

TECHNICAL DATA

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B1. ENGINE (SOHC)
12-valve

Item			Engine	F2	FE	F8
Type				Gasoline, 4-cycle		
Cylinder arrangement and number				In-line, 4-cylinders		
Type of combustion chamber				Pentroof		
Valve system				OHC, belt-driven		
Bore x Stroke		mm (in)		86.0 x 94.0 (3.39 x 3.70)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 77.0 (3.39 x 3.03)
Total piston displacement		cc (cu in)		2,184 (133.2)	1,998 (121.9)	1,789 (109.1)
Compression ratio				8.6 : 1	9.5 : 1	
Compression pressure kPa (kg/cm ² , psi)-rpm	Standard			1,120 (11.4, 162)-270	1,422 (14.5, 206)-280	1,442 (14.7, 209)-290
	Minimum			780 (8.0, 114)-270	996 (10.2, 144)-280	996 (10.2, 144)-290
	Maximum difference between cylinders			196 (2.0, 28)		
Valve timing	IN	Open BTDC		10°	14°	
		Close ABDC		49°	56°	
	EX	Open BBDC		55°	69°	
		Close ATDC		12°	13°	
Valve clearance		mm (in)	IN	0; Maintenance free		
			EX	0; Maintenance free		
Cylinder head						
Height		mm (in)		91.95—92.05 (3.620—3.624)		
Distortion		mm (in)	Maximum	0.15 (0.006)		
Grinding limit		mm (in)	Maximum	0.20 (0.008)		
Valve and valve guide						
Valve head diameter		mm (in)	IN	32.4—32.6 (1.276—1.283)		
			EX	33.9—34.1 (1.335—1.343)		
Valve head thickness (margin)		mm (in)	IN	0.8—1.2 (0.031—0.047)		
			EX	1.3—1.7 (0.051—0.067)		
Valve face angle			IN	45°		
			EX	45°		
Valve length	mm (in)	IN	Standard	115.81 (4.5594)		
			Minimum	115.31 (4.5398)		
	EX	Standard	116.21 (4.5752)			
		Minimum	115.71 (4.5555)			
Valve stem diameter		mm (in)	IN	6.970—6.985 (0.2744—0.2750)		
			EX	6.965—6.980 (0.2742—0.2748)		
Guide inner diameter		mm (in)	IN	7.01—7.03 (0.2760—0.2768)		
			EX	7.01—7.03 (0.2760—0.2768)		
Valve stem to guide clearance		mm (in)	IN	0.025—0.060 (0.0010—0.0024)		
			EX	0.030—0.065 (0.0012—0.0026)		
			Maximum	0.20 (0.0079)		
Guide projection (Height "A")		mm (in)		19.8—20.3 (0.780—0.799)		
Valve seat						
Seat angle			IN	45°		
			EX	45°		
Seat contact width		mm (in)	IN	1.2—1.6 (0.047—0.063)		
			EX	1.2—1.6 (0.047—0.063)		
Seat sinking (Measure valve protruding length) mm (in)	IN	Standard		50.2 (1.976)		
		Maximum		51.0 (2.008)		
	EX	Standard		50.2 (1.976)		
		Maximum		51.0 (2.008)		

Item			Engine	F2	FE	F8
Valve spring						
Free length	mm (in)	IN	Standard	49.5 (1.949)		
			Minimum	48.5 (1.909)		
		EX	Standard	50.4 (1.984)		
			Minimum	49.4 (1.945)		
Out-of-square		mm (in)	Maximum	1.7 (0.067)		
Setting load/height		N (kg, lb)/mm (in)	IN	203—230 (20.7—23.4, 45.5—51.5)/41 (1.614)		
			EX	240—272 (24.5—27.7, 53.9—60.9)/41 (1.614)		
Camshaft						
Cam lobe height	mm (in)	IN	Standard	41.290—41.390 (1.6256—1.6295)		
			Minimum	41.140 (1.6197)		
		EX	Standard	41.797—41.897 (1.6455—1.6495)		
			Minimum	41.647 (1.6396)		
Journal diameter	mm (in)	Front and Rear (No.1,5)		31.940—31.965 (1.2575—1.2585)		
		Center (No.2,3,4)		31.910—31.935 (1.2563—1.2573)		
		Out-of-round	Maximum	0.05 (0.002)		
Camshaft bearing oil clearance	mm (in)	Front and Rear (No.1,5)		0.035—0.085 (0.0014—0.0033)		
		Center (No.2,3,4)		0.065—0.115 (0.0026—0.0045)		
		Maximum		0.15 (0.0059)		
Camshaft runout		mm (in)	Maximum	0.03 (0.0012)		
Camshaft end play		mm (in)	Standard	0.08—0.16 (0.003—0.006)		
			Maximum	0.20 (0.008)		
Rocker arm and rocker arm shaft						
Rocker arm inner diameter			mm (in)	19.000—19.033 (0.748—0.749)		
Rocker arm shaft diameter			mm (in)	18.959—18.980 (0.746—0.747)		
Rocker arm to shaft clearance	mm (in)	Standard		0.020—0.074 (0.0008—0.0029)		
		Maximum		0.10 (0.004)		
Cylinder block						
Height			mm (in)	301.5 (11.87)	289.0 (11.38)	268.5 (10.57)
Distortion		mm (in)	Maximum	0.15 (0.006)		
Grinding limit			mm (in)	0.20 (0.008)		
Cylinder bore diameter	mm (in)	Standard		86.000—86.019 (3.3858—3.3866)		
		0.25 (0.010) oversize		86.250—86.269 (3.3957—3.3964)		
		0.50 (0.020) oversize		86.500—86.519 (3.4055—3.4062)		
Cylinder bore taper and out-of-round		mm (in)	Maximum	0.019 (0.0007)		
Piston						
Piston diameter measured at 90° to pin bore axis and 18.0mm (0.709 in) below oil ring groove	mm (in)	Standard		85.944—85.964 (3.3836—3.3844)		
		0.25 (0.010) oversize		86.194—86.214 (3.3935—3.3942)		
		0.50 (0.020) oversize		86.444—86.464 (3.4033—3.4041)		
Piston to cylinder clearance		mm (in)	Standard	0.036—0.075 (0.0014—0.0030)		
			Maximum	0.15 (0.0059)		
Piston ring						
Thickness	mm (in)	Top		1.47—1.49 (0.0579—0.0587)		
		Second		1.47—1.49 (0.0579—0.0587)		
End gap measured in cylinder	mm (in)	Top		0.20—0.35 (0.008—0.0138)		
		Second		0.15—0.30 (0.006—0.012)		
		Oil (rail)		0.20—0.70 (0.008—0.0276)		
		Maximum		1.0 (0.039)		
Ring groove width in piston	mm (in)	Top		1.52—1.54 (0.0598—0.0606)		
		Second		1.52—1.54 (0.0598—0.0606)		
		Oil		4.02—4.04 (0.1583—0.1591)		
Clearance of piston ring to ring groove		mm (in)	Top	0.03—0.07 (0.0012—0.0028)		
			Second	0.03—0.07 (0.0012—0.0028)		
			Maximum	0.15 (0.006)		

Item		Engine	F2	FE	F8
Piston pin					
Diameter		mm (in)	21.974—21.980 (0.8651—0.8654)		
Interference in connecting rod		mm (in)	0.013—0.037 (0.0005—0.0015)		
Piston to piston pin clearance		mm (in)	0.008—0.024 (0.0003—0.0009)		
Installation pressure		N (kg, lb)	4,900—14,700 (500—1,500, 1,100—3,300)		
Connecting rod and connecting rod bearing					
Length (Center to center)		mm (in)	158.45—158.55 (6.238—6.242)	151.95—152.05 (5.982—5.986)	135.95—136.05 (5.352—5.356)
Bending		mm (in)	0.24 (0.0094) max.		
Small end bore		mm (in)	21.943—21.961 (0.8640—0.8646)		
Big end bore		mm (in)	54.002—54.017 (2.1261—2.1266)		
Big end width		mm (in)	26.838—26.890 (1.0566—1.0587)		
Connecting rod side clearance		mm (in)	Standard	0.110—0.262 (0.004—0.010)	
		Maximum	0.30 (0.012)		
Crankshaft					
Crankshaft runout		mm (in)	Maximum	0.03 (0.0012)	
Main journal diameter mm (in)	Standard size		59.937—59.955 (2.3597—2.3604)		
	0.25 (0.010) undersize	Standard	59.693—59.711 (2.3501—2.3508)		
		No.3	59.687—59.705 (2.3499—2.3506)		
	0.50 (0.020) undersize	No.1,2,4,5	59.443—59.461 (2.3403—2.3410)		
		No.3	59.437—59.455 (2.3400—2.3407)		
	0.75 (0.030) undersize	No.1,2,4,5	59.193—59.211 (2.3304—2.3311)		
No.3		59.187—59.205 (2.3302—2.3309)			
Main journal taper and out-of-round		mm (in)	Maximum	0.05 (0.0020)	
Crankpin diameter	mm (in)	Standard		50.940—50.955 (2.0055—2.0061)	
		0.25 (0.010) undersize		50.690—50.705 (1.9957—1.9963)	
		0.50 (0.020) undersize		50.440—50.455 (1.9858—1.9864)	
		0.75 (0.030) undersize		50.190—50.205 (1.9760—1.9766)	
Crankpin taper and out-of-round		mm (in)	Maximum	0.05 (0.0020)	
Main bearing					
Main journal bearing oil clearance	mm (in)	No.1,2,4,5	Standard	0.025—0.043 (0.0010—0.0017)	
			Maximum	0.08 (0.0031)	
		No.3	Standard	0.031—0.049 (0.0012—0.0019)	
			Maximum	0.08 (0.0031)	
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	0.027—0.067 (0.0011—0.0026)	
			Maximum	0.10 (0.0039)	
Available undersize bearing		mm (in)	0.25 (0.010), 0.50 (0.020), 0.75 (0.030)		
Thrust bearing (center main bearing)					
Crankshaft end play		mm (in)	Standard	0.08—0.18 (0.0031—0.0071)	
			Maximum	0.30 (0.0118)	
Bearing width	mm (in)	Standard		27.94—27.99 (1.100—1.102)	
		0.25 (0.010) oversize		28.04—28.09 (1.104—1.106)	
		0.50 (0.020) oversize		28.12—28.17 (1.107—1.109)	
		0.75 (0.030) oversize		28.20—28.25 (1.110—1.112)	
Timing belt					
Belt deflection		mm (in)/98 N (10 kg, 22 lb)	8.0—9.0 (0.31—0.35)	5.5—6.5 (0.22—0.26)	4.0—5.0 (0.16—0.20)

8-valve

Item			Engine	FE
Type				Gasoline, 4-cycle
Cylinder arrangement and number				In-line, 4-cylinders
Type of combustion chamber				Multispherical
Valve system				OHC, belt-driven
Bore x Stroke			mm (in)	86.0 x 86.0 (3.39 x 3.39)
Total piston displacement			cc (cu in)	1,998 (121.9)
Compression ratio				8.6 : 1
Compression pressure kPa (kg/cm ² , psi)-rpm	Standard			1,275 (13.0, 185)-270
	Minimum			893 (9.1, 129)-270
	Maximum difference between cylinders			196 (2.0, 28)
Valve timing	IN	Open	BTDC	16°
		Close	ABDC	54°
	EX	Open	BBDC	54°
		Close	ATDC	16°
Valve clearance	mm (in)	IN		0.30 (0.012)
		EX		0.30 (0.012)
Cylinder head				
Height		mm (in)		91.95—92.05 (3.620—3.624)
Distortion	mm (in)	Maximum		0.15 (0.006)
Grinding limit	mm (in)	Maximum		0.20 (0.008)
Valve and valve guide				
Valve head diameter	mm (in)	IN		43.9—44.1 (1.728—1.736)
		EX		35.9—36.1 (1.413—1.421)
Valve head thickness (margin)	mm (in)	IN		0.8—1.2 (0.031—0.047)
		EX		1.3—1.7 (0.051—0.067)
Valve face angle		IN		45°
		EX		45°
Valve length	mm (in)	IN	Standard	111.89 (4.4051)
		IN	Minimum	111.39 (4.3854)
	EX	EX	Standard	111.69 (4.3972)
		EX	Minimum	111.19 (4.3776)
Valve stem diameter	mm (in)	IN		8.030—8.045 (0.3161—0.3167)
		EX		8.025—8.040 (0.3159—0.3165)
Guide inner diameter	mm (in)	IN		8.07—8.09 (0.3177—0.3185)
		EX		8.07—8.09 (0.3177—0.3185)
Valve stem to guide clearance	mm (in)	IN		0.025—0.060 (0.0010—0.0024)
		EX		0.030—0.065 (0.0012—0.0026)
		Maximum		0.20 (0.0079)
Guide projection (Height "A")		mm (in)		19.1—19.6 (0.752—0.772)
Valve seat				
Seat angle		IN		45°
		EX		45°
Seat contact width	mm (in)	IN		1.2—1.6 (0.047—0.063)
		EX		1.2—1.6 (0.047—0.063)
Seat sinking (Measure valve protruding length) mm (in)	IN	IN	Standard	46.5 (1.831)
		IN	Maximum	48.0 (1.890)
	EX	EX	Standard	46.5 (1.831)
		EX	Maximum	48.0 (1.890)

Item			Engine	FE
Valve spring				
Free length	mm (in)	Outer	Standard	52.0 (2.047)
			Minimum	51.0 (2.008)
	Inner	Standard	44.0 (1.732)	
		Minimum	43.0 (1.693)	
Out-of-square	mm (in)	Maximum	1.8 (0.071)	
Setting load/height	N (kg, lb)/mm (in)	Outer	128 (13.1, 29)/36.5 (1.44)	
		Inner	189 (19.2, 42)/41 (1.61)	
Camshaft				
Cam lobe height	mm (in)	IN	Standard	38.107—38.207 (1.5003—1.5042)
			Minimum	37.957 (1.4944)
	EX	Standard	38.110—38.210 (1.5004—1.5043)	
		Minimum	37.960 (1.4945)	
Journal diameter	mm (in)	Front and Rear (No.1,5)		31.940—32.035 (1.2575—1.2612)
		Center (No.2,3,4)		31.910—32.065 (1.2563—1.2624)
		Out-of-round	Maximum	0.05 (0.002)
Camshaft bearing oil clearance	mm (in)	Front and Rear (No.1,5)		0.035—0.085 (0.0014—0.0033)
		Center (No.2,3,4)		0.065—0.115 (0.0026—0.0045)
			Maximum	0.15 (0.0059)
Camshaft runout	mm (in)	Maximum	0.03 (0.0012)	
Camshaft end play	mm (in)	Standard	0.08—0.16 (0.003—0.006)	
		Maximum	0.20 (0.008)	
Rocker arm and rocker arm shaft				
Rocker arm inner diameter			mm (in)	16.000—16.027 (0.6299—0.6310)
Rocker arm shaft diameter			mm (in)	15.966—15.984 (0.6286—0.6293)
Rocker arm to shaft clearance	mm (in)	Standard	0.016—0.061 (0.0006—0.0024)	
		Maximum	0.10 (0.004)	
Cylinder block				
Height			mm (in)	289.0 (11.38)
Distortion			mm (in)	Maximum 0.15 (0.006)
Grinding limit			mm (in)	0.20 (0.008)
Cylinder bore diameter	mm (in)	Standard		86.000—86.019 (3.3858—3.3866)
		0.25 (0.010) oversize		86.250—86.269 (3.3957—3.3964)
		0.50 (0.020) oversize		86.500—86.519 (3.4055—3.4062)
		0.75 (0.030) oversize		—
		1.00 (0.039) oversize		—
Cylinder bore taper and out-of-round			mm (in)	Maximum 0.019 (0.0007)
Piston				
Piston diameter measured at 90° to pin bore axis and 18.0mm (0.709 in) below oil ring groove	mm (in)	Standard		85.944—85.964 (3.3836—3.3844)
		0.25 (0.010) oversize		86.194—86.214 (3.3935—3.3942)
		0.50 (0.020) oversize		86.444—86.464 (3.4033—3.4041)
		0.75 (0.030) oversize		—
		1.00 (0.039) oversize		—
Piston and cylinder clearance	mm (in)	Standard	0.036—0.075 (0.0014—0.0030)	
		Maximum	0.15 (0.0059)	
Piston ring				
Thickness	mm (in)	Top	1.47—1.49 (0.0579—0.0587)	
		Second	1.47—1.49 (0.0579—0.0587)	
End gap measured in cylinder	mm (in)	Top	0.20—0.35 (0.008—0.0138)	
		Second	0.15—0.30 (0.006—0.012)	
		Oil (rail)	0.20—0.70 (0.008—0.0276)	
		Maximum	1.0 (0.039)	
Ring groove width in piston	mm (in)	Top	1.52—1.54 (0.0598—0.0606)	
		Second	1.52—1.54 (0.0598—0.0606)	
		Oil	4.02—4.04 (0.1583—0.1591)	

Item		Engine	FE
Clearance of piston ring to ring groove mm (in)	Top		0.03—0.07 (0.0012—0.0028)
	Second		0.03—0.07 (0.0012—0.0028)
	Maximum		0.15 (0.006)
Piston pin			
Diameter	mm (in)		21.974—21.980 (0.8651—0.8654)
Interference in connecting rod	mm (in)		0.013—0.037 (0.0005—0.0015)
Piston to piston pin clearance	mm (in)		0.008—0.024 (0.0003—0.0009)
Installation pressure	N (kg, lb)		4,900—14,700 (500—1,500, 1,100—3,300)
Connecting rod and connecting rod bearing			
Length (Center to center)	mm (in)		151.95—152.05 (5.982—5.986)
Twisting and bending	mm (in)		0.06 (0.0024) max.
Small end bore	mm (in)		21.943—21.961 (0.8640—0.8646)
Big end bore	mm (in)		54.002—54.017 (2.1261—2.1266)
Big end width	mm (in)		26.838—26.890 (1.0566—1.0587)
Connecting rod side clearance mm (in)	Standard		0.110—0.262 (0.004—0.010)
	Maximum		0.30 (0.012)
Crankshaft			
Crankshaft runout	mm (in)	Maximum	0.03 (0.0012)
Main journal diameter mm (in)	Standard size		59.937—59.955 (2.3597—2.3604)
	0.25 (0.010) undersize	Standard	59.693—59.711 (2.3051—2.3508)
		No.3	59.687—59.705 (2.3499—2.3506)
	0.50 (0.020) undersize	No.1,2,4,5	59.443—59.461 (2.3403—2.3410)
		No.3	59.437—59.455 (2.3400—2.3407)
0.75 (0.030) undersize	No.1,2,4,5	59.193—59.211 (2.3304—2.3311)	
	No.3	59.187—59.205 (2.3302—2.3309)	
Main journal taper and out-of-round	mm (in)	Maximum	0.05 (0.0020)
Crankpin diameter mm (in)	Standard		50.940—50.955 (2.0055—2.0061)
	0.25 (0.010) undersize		50.690—50.705 (1.9957—1.9963)
	0.50 (0.020) undersize		50.440—50.455 (1.9858—1.9864)
	0.75 (0.030) undersize		50.190—50.205 (1.9760—1.9766)
Crankpin taper and out-of-round	mm (in)	Maximum	0.05 (0.0020)
Main bearing			
Main journal bearing oil clearance mm (in)	No.1,2,4,5	Standard	0.025—0.043 (0.0010—0.0017)
		Maximum	0.08 (0.0031)
	No.3	Standard	0.031—0.049 (0.0012—0.0019)
		Maximum	0.08 (0.0031)
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		0.027—0.067(0.0011—0.0026)
	Maximum		0.10 (0.0039)
Available undersize bearing	mm (in)		0.25 (0.010), 0.50 (0.020), 0.75 (0.030)
Thrust bearing (center main bearing)			
Crankshaft end play mm (in)	Standard		0.08—0.18 (0.0031—0.0071)
	Maximum		0.30 (0.0118)
Bearing width mm (in)	Standard		27.94—27.99 (1.100—1.102)
	0.25 (0.010) oversize		28.04—28.09 (1.104—1.106)
	0.05 (0.020) oversize		28.12—28.17 (1.107—1.109)
	0.75 (0.030) oversize		28.20—28.25 (1.110—1.112)
Timing belt			
Belt deflection	mm (in)/98 N (10 kg, 22 lb)		5.5—6.5 (0.22—0.26)

B2. ENGINE (DOHC)

Engine				FE DOHC	
Item				Leaded fuel	Unleaded fuel
Type				Gasoline, 4-cycle	
Cylinder arrangement and number				In-line, 4-cylinders	
Type of combustion chamber				Pentroof	
Valve system				OHC, belt-driven	
Bore x Stroke mm (in)				86.0 x 86.0 (3.39 x 3.39)	
Total piston displacement cc (cu in)				1,998 (121.9)	
Compression ratio				10.0	9.2
Compression pressure kPa (kg/cm ² , psi)-rpm	Standard			1,422 (14.5, 206)-290	1,373 (14.0, 199)-310
	Minimum			996 (10.2, 144)-290	961 (9.8, 139)-310
	Maximum difference between cylinders			196 (2.0, 28)	
Valve timing	IN	Open	BTDC	10°	10°
		Close	ABDC	60°	55°
	EX	Open	BBDC	60°	55°
		Close	ATDC	10°	10°
Valve clearance mm (in)	IN	0; Maintenance free			
	EX	0; Maintenance free			
Cylinder head					
Height mm (in)			133.95—134.05 (5.274—5.278)		
Distortion mm (in)	Maximum		0.15 (0.006)		
Grinding mm (in)	Maximum		0.20 (0.008)		
HLA to cylinder head clearance mm (in)	Standard		0.025—0.066 (0.0010—0.0026)		
	Maximum		0.18 (0.0071)		
Valve and valve guide					
Valve head diameter mm (in)	IN		33.6—33.8 (1.323—1.331)		
	EX		28.8—29.0 (1.134—1.142)		
Valve head thickness (margin) mm (in)	IN		1.0—1.7 (0.039—0.067)		
	EX		1.1—1.7 (0.043—0.067)		
Valve face angle	IN		45°		
	EX		45°		
Valve length mm (in)	IN	Standard	103.18 (4.0622)		
		Minimum	102.68 (4.0425)		
	EX	Standard	103.94 (4.0921)		
		Minimum	103.44 (4.0724)		
Valve stem diameter mm (in)	IN		5.970—5.985 (0.2350—0.2356)		
	EX		5.965—5.980 (0.2348—0.2354)		
Guide inner diameter mm (in)	IN		6.01—6.03 (0.2366—0.2374)		
	EX		6.01—6.03 (0.2366—0.2374)		
Valve stem to guide clearance mm (in)	IN		0.025—0.060 (0.0010—0.0024)		
	EX		0.030—0.065 (0.0012—0.0026)		
	Maximum		0.20 (0.0079)		
Guide projection (Height "A") mm (in)			11.4—11.9 (0.449—0.469)		
Valve seat					
Seat angle	IN		45°		
	EX		45°		
Seat contact width mm (in)	IN		1.2—1.6 (0.047—0.063)		
	EX		1.2—1.6 (0.047—0.063)		
Seat sinking (Measure valve protruding length) mm (in)	IN	Standard	36.8 (1.449)		
		Maximum	37.8 (1.488)		
	EX	Standard	36.8 (1.449)		
		Maximum	37.8 (1.488)		

Item			Engine	FE DOHC	
				Leaded fuel	Unleaded fuel
Valve spring					
Free length	mm (in)	Outer	Standard	39.1 (1.539)	
			Minimum	38.7 (1.524)	
		Inner	Standard	38.0 (1.496)	
			Minimum	37.7 (1.484)	
Out-of-square		mm (in)	Maximum	Outer.....1.4 (0.055), Inner.....1.3 (0.051)	
Setting load/height	N (kg, lb)/mm (in)		Outer	78 (8.0, 17.6)/31.5 (1.240)	
			Inner	123 (12.5, 27.5)/33.0 (1.299)	
Camshaft					
Cam lobe height	mm (in)	IN	Standard	45.005—45.105 (1.772—1.776)	45.002—45.102 (1.772—1.776)
			Minimum	44.855 (1.7659)	44.852 (1.7658)
		EX	Standard	45.005—45.105 (1.772—1.776)	45.002—45.102 (1.772—1.776)
			Minimum	44.855 (1.7659)	44.852 (1.7658)
Journal diameter		mm (in)		29.940—29.965 (1.1787—1.1797)	
		Out-of-round	Maximum	0.05 (0.002)	
Camshaft bearing oil clearance		mm (in)		0.035—0.085 (0.0014—0.0033)	
			Maximum	0.15 (0.0059)	
Camshaft runout		mm (in)		0.03 (0.0012)	
Camshaft end play	mm (in)		Standard	0.08—0.10 (0.003—0.004)	
			Maximum	0.20 (0.008)	
Cylinder block					
Height			mm (in)	289.0 (11.38)	
Distortion		mm (in)	Maximum	0.15 (0.006)	
Grinding limit			mm (in)	0.20 (0.008)	
Cylinder bore diameter	mm (in)		Standard	86.000—86.019 (3.3858—3.3866)	
			0.25 (0.010) oversize	86.250—86.269 (3.3957—3.3964)	
			0.50 (0.020) oversize	86.500—86.519 (3.4055—3.4062)	
Cylinder bore taper and out-of-round		mm (in)	Maximum	0.019 (0.0007)	
Piston					
Piston diameter measured at 90° to pin bore axis and 18.0mm (0.709 in) below oil ring groove	mm (in)		Standard	85.944—85.964 (3.3836—3.3844)	
			0.25 (0.010) oversize	86.194—86.214 (3.3935—3.3942)	
			0.50 (0.020) oversize	86.444—86.464 (3.4033—3.4041)	
Piston to cylinder clearance		mm (in)	Standard	0.036—0.075 (0.0014—0.0030)	
			Maximum	0.15 (0.0059)	
Piston ring					
Thickness	mm (in)		Top	1.47—1.49 (0.0579—0.0587)	
			Second	1.47—1.49 (0.0579—0.0587)	
End gap measured in cylinder	mm (in)		Top	0.20—0.35 (0.008—0.0138)	
			Second	0.15—0.30 (0.006—0.012)	
			Oil (rail)	0.20—0.70 (0.008—0.0276)	
			Maximum	1.0 (0.039)	
Ring groove width in piston	mm (in)		Top	1.52—1.54 (0.0598—0.0606)	
			Second	1.52—1.54 (0.0598—0.0606)	
			Oil	4.02—4.04 (0.1583—0.1591)	
Clearance of piston ring to ring groove	mm (in)		Top	0.03—0.07 (0.0012—0.0028)	
			Second	0.03—0.07 (0.0012—0.0028)	
			Maximum	0.15 (0.006)	
Piston pin					
Diameter			mm (in)	21.987—21.993 (0.8656—0.8659)	
Connecting rod to piston pin clearance			mm (in)	0.010—0.027 (0.0004—0.0011)	
Piston to piston pin clearance			mm (in)	-0.005—0.011 (-0.0002—0.0004)	

Item		Engine	FE DOHC	
			Leaded fuel	Unleaded fuel
Connecting rod and connecting rod bearing				
Length (Center and center)		mm (in)	149.95—150.05 (5.904—5.907)	
Twisting		mm (in)	0.57 (0.0224) max.	
Bending		mm (in)	0.24 (0.0094) max.	
Small end bore		mm (in)	22.003—22.014 (0.8663—0.8667)	
Big end bore		mm (in)	54.002—54.017 (2.1261—2.1266)	
Big end width		mm (in)	26.838—26.890 (1.0566—1.0587)	
Connecting rod side clearance		mm (in)	Standard	0.110—0.262 (0.004—0.010)
			Maximum	0.30 (0.012)
Crankshaft				
Crankshaft runout		mm (in)	Maximum	0.03 (0.0012)
Main journal diameter mm (in)	Standard size		59.937—59.955 (2.3597—2.3604)	
	0.25 (0.010) undersize	Standard	59.693—59.711 (2.3501—2.3508)	
		No.3	59.687—59.705 (2.3499—2.3506)	
	0.50 (0.020) undersize	No.1,2,4,5	59.443—59.461 (2.3403—2.3410)	
		No.3	59.437—59.455 (2.3400—2.3407)	
	0.75 (0.030) undersize	No.1,2,4,5	59.193—59.211 (2.3304—2.3311)	
No.3		59.187—59.205 (2.3302—2.3309)		
Main journal taper and out-of-round		mm (in)	Maximum	0.05 (0.0020)
Crankpin diameter mm (in)	Standard		50.940—50.955 (2.0055—2.0061)	
	0.25 (0.010) undersize		50.690—50.705 (1.9957—1.9963)	
	0.50 (0.020) undersize		50.440—50.455 (1.9858—1.9864)	
	0.75 (0.030) undersize		50.190—50.205 (1.9760—1.9766)	
Crankpin taper and out-of-round		mm (in)	Maximum	0.05 (0.0020)
Main bearing				
Main journal bearing oil clearance	mm (in)	No.1,2,4,5	Standard	0.025—0.043 (0.0010—0.0017)
			Maximum	0.08 (0.0031)
	No.3	Standard	0.031—0.049 (0.0012—0.0019)	
		Maximum	0.08 (0.0031)	
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	0.027—0.067 (0.0011—0.0026)
			Maximum	0.10 (0.0039)
Available undersize bearing		mm (in)	0.25 (0.010), 0.50 (0.020), 0.75 (0.030)	
Thrust bearing (center main bearing)				
Crankshaft end play		mm (in)	Standard	0.08—0.18 (0.0031—0.0071)
			Maximum	0.30 (0.0118)
Bearing width	mm (in)	Standard		27.94—27.99 (1.100—1.102)
		0.25 (0.010) oversize		28.04—28.09 (1.104—1.106)
		0.50 (0.020) oversize		28.12—28.17 (1.107—1.109)
		0.75 (0.030) oversize		28.20—28.25 (1.110—1.112)
Timing belt				
Belt deflection		mm (in)/98 N (10 kg, 22 lb)		7.5—8.5 (0.30—0.33)

B3. ENGINE (DIESEL)

Item			Engine	RF
Type				Diesel, 4-cycle
Cylinder arrangement and number				In-line, 4-cylinders
Type of combustion chamber				Swirl chamber
Valve system				OHC, belt-driven
Bore x Stroke			mm (in)	86.0 x 86.0 (3.39 x 3.39)
Total piston displacement			cc (cu in)	1,998 (121.9)
Compression ratio				22.7 : 1
Compression pressure kPa (kg/cm ² , psi)-rpm	Standard			2,943 (30, 427)-200
	Minimum			2,649 (27, 384)-200
	Maximum difference between cylinders			294 (3.0, 43)
Valve timing	IN	Open BTDC		13°
		Close ABDC		39°
	EX	Open BBDC		60°
		Close ATDC		8°
Valve clearance	mm (in)	IN		Cold: 0.25 (0.010), Warm: 0.30 (0.012)
		EX		Cold: 0.35 (0.014), Warm: 0.40 (0.016)
Cylinder head				
Distortion	mm (in)	Direction X-X		0.05 (0.0020)
		Direction Y-Y		0.02 (0.0008)
Length of cylinder head bolt below head mm (in)		Standard		113.2—113.8 (4.457—4.480)
		Maximum		114.5 (4.508)
Combustion chamber insert				
Recession		mm (in)		0.020 (0.0008)
Projection		mm (in)		0.005 (0.0002)
Valve and valve guide				
Valve head diameter	mm (in)	IN		40.9—41.1 (1.610—1.618)
		EX		35.9—36.1 (1.413—1.421)
Valve head thickness (margin)	mm (in)	IN		0.80 (0.031)
		EX		0.80 (0.031)
Valve face angle		IN		45°
		EX		45°
Valve length	mm (in)	IN		106.9 (4.209)
		EX		106.8 (4.205)
Valve stem diameter	mm (in)	IN		7.970—7.985 (0.3138—0.3144)
		EX		7.965—7.980 (0.3136—0.3142)
Guide inner diameter	mm (in)	IN		8.025—8.045 (0.3159—0.3167)
		EX		8.025—8.045 (0.3159—0.3167)
Valve stem to guide clearance	mm (in)	IN		0.040—0.075 (0.0016—0.0030)
		EX		0.045—0.080 (0.0018—0.0031)
		Maximum		0.1 (0.004)
Guide projection (Height "A")		mm (in)		8.3—8.8 (0.327—0.346)
Valve seat				
Seat angle		IN		45°
		EX		45°
Seat contact width	mm (in)	IN		1.7—2.3 (0.067—0.091)
		EX		1.7—2.3 (0.067—0.091)
Seat sinking (Measure valve recession)	IN	Standard		0.75—1.05 (0.030—0.041)
		Maximum		2.55 (0.100)
	EX	Standard		0.75—1.05 (0.030—0.041)
		Maximum		2.55 (0.100)
Valve spring				
Free length	mm (in)	Standard		45.11 (1.776)
		Minimum		44.8 (1.764)
Out-of-square		mm (in)		1.6 (0.063)/2° max.
Setting load/height		N (kg, lb)/mm (in)		275 (28.0, 62)/39.0 (1.535)

Item		Engine	RF	
Tappet				
Tappet outer diameter		mm (in)	34.95—34.97 (1.3760—1.3768)	
Tappet hole diameter		mm (in)	34.99—35.01 (1.3776—1.3783)	
Tappet to tappet hole clearance	mm (in)	Standard	0.02—0.06 (0.0008—0.0024)	
		Maximum	0.10 (0.004)	
Camshaft and camshaft caps				
Cam lobe height	mm (in)	IN	Standard	44.306 (1.7443)
			Minimum	43.90 (1.728)
	EX	Standard	45.300 (1.7835)	
		Minimum	44.90 (1.768)	
Journal diameter	mm (in)	Standard	31.959—31.975 (1.2582—1.2589)	
		Out-of-round	0.05 (0.0020) max.	
Camshaft bearing oil clearance	mm (in)	Standard	0.025—0.066 (0.0010—0.0026)	
		Maximum	0.10 (0.004)	
Camshaft run-out (deflection)		mm (in)	0.10 (0.004) max.	
Camshaft end play	mm (in)	Standard	0.02—0.15 (0.0008—0.0059)	
		Maximum	0.20 (0.008)	
Cylinder block				
Distortion	mm (in)	Direction X-X	0.05 (0.0020)	
		Direction Y-Y	0.02 (0.0008)	
Cylinder bore diameter	mm (in)	Standard size	86.000—86.022 (3.3858—3.3867)	
		0.25 (0.010) oversize	86.250—86.272 (3.3957—3.3965)	
		0.50 (0.020) oversize	86.500—86.522 (3.4055—3.4064)	
Cylinder bore taper and out-of-round		mm (in)	0.022 (0.0009) max.	
Piston				
Piston diameter (Measured at 90° to pin bore axis and 19mm(0.75 in) above the bottom of piston)	mm (in)	Standard size	85.957—85.983 (3.3841—3.3852)	
		0.25 (0.010) oversize	86.207—86.233 (3.3940—3.3950)	
		0.50 (0.020) oversize	86.457—86.483 (3.4038—3.4048)	
Piston and cylinder clearance	mm (in)	Standard	0.032—0.050 (0.0013—0.0020)	
		Maximum	0.15 (0.0059)	
Piston ring				
Thickness	mm (in)	Top	1.97—1.99 (0.0776—0.0783)	
		Second	1.97—1.99 (0.0776—0.0783)	
End gap (measured in the cylinder)	mm (in)	Top	0.20—0.40 (0.008—0.016)	
		Second	0.20—0.40 (0.008—0.016)	
		Oil (rail)	0.20—0.40 (0.008—0.016)	
		Maximum	1.0 (0.039)	
Ring groove width in piston	mm (in)	Top	2.04—2.06 (0.0803—0.0811)	
		Second	2.03—2.05 (0.0799—0.0807)	
		Oil	4.02—4.04 (0.1583—0.1591)	
Clearance of piston ring to ring groove	mm (in)	Top	0.05—0.09 (0.0020—0.0035)	
		Second	0.04—0.08 (0.0016—0.0031)	
		Maximum	0.2 (0.008)	
Piston pin				
Piston pin hole diameter (in piston)			24.997—25.007 (0.9841—0.9845)	
Diameter		mm (in)	24.994—25.000 (0.9840—0.9843)	
Clearance in connecting rod bushing		mm (in)	0.05 (0.002) max.	
Connecting rod and connecting rod bearing				
Length (Center to center)		mm (in)	151.95—152.05 (5.9823—5.9862)	
Maximum twisting and bending		mm (in)	0.080 (0.0031) per 50 (1.969)	
Small end bushing inner diameter		mm (in)	25.014—25.030 (0.9848—0.9854)	
Big end bore		mm (in)	54.002—54.017 (2.1261—2.1266)	
Big end width		mm (in)	25.900—26.100 (1.0197—1.0276)	
Connecting rod side clearance	mm (in)	Standard	0.11—0.262 (0.0043—0.0103)	
		Maximum	0.30 (0.012)	

Item		Engine	RF
Crankshaft			
Crankshaft runout		mm (in)	0.05 (0.002) max.
Main journal diameter mm (in)	Standard size	Standard	59.937—59.955 (2.3597—2.3604)
		Minimum	59.89 (2.358)
	0.25 (0.010) undersize	Standard	59.687—59.705 (2.3499—2.3506)
		Minimum	59.64 (2.348)
	0.50 (0.020) undersize	Standard	59.437—59.455 (2.3400—2.3407)
		Minimum	59.39 (2.338)
0.75 (0.030) undersize	Standard	59.187—59.205 (2.3302—2.3309)	
	Minimum	59.14 (2.328)	
Main journal taper and out-of-round		mm (in)	0.05 (0.002) max.
Crankpin diameter mm (in)	Standard size	Standard	50.940—50.955 (2.0055—2.0061)
		Minimum	50.89 (2.004)
	0.25 (0.010) undersize	Standard	50.690—50.705 (1.9957—1.9963)
		Minimum	50.64 (1.994)
	0.50 (0.020) undersize	Standard	50.440—50.455 (1.9858—1.9864)
		Minimum	50.39 (1.984)
0.75 (0.030) undersize	Standard	50.190—50.205 (1.9760—1.9766)	
	Minimum	50.14 (1.974)	
Crankpin taper and out-of-round		mm (in)	0.05 (0.002) max.
Main bearing			
Main journal bearing oil clearance mm (in)		Standard	0.031—0.050 (0.0012—0.0020)
		Maximum	0.08 (0.0031)
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	0.027—0.055 (0.0011—0.0022)
		Maximum	0.08 (0.0031)
Available undersize bearing mm (in)			0.25 (0.010), 0.50 (0.020), 0.75 (0.030)
Thrust bearing (center main bearing)			
Crankshaft end play mm (in)		Standard	0.04—0.282 (0.0016—0.0111)
		Maximum	0.30 (0.012)
Bearing width mm (in)	Standard size		2.00—2.05 (0.0787—0.0807)
	Oversize		2.175—2.225 (0.0856—0.0876)
Timing belt			
Deflection mm (in)/N (kg, lb)			9.0—11.5 (0.35—0.45)/98 (10, 22)
Drive belt deflection			
Alternator mm (in)	New		8—10 (0.31—0.39)
	Used		9—11 (0.35—0.43)
A/C compressor mm (in)	New		8.5—9.5 (0.33—0.37)
	Used		9.5—10.5 (0.37—0.41)
Vacuum pump mm (in)	New		7.5—8.5 (0.30—0.33)
	Used		8.5—9.5 (0.33—0.37)
P/S pump with vacuum pump mm (in)	New		6.5—7.5 (0.26—0.30)
	Used		7.0—8.0 (0.28—0.31)
Pressure wave supercharger mm (in)	New		4.0—5.0 (0.16—0.20)
	Used		4.5—5.5 (0.18—0.22)

D1. LUBRICATION SYSTEM (GASOLINE)

Item		Engine	F2	FE DOHC	F8, FE SOHC			
Lubrication method			Force-fed					
Oil pump								
Type			Trochoid gear		Crescent gear			
Regulated pressure		kPa (kg/cm ² psi)	392 (4.0, 57)	490 (5.0, 71)	392 (4.0, 57)			
Oil pressure		kPa (kg/cm ² , psi)	147—245 (1.5—2.5, 21—36)					
		1,000 rpm						
		3,000 rpm	294—392 (3.0—4.0, 43—57)	343—441 (3.5—4.5, 50—64)	294—392 (3.0—4.0, 43—57)			
Inner rotor tooth tip to outer rotor clearance	mm (in)	Standard	0.044—0.084 (0.0017—0.0033)					
		Maximum	0.18 (0.0071)					
Outer rotor to body clearance	mm (in)	Standard	0.09—0.176 (0.0035—0.0069)					
		Maximum	0.20 (0.008)					
Side clearance	mm (in)	Standard	0.03—0.09 (0.0012—0.0035)					
		Maximum	0.10 (0.004)					
Inner gear tooth tip to crescent clearance	mm (in)	Standard	—					
		Maximum						
Outer gear tooth tip to crescent clearance	mm (in)	Standard				0.267—0.38 (0.011—0.015)		
		Maximum				0.40 (0.016)		
Outer gear to body clearance	mm (in)	Standard				0.20—0.32 (0.008—0.0126)		
		Maximum				0.35 (0.0138)		
Side clearance	mm (in)	Standard				0.09—0.184 (0.0035—0.0072)		
		Maximum				0.20 (0.008)		
		Standard				0.03—0.063 (0.0012—0.0025)		
		Maximum				0.10 (0.004)		
Oil filter								
Type			Full flow, paper element					
Relief pressure differential		kPa (kg/cm ² , psi)	98 (1.0, 14)					
Oil cooler								
Type			Water cooled					
Oil pressure switch								
Activation pressure		kPa (kg/cm ² , psi)	29 (0.3, 4.3)					
Engine oil								
Capacity	liters (US qt, Imp qt)	Total (dry engine)	4.6 (4.9, 4.0)	4.3 (4.5, 3.8)				
		Oil pan	3.9 (4.1, 3.4)	3.6 (3.8, 3.2)				
		Oil filter	0.22 (0.23, 0.19)					
Grade (API service)			SD, SE, or SF					
Viscosity number	30°C (86°F) or over		SAE 40					
	0°C—40°C (32°F—104°F)		SAE 30					
	−10°C—20°C (14°F—68°F)		SAE 20W-20					
	−10°C—50°C (14°F—122°F) or over		SAE 20W-40 or 20W-50					
	−25°C—30°C (−13°F—86°F)		SAE 10W-30					
	−25°C—50°C (−13°F—122°F) or over		SAE 10W-40 or 10W-50					
	0°C—30°C (32°F—22°F) or below		SAE 5W-30					
	−20°C (−4°F) or below		SAE 5W-20					

D2. LUBRICATION SYSTEM (DIESEL)

Item		Engine	RF
Lubrication method			Force-fed type
Oil pump			
Type			Trochoid gear
Gear width		mm (in)	7 (0.28)
Regulated pressure		kPa (kg/cm ² , psi)	510—618 (5.2—6.3, 74—90)
Oil pressure	kPa (kg/cm ² ,psi)	1,000 rpm	147—245 (1.5—2.5, 21—36)
		3,000 rpm	343—441 (3.5—4.5, 50—64)
Inner rotor tooth tip to outer rotor clearance	mm (in)	Standard	0.2 (0.008) or less
		Maximum	0.24 (0.009)
Outer rotor to pump body clearance	mm (in)	Standard	0.09—0.184 (0.0035—0.0072)
		Maximum	0.22 (0.009)
Side clearance	mm (in)	Standard	0.03—0.09 (0.0012—0.0035)
		Maximum	0.14 (0.006)
Oil filter			
Type			Combined, paper element
Relief pressure differential		kPa (kg/cm ² , psi)	78—118 (0.8—1.2, 11—17)
Oil cooler			
Type			Water cooled, 4 layer
Oil filter body			
Regulated pressure		kPa (kg/cm ² , psi)	402—481 (4.1—4.9, 58—70)
Oil cooler relief pressure differential		kPa (kg/cm ² , psi)	177—216 (1.8—2.2, 26—31)
Oil pressure switch			
Activation pressure		kPa (kg/cm ² , psi)	20—39 (0.2—0.4, 2.8—5.7)
Engine oil			
Capacity	liters (US qt, Imp qt)	Total (dry engine)	6.1 (6.4, 5.4)
		Oil pan	5.0 (5.3, 4.4)
		Oil filter	0.5 (0.53, 0.44)
Grade		API service	CC, CD
Viscosity number	40°C or over (104°F) or over		SAE 40
	0°C—40°C (32°F—100°F)		SAE 30
	−10°C—35°C (15°F—90°F)		SAE 15W-40
	−10°C—25°C (15°F—77°F)		SAE 20W-20
	−25°C—30°C (−18°F—86°F)		SAE 10W-30
	−20°C or below (4°F or below)		SAE 5W-30

E. COOLING SYSTEM (GASOLINE)

Item		Engine	FE DOHC	F2	FE SOHC, F8
Cooling method			Water-cooled, forced circulation		
Water pump					
Type			Centrifugal, timing belt driven		
Impeller diameter			mm (in)70 (2.76)		
Number of impeller blades			6		
Speed ratio			1 : 1.00	1 : 1.05	
Water seal type			Unified mechanical seal		
Thermostat					
Type			Wax, two-stage		Wax
Start to open			Sub : 83.5—86.5 (182—188) Main: 86.5—89.5 (188—193)		80.5—83.5 (177—182)
Full open			°C (°F)100 (212)		
Lift			Sub : 1.5 (0.06 min.) Main: 8.0 (0.31 min.)		8.5 (0.33 min.)
Radiator					
Type			Corrugated fin		
Cap opening valve pressure			kPa (kg/cm ² , psi)74—103 (0.75—1.05, 11—15)		
Cooling system pressure			kPa (kg/cm ² , psi)103 (1.05, 15)		
Cooling fan					
Type			Electric		
Capacity			WMTX80		
			ATX120		
Current			AMTX5.6—7.6		
			ATX8.0—11.0		
Number of blades			4		
Outer diameter			mm (in)MTX320 (12.6)		
			ATX340 (13.4)		
Switching temperature OFF → ON			°C (°F)No.197 (207)		
			No.2108 (226)		
Coolant					
Capacity			liters (US qt, Imp qt)With heater7.5 (7.9, 6.6)		
			Without heater7.0 (7.4, 6.2)		
Antifreeze solution	Protection		Mixture percentage (volume) %		Specific gravity of mixture at 20°C (68°F)
			Water	Solution	
	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

E. COOLING SYSTEM (DIESEL)

Item		Engine	RF		
Cooling method			Water-cooled, forced circulation		
Water pump					
Type			Centrifugal, timing belt driven		
Water seal type			Unified mechanical seal		
Thermostat					
Type			Wax, two stage		
Start to open		°C (°F)	Main valve: 86.5—89.5 (188—193)	Sub valve: 78.5—81.5 (173—179)	
Full open lift		mm (in)/°C (°F)	Main valve: 8.0 (0.31) min. /100 (212)	Sub valve: 1.5 (0.06) min. /100 (212)	
Radiator					
Type			Corrugated fin		
Cap opening valve pressure		kPa (kg/cm ² , psi)	74—103 (0.75—1.05, 11—15)		
Cooling circuit checking pressure		kPa (kg/cm ² , psi)	103 (1.05, 15)		
Cooling fan					
Type			Electric		
Number of blade			4		
Outer diameter		mm (in)	340 (13.4)		
Switching temperature OFF → ON		°C (°F)	91 (196)		
Voltage		V	12		
Capacity		W-A	120-8.0—11.0		
Coolant					
Capacity		liters (US qt, Imp qt)	With heater	9.5 (10.0, 8.4)	
			Without heater	9.0 (9.5, 7.9)	
Antifreeze solution	Protection		Mixture percentage (volume) %		Specific gravity of mixture at 20°C (68°F)
			Water	Solution	
	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

F1. FUEL AND EMISSION CONTROL SYSTEM (CARBURETOR)

Engine/Market			F8	FE 8-Valve	FE-12 Valve
Item			Europe	General	Europe & General
Idle speed		rpm	MTX	800 ⁺⁵⁰ ₀	
			ATX	900 ⁺⁵⁰ ₀ (in N range)	
CO concentration			2.0 ± 0.5 (Without secondary air injection)		
Carburetor					
Type			Down draft, two barrel		
Throat diameter		mm (in)	30 (1.18)		
			34 (1.34)		
Venturi diameter		mm (in)	23.5 (0.93)		
			29.0 (1.14)		
Main nozzle		mm (in)	2.6 (0.10)		
			2.8 (0.11)		
Main jet		mm (in)	MTX	1.14 (0.045)	
			ATX	1.12 (0.044)	
			Secondary	1.50 (0.059)	
				1.55 (0.061)	
Main air bleed		mm (in)	MTX	0.50 (0.020)	
			ATX	0.55 (0.022)	
			Secondary	0.50 (0.020)	
Slow jet		mm (in)	Primary	0.46 (0.018)	
			Secondary	1.10 (0.043)	
			MTX	0.80 (0.031)	
			ATX	1.90 (0.075)	
Slow air bleed		mm (in)	No.1	0.80 (0.031)	
			No.2	0.50 (0.020)	
			No.1	0.80 (0.031)	
			No.2	0.50 (0.020)	
Power jet		mm (in)	MTX	0.50 (0.020)	
			ATX	0.50 (0.020)	
Fast idle adjustment		mm (in)	MTX	0.48—0.64 (0.019—0.025)	
Clearance between primary throttle valve and bore			ATX	—	
				0.56—0.72 (0.022—0.028)	
Float level adjustment		mm (in)	44 (17.3)		
			Max. fuel flow "L"		
			Clearance between float and air horn without gasket		
			12.5 (0.49)		
			Fuel stop "H"		
			Clearance between float and air horn without gasket float lowered by own weight		
Choke breaker diaphragm		mmHg (inHg)	Start	100—160 (3.9—6.3)	
			Stop	220—280 (8.7—11.0)	
Choke opener		mmHg (inHg)	Start	35—65 (1.4—2.6)	30—70 (1.2—2.8)
			Stop	130—190 (5.1—7.5)	130—190 (5.1—7.5)
Accelerator linkage					
Free play of cable at carburetor			mm (in)	1—3 (0.039—0.118)	
Fuel tank					
Capacity			liters (US gal, Imp gal)	60 (15.9, 13.2)	
Fuel pump					
Type			Mechanical pump		
Delivery pressure		kPa (kg/cm ² , psi)	20—26 (0.20—0.27, 2.8—3.8)		20—29 (0.20—0.30, 2.8—4.3)
Feeding capacity		cc/min (cu in/min)	More than 860 (52.5) at idle		
Fuel filter					
Type			Paper element with magnet		
Air cleaner					
Fresh-Hot switching			Diaphragm		
Element type			Oil permeated paper		
Fuel specification			Leaded regular	Leaded super, Unleaded super	

F2. FUEL AND EMISSION CONTROL SYSTEMS (FUEL INJECTION FE SOHC)

Item		Specifications
Fuel tank capacity	liters (US gal, Imp gal)	60 (15.9, 13.2)
Fuel pump	Type	In-tank, electric motor
	Fuel pressure kPa (kg/cm ² , psi)	441—588 (4.5—6.0, 64—85)
	Feeding capacity cc (cu in)/10 sec.	220 (13.4) min.
Air cleaner	Element type	Oil permeated
Accelerator cable	Deflection mm (in)	1—3 (0.04—0.12)
Idle speed	rpm	800 ⁺⁵⁰ (Neutral)
Dashpot	Adjustment speed rpm	1,900—2,100
EGR control valve	Starts to open mmHg (inHg)	40—60 (1.6—2.4)
Air control valve	Starts to open mmHg (inHg)	180—280 (7.1—11)
Water thermost valve	Opened °C (°F)	Higher than 46—54 (115—129)
Water thermost switch	Opened At radiator °C (°F)	Lower than 15—19 (59—66)
Vacuum switch valve	Starts to open mmHg (inHg)	66—106 (2.6—4.2)
Water thermost sensor	Resistance	−20°C (−4°F) kΩ
		20°C (68°F) kΩ
		80°C (176°F) kΩ
Throttle sensor	Resistance at fully closed	B ↔ C kΩ
		A ↔ B Ω
	Resistance at fully opened	A ↔ B kΩ
		Approx. 4.5
	Setting	Closed at mm (in)
Airflow meter	Resistance at full closed	Open at mm (in)
		E2 ↔ Vs Ω
		E2 ↔ Vc Ω
		E2 ↔ Vb Ω
	Resistance at full open	E1 ↔ Fc Ω
		E1 ↔ Fc Ω
Intake air thermost sensor	Resistance	−20°C (−4°F) kΩ
		20°C (68°F) kΩ
		60°C (140°F) kΩ
Pressure regulator	Regulating pressure	At idling kPa (kg/cm ² , psi)
Injector	Injection amount	cc (cu in)/15 sec.
	Resistance	Ω
Circuit opening relay	Resistance	STA ↔ E1 Ω
		B ↔ Fc Ω
Fuel		Unleaded gasoline

F3. FUEL AND EMISSION CONTROL SYSTEM (FE DOHC)

Item		Type	Unleaded fuel	Leaded fuel
Idle speed		rpm	With test connector grounded 750 ± 50	
Throttle body				
Type			Horizotal draft (2-barrel)	
Throat diameter	mm (in)	No.1	46 (1.8)	
		No.2	40 (1.6)	
Fuel pump				
Type			Impeller (in tank)	
Output pressure		kPa (kg/cm ² , psi)	441—588 (4.5—6.0, 64—85)	
Feeding capacity		cc (cu in)/10 seconds	220 (13.4) min.	
Fuel filter				
Type	Low-pressure side		Nylon element	
	High-pressure side		Paper element	
Pressure regulator				
Type			Diaphragm	
Regulating pressure		kPa (kg/cm ² , psi)	235—275 (2.4—2.8, 34—40)	
Injector				
Type			High-ohmic	
Type of drive			Voltage	
Resistance		Ω	12—16	
Injection amount		cc (cu in)/15 seconds	66—91 (4.03—5.55)	
Idle speed control valve				
Solenoid resistance		Ω	6.3—9.9	
Fuel tank				
Capacity		liters (US gal, Imp gal)	60 (15.9, 13.2)	
Air cleaner				
Element type			Dry	
Fuel				
Specification			Unleaded (95 RON or more)	Leaded (95 RON or more)

F4. FUEL AND EMISSION CONTROL SYSTEM (DIESEL)

Item		Engine	RF
Idle speed		rpm	720 $\pm \frac{30}{20}$
Fuel injection pump	Type		VE Type
	Plunger diameter	mm (in)	8.0 (0.31)
	Cam height	mm (in)	2.2 (0.08)
	Governor		Half all speed governor
	Injection timing		TDC 0°
	Cam lift at injection timing	mm (in)	1 (0.04)
Injection nozzle	Type		Throttle
	Number of nozzle and diameter	mm (in)	1.0 (0.04) x 1
	Injection pressure	kPa (kg/cm ² , psi)	13,240 (135, 1,920)
Free play of cable at injection pump		mm (in)	1.0—3.0 (0.04—0.12)
Fuel tank capacity		liters (Us gal, Imp gal)	60 (15.9, 13.2)
Fuel filter type			Cartridge, paper element
Air cleaner element type			Cartridge, paper element
Idle up speed (A/C ON)		rpm	700—750
Cold start device	Engine speed	rpm	1,100 at below 0°C (32°F)
	Advance degree	0°C (32°F)	6°
		60°C (140°F)	0°

F5. FUEL AND EMISSION CONTROL SYSTEM (FUEL INJECTION F2)

Item		Engine	F2 EGI
Idle speed		rpm	With test connector grounded 750 ± 25 (ATX: P range)
Throttle body			
Type		Horizontal draft (2-barrel)	
Throat diameter	mm (in)	No.1	MTX: 40 (1.6), ATX: 46 (1.8)
		No.2	MTX: 46 (1.8), ATX: 40 (1.6)
Airflow meter			
Resistor	Ω	E2—Vs	Fully closed: 20—400 Fully open: 20—1,000
		E2—Vc	100—400
		E2—VB	200—400
		E2—THA	−20°C (−4°F) 13,600—18,400 20°C (68°F) 2,210— 2,690 60°C (140°F) 493— 667
Fuel pump			
Type		Impeller (in tank)	
Output pressure		kPa (kg/cm ² , psi)	441—588 (4.5—6.0, 64—85)
Feeding capacity		cc (cu in)/10 seconds	220 (13.4) min.
Fuel filter			
Type	Low-pressure side		Nylon element
	High-pressure side		Paper element
Pressure regulator			
Type		Diaphragm	
Regulating pressure		kPa (kg/cm ² , psi)	235—275 (2.4—2.8, 34—40)
Injector			
Type		High-ohmic	
Type of drive		Voltage	
Resistance		Ω	12—16
Injection amount		cc (cu in)/15 seconds	44—61 (2.68—3.72)
Idle speed control valve			
Solenoid resistance		Ω	6.3—9.9
Fuel tank			
Capacity		liters (US gal, Imp gal)	60 (15.9, 13.2)
Air cleaner			
Element type		Oil permeated	
Fuel			
Specification		Unleaded regular	

G. ENGINE ELECTRICAL SYSTEM

Gasoline Engine

Engine			F8	FE (8-Valve)	FE (12-Valve)	FE (DOHC)	F2 (Non-Turbo)
Battery	Voltage V		12, Negative ground				
	Type and capacity (20-hour rate)		34B19L(S) (33 Ah): Australia 50D20L (50 Ah), 55D23L (60 Ah): Others				
Alternator	Type		A.C.				
	Output V-A		12-70				
	Regulator type		Transistorized (built-in IC regulator)				
	Regulated voltage V		14.1—14.7				
	Brush length mm (in)	Standard	16.5 (0.650)				21.5 (0.846)
		Minimum	8.0 (0.315)				
Drive belt tension mm (in)/98 N (10 kg, 22 lb)		New: 6—8 (0.24—0.32), Used: 7—9 (0.28—0.35)					
Starter	Type		Coaxial reduction: FE carburetor & F2 Non-reduction : Others				
	Output V-kW		12-0.95		12-1.4	12-0.95	12-1.4
	Brush length mm (in)	Standard	17.0 (0.669)	Unleaded fuel 17.0 (0.669) Others 17.5 (0.689)	17.0 (0.669)		17.5 (0.689)
		Minimum	11.5 (0.453)	Unleaded fuel 11.5 (0.453) Others 10.0 (0.394)	11.5 (0.453)		10.0 (0.394)
	Ignition timing		6 ± 1° BTDC (Vacuum hose disconnected)			12 ± 1° BTDC (Test connector grounded)	6 ± 1° BTDC (Vacuum hose disconnected)
Distributor	Type		Fully transistorized (HEI)			Electronic spark advance	Fully transistorized (HEI)
	Centrifugal spark advance (crank angle/engine speed) degree/rpm		F8 -2—2/1,100 4—8/1,800 14—18/5,500				
			FE (8-Valve)—Carburetor -2—2/1,460 8.6—14/2,540 22—26/5,540				
			FE (12-Valve)—Carburetor -1.2—2/1,200 8—14/2,400 10—15.2/4,000 16—20/5,000				
			FE—Fuel injection (except FE DOHC) -1.2—2/1,000 8.5—14/2,600 10—15/4,600 16—20/5,800				
		F2 -2.0—2.0/1,200 1.2—16/2,400 12—16/3,500 16—20/4,500					

Item		Engine	F8	FE (8-Valve)	FE (12-Valve)	FE (DOHC)	F2 (Non-Turbo)
Distributor	Vacuum spark advance (Crank angle/Vacuum) degree/mmHg (inHg)		F8 -2—2/100 (3.9) 11—15/450 (17.7) FE (8-Valve)—Carburetor (MTX) -2—2/100 (3.9) 16—20/250 (9.8) (ATX) -2—2/100 (3.9) 10—14/200 (7.9) FE (12-Valve)—Carburetor -2—2/120 (4.7) 11—15/300 (11.8) FE—Fuel injection (except FE DOHC) [A chamber] -2.6—2/125 (4.9) 18—22/300 (11.8) [B chamber] -4—0/125 (4.9) -3.6—-10/200 (7.9) F2 [A chamber] -2—2/110 (4.3) 18—22/275 (10.8) [B chamber] -2—2/110 (4.3) -2.8—-8/200 (7.9)				
Spark plug	Type		NGK: BKR5E BKR6E BKR7E Nippon Denso: K16PR-U K20PR-U K22PR-U	NGK: BPR5E ^{*3} BPR6E ^{*3} BPR7E ^{*4} Nippon Denso: W16EXR-U ^{*3} W20EXR-U ^{*3} W22EXR-U ^{*4}	NGK: BKR5E, BKR6E BKR7E Nippon Denso: K16PR-U K20PR-U K22PR-U	NGK: BKR5E-11 ^{*1} BKR6E-11 ^{*1} BKR7E-11 ^{*1} BKR5E ^{*2} BKR6E ^{*2} Nippon Denso: K16PR-U ^{*1} K20PR-U ^{*1} K22PR-U ^{*1} K16PR-U11 ^{*2} K20PR-U11 ^{*2} K22PR-U11 ^{*2}	NGK: ZFR5F-11 ZFR6F-11 ZFR7F-11 Nippon Denso: KJ16CR11 KJ20CR11 KJ22CR11
	Plug gap	mm (in)	0.7—0.8 (0.028—0.031)	0.75—0.85 (0.030—0.033)	0.7—0.8 (0.028—0.031)	1.0—1.1 (0.039—0.043) ^{*1} 0.7—0.8 (0.028—0.031) ^{*2}	1.0—1.1 (0.039—0.043)
Firing order			1—3—4—2				

*¹ Unleaded fuel model*² Leaded fuel model*³ EGI and carburetor model*⁴ EGI model

Diesel Engine

Item		Engine	RF
Battery	Voltage	V	12, Negative ground
	Type and capacity	(20-hour rate)	80D26L (65), 50D20L, 50D20R (50)—Europe
Alternator	Type		A.C.
	Output	V-A	12-75
	Regulator type		Transistorized (built-in IC regulator)
	Regulated voltage	V	14.1—14.7
	Brush length	mm (in)	Standard 21.5 (0.846)
		Minimum	8.0 (0.315)
Starter	Drive belt tension	mm (in)/98 N (10 kg, 22 lb)	New: 8—10 (0.31—0.39), Used: 9—11 (0.35—0.43)
	Type		Reduction
	Output	V-kW	12-2.0, 12-2.2 (Cold area)
	Brush length	mm (in)	Standard 2.0 kW: 15.0 (0.591), 2.2 kW: 18.0 (0.709)
Firing order		Minimum	2.0 kW: 10.0 (0.394), 2.2 kW: 7.0 (0.276)
			1—3—4—2

H. CLUTCH

Item			Engine	F2	F8	FE	FE DOHC	RF
Clutch control								
Type			Hydraulic					
Master cylinder inner diameter			mm (in)	15.87 (0.625)				
Release cylinder inner diameter			mm (in)	19.05 (0.750)				
Clutch fluid type			DOT-3, FMVSS 116, or SAE J1703					
Clutch pedal								
Type			Suspended					
Pedal ratio		LHD	6.00					
		RHD	5.96					
Full stroke			mm (in)	135 (5.31)				
Height			mm (in)	216.5--221.5 (8.524--8.720)				
Free play			mm (in)	5--13 (0.20--0.51)				
Distance to floor when clutch fully disengaged		LHD	68 (2.7) or more					
		RHD	85 (3.3) or more					
Flywheel								
Deflection			mm (in)	0.2 (0.008) max.				
Clutch disc								
Type			Single dry plate					
Set load		N (kg, lb)	Australia	4,316 (440, 968)	—			
			General	—		4,316 (440, 968)	—	4,022 (410, 902)
			Europe	4,611 (470, 1,034)	4,022 (410, 902)	4,316 (440, 968)		4,022 (410, 902)
			UK	—	3,846 (392, 862)	4,316 (440, 968)		3,846 (392, 862)
Runout			mm (in)	1.0 (0.039) max.				
Wear limit			mm (in)	0.3 (0.012) from rivet head				
Outer diameter			mm (in)	225 (8.858)	215 (8.465)	225 (8.858)		
Inner diameter			mm (in)	150 (5.906)				
Facing thickness mm (in)		Flywheel side		3.5 (0.14)				
		Pressure plate side	Australia	4.1 (0.16)	—			
			General	—		4.1 (0.16)	—	4.1 (0.16)
			Europe	3.8 (0.15)				
			UK	—	4.1 (0.16)			
Clutch cover								
Type			Diaphragm spring					
Runout			mm (in)	0.05 (0.0020) max.				

J1. MANUAL TRANSAXLE

Item		Engine	F8	FE 8-Valve		FE 12-Valve	FE DOHC	F2	RF
				FI	Carb.				
Transmission									
Shift lever position		Floor shift							
Gear ratio	First	3.307						3.666	
	Second	1.833							
	Third	1.233		1.310		1.233			
	Fourth	0.970	0.914	1.030		0.914			
	Fifth	0.795	0.717	0.837		0.717	0.755		
	Reverse	3.166						3.454	
Oil capacity	liters (US qt, Imp qt)	3.35 (3.5, 2.9)							
Fluid type		ATF: DEXRON-II Above 0°F: API GL-4 or GL-5 SAE80W-90 or SAE90							
Clearance									
Clearance of lever and reverse idle gear		mm (in)	0.1—0.32 (0.004—0.013)						
Clearance of shift fork and clutch hub sleeve		mm (in)	0.2—0.4 (0.008—0.016)						
Clearance of synchronizer ring and gear	Standard	1.5 (0.059)							
	Wear limit	0.8 (0.031)							
Gear thrust clearance	First	0.05—0.28 (0.002—0.011)							
	Second	0.18—0.46 (0.007—0.018)							
	Third	0.05—0.20 (0.002—0.008)							
	Fourth	0.17—0.37 (0.007—0.015)							
Bearing preload of primary shaft gear		Nm (cm-kg, in-lb)	Primary shaft 0.1—0.25 (1.0—2.5, 0.86—2.18) Secondary shaft 0.2—0.4 (2.0—4.0, 1.7—3.4)						
Bearing preload adjust shim		mm (in)	0.25 (0.010), 0.30 (0.012), 0.35 (0.014), 0.40 (0.016), 0.45 (0.018), 0.50 (0.020), 0.55 (0.022), 0.60 (0.024), 0.65 (0.026), 0.70 (0.028), 0.75 (0.030), 0.80 (0.031)						
Differential									
Final gear	Type	Helical gear							
	Reduction ratio	4.105	3.850		4.105		4.388		
Side bearing preload		Nm (cm-kg, in-lb)	1.4—2.0 (14—20, 12—17)						
Bearing preload adjust shim		mm (in)	0.10 (0.004), 0.15 (0.006), 0.20 (0.008), 0.25 (0.010), 0.30 (0.012), 0.35 (0.014), 0.40 (0.016), 0.45 (0.018), 0.50 (0.020), 0.55 (0.022), 0.60 (0.024), 0.65 (0.026), 0.70 (0.028), 0.75 (0.030), 0.80 (0.031), 0.85 (0.033), 0.90 (0.035), 0.95 (0.037), 1.00 (0.039), 1.05 (0.041), 1.10 (0.043), 1.15 (0.045), 1.20 (0.047)						
Backlash of side gear and pinion gear		mm (in)	0—0.1 (0—0.004)						

K1. AUTOMATIC TRANSAXLE (ELECTRONICALLY CONTROLLED AND 4-SPEED)

Transaxle/Engine		G4A-EL (EC-AT)	G4A-HL (4-Speed)
Item		F2	FE
Gear ratio	1st	2.800	
	2nd	1.540	
	3rd	1.000	
	4th (OD)	0.700	
	Reverse	2.333	
Oil capacity	liters (US qt, Imp qt)	6.8 (7.2, 6.0)	
Fluid type		ATF Dexron-II or M-III	
Fluid level with the engine idling in P		Between F and L marks on gauge	
Stall speed			
After brake-in	D, S, L rpm	2,120—2,420	2,430—2,530
	R rpm	2,080—2,380	2,390—2,490
Time lag			
N → D	sec	0.5—1.0	0.4—1.2
N → R	sec	0.5—1.0	0.4—1.5
Line pressure			
D, S, L	Idle kPa (kg/cm ² , psi)	353—432 (3.6—4.4, 51—63)	350—490 (3.6—5.0, 51—71)
	Stall kPa (kg/cm ² , psi)	873—1,040 (8.9—10.6, 127—151)	980—1,230 (10.0—12.5, 142—178)
R	Idle kPa (kg/cm ² , psi)	598—942 (6.1—9.6, 87—137)	600—830 (6.1—8.5, 87—121)
	Stall kPa (kg/cm ² , psi)	1,668—2,011 (17.0—20.5, 242—292)	1,470—1,960 (15.0—20.0, 213—284)
Throttle pressure			
D	Idle kPa (kg/cm ² , psi)	39—88 (0.4—0.9, 6—13)	83—113 (0.85—1.15, 12—16)
	Stall kPa (kg/cm ² , psi)	471—589 (4.8—6.0, 68—85)	540—610 (5.5—6.2, 78—88)
Governor pressure			
D	30 km/h (19 mph) kPa (kg/cm ² , psi)	—	79—114 (0.81—1.16, 12—16)
	55 km/h (34 mph) kPa (kg/cm ² , psi)	—	146—190 (1.49—1.94, 21—28)
	85 km/h (53 mph) kPa (kg/cm ² , psi)	—	276—339 (2.81—3.46, 40—49)

Shift points (F2 engine) (G4A-EL)

Range/Mode		Throttle condition (Throttle sensor voltage)	Shift	Drum speed rpm	Vehicle speed km/h (mph)
Power	D	Fully open (4.3 volt)	D1 → D2	4,900—5,550	54—61 (33—38)
			D2 → D3	5,250—5,750	105—115 (65—72)
			Lockup ON (D3)	4,900—5,150	148—156 (93—98)
			D3 → OD	5,450—5,800	165—175 (102—109)
			Lockup ON (OD)	3,400—3,600	147—157 (92—98)
		Half throttle (1.6—2.2 volt)	D1 → D2	3,350—4,200	37—46 (23—29)
			D2 → D3	3,500—4,400	70—88 (44—55)
			Lockup ON (D3)	2,300—2,850	69—87 (43—54)
			D3 → OD	3,500—4,400	106—133 (66—83)
			Lockup ON (OD)	2,450—3,100	106—135 (66—84)
		Fully closed (0.5 volt)	OD → D3	600—750	27—33 (17—21)
			D3 → D1	400—600	12—18 (8—11)
		Kickdown	OD → D3	3,500—3,750	153—163 (95—101)
			D3 → D2	3,100—3,350	94—102 (40—63)
			D2 → D1	2,100—2,400	42—48 (26—30)
Economy	D	Fully open (4.3 volt)	D1 → D2	4,900—5,450	54—60 (33—37)
			D2 → D3	5,100—5,500	102—110 (63—68)
			Lockup ON (D3)	4,900—5,150	148—156 (93—98)
			D3 → OD	5,450—5,800	165—175 (102—109)
			Lockup ON (OD)	3,400—3,600	147—157 (92—98)
		Half throttle (1.6—2.2 volt)	D1 → D2	2,650—3,350	29—37 (18—23)
			D2 → D3	2,750—3,600	55—72 (34—45)
			Lockup ON (D3)	1,800—2,750	54—83 (34—52)
			D3 → OD	2,800—3,650	85—111 (53—69)
			Lockup ON (OD)	2,000—2,600	86—113 (54—71)
		Fully closed (0.5 volt)	OD → D3	600—750	27—33 (17—21)
			D3 → D1	350—550	11—17 (7—11)
		Kickdown	OD → D3	3,500—3,750	153—163 (95—101)
			D3 → D2	2,950—3,250	90—98 (56—61)
			D2 → D1	2,100—2,400	42—48 (26—30)
S	S	Fully open (4.3 volt)	S1 → S2	5,000—5,550	55—61 (34—38)
			S2 → S3	5,250—5,650	105—113 (65—70)
			Lockup ON (S3)	4,900—5,150	148—156 (93—98)
		Half throttle (1.6—2.2 volt)	S1 → S2	3,350—4,200	37—46 (23—29)
			S2 → S3	3,500—4,450	70—89 (44—56)
			Lockup ON (S3)	3,100—3,500	94—106 (59—66)
		Fully closed (0.5 volt)	S4 → S3	3,800—3,950	165—171 (103—107)
			S3 → S1	400—600	12—18 (8—11)
		Kickdown	S4 → S3	3,750—4,000	163—173 (102—108)
			S3 → S2	3,100—3,350	94—102 (59—64)
			S2 → S1	2,100—2,400	42—48 (26—30)
L	L	Fully open (4.3 volt)	L1 → L2	5,000—5,550	55—61 (34—38)
		Half throttle (1.6—2.2 volt)	L1 → L2	3,350—4,200	37—46 (23—29)
		Fully closed (0.5 volt)	L2 → L1	600—900	12—18 (8—11)
		Kickdown	L2 → L1	2,100—2,400	42—48 (26—30)
HOLD	D	Any condition	D2 → D3	750—1,250	15—25 (9—16)
			Lockup ON (D3)	3,150—3,450* ¹ 4,800—5,100* ²	95—105 (59—66)* ¹ 145—155 (91—97)* ²
			OD → D3	3,800—3,950	165—171 (103—107)
			D3 → D2	250—450	7—13 (4—8)
	S		Lockup ON (S3)	3,150—3,450* ¹ 4,800—5,100* ²	95—105 (59—66)* ¹ 145—155 (91—97)* ²
			S4 → S3	3,750—4,000	165—171 (103—107)
			S3 → S2	3,600—3,800	109—115 (68—72)
			L	L2 → L1	2,150—2,450

*¹: Less than 7/8 throttle opening.*²: More than 7/8 throttle opening.

Shift point (G4A-HL)

Range	Throttle condition	Shifting	Vehicle speed km/h (mph)
			FE engine
D	Fully opened	1st → 2nd	50—65 (31—40)
		2nd → 3rd	100—115 (62—71)
		3rd lock-up	106—121 (66—75)
	Half throttle (1/2)	1st → 2nd	17—32 (11—20)
		2nd → 3rd	42—57 (26—35)
		3rd → OD	79—94 (49—58)
		Lock-up	74—89 (46—55)
	Kick-down	OD → 3rd	More than 88 (55)
		OD → 2nd	34—103 (21—64)
		OD → 1st	27—49 (17—30)
		3rd → 2nd	34—103 (21—64)
		3rd → 1st	11—49 (7—30)
		2nd → 1st	4—49 (2—30)
1	Fully opened	1st → 2nd	56—71 (35—44)
	Half throttle	1st → 2nd	56—71 (35—44)
	Kick-down	2nd → 1st	46—61 (29—38)

Transaxle/Engine			G4A-EL (EC-AT)	G4A-HL (4-speed)
Item			F2	FE
Torque converter				
Stall torque ratio			1.700—1.900 : 1	1.900—2.100 : 1
Bushing diameter	mm (in)	Standard	53.030 (2.088)	
		Maximum	53.076 (2.090)	
Oil pump				
Clearance				
Cam ring to oil pump cover	mm (in)	Standard	0.005—0.020 (0.0002—0.0008)	
		Maximum	0.080 (0.003)	
Rotor to oil pump cover	mm (in)	Standard	0.005—0.020 (0.0002—0.0008)	
		Maximum	0.030 (0.0012)	
Vane to oil pump cover	mm (in)	Standard	0.015—0.050 (0.0006—0.0020)	
		Maximum	0.080 (0.003)	
Seal pin to oil pump cover	mm (in)	Standard	0.005—0.020 (0.0002—0.0008)	
		Maximum	0.060 (0.002)	
Vane to rotor groove	mm (in)	Standard	0.010—0.045 (0.0004—0.0018)	
		Maximum	0.065 (0.0026)	
Sleeve outer diameter	mm (in)	Standard	28.00 (1.102)	
Rotor bushing in inner diameter	mm (in)	Standard	28.00 (1.102)	
		Maximum	28.05 (1.104)	
Seal pin outer diameter	mm (in)	Standard	5.00 (0.197)	
		Minimum	4.90 (0.193)	
Guide ring outer diameter	mm (in)	Standard	57.85 (2.278)	
		Minimum	57.70 (2.272)	
Valve outer diameter	mm (in)	Standard	12.00 (0.472)	
		Minimum	11.86 (0.467)	
Forward clutch				
Number of drive/driven plate			3/3	
Drive plate thickness	mm (in)	Standard	1.6 (0.063)	
		Minimum	1.4 (0.055)	
Forward clutch clearance			1.0—1.2 (0.040—0.047)	
Retaining plate sizes			5.9 (0.232), 6.1 (0.240), 6.3 (0.248), 6.5 (0.256), 6.7 (0.264), 8.9 (0.350)	

Transaxle/Engine			G4A-EL (EC-AT)	G4A-HL (4-speed)
Item			F2	FE
Coasting clutch				
Number of drive/driven plates			2/2	
Drive plate thickness	mm (in)	Standard	1.6 (0.063)	
		Minimum	1.4 (0.055)	
Coasting clutch clearance			1.0—1.2 (0.040—0.047)	
Retaining plate sizes			4.6 (0.181), 4.8 (0.189), 5.0 (0.197), 5.2 (0.205), 5.4 (0.213), 5.6 (0.220)	
Return spring free length			29.8 (1.173)	
Reverse clutch				
Number of drive/driven plates			2/2	
Driven plate thickness	mm (in)	Standard	1.6 (0.063)	
		Minimum	1.4 (0.055)	
Reverse clutch clearance			2.1—2.4 (0.083—0.094)	
Retaining plate sizes			6.6 (0.260), 6.8 (0.268), 7.0 (0.276), 7.2 (0.283), 7.4 (0.291), 7.6 (0.299)	
3-4 clutch				
Number of drive/driven plates			5/5	4/4
Drive plate thickness	mm (in)	Standard	1.6 (0.063)	
		Minimum	1.4 (0.055)	
3-4 clutch clearance			1.3—1.5 (0.051—0.059)	
Retaining plate sizes			3.8 (0.150), 4.0 (0.157), 4.2 (0.165), 4.4 (0.173), 4.6 (0.181), 4.8 (0.189)	4.8 (0.189), 5.0 (0.197), 5.2 (0.205), 5.4 (0.213), 5.6 (0.220)
Return spring free length			33.2 (1.307)	
Low and reverse brake				
Number of drive/driven plates			4/4	
Drive plate thickness	mm (in)	Standard	1.6 (0.063)	
		Minimum	1.4 (0.055)	
Low and reverse brake clearance			2.1—2.4 (0.083—0.094)	
Retaining plate sizes			6.8 (0.268), 7.0 (0.276), 7.2 (0.283), 7.4 (0.291), 7.6 (0.299), 7.8 (0.307)	
Return spring free length			20.5 (0.807)	
Sun gear drum bushing	mm (in)	Maximum	33.425 (1.316)	
Small sun gear bushing	mm (in)	Maximum	24.021 (0.946)	
Carrier hub				
Clearance between pinion washer and planet carrier		Maximum	0.2—0.7 (0.008—0.028)	
Servo				
Free length of return spring	mm (in)	Standard	43.25 (1.703)	42.0 (1.654)
2-3 accumulator valve				
2-3 accumulator valve spring	mm (in)	Standard	83.3 mm (3.280)	76.0 (2.992)

Control valve springs (G4A-EL)

Spring name	Outer dia. mm (in)	Free length mm (in)	Wire dia. mm (in)	Spring color
1-2 accumulator small spring	14.4 (0.567)	86.0 (3.368)	1.8 (0.071)	—
1-2 accumulator large spring	20.0 (0.787)	97.1 (3.823)	2.3 (0.079)	Gray
Bypass, servo control spring	4.9 (0.193)	27.6 (1.087)	0.55 (0.022)	Yellow
2-3 timing spring	8.3 (0.327)	26.5 (1.043)	0.8 (0.031)	—
N-R accumulator rear spring	11.1 (0.437)	62.0 (2.441)	1.2 (0.047)	Light green
N-D accumulator front spring	9.8 (0.386)	68.0 (2.677)	1.1 (0.043)	Orange
Coasting bypass spring	5.8 (0.228)	37.7 (1.484)	0.6 (0.024)	Dark blue
3-2 timing spring	8.2 (0.323)	28.6 (0.126)	0.8 (0.031)	Red
3-2 capacity spring	5.4 (0.213)	30.6 (1.205)	0.5 (0.020)	White
Throttle relief ball spring	6.6 (0.260)	21.6 (0.850)	0.8 (0.031)	—
Pressure modifier spring	8.3 (0.327)	26.5 (1.043)	0.8 (0.031)	—
Low reducing spring	8.7 (0.343)	38.3 (1.508)	0.9 (0.035)	Black
1-2 shift spring	8.7 (0.343)	41.3 (1.626)	1.0 (0.039)	Yellow
2-3, 3-4 shift spring	7.4 (0.291)	36.6 (1.441)	0.8 (0.031)	Gray
Throttle backup spring	9.65 (0.380)	26.9 (1.059)	0.55 (0.022)	Red
Throttle modulator spring	6.3 (0.248)	47.9 (1.886)	0.8 (0.031)	—
Throttle assist spring	5.15 (0.203)	32.3 (1.272)	0.55 (0.022)	Dark green
Throttle spring	5.4 (0.213)	47.2 (1.858)	0.8 (0.031)	Pink
Converter relief ball spring	6.9 (0.272)	24.1 (0.949)	0.9 (0.035)	Maroon
Orifice check valve spring	5.0 (0.197)	12.5 (0.492)	0.23 (0.009)	—
Pressure regulator spring	11.5 (0.453)	26.5 (1.043)	1.0 (0.039)	Maroon
Lock-up control spring	5.0 (0.197)	35.2 (1.386)	0.6 (0.024)	Purple

Control valve springs (G4A-HL)

Spring name	Outer dia. mm (in)	Free length mm (in)	Wire dia. mm (in)	Spring color
1-2 accumulator large spring	13.0 (0.512)	73.2 (2.881)	1.8 (0.071)	Pink
Bypass spring	5.0 (0.197)	25.1 (0.988)	0.7 (0.028)	Yellow
Servo control spring	4.9 (0.193)	27.1 (1.067)	0.5 (0.020)	Light blue
2-3 timing spring	8.3 (0.327)	26.5 (1.043)	0.8 (0.031)	—
N-R accumulator rear spring	11.1 (0.437)	68.2 (2.685)	1.0 (0.039)	Blue
N-D accumulator front spring	9.8 (0.386)	60.9 (2.398)	1.1 (0.043)	Yellow
Low reducing spring	8.7 (0.343)	38.3 (1.508)	0.9 (0.035)	Black
OD release spring	6.0 (0.236)	32.6 (1.283)	0.6 (0.024)	Orange
Coasting bypass spring	5.8 (0.228)	31.3 (1.232)	0.6 (0.024)	Yellow
3-2 timing spring	8.2 (0.323)	28.55 (1.124)	0.8 (0.031)	Maroon
3-2 capacity spring	5.55 (0.219)	30.5 (1.201)	0.55 (0.022)	Light green
Throttle relief ball spring	6.6 (0.260)	20.3 (0.799)	0.8 (0.031)	Light green
1-2 shift control spring	5.5 (0.217)	46.0 (1.811)	0.5 (0.020)	Light green
1-2 shift spring	5.0 (0.197)	24.9 (0.980)	0.5 (0.020)	Gray
2-3 shift spring	6.1 (0.240)	39.7 (1.563)	0.65 (0.026)	Pink
3-4 shift spring	6.4 (0.252)	37.0 (1.457)	0.6 (0.024)	—
Throttle backup spring	6.4 (0.252)	33.5 (1.319)	0.6 (0.024)	Pink
Throttle modulator front spring	5.0 (0.197)	27.8 (1.094)	0.6 (0.024)	Red
Throttle modulator rear spring	7.15 (0.281)	30.8 (1.213)	0.85 (0.033)	Red
1 range control spring	6.15 (0.242)	39.2 (1.543)	0.65 (0.026)	White
2 range control spring	3.95 (0.156)	32.1 (1.264)	0.45 (0.018)	—
Kick-down spring	5.4 (0.213)	38.1 (1.500)	0.8 (0.031)	—
Throttle assist spring	5.15 (0.203)	32.3 (1.272)	0.55 (0.022)	Dark green
Throttle spring	5.4 (0.213)	48.3 (1.902)	0.8 (0.031)	—
Converter relief ball spring	6.9 (0.272)	24.1 (0.949)	0.9 (0.035)	Maroon
Orifice check valve spring	5.0 (0.197)	12.5 (0.492)	0.23 (0.009)	—
Pressure regulator spring	9.5 (0.374)	30.7 (1.209)	0.7 (0.028)	—
Lock-up control spring	7.3 (0.287)	46.2 (1.819)	0.8 (0.031)	Blue
Lock-up support spring	7.0 (0.276)	52.3 (2.059)	1.0 (0.039)	Yellow
OD lock-up spring	7.1 (0.280)	66.5 (2.618)	0.8 (0.031)	Red

Item		Transaxle/Engine	G4A-EL (EC-AT)	G4A-HL (4-speed)
			F2	FE
Gear assembly				
Total end play	mm (in)		0.25—0.50 (0.010—0.020)	
End play adjust race	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)	
Idle gear bearing preload	N·m (cm·kg, in·lb)		0.03—0.9 (0.3—9.0, 0.26—7.8)	
Preload adjust shims	mm (in)		0.10 (0.004), 0.12 (0.005), 0.14 (0.006), 0.16 (0.0063), 0.18 (0.007), 0.20 (0.008), 0.50 (0.020)	
Output gear bearing preload	N·m (cm·kg, in·lb)		0.03—0.9 (0.3—9.0, 0.26—7.8)	
Preload adjust shims	mm (in)		0.10 (0.004), 0.12 (0.005), 0.14 (0.006), 0.16 (0.0063), 0.18 (0.007), 0.20 (0.008), 0.50 (0.020)	
Drive and differential				
Final gear	Type		Helical gear	
	Reduction ratio		3.700 : 1	
Side bearing preload	N·m (cm·kg, in·lb)		2.9—3.9 (30—40, 26—35)	
Preload adjust shims	mm (in)		0.10 (0.004), 0.12 (0.005), 0.14 (0.006), 0.16 (0.0063), 0.18 (0.007), 0.20 (0.008), 0.50 (0.020), 0.70 (0.028), 1.00 (0.039)	
Backlash of side gear and pinion mm (in)	Standard		0.025—0.1 (0.001—0.004)	
	Maximum		0.5 (0.020)	

M. FRONT AND REAR AXLES

Item		Type	MTX		ATX
			F8, RF	FE, F2	All
Driveshaft					
Joint type		Inside	Ball joint		Tripod joint
		Outside	Ball joint		Ball joint
Shaft length	mm (in)	Right	571.0 (22.48)	570.0 (22.44)	570.2 (22.45)
		Left	623.5 (24.55)	622.5 (24.51)	622.7 (24.52)
Shaft diameter		mm (in)	23 (0.91)	24 (0.94)	24 (0.94)
Front axle					
Front wheel bearing end play		mm (in)	0.1 (0.0039) max.		
Rear axle					
Rear wheel bearing end play		mm (in)	0.035 (0.0014) max.		

N. STEERING SYSTEM

Item		Type	Manual steering	Power steering
Steering wheel	Outer diameter	mm (in)	380 (15.0)	
	Turns lock to lock		4.32	2.93
Steering shaft and joints	Shaft type		Collapsible	
	Joint type		Cross joints (2)	
	Tilt stroke	mm (in)	40 (1.6)	
Front steering gear	Type		Rack and pinion	
	Gear ratio		∞ (infinite)	
Power steering fluid	Capacity liter (US qt, Imp qt)	Gasoline engine	—	0.9 (0.95, 0.79)
		Diesel engine	—	0.8 (0.85, 0.70)
	Type		—	M-III

1P. 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 (Clearance when pedal is depressed at 589 N [60 kg, 132 lb])	mm (in)	95 (3.74) min.
	Lever ratio		4.2
	Max. stroke	mm (in)	LHD: 136.5 (5.37) RHD: 135 (5.31)
Master cylinder	Type		Tandem
	Bore	mm (in)	22.22 (0.875)
	Fluid type		DOT-3 or SAE J1703
Front disc brake	Type		Disc (ventilated)
	Thickness of pad mm (in)	Standard	10.0 (0.39)
		Minimum	2.0 (0.08)
	Area of pad	mm ² (in ²)	4,800 (7.44)
	Outer diameter of disc plate	mm (in)	264 (10.39)
	Thickness of disc plate mm (in)	Standard	24.0 (0.94)
		Minimum	22.0 (0.87)
	Disc plate runout mm (in)	Maximum	0.1 (0.004)
Rear disc brake	Wheel cylinder bore	mm (in)	53.97 (2.125)
	Type		Disc (solid)
	Thickness of pad mm (in)	Standard	8.0 (0.31)
		Minimum	1.0 (0.04)
	Area of pad	mm ² (in ²)	2,900 (4.5)
	Outer diameter of disc plate	mm (in)	259 (10.2)
	Thickness of disc plate mm (in)	Standard	10.0 (0.39)
		Minimum	8.0 (0.31)
Parking brake	Disc plate runout mm (in)	Maximum	0.1 (0.004)
	Wheel cylinder bore	mm (in)	30.2 (1.19)
	Type		Center lever
	Lever notches (Pulled at 98N [10 kg, 22 lb])		5—7
	Diameter	mm (in)	238 (9.37)
	Clearance between master cylinder piston and push rod	mm (in)	0 (0)
	Fluid pressure per treading force kPa (kg/cm ² , psi)/N (kg, lb)		1,177 (12,171)/196 (20, 44) min. when no vacuum is applied
			7,063 (72, 1,024)/196 (20, 44) min. when 500 mmHg (19.7 in Hg) vacuum is applied
DPV	Rear brake control split point kPa (kg/cm ² , psi)		2,453 (25, 356)

DPV: Dual Proportioning Valve

Q. WHEEL AND TIRE

Item			Standard tire and wheel		Temporary spare tire and wheel (If equipped)
			Europe, UK, Switz.	Australia, General LHD and RHD	
Wheels	Size		14 x 5 1/2JJ, 15 x 6JJ	14 x 5 1/2JJ	15 x 4T
	Offset	mm (in)	42 (1.65)		53 (2.09)
	Diameter of pitch circle	mm (in)	114.3 (4.5)		
	Material		Steel or aluminum alloy		Steel
Tires	Size		185/70HR14 185/70R14 87H 185/70R14 88H 195/60R15 86H	185/70HR14 185/70R14 87H	T125/70D15
	Air pressure kPa (kg/cm ² , psi)	Front	216 (2.2, 32)... up to 5 passengers 216 (2.2, 32)... full load	196 (2.0, 28)... up to 5 passengers 206 (2.1, 30)... full load	412 (4.2, 60)
		Rear	196 (2.0, 28)...up to 5 passengers 235 (2.4, 34)...full load		412 (4.2, 60)
	Runout	mm (in)	Horizontal Steel wheel: 2.5 (0.098), Aluminum alloy wheel: 2.0 (0.079) max. Vertical 2.0 (0.079) max.		
Wheels and Tires	Unbalance	g (oz)	14 inch wheel	10 (0.35) max.	
			15 inch wheel	9 (0.32) max.	

R. SUSPENSION

Front suspension

Item			Specification				
Type			Strut				
Front wheel alignment (Unladen* ¹)	Toe-in (Total toe-in)	mm (in)	0 ± 3 (0 ± 0.12)				
		degree	0° ± 18'				
	Camber angle		0°17' ± 45'				
	Caster angle		1°13' ± 45'				
	King pin angle		12°47'				
Maximum front steering angle	Inner		36°00' ± 2°				
	Outer		31°00' ± 2°				
Stabilizer	Type		Torsion bar				
	Diameter	mm (in)	Australia: 20.0 (0.79) Except Australia: 24.2 (0.95)				
Shock absorbers			Oil type				
Coil springs* ²	Identification mark color		Blue	Gray	Pink	Light Green	Green
	Wire diameter	mm (in)	13.7 (0.54)	13.6 (0.54)	13.4 (0.53)	13.2 (0.52)	13.1 (0.52)
	Coil inner diameter	mm (in)	147.5 (5.81)				
	Free length	mm (in)	358.0 (14.09)	350.5 (13.80)	347.5 (13.68)	340.0 (13.39)	331.5 (13.05)
	Coil number		3.68	3.57	3.44	3.23	3.13

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

*² Refer to page R-3 for coil spring applications.

Rear suspension

Item			Specification		
Type			Strut		
Rear wheel alignment (Unladen* ¹)	Toe-in (Total toe-in)	mm (in)	0 ± 3 (0 ± 0.12)		
		degree	0° ± 18'		
	Camber angle		-0°30' ± 45'		
Stabilizer	Type		Torsion bar		
	Diameter	mm (in)	16 (0.63)		
Shock absorbers			Oil type		
Coil springs* ²	Identification mark color		Orange	Pink	Yellow
	Wire diameter	mm (in)	13.9 (0.55)		
	Coil inner diameter	mm (in)	115.4 (4.54)—159.4 (6.28)		
	Free length	mm (in)	339.5 (13.37)	356.0 (14.00)	372.0 (14.65)
	Coil number		6.69	6.74	6.77

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

*² Refer to page R-4 for coil spring applications.

T. BODY ELECTRICAL SYSTEM

Item		Market	Specification (W)					
			Europe	Swiss, Sweden	UK	Australia	R.H. General	L.H. General
Front exterior lights	Halogen headlight	60 + 55/55						
	Turn signal light	21			23			
	Position light	5						
	Side turn signal light	5						
Rear exterior lights	Back-up light	21						
	License plate light	5						
	Stop/Tail light	21/5						
	Turn signal light	21						
	Rear fog light	21			—			
	High mounted stop light	—			18.4	—		
Indicator and warning lights	Brake	1.4 (Analog), 1.12 (Digital)						
	Oil pressure	1.4 (Analog), 1.12 (Digital)						
	Fuel	1.4 (Analog), 1.12 (Digital)						
	Washer level	1.4 (Analog), 1.12 (Digital)						
	Rear	1.4 (Analog), 1.12 (Digital)						
	Door	1.4 (Analog), 1.12 (Digital)						
	Alternator	1.4 (Analog), 1.12 (Digital)						
	Cruise main	1.4 (Analog), 1.12 (Digital)				—		
	High beam	1.4 (Analog), 1.12 (Digital)						
	Turn signal	1.4 (Analog), 1.12 (Digital)						
	Hazard	1.4 (Analog), 1.12 (Digital)		—				
	Timing belt	1.4			—			
	Sedimenter	1.4			—			
	Coolant	1.4			—			
	Glow	1.4			—			
	O/D OFF	0.84					—	
	A/T mode	—			0.84	—		
A/T position	—			0.84	—			
Interior lights	Glove compartment light	3.4						
	Interior light	10						
	Luggage compartment light	5						
	Map light	8						
	Courtesy light	3.8						

Item		Market	Specification (W)					
			Europe	Swiss, Sweden	UK	Australia	R.H. General	L.H. General
Illumination lights	Meter		3.4 and 1.4					
	Hazard switch		0.7		—			
	Cigar lighter		3.4					
	AAS switch		0.7		—	0.7		
	Rear defroster switch		0.7					
	EC-AT switch		—		0.7	—		
	A/T selector		3.4					—
	Ign key cylinder		3.4					
	Panel light control		0.7					
	Headlight cleaner switch		0.7			—		
	Rear wiper and washer switch		0.7					
	Rear fog light switch		0.84		—			
	Air cond. switch		0.84					
	Heater		1.4					
	Seat warmer		0.56		—			

STANDARD BOLT AND NUT TIGHTENING TORQUE

Diameter mm (in)	Pitch mm (in)	4T			6T			8T		
		N-m	m-kg	ft-lb	N-m	m-kg	ft-lb	N-m	m-kg	ft-lb
6 (0.236)	1 (0.039)	4.2—6.2	0.43—0.63	3.1—4.6	6.9—9.8	0.7—1.0	5.0—7.2	7.8—11.8	0.8—1.2	5.8—8.8
8 (0.315)	1.25 (0.049)	9.8—14.7	1.0—1.5	7.2—10.8	16—23	1.6—2.3	12—17	18—26	1.8—2.7	13—20
10 (0.394)	1.25 (0.049)	20—28	2.0—2.9	14—21	31—46	3.2—4.1	23—34	36—54	3.7—5.5	27—40
12 (0.472)	1.5 (0.059)	34—50	3.5—5.1	25—37	55—80	5.6—8.2	41—59	63—93	6.4—9.5	46—69
14 (0.551)	1.5 (0.059)	—	—	—	75—103	7.7—10.5	56—76	102—137	10—14	75—101
16 (0.630)	1.5 (0.059)	—	—	—	116—157	12—16	85—116	156—211	16—22	115—156
18 (0.709)	1.5 (0.059)	—	—	—	167—225	17—23	123—166	221—299	23—31	163—221
20 (0.787)	1.5 (0.059)	—	—	—	231—314	24—32	171—231	308—417	31—43	227—307
22 (0.866)	1.5 (0.059)	—	—	—	314—423	32—43	231—312	417—564	43—58	307—416
24 (0.945)	1.5 (0.059)	—	—	—	475—546	41—56	298—403	536—726	55—74	396—536