	0.5—0.7	3.6—5.1
Piston stem (when adjusting band brake)	12—15	1.2—1.5	8.7—11
Piston stem lock nut	15—39	1.5—4.0	11—29
Servo piston retainer	6.9—8.8	0.7—0.9	5.1—6.5
One-way clutch inner race	13—18	1.3—1.8	9.4—13.0
Control valve body to transmission case	5.4—7.4	0.55—0.75	4.0—5.4
Lower valve body to upper valve body	2.5—3.4	0.25—0.35	1.8—2.5
Side plate to control valve body	2.5—3.4	0.25—0.35	1.8—2.5
Reamer bolt of control valve body	4.9—6.9	0.5—0.7	3.6—5.1
Oil strainer	2.9—3.9	0.3—0.4	2.1—2.9
Governor valve body to oil distributor	4.9—6.9	0.5—0.7	3.6—5.1
Oil pump cover	5.9—8.8	0.6—0.9	4.3—6.5
Drum support	5.9—8.8	0.6—0.9	4.3—6.5
Inhibitor switch	4.9—6.9	0.5—0.7	3.6—5.1
Manual shaft lock nut	29—39	3.0—4.0	22—29
Oil cooler pipe set bolt	24—35	2.4—3.6	17—26
Oil pressure test plug	4.9—9.8	0.5—1.0	3.6—7.2
Actuator for parking rod to extension housing	7.8—11	0.8—1.1	5.8—8.0

8. PROPELLER SHAFT

Item		Specification	
		Turbo model	Non-turbo model
Max. permissible run-out	mm (in)	0.4 (0.016)	
Max. permissible imbalance at 4,000 rpm	M/T	10 (0.14)	
cm-gr (in oz.)	A/T	—	15 (0.21)
Universal joint journal swinging torque	N·m (cm-kg, in-lb)	0.3—9.8 (3.0—10, 26—86)	

TIGHTENING TORQUE	Turbo model	Non-turbo model
Propeller shaft to companion flange N·m (m-kg, ft-lb)	49—59 (5.0—6.0, 36—43)	

9. REAR AXLE

Item		Specification	
		Turbo model	Non-turbo model
Reduction ratio M/T (A/T)		4.1 (—)	4.1 (3.909)
Backlash of ring gear and pinion	mm (in)	0.09—0.11 (0.0035—0.0043)	
Pinion bearing preload (without pinion oil seal)	N·m (in-lb)	0.9—1.4 (7.8—12.2)	

Item			Specification	
			Turbo model	Non-turbo model
Backlash at side gear and pinion gear mm (in)			0—0.1 (0—0.0039)	
Rear wheel bearing end play mm (in)			0—0.1 (0—0.0039)	
Lubricant	Standard diff.	Above −18°C (0°F)	API Service GL-5 SAE90	
		Below −18°C (0°F)	API Service GL-5 SAE80W	
	Limited slip diff.		API Service GL-5 SAE90 (Special Lubricant For Limited Slip Differentials)	
Oil capacity	Standard diff. liters (US qt, Imp qt)		1.3 (1.4, 1.1)	
	Limited slip diff. liters (US qt, Imp qt)		1.3 (1.4, 1.1)	
"L" (case spread) mm (in)			204.43—204.50 (8.048—8.051)	185.43—85.50 (7.300—7.303)

TIGHTENING TORQUE	Turbo and Non-turbo model
Rear gear N·m (m-kg, ft-lb)	69—83 (7.0—8.5, 51—61)
Differential side bearing caps N·m (m-kg, ft-lb)	37—52 (3.8—5.3, 27—38)
Companion flange to pinion N·m (m-kg, ft-lb)	128—177 (13.0—18.0, 94—130)
Differential carrier and case N·m (m-kg, ft-lb)	23—26 (2.3—2.7, 17—20)
Differential carrier mounting N·m (m-kg, ft-lb)	88—105 (9.0—10.7, 65—77)
Differential member N·m (m-kg, ft-lb)	74—93 (7.5—9.5, 54—69)
Sub link N·m (m-kg, ft-lb)	74—93 (7.5—9.5, 54—69)
Driveshaft (differential side) N·m (m-kg, ft-lb)	54—64 (5.5—6.5, 40—47)

10A. MANUAL STEERING

Item	Specification
Type	Rack and pinion
Gear ratio	∞ (infinite)
Free play of steering wheel (Turning direction) Standard mm (in)	5—20 (0.2—0.8)
Steering wheel effort (Front wheel alignment) N(kg, lb)	5—8 (0.5—0.8; 1—2)
Toe-in mm (in)	3 ± 3 (0.12 ± 0.12)
Camber angle	0°20' ± 30'
Caster angle	4°40' ± 45'
King-pin angle	13°45'
Trail mm (in)	14.3 (0.52)
Backlash between rack and pinion	0
Pinion preload (spring scale) OZ (g)	3.5—10.6 (100—300)

TIGHTENING TORQUE	N·m	m-kg	ft-lb
Steering wheel nut	39—49	4.0—5.0	29—36
Gear housing to frame	31—46	3.2—4.7	23—34
Tie-rod end to lower arm	29—44	3.0—4.5	22—33
Tie-rod to rack	69—98	7—10	51—72
Pinion lock nut	39—59	4.0—6.0	29—43
Adjust cover lock nut	39—59	4.0—6.0	29—43

10B. POWER STEERING

Item		Specification
Type		Rack and pinion
Reduction ratio		∞ (infinite)
Steering wheel effort	Vehicle speed 0 km/h (0 mph) N (kg, lb)	13.7—20.6 (1.4—2.1, 3.1—4.6)
	Vehicle speed 45 km/h (30 mph) N (kg, lb)	22 (2.2, 4.8) min.
Pinion rotation torque (spring gauge reading) g (oz)		700—1,300 (24.7—45.9)
Fluid		ATF TYPE F (M2C33-F) or Dexron II

TIGHTENING TORQUE	N-m	m-kg	ft-lb
Steering wheel nut	39—49	4.0—5.0	29—36
Gear housing to frame	31—46	3.2—4.7	23—34
Tie-rod end to lower arm	29—44	3.0—4.5	22—33
Tie-rod to rack	69—98	7—10	51—72
Pinion lock nut	20—29	2.0—3.0	14—22
Oil pump body to bracket	31—36	3.2—3.7	23—27
Oil pump pulley and shaft	39—49	4.0—5.0	29—36
Suction pipe	14—18	1.4—1.8	10—13
Rear cover	31—42	3.2—4.3	23—31
Tank reservior	14—18	1.4—1.8	10—13
Pressure switch	20—39	2.0—3.0	15—22
Step valve	69—79	7.0—8.0	51—58

11. BRAKING SYSTEM

Item			Specification
Brake pedal	Height mm (in)		205 $^{+5}_{0}$ (8.07 $^{+0.2}_{0}$)
	Free play mm (in)		4—7 (0.16—0.28)
	Reserve travel mm (in) (Clearance when pedal depressed)		More than 100 (3.94)
Master cylinder	Type		Tandem
	Bore mm (in)		22.22 (0.875)
	Fluid type		FMVSS116, DOT-3 or 4, or SAEJ1703
Front brake	Type		Disc
	Thickness of pad mm (in)	Standard	9.0 (0.35).....14 in. wheel vehicle 11.0 (0.43).....Except 14 in. wheel vehicle
		Limit	1.0 (0.04)
	Thickness of disc plate mm (in)	Standard	22.0 (0.87)
		Limit	20.0 (0.79)
	Disc plate run-out mm (in)		0.1 (0.004)
	Wheel cylinder bore mm (in)		50.8 (2.0).....14 in. wheel vehicle 36.1 (1.42).....Except 14 in. wheel vehicle
Rear brake	Type		Disc
	Thickness of pad mm (in)	Standard	8.0 (0.31)
		Limit	1.0 (0.04)
	Thickness of disc plate mm (in)	Standard	10.0 (0.40).....14 in. wheel vehicle 20.0 (0.79).....Except 14 in. wheel vehicle
		Limit	8.0 (0.31).....14 in. wheel vehicle 18.0 (0.71).....Except 14 in. wheel vehicle
	Disc plate run-out mm (in)		0.1 (0.004)
	Wheel cylinder bore mm (in)		34.9 (1.37)

Item		Specification
Parking brake	Type	Auto adjustment, rear brake
	Lever notches (Pulled at 98 N (10 kg, 22 lb))	4—5
Power brake unit	Diameter mm (in)	203.2 (8).....14 in. wheel vehicle 228.6 (9).....Except 14 in. wheel vehicle
	Clearance between master cylinder and brake unit mm (in)	0.1—0.3 (0.004—0.012)
	Fluid pressure per treading force kPa (kg/cm², psi)/N (kg, lb)	More than 2,158 (22, 312)/196 (20, 44) at 0 mm Hg (0 in-Hg) More than 8,339 (85, 1,209)/196 (20, 44) at 500 mm Hg (19.7 in-Hg).....Except 14 in. wheel vehicle More than 7,063 (72, 1,024)/196 (20, 44) at 500 mmHg (19.7 in-Hg).....14 in. wheel vehicle
Rear wheel hydraulic control system	Type	Proportioning bypass valve
	Bend portion (Rear brake pressure) kPa (kg/cm² psi)	2,600—3,286 (26.5—33.5, 377—476)

TIGHTENING TORQUE		N·m	m-kg	ft-lb
Lock pin bolt	Front..... Only for 14 in. wheel vehicle	31—41	3.2—4.2	23—30
	Rear	29—41	3.0—4.2	22—30
Front caliper ..... Except 14 in. wheel vehicle		78—98	8.0—10.0	58—72
Mounting support	Front..... Only for 14 in. wheel vehicle	78—98	8.0—10.0	58—72
	Rear	44—54	4.5—5.5	33—40
Master cylinder to power brake unit		9 8—16	1.0—1.6	7.2—12
Dust cover to knuckle spindle or triaxial floating hub (outer)		16—23	1.6—2.3	12—17

12. WHEELS AND TIRES

Item			Specifications
Wheel	Run-out mm (in)	Radial	0.4 (0.02)
		Lateral	0.4 (0.02)
	Offset mm (in)		40 (1.57)
	Size		6-JJ x 15, 5.5-JJ x 14, 7-JJ x 16
	Pitch circle diameter mm (in)		114.3 (4.50)
Tire	Size		205/60 VR15, 185/70 HR 14, 185/70R1487H, 205/55 VR16
	Inflation pressure kPa (kg/cm², psi)		216 (2.2, 32)
Wheel and tire	Run-out limit mm (in)	Radial	2.0 (0.08)
		Lateral	2.0 (0.08)
	Unbalance limit N (g, lb)		0.2 (20, 0.04)

TIGHTENING TORQUE	N·m	m-kg	ft-lb
Wheel lug nut	90—120	9.0—12.0	65—87

13. SUSPENSION

Front Suspension

Item			Specifications
Suspension type			Strut
Springs	Type		Coil
	Wire diameter mm (in)	Right	12.0 (0.47), *11.8 (0.46)
		Left	12.2 (0.48), *12.0 (0.47)
	Coil diameter mm (in)	Right	147.0 (5.79), *146.8 (5.78)
		Left	147.2 (5.80), *147.0 (5.79)
	Free length mm (in)	Right	355.5 (14.0), *327.0 (12.9)
		Left	366.0 (14.4), *336.5 (13.2)
	Coil number	Right	5.83, *5.31
		Left	6.05, *5.51
Stabilizer	Type		Torsion bar
	Diameter mm (in)		22.0 (0.87), *24.0 (0.94)
Ball joint preload N (kg, lb)			20—34 (2.0—3.5, 4.4—7.7)

* For harder suspension

Rear Suspension

Item			Specifications
Suspension type			Multilink Semi-trailing
Springs	Type		Coil
	Wire diameter mm (in)		9.9 (0.39), *10.1 (0.39)
	Coil diameter mm (in)		84.6 (3.33), *84.4 (3.32)
	Free length mm (in)		367 (14.45), *355 (14.0)
	Coil number		10.81, *10.79
Stabilizer	Type		Torsion bar
	Diameter mm (in)		13 (0.51)
Toe-in mm (in)			3 ± 3 (0.12 ± 0.12)

*For harder suspension

TIGHTENING TORQUE			N·m	m-kg	ft-lb
Front	Shock absorber piston rod to mounting block		20—28	2.0—2.9	14—21
	Mounting block to suspension tower		29—36	3.0—3.7	22—27
	Shock absorber to knuckle		93—117	9.5—11.9	69—86
	Lower arm to crossmember	Front	63—93	6.4—9.5	46—69
		Rear	59—74	6.0—7.5	43—54
	Crossmember to body		93—117	9.5—11.9	69—86
	Stabilizer bracket		18—26	1.8—2.7	13—20
	Stabilizer control link to stabilizer or lower arm		36—50	3.7—5.1	27—37
	Ball joint to lower arm		93—117	9.5—11.9	69—86
Rear	Shock absorber piston rod to mounting block		34—50	3.5—5.1	25—37
	Mounting block to suspension tower		23—29	2.3—3.0	17—22
	Shock absorber to trailing arm		63—93	6.4—9.5	46—69
	Stabilizer bracket		36—54	3.7—5.5	27—40
	Stabilizer control link to stabilizer or trailing arm		36—54	3.7—5.5	27—40
	Subframe to body		98—128	10—13	72—94
	Trailing arm to subframe		63—95	6.4—9.7	46—70
	Trailing arm to control link		36—54	3.7—5.5	27—40
	Control link to subframe		36—54	3.7—5.5	27—40
	Lateral link		29—44	3.0—4.5	22—33
	Sublink		74—93	7.5—9.5	54—69
	Triaxial floating hub (inner) to triaxial floating hub (outer)	Upper	63—93	6.4—9.5	46—69
		Middle	112—151	11.4—15.4	82—111
		Lower	63—93	6.4—9.5	46—69

15. BODY ELECTRICAL SYSTEM

Item			Specification (W) (BULB TRADE NO.)
Front exterior lights	Headlight	Halogen	65/35 (HP6054, H6054)
		Standard	65/55 (6052)
	Turn signal/Parking light		27/8 (1157)
	Side marker light		3.8 (194)
Rear exterior lights	Back-up light		27 (1156)
	License plate light		7.5 (89)
	Stop/Tail light		27/8 (1157)
	High mounted stop light		27 (1156)
	Turn signal light		27 (1156)
	Side marker light		3.8 (194)

Item		Specification (W) and Bulb trade number
Interior lights	Interior light	10
	Glove compartment light Courtesy light	3.4 (158)
	Luggage compartment light Map light	5
Warning lights	Over heat exhaust system Add coolant Washer level Alternator Front doors Engine oil level Stop Brake Anti-lock Seat belt Rear glass hatch Cooling fan	1.12
	Fuel	1.4
Indicator	Shift up Hazard High beam	3.4 (158)
	Turn signal Security light	3.4
	Cooling fan (In meter unit) Main Cruse O/D OFF	1.4
Illumination lights	Automatic selector Cigarette lighter	3.4 (158)
	Door key	1.4
	Ignition key Meter	3.4

STANDARD BOLT AND NUT TIGHTENING TORQUE

Diameter mm (in)	Pitch mm (in)	4T			6T			8T		
		N-m	m-kg	ft-lb	N-m	m-kg	ft-lb	N-m	m-kg	ft-lb
6 (0.236)	1 (0.039)	4.2—6.2	0.43—0.63	3.1—4.6	6.9—9.8	0.7—1.0	5.0—7.2	7.8—11.8	0.8—1.2	5.8—8.8
8 (0.315)	1.25 (0.049)	9.8—14.7	1.0—1.5	7.2—10.8	16—23	1.6—2.3	12—17	18—26	1.8—2.7	13—20
10 (0.394)	1.25 (0.049)	20—28	2.0—2.9	14—21	31—46	3.2—4.1	23—34	36—54	3.7—5.5	27—40
12 (0.472)	1.5 (0.059)	34—50	3.5—5.1	25—37	55—80	5.6—8.2	41—59	63—93	6.4—9.5	46—69
14 (0.551)	1.5 (0.059)	—	—	—	75—103	7.7—10.5	56—76	102—137	10—14	75—101
16 (0.630)	1.5 (0.059)	—	—	—	116—157	12—16	85—116	156—211	16—22	115—156
18 (0.709)	1.5 (0.059)	—	—	—	167—225	17—23	123—166	221—299	23—31	163—221
20 (0.787)	1.5 (0.059)	—	—	—	231—314	24—32	171—231	308—417	31—43	227—307
22 (0.866)	1.5 (0.059)	—	—	—	314—423	32—43	231—312	417—564	43—58	307—416
24 (0.945)	1.5 (0.059)	—	—	—	475—546	41—56	298—403	536—726	55—74	396—536