

## TECHNICAL DATA – ENGINE 2005 LC

TYP	50 SX PRO JUNIOR LC	50 SX PRO SENIOR LC
Design	single cylinder 2-stroke engine, with reed valve inlet	
Displacement	49.0 ccm	
Bore/Stroke	39.5 / 40 mm	
Fuel	SUPER fuel, research octane no 95, mixed with 2-stroke oil	
Oil/gasoline ratio	1 : 40 when using high grade 2-stroke oil (Motorex 2T Cross Power) 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 rectangular ring	
Primary drive	straight cut spur gears, 16 : 57 Z	
Transmission oil	0.15-0,2 liter automatic gear oil Dexron II (Motorex Topspeed 4T 15W50)	
Spark plug	NGK BR 8 ECM	
Electrode gap	0.6 mm	
Carburetor	Dell'Orto PHVA 14 DS	Dell'Orto PHBG 19 BS
Air filter	wet foam type air filter insert	
Cooling liquid	0.5 litres, 50% antifreeze, 50% water, at least -25 °C (-13 °F)	

BASIC CARBURETOR SETTING		
Model	50 SX PRO JUNIOR LC	50 SX PRO SENIOR LC
Type	Dell'Orto PHVA 14 DS	Dell'Orto PHBG 19 BS
Main jet	80	85
Needle jet	211 FA	260 AU
Idling jet	45	48
Jet needle	A10	W9
Needle position from top	3.	3.
Air/Mixture reg. screw open	3.5	3.0
Slide	40	60
Starting jet	60	60

TOLERANCES AND FITTING CLEARANCES		
Crankshaft	run out of crank stud	max. 0.050 mm / 0.00196 in
Crankshaft webs	outer dimension	38 mm $\pm$ 0,05 mm
Conrod bearing	radial play	max. 0.030 mm / 0.00118 in
Piston	fitting clearance	0.055-0.065 mm/0.0021-0.0025 in (AC)/0.045-0.055 mm/0.0017-0.0021 in (LC)
Piston ring	end gap	max. 0.20 mm / 0.00780 in
Clutch shoes	outer diameter	new 82.5 mm / 3.25 in
Clutch drum	diameter	0.10 - 0.20 mm / 0.00394 - 0.00787 in
Clutch springs (AC)	length	min. 19.6 mm

TIGHTENING TORQUES - ENGINE		
Hexagon nut primary gear	M14x1,25	40 Nm (30 ft.lb)
Hexagon nut ignition rotor	M10x1,25	20 Nm (15 ft.lb)
Hexagon nut of clutch hub	M10x1,25	Loctite 243 + 35 Nm (26 ft.lb)
HH bolts clutch shoes	M6	Loctite 243 + 12 Nm (9 ft.lb)
Cylinder head bolts	M7	15 Nm (11 ft.lb)
Cylinder base nuts	M8	18 Nm (13 ft.lb)
Allen head bolt-Stator	M5	Loctite 243 + 8 Nm (6 ft.lb)
Oil plug	M16	5 Nm (4 ft.lb)
Oil drain plug	M10	15 Nm (11 ft.lb)
Other bolts engine	M5	7 Nm (5 ft.lb)
	M6	10 Nm (7 ft.lb)
	M8	30 Nm (22 ft.lb)

TIGHTENING TORQUES - CHASSIS		
Hexagon nuts front/rear axle	M12x1	40 Nm (30 ft.lb)
Hexagon nut swing arm bolt	M12	40 Nm (30 ft.lb)
HH bolts of top triple clamp	M8	20 Nm (15 ft.lb)
HH bolts of bottom triple clamp	M8	15 Nm (11 ft.lb)
HH bolts handlebar clamp	M8	20 Nm (15 ft.lb)
Shock absorber top/bottom	M10	45 Nm (34 ft.lb)
Allen head bolt - Handlebar support	M10	Loctite 243 + 40 Nm (30 ft.lb)
Front brake caliper	M8	Loctite 243 + 20 Nm (15 ft.lb)
Front brake disk	M6	Loctite 243 + 10 Nm (7 ft.lb)
Spoke nipple	M4	3 Nm (4 ft.lb)
Other bolts chassis	M5	6 Nm (8 ft.lb)
	M6	10 Nm (7 ft.lb)
	M8	25 Nm (33 ft.lb)
	M10	45 Nm (34 ft.lb)