

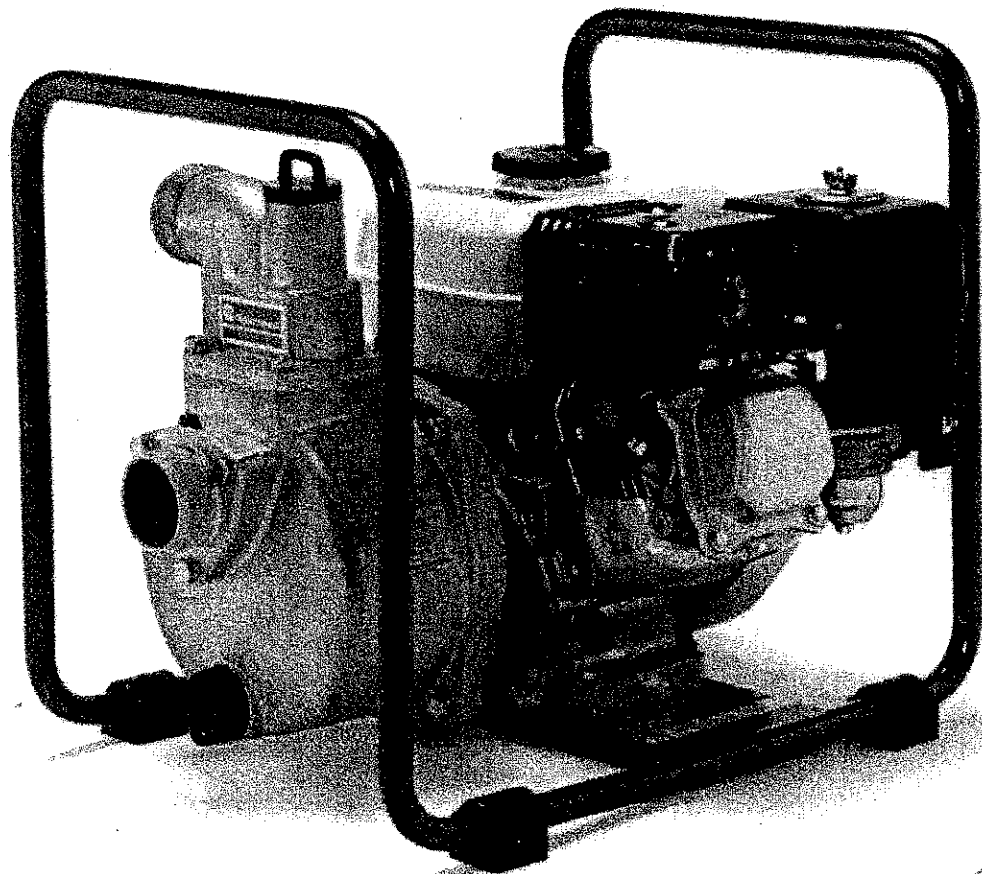


ENGINE PUMP

MP4020EH

MP5020EH

MP8010EH



Instruction Manual

Completely read and understand this manual before using this product.

1. Specification:

	MODEL	MP4020E-H	MP5020E-H	MP8010EH
PUMP	TYPE	Self-priming gas-powered centrifugal pump		
	SUCTION BORE	1.5"	2"	3"
	DISCHARGE BORE	1.5"	2"	3"
	TOTAL HEAD(MAX)	98ft	92ft	82ft
	OUTPUT VOLUME(MAX)	79.3 gal/min	132.1 gal/min	264.1 gal/min
POWER TRANSMISSION		Direct drive		
ENGINE	MODEL	Commercial HONDA GX120		HONDA GX160
	TYPE	Air-cooled 4 stroke OHV 25degree inclined cylinder; Horizontal shaft		
	DISPLACEMENT	118cm ²		163cm ²
	OUTPUT	4hp/3,600rpm		5.4hp/3,600rpm
	FUEL TANK CAPACITY	0.7 gal		0.95 gal
DIMENSIONS(L x W x H)		11.9 x 8.6 x 10.4 in		21.5 x 17.1 x 19.1 in

2. Preparation for use:

- 1) Check that there are no loose screws or components on the machinery.
- 2) Place the pump on a level surface, but not immediately next to the water supply. Where inclined emplacement is necessary, be sure to secure the pump adequately.
- 3) Use a suction hose that is as short as possible, and lay it with as few bends as possible for maximum pump performance. Where the weight of the suction hose causes the pump to tilt or move, secure the pump adequately.
- 4) The suction hose is subjected to an internal minus pressure, so be sure to use a hose strong enough not to collapse.
- 5) Always attach the strainer to the end of the suction hose. If the pump is operated without the strainer, pebbles and other materials will be sucked into the pump and could lead to breakdowns.
- 6) Be sure that the strainer is completely submerged, but not in contact with sandy or muddy bottom surfaces.
- 7) Secure the suction and outlet hoses tightly to the pump to avoid sucking air.
- 8) Check the oil level in the engine crankcase, and fill it to the specified level as needed. To replace the oil, refer to the engine users' manual.
- 9) Fill the fuel tank with the specified fuel : Unleaded automobile gasoline.

3. Operating and stopping the unit:

- 1) Pour water into the priming inlet until the casing is full, and insert the blind plug securely.
- 2) Open the fuel cock and close the choke lever completely. Where the weather is hot, or the engine is already warmed up, the choke lever may be set to either full open or half open.
- 3) Set the throttle lever to either halt or full open.

- 4) Pull the recoil starter lightly 2-3 times, and pull it sharply to start the engine. Once the engine starts, gradually open the choke lever to the full open position.
- 5) After the engine starts, the pump will gradually start suction. Once suction starts, let the pump run 2-3 minutes to warm up, and then operate it at the specified rpm setting.
- 6) To stop engine operation, press the engine stop button.
- 7) When the engine is restarted, the pump will operate without priming, but the level of the water inside the casing must be checked before starting in the event that the suction hose end is exposed, the installation site is changed, or the pump has not been used for a long time.
- 8) The suction head or lift is 19.6 feet or 6,0 m. The pump will provide the most efficient and inexpensive operation when the vertical suction distance is 9.8 feet or 3.0 m or less.
- 9) Where the vertical suction distance is long, hold the outlet end of the hose high and begin pumping quickly so that the priming water does not escape from the pump.
- 10) Always turn off the engine and pump to refill the fuel tank.
- 11) Refer to the engine users' manual for details concerning engine operation.
- 12) After the pump has been used with muddy water, be sure to run it with clean water for a few minutes to clean the interior of the pump before stopping operation.
- 13) Where outside temperatures drop to freezing or below, be sure to drain all water from the pump before storage.
- 14) When the unit is not to be used for a long period of time, clean the pump interior thoroughly, remove all remaining moisture, and then store it covered in a dry, cool, dark place.

4. Trouble-shooting:

Problem	Cause	Counter-measure
Pump does not operate.	Engine does not rotate. Impeller is rusted. Foreign object jammed.	Refer to engine user's manual. Disassemble and repair. Disassemble and repair.
Suction time is long, no natural water supply.	Pump is sucking air. Insufficient priming water. Bad mechanical seal. Insufficient engine rpm. Suction head too high. Suction hose damaged. Strainer or hose clogged.	Inspect and tighten suction components. Fill the casing with priming water. Replace the mechanical seal. Increase rpm. Move the pump closer to the water source. Replace the suction hose. Clean.