TECHNICAL DATA – ENGINE

Engine	125 VC '94 SX	125 VC '94 EXC, EGS
Design	Liquid-cooled single-cylinder two-stroke engine	
Piston displacement	124,8 cc	
Bore / Stroke	54,25/54 mm	
Fuel	SUPER fuel, research octane no 98, mixed with two-stroke oil	
Oil / gasoline ratio	1:40 when using 2-stroke competition oil. When in doubt, please contact your importeur or use 1:30 mix ratio to be on the safe side.	
Crankshaft bearing	1 cylindrical roller bearing – 1 deep-groove ball bearing	
Connecting rod bearing	needle bearing	
Piston pin bearing	needle bearing	
Piston	light alloy, forged	
Piston ring	1 plain compression ring	
Dimension "X" (upper edge piston - upper edge cylinder)	0,55 - 0,65 mm	
Ignition timing	Motoplat: 1,8 mm (19 degrees) BTDC PVL: 0,9 mm (13 degrees) BTDC	Motoplat: 1,4 - 1,5 mm (16,7 - 17,3 degrees) BTDC SEM: 0,9 mm (13 degrees) BTDC
Spark plug	NGK B10 EGV	
Electrode gap	0,6 mm	
Dimension "Z" (height of the control flap)	34,5 mm	
Primary drive	straight cut spur gears	
Clutch	multiple disc clutch in oil bath	
Transmission	6 speed, claw actuated	
Gear ratios	see Table 2	
Gear lubrication	0,5 l engine oil SAE 30	
Coolant	1,1 litres, 40% anti freeze, 60% water, at least –25° C (–13° F)	
Ignition	Motoplat: solid-state thyristor ignition system PVL: digital ignition system	Motoplat: solid-state thyristor ignition system SEM: solid-state thyristor ignition system
Generator output	no generator	Motoplat: 6V 35/5/21 W SEM: 12V 130W
Carburettor	flat-slide carburettor	
Carburettor setting	see table 3	
Air filter	wet foam-type air filter insert	

GEAR RATIOS

Table 2

Primary Ratio	Transmission		Original Final Drive Ratio
	SX	ENDURO	
18:61	1st gear 13:32	12:34	SX 13:50
	2nd gear 15:30	15:31	ENDURO 13:48
	3rd gear 14:23	14:23	13:45
	4th gear 15:21	15:21	13:40
	5th gear 21:25	21:25	
	6th gear 20:21	20:20	

Available Chain Drive Sprockets	Available Final Drive Sprockets
13 teeth for chain 5/8 x 1/4˝	45 teeth 48 teeth for chain 50 teeth 5/8 x 1/4˝ 52 teeth

BASIC CARBURETOR SETTING

Table 3

	SX, EXC, EGS open version	EGS throttled version
Carburetor type	VHSB 37 FD	VHSB 37 FD
Main jet	212 (210,215)	190 (210,212,215)
Needle jet	DP 266 (DP 265)	DP 264 (DP 266)
Idling jet	40	40
Jet needle	K 74	K 55
Needle position	3rd from top	2nd from top
Air adjustment screw open	2 turn	2,5 turn
Throttle valve	40	40
Starting jet	70	70

(Nm x 0,738 = ft. lbs)

Tolerances and Fitting Clearances		
piston fitting clearance	0,07 mm	
piston ring end gap	0,1–0,3 mm	
connecting rod bearing - radial clearance	0,021–0,028 mm	
transmission shaft end float	0,1–0,2 mm	
centrifugal timer - end float	0–0,1 mm	
clutch spring - length	dia 2,5 – 38 mm or dia 2,6 – 38 mm	
Gasket Thicknesses		
crankcase	0,3 mm	
clutch cover	0,3 mm	
water pump cover	0,5 mm	
ignition cover	0,5 mm	
cylinder base gasket	as required	
available base gaskets	0,05/0,10/0,15/0,30/0,50/0,75 mm	
cylinder head gasket	O-ring 2x60	
Tightening Torques		
nuts- cylinder base	M 8	29 Nm (3 kpm)
cylinder head bolts	M 7	18 Nm (1,8 kpm)
flywheel collar nut (LH thread)	M 12x1	54–59 Nm (5,5 - 6 kpm)
nut for primary gear	M 14x1,5	88–93 Nm (9 - 9,5 kpm)
nut for inner clutch hub	M 16x1,5	88–93 Nm (9 - 9,5 kpm)
crankcase and cover bolts	M 6	8 Nm (0,8 kpm)
swing arm pivot	M 14	137 Nm (14 kpm)
other screws	M 6 M 8 M10	10 Nm (7 ft.lb) 25 Nm (19 ft.lb) 45 Nm (33 ft.lb)