

# **DAIHATSU**

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# **CHARADE**

## Chassis

### **SECTION 11**

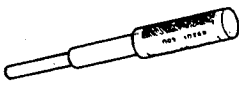
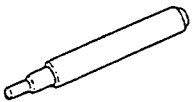

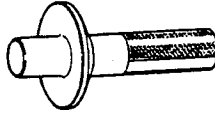
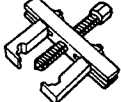

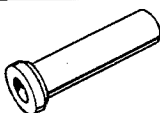
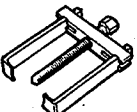
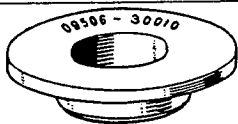
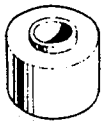
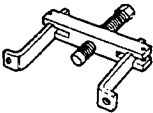
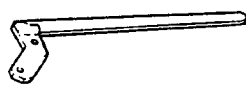

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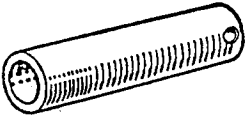
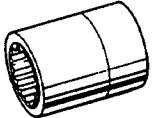


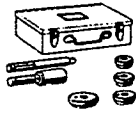


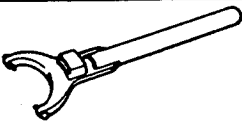


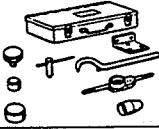
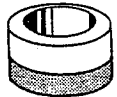
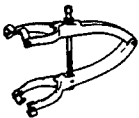
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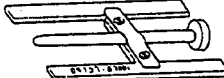
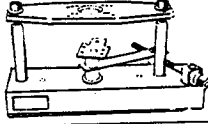




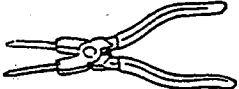

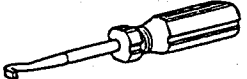


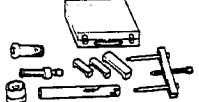
SST (Special Service Tools)

Shape	Part No. & Part Name	Section							
		Clutch	Manual Transmission	Automatic Transmission	Front axle & suspension	Rear axle & suspension	Steering	Brakes	Body
	09201-60011-000 Valve guide bush remover & replacer		○						
	09301-87701-000 Clutch guide tool				○				
	09301-87202-000 Clutch guide tool	○	○						
	<del>09302-87701-000</del> 09302-87701-000 Clutch diaphragm spring height No.4 gauge	○							
	09306-87302-000 Counter gear front bearing puller		○						
	09308-00010-000 Oil seal puller		○						
	09309-87201-000 Transmission bearing replacer		○				○		
	09334-87201-000 Transmission bearing puller				○				
	09506-30011-000 Differential rear bearing cone replacer				○				
	09506-87302-000 Differential drive pinion bearing cone replacer				○				
	09510-87301-000 Front hub & drum puller				○	○		○	
	09511-87202-000 Brake drum stopper				○				
	09515-87201-000 Rear axle shaft bearing replacer		○						

Shape	Part No. & Part Name	Section	Clutch	Manual Transmission	Automatic Transmission	Front axle & suspension	Rear axle & suspension	Steering	Brakes	Body
	09517-87701-000 Oil seal replacer (Transmission case side)			○						
	09517-87702-000 Oil seal replacer (Clutch housing side)			○						
	09527-87301-000 Rear axle shaft bearing remover					○				
	09547-87301-000 Differential drive pinion bearing cone remover					○				
	09547-87501-000 Differential drive pinion bearing cone remover					○				
	09602-87301-000 Counter gear bearing puller			○						
	09550-10012-000 Replacer set "B"					○				
	09606-87201-000 Front hub bearing remover & replacer			○						
	09608-12010-000 Front hub & drive pinion bearing replacer set					○	○			
	09608-30011-000 Front hub & drive pinion bearing tool set				○					
	09608-87501-000 Axle hub & drive pinion bearing tool set					○				
	09609-20011-000 Steering wheel puller							○		
	09611-87701-000 Tie rod end puller			○		○		○		

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Shape	Part No. & Part Name	Section	Clutch	Manual Transmission	Automatic Transmission	Front axle & suspension	Rear axle & suspension	Steering	Brakes	Body
	09612-10061-000 Steering pinion bearing replacer							<input type="radio"/>		
	09616-87701-000 Steering pinion bearing adjusting socket wrench							<input type="radio"/>		
	09617-22030-000 Worm bearing adjusting screw lock nut wrench							<input type="radio"/>		
	09618-87301-000 Transmission bearing replacer			<input type="radio"/>		<input type="radio"/>				
	09620-30010-000 Steering gear box replacer set					<input type="radio"/>				
	09628-10020-000 Ball joint lock nut wrench					<input type="radio"/>				
	09636-20010-000 Differential replacer					<input type="radio"/>				
	09648-87201-000 Drive shaft replacer		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				
	09703-30010-000 Brake shoe tension spring								<input type="radio"/>	
	09718-87701-000 Front disc brake dust cover replacer					<input type="radio"/>				
	09720-00010-000 Shock absorber overhaul tool set					<input type="radio"/>				
	09722-87702-000 Camber caster kingpin gauge attachment					<input type="radio"/>				
	09727-87701-000 Front coil spring compressor					<input type="radio"/>	<input type="radio"/>			

Shape	Part No. & Part Name	Section							Steering	Brakes	Body
		Clutch	Manual Transmission	Automatic Transmission	Front axle & suspension	Rear axle & suspension					
	09737-22011-000 Brake booster push rod gauge								<input type="radio"/>		
	09737-87001-000 Brake booster push rod gauge								<input type="radio"/>		
	09753-87701-000 Brake booster overhaul tool S/A								<input type="radio"/>		
	09812-30010-000 Door hinge set bolt wrench set									<input type="radio"/>	
	09842-87702-000 Transmission control computer check subharness			<input type="radio"/>							
	09843-87702-000 ATX computer check lamp			<input type="radio"/>							
	09905-00012-000 Snap ring expander		<input type="radio"/>								
	09905-87701-000 Snap ring plier								<input type="radio"/>		
	09912-87501-000 Slide hammer puller			<input type="radio"/>							
	09921-00010-000 Spring tension tool		<input type="radio"/>								
	09950-20014-000 Universal puller				<input type="radio"/>			<input type="radio"/>			
	09992-00092-000 Oil pressure gauge for AT			<input type="radio"/>							
	09350-87702-000 Automatic transmission tool set			<input type="radio"/>							

**APPENDIX**

**SERVICE SPECIFICATIONS**

**CLUTCH**

Unit: mm (inch)

Item		Specified value	Allowable limit	Remarks
Clutch pedal	Installation height	R.H.D.	189.5 - 194.5 (7.46 - 7.66)	—
		L.H.D.	181.5 - 186.5 (7.15 - 7.34)	—
	Free travel	15 - 30 (0.59 - 1.18)	—	
Clutch disc	Thickness	7.3 - 7.9 (0.29 - 0.31)	—	
	Runout	—	1.34 (0.053)	
	Lining wear	—	0.3 (0.012)	Rivet depth
Clutch cover	Deviation in height	—	0.7 (0.028)	

WR-11006

**MANUAL TRANSMISSION AND DIFFERENTIAL**

Unit: mm (inch)

Item		Specified value	Allowable limit	Remarks
2nd gear bush	Inner diameter	28.870 - 28.885 (1.1366 - 1.1372)	28.840 (1.1354)	
	Outer diameter	36.920 - 36.960 (1.4535 - 1.4551)	36.890 (1.4524)	
	Overall length	32.470 - 32.530 (1.2783 - 1.2807)	32.470 (1.2783)	
4th and 5th gear bush	Inner diameter	25.027 - 25.042 (0.9853 - 0.9859)	25.020 (0.9850)	
	Outer diameter	36.920 - 36.960 (1.4535 - 1.4551)	36.890 (1.4524)	
	Overall length	28.970 - 29.030 (1.1405 - 1.1429)	28.970 (1.1405)	
	Thickness	2.940 - 3.060 (0.1157 - 0.1205)	2.940 (0.1157)	Flange section
End play	1st gear	0.10 - 0.37 (0.0039 - 0.0146)	0.5 (0.0197)	
	2nd gear	0.10 - 0.23 (0.0039 - 0.0091)	0.4 (0.0157)	
	3rd gear	0.10 - 0.37 (0.0039 - 0.0146)	0.5 (0.0197)	
	4th gear	0.10 - 0.23 (0.0039 - 0.0091)	0.4 (0.0157)	
	5th gear	0.10 - 0.23 (0.0039 - 0.0091)	0.4 (0.0157)	
Gear oil clearance		0.040 - 0.105 (0.0016 - 0.0041)	0.160 (0.0063)	
Gear width	1st gear	32.23 - 32.30 (1.2689 - 1.2717)	32.20 (1.2677)	Except for GTti model
		30.23 - 30.30 (1.1902 - 1.1930)	30.20 (1.1890)	GTti model
	2nd gear	32.30 - 32.37 (1.2717 - 1.2744)	32.20 (1.2677)	
	3rd gear	27.23 - 27.30 (1.0720 - 1.0748)	27.20 (1.0709)	
	4th gear	25.80 - 25.87 (1.0157 - 1.0185)	25.70 (1.0118)	
	5th gear	25.80 - 25.87 (1.0157 - 1.0185)	25.70 (1.0118)	

WR-11007

**MANUAL TRANSMISSION AND DIFFERENTIAL (Cont'd)**

Unit: mm (inch)

Item		Specified value	Allowable limit	Remarks
Reverse idler gear and shaft	Bush inner diameter	17.000 - 17.027 (0.6693 - 0.6704)	17.050 (0.6713)	
	Shaft outer diameter	16.941 - 16.968 (0.6670 - 0.6680)	16.900 (0.6654)	
	Bush-to-shaft clearance	0.032 - 0.086 (0.0013 - 0.0034)	0.150 (0.0059)	
Input shaft outer diameter		25.002 - 25.017 (0.9843 - 0.9849)	24.990 (0.9839)	Bush installing position
Output shaft outer diameter	Front	29.979 - 30.000 (1.1803 - 1.1811)	29.960 (1.1795)	
	Rear	31.971 - 31.991 (1.2587 - 1.2595)	31.960 (1.2583)	
Synchronizer ring-to-gear clearance		0.85 - 1.45 (0.0335 - 0.0571)	0.5 (0.0197)	
Differential pinion	Gear inner diameter	15.003 - 15.008 (0.5907 - 0.0571)	15.03 (0.5917)	
	Shaft outer diameter	14.950 - 14.968 (0.5886 - 0.5893)	14.97 (0.5894)	
	Gear-to-shaft clearance	0.035 - 0.053 (0.0014 - 0.0021)	0.06 (0.0024)	
Differential side gear-to-pinion backlash		0.02 - 0.20 (0.0008 - 0.0079)	—	
Shift fork	Fork tip end section thickness	7.0 (0.276)	6.3 (0.248)	
	Shift inner lever contact groove width	12.1 - 12.2 (0.476 - 0.480)	12.7 (0.500)	
	Reverse shift arm pin contact groove width	14.957 - 15.000 (0.5889 - 0.5906)	15.100 (0.5945)	
Reverse shift arm	Pin diameter	14.907 - 14.950 (0.5869 - 0.5886)	14.850 (0.5846)	
	Tip end section width	7.884 - 7.920 (0.3104 - 0.3118)	7.800 (0.3071)	

WR-11008

**AUTOMATIC TRANSMISSION**

Item		Specified value	Allowable limit	Remarks
Stall revolution speed	rpm	2100 - 2300	—	
Time lag N→D	second	1.0 or less	—	
Time lag N→R	second	1.4 or less	—	
Line pressure [at 2000rpm]	kg/cm <sup>2</sup> (psi)	7 - 8 (100 - 114)	—	'L', 'D' and 'R' line pressure of each range

WR-11009

# APPENDIX

## AUTOMATIC TRANSMISSION (Cont'd)

Unit: mm (inch)

Position & Item		Specified value	Allowable limit	Remarks
Oil pump	Side clearance	0.02 - 0.05 (0.0008 - 0.0019)	0.1 (0.0039)	
	Body clearance	0.07 - 0.15 (0.0028 - 0.0059)	0.30 (0.011)	
	Tip clearance	0.11 - 0.14 (0.0043 - 0.0055)	0.30 (0.011)	
Clutch & Brake	2nd brake piston stroke	1.5 - 3.0 (0.059 - 0.118)	—	
	Direct clutch clearance	0.89 - 1.46 (0.035 - 0.057)	—	
	Forward clutch clearance	0.41 - 1.08 (0.016 - 0.043)	—	
	1st & reverse brake clearance	0.58 - 1.92 (0.023 - 0.075)	—	
Gear	Counter gear backlash	0.1 or less (0.0039)	0.1 or less (0.0039)	
Input shaft	End play	0.3 - 0.9 (0.012 - 0.035)	—	
Planetary gear	Side clearance	0.20 - 0.50 (0.0079 - 0.020)	0.7 (0.028)	
Drive plate	Drive plate runout	—	0.2 (0.008)	
Clutch	Clutch disc thickness	2.5 (0.098)	2.3 (0.091)	
	Clutch plate thickness	1.6 (0.063)	—	

WR-11010

## STEERING

Item		Specified value	Allowable limit	Remarks	
Front wheel alignment	Camber	0°20' ± 1° <sup>+40'</sup> <sub>-20'</sub>	Pos. —	Difference between RH & LH — 1°	
	Caster	2°55' ± 1°	Pos. —	Difference between RH & LH — 1°	
	Kingpin inclination angle	12°00' ± 30'	—	Difference between RH & LH — 1°	
	Turning angle	Inner	39°55' ± 2°	—	Difference between RH & LH — 2°
		Outer	35°00' ± 2°	—	Difference between RH & LH — 2°
	Toe-in	mm (inch) -1 - +3 (-0.039 - +0.118)	mm + - 2mm	—	
Sideslip	mm (inch) -3 - +3 (-0.118 - +0.118)	—	—		
Rear wheel alignment	Camber	-0°40' ± 35'	—		
	Toe-in	mm (inch) 5 (0.197) <sup>+3</sup> <sub>-1</sub>	—		
	Sideslip	mm (inch) +1 - +7 (+0.039 - +0.276)	—		
Steering wheel play		mm (inch) Within 10 (0.39)	—		

WR-11011



**BRAKE PEDAL**

Item		Specified value	Allowable limit	Remarks	
Brake pedal mm (inch)	Free travel	6-inch booster	3 - 7 (0.1 - 0.3)	When engine is stopped	
		7-inch booster	0.5 - 2 (0.02 - 0.08)		
	Height		176 - 181 (6.93 - 7.13)	—	
	Reserve travel		Not less than 102 (4.0)	—	Distance between center of pedal pad upper sur- face and dash panel

WR-11012

**FRONT BRAKE**

Item		Specified value	Allowable limit	Remarks
Wheel cylinder inner diameter or caliper bore mm (inch)	General specifications mounted with Type CB-23, CL-11, 61 engines	48.1 (1.89)	—	
	Except for vehicles above	50.8 (2.0)	—	
Pad thickness mm (inch)		10 (0.394)	1 (0.039)	Effective disc diameter: 179 (7.05)
		9 (0.354)	1 (0.039)	Effective disc diameter: 189 (7.44)
Disc mm (inch)	Thickness	Solid type	11 (0.433)	10 (0.394)
		Ventilated type	18 (0.709)	17 (0.669)

WR-11013

**REAR BRAKE**

Item		Specified value	Allowable limit	Remarks		
Wheel cylinder inner diameter	mm (inch)	15.87 (0.62)	—	General specifications mounted with Type CB-23, CL-11, 61 engines		
		17.46 (0.69)	—	Except for vehicles above		
Brake drum inner diameter		mm (inch)	180 (7.09)	181 (7.126)		
Brake lining thickness		mm (inch)	4.0 (0.16)	1.0 (0.039)		
Disc brake	Wheel cylinder inner diameter		mm (inch)	30.16 (1.187)	—	
	Pad thickness		mm (inch)	9 (0.35)	1 (0.039)	Effective disc diameter: 202 (7.95)
	Disc	Thickness	mm (inch)	10 (0.39)	9 (0.354)	
		Runout	mm (inch)	—	0.08 (0.003)	Position 108 mm from center
Parking brake lever working travel		Notch	5 - 9	—	Pulling force: 20 kg	

WR-11014

# APPENDIX

## SUSPENSION

Item				Specified value	Allowable limit	Remarks
Free length of front coil spring mm (inch)	Standard and European standard	CB-23	M/T	339 (13.3)	—	Identification color: White
		CB-23	A/T	348 (13.7)	—	Identification color: Brown
		CL-11	M/T			
	Hard	CL-61	M/T	358 (14.1)	—	Identification color: Green
		CB-61	M/T	325 (12.8)	—	Identification color: Pink
		CB-80	M/T	338 (13.3)	—	Identification color: Red
Free length of rear coil spring mm (inch)	Standard			331 (13.0)	—	Identification color: Green
	European standard			331 (13.0)	—	Identification color: Yellow
	Hard			331 (13.0)	—	Identification color: Red

WR-11015


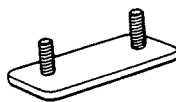






## TIGHTENING TORQUE FOR MAIN COMPONENTS

1. When you want to find out a suitable tightening torque for a bolt, first determine the strength division of the said bolt, using the table below. Then, locate suitable tightening torque in the tightening torque table described later.
2. As for the tightening torque for a nut, find out suitable tightening torque in the same way as with the paragraph 1 above, based on the mating bolt.
3. Tightening torque posted in the workshop manual is a standard value for steel fasteners. It is, therefore, necessary to modify these tightening torque when you tighten fasteners made of materials other than steel. This rule also applies to such instances where bolts are undergoing heat or other stress, such as vibratory loads and so forth.

WT-13025

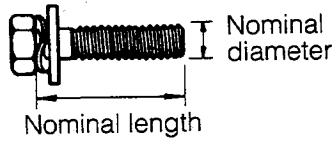
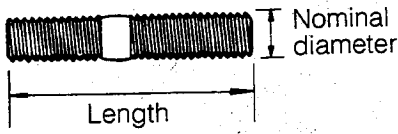
## METHOD TO IDENTIFY STRENGTH DIVISION OF BOLTS

### 1. Identification Method by Checking Bolts Themselves

	Configuration and how to determine strength division		Strength division		Configuration and how to determine strength division		Strength division	
Hexagon bolt		Bolt having an embossed or stamped figure at its head section	4 = 4T 5 = 5T 6 = 6T 7 = 7T	Welded bolt			4T	
		No mark	4T				No mark	4T
		Bolt having two embossed lines at its head section	5T 6T	Stud bolt			Bolt having about 2 mm deep recess at one end or both ends	6T
		Bolt having three embossed lines at its head section	7T					

WT-13026

### 2. Identification Method by Part Numbers

<p><b>Hexagon Bolt</b></p> <p>Part number example 9 1 1 1 1 - 4 0 6 2 0</p> <p style="margin-left: 150px;">  </p>	<p><b>Stud Bolt</b></p> <p>Part number example 9 2 1 3 2 - 4 0 6 2 0</p> <p style="margin-left: 150px;">  </p>
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# APPENDIX

## [Tightening Torque Table for General Standard Bolts]

Category	Nominal diameter	Pitch	Standard tightening torque kg-m (ft-lb)	
			Standard torque	Tightening range
<b>4T</b> (Bolt having a mark of "4" at its head section) Example of part number (91000 - 40000)	6	1	0.47 ( 3.4)	0.4 - 0.7 ( 2.9 - 5.1)
	8	1.25	1.11 ( 8.0)	1.0 - 1.6 ( 7.2 - 11.6)
	10	1.25	2.25 ( 16.3)	1.9 - 3.1 ( 14 - 22.5)
	10	1.5	2.14 ( 15.5)	1.8 - 3.0 ( 13 - 22 )
	12	1.25 (ISO)	4.40 ( 31.8)	3.5 - 5.5 ( 25 - 40 )
	12	1.5	3.89 ( 28.1)	3.5 - 5.5 ( 25 - 40 )
	12	1.75	3.74 ( 27.1)	3.0 - 5.0 ( 22 - 36 )
	13	1.5	5.08 ( 36.7)	4.5 - 7.0 ( 33 - 51 )
	14	1.5	6.33 ( 45.8)	5.0 - 8.0 ( 36 - 58 )
	14	2	5.93 ( 42.9)	4.7 - 7.7 ( 34 - 56 )
	16	1.5	9.57 ( 69.2)	7.5 - 11.0 ( 54 - 80 )
16	2	9.10 ( 65.8)	7.1 - 10.6 ( 51 - 77.5)	
<b>5T</b> (Bolt having a mark of "5" at its head section) Example of part number (91000 - 50000)	6	1	0.71 ( 5.1)	0.6 - 0.9 ( 4.3 - 6.5)
	8	1.25	1.66 ( 12.0)	1.5 - 2.2 ( 11 - 16 )
	10	1.25	3.37 ( 24.4)	3.0 - 4.5 ( 22 - 33 )
	10	1.5	3.20 ( 23.1)	2.7 - 4.2 ( 19.5 - 30.5)
	12	1.25 (ISO)	5.84 ( 42.2)	5.0 - 7.0 ( 36 - 51 )
	12	1.5	5.84 ( 42.2)	5.0 - 7.0 ( 36 - 51 )
	12	1.75	5.60 ( 40.5)	4.8 - 6.8 ( 34 - 49 )
	13	1.5	7.63 ( 55.2)	6.5 - 9.0 ( 47 - 65 )
	14	1.5	9.50 ( 68.7)	7.5 - 11.0 ( 54 - 79.5)
	14	2	8.90 ( 64.4)	7.0 - 10.5 ( 51 - 76 )
	16	1.5	14.36 ( 103.9)	12.0 - 17.0 ( 87 - 123 )
16	2	13.58 ( 98.2)	11.5 - 16.5 ( 83 - 119 )	
<b>6T</b> (Bolt having a mark of "6" at its head section) Example of part number (91000 - 60000)	6	1	0.71 ( 5.1)	0.6 - 0.9 ( 4.3 - 6.5)
	8	1.25	1.66 ( 12.0)	1.5 - 2.2 ( 11 - 16 )
	10	1.25	3.37 ( 24.4)	3.0 - 4.5 ( 22 - 33 )
	10	1.5	3.20 ( 23.1)	2.7 - 4.2 ( 19.5 - 30.5)
	12	1.25 (ISO)	5.84 ( 42.2)	5.0 - 7.0 ( 36 - 51 )
	12	1.5	5.84 ( 42.2)	5.0 - 7.0 ( 36 - 51 )
	12	1.75	5.61 ( 40.6)	4.8 - 6.8 ( 35 - 49 )
<b>7T</b> (Bolt having a mark of "7" at its head section) Example of part number (91000 - 70000)	6	1	0.95 ( 6.87)	0.8 - 1.2 ( 5.8 - 8.7)
	8	1.25	2.20 ( 15.9)	2.0 - 3.0 ( 14.5 - 22 )
	10	1.25	4.50 ( 32.5)	4.0 - 5.5 ( 29 - 40 )
	10	1.5	4.30 ( 31.1)	3.7 - 5.2 ( 27 - 38 )
	12	1.25 (ISO)	7.78 ( 56.3)	7.0 - 9.0 ( 51 - 65 )
	12	1.5	7.78 ( 56.3)	7.0 - 9.0 ( 51 - 65 )
	12	1.75	7.48 ( 54.1)	6.0 - 8.5 ( 43 - 61.5)
	13	1.5	10.17 ( 73.6)	8.0 - 12.0 ( 58 - 88 )
	14	1.5	12.67 ( 91.6)	10.0 - 15.0 ( 72 - 108 )
	14	2	11.86 ( 85.8)	9.5 - 14.0 ( 69 - 101 )
	16	1.5	19.15 ( 138.5)	15.0 - 23.0 ( 108 - 166 )
16	2	18.11 ( 131.0)	14.9 - 22.0 ( 108 - 159 )	

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**CLUTCH, MANUAL TRANSMISSION**

Unit: kg-m (ft-lb)

Tightening component	Tightening torque
Transmission × Cylinder block	5.0 - 7.0 (36 - 51 )
Output shaft hexagon nut	10.0 - 14.0 (72 - 101 )
Input shaft hexagon nut	10.0 - 14.0 (72 - 101 )
Transmission case × Clutch housing	1.5 - 2.2 (11 - 16 )
Transmission case cover × Case	1.5 - 2.2 (11 - 16 )
Drain plug	3.0 - 5.0 (22 - 36 )
Back-up lamp switch	3.0 - 5.0 (22 - 36 )
Speedometer sleeve lock plate	0.7 - 1.0 ( 5.1 - 7.2)
Breather plug	1.0 - 1.3 ( 7.2 - 9.4)
Differential ring gear	4.5 - 5.5 (33 - 29 )
Clutch cover	0.7 - 1.0 ( 5.1 - 7.2)
Clutch release lever × Prelease lever yoke	3.0 - 4.0 (22 - 29 )
Shift & selector shaft × Shift inner lever	Bolt 4.0 - 5.0 (29 - 36) Nut 2.0 - 3.0 (14.5 - 22)
Shift & selector shaft × Transmission case	2.0 - 3.0 (14.5 - 22 )
Differential case × Differential ring gear	8.0 - 9.0 (58 - 65 )

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**AUTOMATIC TRANSMISSION**

Unit: kg-m (ft-lb)

Tightening component	Tightening torque
Transmission case × Torque converter housing	1.6 - 2.3 (12 - 16 )
Transmission case × Oil pan	0.4 - 0.6 ( 3.0 - 4.3)
Transmission case × Oil filler tube	0.3 - 0.7 ( 2.4 - 5.1)
Transmission case × Valve body Ay	0.80 - 1.20 ( 6.0 - 8.5)
Transmission case × Side cover	0.7 - 0.9 ( 5.1 - 6.5)
Transmission case × Rear cover Bolt	1.6 - 2.3 (12 - 16 )
Transmission case × Rear cover Nut	1.1 - 1.5 ( 8 - 10 )
Transmission case × Oil pump Ay	1.8 - 2.7 (14 - 19 )
Transmission case × Neutral start switch	1.6 - 2.3 (12 - 16 )
Transmission case × Test plug	0.6 - 0.9 ( 4.3 - 6.5)
Transmission case × Lower left mounting bracket	3.0 - 4.5 (22 - 33 )
Valve body × Valve body cover	0.5 - 0.6 ( 3.6 - 4.3)
Valve body × Throttle valve cam	0.6 - 0.9 ( 4.3 - 6.5)
Valve body × Solenoid Ay	0.64 - 0.96 ( 4.6 - 6.9)
Valve body × Oil strainer	0.4 - 0.6 ( 3.0 - 4.3)
Upper valve body × Lower valve body	0.50 - 0.60 ( 3.6 - 4.3)
Oil pan × Drain bolt (plug)	1.8 - 2.3 (13 - 17 )
Oil pump body × Stator shaft	0.8 - 1.2 ( 6.0 - 8.5)
Torque converter × Drive plate	1.5 - 2.2 (11 - 16 )
Torque converter housing × Cylinder block	5.0 - 7.0 (36 - 51 )
Manual shift shaft × Manual value outer lever	2.7 - 3.3 (20 - 24 )
Reduction driven gear × Counter shaft	11 - 15 (80 - 108 )

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## APPENDIX

### DRIVE SHAFT, FRONT SUSPENSION

Unit: kg-m (ft-lb)

Tightening component	Tightening torque
Lower arm bracket × Body	7.5 - 10.5 ( 54 - 76 )
Lower arm × Lower arm bracket	7.0 - 10.0 ( 51 - 72 )
Stabilizer bracket × Front stabilizer lower bracket	4.0 - 6.0 ( 29 - 43 )
Lower arm × Stabilizer	7.5 - 10.5 ( 54 - 76 )
Lower arm ball joint × Steering knuckle	8.0 - 10.5 ( 58 - 76 )
Front shock absorber piston rod × Suspension support	3.5 - 5.5 ( 25 - 40 )
Suspension support × Body	2.0 - 3.0 ( 14.5 - 22 )
Front shock absorber × Steering knuckle	9.0 - 13.0 ( 65 - 94 )
Drive shaft × Front axle hub	18.0 - 23.0 ( 130 - 166 )
Disc wheel × Front axle hub	9.0 - 12.0 ( 65 - 87 )
Front drive bearing shaft × Bracket	3.0 - 4.5 ( 22 - 32 )

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### REAR AXLE, REAR SUSPENSION

Unit: kg-m (ft-lb)

Tightening Component	Tightening torque
Rear stabilizer × Stabilizer link	1.0 - 1.6 ( 7.2 - 11.6 )
Stabilizer bracket × Rear suspension arm	1.0 - 1.6 ( 7.2 - 11.6 )
Stabilizer bracket × Stabilizer bracket No.2	1.9 - 3.1 ( 14 - 22 )
Rear suspension arm No.1 × Body	7.5 - 10.5 ( 54 - 76 )
Rear suspension arm No.1 × Rear axle carrier	7.5 - 10.5 ( 54 - 76 )
Rear suspension arm No.2 × Body	7.1 - 8.8 ( 51 - 64 )
Rear suspension arm No.2 × Rear axle carrier	7.5 - 10.5 ( 54 - 76 )
Rear strut rod × Body	7.5 - 10.5 ( 54 - 76 )
Rear strut rod × Rear axle carrier	7.5 - 10.5 ( 54 - 76 )
Rear axle carrier × Rear shock absorber	9.0 - 12.0 ( 65 - 87 )
Suspension support × Body	1.0 - 1.6 ( 7.2 - 11.6 )
Rear axle shaft × Brake drum (disc)	6.0 - 10.0 ( 43 - 72 )
Rear brake hub × Disc wheel	9.0 - 12.0 ( 65 - 87 )
Rear axle carrier × Rear brake backing plate	4.0 - 5.5 ( 29 - 40 )

WR-11019

**TEERING**

Unit: kg-m (ft-lb)

Tightening component	Tightening torque
Steering wheel × Steering main shaft	3.5 - 5.5 (25 - 40 )
Steering column tube × steering joint dust cover × Body	0.4 - 0.7 ( 2.9 - 5.0)
Steering rack end × Tie rod end	3.0 - 5.2 (22 - 38 )
Steering rack housing × Rack guide lock nut	3.5 - 4.5 (25 - 32.5)
Steering rack housing × Body	4.0 - 5.5 (29 - 40 )
Tie rod end × Steering knuckle	3.0 - 4.5 (22 - 32.5)
Steering rack end × Steering rack	5.0 - 6.5 (36 - 47 )

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**BRAKE**

Unit: kg-m (ft-lb)

Tightening component	Tightening torque
Master cylinder × Brake booster	1.2 - 1.8 ( 8.7 - 13.0)
Brake booster × Body × Pedal support	1.0 - 1.6 ( 7.2 - 11.6)
Disc brake caliper × Knuckle	3.2 - 4.2 (23 - 30 )
Caliper × Bleeder plug	0.7 - 1.0 ( 5.1 - 7.2)
Rear wheel cylinder Backing plate	1.0 - 1.3 ( 7.2 - 9.4)
Rear wheel cylinder × Bleeder plug	0.7 - 1.0 ( 5.1 - 7.2)
Brake tube each union nut	1.3 - 1.8 ( 9.4 - 13.0)

**BODY AND OTHERS**

Unit: kg-m (ft-lb)

Tightening component	Tightening torque
Back door hinge × Body	2.5 - 3.0 (18 - 22 )
Back door stay × Quarter panel	1.8 - 2.3 (13 - 16.6)
Back door stay × Back door	1.6 - 2.3 (11.6 - 16.6)
Engine lower mounting × Body	1.2 - 2.2 ( 8.7 - 16 )
Exhaust manifold × Exhaust front pipe	3.0 - 5.0 (22 - 36 )
Exhaust front pipe × Exhaust tail pipe	3.0 - 5.0 (22 - 36 )

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**APPENDIX**

**WIRING DIAGRAM  
SYSTEM INDEX**

SYSTEMS	LOCATION		SYSTEMS	LOCATION	
	TYPE CB E/G	TYPE CL E/G		TYPE CB E/G	TYPE CL E/G
Air Conditioner	1-5	1-3	Luggage Room Lamp	3-6	3-4
Alternator & Regulator	1-2	1-1	Light-on-Warning Buzzer	3-5	3-3
Automatic Transmission ECU	4-2	—	Power Window	2-6	2-4
Battery	1-1	1-1	Preheating Timer	—	1-2
Central Door Lock	2-7	2-4	Radiator Fan Motor	1-6	1-4
Cigar Lighter	2-5	2-3	Radio	2-5	2-2
Clock	2-5	2-2	Rear Window Defogger	3-6	3-4
Combination Meter	3-2	2-6	Rear Wiper & Washer	3-7	3-6
Daylight Relay	2-3	2-1	Room Lamp	3-5	3-3
Dim-dip Relay	2-4	1-7	Side Lamp	2-1	1-5
Distributor	1-1	—	Sun Roof	3-1	2-5
EFI ECU (CB-80)	4-5	—	Starter	1-1	1-1
Electronic Door Mirror	2-6	2-3	Stop Lamp	3-6	3-4
Fuel Pump (Turbo)	1-3	—	Turn Signal & Hazard Lamp	3-4	3-1
Front Wiper & Washer	3-7	3-5			
Glow Plug	—	1-2			
Headlamp	2-3	1-7, 2-1			
Headlamp Cleaner	3-7	3-5			
Heater	1-7	1-5			
Horn	3-5	3-2			
Ignition Coil	1-1, 4-3	—			

TR86-09002