

# **DAIHATSU**

# **ROCKY**

## **SUPPLEMENT B SPECIFICATIONS**

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**B**

# 1. PRE-DELIVERY INSPECTION SPECIFICATIONS

Item		Specifications
Tire inflation pressure Front/Rear	P205/75R15	1.8/2.4
	P225/70R15	1.8/2.4
Spare tire inflation pressure	bar	2.4
Wheel nut tightening torque	N·m	88.2 - 117.6
Idling speed (in neutral)	rpm	850 ± 50
Throttle positioner setting speed	rpm	1,600 ± 100
Engine oil	Capacity ℓ	3.8/(3.3) whole/(oil change)
	Grade	API SG or SF
Manual transmission oil	Capacity ℓ	1.7
	Grade	API GL-3 or GL-4
	Viscosity	SAE 75W-85 or 75W-90
Transfer oil	Capacity ℓ	Part time: 1.4 Full time: 1.7
	Grade	API GL-3 or GL-4
	Viscosity	SAE 75W-85 or 75W-90
Differential oil	Capacity ℓ	Front: 0.9 Rear: 1.95
	Grade	Hypoid gear oil API GL-5
	Viscosity	SAE 90 or 80W-90
Brake fluid	Grade	FMVSS 116 DOT3 or SAE J1703
Power steering fluid	Grade	ATF (DEXRON®-II)
Steering gear box oil	Grade	Gear oil API GL-4
	Viscosity	SAE-90
Accelerator pedal free play	mm	1 - 5
Brake pedal free play	mm	1 - 3 (w/o Vacuum)
Clutch pedal free play	mm	18 - 27
Parking brake lever		Should "Set" within 4-6 notches when pulled-up 55 lb by hand
Exhaust emission concentration at Idle	CO Vol. %	Max. 0.5 (Tail pipe)
	HC Vol. ppm	Max. 100 (Tail pipe)

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## 2. SUMMARY OF VEHICLE SPECIFICATIONS

Item			Specifications
ENGINE	Type		HD-E
	Displacement	cc	1589
	Bore × Stroke	mm	76.0 × 87.6
	Compression ratio		9.5 ± 0.3
	Firing order		1 - 3 - 4 - 2
	Ignition timing		3°BTDC/1000 rpm (W/O Vacuum advance)
	Valve mechanism		Over head camshaft, Timing belt
	Valve clearancemm	Intake	0.20 - 0.30 (Hot condition)
		Exhaust	0.28 - 0.38 (Hot condition)
	Spark plug type (Gap in mm)	CHAMPION	RC9YC4 (1.0 - 1.1)
		NIPPONDENSO	K20PR-U11 (1.0 - 1.1)
		NGK	BKR6E-11 (1.0 - 1.1)
	Coolant capacity	ℓ	5.5 Excluding for reserve tank (1.0)
	Max. Out put	Power      kw/rpm	70/5700
		Torque      N·m/rpm	128/3200
CLUTCH	Recommendation fuel		Unleaded, Octane number 91 (RON) or higher
	Fuel tank capacity		60 (15.9 us gal.)
CLUTCH	Type		Dry single plate, diaphragm
	Operation		Mechanical
MANUAL TRANSMISSION	Type		5 Speed, Synchromesh
	Gear ratio	1st	3.752
		2nd	2.182
		3rd	1.482
		4th	1.000
		5th	0.865
		Reverse	3.942
TRANSFER	Type		Drive chain
	Gear ratio	Low	1.754
		High	1.000
DIFFERENTIAL	Type		Hypoid gear
	Gear ratio		5.285
SUSPENSION	Front		Double wish bone
	Rear		Rigid
STEERING	Type		Ball-nut type
	Gear ratio		24 - 28*
BRAKES	Type		Front: Disc (Solid rotor) REAR: Drum (Leading and trailing)
	System		2 Front 2 wheels and rear 2 wheels brake
WHEEL	Size		15 × 6JJ
	Off setmm		Steel: 19 ± 1 Aluminum: 19 ± 0.5

\* Overall gear ratio: 24.2 (without power steering), 18.4 (with power steering).

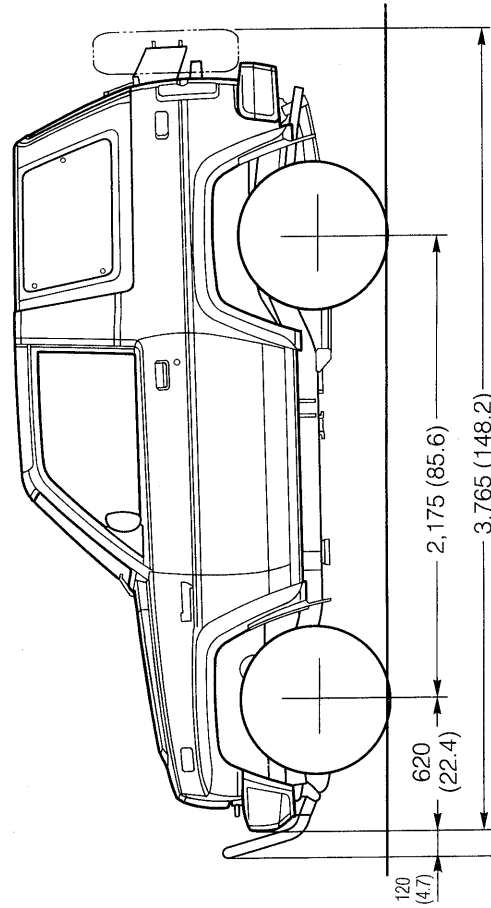
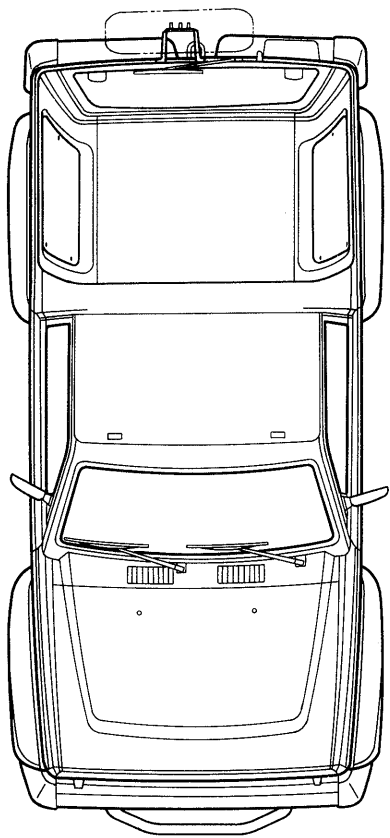
# SUPPLEMENT B SPECIFICATIONS

Item				Specifications
BULB	Head lamp	Candescent	W	65/55
		Halogen	W	65/35
	Front combination lamp	Turn signal	W	27
		Clearance	W	8
	Front marker lamp		W	5
	Rear		W	5
	Rear combination lamp	Stop, Turn signal	W	27
		Tail	W	8
		Back up	W	27
	License plate lamp		W	5
	Room lamp		W	10
	Luggage room lamp		W	8

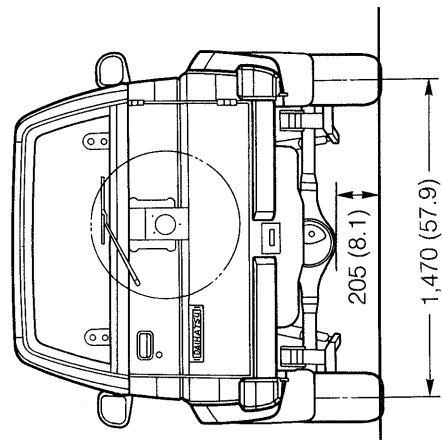
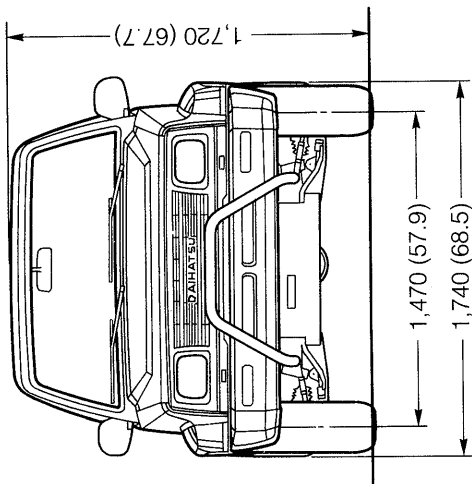
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### 3. VEHICLE DIMENSIONS

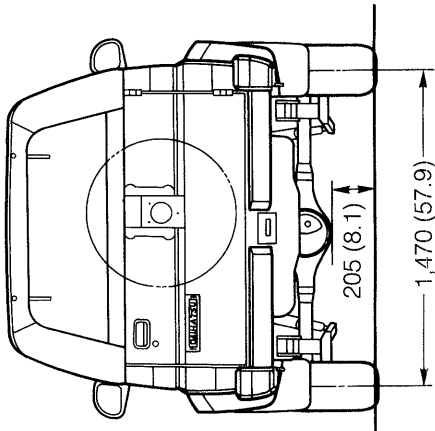
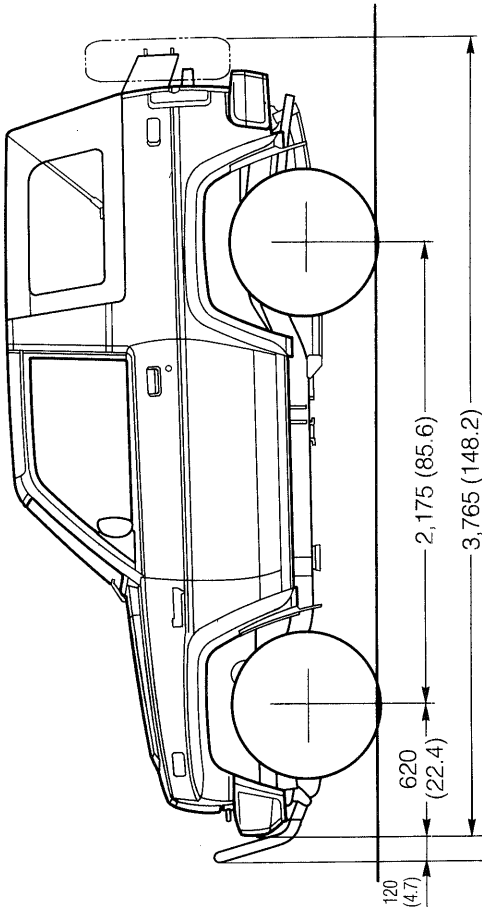
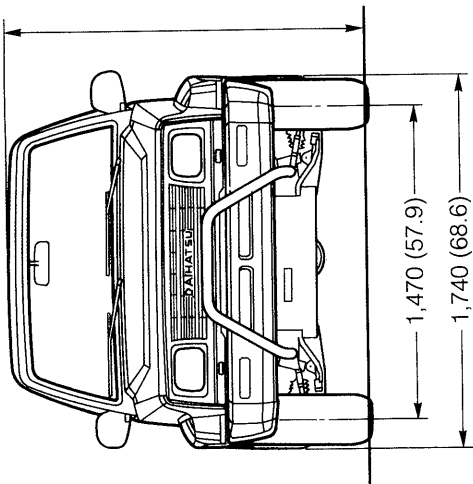
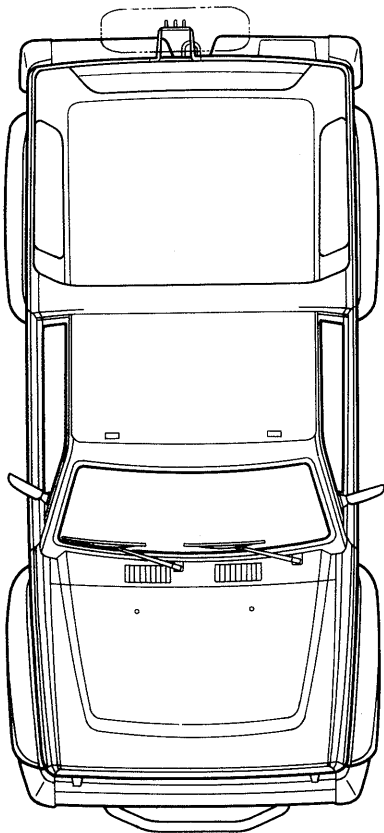
#### WAGON



mm (inch)



CABRIOLET



mm (inch)

## 4. ENGINE MECHANICALS

Timing belt pulley	Reference	Camshaft	119.90 mm (4.720 inch)
		Crankshaft	59.37 mm (2.335 inch)
Timing belt tension spring		Free length	46.5 mm (1.83 inch)
		Installation load	3 kg at 50.9 mm (6.6 lb at 2.00 inch)
Camshaft	Oil clearance (cylinder head-to-camshaft)		0.035 - 0.076 mm (0.0014 - 0.0029 inch)
	Maximum limit		0.17 mm (0.0067 inch)
	Thrust clearance		0.1 - 0.25 mm (0.0039 - 0.0098 inch)
	Maximum limit		0.45 mm (0.018 inch)
	Journal diameter		
	Valve cam lobe height		
	Intake	Standard	33.08 - 33.28 mm (1.302 - 1.310 inch)
		Minimum	32.9 mm (1.295 inch)
	Exhaust	Standard	33.00 - 33.20 mm (1.299 - 1.307 inch)
		Minimum	32.85 mm (1.293 inch)
	Maximum circle run out		0.03 mm (0.0012 inch)
Cylinder head	Warpage	Cylinder block side	0.10 mm (0.0039 inch)
		Intake manifold side	0.10 mm (0.0039 inch)
		Exhaust manifold side	0.10 mm (0.0039 inch)
	Valve seat angle	Intake	30° - 45° - 70°
		Exhaust	20° - 45° - 70°
	Valve contacting angle		45°
	Valve seat contacting width		
		Standard	1.4 mm (0.055 inch)
		Allowance	1.2 - 1.6 mm (0.048 - 0.062 inch)
	Maximum valve seat recession	Intake	2.775 mm (0.1092 inch)
		Exhaust	6.026 mm (0.2372 inch)
Valves	Valve length	Intake valve	112.8 mm (4.441 inch)
		Exhaust valve	114.5 mm (4.508 inch)
	Valve face angle		45.5°
	Valve stock thickness (Minimum)		
		Intake	0.8 mm (0.032 inch)
		Exhaust	1.0 mm (0.039 inch)
	Valve stem oil clearance		
	Intake	Standard	0.020 - 0.060 mm (0.0008 - 0.0024 inch)
		Maximum	0.080 mm (0.0031 inch)
	Exhaust	Standard	0.025 - 0.065 mm (0.0010 - 0.0026 inch)
		Maximum	0.090 mm (0.0035 inch)

# SUPPLEMENT B SPECIFICATIONS

Valve springs	Free length	Standard Minimum	45.2 - 46.0 mm (1.78 - 1.81 inch) 44.3 mm (1.74 inch)
	Installed tension at 38.0 mm (1.50 inch)		26.4 kg (58.2 lb)
	Maximum out-of-squareness		1.6 mm (0.063 inch)
Valve rocker arm and valve rocker shaft	Oil clearance	Standard Maximum	0.012 - 0.053 mm (0.0005 - 0.0020 inch) 0.08 mm (0.0031 inch)
	Valve rocker arm bore diameter		19.500 - 19.521 (0.7678 - 0.7685 inch)
	Valve rocker shaft outer diameter		19.468 - 19.488 mm (0.7665 - 0.7672 inch)
Valve rocker arm spacer	Free width		22.00 mm (0.866 inch)
Exhaust manifold	Warpage		0.1 mm (0.0039 inch)
Intake manifold	Warpage	Cylinder head side	0.1 mm (0.0039 inch)
Cylinder block	Maximum cylinder head surface warpage		0.1 mm (0.0039 inch)
	Cylinder bore diameter	Standard O/S 0.25	76.000 - 76.030 mm (2.9922 - 2.9933 inch) 76.250 - 76.280 mm (3.0020 - 3.0031 inch)
	Bore honing angle		35° ± 5°
	Coarse degree		1 - 4 Z
Piston, piston pin and piston rings	Piston-to-cylinder bore clearance	Standard Maximum limit	0.025 - 0.045 mm (0.0010 - 0.0018 inch) 0.11 mm (0.0043 inch)
	Piston ring groove-to-piston ring side clearance		
	Standard.	No. 1 No. 2	0.03 - 0.07 mm (0.0012 - 0.0027 inch) 0.02 - 0.06 mm (0.0008 - 0.0023 inch)
	Maximum		0.12 mm (0.0047 inch)
	Piston ring thickness		
	Standard	No. 1 No. 2	1.17 - 1.19 mm (0.0461 - 0.0468 inch) 1.47 - 1.49 mm (0.0579 - 0.0586 inch)
Piston, piston pin and piston rings	Piston ring end gap		
	Standard	No. 1 No. 2	0.27 - 0.42 mm (0.0107 - 0.0165 inch) 0.35 - 0.50 mm (0.0138 - 0.0196 inch)
		oil	0.20 - 0.70 mm (0.0079 - 0.0275 inch)
	Maximum	No. 1 No. 2	0.7 mm (0.028 inch) 0.8 mm (0.031 inch)
		oil	1.0 mm (0.039 inch)
	Piston pin-to-connecting rod interference fit		0.012 - 0.044 mm (0.0005 - 0.0017 inch)
Flywheel	Runout	Maximum	0.1 mm (0.0039 inch)
Connecting rod	Big end thrust clearance		
		Standard Maximum	0.15 - 0.4 mm (0.006 - 0.015 inch) 0.45 mm (0.018 inch)
	Maximum bend		0.05 mm (0.0020 inch)
	Maximum twist		0.05 mm (0.0020 inch)
Crankshaft	Crankpin journal oil clearance		0.020 - 0.044 mm (0.0008 - 0.0017 inch)
	Main journal oil clearance		0.024 - 0.042 mm (0.0010 - 0.0016 inch)
	Crankpin journal diameter		44.975 - 45.000 mm (1.7707 - 1.7716 inch)
	Main journal diameter		49.975 - 50.000 mm (1.9676 - 1.9685 inch)
	Thrust clearance	Standard Maximum limit	0.02 - 0.22 mm (0.0008 - 0.0086 inch) 0.30 mm (0.012 inch)
	Runout	Maximum	0.06 mm (0.0024 inch)

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## 5. EFI SYSTEM

Fuel pressure regulator	Fuel pressure at no vacuum	2.3 - 2.8 kg/cm <sup>2</sup> (33 - 40 psi)												
Injector	Resistance at 20°C (68°F) (approx.)	11 - 17 Ω												
	Injection amount (approx.)	40 - 50 cc/15 seconds at 20°C (68°F) (2.62 - 2.89 cub inch)												
	Difference between each injector	5 cc or less (0.3 cub inch or less)												
	Fuel leakage	Less than one drop of fuel per minute												
EFI main relay Injector relay	Between terminals ① - ② ③ - ④	Continuity Infinity												
Fuel pump relay	Between terminals ① - ② ③ - ④	Continuity Infinity												
Throttle position sensor	Resistance Between terminals ⑫ - ⑲ Throttle valve closed fully	29 Ω or less at 20°C (68°F)												
	Throttle valve opened fully	1000 kΩ or more at 20°C (68°F)												
	Between terminals ⑳ - ㉑ Throttle valve closed fully	1000 kΩ or more at 20°C (68°F)												
	Throttle valve opened fully	29 Ω or less at 20° (68°F)												
Fuel pump	Fuel flow amount	235 cc or more/15 seconds (14.34 cub inch or more)												
Water temperature sensor Intake air temperature sensor	Temperature	Resistance												
	80°C (176°F)	0.322 ± 0.1 kΩ												
	60°C (140°F)	0.584 ± 0.2 kΩ												
	40°C (104°F)	1.14 ± 0.3 kΩ												
	20°C (68°F)	2.45 ± 0.5 kΩ												
	0°C (32°F)	5.88 ± 1.5 kΩ												
	-20°C (-4°F)	16.2 ± 3.2 kΩ												
Pressure sensor Output between SST terminals ⑥ - ⑳ (ground) (When engine is stopped.)														
<table border="1"> <thead> <tr> <th>Measuring point Altitude (height above sea level) m (ft)</th><th>Atmospheric pressure mm Hg (inch Hg)</th><th>Voltage V</th></tr> </thead> <tbody> <tr> <td>0 (0)</td><td>760 (29.92)</td><td>3.2 - 4.0</td></tr> <tr> <td>500 (1640)</td><td>716 (28.19)</td><td>3.1 - 3.8</td></tr> <tr> <td>1000 (3280)</td><td>674 (26.54)</td><td>3.0 - 3.6</td></tr> </tbody> </table>			Measuring point Altitude (height above sea level) m (ft)	Atmospheric pressure mm Hg (inch Hg)	Voltage V	0 (0)	760 (29.92)	3.2 - 4.0	500 (1640)	716 (28.19)	3.1 - 3.8	1000 (3280)	674 (26.54)	3.0 - 3.6
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Idle speed control VSV	Resistance terminal	10 - 50 Ω
EGR VSV	Resistance between terminal	20 - 60 Ω
PRESSURE VSV	Resistance between terminal	20 - 60 Ω

## SUPPLEMENT B SPECIFICATIONS

### Voltage at ECU connectors

#### NOTE:

1. Perform the following measurements between terminals with the engine harness connected to the ECU.
2. Verify that the battery voltage is 11 V or above when the ignition key switch is turned ON.
3. Never connect the test probe to terminals not specified.

Terminal	STD voltage	Condition	
① - ③⑨	Approx. battery voltage	Ignition switch ON.	
② - ③⑨	Approx. battery voltage	At all time	
③ - ③⑨	Approx. battery voltage	Ignition switch ON.	When engine is stopped:
⑤ - ③⑥	4.5 - 5.5 V	Ignition switch ON.	
⑥ - ③⑨	3.2 - 4.0 V	Ignition switch ON.	When atmospheric pressure of 760 mmHg (29.9 inch Hg) exists.
⑦ - ③⑨	0.4 - 0.65 V	Ignition switch ON.	When cooling water temperature is 80 °C (176 °F):
⑧ - ③⑨	0 - Approx. battery voltage	Ignition switch ON.	Measured voltage changes when vehicle is moved 1.5 m (4.93 ft).
⑨ - ③⑨	Less than 5.0 V	Ignition switch ON.	When defogger and headlamp switches are turned OFF:
	Approx. battery voltage	Ignition switch ON.	When defogger and/or headlamp switches are turned ON:
⑪ - ③⑨	Approx. battery voltage	Ignition switch ON.	When test terminal of check connector is not connected with ground terminal:
	Less than 1.0 V	Ignition switch ON.	When test terminal of check connector is connected with ground terminal:
⑫ - ③⑨	Less than 5 V	Ignition switch ON.	Throttle valve fully closed
	Approx. battery voltage	Ignition switch ON.	Throttle valve fully opened
⑬ - ③⑨	0 V	Ignition switch ON.	
	More than 6 V	When ignition switch is set to ST position:	
⑮ - ③⑨	Measured voltage changes at a point between 0 - 5.0 V.	After warming up engine completely, connect test terminal of check connector with ground terminal. Hold engine revolution speed at 3000 rpm for two minutes.	
⑯ - ③⑨	Less than 3 V	Ignition switch ON	<ul style="list-style-type: none"> <li>• Engine is stopped.</li> <li>• When check engine lamp is illuminated:</li> </ul>
	Approx. battery voltage	Ignition switch ON	<ul style="list-style-type: none"> <li>• After engine starts:</li> <li>• When check engine lamp is extinguished:</li> </ul>
⑰ - ③⑨	Approx battery voltage	Ignition switch ON	<ul style="list-style-type: none"> <li>• After engine starts:</li> <li>• Cooling water temperature is below 40 °C (104°F).</li> </ul>
	Less than 3 V	Ignition switch ON	<ul style="list-style-type: none"> <li>• After engine starts:</li> <li>• Cooling water temperature is above 41 °C (106°F).</li> </ul>

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Terminals	STD voltage	Condition	
②① - ③⑨	Less than 1.0 V	At least 30 seconds have elapsed after turning OFF ignition switch.	
	Approx. battery voltage	Ignition switch ON	• Engine is stopped.
②① - ③⑨	Less than 0.01 V	Ignition switch ON	
②② - ③⑨	Approx. battery voltage	Ignition switch ON	
②⑤ - ③⑨	Change in output voltage	Ignition switch ON	After warming up engine completely, hold engine revolution speed at 3000 rpm for two minutes.
②⑦ - ③⑨	1.5 - 3.0 V	Ignition switch ON	Air temperature inside intake manifold is 20 °C (68 °F):
②⑨ - ③⑨	Less than 0.1 V	Ignition switch ON	
③① - ③⑨	Approx. battery voltage	Ignition switch ON	• Blower fan switch turned OFF
	Less than 2 V	Ignition switch ON	When blower fan switch is turned ON:
③② - ③⑨	Approx. battery voltage	Ignition switch ON	Throttle valve fully closed
	Less than 5 V	Ignition switch ON	Throttle valve fully opened
③③ - ③⑨	Less than 1 V	Ignition switch ON	When brake pedal is not depressed:
	Approx. battery voltage	At all time	When brake pedal is depressed:
③④ - ③⑨	Less than 1 V	Ignition switch ON	When compressor magnet switch of air conditioner is turned OFF:
	Approx. battery voltage	Ignition switch ON	When compressor magnet switch of air conditioner is turned ON:
③⑤ - ③⑨	Less than 0.1 V	Ignition switch ON	
③⑦ - ③⑨	Approx. battery voltage	Ignition switch ON	When fuel pump is stopped:
	Less than 2 V	Ignition switch ON	When fuel pump is operating:
③⑧ - ③⑨	Approx. battery voltage	Ignition switch ON	When pressure VSV is turned OFF:
	Less than 3 V	Ignition switch ON	For 0.5 second immediately after engine starts
③⑨ - Engine ground	Less than 0.1 V	Ignition switch ON	
④① - ③⑨	Less than 3 V	Ignition switch ON	Engine is stopped.
	Approx. battery voltage	Ignition switch ON	When test terminal of check connector is connected with ground terminal:
④① - ③⑨	Less than 1.0 V	At least 30 seconds have elapsed after turning OFF ignition switch.	
	Approx. battery voltage	Ignition switch ON	Engine is stopped.
④② - ③⑨	Less than 0.1 V	Ignition switch ON	

WRU90-B009

## 6. COOLING SYSTEM

Radiator cap	Relief valve opening pressure	
	Standard	0.75 - 1.05 kg/cm <sup>2</sup> (10.7 - 14.9 psi)
	Minimum	0.6 kg/cm <sup>2</sup> (8.5 psi)
Thermostat	Valve opening temperature	76 - 80°C (168.8 - 176.0°F)
	Standard specifications	
	Cold area specifications	82 - 86°C (179.6 - 186.8°F)
	Valve lift	
	Standard specifications	8.5 mm or more at 91°C (0.34 inch or more at 195.8°F)
	Cold area specifications	8.5 mm or more at 97°C (0.34 inch or more at 208.4°F)

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## 7. IGNITION SYSTEM

Ignition timing	No sub vacuum timing advance takes place. (Engine revolution must be stable at 1000 rpm or less.)	BTDC 3 ± 2°
Spark plug wire	Resistance	Maximum
		15 k Ω per cord
Distributor	Air gap between signal rotor and signal generator	0.2 - 0.4 mm (0.0079 - 0.015 inch)
Ignition coil	Primary coil	1.35 - 1.65 Ω at 20°C (68°F)
	Secondary coil	22 - 30 k Ω at 20° (68°F)

WRU90-B011

## 8. LUBRICATION SYSTEM

Oil pump	Compression spring free length	57 mm (2.24 inch)
	Body clearance	0.20 - 0.28 mm (0.0079 - 0.011 inch)
	Tip clearance	0.16 - 0.24 mm (0.0063 - 0.0094 inch)
	Side clearance	0.035 - 0.085 mm (0.0014 - 0.0033 inch)
	Oil pressure	idling at 3000 rpm
		0.2 kg/cm <sup>2</sup> or more (2.84 psi or more) 2.5 - 5.0 kg/cm <sup>2</sup> (35.6 - 71.1 psi)

WRU90-B012

## 9. STARTING SYSTEM

Reduction type starter motor	Rating voltage and output power (STD)		12V	1.0kW
	No-load characteristic at 11.5V			
	Amperage		Less than 90A	
	rpm		More than 3,000	
	Brush length	Standard	$\left( \begin{array}{l} 12V \ 1.0 \ kW \\ 13.0 \ mm \ (0.51 \ inch) \\ 8.5 \ mm \ (0.33 \ inch) \end{array} \right) \left( \begin{array}{l} 12V \ 1.4 \ kW \\ 15 \ mm \ (0.59 \ inch) \\ 11 \ mm \ (10.43 \ inch) \end{array} \right)$	
		Minimum		
	Commutator			
	Outer diameter	Standard	30 mm (1.18 inch)	
		Minimum	29 mm (1.14 inch)	
	Undercut depth	Standard	0.5 - 0.8 mm (0.020 - 0.031 inch)	
		Minimum	0.2 mm (0.0079 inch)	
Maximum circle runout		0.05 mm (0.0020 inch)		
Spring installed load		1.93 - 2.36 kgf (4.26 - 5.20 lb)		

WRU90-B013

## 10. CHARGING SYSTEM

Battery specific gravity			1.25 - 1.27
Alternator	Rated output	Amperage	50 A
	Rotor coil resistance		2.9 ± 0.2 Ω at 20°C (68°F)
	Slip ring diameter	Standard	14.4 mm (0.57 inch)
		Minimum	14.0 mm (0.55 inch)
	Brush exploded length	Standard	10.5 mm (0.41 inch)
		Minimum	1.5 mm (0.06 inch)

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## 11. CLUTCH

Unit: mm (inch)

Item		Specified value	Allowable limit	Remarks
Clutch disc	Liming wear	—	0.3 (0.0118)	The smallest rivet depth is regarded as the allowable use limit
	Runout	—	1.0 (0.0394)	Longitudinal
			0.7 (0.0276)	Lateral
Clutch cover	Deviation in height	—	0.8 (0.0315)	The deviation can be corrected with the SST
Clutch pedal	Free travel	18 - 27 (0.709 - 1.063)	—	
	Installation height	$221^{+6}_{-2}$ (8.70 $^{+0.24}_{-0.08}$ )	—	The dimension form the body metal section to the pedal. It is, therefore, necessary to roll up the carpet and floor mat prior to the measurement.

WRU90-B015

# 12. TRANSMISSION

Unit: mm (inch)

Item		Specified value	Allowable limit	Remarks
Shift fork groove width	Reverse gear	7.05 - 7.12 (0.278 - 0.280)	7.3 (0.287)	
	T/M Hub sleeve	7.05 - 7.12 (0.278 - 0.280)	7.3 (0.287)	
Synchronmesh shifting key groove width	1st gear	9.9 - 10.1 (0.3898 - 0.3976)	—	
	Except 1st gear	11.3 - 11.5 (0.4449 - 0.4528)	—	
Synchronizer ring-to-gear clearance	1st gear	0.85 - 1.45 (0.0335 - 0.0571)	0.5 (0.0197)	
	2nd gear			
	3rd gear			
	4th gear			
	5th gear			
Transmission clutch hub (No. 1, No. 2, No. 3) outer diameter	Class ①	69.68 - 69.74 (2.743 - 2.746)	—	
	Class ②	69.78 - 69.84 (2.747 - 2.750)	—	
	Class ③	69.58 - 69.64 (2.739 - 2.742)	—	
Clutch hub sleeve maximum bore diameter		70 (2.7559)	—	
Clearance between clutch hub and clutch hub sleeve		0.03 - 0.19 (0.0012 - 0.0075)	—	
Height of synchronmesh shifting key	1st & 2nd gears	5.0 - 5.2 (0.1969 - 0.2047)	4.7 (0.1850)	
	3rd & 4th gears			
	5th gears			
Runout of output shaft		—	0.05 (0.0020)	
Thickness at tip-end-section of shift fork	1st & 2nd shift fork	6.80 - 7.00 (0.2677 - 0.2756)	6.3 (0.2480)	
	3rd & 4th shift fork	6.80 - 7.00 (0.2677 - 0.2756)	6.3 (0.2480)	
Contact width of reverse shift fork		15.00 - 15.043 (0.5906 - 0.5923)	15.1 (0.5945)	
Contact widen of 5th shift arm	Shift inner lever side	16.1 - 16.2 (0.6339 - 0.6378)	16.7 (0.6575)	
	5th shift arm side	12.1 - 12.2 (0.4764 - 0.4803)	12.7 (0.5001)	
Contact width of shift fork and detent sleeve		18.8 - 19.2 (0.7402 - 0.7559)	19.5 (0.7677)	
Backlash of each gear of transmission relative to counter gear	1st gear	0.05 - 0.18 (0.0020 - 0.0071)	—	
	2nd gear	0.05 - 0.16 (0.0020 - 0.0063)	—	
	3rd gear	0.05 - 0.14 (0.0020 - 0.0055)	—	
	5th gear	0.05 - 0.13 (0.0020 - 0.0051)	—	
	Input gear	0.05 - 0.13 (0.0020 - 0.0051)	—	

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## 13. TRANSFER

Unit: mm (inch)

Item		Specified value	Allowable limit	Remarks
Transfer high & low shift fork groove width	Transfer high & low clutch sleeve	7.05 - 7.12 (0.2776 - 0.2803)	7.3 (0.2874)	
Thickness at tip-section of transfer high & low shift fork		6.80 - 7.00 (0.2677 - 0.2756)	6.3 (0.2480)	
Thickness at tip-section of transfer front drive shift fork		6.80 - 6.90 (0.2677 - 0.2717)	6.3 (0.2480)	
Contact width of transfer high & low shift head		16.00 - 16.070 (0.6299 - 0.6327)	16.2 (0.6378)	
Contact width of transfer front drive shift head		16.000 - 16.070 (0.6299 - 0.6327)	16.2 (0.6378)	
Diameter of transfer front drive gear at sleeve fitting side	Class ①	87.18 - 87.24 (3.432 - 3.435)	—	
	Class ②	87.28 - 87.34 (3.436 - 3.439)	—	
	Class ③	87.08 - 87.14 (3.428 - 3.431)	—	
Diameter of low speed input gear installation section of output rear shaft		41.975 (1.653)	41.960 (1.652)	
Clearance between transfer front drive gear and transfer front drive gear sleeve		0.03 - 0.19 (0.0012 - 0.0075)	—	
Front drive gear sleeve contact width of front drive shift fork		6.80 - 6.90 (0.268 - 0.272)	6.30 (0.248)	

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## 14. DIFFERENTIAL

Item		Specified value	Allowable limit	Remarks
Ring gear runout mm (inch)	Front	—	0.1 (0.004)	
	Rear			
Ring gear backlash mm (inch)	Front	0.07 - 0.17 (0.0028 - 0.0067)	—	
	Rear			
Side gear backlash mm (inch)	Front	0.03 - 0.15 (0.0020 - 0.0059)	—	Measure the over four teeth.
	Rear			
Drive pinion preload kg-cm (inch-lb)	Front	4 - 25 (3.47 - 21.70)	—	New bearing
		4 - 13 (3.47 - 11.28)	—	Bearing reused
	Rear	5 - 30 (4.34 - 26.04)	—	New bearing
		5 - 17 (4.34 - 14.76)	—	Bearing reused
Total preload kg-cm (inch-lb)	Front	6 - 31 (5.21 - 26.91)	—	
	Rear	6 - 19 (5.21 - 16.50)	—	
Clutch inner plate thickness (L.S.D) mm (inch)		1.6 (0.0630)	1.4 (0.0551)	
Clutch outer plate thickness (L.S.D) mm (inch)		1.6 (0.0630)	1.4 (0.0551)	

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## 15. FRONT WHEEL ALIGNMENT

Item		Specified value	Allowable limit	Remarks
Toe-in	mm (inch)	$4 \begin{smallmatrix} -1 \\ -3 \end{smallmatrix}$ (0.16 $\begin{smallmatrix} -0.04 \\ -0.12 \end{smallmatrix}$ )	—	
Camber	degree	$1^{\circ} \begin{smallmatrix} +0 \\ -1 \end{smallmatrix}$	—	
Caster	degree	$2^{\circ} \pm 30'$	—	
Kingpin angle	degree	$9^{\circ} 30'$	—	
Wheel turning angle	Inner	$27^{\circ}05' \begin{smallmatrix} +0 \\ -3 \end{smallmatrix}$	—	
	Outer	$23^{\circ}55'$	—	

WRU92-B024

## 16. STEERING

Item		Specified value	Allowable limit	Remarks
Steering wheel freeplay	mm (inch)	0 - 30 (0 - 1.18)	—	
Steering gear box oil level	mm (inch)	13 - 23 (0.51 - 0.91)	—	Except power steering-equipped model
Drive belt tension		at 10 kg (22.0 lb) 9 - 11 mm (0.35 - 0.43 inch)	—	Except for A/C equipped vehicle

WRU92-B029

## 17. BRAKE

Unit: mm (inch)

Item		Specified value	Allowable limit	Remarks
Brake pedal height		$216 \pm 5$ ( $8.5 \pm 0.2$ )	—	See page BR-35
Pedal free travel		1 - 3 (0.04 - 0.12)	—	
Disc brake pad thickness		9.0 (0.35)	1.5 (0.06)	
Brake disc thickness		18.0 (0.71)	17.0 (0.67)	
Brake disc runout		—	0.15 (0.0059)	
Brake drum inner diameter		254.0 (10.00)	256.0 (10.08)	
Brake shoe lining thickness		5.0 (0.2)	1.0 (0.04)	
Parking brake working travel		4 - 6 notches	—	At 25 kg (55 lb)

WRU92-B025

## 18. AIR CONDITIONING SYSTEM

Item		Specified value	Remarks
Refrigerant pressure	Low-pressure side	21 - 28 psi (1.5 - 2.0 kg/cm <sup>2</sup> )	
	High-pressure side	185 - 213 psi (13.0 - 15.0 kg/cm <sup>2</sup> )	
Compressor drive belt tension	New belt	$165 \pm 26$ lb ( $75 \pm 12$ kg)	
	Used belt	$132 \pm 22$ lb ( $60 \pm 10$ kg)	
Clearance between compressor pressure plate and rotor		$0.020 \pm 0.006$ inch (0.5 $\pm$ 0.15 mm)	
Thermistor resistance		1,500 $\Omega$	At 77°F (25°C)
Operating pressure range of dual pressure switch		30 - 384 psi (2.1 - 27 kg/cm <sup>2</sup> )	
Condenser fan motor operating current (Motor revolution speed)		$6.7 \pm 0.7$ A (2,700 $\pm$ 300 rpm)	At 12V DC
Engine idle-up rpm while air conditioner is operating (Terminal T OFF)		$1,100 \pm 50$ rpm	

WRU92-B030