

TECHNICAL DATA – ENGINE S5-E, S5-GS '98

Engine	S5-E (Adventure)	S5-GS (Pro Junior, Pro Senior)
Design	air cooled single cylinder 2-stroke engine	air cooled single cylinder 2-stroke engine with reed valve inlet
Displacement	49.8 ccm	
Bore/Stroke	39 / 41.7 mm	
Compression ratio	9 : 1	
Fuel	SUPER fuel, research octane no 95, mixed with 2-stroke oil	
Oil/gasoline ratio	1 : 40 when using high grade 2-stroke oil, When in doubt, please contact your importer or use 1 : 33 mix ratio to be on the safe side	
Lubrication	mixture lubrication	
Crankshaft bearing	2 grooved ball bearing	
Connecting rod bearing	needle bearing	
Piston pin bearing	needle bearing	
Piston rings	1 L-ring, 1 rectangular ring	2 rectangular ring
Primary drive	helical gears, 15 : 52 t, cast	helical gears, 15 : 52 t, milled
Transmission oil	0.25 l SAE 30 (Shell Advance VSX4)	
Spark plug	Bosch W 4 AC	
Electrode gap	0.6 mm	
Carburetor	DellOrto SHA 14	Pro Jr.: Mikuni VM 18-144 / Pro Sr.: Mikuni VM 20-352
Air filter	wet foam type air filter insert	

TOLERANCES AND FITTING CLEARANCES			
Engine		S5-E	S5-GS
Crankshaft	run out of crank stud	max. 0.050 mm	max. 0.050 mm
Conrod bearing	radial play	max. 0.022 mm	max. 0.022 mm
	axial play	max. 0.045 mm	max. 0.045 mm
Cylinder	diameter bore	max. 39.026 mm	max. 39.024 mm
Piston	fitting clearance	max. 0.070 mm	max. 0.028 mm
Piston ring	piston ring end gap	max. 0.55 mm	max. 0.55 mm

TIGHTENING TORQUES - ENGINE			
Hexagon nut primary gear	M 12x1,25		40 Nm (30 ft.lb)
Hexagon nut flywheel	M 8		35 Nm (25 ft.lb)
Nut for clutch hub	M 10	Loctite 242 +	35 Nm (25 ft.lb)
Nuts cylinder head	M 6		12 Nm (8 ft.lb)
Nuts exhaust pipe	M 6		12 Nm (8 ft.lb)
Oil drain plug	M 8		15 Nm (10 ft.lb)
Other screws engine	M 5		7 Nm (5 ft.lb)
	M 6		10 Nm (7 ft.lb)

BASIC CARBURETOR SETTING			
Type	Dell'Orto SHA 1412	Mikuni VM 18-144	Mikuni VM 20-352
Main jet	58	70	170
Needle jet	--	145	0-6
Idling jet	--	30	30
Jet needle	--	4F18-4	4J13-3
Needle position from top	--	4.	3.
Mixt. reg. screw open	--	1.5 turn	1.5 turn
Throttle valve	--	1	2