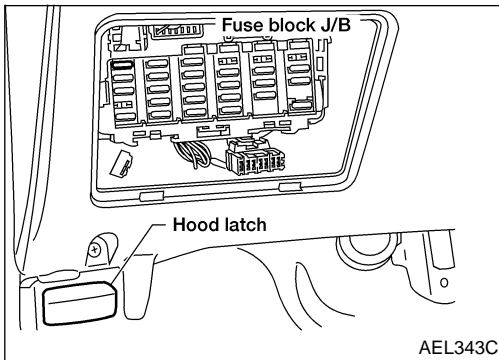


SUPER MULTIPLE JUNCTION (SMJ)

Installation



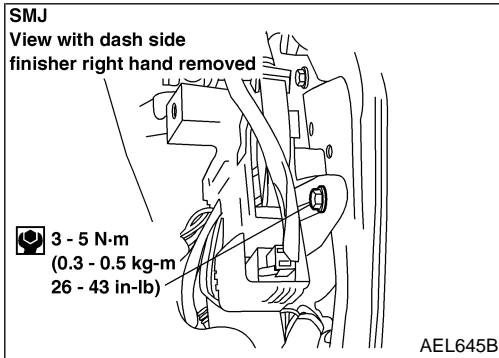
Installation

To install SMJ, tighten bolts until orange “fulltight” mark appears ^{NGEL0146} and then retighten to specified torque as required.

 : 3 - 5 N·m (0.3 - 0.5 kg·m, 26 - 43 in·lb)

CAUTION:

Do not overtighten bolts, otherwise, they may be damaged.



SUPER MULTIPLE JUNCTION (SMJ)

Terminal Arrangement

Terminal Arrangement

NGEL0147

MAIN HARNESS

(M65)

24B	23B	22B	21B	20B	19B	18B	17B	16B	15B	14B	13B	12B	11B	10B	9B	8B	7B	6B	5B	4B	3B	2B	1B
24A	23A	22A	21A	20A	19A	18A	17A	16A	15A	14A	13A	12A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A



24A	23A	22A	21A	20A	19A	18A	17A	16A	15A	14A	13A	12A	11A	10A	9A	8A	7A	6A	5A	4A	3A	2A	1A
24B	23B	22B	21B	20B	19B	18B	17B	16B	15B	14B	13B	12B	11B	10B	9B	8B	7B	6B	5B	4B	3B	2B	1B

(E43)

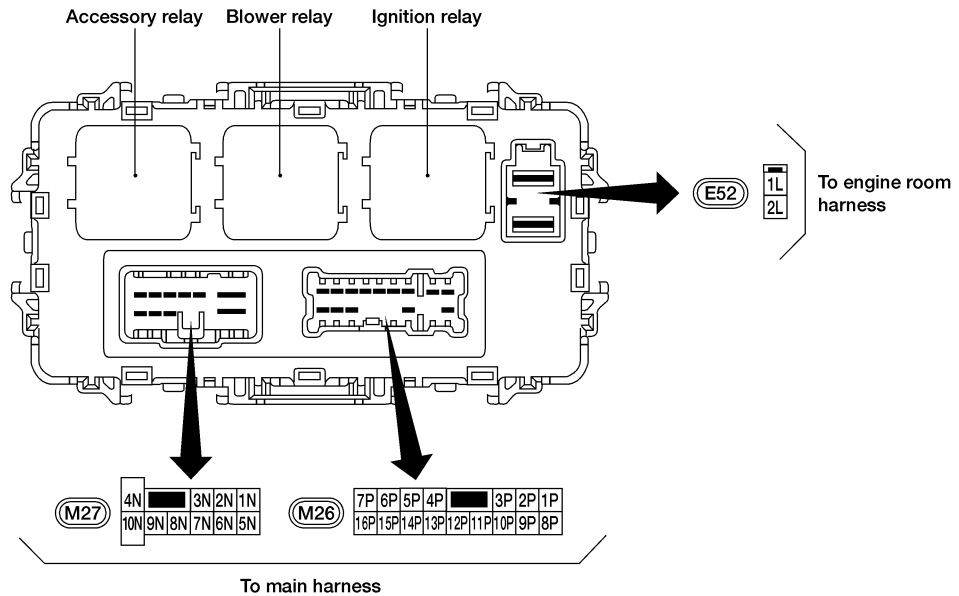
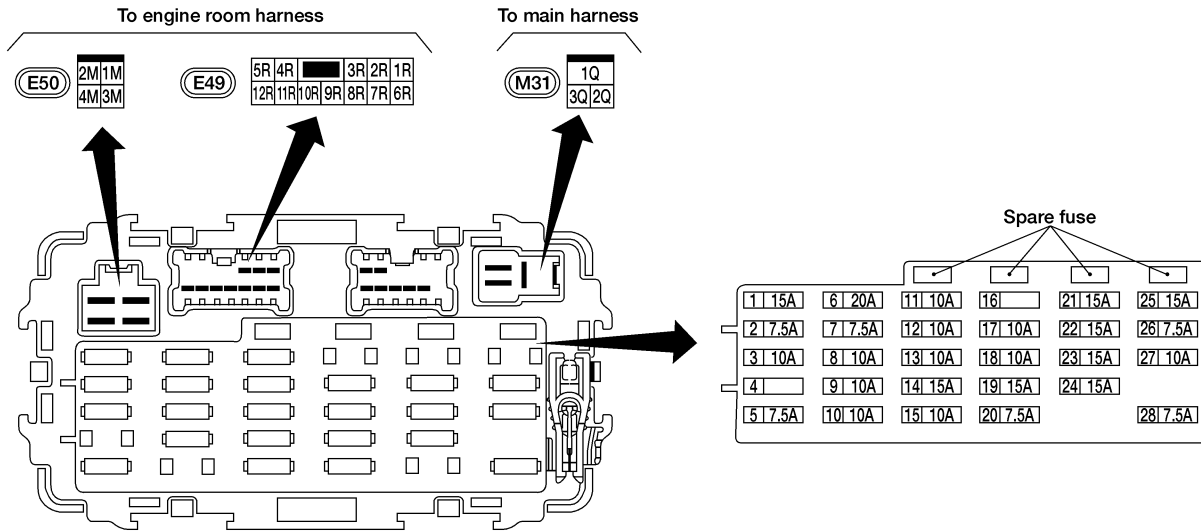
ENGINE ROOM HARNESS

FUSE BLOCK — JUNCTION BOX (J/B)

Terminal Arrangement

Terminal Arrangement

NGEL0148



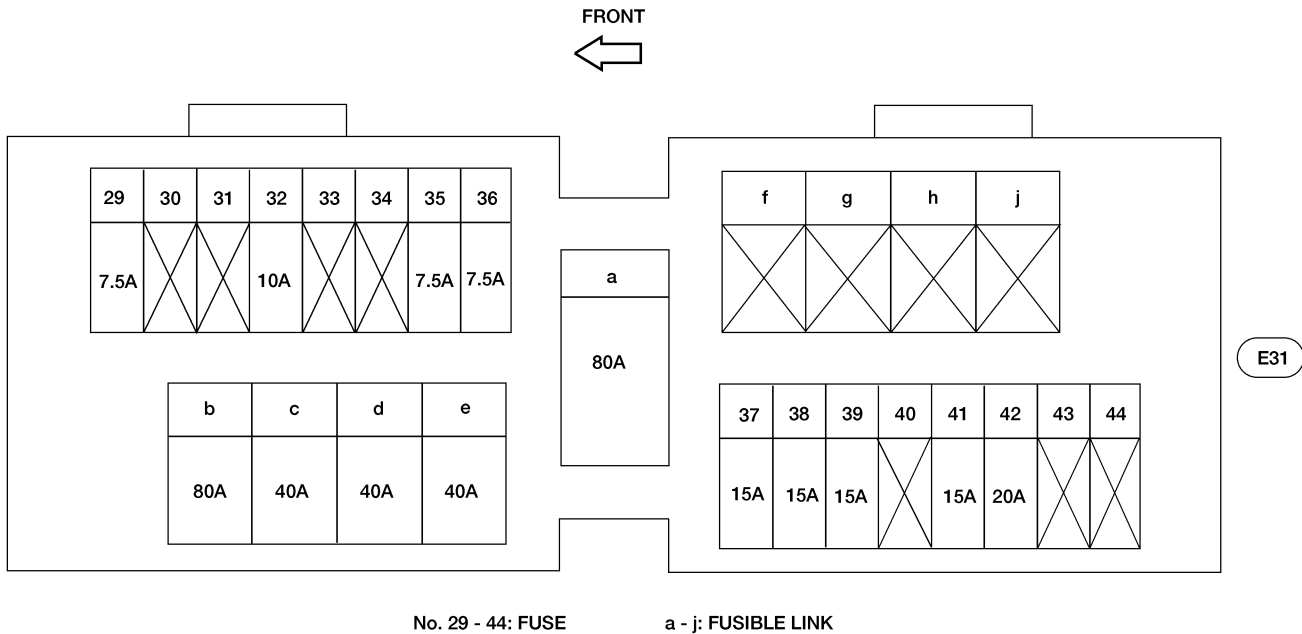
FUSE AND FUSIBLE LINK BOX

Terminal Arrangement

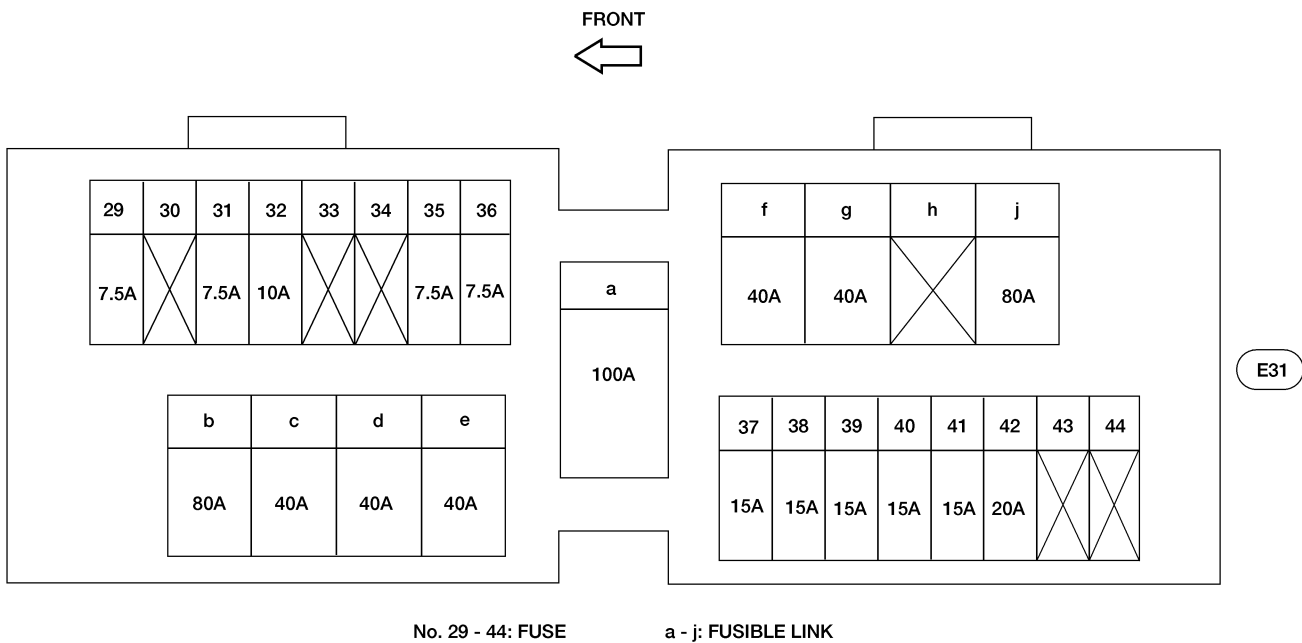
Terminal Arrangement

NGEL0149

For KA24DE



For VG33E



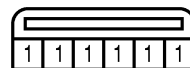
JOINT CONNECTOR

Terminal Arrangement

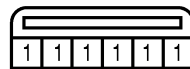
JOINT CONNECTOR - 1 (F31)



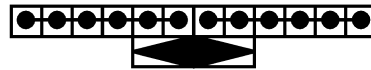
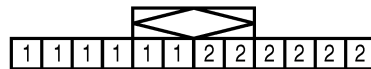
JOINT CONNECTOR - 2 (F32)



For VG33E models
JOINT CONNECTOR - 3 (F33)



For VG33E models
JOINT CONNECTOR - 4 (F34)

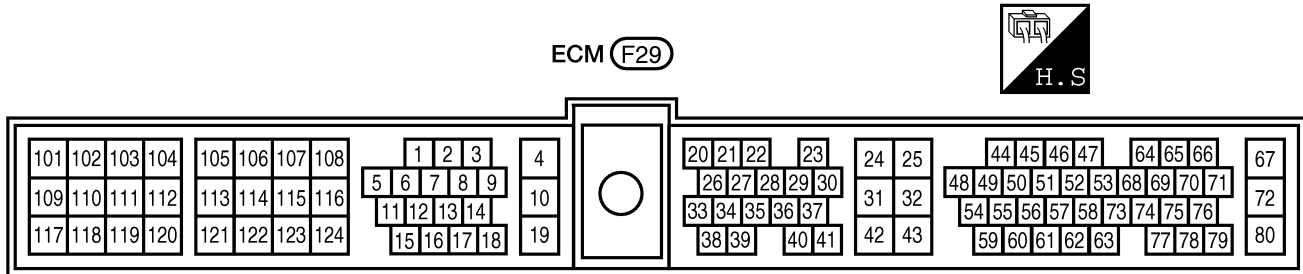


ELECTRICAL UNITS

Terminal Arrangement

Terminal Arrangement

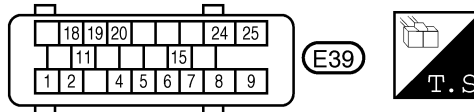
NGEL0150



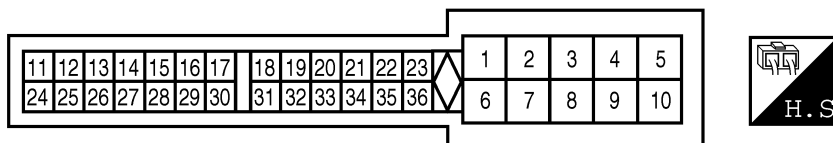
TCM (TRANSMISSION CONTROL MODULE)



ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



SMART ENTRANCE CONTROL UNIT (M10)



NOTES

QUICK REFERENCE CHART: XTERRA 133 2000

EQUIPPED WITH 2.4L, KA ENGINE

ENGINE TUNE-UP DATA

Engine model	KA24DE		
Firing order	1-3-4-2		
Idle speed rpm	800° ± 50		
MT	800° ± 50		
A/T (in "N" position)	800° ± 50		
Ignition timing (degree B.T.D.C. at idle speed)	20° ± 2°		
CO% at idle	Idle mixture screw is preset and sealed at factory		
Spark plug	NGK (Single Platinum Tipped)	NGK (Double Platinum Tipped)	
Hot	-	PFR4G-11	
Standard	FR5AP-10	PFR5G-11	
Cold	R6AP-10	PFR6G-11	
	FR7AP-10	-	
Gap (nominal) mm (in)	1.0 (0.039)	1.1 (0.043)	
Drive belt deflection (Cold) mm (in)	Used belt		
	Limit	Deflection after adjustment	Deflection of new belt
Generator	17 (0.67)	10 - 12 (0.39 - 0.47)	8 - 10 (0.31 - 0.39)
Air conditioner compressor	16 (0.63)	10 - 12 (0.39 - 0.47)	8 - 10 (0.31 - 0.39)
Power steering oil pump	17 (0.67)	10 - 13 (0.39 - 0.51)	8 - 10 (0.31 - 0.39)
Drive belt tension N (kg, lb)	Used belt		
	Limit	Tension after adjustment	Tension of new belt
Generator	222.4 (22.7, 50)	355.8 - 444.8 (36.3-45.4, 80-100)	489.3 - 578.2 (49.9-59.0, 110-130)
Air conditioner compressor	200.2 (20.4, 45)	355.8 - 444.8 (36.3-45.4, 80-100)	489.3 - 578.2 (49.9-59.0, 110-130)
Power steering oil pump	222.4 (22.7, 50)	355.8 - 444.8 (36.3-45.4, 80-100)	489.3 - 578.2 (49.9-59.0, 110-130)
Applied pressed force N (kg, lb)	98 (10, 22)		
Radiator cap relief pressure kPa (kg/cm ² , psi)	78 - 98 (0.8 - 1.0, 11 - 14)		
Cooling system leakage testing pressure kPa (kg/cm ² , psi)	157 (1.6, 23)		
Compression pressure kPa (kg/cm ² , psi)/rpm	Standard	1,226 (12.5, 178)/300	
	Minimum	1,030 (10.5, 149)/300	
Tightening torque	N-m	kg-m	ft-lb
Spark plug	20 - 29	2.0 - 3.0	14 - 22
Oil pan drain plug	29 - 39	3.0 - 4.0	22 - 29

CLUTCH PEDAL

Pedal height	227 - 237 (8.94 - 9.33)	Unit: mm (in)
Pedal free play	7 - 14 (0.27 - 0.55)	

BRAKE

Disc brake		Unit: mm (in)
Pad minimum thickness	2.0 (0.079)	
Rotor repair limit Runout	0.07 (0.0028)	
Minimum thickness	26.0 (1024), CL28VD	
Drum brake		
Lining minimum thickness	1.5 (0.059)	
Drum repair limit Maximum inner diameter	296.5 (11.67), LT30A	
Parking brake		
Number of notches*2	10 - 12	

*1 At pulling force: 196 N (20 kg, 44 lb)

FRONT WHEEL BEARING

Item	Model		
	2WD		
Tightening torque N • m (kg•m, ft•lb)	34 - 39 (3.5 - 4.0, 25 - 29)		
Return angle degree	45° - 60°		
Preload (At hub bolt) N (kg, lb)	New seal	9.8 - 28.4 (1.0 - 2.9, 2.2 - 6.4)	
	Used seal	9.8 - 23.5 (1.0 - 2.4, 2.2 - 5.3)	

REFILL CAPACITIES

	Unit	Metric measure	US measure
Fuel tank		60/	15.9 gal
Coolant (with reservoir)	2WD MT	9.25/	9-3/4 qt
Engine	2WD	With oil filter	3.9/ 4-1/8 qt
		Without oil filter	3.7/ 3-7/8 qt
	Dry engine (engine overhaul)	4.5/	4-3/4 qt
Transmission	M/T	2WD 2.0/	4-1/4 pt
Final drive	Rear	H190A 1.5/	3-1/8 pt
Manual steering system		0.62/	2-3/8 qt
Power steering system		1.0 - 1.1/	33.8 - 37.2 fl oz
Air conditioning system	Lubricant	0.2/	6.8 fl oz
	Refrigerant *	0.6 - 0.7 kg	1.32 - 1.54 lb

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FRONT WHEEL ALIGNMENT (Unladen*1)

		2WD		
Camber	Minimum	0°03' (0.05°)		
	Nominal	0°33' (0.55°)		
	Maximum	1°03' (1.05°)		
	Left and right difference	45' (0.75°) or less		
Caster	Minimum	2°04' (2.07°)		
	Nominal	2°34' (2.57°)		
	Maximum	3°04' (3.07°)		
	Left and right difference	45' (0.75°) or less		
Kingpin inclination	Minimum	10°23' (10.38°)		
	Nominal	10°53' (10.88°)		
	Maximum	11°23' (11.38°)		
Total toe-in	Distance (A - B) mm (in)	Minimum	3' (0.12')	
		Nominal	4' (0.16')	
		Maximum	5' (0.20')	
	Angle (left plus right)	Minimum	15' (0.25°)	
		Nominal	20' (0.33°)	
		Maximum	25' (0.42°)	
Wheel turning angle	Inside	Minimum	Except P265/70R15 32°48' (32.80°) P265/70R15 30°48' (30.80°)	
		Nominal	34°48' (34.80°) 32°48' (32.80°)	
		Maximum	34°48' (34.80°) 32°48' (32.80°)	
	Outside	Minimum	31°00' (31.00°) 28°42' (28.70°)	
		Nominal	33°00' (33.30°) 30°42' (30.70°)	
		Maximum	33°00' (33.30°) 30°42' (30.70°)	

*1 Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

*2 On power steering models, wheel turning force (at circumference of steering wheel) of 98 to 147 N (10 to 15 kg, 22 to 33 lb) with engine idle.

QUICK REFERENCE CHART: XTERRA 133 2000

EQUIPPED WITH 3.3L, VG ENGINE

ENGINE TUNE-UP DATA

Engine model	VG33E		
Firing order	1-2-3-4-5-6		
Idle speed rpm	750° ± 50		
MT	750° ± 50		
A/T (in "N" position)	750° ± 50		
Ignition timing (degree B.T.D.C. at idle speed)	15° ± 2°		
CO% at idle	Idle mixture screw is preset and sealed at factory		
Spark plug	NGK (Single Platinum Tipped)	NGK (Double Platinum Tipped)	
Standard	FR5AP-10	PFR5G-11	
Type	Cold	FR6AP-10	PFR6G-11
Hot	FR4AP-10	PFR4G-11	
Gap (nominal) mm (in)	1.0 (0.039)	1.1 (0.043)	
Drive belt deflection (Cold) mm (in)	Used belt		
	Limit	Deflection after adjustment	Deflection of new belt
Generator	11 (0.43)	7 - 8 (0.24 - 0.31)	6 - 7 (0.24 - 0.28)
Air conditioner compressor	18 (0.71)	12 - 13 (0.47 - 0.51)	10.5 - 11.5 (0.413 - 0.453)
Power steering oil pump	15 (0.59)	9.5 - 10.5 (0.374 - 0.413)	8 - 9 (0.31 - 0.35)
Drive belt tension N (kg, lb)	Used belt		
	Limit	Tension after adjustment	Tension of new belt
Generator	226 (23, 51)	554.1-642.4 (56.5-65.5, 124.6-144.4)	671.8-760.0 (68.5-77.5, 151.0-170.9)
Air conditioner compressor	196 (20, 44)	495.3-583.5 (50.5-59.5, 111.4-131.2)	603.1-691.4 (61.5-70.5, 135.6-155.5)
Power steering oil pump	275 (28, 62)	554.1-642.4 (56.5-65.5, 124.6-144.4)	671.8-760.0 (68.5-77.5, 151.0-170.9)
Applied pressed force N (kg, lb)	98 (10, 22)		
Radiator cap relief pressure kPa (kg/cm ² , psi)	78 - 98 (0.8 - 1.0, 11 - 14)		
Cooling system leakage testing pressure kPa (kg/cm ² , psi)	157 (1.6, 23)		
Compression pressure Standard kPa (kg/cm ² , psi)/rpm	1,196 (12.2, 173)/300		
Minimum	883 (9.0, 128)/300		
Tightening torque	N-m	kg-m	ft-lb
Spark plug	20 - 29	2.0 - 3.0	14 - 22
Oil pan drain plug	29 - 39	3.0 - 4.0	22 - 29

CLUTCH PEDAL

Pedal height	227 - 237 (8.94 - 9.33)	Unit: mm (in)
Pedal free play	7 - 14 (0.27 - 0.55)	

BRAKE

Disc brake		Unit: mm (in)
Pad minimum thickness	2.0 (0.079)	
Rotor repair limit Runout	0.07 (0.0028)	
Minimum thickness	26.0 (1024), CL28VD	
Drum brake		
Lining minimum thickness	1.5 (0.059)	
Drum repair limit Maximum inner diameter	296.5 (11.67), LT30A	
Parking brake		
Number of notches*2	10 - 12	

*1 At pulling force: 196 N (20 kg, 44 lb)

FRONT WHEEL BEARING

Item	Model			
	2WD		4WD	
Tightening torque N • m (kg•m, ft-lb)	34 - 39 (3.5 - 4.0, 25 - 29)		—	
Return angle degree	45° - 60°		—	
Preload (At hub bolt) N (kg, lb)	New seal	9.8 - 28.4 (1.0 - 2.9, 2.2 - 6.4)	Wheel bearing Tightening torque N • m (kg•m, ft-lb)	78 - 98 (8-10, 58 - 72)
			Retightening torque after loosening wheel bearing lock nut N•m (kg•m, ft-lb)	0.5 - 1.5 (0.05 - 0.15, 0.4 - 1.1)
	Used seal	9.8 - 23.5 (1.0 - 2.4, 2.2 - 5.3)	Axial end play mm (in)	0 (0)
			Start force at wheel hub bolt N • m (kg, lb)	A
			Turning angle degree	15° - 30°
			Starting force at wheel hub bolt N • m (kg, lb)	B
			Wheel bearing preload at wheel hub bolt B- A N (kg, lb)	7.06 - 20.99 (0.72 - 2.14, 1.59 - 4.72)

REFILL CAPACITIES

Unit	Metric measure	US measure
Fuel tank	73/	19.4 gal
Coolant (with reservoir)	AT & MT	10.95/
		11-5/8 qt
Engine	With oil filter	3.3/
	Without oil filter	3.0/
		3-1/2 qt
Dry engine (engine overhaul)		3.8/
		4 qt
Transmission	M/T	2WD
		2.4/
		5-1/8 pt
		4WD
		5.1/
		10-3/4 pt
	A/T	2WD
		8.3/
		8-3/4 qt
Transfer	4WD	2.2/
		2-3/8 qt
Final drive	Rear	H190A
		1.5/
		3-1/8 pt
		C200
		1.3/
		2-3/4 pt
	Front	R180A
		1.5/
		3-1/8 pt
Manual steering system		0.62/
		1-3/8 pt
Power steering system		1.0 - 1.1/
		33.8 - 37.2 fl oz
Air conditioning system	Lubricant	0.2/
	Refrigerant *	0.6 - 0.7 kg
		1.32 - 1.54 lb

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FRONT WHEEL ALIGNMENT (Unladen*1)

		2WD		4WD			
		Minimum	Nominal	Maximum	Left and right difference	Minimum	Nominal
Camber	Degree minute (Decimal degree)	0°03' (0.05°)	0°06' (0.10°)	0°33' (0.55°)	0°36' (0.60°)		
		1°03' (1.05°)	1°06' (1.10°)	45' (0.75°) or less	45' (0.75°) or less		
		2°04' (2.07°)	1°40' (1.67°)	2°34' (2.57°)	2°10' (2.17°)		
		3°04' (3.07°)	2°40' (2.67°)	45' (0.75°) or less	45' (0.75°) or less		
Caster	Degree minute (Decimal degree)	10°23' (10.38°)	10°18' (10.30°)	10°53' (10.88°)	10°48' (10.80°)		
		11°23' (11.38°)	11°18' (11.30°)	11°23' (11.38°)	11°18' (11.30°)		
		3' (0.12°)	3' (0.12°)	4' (0.16°)	4' (0.16°)		
		5' (0.20°)	5' (0.20°)	5' (0.20°)	5' (0.20°)		
Kingpin inclination	Degree minute (Decimal degree)	3' (0.12°)	3' (0.12°)	4' (0.16°)	4' (0.16°)		
		5' (0.20°)	5' (0.20°)	5' (0.20°)	5' (0.20°)		
		15' (0.25°)	15' (0.25°)	20' (0.33°)	20' (0.33°)		
		25' (0.42°)	25' (0.42°)	25' (0.42°)	25' (0.42°)		
Total toe-in	Distance (A - B) mm (in)	3' (0.12°)	3' (0.12°)	4' (0.16°)	4' (0.16°)		
		5' (0.20°)	5' (0.20°)	5' (0.20°)	5' (0.20°)		
		15' (0.25°)	15' (0.25°)	20' (0.33°)	20' (0.33°)		
		25' (0.42°)	25' (0.42°)	25' (0.42°)	25' (0.42°)		
	Angle (left plus right)	Degree minute (Decimal degree)	3' (0.12°)	3' (0.12°)	4' (0.16°)	4' (0.16°)	
			5' (0.20°)	5' (0.20°)	5' (0.20°)	5' (0.20°)	
			15' (0.25°)	15' (0.25°)	20' (0.33°)	20' (0.33°)	
			25' (0.42°)	25' (0.42°)	25' (0.42°)	25' (0.42°)	
Wheel turning angle	Inside	Except P265/70R15	P265/70R15	Except P265/70R15	P265/70R15		
		32°48' (32.80°)	30°48' (30.80°)	33°06' (33.10°)	31°00' (31.00°)		
		34°48' (34.80°)	32°48' (32.80°)	35°06' (35.10°)	33°00' (33.00°)		
		34°48' (34.80°)	32°48' (32.80°)	35°06' (35.10°)	33°00' (33.00°)		
	Outside	Degree minute (Decimal degree)	31°00' (31.00°)	28°42' (28.70°)	31°12' (31.20°)	29°00' (29.00°)	
			33°00' (33.00°)	30°42' (30.70°)	33°12' (33.20°)	31°00' (31.00°)	
			33°00' (33.00°)	30°42' (30.70°)	33°12' (33.20°)	31°00' (31.00°)	
			33°00' (33.00°)	30°42' (30.70°)	33°12' (33.20°)	31°00' (31.00°)	

*1 Fuel, radiator coolant and engine oil full. Spare tire, jack, hand tools and mats in designated positions.

*2 On power steering models, wheel turning force (at circumference of steering wheel) of 98 to 147 N (10 to 15 kg, 22 to 33 lb) with engine idle.