RGV250P ('93-MODEL)

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SPECIFICATIONS

DIMENSIONS AND DRY MASS

Overall length	1995 mm (78.5 in)
	... E-02, 04, 21, 24, 34
	2080 mm (81.9 in)
	... E-22
Overall width	710 mm (27.9 in)
Overall height	1070 mm (42.1 in)
Wheelbase	1380 mm (54.3 in)
Ground clearance	125 mm (4.9 in)
Seat height	766 mm (30.2 in)
Dry mass	139 kg (306 lbs)

ENGINE

Type	Two-stroke, water-cooled, 90° V-twin
Number of cylinders	2
Bore	56.0 mm (2.205 in)
Stroke	50.6 mm (1.992 in)
Piston displacement	249 cm^3 (15.2 cu. in)
Corrected compression ratio	7.3 : 1
Carburetor	MIKUNI TM34SS
Air cleaner	Polyurethane foam element
Starter system	Primary kick
Lubrication system	SUZUKI CCI

TRANSMISSION

Clutch	Wet multi-plate type
Transmission	6-speed constant mesh
Gearshift pattern	1-down, 5-up
Primary reduction	2.565 (59/23)
Final reduction	3.071 (43/14)
Gear ratios, Low	2.454 (27/11)
2nd	1.625 (26/16)
3rd	1.235 (21/17)
4th	1.045 (23/22)
5th	0.916 (22/24)
Top	0.840 (21/25)
Drive chain	DID 520V_2 or RK520SMOZ$_9$ 114 links

These specifications are subject to change without notice.

CHASSIS

Front suspension	Inverted telescopic, coil spring, oil damped, inner rod type, spring 5-way, adjustable.
Rear suspension	Link type system, gas/coil spring, oil damped, spring pre-load fully adjustable, extension damping force 4-way and compression damping force fully adjustable.
Steering angle	30° (right & left)
Caster	65°
Trail	94 mm (3.7 in)
Turning radius	3.1 m (10.2 ft)
Front brake	Disc brake, twin
Rear brake	Disc brake
Front tire size	110/70 R17 54H
Rear tire size	150/60 R17 66H
Front fork stroke	120 mm (4.7 in)
Rear wheel travel	130 mm (5.1 in)

ELECTRICAL

Ignition type	SUZUKI "PEI"
Ignition timing	10° B.T.D.C. at 1300 r/min
Spark plug	BR9ECM or W27 EMR-C
Battery	12V 10.8 kC (3Ah)/ 10 HR
Generator	Three-phase A.C. generator
Fuse	20/10/10/10A

CAPACITIES

Fuel tank	
including reserve	16 L (4.2/3.5 US/Imp gal)
reserve	3.5 L (0.9/0.8 US/Imp gal)
Engine oil	1.1 L (1.2/1.0 US/Imp qt)
Transmission	700 ml (23.7/24.6 US/Imp oz)
Coolant	1.9 L (2.0/1.7 US/Imp qt)
Front fork oil	429 ml (14.5/15.1 US/Imp oz)

SERVICE DATA

CYLINDER + PISTON + PISTON RING

Unit: mm (in)

ITEM	STANDARD			LIMIT
Piston to cylinder clearance	0.055–0.071 (0.0022–0.0028)			0.120 (0.0047)
Cylinder bore	56.000–56.023 (2.2047–2.2056)			Nicks or Scratches
Piston diam.	55.936–55.961 (2.2022–2.2032) Measure at 19 (0.7) from the skirt end			55.880 (2.199)
Cylinder distortion	—			0.05 (0.002)
Cylinder head distortion	—			0.05 (0.002)
Piston ring free end gap	1st & 2nd	T	Approx. 5.0 (0.19)	4.0 (0.15)
		T	Approx. 6.0 (0.24)	4.8 (0.19)
Piston ring end gap	1st & 2nd		0.15–0.30 (0.006–0.012)	0.70 (0.027)
Piston ring to groove clearance	1st & 2nd		0.02–0.06 (0.0008–0.0024)	—
Piston pin bore	16.002–16.010 (0.6300–0.6303)			16.036 (0.6313)
Piston pin O.D.	15.995–16.000 (0.6297–0.6299)			15.980 (0.6291)

CONROD + CRANKSHAFT

Unit: mm (in)

ITEM	STANDARD	LIMIT
Conrod small end I.D.	20.003–20.011 (0.7875–0.7878)	20.047 (0.7893)
Conrod deflection	—	3.0 (0.12)
Crank web to web width	$48.5^{+0.2}_{0}$ $(1.909^{+0.008}_{0})$	—
Crankshaft runout	—	0.05 (0.002)

OIL PUMP

ITEM	SPECIFICATION
Oil pump reduction ratio	4.897 (59/23 x 27/11 x 21/27)
CCI pump discharge rate (Full open)	4.8–6.0 ml for 2 minutes at 2 000 r/min.

CLUTCH

Unit: mm (in)

ITEM	STANDARD	LIMIT
Clutch cable play	2–3 (0.08–0.12)	—
Drive plate thickness	2.99–3.01 (0.118–0.119)	2.69 (0.11)
Drive plate claw width	15.8–16.0 (0.62–0.63)	15.3 (0.60)

ITEM	STANDARD	LIMIT
Driven plate distortion	——	0.1 (0.004)
Clutch spring free length	——	34.8 (1.37)

THERMOSTAT + RADIATOR

ITEM	STANDARD	LIMIT
Thermostat valve opening temperature	50 ± 2°C	——
Thermostat valve lift	Over 7 mm at 65°C	——
Radiator cap valve opening pressure	110 kPa (1.1 kg/cm²)	——

TRANSMISSION

Unit: mm (in) Except ratio

ITEM	STANDARD		LIMIT
Primary reduction ratio	2.565 (59/23)		——
Final reduction ratio	3.071 (43/14)		——
Gear ratios	Low	2.454 (27/11)	——
	2nd	1.625 (26/16)	——
	3rd	1.235 (21/17)	——
	4th	1.045 (23/22)	——
	5th	0.916 (22/24)	——
	Top	0.840 (21/25)	——
Shift fork to groove clearance	0.1–0.3 (0.004–0.011)		0.5 (0.0196)
Shift fork groove width	No.1 & No.2	4.0–4.1 (0.157–0.161)	——
	No.3	5.5–5.6 (0.216–0.220)	——
Shift fork thickness	No.1 & No.2	3.8–3.9 (0.149–0.153)	——
	No.3	5.3–5.4 (0.208–0.212)	——

DRIVE CHAIN

ITEM	STANDARD		LIMIT
Drive chain	Type	D.I.D.: 520 V2 TAKASAGO: 520SMOZ9	——
	Links	114 links	——
	20-pitch length	——	319.4 (12.574)
Drive chain slack	25–35 (0.98–1.38)		——

CARBURETOR

ITEM	SPECIFICATION	
	E-02,04,21,24,34	E-22
Carburetor type	MIKUNI TM34SS	←
Bore size	34 mm (1.34 in)	←
I.D. No.	22D2	22D7

ITEM		SPECIFICATION	
		E-02,04,21,24,34	E-22
Idle r/min.		1 300 ± 150 r/min	1 300 ± 100 r/min
Fuel level		7.1 ± 0.5 mm (0.28 ± 0.02 in)	←
Float height		8 ± 1.0 mm (0.31 ± 0.04 in)	←
Main jet	(M.J.)	L: #270, R: #280	←
Jet needle	(J.N.)	6GH8-55-3	6FL89-55-3
Needle jet	(N.J.)	O–8	O–7
Cut-away	(C.A.)	1.5 mm	←
Pilot jet	(P.J.)	#27.5	#22.5
By-pass	(B.P.)	0.6 mm	—
Pilot outlet	(P.O.)	0.6 mm	1.0 mm
Valve seat	(V.S.)	2.5 mm	←
Starter jet	(G.S.)	#45	←
Power jet	No.1	L: #55, R: #35	L: #45, R: #35
Power jet	No.2	0.7 mm	←
Air screw	(A.S.)	—	1-¼ turns out
Throttle cable play		0.5–1.0 mm (0.02–0.04 in)	←

ELECTRICAL

Unit: mm (in)

ITEM	SPECIFICATION		NOTE
Ignition timing	10° B.T.D.C. at 1 300 r/min.		
Spark plug	Type	NGK BR9ECM ND W27EMR-C	
	Gap	0.7–0.8	
Spark performance	Over 8 (0.3) at 1 atm.		
Ignition coil resistance	Primary	B/Y–W/L 0.17–0.23 Ω	
	Secondary	Plug cap – Terminal 15–20 kΩ	
Generator coil resistance	Y–Y 0.4–0.6 Ω		
Magneto coil resistance	Pick up coil	Br–B 80–120 Ω	
		R–W 80–120 Ω	
Generator no-load voltage	More than 49 V (AC) at 5 000 r/min.		Y–Y
Regulated voltage	13.0–15.5 V at 5 000 r/min.		
Water temperature gauge resistance	189–260 Ω at 50°C		
	24–28 Ω at 115°C		
Battery	Type designation	YT4L-BS	
	Capacity	12V 10.8 kC (3Ah)/10HR	
	Standard electrolyte S.G.	1.32 at 20°C (68°F)	

ITEM	SPECIFICATION		NOTE
Fuse size	Main	20A	
	Ignition	10A	
	Head	10A	
	Tail	10A	

WATTAGE

Unit: W

ITEM		SPECIFICATION
Headlight	HI	60
	LO	55
Tail/Brake light		5/21
Turn signal light		21
Tachometer light		3
Speedometer light		3
Turn signal indicator light		2
High beam indicator light		2
Neutral indicator light		2
Oil level warning light		2
Parking or city light		4
Water temp. meter light		1.7

BRAKE + WHEEL

Unit: mm (in)

ITEM	STANDARD		LIMIT
Rear brake pedal height	60–70 (2.36–2.76)		—
Brake disc thickness	Front	4.3–4.7 (0.17–0.18)	4.0 (0.16)
	Rear	4.8–5.1 (0.19–0.20)	4.5 (0.18)
Brake disc runout	—		0.3 (0.01)
Master cylinder bore	Front	15.870–15.913 (0.6248–0.6264)	—
	Rear	12.700–12.743 (0.4999–0.5016)	—
Master cylinder piston	Front	15.827–15.854 (0.6231–0.6241)	—
	Rear	12.657–12.684 (0.4983–0.4993)	—
Brake caliper cylinder bore	Front	30.230–30.300 (1.1901–1.1929) 33.960–34.030 (1.3370–1.3397)	—
	Rear	24.000–24.076 (0.9449–0.9479)	—
Brake caliper piston diam.	Front	30.160–30.200 (1.1873–1.1889) 33.897–33.930 (1.3345–1.3358)	—
	Rear	23.950–24.000 (0.9429–0.9449)	—

ITEM	STANDARD		LIMIT
Wheel rim runout	Axial	—	2.0 (0.08)
	Radial	—	2.0 (0.08)
Wheel axle runout	Front	—	0.25 (0.010)
	Rear	—	0.25 (0.010)
Tire size	Front	110/70 R17 54H	—
	Rear	150/60 R17 66H	—
Tire tread depth	Front	—	1.6 (0.06)
	Rear	—	2.0 (0.08)

SUSPENSION

Unit: mm (in)

ITEM	STANDARD	LIMIT	NOTE
Front fork stroke	120 (4.7)	—	
Front fork spring free length	—	330 (13.0)	
Front fork oil level	109 (4.29)	—	
Rear wheel travel	130 (5.1)	—	
Swingarm pivot shaft runout	—	0.3	

FUEL + OIL + COOLANT

ITEM	SPECIFICATION		NOTE
Fuel type	The gasoline used should be graded 85 to 95 octane in Research Method and should be unleaded type where they are available.		
Fuel tank including reserve	16 L (4.2/3.5 US/Imp gal)		
reserve	3.5 L (0.9/0.8 US/Imp gal)		
Engine oil type	SUZUKI CCI or CCI SUPER OIL		
Engine oil tank capacity	1.1 L (1.2/1.0 US/Imp qt)		
Transmission oil type	SAE 10W/40		
Transmission oil capacity	Change	700 ml (23.6/24.6 US/Imp oz)	
	Overhaul	800 ml (27.0/28.1 US/Imp oz)	
Front fork oil type	Fork oil #10		
Front fork oil capacity (each leg)	429 ml (14.5/15.1 US/Imp oz)		
Brake fluid type	DOT4		

ITEM	SPECIFICATION	NOTE
Coolant type	Use an anti-freeze & Summer coolant compatible with aluminum radiator, mixed with distilled water only, at the ratio of 50 : 50.	
Radiator including reserve	1 900 ml (2.0/1.7 US/Imp qt)	

TIRE PRESSURE

COLD INFLATION TIRE PRESSURE	NORMAL RIDING					
	SOLO RIDING			DUAL RIDING		
	kPa	kg/cm²	psi	kPa	kg/cm²	psi
FRONT	200	2.00	29	200	2.00	29
REAR	225	2.25	33	250	2.50	36