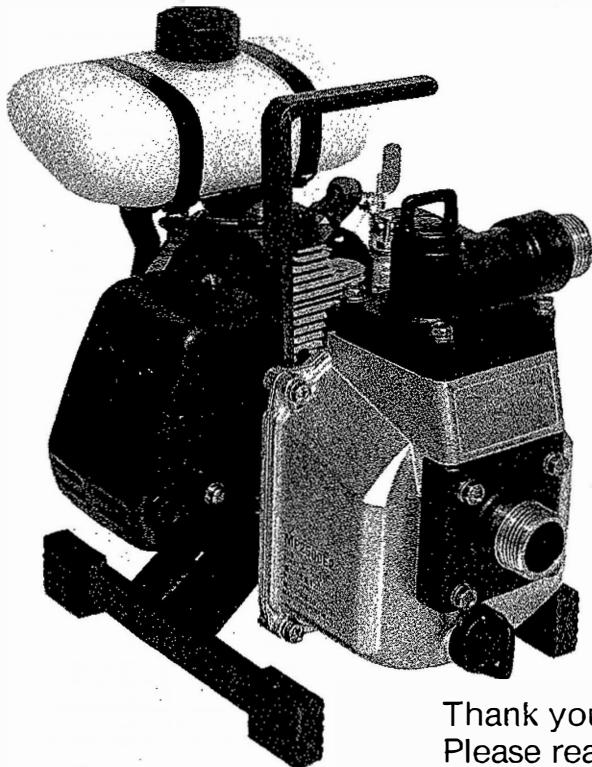


MARUYAMA

Instruction Manual — Engine Pump



MODEL

**MP2500E2
MP2500E
MP4000E
MP5000E**

Thank you for purchasing this fine Maruyama product.
Please read this manual thoroughly before use.

1. Specification

Name		MP2500E2	MP2500E	MP4000E	MP5000E
Length x Width x Height in. (mm)		12 x 9.4 x 11.8 (307 x 240 x 300)	15.1 x 11.4 x 15.9 (385 x 292 x 404)	16.7 x 14.1 x 17.6 (426 x 359 x 449)	19.4 x 15.9 x 15.9 (495 x 405 x 406)
Dry Weight lbs. (kg.)		14.9 (6.8)	30.8 (14)	19.8 (9)	51.8 (23.5)
Pump	Inlet/Outlet ID in. (mm)	0.98 (25)		1.57 (40)	1.96 (50)
	Connection Thread	PF1		PF1½	PF2
	Maximum Output Flow gal/min (lit/min)	31.7 (120)	36.9 (140)	79.2 (300)	132 (500)
	Maximum Head ft. (m)	118 (36)	118 (36)	98.4 (30)	91.8 (28)

Name		MP2500E2	MP4000E	MP5000E
Type	Air-cooled 2-cycle		Air-cooled 4-cycle	
Displacement (cc)	31.5	121	129	
Continuous Rated Output (max.) PS/rpm	1.2/7,000	2.1/3,600	2.3/3,600	
Fuel	Gas:oil	Automobile unleaded gasoline		
Fuel Tank Capacity gal. (lit.)	0.26 (1)	0.79 (3)	0.79 (3)	
Starter	Recoil starter			
Accessories	Suction hose 9.8ft.(3m)			
	Hose coupling set (2 pcs.), strainer (1 pc.), hose clamps (3 pcs.)			

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:
MP2500E, MP4000E, MP5000E: Unleaded automobile gasoline.
MP2500E2: 25:1 ratio mixture of gasoline and 2-cycle oil.

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 half 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 6.0m. The pump will provide the most efficient and inexpensive operation when the vertical suction distance is 9.8 feet or 3.0m 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.



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