Engine Specifications	GXV390
Model	GXV390
Type	4-stroke, OHV, single cylinder
Displacement	389 cm3 (23.7 cu-in)
Max. horsepower	13.0 HP (9.7 kW) at 3600 rpm
Max. torque (crank PTO)	28.0 Nm (2.8 kg·m, 20.3 ft·lb) at 2500 rpm
Carburetor	Horizontal type, butterfly valve
Cooling system	Forced-air
Ignition system	Transistorized magneto ignition
Lubricating system	Pressure and splash
Starting system	Recoil or electric starter
Stoping system	Ignition primary circuit ground
Fuel used	Unleaded gasoline (octane number 86 or higher)
Fuel tank capacity	2.3 L (0.61 US gal, 0.51 lmp gal)
Fuel consumption	313 g/kWh (230 g/HPh, 0.51 lb/HPh)
PTO shaft rotation	Counterclockwise (from PTO shaft side)
DIMENSIONS AND WEIGHT	GXV390
Length, mm (in)	430 (16.9)

Width, mm (in)	385 (15.2)
Height, mm (in)	410 (16.1)
Dry weight, kg (lb)	33 (72.8)
Operating weight, kg (lb)	34.5 (76.1)
CYLINDER BLOCK AND HEAD	
Compression ratio	7.7:1
Bore x Stroke	88 X 64 mm (3.46 x 2.5 in)
Sleeve internal diameter	88.000 mm (3.4646 in)
Piston skirt outer diameter	87.985 mm (3.4640 mm)
Number of piston rings	(compression / oil): 2 / 1
Ring side clearance	Top/second 0.030-0.060 (0.0012-0.0024)
Ring end gap	Top 0.20-0.40 mm (0.0079-0.0160 in)
	Second 0.20-0.40 mm (0.0079-0.0160 in)
Ring width	Top 1.160-1.175 mm (0.0457-0.0463 in)
	Second 1.160-1.175 mm (0.045-0.0463 in)
Piston pin outer diameter	19.994-20.000 mm (0.7872-0.7874 in)
Connecting rod small end inner diameter	20.005-20.020 mm (0.7876-0.7882 in)
Connecting rod big end inner diameter	36.025-36.039 mm (1.4183-1.4189 in)
Crankpin outer diameter	35.975-35.985 mm (1.4163-1.4167 in)

Cylinder Head	
Warpage (limit)	0.10 mm (0.004 in)
Valve Arrangement	OHV
Valves	2
Stem outer diameter (standard)	INTAKE 6.590 mm (0.2594 in)
	EXHAUST 6.550 mm (0.2579 in)
Cam height	INTAKE 32.60 mm (1.283 in)
	EXHAUST 32.09 mm (1.263 in)
Camshaft outer diameter	16.000 mm (0.6299 in)
TIGHTENING TORQUE SPECS	
Connecting rod bolt	14 Nm; 1.4 kg·m; 10 ft·lb
Cylinder head bolt	35 Nm; 3.5 kg·m; 25 ft·lb
Flywheel nut	115 Nm; 11.5 kg·m; 83 ft·lb
Pivot adjusting nut	10 Nm; 1.0 kg·m; 7 ft·lb
Push rod guide pivot bolt	24 Nm; 2.4 kg·m; 17 ft·lb
Oil pan bolt	24 Nm; 2.4 kg·m; 17 ft·lb
Air cleaner body cap nut	9 Nm; 0.9 kg·m; 6.5 ft·lb
Muffler mounting nut	24 Nm; 2.4 kg·m; 17 ft·lb
Exhaust pipe mounting nut	24 Nm; 2.4 kg·m; 17 ft·lb

Oil drain plug	45 Nm; 4.5 kg·m; 34 ft·lb
Cylinder head cover bolt	9 Nm; 0.9 kg·m; 6.5 ft·lb
Fuel tank bolt	24 Nm; 2.4 kg·m; 17 ft·lb
Standard torque values	
Bolt, nut (5 mm)	5.5 Nm; 0.55 kg·m; 4.0 ft·lb
Bolt, nut (6 mm)	10 Nm; 1.0 kg·m; 7 ft·lb
Bolt, nut (8 mm)	24 Nm; 2.4 kg·m; 17 ft·lb
Bolt, nut (10 mm)	37.5 Nm; 3.75 kg·m; 27 ft·lb
Bolt, nut (12 mm)	55 Nm; 5.5 kg·m; 40 ft·lb
MAINTENANCE DATA	
Engine	
Maximum speed	3400 ± 150 rpm
Idle speed	1400 ± 150 rpm
Cylinder compression	5.0-8.5 kg/cm2 (71-151 psi) at 600 rpm
Valve clearance	
Intake valve	0.10 ± 0.02 (0.004
Exhaust valve	0.15 ± 0.02 (0.006 ± 0.001)
Carburetor	
Main jet	#95

Float height	11.9-14.5 mm (0.47-0.57 in)
Pilot screw opening	2-1/2 turns out
Oil system	
Oil type	Honda 4-stroke or an equivalent (SE or SF)
Recommended oil	SAE 10W-40
Oil capacity	1.1 L (1.2 US gal, 1.0 lmp qt)
Ignition system	
Ignition timing	20° B.T.D.C (Fixed)
Spark plug	NGK: BPR5ES
	NIPPONDENSO: W16EPR-U
Spark plug gap	0.7-0.8 mm (0.028-0.031 in)
Primary ignition coil resistance	0.7-0.9 Ω
Secondary ignition coil resistance	6.3-7.7 kΩ
Ignition coil air gap	0.4 ± 0.2 (0.016 ± 0.008)
Starter motor	
Brush length	7.2 mm (0.28 in) limit: 3.5 mm (0.14 in)
Mica depth	1.0 mm (0.04 in) limit: 0.2 mm (0.01 in)