

SECTION 22

SERVICE DATA

CONTENTS

22-1. SPECIFICATIONS	22-1
22-2. SERVICE DATA	22-4

22-1. SPECIFICATIONS

	Models	Canvas Top	Metal Top (Van)	Long Body
ENGINE				
Type	Four-stroke cycle, water cooled, OHC	←	←	←
Number of cylinders	4	←	←	←
Lubrication system	Wet sump	←	←	←
Bore	74.0 mm (2.91 in.)	←	←	←
Stroke	77.0 mm (3.03 in.)	←	←	←
Piston displacement	1,324 cm ³ (1,324 cc, 80.8 cu. in.)	←	←	←
Compression ratio	8.9 : 1	←	←	←
Carburetor	AISAN two-barrel down draft	←	←	←
Air cleaner	Polyester fiber element (Dry type)	←	←	←
ELECTRICAL				
Ignition timing	10° B.T.D.C. at 850 r/min (rpm)	←	←	←
Standard spark plug	NGK BP-5ES, NIPPON DENSO W16EX-U or CHAMPION N9YC [*1 BPR-5ES or W16EXR-U]	←	←	←
Starter	Magnetic shift type	←	←	←
Generator	Alternator	←	←	←
Battery	12V, 108 kC (30 Ah)/20HR or 12V, 162 kC (45Ah)/20HR	←	←	←
Headlight	12V, 50/40W [*1 12V, 45/40W]	←	←	←
Turn signal light	12V, 21W	←	←	←
Clearance light	12V, 5W	←	←	←

NOTE:

Types of battery being used vary with specifications.

When replacement is necessary, be sure to use the one with the same capacity as the originally equipped one.

Item	Models		Canvas Top	Metal Top (Van)	Long Body
Tail/Brake light			12V, 5/21W	←	←
Side turn signal light			12V, 5W	←	←
License plate light			12V, 5W	←	←
Back-up light			12V, 21W	←	←
Interior light			12V, 5W	←	←
Meter pilot light			12V, 1.4W	←	←
Main fuse			0.5 mm ² (fusible link)	←	←
Fuse box			10/10/10/10/15/15/15/15/15/10A [*1 10/10/10/10/10/15/15/15/15/15/ /10/ 5/5/5A]	←	←
POWER TRANSMISSION					
Clutch type			Dry, single disc	←	←
Transmission type			5-forward all synchromesh, 1 reverse	←	←
Final reduction ratio			3.727	←	←
Gear ratios	low		3.652	←	←
	2nd		1.947	←	←
	3rd		1.423	←	←
	4th		1.000	←	←
	5th		0.795	←	←
	reverse		3.466	←	←
Transfer gear ratios	low range		2.268	←	←
	high range		1.409	←	←
Overall reduction ratios:					
Low range	low		30.869	←	←
	2nd		16.457	←	←
	3rd		12.028	←	←
	4th		8.452	←	←
	5th		6.720	←	←
	reverse		29.297	←	←
High range	low		19.177	←	←
	2nd		10.224	←	←
	3rd		7.472	←	←
	4th		5.251	←	←
	5th		4.174	←	←
	reverse		18.201	←	←

Models		Canvas Top	Metal Top (Van)	Long Body
Item				
WHEEL AND SUSPENSION				
Tire size: front and rear		205/70R 15 95Q [*2 P205/70R 15]	←	←
Tire pressure	front	140 kPa (1.40 kg/cm ² , 20 psi)	←	←
	rear	140 kPa (1.40 kg/cm ² , 20 psi)-unladen	←	←
		180 kPa (1.80 kg/cm ² , 26 psi)-laden	←	←
Suspension type	front	Leaf spring	←	←
	rear	Leaf spring	←	←
STEERING				
Turning radius		5.1 m (16.7 ft)	←	6.0 m (19.7 ft)
Steering gear box		Ball nut type	←	←
Toe-in		2 – 6 mm (0.08 – 0.24 in.)	←	←
Camber angle		1° 00'	←	←
Caster angle		3° 30'	←	←
King pin angle		9° 00'	←	←
BRAKE SYSTEM				
Type		4-wheel, hydraulic	←	←
Wheel brake	front	Disc brake (floating caliper type)	←	←
	rear	Drum brake (leading and trailing)	←	←
Parking brake		Mechanical actuated on rear wheels	←	←
CAPACITIES				
Cooling solution		5.0 ℓ (10.6/8.8 US/Imp pt)	←	←
Fuel tank		40 ℓ (10.6/8.8 US/Imp gal)	←	←
Engine oil		3.5 ℓ (7.4/6.2 US/Imp pt)	←	←
Transmission oil		1.3 ℓ (2.7/2.3 US/Imp pt)	←	←
Differential gear box oil	front	2.0 ℓ (4.2/3.5 US/Imp pt)	←	←
	rear	1.5 ℓ (3.2/2.6 US/Imp pt)	←	←
Transfer gear box oil		0.8 ℓ (1.7/1.4 US/Imp pt)	←	←

[*1] For European market

[*2] For Australian market

22-2. SERVICE DATA

ENGINE

Item			Standard		Service Limit		
Compression pressure			14.0 kg/cm ² (199.0 psi)/400 r/min (rpm)		12.0 kg/cm ² (170.0 psi)/400 r/min (rpm)		
	Difference between cylinders		_____		1.0 kg/cm ² (14.2 psi)/400 r/min (rpm)		
Valve lash (clearance)	Cold (When coolant temperature is 15 ~ 25°C or 59 ~ 77°F)	Inlet	0.13 ~ 0.17 mm (0.0051 ~ 0.0067 in.)		_____		
		Exhaust	0.16 ~ 0.20 mm (0.0063 ~ 0.0079 in.)		_____		
	Hot (When coolant temperature is 60 ~ 68°C or 140 ~ 154°F)	Inlet	0.23 ~ 0.27 mm (0.009 ~ 0.011 in.)		_____		
		Exhaust	0.26 ~ 0.30 mm (0.0102 ~ 0.0118 in.)		_____		
Cylinder head	Flatness of gasketed surface		_____		0.05 mm (0.002 in.)		
	Flatness of manifold seat	Inlet	_____		0.1 mm (0.004 in.)		
		Exhaust	_____		0.1 mm (0.004 in.)		
	Valve seat	Seating width	Inlet	1.3 ~ 1.5 mm (0.0512 ~ 0.0590 in.)		_____	
			Exhaust	1.3 ~ 1.5 mm (0.0512 ~ 0.0590 in.)		_____	
	Seating angle		45°		_____		
Valve guide hole diameter (In & Ex) (over size)		12.030 ~ 12.048 mm (0.4736 ~ 0.4743 in.)		_____			
Valve, valve spring & cam shaft	Camshaft/Journal clearance		0.050 ~ 0.091 mm (0.0020 ~ 0.0036 in.)		0.15 mm (0.0059 in.)		
	Camshaft thrust clearance		_____		0.75 mm (0.0295 in.)		
	Cam height (Base circle + lift)	Inlet	37.500 mm (1.4763 in.)		37.400 mm (1.4724 in.)		
		Exhaust	37.500 mm (1.4763 in.)		37.400 mm (1.4724 in.)		
		Fuel pump cam	40.000 mm (1.5748 in.)		39.600 mm (1.5590 in.)		
	Camshaft runout		_____		0.10 mm (0.0039 in.)		
	Valve stem diameter	Inlet	6.965 ~ 6.980 mm (0.2742 ~ 0.2748 in.)		_____		
		Exhaust	6.950 ~ 6.965 mm (0.2737 ~ 0.2742 in.)		_____		
	Valve guide I.D.	Inlet	7.000 ~ 7.015 mm (0.2756 ~ 0.2761 in.)		_____		
		Exhaust	7.000 ~ 7.015 mm (0.2756 ~ 0.2761 in.)		_____		
	Valve guide-to-valve stem clearance	Inlet	0.020 ~ 0.050 mm (0.0008 ~ 0.0019 in.)		0.07 mm (0.0027 in.)		
		Exhaust	0.035 ~ 0.065 mm (0.0014 ~ 0.0025 in.)		0.09 mm (0.0035 in.)		
	Thickness of valve head periphery	Inlet	1.0 mm (0.039 in.)		0.6 mm (0.0236 in.)		
		Exhaust	1.0 mm (0.039 in.)		0.7 mm (0.0275 in.)		
Contact width of valve and valve seat	Inlet	1.3 ~ 1.5 mm (0.0512 ~ 0.0590 in.)		_____			
	Exhaust	1.3 ~ 1.5 mm (0.0512 ~ 0.0590 in.)		_____			
Valve spring free length	Inlet	49.3 mm (1.9409 in.)		48.1 mm (1.8937 in.)			
	Exhaust	49.3 mm (1.9409 in.)		48.1 mm (1.8937 in.)			
Valve spring preload	Inlet	24.8 ~ 29.2 kg (54.7 ~ 64.3 lb) for fitting length 41.5 mm (1.63 in.)		22.8 kg (50.2 lb) for fitting length 41.5 mm (1.63 in.)			
	Exhaust	24.8 ~ 29.2 kg (54.7 ~ 64.3 lb) for fitting length 41.5 mm (1.63 in.)		22.8 kg (50.2 lb) for fitting length 41.5 mm (1.63 in.)			

Item		Standard	Service Limit	
Valve, valve spring & cam shaft	Valve stem end deflection	Inlet	0.14 mm (0.005 in.)	
		Exhaust	0.18 mm (0.007 in.)	
	Stock allowance of valve stem end face		0.5 mm (0.019 in.)	
	Valve head radial runout		0.08 mm (0.003 in.)	
	Valve spring squareness		2.0 mm (0.079 in.)	
	Valve guide protrusion (In. & Ex.)		14 mm (0.55 in.)	
Rocker arm shaft and rocker arm	Rocker shaft O.D.		15.973 ~ 15.988 mm (0.628 ~ 0.629 in.)	
	Rocker arm I.D.		16.000 ~ 16.018 mm (0.629 ~ 0.630 in.)	
	Shaft-to-arm clearance	Inlet	0.012 ~ 0.045 mm (0.0005 ~ 0.0017 in.)	0.09 mm (0.0035 in.)
		Exhaust	0.012 ~ 0.045 mm (0.0005 ~ 0.0017 in.)	0.09 mm (0.0035 in.)
	Rocker shaft runout		0.12 mm (0.004 in.)	
Cylinder	Flatness of gasketed surface		0.03 mm (0.0012 in.)	
	Cylinder bore (S.T.D.)		74.00 ~ 74.02 mm (2.9134 ~ 2.9142 in.)	
	Cylinder bore out-of-round and taper		0.10 mm (0.0039 in.)	
	Cylinder-to-piston clearance		0.02 ~ 0.04 mm (0.0008 ~ 0.0015 in.)	
Piston	Piston diameter	Standard	73.970 ~ 73.990 mm (2.9122 ~ 2.9129 in.)	
		Oversize: 0.25 mm (0.0098 in.)	74.220 ~ 74.230 mm (2.9220 ~ 2.9224 in.)	
		Over size: 0.50 mm (0.0196 in.)	74.470 ~ 74.480 mm (2.9319 ~ 2.9322 in.)	
	Piston ring groove width	Top ring	1.22 ~ 1.24 mm (0.0480 ~ 0.0488 in.)	
		2nd ring	1.51 ~ 1.53 mm (0.0594 ~ 0.0602 in.)	
		Oil ring	2.81 ~ 2.83 mm (0.1106 ~ 0.1114 in.)	
	Piston pin diameter		16.995 ~ 17.000 mm (0.6691 ~ 0.6693 in.)	
Piston ring	Piston ring thickness	Top ring	1.17 ~ 1.19 mm (0.0461 ~ 0.0468 in.)	
		2nd ring	1.47 ~ 1.49 mm (0.0578 ~ 0.0586 in.)	
		Oil ring	0.45 mm (0.0177 in.)	
	Ring clearance in groove	Top ring	0.03 ~ 0.07 mm (0.0012 ~ 0.0027 in.)	0.12 mm (0.0047 in.)
		2nd ring	0.02 ~ 0.06 mm (0.0008 ~ 0.0023 in.)	0.10 mm (0.0039 in.)
	Piston ring end gap	Top ring	0.20 ~ 0.33 mm (0.0079 ~ 0.0129 in.)	0.7 mm (0.0275 in.)
		2nd ring	0.20 ~ 0.35 mm (0.0079 ~ 0.0137 in.)	0.7 mm (0.0275 in.)
		Oil ring	0.20 ~ 0.70 mm (0.0079 ~ 0.0275 in.)	1.8 mm (0.0708 in.)
	Crank shaft	Crankshaft runout (middle)		0.06 mm (0.0023 in.)
Crank pin diameter		41.982 ~ 42.000 mm (1.6529 ~ 1.6535 in.)		
Crank pin clearance in con. rod		0.030 ~ 0.050 mm (0.0012 ~ 0.0019 in.)		
Connecting rod small end bore		16.968 ~ 16.979 mm (0.6680 ~ 0.6684 in.)		
Crank journal diameter		44.982 ~ 45.000 mm (1.7710 ~ 1.7716 in.)		
Bearing-to-journal clearance		0.020 ~ 0.040 mm (0.0008 ~ 0.0016 in.)		
Crank pin out-of-round and taper		0.01 mm (0.0004 in.)		

Item		Standard		Service Limit	
Crankshaft	Crank journal out-of-round and taper		_____		0.01 mm (0.0004 in.)
	Flywheel runout		_____		0.2 mm (0.0078 in.)
	Crankshaft thrust play		0.11 – 0.31 mm	(0.0044 ~ 0.0122 in.)	0.38 mm (0.0149 in.)
	Connecting rod big end side clearance		0.10 ~ 0.20 mm	(0.0039 ~ 0.0078 in.)	0.35 mm (0.0137 in.)
	Connecting rod	Twist	_____		0.10 mm (0.0039 in.)
Bow		_____		0.05 mm (0.0020 in.)	

CLUTCH & TRANSMISSION

Item		Standard		Service Limit	
Clutch	Pedal free travel		20 ~ 30 mm	(0.8 ~ 1.1 in.)	_____
	Facing wear (Rivet head depth)		1.2 mm	(0.05 in.)	0.5 mm (0.02 in.)
	Facing-input shaft serration backlash		_____		0.8 mm (0.03 in.)
	Clutch release arm play		2 ~ 4 mm	(0.08 ~ 0.16 in.)	_____
Transmission	Clearance between gears and rings	Low & high	1.0 ~ 1.4 mm	(0.039 ~ 0.055 in.)	0.5 mm (0.019 in.)
		5th speed	1.2 ~ 1.6 mm	(0.047 ~ 0.063 in.)	0.5 mm (0.019 in.)
	Key slot width of synchronizer ring		10.1 mm	(0.397 in.)	10.4 mm (0.409 in.)
	Gear shift fork shaft spring free length		25.5 mm	(1.004 in.)	21.0 mm (0.826 in.)
	Gear backlash		0.06 ~ 0.15 mm	(0.0024 ~ 0.0059 in.)	0.3 mm (0.0118 in.)

LUBRICATION

Item		Standard		Service Limit	
Lubrication	Radial clearance between outer rotor and case		_____		0.310 mm (0.0122 in.)
	Oil pump side clearance (flatness)		_____		0.15 mm (0.0059 in.)
	Oil relief valve spring	Free length	45 mm	(1.77 in.)	_____
	Set pressure of oil pressure switch		0.2 ~ 0.4 kg/cm ²	(2.84 ~ 5.68 psi)	_____
	Engine oil pressure		3.0 ~ 4.2 kg/cm ² (42.7 ~ 59.7 psi) at 3,000 r/min (rpm)		_____

COOLING SYSTEM

Item		Standard		Service Limit
Cooling system	Fan belt tension as deflection under 10 kg (22 lb) push applied to middle point between pulleys	6 ~ 9 mm	(0.23 ~ 0.35 in.)	_____
	Thermostat start-to-open temperature	*82°C (179°F) or 88°C (190°F)		_____
	Thermostat full-open temperature	*95°C (203°F) or 100°C (212°F)		_____
	Valve lift	8 mm	(0.31 in.)	_____

* There are two types of thermostat depending on specifications.

DIFFERENTIAL

Item		Standard		Service Limit
Differential	Bevel gear backlash	0.10 ~ 0.15 mm	(0.004 ~ 0.006 in.)	_____
	Side gear thrust play	0.12 ~ 0.37 mm	(0.005 ~ 0.014 in.)	_____
	Pinion bearing preload	1.8 ~ 3.4 kg	(4.0 ~ 7.5 lbs.)	_____

SUSPENSION

Item		Standard		Service Limit
Suspension	Front wheel bearing starting preload	1.0 ~ 3.0 kg	(2.2 ~ 6.6 lbs.)	_____
	Rear wheel bearing thrust play	_____		0.8 mm (0.03 in.)
	Axial play in barfield joint	0 mm (No play)		1.5 mm (0.06 in.)
	Knackle arm starting torque (without oil seal)	1.0 ~ 1.8 kg (2.20 ~ 3.96 lbs.)		_____

CARBURETOR

Item			Standard		Limit
Engine idle speed			850 ± 50 r/min (rpm)		_____
Engine idle speed when lighting switch "ON"			950 ± 50 r/min (rpm) (One-step) 1,500 ± 50 r/min (rpm) (Two-step)		_____
Float level	When measuring with special tool		20.5 ~ 23.5 mm	(0.81 ~ 0.92 in.)	_____
	Float height		7 mm	(0.275 in.)	_____
Accelerator cable play (when engine is cold)	Auto choke type	(cold)	10 – 15 mm	(0.4 ~ 0.6 in.)	_____
		(hot)	3 ~ 5 mm	(0.12 ~ 0.20 in.)	_____
Accelerator pump stroke			3.8 ~ 4.2 mm	(0.15 ~ 0.17 in.)	_____

STEERING SYSTEM

Item	Standard	Service Limit
Gear ratio	15.6 ~ 18.1	_____
Steering angle, inside	29°	_____
Steering angle, outside	26°	_____
Steering wheel play	10 ~ 30 mm (0.4 ~ 1.2 in.)	_____

BRAKE

Item	Standard	Service Limit
Front brake disc thickness	10 mm (0.394 in.)	8.5 mm (0.334 in.)
Front brake disc deflection	_____	0.15 mm (0.006 in.)
Front brake pad thickness (lining + pad rim)	15.0 mm (0.590 in.)	6.0 mm (0.236 in.)
Rear brake lining thickness (lining + shoe rim)	7.0 mm (0.28 in.)	3.0 mm (0.12 in.)
Rear brake drum inside diameter	220 mm (8.66 in.)	222 mm (8.74 in.)
Pedal-to-wall clearance: When pedal is depressed at 30 kg (66 lb)	75 mm (2.95 in.) minimum	_____

ELECTRICAL

Item		Standard	Service Limit
Ignition system	Ignition order	1 - 3 - 4 - 2	_____
	Signal rotor air gap	0.2 ~ 0.4 mm (0.008 ~ 0.016 in.)	_____
	Generator resistance	130 ~ 190 ohms	_____
	High tension cord resistance	16 kΩ/3.3 ft (1 m)	20 kΩ/pc
	Ignition coil; Primary coil resistance (20°C)	1.35 ~ 1.65 ohms	_____
	Ignition coil; Secondary coil resistance (20°C)	11.0 ~ 14.5 kilohms	_____
	Spark plug gap	0.7 ~ 0.8 mm (0.027 ~ 0.031 in.)	_____

	Item	Standard	Service Limit
Starter motor	Voltage	12 Volts	_____
	Output	0.8 kw or 0.9 kw	_____
	Rating	30 seconds	_____
	Brush length	17 mm (0.67 in.)	11.5 mm (0.45 in.)
	Number of pinion teeth	8	_____
	Commutator diameter	32 mm (1.26 in.)	31 mm (1.22 in.)
	Mica depth	0.4 ~ 0.6 mm (0.015 ~ 0.023 in.)	0.2 mm (0.008 in.)
	Commutator out of round	0.05 mm (0.0019 in.) or less	0.4 mm (0.015 in.)
	Brush spring tension	1.6 kg (3.53 lb)	1.0 kg (2.20 lb)
Charging system	Nominal operating voltage	12 Volts	_____
	Maximum alternator output	45A	_____
	Maximum permissible alternator speed	15,000 r/min (rpm)	_____
	Working temperature range	-30 ~ 90°C (-22 ~ 194°F)	_____
	Rotor; Ring-to-ring circuit resistance	2.8 ~ 3.0 ohms	_____
	Brush length	11.0 mm (0.43 in.)	5.0 mm (0.20 in.)
	Standard output voltage and current	14.2 ~ 14.8 Volts, 10A maximum	_____
	Regulated voltage	14.2 ~ 14.8 Volts	_____

Prepared by

SUZUKI MOTOR CORPORATION

Technical Department
Automobile Service Division

1st Ed. November, 1987

Printed in Japan

Printing: February, 2004

464