



# STR4-13

## QUICK GUIDE

This Quick Guide shows the basic operation instructions and safety precautions for the WATERAX STR4-13 high pressure pump.

- The WATERAX STR4-13 pairs a WATERAX 4-stage pump end with a HONDA GX390 gasoline-powered engine.
- For full specifications and performance curves, see the *STR4-13 Data Sheet*.



## Warnings and Safety Precautions

This warning label appears on the STR4-13 pump to identify safety hazards as follows:



### Read Your Owner's Manual

The improper use of this pump could result in serious injuries as well as damage to the unit. Read the *Owner's Manual* before using your pump unit and follow the safety instructions in this Quick Guide. It contains very important safety information that **MUST** be read, understood and followed to safeguard you and your equipment from harm and damage. **This pump must only be operated by trained personnel.**



### Warnings

- Do not operate if mentally or physically fatigued.
- Always inspect hoses and piping to avoid burst injuries.
- No modification and/or alteration may be made to the pump. Any such modifications void the pump warranty and can endanger pump operators.
- Do not operate the pump above the maximum rated pressure of 600 psi (41.4 bar). Use only pipe, hose, and fittings rated at or above the max. pressure rating of the pump or system design. Ensure special precautions during tandem pumping and progressive hose lays.
- Max. allowable pump intake pressure: 200 psi (13.8 bar)
- Use slow close valves wherever possible to safeguard operators and prevent damage from water hammer.
- Ensure sufficient lighting (5 lx min.) during operation.
- Dry weight of the unit: 125 lbs (56.7 kg).
- Dimensions: Refer to data sheet.



**Always wear eye and ear protection** when operating the pump unit. Sound level of the unit: 94 dB(A).



**Never run the engine in a closed or confined area.** Exhaust gas contains carbon monoxide which is poisonous. Avoid inhalation of exhaust gas.



**Refuel engine with care.** Gasoline is extremely flammable, and gasoline vapor can explode. Refuel in a well-ventilated area, with the engine stopped. Use only fuel as recommended.



**Never touch any exhaust system parts while engine is running.** Always allow enough time, after stopping the unit, for proper cooling of these parts and surrounding areas. Wear protective gloves.

### Preventing Damage to Equipment

- Flush the pump with fresh water if the pump has been used to pump salty, brackish, high mineral content water, water containing debris, or foam injected water. Check that debris is cleared before using the pump again.
- Always draft water using a suction strainer.

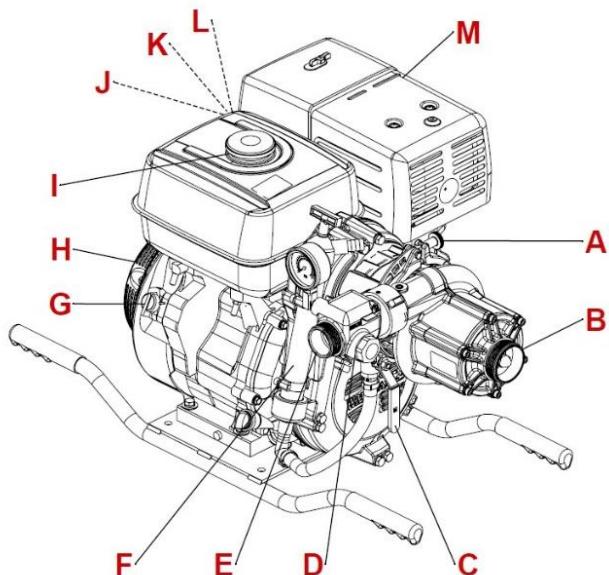
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### Parts Identification

- A. Quick release pump clamp
- B. Pump intake (suction)
- C. Priming valve\*
- D. Discharge check valve\*
- E. Pump discharge
- F. Hand primer\*
- G. Ignition switch
- H. Recoil starter
- I. Fuel cap
- J. Throttle (not shown)
- K. Fuel valve (not shown)
- L. Choke (not shown)
- M. Muffler

*Note: Portable model shown.*

\* Available on portable models.



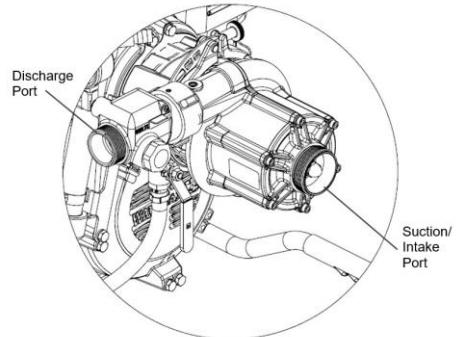
### To operate the STR4-13:

1. Fill fuel tank with recommended fuel grade and securely replace cap.
2. Check oil level (see engine manual) and top off if necessary.
3. Connect the suction hose. Use universal hose coupling wrench to tighten coupling firmly.

**Drafting mode:** Connect foot valve strainer to male end of suction hose, then fill suction hose with water and connect to pump intake.

**Flooded Suction Mode:** Connect female end of suction hose to pump intake and connect male end to hydrant or other supply

- a. Slowly open the pump inlet valves allowing the water into the pump body.
- b. Slowly open the discharge valves and priming valves to allow for entrapped air in the piping to escape.
- c. Once all the air has escaped, slowly close any opened discharge valves so that the unit may be started.



- ! DO NOT run engine with pump disconnected.
- ! DO NOT run pump when dry.
- ! DO NOT allow foot valve strainer to rest on bottom of lake or riverbed. Check strainer frequently to make sure that it is not clogged with moss, leaves, etc.
- ! DO NOT lift strainer from water while the pump is operating. Use a rope or other means to keep strainer at proper height, approximately 1 foot (30 cm) below water surface. If strainer is too close to the water surface, it will draw air and pump may lose prime.

4. Connect the discharge hose, nozzles, etc., to pump, and tighten firmly with coupling wrench.

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### 5. Prime the pump.

Check that all drains, discharge valves, or any auxiliary valves are closed before priming the pump. Open the priming ball valve (located between the pump and the primer).

**Manual Priming:** Pump can be primed by “jerking” the suction hose until water flows from the pump’s discharge port.

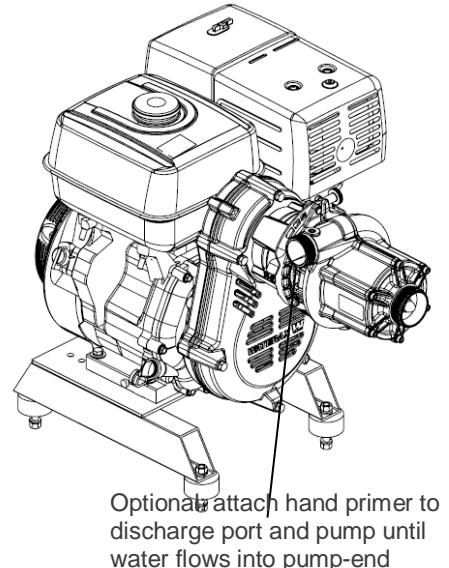
**Guzzler Priming:** If equipped with a Guzzler primer, follow the hand pump manufacturer’s operation instructions. Pump until water is drawn into the pump.

**Electric Priming:** See instructions for your electric primer. Note that most electric primer motors are intended to be used only a short duration (about 20 seconds). If pump fails to prime, see the *STRIKER-4 Owner’s Manual* for troubleshooting tips.

**Close the priming valve after priming.** Failure to close the priming valve could cause the pump to lose prime or water to be pumped through the priming system.

### 6. Start the engine.

- a. Open fuel valve.
- b. Close/engage choke if engine is cold.
- c. Increase throttle past the idle position.
- d. Position the ignition switch to the ON position (on GX390 only).
- e. Start engine: give starter rope a quick and steady pull until engine starts or use electric starter (see engine manual).
- f. Open/disengage choke.
- g. Allow the engine to warm up for at least 2 minutes before using full throttle.



### 7. Discharge water.

Once the pump is primed, and with the engine running, you can begin to discharge water.

- a. If pressure does not build in the discharge hose, the pump has not been fully primed. The discharge valve should be closed and the pump primed again.
- b. Adjust the pump performance by throttling the engine up or down, or opening or closing discharge valves at various positions, or any combination of the two.

! **DO NOT** leave the pump running with all the discharge valves closed for more than one minute, or else the pump may overheat and become damaged. Additionally, the pump end and the water inside it can become extremely hot and cause severe burns. **Careful when opening the discharge valve and avoid touching the pump end.** To avoid this, a re-circulation line (if provided) should be opened or a discharge line left slightly open to allow fresh water to continue to enter the pump.

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### To shut down and store the STR4-13:

8. Shut down the pump.
  - a. Gradually reduce the engine speed.
  - b. Whenever the unit has been run at full throttle for most of the operation, allow the valves to remain slightly open and run the engine at idle for approximately 2 minutes before shutting down the unit.
  - c. If the unit is to be stored, move the fuel valve lever to the OFF position and wait for the engine to stop. Otherwise, set the ignition switch to the OFF position to shut down the engine. For VAN400 engines set throttle to OFF position to shut down the engine.
  - d. Close off the hydrant/supply to the pump.
  - e. Open all valves to relieve any pressure left in the system.
9. After final use.
  - a. If the pump was last run with foam or water that is salty, brackish or high in mineral content, flush the pump with fresh water for a minimum of 2 minutes or until the water is clear.
  - b. After the unit has cooled down, check all fluid levels and add as needed.
  - c. Completely drain the pump of all water.
  - d. Break down and store all equipment as outlined by the apparatus or department procedures.
  - e. Visually inspect the pump end. Clean any dirt or debris from the pump unit. If necessary, a mild soap and water solution can be used. Note and report any performance irregularities or any abnormal mechanical sounds.
  - f. Close all valves and plug all openings.
  - g. Follow any other product, component, apparatus, and departmental procedures and/or guidelines before placing the unit in storage. Make sure all necessary tools, spares, and accessories are with the pump.

### To operate the STR4-13 in cold weather:

- The pump can be run in below freezing temperatures if certain precautions are taken to avoid the formation of ice in the pump.
- After priming the pump, the unit should be run at low speed for a short period of time to allow all components to warm up before continuing with the remaining operating procedures.
- Unless wrapped in a heater, drain the pump of all water if it is stopped for any length of time. The engine/drive unit should be turned over a few revolutions to make sure all water has been removed from the pump. Drain the pump priming line if a primer has been used.
- After use, drain the pump, manifolds, and lines of all water. You can also pour some RV antifreeze into the pump and circulate it through the pump and plumbing system.

### Warranty, Service and Support

Product and service documentation such as tech notes, data sheets, manuals and information on the limited warranty provided on products manufactured by WATERAX can be found on our Web site at: [www.waterax.com](http://www.waterax.com)

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