

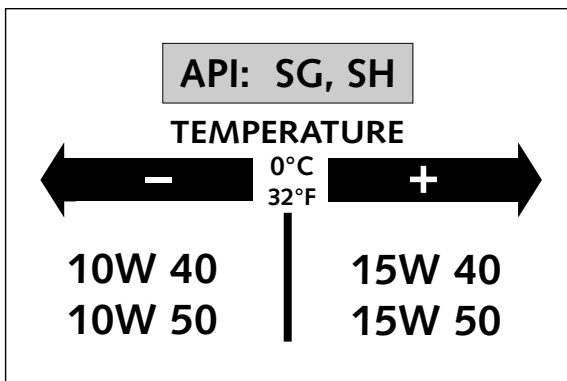
TECHNICAL SPECIFICATIONS – ENGINE 620 SC, 620 SC SUPERMOTO 2001

Engine	620
Design	Liquid-cooled single cylinder 4-stroke engine with balancer shaft
Displacement	609 ccm
Bore / Stroke	101 / 76 mm
Ratio	10,4 : 1
Fuel	unleaded premium gasoline with a least RON 95
Valve timing	4 valves over rocker arm and 1 overhead camshaft, camshaft drive through single chain
Camshaft	249/1
Valve diameter	Intake: 36 mm Exhaust: 30 mm
Valve clearance cold	Intake: 0,15 mm Exhaust: 0,15 mm
Crank shaft bearing	2 cylinder roller bearing
Connecting rod bearing	needle bearing
Top end bearing	bronze bushing
Piston	forged aluminium
Piston rings	1 compression ring, 1 taper face ring, 1 oil scraper ring
Engine lubrication	forced-feed lubrication through Eaton-Oilpump with oil sump
Engine oil	see table
Engine oil quantity	1,6 liters (0,42 US gallons)
Primary ratio	straight geared spur wheels 30 : 81 teeth
Clutch	multi disc clutch in oil bath
Transmission	5-speed claw shifted
Gear ratio	1st 14:35 2nd 15:24 3rd 18:21 4th 20:19 5th 22:18
Ignition system	contactless thyristor ignition with electronic advanced system type KOKUSAN 4K3
Ignition timing	adjustment to max. 36 ° BTDC at 5000 rpm
Generator	12V 110W
Spark plug	NGK DPR8 EA-9
Spark plug gap	0,9 mm
Cooling system	liquid cooled, permanent rotation of cooling liquid through mechanic driven water pump
Cooling liquid	1 liter, 40% antifreeze, 60% water, at least -25°C (-13°F)
Starting equipment	decompressor automatic and hand actuated, cold and hot start knob on carburetor

BASIC CARBURETOR SETTING

	620 SC, 620 SC SUPERMOTO
Carburetor	PHM 40 SD
Carburetor setting number	080600
Main jet	155
Needle jet	DR 266
Idling jet	45
Jet needle	K 51
Needle position from top	3 rd
Mixture.adju. screw open	1,5 turns
Throttle valve	40
Starting jet	45
Performance restrictor	Slide stop 24mm

ASSEMBLY CLEARANCE, WEAR LIMIT		
Crank shaft	axial play.....	0,03 - 0,12 mm (0,001-0,005 in)
	run out of crank stud.....	max. 0,04 mm (0,002 in)
Connecting rod bearing	radial play.....	max. 0,05 mm (0,002 in)
	axial play.....	max. 1,00 mm (0,04 in)
Piston forged	assembly clearance.....	max. 0,12 mm (0,005 in)
Piston rings end gap	compression rings.....	max. 0,60 mm (0,023 in)
	oil scraper ring.....	max. 0,80 mm (0,031 in)
Valves	seat sealing intake.....	max. 1,50 mm (0,059 in)
	seat sealing exhaust.....	max. 2,00 mm (0,080 in)
	run out of valve heads.....	max. 0,03 mm (0,001 in)
	valve guides diameter.....	max. 7,05 mm (0,277 in)
Oil pump	clearance outer rotor - housing.....	max. 0,20 mm (0,008 in)
	clearance outer rotor - inner rotor.....	max. 0,20 mm (0,008 in)
Bypaß valve	minimum spring length.....	25 mm (1 in)
Clutch discs	wear limit organic.....	2,5 mm (0,1 in)
Clutch springs	minimum length.....	34,5 mm (new 37 mm) (1,36 in - new 1,45 in)
Transmission shafts	axial play.....	0,1 - 0,4 mm (0,004 - 0,016 in)



Engine oil

Use only oil brands, which meet quality requirements (Shell Advance Ultra 4) of API-classes SG or SH (informations on bottles) or higher.

! CAUTION !

POOR OIL QUALITY OR MINOR QUANTITY EFFECT EARLY ENGINE-WEAR.