

TECHNICAL DATA

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35UTDX-001

A. MEASUREMENTS

Item		Measurements	
Overall length	mm {in}	3,948 {155.4}	
Overall width	mm {in}	1,676 {65.9}	
Overall height	mm {in}	1,224 {48.2}	
Wheelbase	mm {in}	2,266 {89.2}	
Tread	Front	mm {in}	1,410 {55.5}
	Rear	mm {in}	1,428 {56.2}

B. ENGINE

Engine/Transmission		B6 DOHC	
Item		MT	AT
Type		Gasoline, 4-cycle	
Cylinder arrangement and number		In-line, 4-cylinders	
Combustion chamber		Pentroof	
Valve system		DOHC, belt-driven 16 valves	
Bore x Stroke		mm {in}	
Total piston displacement		cm ³ {cu in}	
Compression ratio		9.4	9.0
Compression pressure kPa {kgf/cm ² , psi}-rpm	Standard	1,324 {13.5, 192}-300	
	Minimum	932 {9.5, 135}-300	
	Maximum difference between each cylinder	196 {2.0, 28}	
Valve timing	IN	Open BTDC	5°
		Close ABDC	51°
	EX	Open BBDC	53°
		Close ATDC	15°
Valve clearance	mm {in}	IN	0: Maintenance-free
		EX	0: Maintenance-free
Cylinder head			
Height		mm {in}	
Distortion		mm {in}	
Grinding		mm {in}	
Cylinder head-to-HLA clearance	mm {in}	Standard	0.025—0.066 {0.0010—0.0025}
		Maximum	0.18 {0.0071}
Valve and valve guide			
Valve head diameter	mm {in}	IN	30.9—31.1 {1.217—1.224}
		EX	26.1—26.3 {1.028—1.035}
Valve head margin thickness	mm {in}	IN	0.9 {0.035}
		EX	1.0 {0.039}
Valve face angle		IN	45°
		EX	45°
Valve length	mm {in}	IN	Standard
		Minimum	105.29 {4.1453}
	EX	Standard	104.79 {4.1256}
		Minimum	105.39 {4.1492}
Valve stem diameter	mm {in}	IN	5.970—5.985 {0.2351—0.2356}
		EX	5.965—5.980 {0.2349—0.2354}
Guide inner diameter		mm {in}	
Valve stem-to-guide clearance	mm {in}	IN	0.025—0.060 {0.0010—0.0023}
		EX	0.030—0.065 {0.0012—0.0025}
		Maximum	0.20 {0.008}
Guide projection (Height "A")	mm {in}	IN	16.8—17.4 {0.662—0.685}
		EX	16.8—17.4 {0.662—0.685}
Valve seat			
Seat angle		IN	45°
		EX	45°

Item		Engine/Transmission		B6 DOHC	
				MT	AT
Seat contact width		mm {in}		0.8—1.4 {0.032—0.055}	
Seat sinking	mm {in}	Standard		43.5 {1.713}	
		Maximum		45.0 {1.772}	
Valve spring					
Free length	mm {in}	IN		48.1 {1.894}	
		EX		48.3 {1.902}	
Minimum length	mm {in}	IN		40.0 {1.575} with a set load of 217.1—245.6 N {22.13—25.05 kgf, 48.7—55.1 lbf}	
		EX		40.0 {1.575} with a set load of 173.3—196.1 N {17.67—20.0 kgf, 38.9—44.0 lbf}	
Out-of-square	mm {in}	IN		1.68 {0.0661} max.	
		EX		1.69 {0.0665} max.	
Setting load/height	N {kgf, lbf}/mm {in}	IN		217.1—245.6 {22.13—25.05, 48.7—55.1}/40.0 {1.575}	
		EX		173.3—196.1 {17.67—20.0, 38.9—44.0}/40.0 {1.575}	
Camshaft					
Cam height	mm {in}	IN	Standard	40.888 {1.6098}	39.984 {1.5741}
			Minimum	40.688 {1.6019}	39.784 {1.5662}
		EX	Standard	40.889 {1.6098}	40.888 {1.6097}
			Minimum	40.689 {1.6019}	40.688 {1.6018}
Journal diameter	mm {in}	Standard (No.1—No.5)		25.940—25.965 {1.0213—1.0222}	
		Out-of-round		0.03 {0.001} max.	
Camshaft bearing oil clearance	mm {in}	Standard (No.1—No.5)		0.035—0.081 {0.0014—0.0031}	
		Maximum		0.15 {0.006}	
Camshaft runout		mm {in}		0.03 {0.0012} max.	
Camshaft end play	mm {in}	Standard		0.07—0.19 {0.0028—0.0074}	
		Maximum		0.20 {0.008}	
Cylinder block					
Height		mm {in}		221.5 {8.720}	
Distortion		mm {in}		0.15 {0.006} max.	
Grinding		mm {in}		0.20 {0.008} max.	
Cylinder bore diameter	mm {in}	Standard size		78.006—78.013 {3.0711—3.0713}	
		0.25 {0.010} oversize		78.256—78.263 {3.0810—3.0812}	
		0.50 {0.020} oversize		78.506—78.513 {3.0908—3.0910}	
Cylinder bore taper and out-of-round		mm {in}		0.019 {0.0007} max.	
Piston					
Piston diameter Measured at 90° to pin bore axis and 16.5mm {0.650 in} below oil ring groove	mm {in}	Standard size		77.954—77.974 {3.0691—3.0698}	
		0.25 {0.010} oversize		78.211—78.217 {3.0792—3.0794}	
		0.50 {0.020} oversize		78.461—78.467 {3.0890—3.0892}	
Piston-to-cylinder clearance	mm {in}	Standard		0.039—0.052 {0.0016—0.0020}	
		Maximum		0.15 {0.006}	
Piston ring					
Thickness	mm {in}	Top		1.47—1.49 {0.0579—0.0586}	
		Second		1.47—1.49 {0.0579—0.0586}	
End gap (Measured in cylinder)	mm {in}	Top		0.15—0.30 {0.006—0.011}	
		Second		0.30—0.45 {0.012—0.017}	
		Oil (rail)		0.20—0.70 {0.008—0.027}	
		Maximum		1.0 {0.039}	
Ring groove width in piston	mm {in}	Top		1.52—1.54 {0.0599—0.0606}	
		Second		1.52—1.54 {0.0599—0.0606}	
		Oil		4.02—4.04 {0.1583—0.1590}	
Piston ring-to-ring groove clearance	mm {in}	Top		0.03—0.07 {0.0012—0.0027}	
		Second		0.03—0.07 {0.0012—0.0027}	
		Maximum		0.15 {0.006}	

TD

Item		Engine/Transmission		B6 DOHC	
				MT	AT
Piston pin					
Diameter	mm {in}	19.987—19.993 {0.7870—0.7871}			
Piston-to-piston pin clearance	mm {in}	-0.005—0.013 {-0.0002—0.0005}			
Connecting rod bush-to-piston pin clearance	mm {in}	0.010—0.027 {0.0004—0.0010}			
Connecting rod and connecting rod bearing					
Length (Center to center)	mm {in}	132.85—132.95 {5.231—5.234}			
Bending	mm {in}	0.075 {0.0030} max./50 {1.97}			
Small end bore (Bush inner diameter)	mm {in}	20.003—20.014 {0.7876—0.7879}			
Big end bore	mm {in}	48.000—48.016 {1.8898—1.8903}			
Big end width	mm {in}	21.838—21.890 {0.8598—0.8618}			
Connecting rod side clearance	mm {in}	Standard	0.110—0.262 {0.0044—0.0103}		
		Maximum	0.30 {0.012}		
Crankshaft					
Crankshaft runout	mm {in}	0.04 {0.0016} max.			
Main journal diameter mm {in}	Standard size	Standard	49.938—49.956 {1.9661—1.9667}		
		Minimum	49.904 {1.9647}		
	0.25 {0.010} undersize	Standard	49.704—49.708 {1.9569—1.9570}		
		Minimum	49.652 {1.9548}		
	0.50 {0.020} undersize	Standard	49.454—49.458 {1.9470—1.9471}		
		Minimum	49.402 {1.9450}		
0.75 {0.030} undersize	Standard	49.204—49.208 {1.9372—1.9373}			
	Minimum	49.152 {1.9351}			
Main journal taper and out-of-round	mm {in}	0.05 {0.0020} max.			
Crankpin diameter mm {in}	Standard size	Standard	44.940—44.956 {1.7693—1.7699}		
		Minimum	44.908 {1.7680}		
	0.25 {0.010} undersize	Standard	44.690—44.706 {1.7595—1.7600}		
		Minimum	44.658 {1.7582}		
	0.50 {0.020} undersize	Standard	44.440—44.456 {1.7496—1.7502}		
		Minimum	44.408 {1.7483}		
0.75 {0.030} undersize	Standard	44.190—44.206 {1.7398—1.7403}			
	Minimum	44.158 {1.7385}			
Crankpin taper and out-of-round	mm {in}	0.05 {0.0020} max.			
Main bearing					
Main journal bearing oil clearance	mm {in}	Standard	0.018—0.036 {0.0007—0.0014}		
		Maximum	0.10 {0.004}		
Available undersize bearing	mm {in}	0.25 {0.010}, 0.50 {0.020}, 0.75 {0.030}			
Crankpin bearing					
Crankpin bearing oil clearance	mm {in}	Standard	0.028—0.068 {0.0011—0.0026}		
		Maximum	0.10 {0.004}		
Available undersize bearing	mm {in}	0.25 {0.010}, 0.50 {0.020}, 0.75 {0.030}			
Thrust bearing					
Crankshaft end play	mm {in}	Standard	0.080—0.282 {0.0032—0.0111}		
		Maximum	0.30 {0.012}		
Bearing width	mm {in}	Standard size	2.500—2.550 {0.0985—0.1003}		
		0.25 {0.010} oversize	2.625—2.675 {0.1034—0.1053}		
		0.50 {0.020} oversize	2.750—2.800 {0.1083—0.1102}		
		0.75 {0.030} oversize	2.875—2.925 {0.1132—0.1151}		
Timing belt					
Belt deflection	mm {in}/98 N {10 kgf, 22 lbf}	9.0—11.5 {0.36—0.45}			

D. LUBRICATION SYSTEM

Item		Engine	B6 DOHC
Lubricating method			Force-fed
Oil pump			
Type			Trochoid gear
Relief pressure		kPa {kgf/cm ² , psi}	350–440 {3.5–4.5, 50–63}
Oil pressure		kPa {kgf/cm ² , psi}	
		1,000 rpm	200–290 {2.0–3.0, 29–42}
		3,000 rpm	300–390 {3.0–4.0, 43–56}
Inner rotor tooth tip to outer rotor clearance		mm {in}	
		Standard	0.02–0.16 {0.0008–0.0063}
		Maximum	0.20 {0.0079}
Outer rotor to body clearance		mm {in}	
		Standard	0.09–0.18 {0.0035–0.0071}
		Maximum	0.22 {0.0087}
Side clearance		mm {in}	
		Standard	0.03–0.11 {0.0012–0.0043}
		Maximum	0.14 {0.0055}
Oil filter			
Type			Full-flow, paper element
Relief pressure differential		kPa {kgf/cm ² , psi}	80–110 {0.8–1.2, 12–17}
Engine oil			
Capacity liters {US qt, Imp qt}		Total (dry engine)	3.6 {3.8, 3.2}
		Oil pan	3.2 {3.4, 2.8}
		Oil filter	0.17 {0.18, 0.15}
Grade			API Service SG energy conserving II (ECII)
Viscosity number		Above –25°C {–13°F}	SAE 10W-30
		Below 0°C {32°F}	SAE 5W-30

E. COOLING SYSTEM

Item		Engine	B6 DOHC
Cooling method			Water-cooled, forced circulation
Water pump			
Type			Centrifugal, V-belt driven
Impeller diameter		mm {in}	75 {2.95}
Number of impeller blades			6
Speed ratio			1 : 1.05
Water seal type			Unified mechanical seal
Thermostat			
Type			Wax, two-stage
Opening temperature		°C {°F}	Sub: 83.5–86.5 {183–187}, Main: 86.5–89.5 {188–193}
Full-open temperature		°C {°F}	100 {212}
Full-open lift		mm {in}	Sub: 1.5 {0.06} min., Main: 8.0 {0.31} min.
Radiator			
Type			Corrugated fin
Cap valve opening pressure		kPa {kgf/cm ² , psi}	73.6–102 {0.75–1.05, 10.7–14.9}
Cooling circuit checking pressure		kPa {kgf/cm ² , psi}	103 {1.05, 14.9}
Cooling fan			
Type			Electric
Number of blades			5
Outer diameter		mm {in}	320 {12.6}
Switching temperature OFF1ON		°C {°F}	97 {207}
Capacity		W-V	70-12
Current		A	5.3–6.5
Coolant			
Capacity		liters {US qt, Imp qt}	6.0 {6.3, 5.3}

TD

Item	Engine	B6 DOHC		
		Volume percentage %		Specific gravity at 20°C {68°F}
Antifreeze solution	Coolant protection	Water	Coolant	
	Above -16°C {3°F}	65	35	1.054
	Above -26°C {-15°F}	55	45	1.066
	Above -40°C {-40°F}	45	55	1.078

F. FUEL AND EMISSION CONTROL SYSTEMS

Item		Specification	
Idle speed	rpm	850 ± 50 *	
Ignition timing	BTDC	10° ± 1° (MT) *, 8° ± 1° (AT) *	
Throttle body			
Type	Horizontal draft		
Throat diameter	mm {in}	55 {2.2}	
Dashpot			
Adjustment speed	rpm	2,500 ± 150	
Airflow meter			
Resistance	E2 ↔ Vs	Fully closed	200—600
		Fully open	20—1,000
	E2 ↔ Vc	200—400	
	E2 ↔ THAA (Intake air thermosensor)	-20°C {-4°F}	13,600—18,400
		20°C {68°F}	2,210—2,690
		60°C {140°F}	493—667
E1 ↔ Fc	Fully closed	∞	
	Fully open	0	
Fuel pump			
Type	Impeller (in-tank)		
Output pressure	kPa {kgf/cm ² , psi}	441—589 {4.5—6.0, 64—85}	
Fuel filter			
Type	Low-pressure side	Nylon element	
	High-pressure side	Paper element	
Pressure regulator			
Type	Diaphragm		
Regulating pressure	kPa {kgf/cm ² , psi}	265—314 {2.7—3.2, 38—46}	
Injector			
Type	High-ohmic		
Type of drive	Voltage		
Resistance	Ω	12—16 (at 20°C {68°F})	
ISC valve (Solenoid valve [Idle speed control])			
Solenoid resistance	Ω	11—13 (at 20°C {68°F})	
Circuit opening relay			
Resistance	Ω	STA — E1	21—43
		B — Fc	109—226
		B — Fp	∞
Solenoid valve (Purge control)			
Solenoid resistance	Ω	23—27 (at 20°C {68°F})	
Crank angle sensor			
Type	Hall effect		
Water thermosensor			
Resistance	kΩ	-20°C {-4°F}	14.6—17.8
		20°C {68°F}	2.2—2.7
		80°C {176°F}	0.29—0.35
Air valve			
Opening temperature	°C {°F}	Below 40 {104}	
Fuel tank			
Capacity	liters {US gal, Imp gal}	45 {11.9, 9.9}	

*with system selector (49 B019 9A0) test switch at SELF TEST

Item	Specification
Air cleaner	
Element type	Oil permeated
Accelerator cable	
Free play	mm {in} 1-3 {0.039-0.118}
Fuel	
Specification	Unleaded regular (RON 87 or higher)

G. ENGINE ELECTRICAL SYSTEM

Item	Engine	B6 DOHC	
Battery	Voltage	V 12, Negative ground	
	Type and capacity (5-hour rate)	S46A24L(S) (32Ah) Maintenance-free	
Dark current ^{*1}	mA	20.0	
Alternator	Type	A.C.	
	Output	V-A 12-60 (MT), 12-65 (AT)	
	Regulator type	Transistorized (built-in IC regulator)	
	Regulated voltage	14.3-14.9	
	Brush length	mm {in}	Standard 21.5 {0.85}
			Minimum 8 {0.31}
Drive belt tension	mm {in}	New 8-9 {0.31-0.35}	
		Used 9-10 {0.35-0.39}	
Starter	Type	Direct	
	Output	V-kW 12-0.95	
	Brush length	mm {in}	Standard 17.0 {0.67}
		Minimum 11.5 {0.45}	
Ignition system	Type	Electronic spark advance (ESA)	
	Spark advance control	Engine control unit controls sparks advance	
Ignition timing	BTDC	9°-11° (MT) ^{*2} , 7°-9° (AT) ^{*2}	
Ignition coil	Type	Molded	
	Primary coil winding	Ω 0.78-0.94	
	Secondary coil winding	kΩ 11.2-15.2	
Spark plug	Type	NGK: BKR5E-11 NIPPONDENSO: K16PR-U11 BKR6E-11 K20PR-U11 (Standard...MT) (Standard...MT, AT) BKR7E-11 K22PR-U11	
	Plug gap	mm {in} 1.0-1.1 {0.039-0.043}	
	Firing order	1-3-4-2	

^{*1} Dark current is the constant flow of current while the ignition switch is OFF. (i.e. engine control unit, audio etc.)

^{*2}...with system selector (49 B019 9A0) test switch of SELF TEST

H. CLUTCH

Item	Engine	B6 DOHC
Clutch control		Hydraulic
Clutch pedal		
Type		Suspended
Pedal ratio		6.13
Full stroke	mm {in}	120 {4.72}
Height (with carpet)	mm {in}	175-185 {6.89-7.28}
Free play	mm {in}	0.6-3.1 {0.02-0.12}
Distance to carpet when clutch fully disengaged	mm {in} Minimum	68 {2.68}
Flywheel		
Runout limit	mm {in}	0.2 {0.008}
Clutch disc		
Type		Single dry plate

TD

Item		Engine	B6 DOHC
Runout limit		mm {in}	0.7 {0.028}
Wear limit		mm {in}	0.3 {0.012} from rivet head
Outer diameter		mm {in}	200 {7.87}
Inner diameter		mm {in}	130 {5.12}
Facing thickness	mm {in}	Flywheel side	3.5 {0.14}
		Pressure plate side	3.5 {0.14}
Clutch cover			
Type			Diaphragm spring
Set load		N {kgf, lbf}	4,022 {410, 902}

J. MANUAL TRANSMISSION

Item		Transmission	M15M-D (M5M-D)
Gear ratio	1st		3.136
	2nd		1.888
	3rd		1.330
	4th		1.000
	5th		0.814
	Reverse		3.758
Oil capacity		liters {US qt, Imp qt}	2.0 {2.1, 1.8}
Mainshaft	Runout	mm {in} Maximum	0.03 {0.0012}
	Clearance between mainshaft and gear (or bush)	mm {in} Wear limit	0.15 {0.006}
Reverse idle gear	Clearance between reverse idle gear bushing and shaft	mm {in} Wear limit	0.15 {0.006}
Shift fork and rod	Clearance between shift fork and clutch sleeve	mm {in} Wear limit	0.5 {0.020}
	Clearance between shift rod gate and control lever	mm {in} Wear limit	0.8 {0.032}
Synchronizer ring	Clearance between synchronizer ring and side of gear when fitted	mm {in} Standard	1.5 {0.059}
		mm {in} Wear limit	0.8 {0.032}
Shift rod spring (5th/Reverse)	Free length	mm {in}	75 {2.953}
Detent ball spring (1st/2nd)	Free length	mm {in}	22.5 {0.886}
Detent ball spring (3rd/4th)	Free length	mm {in}	22.5 {0.886}
Detent ball spring (5th/Reverse)	Free length	mm {in}	17.0 {0.669}
Lubricant	Above 10°C {50°F}		API Service GL-4 or GL-5 SAE 80W-90
	All seasons		API Service GL-4 or GL-5 SAE 75W-90

K. AUTOMATIC TRANSMISSION (HYDRAULICALLY-CONTROLLED)

Item		Transmission	NA4A-HL (N4A-HL)
Torque converter stall torque ratio			1.9 : 1
Gear ratio	1st		2.841
	2nd		1.541
	3rd		1.000
	OD (4th)		0.720
	Reverse		2.400
Automatic transmission fluid (ATF)	Type		Dexron®II or M-III
	Capacity liters [US qt, Imp qt]	Total	6.7 {7.1, 5.9}
		Oil pan	4.0 {4.2, 3.5}
Engine stall speed	rpm	D, 2, 1, and R ranges	2,600—3,000
Time lag	sec.	N → D range	0.5—1.0
		N → R range	0.5—1.0
Line pressure kPa [kg/cm ² , psi]	At idle	D and 1 ranges	294—392 {3.0—4.0, 43—57}
		2 range	1,020—1,138 {10.4—11.6, 148—166}
		R range	697—834 {7.1—8.5, 101—121}
	At stall	D and 1 ranges	932—1,128 {9.5—11.5, 135—164}
		2 range	981—1,177 {10.0—12.0, 142—171}
		R range	2,246—2,541 {22.9—25.9, 326—369}
Governor pressure kPa [kg/cm ² , psi]	Vehicle speed: 30 km/h {19 mph}		78—137 {0.8—1.4, 11—20}
	Vehicle speed: 55 km/h {34 mph}		157—235 {1.6—2.4, 23—34}
	Vehicle speed: 85 km/h {53 mph}		334—432 {3.4—4.4, 48—63}
	Cutback point	Atmospheric pressure	108—167 {1.1—1.7, 16—24}
		26.7 kPa {200 mmHg, 7.87 inHg}	59—118 {0.6—1.2, 9—17}
Oil pump	Body clearance mm {in}	Standard	0.02—0.04 {0.0008—0.0016}
		Maximum	0.08 {0.0031}
	Tip clearance mm {in}	Standard	0.14—0.21 {0.0055—0.0083}
		Maximum	0.25 {0.0098}
	Side clearance mm {in}	Standard	0.05—0.20 {0.0020—0.0079}
		Maximum	0.25 {0.0098}
Drum support	Seal ring and groove clearance mm {in}	Standard	0.04—0.16 {0.0016—0.0063}
		Maximum	0.40 {0.016}
Direct clutch	Number of drive/driven plates		2/2
	Drive plate thickness mm {in}	Standard	1.6 {0.063}
		Minimum	1.4 {0.055}
	Clutch clearance mm {in}	0.2 {0.008} max.	
	Side plate size mm {in}	0.4 {0.016}, 0.6 {0.024}, 0.8 {0.031}, 1.0 {0.039}, 1.2 {0.047}	
	End play mm {in}	0.5—0.8 {0.020—0.031}	
	Thrust washer size mm {in}	1.3 {0.051}, 1.5 {0.059}, 1.7 {0.067}, 1.9 {0.075}, 2.1 {0.083}, 2.3 {0.091}, 2.5 {0.098}, 2.7 {0.106}	
OD planetary gear unit	Pinion clearance mm {in}	Standard	0.2—0.7 {0.008—0.028}
		Maximum	0.8 {0.031}
	Total end play mm {in}	0.25—0.50 {0.0098—0.0197}	
Bearing race size mm {in}	1.2 {0.047}, 1.4 {0.055}, 1.6 {0.063}, 1.8 {0.071}, 2.0 {0.079}, 2.2 {0.087}		
Front clutch	Number of drive/driven plates		4/5
	Drive plate thickness mm {in}	Standard	1.6 {0.063}
		Minimum	1.4 {0.055}
	Clutch clearance mm {in}	0.9—1.1 {0.035—0.043}	
	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 {0.020—0.031}	
Thrust washer size mm {in}	1.3 {0.051}, 1.5 {0.059}, 1.7 {0.067}, 1.9 {0.075}, 2.1 {0.083}, 2.3 {0.091}, 2.5 {0.098}, 2.7 {0.106}		

TD

Transmission		N4A-HL	
Rear clutch	Number of drive/driven plates		6/6
	Drive plate thickness mm {in}	Standard	1.6 {0.063}
		Minimum	1.4 {0.055}
	Clutch clearance mm {in}		0.8—1.0 {0.031—0.039}
	Retaining plate size mm {in}		6.2 {0.244}, 6.4 {0.252}, 6.6 {0.260}, 6.8 {0.268}, 7.0 {0.276}, 7.2 {0.283}, 7.4 {0.291}, 7.6 {0.299}
	Total end play mm {in}		0.25—0.50 {0.0098—0.0197}
Bearing race size mm {in}		1.2 {0.047}, 1.4 {0.055}, 1.6 {0.063}, 1.8 {0.071}, 2.0 {0.079}, 2.2 {0.087}	
Low and reverse brake	Number of drive/driven plates		4/4
	Drive plate thickness mm {in}	Standard	2.0 {0.079}
		Minimum	1.8 {0.071}
	Clutch clearance mm {in}		0.8—1.05 {0.031—0.041}
Retaining plate size mm {in}		7.8 {0.307}, 8.0 {0.315}, 8.2 {0.323}, 8.4 {0.331}, 8.6 {0.339}, 8.8 {0.346}	
Front planetary gear	Pinion clearance mm {in}	Standard	0.2—0.7 {0.008—0.028}
		Maximum	0.8 {0.031}
Rear planetary gear	Pinion clearance mm {in}	Standard	0.2—0.7 {0.008—0.028}
		Maximum	0.8 {0.031}
Parking gear (oil distributor)	Seal ring and groove clearance mm {in}	Standard	0.04—0.16 {0.0016—0.0063}
		Maximum	0.40 {0.0157}

Spring specifications

Spring	Item	Outer dia. mm {in}	Free length mm {in}	No. of coil	Wire dia. mm {in}
Control valve	Second lock	5.55 {0.219}	33.5 {1.319}	18.0	0.55 {0.022}
	Pressure regulator	11.7 {0.461}	43.0 {1.692}	15.0	1.2 {0.047}
	Down shift	5.55 {0.219}	21.9 {0.862}	14.0	0.55 {0.022}
	Throttle back-up	7.3 {0.287}	36.0 {1.417}	16.0	0.8 {0.031}
	3-4 shift	6.6 {0.260}	30.3 {1.193}	14.6	0.8 {0.031}
	2-3 shift	6.4 {0.252}	39.2 {1.543}	20.0	0.7 {0.028}
	1-2 shift	6.65 {0.262}	26.9 {1.059}	12.2	0.65 {0.026}
	Pressure modifier	8.6 {0.339}	15.5 {0.610}	7.5	0.6 {0.024}
	3-2 timing	7.5 {0.295}	23.2 {0.913}	11.0	0.8 {0.031}
	Throttle relief	6.5 {0.256}	26.8 {1.055}	16.0	0.9 {0.035}
	Orifice check	5.0 {0.197}	15.5 {0.610}	12.0	0.23 {0.009}
Governor valve	Primary	8.75 {0.344}	21.8 {0.858}	7.0	0.45 {0.018}
	Secondary	9.25 {0.364}	26.7 {1.051}	9.0	0.75 {0.030}
Oil pump	Lockup control	5.5 {0.217}	25.0 {0.984}	15.0	0.7 {0.028}
Drum support	OD accumulator	16.0 {0.630}	40.4 {1.591}	9.8	2.6 {0.102}
	OD cancel	4.95 {0.195}	23.0 {0.906}	14.8	0.65 {0.026}
Band servo	OD	26.8 {1.055}	47.0 {1.850}	8.4	2.9 {0.114}
	2ND	28.25 {1.112}	37.0 {1.457}	5.4	3.5 {0.138}
Direct, front, and rear clutches		8.0 {0.315}	30.5 {1.201}	14.5	1.3 {0.051}
Low and reverse brake		—	5.9—6.2 {0.232—0.244}	—	—
Parking rod		7.2 {0.283}	32.0 {1.260}	14.0	0.7 {0.028}

Vehicle speed at gearshift table

Range	Throttle condition (Manifold vacuum)	Shifting	Vehicle speed km/h {mph}
D	Fully opened	D1→D2	50—56 {31—35}
		D2→D3	93—99 {58—61}
		OD→D3	Above 93 {58}
		D3→D2	87—93 {54—58}
		D2→D1	37—43 {23—27}
		D1→D2	17—23 {11—14}
	Half throttle 26.7 kPa {200 mmHg, 7.87 inHg}	D2→D3	25—31 {16—19}
		D3→OD	44—50 {27—31}
		Lockup ON (OD)	66—72 {41—45}
		Lockup OFF (OD)	60—66 {37—41}
		OD→D3	27—33 {17—20}
		D3→D2	9—15 { 6— 9}
	Fully closed	D2→D1	9—15 { 6— 9}
		D1→D2	12—18 { 7—11}
		D2→D3	22—28 {14—17}
		D3→OD	41—47 {25—29}
		OD→D3	27—33 {17—20}
		D3→D2	9—15 { 6— 9}
1	—	D2→D1	9—15 { 6— 9}
		12→11	38—44 {24—27}

L. PROPELLER SHAFT

Item	Specification
Max. permissible run-out	mm {in} 0.4 {0.016}

M. FRONT AND REAR AXLES

Item		Specifications	
Front axle	Type	Double-wishbone	
	Bearing	Angular ball bearing	
	Wheel bearing play mm {in} Maximum	0.05 {0.002}	
Rear axle	Type	Double-wishbone	
	Bearing	Angular ball bearing	
	Wheel bearing play mm {in} Maximum	0.05 {0.002}	
Differential	Type	Standard	
	Reduction gear	Hypoid gear	
	Reduction ratio	4.300	
	Differential gear	Straight-bevel gear	
	Ring gear size	mm {in} 162.16 {6.38}	
	Oil	Grade	API service GL-5
		Viscosity	Above -18°C {0°F}: SAE 90 Below -18°C {0°F}: SAE 80W
		Capacity liter {US qt, Imp qt}	0.65 {0.69, 0.57}
	Drive pinion preload (without oil seal) N·m {kgf·cm, in·lbf}		0.3—0.7 {3—7, 2.6—6.1}
	Backlash mm {in}	Side gear and pinion gear	0—0.1 {0—0.004}
		Final gear	0.09—0.11 {0.0035—0.0043}
Length (Pilot section to pilot section) mm {in}		150.20 ⁺⁰ / _{-0.063} {5.913 ⁺⁰ / _{-0.0025} }	

N. STEERING SYSTEM

Item	Type	Manual steering	Power steering
Steering wheel			
Outer diameter	mm {in}	370 {14.6}	
Free play	mm {in}	0—30 {0—1.18}	
Wheel effort	N {kgf, lbf}	4.9—29.4 {0.5—3.0, 1.1—6.6}	23.5—35.3 {2.4—3.6, 5.3—8.0}
Lock-to-lock	turns	3.36	2.8
Steering Shaft			
Shaft type		Collapsible, non-tilt	
Joint type		2-cross joint	
Power steering system			
Power assist type		Engine speed sensing	
Gear type		Rack-and-pinion	
Gear ratio		∞ (infinite)	
Rack stroke	mm {in}	121.0 {4.76}	
Power steering fluid		ATF Dexron®II or M-III	
Fluid capacity	liter {US qt, Imp qt}	0.8 {0.85, 0.70}	
Fluid pressure	kPa {kgf/cm ² , psi}	7,603—8,339 {77.5—85.0, 1,102—1,209}	

P. BRAKING SYSTEM

Item		Specifications	
Brake pedal	Height (with carpet) mm {in}	171—181 {6.73—7.13}	
	Free play mm {in}	4—7 {0.16—0.28}	
	Reserve travel (without carpet, clearance when pedal is depressed at 589 N {60 kgf, 132 lbf}) mm {in}	95 {3.74}	
Master cylinder	Type	Tandem	
	Bore mm {in}	22.22 {0.87}	
	Fluid type	SAEJ1703 or FMVSS116, DOT-3	
Front brake (Disc)	Type	Disc	
	Thickness of pad mm {in}	Standard	9.5 {0.37}
		Limit	1.0 {0.04}
	Thickness of disc plate mm {in}	Standard	18.0 {0.71}
		Limit	16.0 {0.63}
	Disc plate runout mm {in}		0.1 {0.004} max.
Wheel cylinder bore mm {in}		51.1 {2.01}	
Rear brake (Disc)	Type	Disc	
	Thickness of pad mm {in}	Standard	8.0 {0.31}
		Limit	1.0 {0.04}
	Thickness of disc plate mm {in}	Standard	9 {0.35}
		Limit	7 {0.28}
Wheel cylinder bore mm {in}		31.75 {1.25}	
Parking brake	Lever notches (Pulled at 98 N {10 kgf, 22 lbf})	5—7	
Power brake unit	Type	Single diaphragm	
	Diameter mm {in}	214 {8.0}	
	Push rod-to-piston clearance mm {in}	When vacuum applied to the unit is approx. 66.7 kPa {500 mmHg, 19.7 inHg} 0.1—0.4mm {0.004—0.016 in}	
	Fluid pressure per treading force kPa {kgf/cm ² , psi}/N {kgf, lbf}	1,079—1,177 {11—12, 156—171}/196 {20, 44} at 0 kPa {0 mmHg, 0 inHg} min. 5,199—5,494 {53—56, 754—796}/196 {20, 44} at 66.7 kPa {500 mmHg, 19.7 inHg} min.	
Rear wheel hydraulic control system	Type	PBV	
	Bend portion (Rear brake pressure) kPa {kgf/cm ² , psi}	2,943 {30, 427}	

Q. WHEELS AND TIRES

Item		Type	Standard	Temporary spare
Wheel	Size		14 × 5 1/2-JJ	14 × 4T
	Offset	mm {in}	45 {1.77}	
	Pitch circle diameter	mm {in}	100 {3.94}	
	Material		Aluminum alloy	Steel
Tire	Size		185/60R14 82H	T115/70D14
	Air pressure	kPa [kgf/cm ² , psi]	179 [1.8, 26]	415 [4.2, 60]
Wheel and tire	Runout limit mm {in}	Horizontal	2.0 {0.079}	
		Vertical	1.5 {0.059}	
	Maximum unbalance (at rim edge)	g {oz}	10 {0.35}	

R. SUSPENSION

Item		Transmission	MT	AT
Front suspension				
Type			Double-wishbone	
Stabilizer	Type		Torsion bar	
	Diameter	mm {in}	19 {0.75}	
Shock absorbers			Cylindrical double-acting, low-pressure gas charged	
Coil springs	Identification color		Red	White
	Wire diameter	mm {in}	10.8 {0.43}	11.0 {0.43}
	Coil inner diameter	mm {in}	83 {3.27}	83 {3.27}
	Free length	mm {in}	282.5 {11.12}	292.5 {11.52}
	Coil number		5.91	6.32
Rear suspension				
Type			Double-wishbone	
Stabilizer	Type		Torsion bar	
	Diameter	mm {in}	11 {0.43}	
Shock absorbers			Cylindrical double-acting, low-pressure gas charged	
Coil springs	Identification color		Yellow	Green
	Wire diameter	mm {in}	10.1 {0.40}	10.2 {0.40}
	Coil inner diameter	mm {in}	83 {3.27}	83 {3.27}
	Free length	mm {in}	348.5 {13.72}	356.5 {14.04}
	Coil number		7.68	7.96
Wheel alignment				
Front wheel alignment (Unladen* ¹)	Total toe-in	mm {in}	3 ± 3 {0.12 ± 0.12}	
		degree	0°18' ± 18'	
	Maximum steering angle	Inner	37°23' ± 2°	
		Outer	32°32' ± 2°	
	Camber angle		0°24' ± 45' ^{*2}	
	Caster angle		4°26' ± 45' ^{*3}	
King pin angle		11°20'		
Rear wheel alignment (Unladen* ¹)	Total toe-in	mm {in}	3 ± 3 {0.12 ± 0.12}	
		degree	0°18' ± 18'	
	Camber angle		-0°43' ± 30' ^{*2}	

*¹ Fuel tank full; radiator coolant and engine oil at specified level, and spare tire, jack, and tools in designated position.

*² Difference between left and right must not exceed 1°.

*³ Difference between left and right must not exceed 1°30'.

T. BODY ELECTRICAL SYSTEM

Item	Wattage (Bulb trade number)
Instrument cluster lamps	
Beam	3.4
Turn (LH and RH)	3.4
Illumination	3.4
Engine check	1.4
Brake	1.4
Charge	1.4
Belts	1.4
Air bag	1.4
Retractor	1.4
O/D off	1.4
Anti lock	1.4
Washer	1.4
Rear window defroster	1.4
Exterior lights	
Headlights	60/40
Front turn signal/parking lights	27/8 (1157 NA)
Front side marker lights	3.8 [194]
License plate lights	7.5
Rear turn signal lights	27 [1156]
Rear side marker lights	3.8 [194]
Stop/taillights	27/8 [1157]
Back-up lights	27 [1156]
High-mount stoplight	18.4 [921]
Interior lamps	
	5
Illumination lamps	
Ash tray	3.4
Heater control switch panel	1.4
A/C switch	1.4
Hazard switch	1.4
Cruise control main switch	1.4

U. HEATER AND AIR CONDITIONING SYSTEM

Item	Specifications
Refrigerant amount	g {oz} 800 {28.24}
Compressor oil amount	cm ³ {cc in} 80–100 {4.88–6.1}
Refrigerant normal pressure	kPa {kgf/cm ² , psi} Low pressure: 147–294 {1.5–3.0, 21–43} High pressure: 1,177–1,619 {12.0–16.5, 171–235}

STANDARD BOLT AND NUT TIGHTENING TORQUE

Diameter mm {in}	Pitch mm {in}	4T			6T			8T		
		N-m	kgf-m	ft-lbf	N-m	kgf-m	ft-lbf	N-m	kgf-m	ft-lbf
6 {0.236}	1 {0.039}	4.3–6.1	0.43–0.63	3.2–4.5	6.9–9.8	0.7–1.0	5.0–7.2	7.9–11.7	0.8–1.2	5.8–8.6
8 {0.315}	1.25 {0.049}	10–14	1.0–1.5	7.3–10.8	16–22	1.6–2.3	12–16	18–26	1.8–2.7	13–19
10 {0.394}	1.25 {0.049}	20–28	2.0–2.9	15–20	32–46	3.2–4.7	24–33	37–53	3.7–5.5	27–39
12 {0.472}	1.5 {0.059}	35–50	3.5–5.1	26–36	55–80	5.6–8.2	41–59	63–93	6.4–9.5	47–68
14 {0.551}	1.5 {0.059}	—	—	—	76–102	7.7–10.5	56–75	98–137	10–14	73–101
16 {0.630}	1.5 {0.059}	—	—	—	118–156	12–16	87–115	157–215	16–22	116–159
18 {0.709}	1.5 {0.059}	—	—	—	167–225	17–23	123–166	226–304	23–31	167–224
20 {0.787}	1.5 {0.059}	—	—	—	236–313	24–32	174–231	305–421	31–43	225–311
22 {0.866}	1.5 {0.059}	—	—	—	314–421	32–43	232–311	422–568	43–58	311–419
24 {0.945}	1.5 {0.059}	—	—	—	403–549	41–56	297–405	540–725	55–74	398–535