

## TECHNICAL DATA – ENGINE 400 EXC RACING 2004

Type	400 EXC
Design	Liquid-cooled single cylinder 4-stroke engine with balancer shaft
Hubraum	398 ccm
Bore/Stroke	89 / 64 mm
Ratio	11 : 1
Fuel	unleaded fuel with at least RON 95 (USA = Premium RON 91)
Valve timing	4 valves over rocker arm and 1 overhead camshaft, camshaft drive through single chain
Camshaft	595/0121
Valve diameter Intake	35 mm
Valve diameter Exhaust	30 mm
Valve clearance cold Intake	0.12 mm (0.0047 in)
Valve clearance cold Exhaust	0.12 mm (0.0047 in)
Crank shaft bearing	2 cylinder roller bearing
Connecting rod bearing	needle bearing
Top end bearing	bronze bushing
Piston aluminium alloy -	cast
Piston rings	1 compression ring, 1 oil scraper ring
Engine lubrication	pressure circulation lubrication with two rotor pumps
Engine oil	full synthetic oil (Motorex Power Synt 4T 10W/50)
Quantity of engine oil	1.25 liters
Primary ratio	straight geared spur wheels 33:76 Z
Clutch	multi disc clutch in oil bath
Transmission claw shifted	6-speed
Gear ratio	
1 <sup>st</sup> Gear	14:34
2 <sup>nd</sup> Gear	17:31
3 <sup>rd</sup> Gear	19:28
4 <sup>th</sup> Gear	22:26
5 <sup>th</sup> Gear	24:23
6 <sup>th</sup> Gear	26:21
Ignition system	contactless DC-CDI ignition with digital advanced system by KOKUSAN
Generator	12V 150W
Spark plug	NGK DCPR 8 E
Spark plug gap	0.6 mm (0.02367 in)
Cooling system	liquid cooled, permanent rotation of cooling liquid through mechanically driven water pump
Cooling liquid	1 liter, 40% antifreeze, 60% water, at least -25° (-13° F)
Starting equipment	kick - electric starter

### BASIC CARBURATOR SETTING

	400 EXC RACING 12 KW
Type	Keihin FCR-MX 39
Carburator-setting number	3900A
Main jet	178
Jet needle	OBDVR
Idling jet	42
Main air jet	200
Idling air jet	100
Needle position	1 <sup>st</sup> from top
Starting jet	85
Mixture control screw open	1,25
Slide	15
Performance restrictor	Slide stop
Stop pump membrane	858 / 2,15 mm
Hot start device	-