

RX-7

Factory Service Material

This manual can be downloaded for free from
http://members.xoom.com/diepat_rx7/fsm/rx7.htm

Or you can donate \$10 to diepat@earthlink.net through **paypal.com** and a gift CD with all manuals and resources I carry will be sent to you.

This includes

- 1993 Factory Service Manual
- 1988 Factory Service Manual
- 1995 Printed Microfiche of all parts
- 1989 Printed Microfiche of all parts*
- 1990 Printed Microfiche of all parts*
- 1986 Printed Microfiche of all parts*
- 1987 Printed Microfiche of all parts*
- 1988 Printed Microfiche of all parts*

The \$10 donation is used to offset the tremendous amount of time it takes to make everything available.



* These works are currently in process and may or not be readily available upon request. They will be hosted on the same link above and for download

TECHNICAL DATA

MEASUREMENTS	30— 2
ENGINE	30— 2
LUBRICATION SYSTEM	30— 4
COOLING SYSTEM	30— 5
FUEL AND EMISSION CONTROL SYSTEMS (EGI)	30— 6
FUEL AND EMISSION CONTROL SYSTEMS (EGI TURBO)	30— 7
ENGINE ELECTRICAL SYSTEM.....	30— 9
CLUTCH	30—10
MANUAL TRANSMISSION	30—10
AUTOMATIC TRANSMISSION	30—11
PROPELLER SHAFT	30—13
REAR AXLE	30—13
MANUAL STEERING	30—14
POWER STEERING	30—15
BRAKING SYSTEM	30—15
WHEELS AND TIRES	30—16
SUSPENSION	30—17
BODY ELECTRICAL SYSTEM	30—18
STANDARD BOLT AND NUT TIGHTENING TORQUE	30—19

87U30X-001

30 TECHNICAL DATA

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		Limit	588 (6.0, 85.2)—250			
kPa (kg/cm ² , psi)—rpm		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	Standard	mm (in)	0.12—0.21 (0.0047—0.0083)		
		Limit	mm (in)	0.10 (0.0039)		
	Diameter of corner seal groove		mm (in)	11.000—11.018 (0.4331—0.4338)		
	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)	Standard	mm (in)	8.0 (0.315)		
		Limit	mm (in)	6.5(0.256)—Refer to ENGINE INSPECTION section		
	Clearance of apex seal and rotor groove	Standard	mm (in)	0.051—0.101 (0.0020—0.0040)	0.062—0.102 (0.0024—0.0040)	
		Limit	mm (in)	0.15 (0.0059)		
	Warpage limit (With two pieces)		0.06 (0.0024)			
	Spring free height	Long	Standard	mm	6.25 (0.246)	
			Limit	mm	4.6 (0.181)	
Short		Standard	mm	3.3 (0.130)		
		Limit	mm	1.7 (0.067)—Refer to ENGINE INSPECTION section		

Item	Engine model		RE 13B (TURBO)	RE 13B (NON-TURBO)
		mm (in)		
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)	
Corner seal and spring	Clearance of side seal and corner seal mm (in)	Standard	0.05—0.15 (0.0020—0.0059)	
		Limit	0.40 (0.016)	
Rotor oil 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)	
Main bearing	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)	
Inner diameter	mm (in)	43.025—43.050 (1.6939—1.6949)		
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

30 TECHNICAL DATA

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	Standard	0.03—0.12 (0.0012—0.0047)	
		Limit	0.15 (0.0059)	
	Clearance of outer rotor and pump body	Standard	0.20—0.25 (0.0079—0.098)	
		Limit	0.30 (0.0118)	
	End float	Standard	0.03—0.13 (0.0012—0.0051)	
Limit		0.15 (0.0059)		
Pressure control valve	Relief pressure	kPa (kg/cm ² , psi)	1,080 (11.0, 156)	
Oil cooler	Type		Air cooled, with bypass valve	
	Relief temperature		°C (°F)	
	Relief pressure dif.		kPa (kg/cm ² , psi)	
	Bypass valve protrusion		mm (in)	
		60—65 (140—149) or below		
		349 (3.56, 50) at 60°C (140°F)		
		5.0 (0.2) or more		

Item		Engine model	RE 13B (TURBO)	RE 13B (NON-TURBO)
Regulator valve	Relief pressure	kPa (kg/cm ² , psi)	490 (5.0, 71)	
	Type		Full flow, paper element	
Oil filter	Relief pressure dif.	kPa (kg/cm ² , psi)	98 (1.0, 14)	
	Relief temperature	°C (°F)	60 (140) or below	
Eccentric shaft bypass valve	Protrusion	mm (in)	6 (0.24) or more	
	Rod end clearance	mm (in)	0—1 (0—0.039)	
Metering oil pump	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)
	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)		
Engine oil	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/cm ² , 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)	

30 TECHNICAL DATA

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	Protection	Mixture	Mixture percentage %		
			Water	Solution	Specific gravity at 20°C (68°F)
	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	E2 ↔ Vs Ω	50—500
		E2 ↔ Vref Ω	200—500
		E1 ↔ Fc Ω	∞
	Resistance at full open	E2 ↔ Vs Ω	50—500
E1 ↔ Fc 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
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	G1—G2 Ω	110—210
		Ne1—Ne2 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 ↔ E1 Ω	15—30
		B ↔ Fc 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/cm ² , 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/cm ² , 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

30 TECHNICAL DATA

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	k Ω	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	E2 \leftrightarrow Vs	Ω	200-600
		E2 \leftrightarrow Vref	Ω	200-400
		E1 \leftrightarrow Fc	Ω	∞
	Resistance at full open	E2 \leftrightarrow Vs	Ω	20-1,000
		E1 \leftrightarrow Fc	Ω	0
Water thermo sensor	Resistance	-20°C (-4°F)	k Ω	16.2 \pm 1.62
		20°C (68°F)	k Ω	2.45 \pm 0.24
		80°C (176°F)	k Ω	0.32 \pm 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
Throttle sensor	Resistance	A-B	k Ω	Idle position; approx. 1 Full open; approx. 5 \pm 1
		A-C	k Ω	approx. 5 \pm 1
Crank angle sensor	Resistance	G1-G2	Ω	110-210
		Ne1-Ne2	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 \leftrightarrow E1	Ω	15-30
		B \leftrightarrow Fc	Ω	80-150
Turbocharger	Type	Water cooled		
	Lubrication	Engine oil		
	Boost pressure	kPa (kg/cm ² , 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 \pm 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	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		Nm (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	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	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				
	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)		

30 TECHNICAL DATA

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)	
	Free play	mm (in)	5—13 (0.197—0.512)	
	Engagement height	mm (in)	95 (3.74)	
Clutch cover	Set load	N (kg, lb)	4807 (490, 1078)	
			5494 (560, 1232)	
Clutch disc	Facing (outer)	mm (in)	225 (8.86)	
	Facing (inner)	mm (in)	150 (5.91)	
Clutch disc	Thickness	Pressure plate side	mm (in)	4.1 (0.16)
		Flywheel side	mm (in)	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
	Second	2.015
	Third	1.391
	Fourth	1.000
	Fifth	0.762
	Reverse	3.288
Oil capacity	liters (US pt, Imp. pt.)	2.5 (2.6, 2.2)
Mainshaft	Max. permissible run-out	mm (in)
	Clearance between mainshaft and gear (or bush) Wear limit	mm (in)
Reverse idle gear	Clearance between reverse idle gear bushing and shaft Wear limit	mm (in)
Shift fork and rod	Clearance between shift fork and clutch sleeve Wear limit	mm (in)
	Clearance between shift rod gate and control lever Wear limit	mm (in)

Item		Specification	
		Turbo model	Non-turbo model
Synchronizer ring	Clearance between synchronizer ring and side of gear when fitted		
	Standard mm (in)	1.5 (0.0591)	
	Wear limit mm (in)	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)

30 TECHNICAL DATA

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 Limit	0.2—0.7 (0.0078—0.0275)			
				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 →D ₂	54—61 (34—38)
	D ₂ →D ₃	99—106 (62—66)
	D ₃ →D ₂	91—98 (57—61)
	D ₂ →D ₁	40—46 (25—29)
Half throttle 190—210 mm-Hg 7.41—8.19 in-Hg	D ₁ →D ₂	11—18 (7—11)
	D ₂ →D ₃	30—37 (19—23)
	D ₃ →D ₄	48—54 (30—34)
Fully closed	D ₂ →D ₁	11—18 (7—11)
	1 ₂ →1 ₁	38—45 (24—28)
Lock-up on		71—77 (44—48)
Governor pressure		
Vehicle speed	km/h (mph)	Pressure kPa (kg/cm ² , 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/cm ² , 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

	Clearance between body and throttle valve	mm (in)	Adjusting rod length mm (in)
	Vacuum diaphragm	Below 25.65 (1.0099)	
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 (—)	
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)	

30 TECHNICAL DATA

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) Below -18°C (0°F)
	Limited slip diff.	(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 reservoir	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)	

30 TECHNICAL DATA

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)
		More than 2,158 (22, 312)/196 (20, 44) at 0 mm Hg (0 in-Hg)
	Fluid pressure per treading force kPa (kg/cm ² , psi)/N (kg, lb)	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/cm ² , 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		98—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	
Tire	Pitch circle diameter mm (in)	114.3 (4.50)	
	Size	205/60 VR15, 185/70 HR 14, 185/70R1487H, 205/55 VR16	
	Inflation pressure kPa (kg/cm ² , 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	Right	12.0 (0.47), *11.8 (0.46)
		mm (in)	Left
	Coil diameter	Right	147.0 (5.79), *146.8 (5.78)
		mm (in)	Left
	Free length	Right	355.5 (14.0), *327.0 (12.9)
		mm (in)	Left
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	

30 TECHNICAL DATA

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
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

