

Engine Maintenance (Cont'd)

INSPECTION AND ADJUSTMENT

Coolant capacity (Refill capacity)

Unit: ℓ (Imp qt)

Drive belt deflection

Unit: mm (in)

	Used belt deflection		Deflection of new belt
	Limit	Deflection after adjustment	
Alternator			
With air conditioner compressor	11.5 - 12.5 (0.453 - 0.492)	7 - 8 (0.28 - 0.31)	6.5 - 7.5 (0.256 - 0.295)
Without air conditioner compressor	12 - 13 (0.47 - 0.51)	8 - 9 (0.31 - 0.35)	7 - 8 (0.28 - 0.31)
Power steering oil pump	6 - 7 (0.24 - 0.28)	4 - 5 (0.16 - 0.20)	3.5 - 4.5 (0.138 - 0.177)
Applied pushing force	98 N (10 kg, 22 lb)		

With reservoir tank	6.6 (5-7/8)
Reservoir tank	0.7 (5/8)

Spark plug

	SR20DE (Conventional type)	
Type		
Standard	BKR6EY	PFR7B-9
Hot	BKR5EY	PFR6B-9
Cold	BKR7EY	PFR8B-9
Plug gap	mm (in)	
	0.8 - 0.9 (0.031 - 0.035)	0.8 - 0.9 (0.031 - 0.035)

Oil capacity (Refill capacity)

Unit: ℓ (Imp qt)

	SR20DE	SR20DET
With oil filter change	3.4 (3)	3.7 (3-1/4)
Without oil filter change	3.2 (2-7/8)	3.5 (3-1/8)

Ignition wire

Resistance	kΩ/m (kΩ/ft)	13.6 - 18.4 (4.15 - 5.61)
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SERVICE DATA AND SPECIFICATIONS (S.D.S.)

Chassis and Body Maintenance

INSPECTION AND ADJUSTMENT

Clutch

Unit: mm (in)

Applied model	2WD		4WD	
	R.H.D.	L.H.D.	GA16DS engine models	SR20DET engine models
Pedal height*	159 - 169 (6.26 - 6.65)	150 - 160 (5.91 - 6.30)	162 - 172 (6.38 - 6.77)	159 - 169 (6.26 - 6.65)
Pedal free play "A ₁ " (Backlash at clevis)	—			1 - 3 (0.04 - 0.12)
Pedal free travel "A ₂ "	10.8 - 15.1 (0.425 - 0.594)			—
Withdrawal lever play "B"	2.5 - 3.5 (0.098 - 0.138)			—

*: Measured from surface of melt sheet to surface of pedal pad.

Front axle and front suspension (Unladen)*1

Model B13

Except for Europe & Middle East

Applied model	Standard			Option
	Sedan		Coupe	
	Except CD17	CD17		
Camber degree	-1°00' to 0°15'			-0°50' to 0°40'
Caster degree	-1°05' to -2°35'			-1°05' to -2°35'
Kingpin inclination degree	13°15' - 14°45'			12°50' - 14°20'
Total toe-in mm (in) degree	1 - 3 (0.04 - 0.12) 6' - 18'			
Front wheel turning angle Full turn*2 13-inch wheel Inside Outside				
14-inch wheel Inside Outside				

For Europe & Middle East

Applied model	Europe	Middle East
Camber degree	-1°00' to 0°30'	-0°50' to 0°40'
Caster degree	1°05' to 2°35'	0°55' to 2°25'
Kingpin inclination degree	13°15' to 14°45'	12°50' to 14°20'
Total toe-in mm (in) degree	1 - 3 (0.04 - 0.12) 6' - 18'	
Front wheel turning angle Full turn*2 degree		
Inside	33° - 37°	39° - 43°
Outside	30°	34°

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

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

SERVICE DATA AND SPECIFICATIONS (S.D.S.)

Chassis and Body Maintenance (Cont'd)

Model N14

Applied model	2WD			4WD	
	13-inch wheel		14-inch wheel	13-inch wheel	14-inch wheel
	Except CD engine	CD engine			
Camber degree	-1°00' to 0°30'			-0°40' to 0°50'	
Caster degree	0°40' to 2°10'			0°30' to 2°00'	
Kingpin inclination degree	13°15' to 14°45'			12°15' to 13°45'	
Total toe-in mm (in)	1 - 3 (0.04 - 0.12)				
degree	6' - 18'				
Front wheel turning angle					
Full turn* degree					
Inside	39° - 43°	36° - 40°	33° - 37°	37° - 41°	34° - 38°
Outside	34°	32°	30°	31°	29°

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

Rear axle and rear suspension (Unladen)*

Model B13

Applied model	Coupe	Sedan
Camber degree	-1°55' to -0°25'	
Toe-in mm (in)	-1 to 3 (-0.04 to 0.12)	
Total toe-in degree	-6' to 18'	

Model N14

Applied model	2WD	4WD
Camber degree	-1°40' to -0°10'	-0°55' to 0°35'
Toe-in mm (in)	-1 to 3 (-0.04 to 0.12)	
Total toe-in degree	-6' to 18'	

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

Brake

Disc brake	mm (in)	
Pad		
Standard thickness		10.0 (0.394)
Minimum thickness		2.0 (0.079)
Rotor		
Standard thickness		
CL18C		12.0 (0.472)
CL18VD		18.0 (0.709)
AD22VF		26.0 (1.024)
AD7HA		7.0 (0.276)
CL9HA		9.0 (0.354)
Minimum thickness		
CL18C		10.0 (0.394)
CL18VD		16.0 (0.630)
AD22VF		24.0 (0.945)
AD7HA		6.0 (0.236)
CL9HA		8.0 (0.315)
Drum brake		
Lining		
Standard thickness		
LT18C		4.0 (0.157)
LT23B		4.5 (0.177)
Wear limit		1.5 (0.059)
Drum		
Standard diameter		
LT18C		180.0 (7.09)
LT23B		228.6 (9)
Maximum diameter		
LT18C		181.0 (7.13)
LT23B		230.0 (9.06)

Wheel balance

Maximum allowable unbalance	Dynamic (At rim flange) g (oz)	10 (0.35) (one side)
	Static g (oz)	20 (0.71)

SERVICE DATA AND SPECIFICATIONS (S.D.S.)

Chassis and Body Maintenance (Cont'd)

Wheel bearing

	Front	Rear
Wheel bearing axle end play mm (in)	0.05 (0.0020) or less	
Wheel bearing lock nut Tightening torque N·m (kg-m, ft-lb)	196 - 275 (20 - 28, 145 - 203)	2WD: 186 - 255 (19 - 26, 137 - 188) 4WD: 196 - 275 (20 - 28, 145 - 203)

TIGHTENING TORQUE

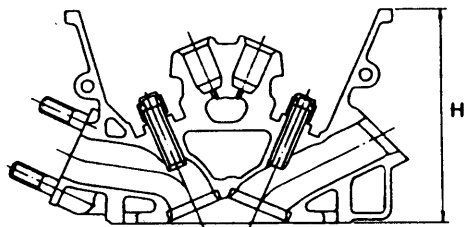
Unit	N·m	kg-m	ft-lb
Clutch			
Pedal stopper lock nut	16 - 22	1.6 - 2.2	12 - 16
Clutch switch lock nut	12 - 15	1.2 - 1.5	9 - 11
Manual transaxle			
Drain and filler plugs	25 - 34	2.5 - 3.5	18 - 25
Automatic transaxle			
Drain plug	29 - 39	3.0 - 4.0	22 - 29
Front axle and front suspension			
Tie-rod lock nut	37 - 46	3.8 - 4.7	27 - 34
Rear axle and rear suspension			
Toe adjusting pin	98 - 118	10 - 12	72 - 87
Brake system			
Air bleed valve	7 - 9	0.7 - 0.9	5.1 - 6.5
Brake lamp switch lock nut	12 - 15	1.2 - 1.5	9 - 11
Brake booster input rod lock nut	16 - 22	1.6 - 2.2	12 - 16
Wheel and tire			
Wheel nut	98 - 118	10 - 12	72 - 87

Inspection and Adjustment VALVE

CYLINDER HEAD

Unit: mm (in)

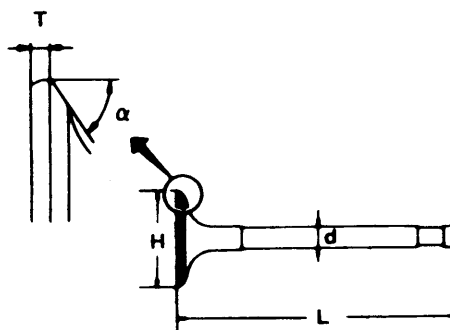
	Standard	Limit
Head surface distortion	Less than 0.03 (0.0012)	0.1 (0.004)



Nominal cylinder head height:
H = 136.9 - 137.1 (5.390 - 5.398)

SEM956C

Unit: mm (in)



SEM188

Valve head diameter "D"

Intake	34.0 - 34.2 (1.339 - 1.346)
Exhaust	30.0 - 30.2 (1.181 - 1.189)

Valve length "L"

Intake	
SR20DE	101.19 - 101.61 (3.9839 - 4.0004)
SR20DET	101.845 - 102.355 (4.0096 - 4.0297)
Exhaust	
SR20DE	102.11 - 102.53 (4.0201 - 4.0366)
SR20DET	102.765 - 103.275 (4.0459 - 4.0659)

Valve stem diameter "d"

Intake	5.965 - 5.980 (0.2348 - 0.2354)
Exhaust	6.945 - 6.960 (0.2734 - 0.2740)

Valve seat angle "α"

Intake	45°15' - 45°45'
Exhaust	

Valve margin "T"

Intake	
SR20DE	1.1 (0.043)
SR20DET	1.3 (0.051)
Exhaust	
SR20DE	1.3 (0.051)
SR20DET	1.5 (0.059)

Valve margin "T" limit

More than 0.5 (0.020)

Valve stem end surface grinding limit

Less than 0.2 (0.008)

Inspection and Adjustment (Cont'd)

Valve spring

		SR20DE	SR20DET	
			Inner	Outer
Free height	mm (in)	49.36 (1.9433)	40.49 (1.5941)	47.74 (1.8795)
Pressure	N (kg, lb) at height mm (in)			
Standard		569.00 - 641.57 (58.02 - 65.42, 127.93 - 144.25) at 30.0 (1.181)	154.95 - 174.76 (15.8 - 17.82, 34.84 - 39.29) at 20.6 (0.811)	451.51 - 504.18 (46.04 - 51.41, 101.52 - 113.36) at 27.9 (1.098)
Limit		549.2 (56.0, 123.5) at 30.0 (1.181)	147.1 (15.0, 33.1) at 20.6 (0.811)	428.6 (43.7, 96.4) at 27.9 (1.098)
Out-of-square	mm (in)	Less than 2.2 (0.087)	Less than 1.8 (0.071)	Less than 2.1 (0.083)

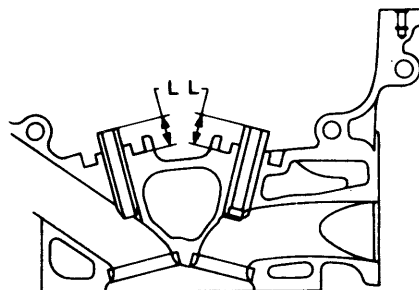
Hydraulic lash adjuster (H.L.A.)

Unit: mm (in)

H.L.A. outer diameter	16.980 - 16.993 (0.6685 - 0.6690)
H.L.A. guide inner diameter	17.000 - 17.020 (0.6693 - 0.6701)
Clearance between H.L.A. and H.L.A. guide	0.007 - 0.040 (0.0003 - 0.0016)

Valve guide

Unit: mm (in)



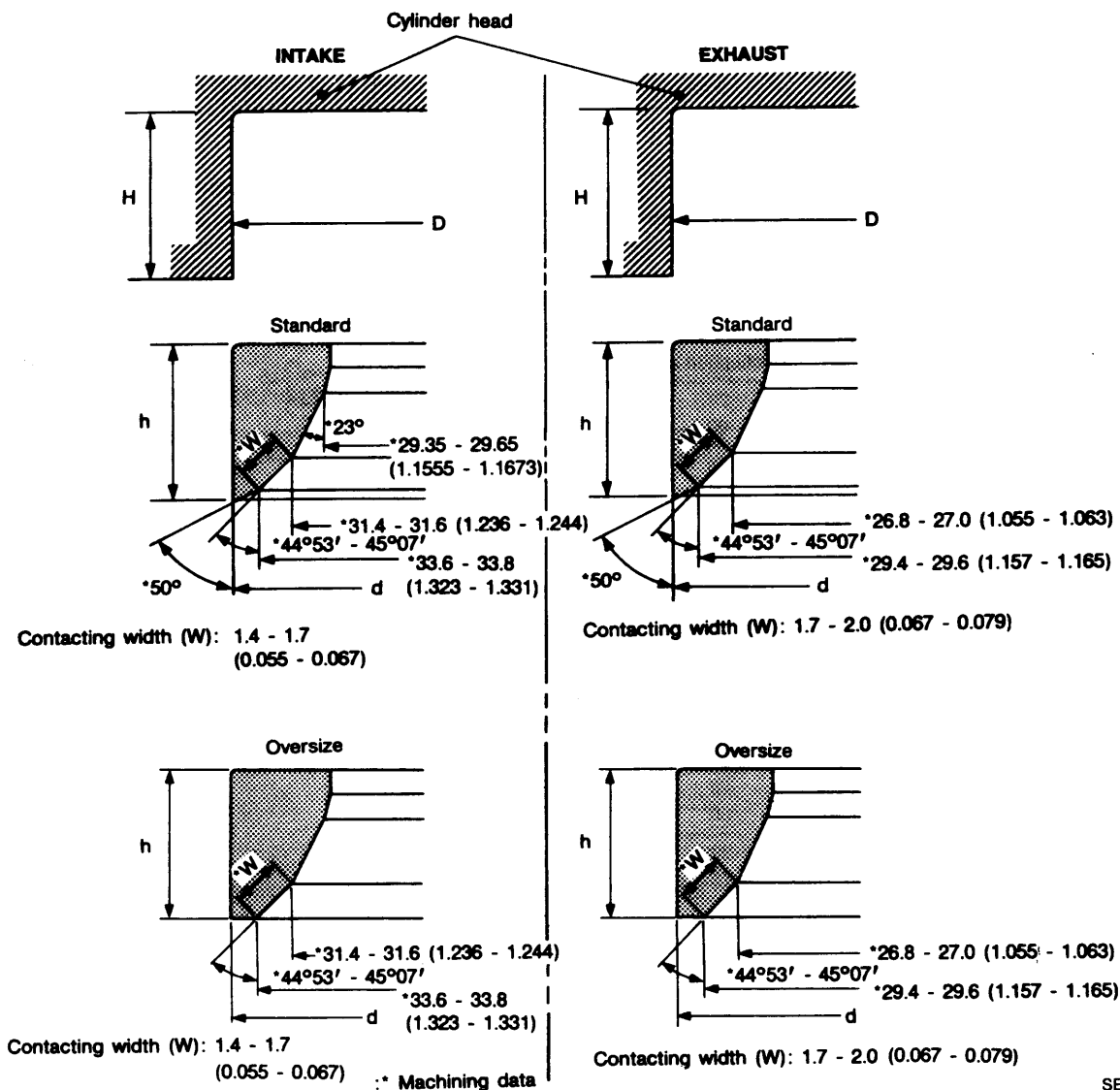
SEM083D

		Standard	Service
Valve guide	Outer diameter	Intake	10.023 - 10.034 (0.3946 - 0.3950)
		Exhaust	11.023 - 11.034 (0.4340 - 0.4344)
Valve guide	Inner diameter (Finished size)	Intake	6.000 - 6.018 (0.2362 - 0.2369)
		Exhaust	7.000 - 7.018 (0.2756 - 0.2763)
Cylinder head valve guide hole diameter	Intake	9.975 - 9.996 (0.3927 - 0.3935)	10.175 - 10.196 (0.4006 - 0.4014)
	Exhaust	10.975 - 10.996 (0.4321 - 0.4329)	11.175 - 11.196 (0.4400 - 0.4408)
Interference fit of valve guide		0.027 - 0.059 (0.0011 - 0.0023)	
		Standard	Limit
Stem to guide clearance	Intake	0.020 - 0.053 (0.0008 - 0.0021)	0.1 (0.004)
	Exhaust	0.040 - 0.073 (0.0016 - 0.0029)	0.1 (0.004)
Valve deflection limit		0.2 (0.008)	
Projection length "L"		14.0 - 14.2 (0.551 - 0.559)	

Inspection and Adjustment (Cont'd)

Valve seat

Unit: mm (in)



SEM651D

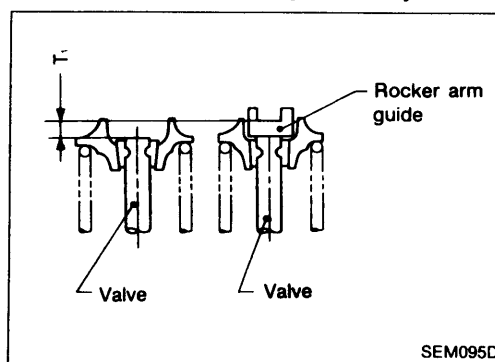
		Standard	Service
Cylinder head seat recess diameter (D)	In.	35.000 - 35.016 (1.3780 - 1.3786)	35.500 - 35.516 (1.3976 - 1.3983)
	Ex.	31.000 - 31.016 (1.2205 - 1.2211)	31.500 - 31.516 (1.2402 - 1.2408)
Valve seat interference fit	In.	0.064 - 0.096 (0.0025 - 0.0038)	
	Ex.	0.064 - 0.096 (0.0025 - 0.0038)	
Valve seat outer diameter (d)	In.	35.080 - 35.096 (1.3811 - 1.3817)	35.580 - 35.596 (1.4008 - 1.4014)
	Ex.	31.080 - 31.096 (1.2236 - 1.2242)	31.580 - 31.596 (1.2433 - 1.2439)
Depth (H)	In.	6.25 (0.2461)	
	Ex.	6.25 (0.2461)	
Height (h)		6.2 - 6.3 (0.244 - 0.248)	5.4 - 5.5 (0.213 - 0.217)

Inspection and Adjustment (Cont'd)

Valve clearance adjustment (For SR20DE)

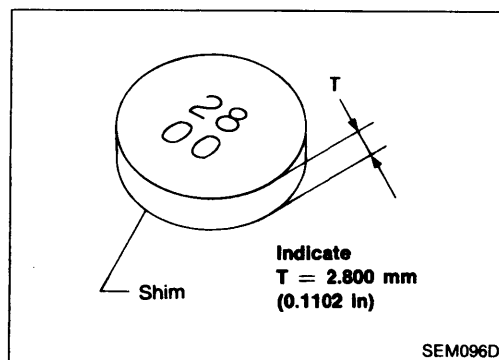
Unit: mm (in)

Valve clearance	
Intake	0 (0)
Exhaust	0 (0)
Valve clearance	
Adjustment valve limit (T) - (T _i) =	$-0.025 (-0.0010) \leq$ $[(T) - (T_i)] \leq 0.025 (0.0010)$



Available shims (For SR20DE)

Thickness mm (in)	Identification mark
2.800 (0.1102)	28 00
2.825 (0.1112)	28 25
2.850 (0.1122)	28 50
2.875 (0.1132)	28 75
2.900 (0.1142)	29 00
2.925 (0.1152)	29 25
2.950 (0.1161)	29 50
2.975 (0.1171)	29 75
3.000 (0.1181)	30 00
3.025 (0.1191)	30 25
3.050 (0.1201)	30 50
3.075 (0.1211)	30 75
3.100 (0.1220)	31 00
3.125 (0.1230)	31 25
3.150 (0.1240)	31 50
3.175 (0.1250)	31 75
3.200 (0.1260)	32 00



Inspection and Adjustment (Cont'd)

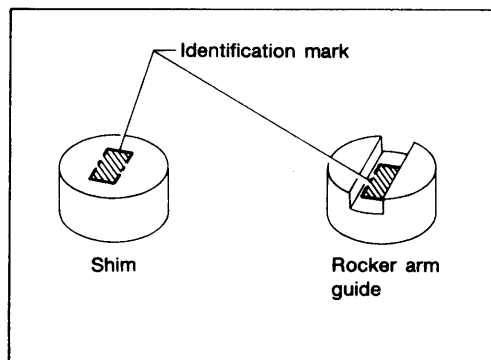
Valve clearance adjustment (For SR20DET)

Unit: mm (in)

	Hot	Cold*
Valve clearance		
Intake & Exhaust	0.30 - 0.35 (0.012 - 0.014)	0.21 - 0.26 (0.008 - 0.010)
Camshaft clearance		
Intake & Exhaust	0.20 - 0.23 (0.008 - 0.009)	0.14 - 0.17 (0.006 - 0.007)

*: At a temperature of approximately 20°C (68°F)

Whenever valve clearances are adjusted to cold specifications, check that the clearances satisfy hot specifications and adjust again if necessary.



Available shims and rocker arm guides (For SR20DET)

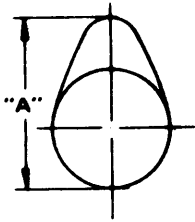
Thickness mm (in)	Identification mark	Thickness mm (in)	Identification mark	Thickness mm (in)	Identification mark
1.50 (0.0591)	1	2.175 (0.0856)	28	2.85 (0.1122)	55
1.525 (0.0600)	2	2.20 (0.0866)	29	2.875 (0.1132)	56
1.55 (0.0610)	3	2.225 (0.0876)	30	2.90 (0.1142)	57
1.575 (0.0620)	4	2.25 (0.0886)	31	2.925 (0.1152)	58
1.60 (0.0630)	5	2.275 (0.0896)	32	2.95 (0.1161)	59
1.625 (0.0640)	6	2.30 (0.0906)	33	2.975 (0.1171)	60
1.65 (0.0650)	7	2.325 (0.0915)	34	3.00 (0.1181)	61
1.675 (0.0659)	8	2.35 (0.0925)	35	3.025 (0.1191)	62
1.70 (0.0669)	9	2.375 (0.0935)	36	3.05 (0.1201)	63
1.725 (0.0679)	10	2.40 (0.0945)	37	3.075 (0.1211)	64
1.75 (0.0689)	11	2.425 (0.0955)	38	3.10 (0.1220)	65
1.775 (0.0699)	12	2.45 (0.0965)	39	3.125 (0.1230)	66
1.80 (0.0709)	13	2.475 (0.0974)	40	3.150 (0.1240)	67
1.825 (0.0719)	14	2.50 (0.0984)	41	3.175 (0.1250)	68
1.85 (0.0728)	15	2.525 (0.0994)	42	3.20 (0.1260)	69
1.875 (0.0738)	16	2.55 (0.1004)	43	3.225 (0.1270)	70
1.90 (0.0748)	17	2.575 (0.1014)	44	3.25 (0.1280)	71
1.925 (0.0758)	18	2.60 (0.1024)	45	3.275 (0.1289)	72
1.95 (0.0768)	19	2.625 (0.1033)	46	3.30 (0.1299)	73
1.975 (0.0778)	20	2.65 (0.1043)	47	3.325 (0.1309)	74
2.00 (0.0787)	21	2.675 (0.1053)	48	3.35 (0.1319)	75
2.025 (0.0797)	22	2.70 (0.1063)	49	3.375 (0.1329)	76
2.05 (0.0807)	23	2.725 (0.1073)	50	3.40 (0.1339)	77
2.075 (0.0817)	24	2.75 (0.1083)	51	3.425 (0.1348)	78
2.10 (0.0827)	25	2.775 (0.1093)	52	3.45 (0.1358)	79
2.125 (0.0837)	26	2.80 (0.1102)	53	3.475 (0.1368)	80
2.15 (0.0846)	27	2.825 (0.1112)	54	3.50 (0.1378)	81

Inspection and Adjustment (Cont'd)

CAMSHAFT AND CAMSHAFT BEARING

Unit: mm (in)

	Standard	Limit
Camshaft journal to bearing clearance	0.045 - 0.086 (0.0018 - 0.0034)	0.12 (0.0047)
Inner diameter of camshaft bearing	28.000 - 28.021 (1.1024 - 1.1032)	—
Outer diameter of camshaft journal	27.935 - 27.955 (1.0998 - 1.1006)	—
Camshaft runout [T.I.R.*]	Less than 0.02 (0.0008)	0.1 (0.004)
Camshaft sprocket runout [T.I.R.*]	Less than 0.25 (0.0098)	—
Camshaft end play	0.055 - 0.139 (0.0022 - 0.0055)	0.20 (0.0079)



EM671

Cam height "A"

Intake

SR20DE	38.408 - 38.598 (1.5121 - 1.5196)
SR20DET	38.648 - 38.838 (1.5216 - 1.5291)

Exhaust

SR20DE	37.920 - 38.110 (1.4929 - 1.5004)
SR20DET	38.648 - 38.838 (1.5216 - 1.5291)

Wear limit of cam height	0.2 (0.008)
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Valve lift

Intake

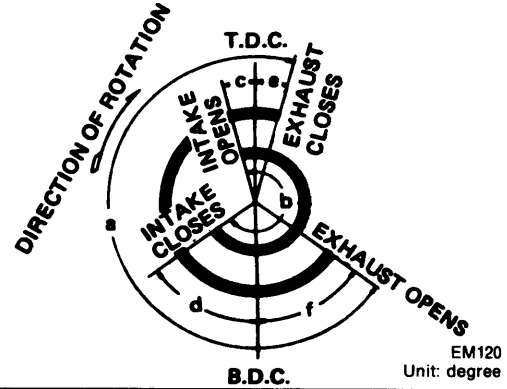
SR20DE & SR20DET	10.0 (0.394)
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Exhaust

SR20DE	9.2 (0.362)
SR20DET	10.0 (0.394)

*Total indicator reading

Valve timing

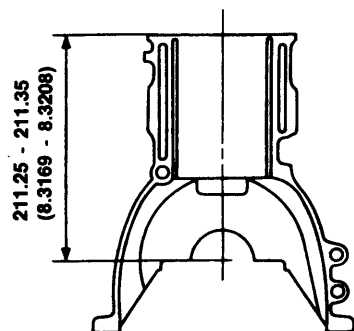


	a	b	c	d	e	f
SR20DE	240°	248°	9°	59°	9°	51°
SR20DET	248°	248°	14°	54°	8°	60°

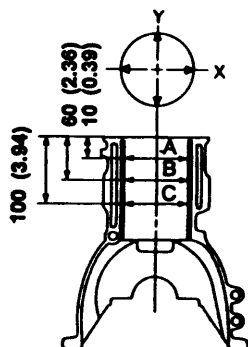
Inspection and Adjustment (Cont'd)

CYLINDER BLOCK

Unit: mm (in)



SEM008D



SEM686D

Surface flatness

Standard	Less than 0.03 (0.0012)
Limit	0.10 (0.0039)

Cylinder bore

Inner diameter

Standard

Grade No. 1	86.000 - 86.010 (3.3858 - 3.3862)
Grade No. 2	86.010 - 86.020 (3.3862 - 3.3866)
Grade No. 3	86.020 - 86.030 (3.3866 - 3.3870)

Wear limit

0.20 (0.0079)

Out-of-round (X - Y)

Less than 0.015 (0.0006)

Taper (A - B - C)

Less than 0.010 (0.0004)

Difference in inner diameter between cylinders

Limit	Less than 0.05 (0.0020)
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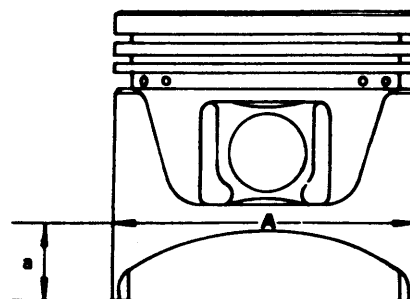
Main journal inner diameter

Grade No. 0	58.944 - 58.950 (2.3206 - 2.3209)
Grade No. 1	58.950 - 58.956 (2.3209 - 2.3211)
Grade No. 2	58.956 - 58.962 (2.3211 - 2.3213)
Grade No. 3	58.962 - 58.968 (2.3213 - 2.3216)

PISTON, PISTON RING AND PISTON PIN

Available piston

Unit: mm (in)



SEM750C

Piston skirt diameter "A"

Standard

Grade No. 1	85.980 - 85.990 (3.3850 - 3.3854)
Grade No. 2	85.990 - 86.000 (3.3854 - 3.3858)
Grade No. 3	86.000 - 86.010 (3.3858 - 3.3862)
0.20 (0.0079) over-size (Service)	86.180 - 86.210 (3.3929 - 3.3941)

"a" dimension	14.0 (0.551)
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Piston clearance to cylinder block

0.010 - 0.030 (0.0004 - 0.0012)

Piston pin hole diameter

21.987 - 21.999 (0.8656 - 0.8661)

Inspection and Adjustment (Cont'd)

Piston ring

Unit: mm (in)

Side clearance	
Top	
Standard	0.045 - 0.080 (0.0018 - 0.0031)
Limit	0.2 (0.008)
2nd	
Standard	0.030 - 0.065 (0.0012 - 0.0026)
Limit	0.2 (0.008)
Ring gap	
Top	
Standard	0.20 - 0.30 (0.0079 - 0.0118)
Limit	1.0 (0.039)
2nd	
Standard	0.35 - 0.50 (0.0138 - 0.0197)
Limit	1.0 (0.039)
Oil	
Standard	0.20 - 0.60 (0.0079 - 0.0236)
Limit	1.0 (0.039)

CONNECTING ROD

Unit: mm (in)

Center distance	136.30 (5.3661)
Bend, torsion [per 100 (3.94)]	
Limit	0.15 (0.0059)
Torsion [per 100 (3.94)]	
Limit	0.3 (0.0012)
Connecting rod small end inner diameter	24.980 - 25.000 (0.9835 - 0.9843)
Piston pin bushing inner diameter*	22.000 - 22.012 (0.8661 - 0.8666)
Connecting rod big end inner diameter	51.000 - 51.013 (2.0079 - 2.0084)
Side clearance	
Standard	0.20 - 0.35 (0.0079 - 0.0138)
Limit	0.5 (0.020)

*After installing in connecting rod

Piston pin

Unit: mm (in)

Piston pin outer diameter	21.989 - 22.001 (0.8657 - 0.8662)
Interference fit of piston pin to piston	0 - 0.004 (0 - 0.0002)
Piston pin to connecting rod bushing clearance	
Standard	0.005 - 0.017 (0.0002 - 0.0007)
Limit	0.023 (0.0009)

* Values measured at ambient temperature of 20°C (68°F)

Inspection and Adjustment (Cont'd)

CRANKSHAFT

Unit: mm (in)

Main journal dia. "Dm"

Grade No. 0	54.974 - 54.980 (2.1643 - 2.1646)
Grade No. 1	54.968 - 54.974 (2.1641 - 2.1643)
Grade No. 2	54.962 - 54.968 (2.1639 - 2.1641)
Grade No. 3	54.956 - 54.962 (2.1636 - 2.1639)

Pin journal dia. "Dp"

Grade No. 0	47.968 - 47.974 (1.8885 - 1.8887)
Grade No. 1	47.962 - 47.968 (1.8883 - 1.8885)
Grade No. 2	47.956 - 47.962 (1.8880 - 1.8883)

Center distance "r"

42.96 - 43.04 (1.6913 - 1.6945)

Out-of-round (X - Y)

Standard

SR20DE
(Main & pin journal) Less than 0.005 (0.0002)

SR20DET (Main journal) Less than 0.005 (0.0002)

SR20DET (Pin journal) Less than 0.0025 (0.0001)

Taper (A - B)

Standard

SR20DE
(Main & pin journal) Less than 0.005 (0.0002)

SR20DET (Main journal) Less than 0.005 (0.0002)

SR20DET (Pin journal) Less than 0.0025 (0.0001)

Runout [T.I.R.]

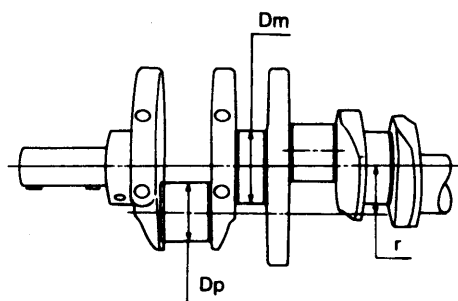
Standard Less than 0.025 (0.0010)

Limit Less than 0.05 (0.0020)

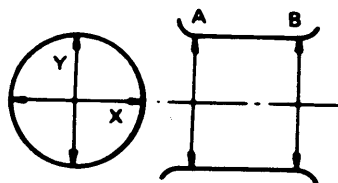
Free end play

Standard 0.10 - 0.26 (0.0039 - 0.0102)

Limit 0.30 (0.0118)

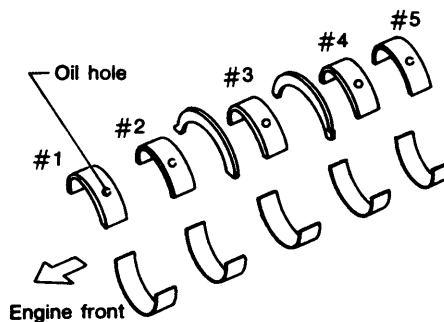


SEM954C

Out-of-round X - Y
Taper A - B


EM715

AVAILABLE MAIN BEARING



SEM685D

Main bearing (Standard)

Unit: mm (in)

Grade number	Thickness "T"	Width "W"	Identification color (mark)
0	1.977 - 1.980 (0.0778 - 0.0780)	18.9 - 19.1 (0.744 - 0.752)	Black (A)
1	1.980 - 1.983 (0.0780 - 0.0781)		Brown (B)
2	1.983 - 1.986 (0.0781 - 0.0782)		Green (C)
3	1.986 - 1.989 (0.0782 - 0.0783)		Yellow (D)
4	1.989 - 1.992 (0.0783 - 0.0784)		Blue (E)
5	1.992 - 1.995 (0.0784 - 0.0785)		Pink (F)
6	1.995 - 1.998 (0.0785 - 0.0787)		No color (G)

Main bearing (Undersize)

Unit: mm (in)

Undersize	Thickness "T"	Main journal diameter "Dm"
0.25 (0.0098)	2.109 - 2.117 (0.0830 - 0.0833)	Grind so that bearing clearance is the specified value.

Inspection and Adjustment (Cont'd)

AVAILABLE CONNECTING ROD BEARING

MISCELLANEOUS COMPONENTS

Unit: mm (in)

Connecting rod bearing

Standard size

Unit: mm (in)

Grade number	Thickness "T"		Width "W"	Identification color (mark)
	SR20DE	SR20DET		
0	1.500 - 1.503 (0.0591 - 0.0592)	1.495 - 1.498 (0.0589 - 0.0590)	16.9 - 17.1 (0.665 - 0.673)	No color (A)
1	1.503 - 1.506 (0.0592 - 0.0593)	1.498 - 1.501 (0.0590 - 0.0591)		Black (B)
2	1.506 - 1.509 (0.0593 - 0.0594)	1.501 - 1.504 (0.0591 - 0.0592)		Brown (C)

Camshaft sprocket runout limit [T.I.R.]	0.25 (0.0098)
Flywheel runout limit [T.I.R.]	0.1 (0.004)

Undersize

Unit: mm (in)

Undersize	Thickness "T"		Crank pin journal diameter "Dp"
	SR20DE	SR20DET	
0.08 (0.0031)	1.541 - 1.549 (0.0607 - 0.0610)	1.536 - 1.544 (0.0605 - 0.0608)	Grind so that bearing clearance is the specified value.
0.12 (0.0047)	1.561 - 1.569 (0.0615 - 0.0618)	1.556 - 1.564 (0.0613 - 0.0616)	
0.25 (0.0098)	1.626 - 1.634 (0.0640 - 0.0643)	1.621 - 1.629 (0.0638 - 0.0641)	

Bearing clearance

Unit: mm (in)

Main bearing clearance

Standard	0.004 - 0.022 (0.0002 - 0.0009)
Limit	0.05 (0.0020)

Connecting rod bearing clearance

Standard	
SR20DE	0.020 - 0.045 (0.0008 - 0.0018)
SR20DET	0.030 - 0.055 (0.0012 - 0.0022)
Limit	0.09 (0.0035)

Engine Lubrication System**Oil pressure check**

Engine rpm	Approximate discharge pressure kPa (bar, kg/cm ² , psi)
Idle speed	SR20DE: More than 98 (0.98, 1.0, 14) SR20DET: More than 98 (0.98, 1.0, 14)
3,200	SR20DE: 324 - 422 (3.24 - 4.22, 3.3 - 4.3, 47 - 61) SR20DET: 343 - 441 (3.43 - 4.41, 3.5 - 4.5, 50 - 64)

Oil pump inspection

Unit: mm (in)

Body to outer gear clearance	0.114 - 0.200 (0.0045 - 0.0079)
Inner gear to outer gear tip clearance	Below 0.18 (0.0071)
Body to inner gear clearance	0.05 - 0.09 (0.0020 - 0.0035)
Body to outer gear clearance	0.05 - 0.11 (0.0020 - 0.0043)
Inner gear to brazed portion of housing clearance	0.045 - 0.091 (0.0018 - 0.0036)

Regulator valve inspection

Unit: mm (in)

Regulator valve to oil pump cover clearance	0.040 - 0.097 (0.0016 - 0.0038)
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Engine Cooling System**Thermostat**

Valve opening temperature	°C (°F)	76.5 (170)
Max. valve lift	mm/°C (in/°F)	8/90 (0.31/194)

General Specifications

PRESSURE REGULATOR	
Fuel pressure at idling kPa (bar, kg/cm ² , psi)	
Vacuum hose is connected	Approximately 245 (2.45, 2.5, 36)
Vacuum hose is disconnected	Approximately 294 (2.94, 3.0, 43)

Inspection and Adjustment

Engine	SR20DE	SR20DET
Idle speed*1 rpm		
No-load*2 (in "N" position)	850 ± 50	925 ⁺²⁵ ₋₇₅
Air conditioner: ON (in "N" position)	850 ± 50	925 ⁺²⁵ ₋₇₅
Ignition timing	15° ± 2° B.T.D.C.	20° ± 2° B.T.D.C.
Throttle sensor idle position V	0.45 - 0.55	

*1: Feedback controlled and needs no adjustments

*2: Under the following conditions:

- Air conditioner switch: OFF
- Electric load: OFF (Lights, heater, fan & rear defogger)

FUEL PUMP

Resistance	Ω	Approximately 0.7
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A.A.C. VALVE

Resistance	Ω	Approximately 10.0
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INJECTOR

Engine	SR20DE	SR20DET
Resistance	Ω	10 - 14
		1 - 3

IGNITION COIL

Primary voltage V	12
Primary resistance [at 20°C (68°F)] Ω	Approximately 1.0
Secondary resistance [at 20°C (68°F)] kΩ	Approximately 10.0

AIR FLOW METER

Supply voltage V	Battery voltage (11 - 14)
Output voltage V	SR20DE: 1.3 - 1.8* SR20DET: 1.0 - 1.5*

*: Engine is warmed up sufficiently and idling under no-load.

ENGINE TEMPERATURE SENSOR

Temperature °C (°F)	Resistance kΩ
20 (68)	2.1 - 2.9
50 (122)	0.68 - 1.00
80 (176)	0.30 - 0.33

RESISTOR

Resistance	kΩ	Approximately 2.2
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THROTTLE SENSOR

Accelerator pedal conditions	Resistance kΩ
Completely released	Approximately 2
Partially released	2 - 11
Completely depressed	Approximately 11