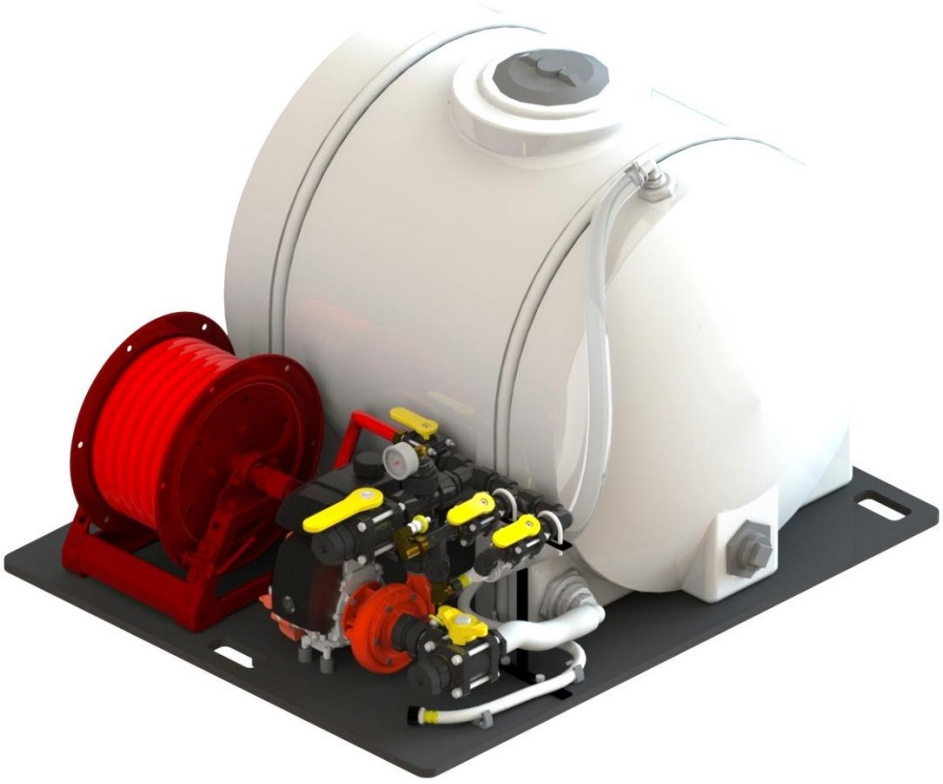
WATERAX

WE MOVE WATER

RANCHER

Owner's Manual



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Contents

Important Safety Instructions

It is recommended that all information provided in this manual be carefully read and understood before performing any operation of or maintenance to the RANCHER.

The procedures listed in this manual are general operating and maintenance procedures. They should be taken in addition to any procedures, policies and guidelines established by the authority having jurisdiction or the apparatus manufacturer. Where conflicts arise, all parties (authority having jurisdiction, the apparatus manufacturer, and *WATERAX* Inc.) will need to be contacted to determine the best resolution. The solution will need to address the safety of the operator along with the proper performance and life expectancy of the unit.

Personal Safety Advisory

READ YOUR ENGINE MANUAL FIRST!

Before proceeding further, locate and read the engine manufacturer's manual. It contains very important safety information that MUST be read, understood and followed to safeguard you and your equipment from harm, as well as specific information on the proper use and care of your engine.

READ THIS MANUAL BEFORE OPERATING YOUR RANCHER!

The improper use of the *WATERAX* RANCHER could result in serious injuries as well as damage to the unit. Any operator should familiarize himself with the apparatus and its capabilities before trying to operate the equipment in an emergency situation. Please read this entire manual before using your *WATERAX* RANCHER and follow all Personal Safety Advisories.

Warnings

- Always wear eye and ear protection when operating the RANCHER unit.
- Do not operate if mentally or physically fatigued.
- Always inspect hoses and piping to avoid burst injuries.
- Use only pipe, hose, and fittings that are rated at or above the maximum pressure rating of the pump shown below, or according to what maximum pressure the system was designed for, whichever is lower.
  - Maximum Allowable Pressure: 100 PSI (6.9 bar)
- No modifications and/or alterations may be made to the RANCHER. Any such modifications not only void the RANCHER warranty but can make the unit dangerous to anyone operating the pump.
- Do not operate the pump higher than the maximum rated pressure. Always run the unit at the lowest pressure required for the application to enhance operator and equipment safety.
- Slowly close valves and use slow close valves wherever possible to prevent danger to other line operators and to prevent water hammer which could damage the pump and its piping components.
- Relieve all system pressure before doing any service work on the unit.
- Never run the pump in a closed or confined area. Exhaust gas contains carbon monoxide which is poisonous to humans. Avoid inhalation of exhaust gas.
- Refuel engine with care. Gasoline is flammable, and gasoline vapor can explode. Refuel in a well-ventilated area, with the engine stopped.
- Be alert and never touch any part of the engine exhaust system (muffler, shield, header pipes, etc.) while the engine is running. Always allow enough time, after stopping the unit, for proper cooling of the muffler and surrounding parts.

Preventing Damage to Equipment

The following recommendations will help avoid damage to your 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 pump again.
- Always draft water using a suction hose strainer.
- During freezing weather, drain the pump, manifolds, and lines of all water. You can also pour some antifreeze into the pump and circulate it through the pump and plumbing system.
- Let the engine warm up before using the unit at full speed.
- Always use the proper unleaded gasoline fuel as recommended in the engine manufacturer's manual.
- Always check for sufficient oil quantity in the engine crankcase before use (see engine manual for details on checking the oil level, as well as for the type of oil to use).
- Pumps should not be operated without water for any extended period of time or without discharging water. Operating the pump in such a manner can overheat the pump causing damage to seals, or pump internals.
- It is recommended that all fasteners be replaced with genuine *WATERAX* parts.

Introduction

About this Manual

This manual contains general operation, care and parts lists for the following *WATERAX* RANCHER-65/125 skid unit.

RANCHER designation	Engine used
RNCH65	Honda GXH50 2.5 HP gasoline engine
RNCH125	Honda GXH50 2.5 HP gasoline engine

These instructions cover most wildland and municipal RANCHER applications. If the application the pump is being used for does not fall into these general guidelines, consult *WATERAX* Inc. for any additional safeguards, operating, or maintenance considerations that may be required.

For full service and maintenance instructions regarding the pump, please refer to the Service section of the MINI-STRIKER owner's manual. For maintenance instructions regarding the engine, as well as for oil and fuel recommendations, refer to the engine manufacturer's manual.

Please see www.waterax.com additional documentation related to this product such as the *WATERAX* product guide, technical notes, links to the engine manufacturer's manuals, news and other updates about *WATERAX* and its goods and services.

Abbreviations and Terms

The following terms and abbreviations are used in this manual:

Cavitation	Formation of air bubbles in a liquid inside a centrifugal pump, causing low pressure points and loss of pump capacity.
Dead-heading	Also called shut-off. Leaving the pump running with all the discharge valves closed. The pump should not be left in this mode for more than a minute since the pump can overheat and become damaged. To avoid this, the re-circulation line should be opened or a discharge line left slightly open to allow fresh water to continue to enter the pump.
Drafting	Process of using vacuum (suction) to take water from a stream or impoundment.
NH	National Hose. This is a type thread specified in NFPA 1963. Formerly known as NST (National Standard Thread).
NPSH	National Pipe Straight Hose. This is a type of thread that is slightly smaller in diameter than NH, with more threads per inch than the same nominal size of NH thread. NPSH is also called IPT (Iron Pipe Thread).
NPT	National Pipe Thread Taper. This thread is similar to NPSH thread except for the taper. A sealant compound or Teflon tape must be used when installing NPT fittings for a leak-free seal. NPSH female fittings are often used on NPT male threads; the gasket makes the seal.
RPM	Revolutions Per Minute.

About the RANCHER Series

Features

For full specifications and performance curves, see the Product Data Sheet for your pump model.

Applications of the *WATERAX* RANCHER series include:

- Attack line firefighting
- Park and spot fire patrol
- Prescribed burns
- Mop-up operations

Features and Benefits of the *WATERAX* RANCHER series include:

- Lightweight polyethylene tank secured with galvanized steel tank bands
- Tank side water level indicator
- Ultra-durable aluminum alloy manual reel with 50’ of ¾” booster hose.
- 6-14 US GPM combination nozzle
- Robust copolymer polypropylene with rails and easy lifting cutout holes.
- *WATERAX* MINI-STRIKER pump.
- Non-corrosive polypropylene piping.
- Discharge pressure gauge.
- Optional foam eductor/mixer.
- Low oil protection.
- Comprehensive manuals
- EPA Certified

Configurations

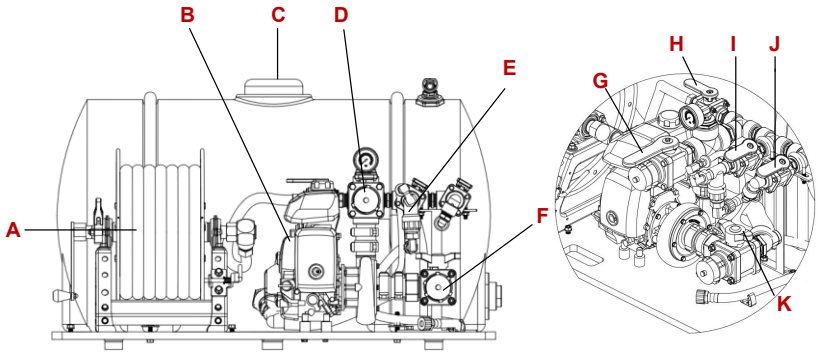
The RANCHER series is used for a variety of wildland and municipal firefighting applications. Your model may be configured, with or without foam capabilities, and with NH or NPSH threads.

Parts Identification

RANCHER 65/125

A. 50’ booster hose (¾″) and nozzle
B. MINI-STRIKER pump
C. Tank fill opening
D. Overboard discharge port
E. Class A foam eductor system* (option)
F. Overboard suction port
G. Overboard discharge valve
H. Reel discharge valve
I. Foam discharge valve*
J. Recirculation valve
K. Suction valve

* Denotes optional components.



Installation

Depending on your model, you may need to evaluate the GVWR capacity of the vehicle used prior to installing your RANCHER unit. You will also require hoses and strainers as well as other accessories which can be purchased through your *WATERAX* representative. Follow the instructions and heed all warnings in any documentation that you receive with the accessories you purchase.

Fastening to Truck/Apparatus

When adding any equipment to a vehicle, follow all instructions and heed all warnings provided by manufacturers of the apparatus and any third-party accessories.

Before installing the RANCHER in a vehicle, plan for adequate access to any fill caps such as those for oil or fuel, as well as any other part of the pump or engine that is frequently accessed or inspected (valves, panels, filters, etc.). Make note of components that become hot when operating such as mufflers and engine blocks, and always ensure a safe clearance around them.

Operating RANCHER Series Skid Unit

Pre-Operation Checklist

Before using your unit, follow this verification procedure:

1. Visually inspect product

   When you first receive your RANCHER unit, inspect the product and check for any damage. Notify the supplier if any damage is found.

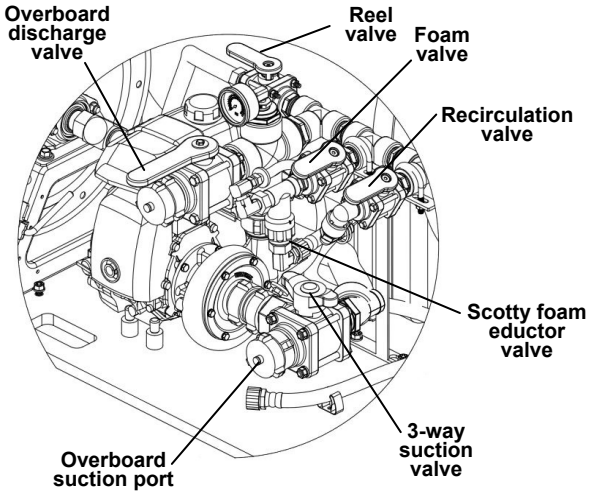
2. Check all fluid levels regarding the pump and any related equipment. Before first use, you must prepare the engine which is shipped dry. Before each subsequent use, check levels and top up as needed.
   - Engine/apparatus fuel level
   - Engine/apparatus oil level

Refer to the engine manufacturer's manual for specific instructions regarding the engine.

3. Check that all suction and discharge hoses are structurally sound and do not leak.
4. Inspect all safety features and verify that they are in good order before using the pump.
5. Each time you plan to use the RANCHER, check for damage that may have occurred during previous use. Notify your manager that the equipment requires repair. Remember that damaged equipment can expose you to safety hazards.

Filling the Water Tank

Fill the tank directly through the water tank opening or by drafting from an auxiliary water source using the pump (requires an optional 1-1/2" suction hose and a footvalve).



To draft water (see Drafting connections) and fill the tank from an auxiliary water source:

1. Position the 3-way suction valve to the overboard suction position.
2. Close all discharge valves and open the recirculation valve.
3. Prime the pump (see Priming).
4. Start the engine.
5. The pump will draft water from the auxiliary source and fill the tank through the recirculation line.
6. Turn off the engine when the tank has been filled.

Drafting

Before you draft

Pumps should not be run dry, and therefore the pump end requires priming prior to operation. Use this procedure if you are drafting water from an open tank or natural water source.

To maintain optimum performance from your pump, follow these recommendations for selecting and installing your suction hose or pipe:

- Use the shortest length possible, i.e., place the pump as close to the water as possible.
- Select reinforced crush resistant (non-collapsible) hose or pipe.
- Make sure that all pipes have air tight fittings.
- To avoid air locks, flexible hose should rise gently from the water source to the suction/inlet port without excessive dips, bumps, sharp angles or rise in its lay.
- Pipes should be equal to or larger than the diameter of the suction/inlet port.
- Suction strainers should be fitted to prevent foreign matter from entering the pump.
- Where practicable, the installation and use of a suction float will aid in the performance of your pump, by keeping suction away from the debris on the bottom of the dam or river.
- Ensure that the suction hose is completely submersed.

Limitations

Several factors can affect the pump's ability to efficiently draft water. The following limitations should be taken into account.

- Water temperatures above 35 °C (95 °F) can cause noticeable loss in pump performance.
- Barometric pressures below 98 kPa (29 in of Hg) can also cause noticeable loss in pump performance (specifically elevations >2000 feet above sea level).
- Pump performance curves are based off a 5 foot lift (top of water source to impeller center). Lifts greater than 5 feet will decrease the pump's performance.
- Hose and strainer sizes that are too restrictive can significantly decrease the pump's performance.
- Intake hose runs in excess of 10 feet can also reduce pump performance.

Drafting connections

1. Connect a suction hose to the overboard suction.
2. Install a footvalve suction strainer on the other end of the suction hose and place in the water source.

Note:	To provide proper operation of the pump, the suction hose/strainer should be submerged a minimum of 4 to 6 times the hose diameter into the water source. **DO NOT** allow footvalve 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.

Selecting Suction Mode

Position the 3-way valve to the desired suction port. If using the overboard suction, connect the suction hose and footvalve strainer. Use a universal hose coupling wrench to tighten coupling firmly.

Note:	If the RANCHER unit is equipped with a foam eductor system, **close the foam eductor valve** prior to engine start by turning the adjustment knob counter clockwise.

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Priming the Pump

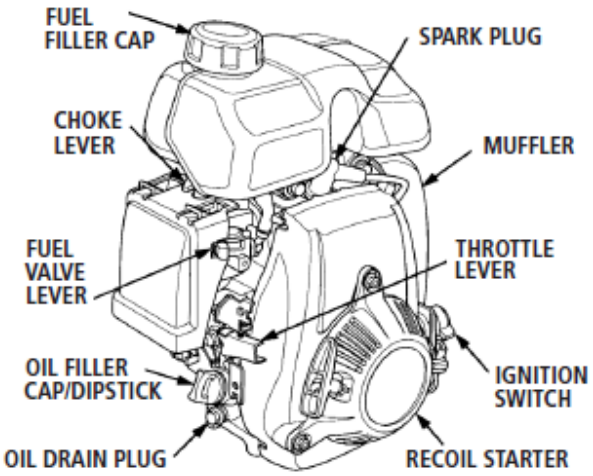
Use a WATERAX hand primer or jerk the hose to ensure that water has entered the pump before starting the engine.

If the pump is primed from the tank through gravity, open the overboard discharge cap and discharge valve and allow some water to flow out in order to relieve the system of any air lock.

Startup and Discharge

Discharge hoses should be installed before starting the engine and priming the pump.

1. **Fill fuel tank with recommended fuel grade.**
   Fill tank and securely replace cap.
2. **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.
   e. Close all discharge and recirculation valves.
   f. Start engine: give starter rope a quick and steady pull until engine starts.
   g. Open/disengage choke.
   h. Slightly open the recirculation valve. Water should be recirculating back into the tank. If there is no water recirculating, the pump has not been fully primed. Re-prime the pump.
   i. Allow the engine to warm up for at least 2 minutes before using full throttle.

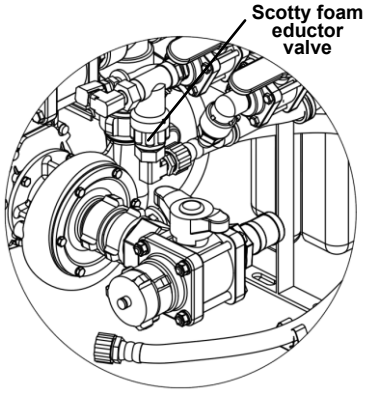


Note: Leaving the pump running with all the discharge valves closed is called **deadheading** the pump. The pump should not be left in this mode for more than a minute. Leaving in this condition for any length of time will cause the pump to overheat and damage the pump. To avoid overheating the pump, 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.

3. **Discharge water.**
   Once the pump is primed, and with the engine running, you can begin to discharge water.
   a. Slowly open the discharge valve.
      To use the hose reel, slowly open the Reel valve and close the Overboard discharge valves.
      To us the overboard discharge, slowly open the Overboard discharge valve and close the Reel and Recirculation valves.
      If pressure does not build in the reel or discharge hose, the pump has not been fully primed. The 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.

Note: If the engine throttle is increased and the engine RPM increases without an increase in pump pressure, the pump may be cavitating. Refer to the limitations listed at the beginning of this section, and see the troubleshooting section for a verification checklist and possible solutions.

4. **Apply foam (if applicable, and if equipped with the optional Scotty Around the Pump foam eductor).**
   a. Ensure that the recirculation valve is **closed** when using foam.
   b. Open the Scotty foam eductor valve to the desired eduction ratio.
   c. Select the water discharge method. You can either discharge water through the hose reel or through the discharge valve.
   d. When you are done using the foam, be sure to flush the system thoroughly for at least 2 minutes. To flush the Scotty foam eductor, close the eductor valve and circulate fresh water through the eductor.



Optional Foam System

Shutdown

1. After completing the pump operation, gradually reduce the engine RPM.
2. If equipped, close the foam eductor valve and pump out the water/foam mixture until the water is clear.
3. Open the recirculation valve and slowly close the discharge valves. Allow the water to circulate until the engine cools down.
4. 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.
5. 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 OFF position to shut down the engine.
6. Close off the hydrant or water supply to the pump.
7. Open all valves to relieve any pressure left in the system.

Cold Weather Operation

The pump can be run in below freezing temperatures if certain precautions are taken to avoid the formation of ice in the pump.

1. 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.
2. 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.
3. After use, drain the pump, manifolds, and lines of all water. You can also pour some antifreeze into the pump and circulate it through the pump and plumbing system.

Basic Care and Storage

The basic care described in this section does not require any disassembly of the pump. For any servicing procedures that require removing any part of the pump to access a component, please see the Service section in the MINI-STRIKER Owner's Manual.

WARNING: Before doing any maintenance to the pump, always ensure that the equipment cannot be accidentally started. Follow any apparatus and/or departmental procedures or guidelines in regards to locking out the equipment.

Regular maintenance

After each use:

1. Visually inspect the plumbing.
2. Check for any leaks.
3. Check for damaged plumbing.
4. Visually inspect the pump unit.
5. Make sure the mechanical rotary seal is not leaking.
6. Check the pump for external leaks.
7. Check the engine for leaks.
8. Clean any dirt or debris from the pump unit. If necessary, a mild soap and water solution can be used.
9. Note and report any performance irregularities or any abnormal mechanical sounds.
10. Check all fluid levels and add as needed.
11. Make sure all necessary tools, spares, and accessories are with the pump.

Long-term storage

1. Completely drain the water tank of all water.
2. Completely drain the pump of all water.
3. Drain the carburetor. The engine can be run with the fuel valve lever in the OFF position to drain the system.
4. Drain the fuel tank.
5. Close all valves and plug all openings.
6. Follow any other products, components, apparatus, and departmental procedures and/or guidelines before placing the unit in storage.

Troubleshooting

This section provides brief troubleshooting instructions for verifying the set-up and operation of the RANCHER. Each section describes a condition and lists possible causes along with a list of items to check to identify the source of the problem and resolve it.

Pump Loses Prime or Will Not Prime

Air Leaks	Attempt to locate and correct the air leaks by isolating each system component. ■ Verify that the suction hose is in good condition and is properly tightened. ■ Verify that the suction hose gasket is in good condition. ■ Verify that all valves are closed
Air Trapped in Suction (Pump Intake) Line	■ Check that no part of the suction hose or piping is higher than the pump intake. Pump suction hose and piping must be laid out with a continuous decline to the water source from the pump intake
Blocked or Restricted Intake Hose or Strainer or water tank	■ Remove blockage from the intake hose or strainer or water tank. ■ Strainer should not be sitting at the bottom of the water source where debris can be picked up. Clean off the strainer and raise to a position that is off the bottom of the water source (floating strainers are available). ■ If the strainer is new, check that the strainer hole size is not too restrictive for the demands of the pump.
Pump Suction Lift Requirements are Too High	■ DO NOT attempt pump lifts exceeding 11.5 feet (3.5 meters). Higher suction lifts will negatively impact the flow rate and could lead to cavitation. ■ As elevation increases above 2000 feet above sea level, maximum lift heights will diminish. Check that the lift for the elevation the pump is being required to operate at is achievable.

Pump Does Not Meet Performance

Gauge or Instrument Failure	■ Check that all gauges are calibrated and that all equipment is in proper condition. Nozzles with dented edges and bent or damaged pitot tubes will produce faulty readings.
Blockage	■ Check all hoses, tank, piping, etc. Remove any obstructions found. ■ Check for debris wedged or caught in the impeller or diffusers. Remove any obstructions found.
Insufficient Power to the Pump	■ Check engine compression and complete engine repairs if required. ■ An engine tune up may be needed to bring engine back to peak performance. ■ An engine will lose approximate 3.5% of its power per every 1000 feet above sea level. If the elevation of operation was not considered when the unit was selected, a unit of higher horsepower may be required to make the needed performance.
Restriction	■ If a new strainer and/or intake hose was purchased, check that they provide adequate supply to the pump to meet the performance desired. ■ If the pump was purchased used, check that the actual configuration will achieve the desired performance. A *WATERAX* Inc. representative can be contacted for assistance. ■ Check pump lift. Refer to “Pump Loses Prime or Will Not Prime: Suction Lift Too High” section.

Pump Cavitating

Lift Too High	■ Move pump closer to water source. ■ Decrease pump's intake hose length. ■ Increase pump's intake hose size (inner diameter).
Water Temperature	■ Water temperature may be too high. Water temperatures approaching 35°C (95°F) or higher are likely to cavitate the pump. Decrease engine speed and/or gate the discharge valve to decrease pump flow until the cavitating stops. ■ Locate a cooler water source.
Restrictions	■ Refer to "Restrictions" in the "Pump Does Not Make Performance" section. ■ Check that the bottom of the suction hose a minimum of 2 feet (0.6 meters) from the bottom of the water source and correct if necessary. ■ Check that the bottom of the suction hose/strainer is 4 to 6 times the hose diameter below the water supply surface level and correct if necessary.

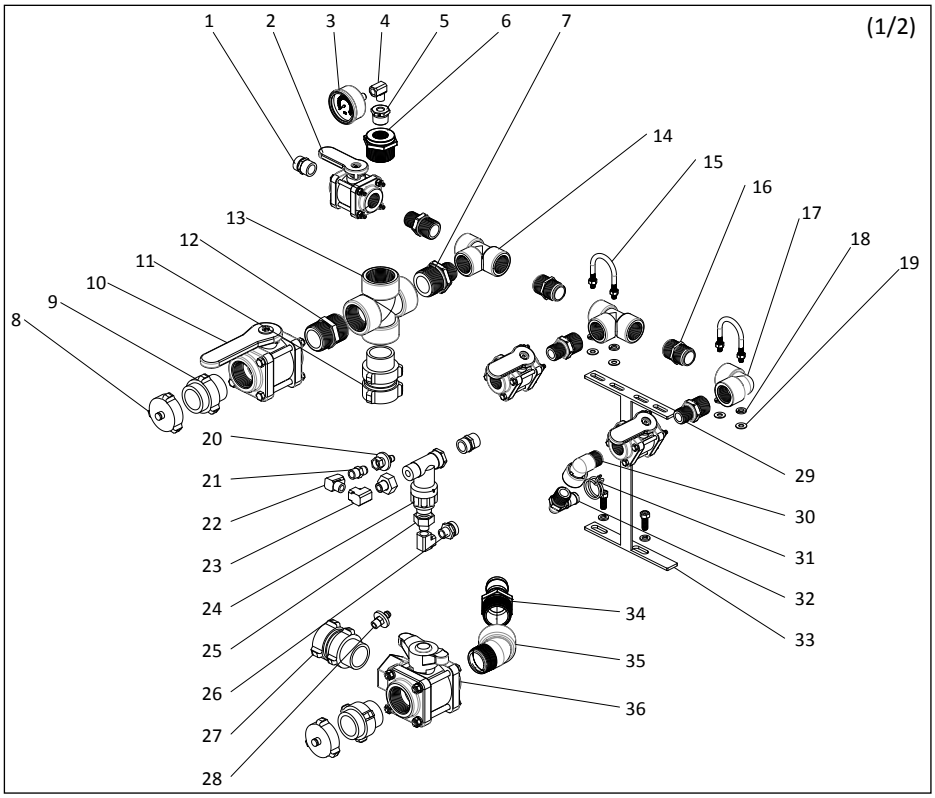
Engine Speed Too High for Required Capacity and Pressure

Air Leaks	■ Refer to "Pump Loses or Will Not Prime: Air Leak" section.

Service

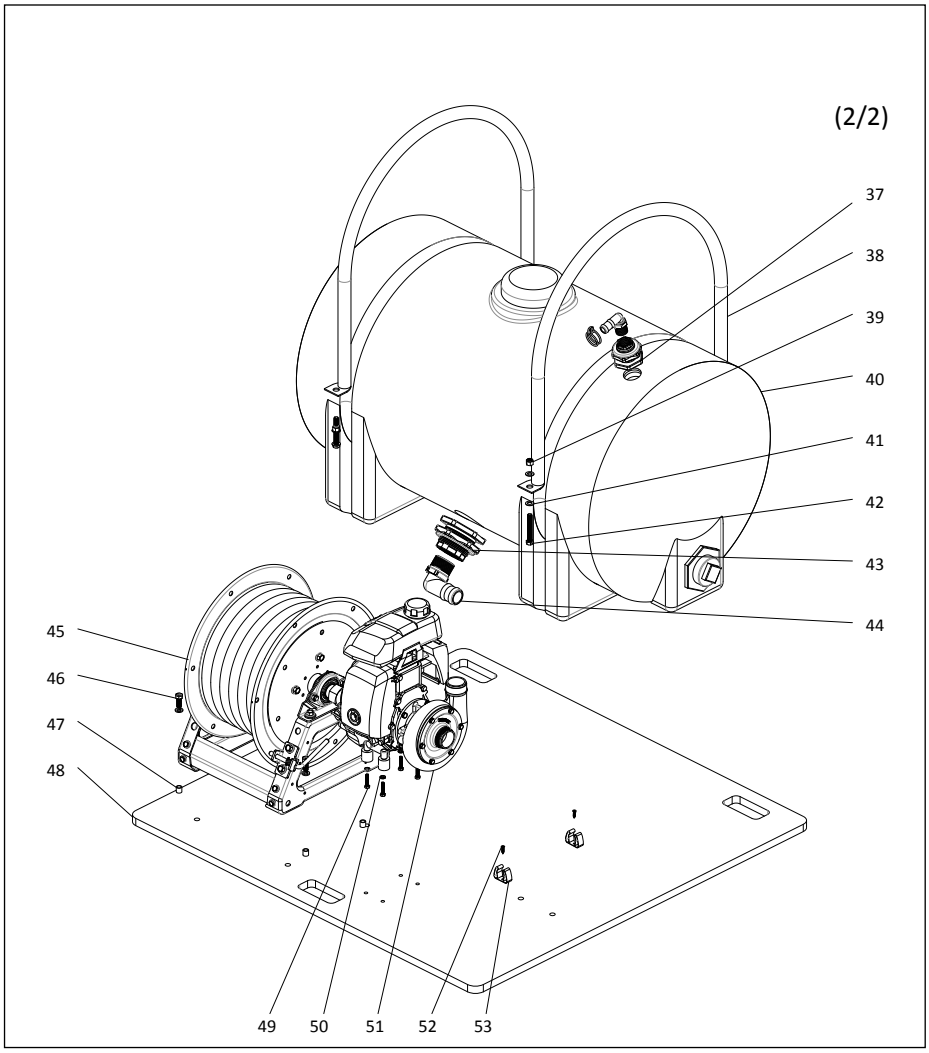
This section includes a parts list for the RANCHER skid unit.
Note: It is recommended that all fasteners be replaced with genuine *WATERAX* parts.

Parts Breakdown



ID	ITEM NO	DESCRIPTION	QTY
1	800791	PART-213 ADAP 3/4GHTM TO 3/4NPTM,BRASS	2
2	800738	BAJ-V075 VALVE 3/4 NPT FEMALE,PLASTIC	3
3	700148	PART-309 PRESSURE GAUGE 2-1/2" 0-160PSI	1
4	800719	C-4067-5 ELBOW 1/4 NPT M. TO FEM	1
5	800809	PART-264 REDUCER BUSHING 3/4"-1/4"BRASS	1
6	800731	BAJ-RB150-075 REDUCER BUSHING 1.5"MPT*3/4FPT	1
7	800729	BAJ-RN150-100 RED. NIPPLE 11/2 TO 1 NPT MALE	1
8	300525	ADP-A-C15N HOSE CAP 1 1/2 NH	2
9	300563	ADP-A-DM15PN 1.5 NPT M X 1.5 NST M ALUM	2
10	800723	BAJ-V150 VALVE 1 1/2 NPT FEMALE,PLASTIC	1
11	300508	ADP-A-FSM15S 1.5 NPSH FEM SWIV X 1.5 NPT MALE ALU	1
12	800733	BAJ-NIP150-SH SHORT NIPPLE 1 1/2" NPT MALE	2
13	800689	BAJ-CR150 CROSS 1 1/2" NPT FEMALE	1
14	800727	BAJ-TEE100 TEE 1" NPT FEMALE	2
15	800557	FAST-523 U-BOLT 5/16-18X1-3/4 SS	2
16	800734	BAJ-NIP100-SH SHORT NIPPLE 1" NPT MALE	2
17	800724	BAJ-EL100-90 ELBOW 90 DEG. 1" NPT FEMALE	1
18	800512	FAST-502 LOCKWASHER 3/8 SPLIT ZINC	10
19	800477	A-7586-2 WASHER 5/16 FLAT ZINC	4
20	700635	C-6750-20 ADP 1/4" NPT M. TO 3/8" TUBE	1

ID	ITEM NO	DESCRIPTION	QTY
18	800512	FAST-502 LOCKWASHER 3/8 SPLIT ZINC	10
19	800477	A-7586-2 WASHER 5/16 FLAT ZINC	4
20	700635	C-6750-20 ADP 1/4" NPT M. TO 3/8" TUBE	1
21	800826	PART-39 ADP. 3/8" M. NPT TO TUBE	1
22	800830	PART-133 ELBOW 90 DEG. 3/8NPT FEM TO M	1
23	800821	PART-149 ELBOW 90 DEG. 3/8 NPT FEM	2
24	301068	FOAM PROPORTIONNER , HEX.RIGHT 30 GPM	1
25	800822	PART-148 ADP. 3/8NPTM TO GHT FEM SWIVEL	2
26	800820	PART-166 COUPLER GHT M. TO 3/8NPT M.	1
27	600343	A-7555 ADP 1-1/2" NPT M TO NPSH FS - MAC	1
28	800833	PART-129 COUPLER 1/4NPTM TO 3/8"BARB	1
29	800730	BAJ-RN100-075 RED. NIPPLE 1 TO 3/4 MNPT	3
30	800728	BAJ-SL075-90 90 DEG STREET ELBOW 3/4"	1
31	800808	PART-259 WIRE HOSE CLAMP, 1.25"X.110"ZC	2
32	800701	BAJ-HB075-90 90 DEG. ADAP. 3/4 M. TO 3/4 B	2
33	700203	A-7624 BRACKET FOR RANCHER,2012	1
34	800736	BAJ-HB150 ADAP. 1 1/2 NPTM TO 1 1/2 BARB	1
35	800787	BAJ-SL150-45 45 DEG STREET ELBOW 1 1/2	1
36	800722	BAJ-V150SL VALVE 3-WAY, 1 1/2 NPT FEMALE	1



ID	ITEM NO	DESCRIPTION	QTY
37	800713	BAJ-TF075 FLANGE 3/4" NPT FEMALE	1
38	800784	PART-158 STEEL BAND RNCH65	2
39	800395	FAST-570 NUT 3/8-16 HEX NYLON LOCK SS	4
40	700159	TANKRNCH65 TANK RANCHER 65 GAL	1
41	800430	F-4351-5 WASHER 3/8 FLAT SS	8
42	800346	FAST-526 SCREW 3/8-16X2-3/4 HEX CAP ZINC	4
43	800725	BAJ-TF150 FLANGE 1 1/2" NPT FEMALE	1
44	800735	BAJ-HB150-90 90 DEG HOSE BARB 1 1/2" MALE	1
45	801295*	HAN-F1816-17-18LT MANUAL HAND CRANK REEL RED	1

** 50 FEET RUBBER HOSE NOT INCLUDED*

ID	ITEM NO	DESCRIPTION	QTY
46	800560	FAST-520 SCREW 3/8-16X1 HEX CAP ZINC	6
47	800562	FAST-519 INSERT 3/8-16 PLAIN	4
48	700161	B-7604 PRE-DRILLED POLY BASE RNCH65	1
49	800347	FAST-527 SCREW M6X1.0X30 HEX CAP ZINC	4
50	800360	12-38 LOCKWASHER 1/4 SPLIT SS	4
51	100092	MINI-STRIKER MSTR-V FIRE PUMP 1-STG GXH50 VEHICLE	1
52	800445	FAST-735 SELF TAPPING SCREW #8X3/4 SQUARE FLAT SS	2
53	800810	PART-267 GRIPPER CLIPS 3/4"FULLY COATED	2
--	301059	4038-HF NOZZLE 1.5NPSH FOG/STR STREAM 50-100 GPM	1
--	301970	4091 DOUBLE MALE CONNECTOR 1.5NPSH X 1.5NPSH	1
--	302476	4076-34F REDUCER 1.5" NPSH FEMALE TO GHT FEMALE	1

Notes

Warranty

WHEREAS subject to the following general and specific terms and conditions, *WATERAX* Inc. (the "**Seller**") hereby warrants to the original purchaser of the products from *WATERAX*, (the "**Purchaser**") that its products, including any pump parts products manufactured by *WATERAX* (the "**Products**") sold under Seller's brands will be free of defects in material and workmanship for the applicable Warranty Period (as set out in full at www.waterax.com/eng/warranty).

Product	Warranty Period	Coverage
4-Stroke Powered Pumps	Two (2) Years	Limited
2-Stroke Powered Pumps	Earlier of One (1) Year or One hundred (100) run hours	Limited
Backpack Pumps	One (1) Year	Limited
Skid Units	One (1) Year	Limited
Control Panels, Electronics Manifolds	One (1) Year	Limited
Genuine Parts	Ninety (90) Days	Limited

1. **Limitations, exclusions and other terms and conditions applicable for all Products:**

   a. The Warranty shall be voided upon the occurrence of any of the following events: (a) the Product is used for an application, with products or in a manner other than the application, products and manner for which such Product is designed and intended; (b) the Product is subjected to a use, service, condition or environment other than a use, service, condition or environment for which such Product is designed and intended; (c) the Product is not properly installed by the Purchaser or its agent or representative; (d) the Product is not properly tested and maintained in accordance with Seller's product manuals and supplemental instructions and guidelines, applicable industry standards and guidelines, and applicable legal and regulatory requirements; (e) the Product is altered, modified, serviced (with the exception of routine maintenance performed in accordance with the Seller's product manuals and supplemental instructions as set out in full at www.waterax.com/eng/warranty, and industry accepted standards and guidelines), or repaired by a person other than the Seller or a person authorized by the Seller to make such alteration or modification or perform such service or repair; (f) the Seller is not paid the full amount of the purchase price for the Product when due; (g) any bad faith invocation of a warranty claim or breach of a purchase agreement by the Purchaser.

   b. The following are excluded from Warranty coverage: (a) non-defective parts worn, exhausted or consumed through normal usage of the Product; (b) any consumable parts normally subject to routine replacement, including but not limited to pump packing, O-rings, gaskets, intake screens, anodes or filters; (c) routine maintenance as specified and in accordance with the Seller's product manuals and supplemental instructions and guidelines as set out in full at www.waterax.com/eng/warranty; (d) failure due to compliance with a specification or design provided or required by Purchaser; (e) failure due to improper operation, excess pressure, excess voltage, abuse, misuse, negligence or accidents or other similar causes; (f) failure due to operator error; (g) damage during or after shipment and failure attributable thereto or resulting there from; (h) failure attributable to or resulting from the failure or substandard, inadequate or improper performance of any part, component or equipment not supplied by the Seller; (i) failure attributable to or resulting from the failure or substandard, inadequate or improper performance of any third party part, component, product or equipment, whether or not combined, packaged, incorporated, installed or used with a Seller brand part, component, product or equipment.

2. **Claim Procedure.** The claim procedure applicable under this warranty, including any applicable notice and documentation requirements, are set out in full at www.waterax.com/eng/warranty and constitute an essential term of this Warranty.

3. **Repaired and Replacement Product.** If requested to do so by the Purchaser the Seller may, at its sole option and in its sole discretion, supply a replacement Product or part to the Purchaser prior to making a final determination as to whether Warranty Coverage is available.

   If the Seller ultimately determines that no Warranty Coverage is available for a Product claimed to be defective, the Purchaser shall have the option of either (a) having the Product returned to it freight collect without repair or replacement; or (b) if Seller determines that the Product is repairable, have the Product repaired by Seller or another party designated by it on a time and materials basis at Seller's then current standard charges for non-warranty repairs and then returned to Purchaser freight collect. The Seller reserves the right to use reconditioned parts for Warranty repairs and to use reconditioned Products for Warranty replacements. Repaired Product and replacement Product shall be warranted only for the remainder of the original Warranty Period.

4. **Limitation of Liability:** SELLER'S WARRANTY AS SET FORTH HEREIN IS SELLER'S SOLE AND EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ALL WARRANTIES OF MERCHANTABILITY, QUALITY, COURSE OF DEALING, USAGE OF TRADE, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. THE RIGHTS AND REMEDIES SET FORTH HEREIN ARE THE SOLE AND EXCLUSIVE RIGHTS AND REMEDIES AGAINST SELLER, EXCEPT FOR THE SPECIFIC LIABILITIES AND OBLIGATIONS PROVIDED HEREIN, SELLER SHALL HAVE NO LIABILITY OR OBLIGATION WITH RESPECT TO ANY PRODUCT CLAIMED TO BE DEFECTIVE IN ANY MANNER.

WATERAX

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