

TECHNICAL SPECIFICATIONS – ENGINE 65 SX 2005

ENGINE	CR-65
Design	Liquid cooled single cylinder two-stroke engine with reed valve intake
Displacement	64.85 ccm
Bore/stroke	45 / 40.8 mm (1.77/1.6 in)
Fuel	SUPER fuel, research octane no 95, mixed with high grade two-stroke oil
Oil/gasoline ratio	1 : 40 when using high grade two-stroke oil (e.g. Motorex Cross Power 2T), when in doubt, please contact our importer
Lubrication	mixture lubrication
Crankshaft bearing	2 deep-groove ball bearing
Connecting rod bearing	needle bearing
Piston pin bearing	needle bearing
Piston rings	1 compression ring
Primary drive	straight cut spur gears, 23:75 t
Clutch	multiple disc clutch in oil bath, hydraulic operated (Motorex Kupplungsfluid 75)
Transmission	6 speed, claw actuated
Gear ratio	1st gear 13 : 37 2nd gear 16 : 34 3rd gear 18 : 31 4th gear 21 : 30 5th gear 23 : 28 6th gear 24 : 26
Transmission oil	0.30 liter (0.0792 USgal) gear oil (e.g. Motorex Top Speed 4T 15W50)
Ignition system	Moric Digital 2M1
Spark plug	NGK BR 8 ECM
Electrode gap	0.60 mm (0.0236 in)
Carburetor	Mikuni VM 24-505
Coolant	0.55 liter (0.145 USgal), mixture coolant : water = 1 : 1, at least -25° C (-13° F)
Air filter	wet foam type air filter insert

BASIC CARBURETOR SETTING

CARBURETOR	MIKUNI VM 24-505
Main jet	200
Needle jet	864 0-0
Idling jet	25
Jet needle	5114
Needle position from top	IV
Throttle valve	1.5
Starting jet	30
Air adjustment screw open	1

TOLERANCES AND FITTING CLEARANCES			
Crankshaft	run out of crank stud	max. 0.050 mm	0.00196 in
Crankshaft webs outer dimension		57 mm +/- 0,05 mm	2,2441 +/- 0,002
Conrod bearing	radial play	max. 0.030 mm	0.00118 in
Piston pin bearing	radial play	max. 0.030 mm	0.00118 in
Piston	fitting clearance	min. 0.055 mm	0.00216 in
Piston ring	end gap	max. 0.20 mm	0.00780 in
Clutch springs	length min.	25 mm (new 27 mm)	0.98 in (new 1.06 in)
Clutch discs	thickness	min 1.8 mm	0.0708 in
Transmission shafts	end float	0.10 - 0.20 mm	0.00394 - 0.00787 in

TIGHTENING TORQUES - ENGINE		
Hexagon nut – primary gear	M14x1.25	Loctite 243 + 40 Nm/30 ft.lb
Hexagon nut – primary gear	M10	Loctite 243 + 60 Nm/44 ft.lb
Collar nut – flywheel	M10x1.25/M12x1	33 Nm/30 ft.lb
HH bolt – cylinder head	M 7	18 Nm/11 ft.lb
Collar nut – cylinder base	M8	25 Nm/19 ft.lb
Hexagon bolt – inner clutch hub	M10	Loctite 243 + 60 Nm/44 ft.lb
Bolt – clutch	M6	12 Nm/9 ft.lb
Oil drain plug	M8	15 Nm/11ft.lb
Bolts – clutch cover	M6	8 Nm/6 ft.lb
Kickstarter stop plate	M6	Loctite 243 + 13 Nm/10 ft.lb
Bolts – stator	M4	Loctite 243 + 2 Nm/1,5 ft.lb
AH bolts – stator	M5	Loctite 243 + 6 Nm/4,5 ft.lb
Shift drum locating device	M6	Loctite 243 + 14 Nm/11 ft.lb
Other bolts – engine	M5 M6	6 Nm/4.5 ft.lb 10 Nm/7 ft.lb

TIGHTENING TORQUES - CHASSIS		
Hexagon bolt - brake caliper front	M8	Loctite 243 + 20 Nm/15 ft.lb.
Flat head bolt - brake discs	M6	Loctite 243 + 10 Nm/7 ft.lb.
Hexagon nut - front wheel spindle	M10	40 Nm/30 ft.lb.
Hexagon nut - front wheel spindle	M12x1	50 Nm/37 ft.lb.
Hexagon nut - rear wheel spindle	M12x1	40 Nm/30 ft.lb.
Hexagon nut - swingarm bolt	M12x1	40 Nm/30 ft.lb.
Clamping bolts - top triple clamp	M8	20 Nm/15 ft.lb.
Clamping bolts - bottom triple clamp	M8	15 Nm/11 ft.lb.
Clamping bolts - front wheel axle clamp	M6	10 Nm/7 ft.lb.
AH bolt - handlebar clamp	M8	20 Nm/15 ft.lb.
Hexagon bolt - handlebar clamp	M8	20 Nm/15 ft.lb.
AH bolt - handlebar support	M10	Loctite 243 + 40 Nm/30 ft.lb.
Hexagon nut fork tube	M20x1.5	10 Nm/7 ft.lb.
Hexagon bolt - shock absorber top/bottom	M10	45 Nm/33 ft.lb.
Sprocket bolts	M8	Loctite 243 + 35 Nm/26 ft.lb.
Ball joint for push rod	M6	Loctite 243 + 10 Nm/7 ft.lb.
Tire holder	M8	5 Nm/4 ft.lb.
Spoke nipple	M3.5	3-4 Nm/4-5.5 ft.lb.
Other bolts chassis	M5 M6 M8 M10	6 Nm/4.5 ft.lb. 10 Nm/7 ft.lb. 25 Nm/18 ft.lb. 40 Nm/30 ft.lb.