

TECHNICAL DATA – ENGINE 450/525 SMR 2004

Type	450 SMR	525 SMR
Design	Liquid-cooled single cylinder 4-stroke engine with balancer shaft	
Displacement	449 cc	510 cc
Bore/Stroke	95 / 63.4 mm	95 / 72 mm
Ratio	12 : 1	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	590/5521	
Valve diameter Intake	35 mm (Titan)	
Valve diameter Exhaust	30 mm (Titan)	
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 alluminium alloy -	forged	
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 st Gear	16:32	
2 nd Gear	18:30	
3 rd Gear	20:28	
4 th Gear	22:26	
5 th Gear	24:24	
6 th Gear	21:18	
Ignition system	contactless DC-CDI ignition with digital advanced system by KOKUSAN	
Generator	12V 40W	
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	kickstarter	

BASIC CARBURATOR SETTING

Type	405 SMR	525 SMR
Type	Keihin FCR-MX 41	Keihin FCR-MX 41
Carburator-setting number	4122A	4125A
Main jet	185	185
Jet needle	OBDTP	OBDTP
Idling jet	40	42
Main air jet	200	200
Idling air jet	100	100
Needle position	4th from top	4th from top
Starting jet	85	85
Mixture control screw open	1	1,5
Slide	15	15
Performance restrictor	-	-
Stop pump membrane	858 / 2,15 mm	858 / 2,15 mm
Hot start device	2,2 mm	2,5 mm