

12 GPM (45 L/min) 120V (ac) Fuel Transfer Pump

Models: M-1115S-AU, M-1115S-MU, M-1115S-PO

Thank you for choosing a Great Plains Industries product, and congratulations on your purchase!

Headquartered in the heartland of the U.S., GPI strives for integrity, innovation, continuous improvement, and dependability—values you will immediately recognize when using our products.

The maintenance policies and procedures outlined in this manual emphasize our commitment to safety and our dedication to you as a customer. By working together, we can ensure years of reliable, quality service.

Please save these instructions for future reference. Read carefully before attempting to assemble, install, operate or maintain the product described.

Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage.

Please refer to back cover for information regarding this product's warranty and other important information.

DO NOT RETURN THIS PRODUCT TO THE STORE!

Please contact Great Plains Industries, Inc. before returning any product. If you are missing parts, or experience problems with your installation, contact our Customer Support Department. We will be happy to assist you.

Call: 800-835-0113 or 316-686-7361

Email: gpisales@gplains.com

Website: gpi.net

SAVE FOR YOUR RECORDS

Model #: _____

Serial #: _____

Purchase Date: _____

BEFORE YOU BEGIN

Fueling Requirements:

- This fuel pump is designed, tested and approved for use with gasoline blends (up to E15), diesel fuel blends (up to B20) and kerosene. Pump only models sold without a hose and nozzle are compatible with aviation gasoline AVGAS 100LL and kerosene grade Jet A. Please take all due precautions when handling these flammable liquids.
- Do not use this pump for dispensing any fluids other than those for which it was designed. To do so may damage the pumps components and will void the warranty.



Power Source Requirements:

- This manual covers 115-volt AC electric gear pump M-1115S-MU, M-1115S-AU, and M-1115S-PO
- All M-1115S models should be connected to a 115-volt AC power source only.
- Do not attempt connection to a 12-volt DC, 24-volt DC, or 230-volt AC power source.



Tools Needed:

- Adjustable Wrench, Pipe Wrench, Pliers, Utility Knife, Wire Crimper/Stripper and Thread Tape

UNPACKING

Contents:



- (1) 115-volt AC Fuel Transfer Pump with Spin Collar,
- (1) Fiber Gasket and (1) Tank Adapter (all models)
- (1) Lockable Nozzle Holder (all models)
- (1) 12 foot (3.66 m) Dispensing Hose (M-1115S-MU & M-1115S-AU only)
- (1) 15 inch (38 cm) to 40 inch (101 cm) Adjustable Suction Pipe (M-1115S-MU & M-1115S-AU only)
- (1) Automatic Unleaded Shut-off Nozzle (Model M-1115S-AU only) or Manual Unleaded Shut-off Nozzle (Model M-1115S-MU only)
- (3) Plastic Wire Nuts (all models)



Inspect:

- After unpacking the unit, inspect carefully for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Shipping damage claims must be filed with carrier.
- See General Safety Instructions on page 2, and Cautions and Warnings as shown.





GENERAL SAFETY INSTRUCTIONS

IMPORTANT: It is your responsibility to:

- Know and follow applicable national, state and local safety codes pertaining to installing and operating electrical equipment for use with flammable liquids.
- Know and follow all safety precautions when handling petroleum fuels.
- Ensure that all equipment operators have access to adequate instructions concerning safe operating and maintenance procedures.

Observe all safety precautions concerning safe handling of petroleum fuels.

⚠ WARNING *To ensure safe operation, all fuel transfer systems must be properly grounded. Proper grounding means a continuous metal-to-metal contact from one component to the next, including tank, tank mount, pump, meter, filter, hose and nozzle. Care should be taken to ensure proper grounding during initial installation and after any service or repair procedures. For your safety, please take a moment to review the warnings below.*

⚠ DANGER *To prevent physical injury or property damage, observe precautions against fire or explosion when dispensing fuel. Do not operate the system in the presence of any source of ignition including running or hot engines, lighted tobacco products, gas or electric heaters, or any type of electronic device. A spark can ignite fuel vapors.*

⚠ DANGER *Observe precautions against electrical shock when operating the system. Serious or fatal shock can result from operating electrical equipment in damp or wet locations.*

⚠ WARNING *Inspect external pump wiring regularly to make sure it is correctly attached to the battery. To avoid electrical shock, use extra care when connecting the pump to power.*

⚠ WARNING *Avoid prolonged skin contact with petroleum fuels. Use protective goggles, gloves and aprons in case of splashing or spills. Change saturated clothing and wash skin promptly with soap and water.*

⚠ DANGER *Observe precautions against electrical shock when servicing the pump. Always disconnect power before repairing or servicing. Never apply electrical power to the system when any of the coverplates are removed.*

⚠ CAUTION *If using solvent to clean pump components or tank, observe the solvent manufacturer's recommendations for safe use and disposal.*







SEE OWNER'S MANUAL
FOR DETAILS

VOIR LE MANUEL DU PROPRIÉTAIRE
POUR PLUS DE DÉTAILS

VEA EL MANUAL DEL
PROPIETARIO PARA DETALLES

VEJA O MANUAL DO
PROPRIETÁRIO PARA DETALHES



See page 21 for explanation of ISO Safety Symbols pictured above

SPECIFICATIONS

| | M-1115S-PO | M-1115S-AU | M-1115S-MU |
|--------------------------|--|--|--------------------------|
| Housing Material | Lightweight, corrosion-resistant, cast aluminum body, convenient union ring for easy installation. | | |
| Pump Rate | Up to 12 GPM (45 LPM) | | |
| Duty Cycle | Intermittent, 30 minute ON, 30 minute OFF | | |
| Suction Lift | Manual Nozzle: Up to 5.5 feet (1.7 m) Automatic Nozzle: Up to 4.8 feet (1.5 m) | | |
| Operating Temperature | -20 °F to 125 °F (-29 °C to 52 °C) | | |
| Operating Pressure | 15 PSI (1.03 bar) | | |
| Input | 115-volt AC | | |
| Current Draw | 1.8 amps | | |
| Motor | 1400 RPM, 1/8 hp | | |
| Motor Approval | cULus Listed, Class I Div 1 | | |
| Thermal Motor Protection | Auxiliary Temperature Limiting Device | | |
| Tank Adapter | 2 inch NPT | | |
| Inlet | 1 inch NPT | | |
| Outlet | 3/4 inch NPT | | |
| Hose Type | N/A | Buna-N Electrically Conductive Discharge Hose with Static Wire | |
| Hose Size | N/A | 3/4 inch x 12 feet (3.6 m) | |
| Nozzle | N/A | 3/4 inch Automatic Unleaded | 3/4 inch Manual Unleaded |
| Weight | 14 lbs. (6.3 kg) | 23 lbs. (10.4 kg) | 22 lbs. (9.9 kg) |

AVIATION FUELING

"Pump Only" models sold without a hose or nozzle are approved for ground-based refueling only. Do not use in or on aircraft. User must provide hose, suction pipe, nozzle, and accessories that meet the appropriate NFPA 407 Standard for Aircraft Fuel Servicing. Pumps have no actual or implied compliance with this standard. Please consult NFPA 407 for recommended safety requirements during ground fuel servicing of aircraft using petroleum fuels.



SPECIFICATIONS (CONTINUED)

| | All M-1115S models |
|--|--------------------|
|--|--------------------|

Dimensions Inches (cm)

| | |
|--------------------------------------|--------------|
| A. Pump Ass'y Width | 9.13 (23.2) |
| B. Pump Ass'y Height | 4.95 (12.6) |
| C. Pump Ass'y Height w/Nozzle Holder | 6.74 (17.1) |
| D. Pump Ass'y Depth | 10.45 (26.5) |

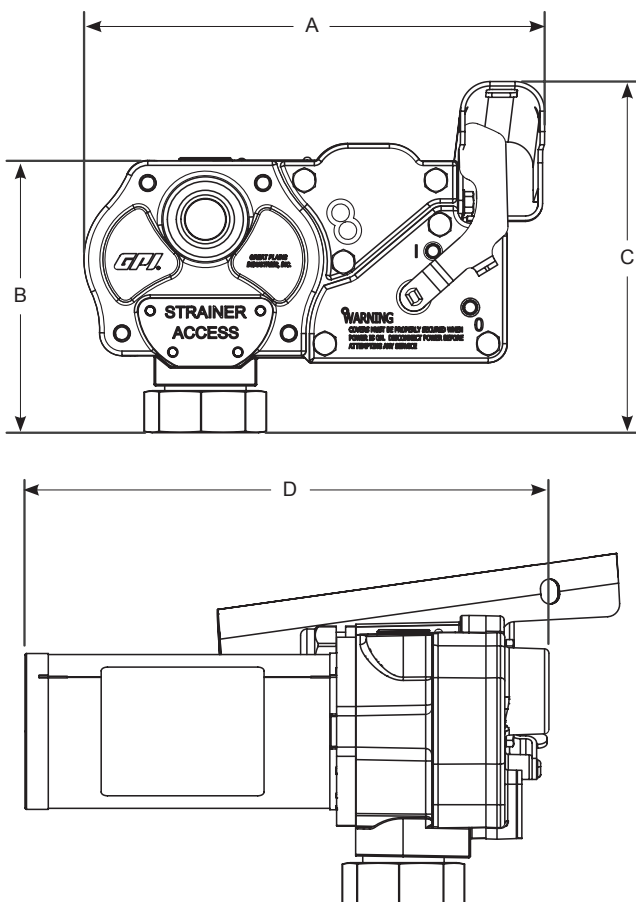


Figure 1

INSTALLATION INSTRUCTIONS

Mechanical Connections

NOTE: All threaded fuel connections must be sealed with thread tape or a pipe thread sealing compound approved for use with petroleum fuels and tightened securely to prevent leakage.

NOTE: This pump must be mounted on a vented tank. If the tank is not vented, contact Grainger for the correct vent.

NOTE: This pump is designed to mount directly to a standard 2 inch female tank adapter (included) (see Figure 2). The suction pipe should extend to within 3 inches (7.62 cm) of tank bottom. Apply thread tape to the suction pipe thread and securely tighten the suction pipe to the pump inlet port.

NOTE: This pump is designed to self-prime with dry gears. Expect suction lift as follows:

| | |
|-------------------|--|
| Manual Nozzle: | 5.5 feet (1.7 m) with diesel 6.7 feet (2.1 m) with gasoline |
| Automatic Nozzle: | 4.8 feet (1.5 m) with diesel 5.8 feet (1.8 m) with gasoline |

If you require a greater initial prime height, coat the gears with fluid by removing the plug on the top of the pump and pour a small quantity of motor oil into the gear cavity. Replace the plug and try again. A foot valve with pressure relief may be needed to maintain prime.

Install Tank Adapter and Suction Pipe

NOTE: Suction pipe is not included with model M-1115S-PO.

Wrap the 2" threaded end of the tank adapter with three or four turns of thread tape (see Figure 2). Using a pipe wrench, tighten the adapter snugly into the fuel tank.

NOTE: For Aluminum Tank Installation - To prevent thread galling of aluminum fittings, always prepare the threads for assembly using an anti-seize compound such as Loctite® 567™, Hernon® Dripstop® 940, or equivalent.

1. Using pliers, remove the plastic plug from inlet port on bottom of pump. Place the spin collar gasket into the inlet fitting on the bottom of the pump (see Figure 3).
2. Wrap the threaded end of suction pipe with three or four turns of thread tape (see Figure 4). Thread the suction pipe into the inlet port on the bottom of the pump and hand tighten until snug (see Figure 5).

NOTE: If your tank is 15 - 24 inches deep, do not use the included suction pipe extension; if your tank is 24 - 40 inches deep, attach the suction pipe extension (see Figure 6).

INSTALLATION INSTRUCTIONS (CONTINUED)

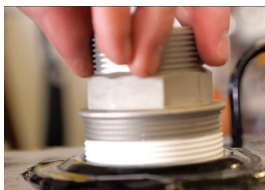


Figure 2

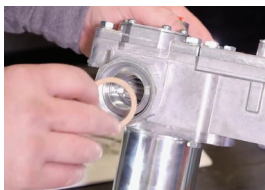


Figure 3



Figure 4



Figure 5



Figure 6

Install Pump on Tank

1. Clean the tank interior of all dirt and foreign material.
2. Carefully lift pump / suction pipe assembly and insert suction pipe into the tank opening after telescoping suction pipe out.

While holding the spin collar gasket in place, position the pump spin collar onto the tank adapter and tighten using a pipe wrench, making sure the spin collar is not cross-threaded (see Figure 7); The spin collar measures 2.26 inches (57.40 mm) across flats.

NOTE: To prevent pressure buildup and possible fuel leaks through the nozzle, make sure the fuel tank is properly vented. A vent cap rated at 3 psi (20.68 kPa) or less is recommended.



Figure 7

INSTALLATION INSTRUCTIONS (CONTINUED)

Install Hose and Nozzle

NOTE: Dispensing hose and nozzle are not included with model M-1115S-PO.

1. Using pliers, remove the plastic plug from outlet port on front of pump. Wrap one end of the dispensing hose with three to four turns of thread tape and thread into outlet port (see Figure 8). Tighten securely using an adjustable wrench.
2. Wrap opposite end of hose with three or four turns of thread tape and thread into nozzle. Tighten securely using an adjustable wrench (see Figure 9).
3. Place the nozzle into the nozzle holder on the end of the pump motor housing. Note that the nozzle cannot be placed in the holder unless the pump switch is OFF (see Figure 10).



Figure 8



Figure 9



Figure 10

INSTALLATION INSTRUCTIONS (CONTINUED)

Connect to a Power Source

IMPORTANT: The pump is designed for use with a 115-volt power source. Do not attempt installation on a 12-volt, 24-volt or 230-volt system.

⚠ DANGER *Observe precautions against electrical shock when servicing the pump. Always disconnect power before repairing or servicing. Never apply electrical power to the system when any of the coverplates are removed.*

⚠ WARNING *It is important to exercise more than ordinary care with electrical installation and maintenance. Failure to follow these electrical connection instructions could result in death or serious injury from shock, fire or explosion.*

IMPORTANT: Electrical wiring and connections must be made only by a licensed electrician in accordance with national, state and local electrical codes regarding Class I, Division 1 requirements as well as NFPA Code 70 and 30. Other codes may apply.

1. Install UL Listed, rigid metal conduit and code-specified gasoline and oil-resistant wire with ground wire from switch box to the pump electrical box, using proper seal offs.
2. Remove the electrical coverplate (see Figure 11). Be careful not to damage gasket.
3. Route the wiring and conduit to the pump.
4. Attach wiring to pump wires using provided wire nuts.
5. Position all wires inside the pump electrical cavity and replace the coverplate.

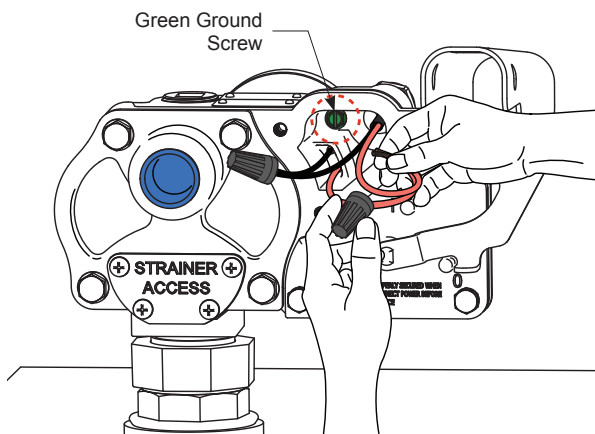


Figure 11

OPERATION

IMPORTANT: Always follow safety precautions when operating this equipment. Review the Safety Instructions.

⚠ DANGER *To prevent physical injury or property damage, observe precautions against fire or explosion when dispensing fuel. Do not operate the system in the presence of any source of ignition including running or hot engines, lighted tobacco products, gas or electric heaters, or any type of electronic device. A spark can ignite fuel vapors.*

⚠ CAUTION *Before each use, repair leaks around seals or connections. Make sure hoses are in good condition and connections are tight.*

NOTE: Make sure the work area is dry.

⚠ WARNING *Make sure the pump is properly grounded. Repair any corroded or damaged wiring before use.*

NOTE: Ensure the tank contains enough fuel.

IMPORTANT: Make sure the fuel is not contaminated with debris. Tighten loose tank lids regularly.

Dispensing Fuel

1. Turn on the pump by removing the nozzle from the holder and pushing up the switch lever. Insert the nozzle into the receiving tank and squeeze the handle to start fuel flow. When done, release the nozzle handle, turn the pump off and return the nozzle to its holder.

IMPORTANT: This pump is designed to be self-priming. If fuel is not delivered within 15 to 20 seconds, turn the pump off and refer to priming information in the Troubleshooting Section.

⚠ CAUTION *An automatic bypass valve prevents pressure build up when the pump is on with the nozzle closed. To avoid pump damage, do not run the pump more than 10 minutes with the nozzle closed.*

⚠ CAUTION *Never leave the pump running without fluid. Dry running can damage the pump components, and will void the warranty.*

IMPORTANT: This is an intermittent duty pump, after running the pump for a maximum of 30 minutes, allow it to cool for 30 minutes.

⚠ CAUTION *Never leave pump running unattended.*

Thermal Motor Protector

IMPORTANT: The motor is provided with an internal auxiliary temperature-limiting device. Excessive motor heat can trip the device. It resets automatically after the motor has cooled.

1. If the auxiliary temperature limiting device trips, reset by turning the switch OFF. Let the pump cool then turn ON again. If the device trips again, see the Troubleshooting Section of this manual.

⚠ CAUTION *Always turn the pump off if the temperature-limiting device trips. If left on, the pump will automatically reset when cool and start pumping.*



TROUBLESHOOTING

| Symptom | Possible Cause(s) | Corrective Action |
|-----------------------------|--|---|
| Motor does not run | 1. Switch defective | 1. Remove switch coverplate and inspect switch. Replace, if necessary |
| | 2. Switch or electrical connections are faulty | 2. Inspect for damaged motor protector, defective wiring or switch, or improper electrical connections. Replace as needed and reinstall |
| | 3. Auxiliary temperature limiting device tripped | 3. Turn power off at source. Inspect the pump thoroughly; clean or repair. Reset device by turning the power switch off. Allow the pump to cool, then turn power switch back on |
| | 4. Motor burned out | 4. Replace motor (see Maintenance / Repair section) |
| Motor runs but doesn't pump | 1. Gear coverplate or O-ring damaged | 1. Remove and inspect the coverplate and O-ring. Replace, as necessary. (see Maintenance / Repair section) |
| | 2. Strainer clogged or defective | 2. Remove strainer coverplate. Remove and clean strainer. Install again |
| | 3. Suction pipe clogged, damaged or missing | 3. Remove pump from tank. Inspect suction pipe. Clean or replace, as necessary |
| | 4. Bypass poppet O-ring worn or missing | 4. Inspect O-ring (see Maintenance / Repair section). Replace, if necessary |
| | 5. Bypass poppet O-ring dirty | 5. Remove poppet assembly and clean poppet and cavity |
| | 6. Bypass poppet binding or damaged | 6. Remove the bypass poppet, spring and O-ring. Clean cavity. Inspect and replace components, if needed |

TROUBLESHOOTING (CONTINUED)

| Symptom | Possible Cause(s) | Corrective Action |
|---|---|--|
| Motor runs but doesn't pump (continued) | 7. System air leak | 7. Tighten all pump fittings and connections. Inspect suction pipe for leaks or damage |
| | 8. System air lock | 8. Occurs if external filter, meters or an off-the-shelf automatic nozzle is used. To correct, remove the pipe plug in the top outlet port and fill the gear cavity with fuel. Use of a factory-supplied automatic nozzle is recommended |
| | 9. Poor connections or low voltage | 9. Make sure electrical connections are secure |
| | 10. Fuel level low | 10. Fill tank |
| Low flowrate | 1. Strainer partially clogged | 1. Remove the strainer coverplate. Remove and clean the strainer. Install again |
| | 2. Poor connections or low voltage | 2. Make sure electrical connections are secure. Also check power source |
| | 3. Suction pipe clogged or damaged | 3. Remove pump from tank. Inspect suction pipe. Clean or replace, as necessary |
| | 4. Using off-the-shelf automatic nozzle | 4. Factory-supplied automatic nozzle is recommended |
| | 5. System air leak | 5. Tighten all pump fittings and connections. Inspect suction pipe for leaks or damage. Replace, as necessary |
| | 6. Bypass poppet spring weak | 6. Remove the bypass poppet and inspect spring (see Maintenance/Repair section. Replace, if necessary |
| | 7. Fuel tank empty | 7. Fill tank |



TROUBLESHOOTING (CONTINUED)

| Symptom | Possible Cause(s) | Corrective Action |
|--|--|---|
| Motor stalls when operating in bypass mode | 1. Gears locked | 1. Remove gear coverplate and inspect gears and drive key. Make sure gears turn freely with the key removed. Replace, if worn |
| | 2. Bypass poppet binding or damaged | 2. Using instructions in the Repair Section, remove the bypass poppet, spring and O-ring. Clean cavity. Inspect components and replace, as necessary |
| | 3. Wiring defective | 3. Use Wiring instructions in the Installation Section to ensure proper connections |
| | 4. Motor defective | 4. Replace motor as described in the Repair Section |
| Switch fails to operate motor | 1. Switch or electrical connections faulty | 1. Inspect for defective wiring or switch, or improper electrical connections. Replace or install again, as necessary. Refer to Switch Replacement instructions in the Repair Section |
| | 2. Motor burned out | 2. Replace motor as described in the Repair Section |

TROUBLESHOOTING (CONTINUED)

| Symptom | Possible Cause(s) | Corrective Action |
|----------------------|------------------------------------|---|
| Overheating of motor | 1. Duty cycle too long | 1. Pump operation should not exceed the standard duty cycle of 30 minutes ON, and 30 minutes OFF. Allow the pump to cool for 30 minutes |
| | 2. Strainer clogged | 2. Remove strainer coverplate. Remove and clean strainer. Install again |
| | 3. Suction pipe clogged or damaged | 3. Remove pump from tank. Inspect suction pipe. Clean or replace, as necessary |
| | 4. Gears worn | 4. Remove gear coverplate and inspect gears and drive key. Make sure gears turn freely with key removed. Replace, if necessary |
| | 5. Fuel level low | 5. Fill tank |
| | 6. Running too long in bypass mode | 6. Limit bypass operation to 10 minutes |

MAINTENANCE

NOTE: This pump is designed for minimum maintenance. The motor bearings are sealed and require no lubrication. Inspect the pump and components regularly for fuel leaks and make sure the hose and power cord are in good condition. Keep the pump exterior clean to help identify leaks.

IMPORTANT: Do not use this pump for water, chemicals or herbicides. Dispensing any fluid other than those listed in this manual will damage the pump. Use of the pump with unauthorized fluids will void the warranty.

Clean or Replace Strainer

1. Turn the pump off and disconnect from power. Remove the strainer coverplate, making sure not to damage the O-ring (see Figure 14). Remove the inlet strainer and inspect for damage or clogs (see Figure 12). Clean the strainer with a soft-bristled brush and solvent (see Figure 13). If the strainer is very dirty, compressed air may be used. If damaged, replace the strainer.
2. Place the strainer in the cavity. Clean the coverplate and O-ring. Coat the O-ring lightly with grease. Ensure the coverplate O-ring is properly seated (see Figure 14) and tighten the strainer coverplate.



Figure 12



Figure 13



Figure 14

REPAIR

IMPORTANT: Carefully inspect all parts for wear or damage. Replace components, as necessary. The Illustrated Parts List gives information on replacement parts and kits. Review the Safety Instructions before proceeding.

⚠ DANGER *Observe precautions against electrical shock when servicing the pump. Always disconnect power before repairing or servicing. Never apply electrical power to the system when any of the coverplates are removed.*

⚠ WARNING *Avoid prolonged skin contact with petroleum fuels. Use protective goggles, gloves and aprons in case of splashing or spills. Change saturated clothing and wash skin promptly with soap and water.*

Remove Pump From Tank

1. Turn the pump OFF and disconnect from power.
2. Turn the spin collar counterclockwise to release the inlet fitting.
3. Lift the pump and suction pipe straight up from the tank adapter.
4. Elevate the nozzle and hose to allow excess fuel to drain into the tank.
5. Wipe the entire system with a clean cloth.

Service O-rings

NOTE: A Wet Seal Kit contains all seals for your pump and should be on hand when performing repairs. Old seals may then be replaced with new seals.

1. In general, when inspecting O-rings, look for breaks, wear and signs of deterioration, such as swelling.
2. Replace, as necessary.
3. Before seating, coat O-rings with light grease.

Replace Gears and Drive Key

1. Turn the pump OFF and disconnect from power.
2. Remove the gear coverplate and O-ring from the pump housing.
3. Pull the drive key and two gears from the pump (see Figure 16).
4. Inspect the gears and key for wear and damage. Replace, as necessary.
5. Wipe the gear cavity with a clean cloth.
6. Replace the gears. Make sure they turn freely.
7. Replace the drive key.
8. Make sure the gear coverplate O-ring is securely in place. Tighten the coverplate to the housing.

REPAIR (CONTINUED)

Clean Bypass Poppet

1. Turn the pump OFF and disconnect from power.
2. Using a 1/2" drive wrench, remove the pipe plug from the top outlet port (see Figure 15).
3. Remove the gear coverplate and O-ring from the pump housing.
4. Pull the drive key and two gears from the pump (see Figure 16).
5. To clean the bypass poppet:
 - a. With a clean cloth, wipe the poppet cavity through the top outlet port.
 - b. Push down on the poppet until the poppet O-ring is exposed inside the housing (see Figures 17 and 18).
 - c. Using a clean cloth, rotate the poppet and clean it thoroughly.

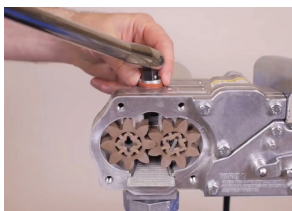


Figure 15



Figure 16

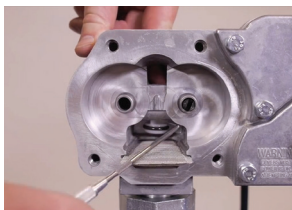


Figure 17

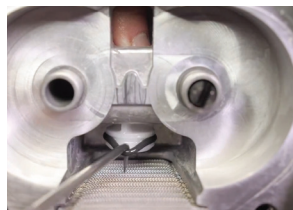


Figure 18

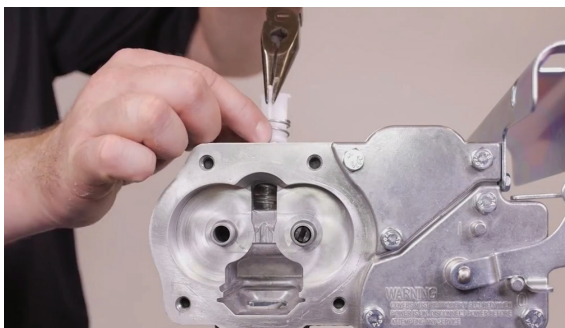


Figure 19

REPAIR (CONTINUED)

Replace Bypass Poppet O-ring

1. To replace the bypass poppet O-ring:
 - a. As with cleaning, push down on the poppet until the O-ring is exposed.
 - b. Remove the O-ring with a small screwdriver or similar tool. Take care not to damage the poppet or O-ring (see Figure 18).
 - c. From inside the housing, push the poppet and spring upward, and with needle-nose pliers, pull through the top outlet port (see Figure 19).
 - d. Wipe the poppet and gear cavities with a clean cloth.
 - e. Inspect the O-ring and replace as necessary (see Figure 20).

NOTE: Replace O-ring if damaged, swollen or loose-fitting (see Wet Seal Kit).

2. To assemble, place the spring and poppet into the poppet cavity through the top outlet port. Compress the poppet into the housing until the poppet appears in the lower chamber. Coat the O-ring lightly with grease and slip over the poppet head. Make sure the O-ring is well-seated (see Figure 18).
3. Push on the poppet through the top outlet port to make sure it moves freely.
4. Install the pipe plug again, using thread tape as necessary.
5. Replace the gears, making sure they turn freely.
6. Replace the drive key.
7. Make sure the gear coverplate O-ring is in place. Tighten the coverplate to the pump housing.



Figure 20

REPAIR (CONTINUED)

Replace Motor Shaft Seal

1. Turn the pump OFF and disconnect from power.
2. Remove the gear coverplate, gears and drive key as described in Gears and Drive Key Replacement instructions.
3. Remove the (3) 1/4-20 x 3/4 in. SEMS screws and motor from the pump housing (see Figure 21).
4. Remove the motor shaft seal by prying out with a small screwdriver (see Figure 22).
5. Lubricate the gear shaft with WD-40® or a similar penetrating oil.
6. Press a new motor shaft seal evenly in the pump housing until seated. Lubricate the seal with a lightweight motor oil.
7. Gently slide the shaft through the seal until the motor is flush against the pump housing.
8. Tighten the motor to the pump housing. Check for proper installation by working a .0015 in. (.04 mm) feeler gauge around the motor flange (see Figure 23). The gauge should not fit between the flange and the housing.
9. Re-install the gears and drive key as described in Gears and Drive Key Replacement instructions.

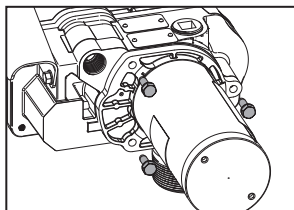


Figure 21

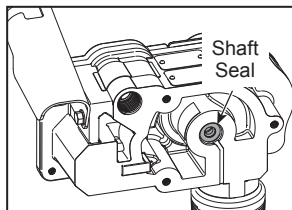


Figure 22

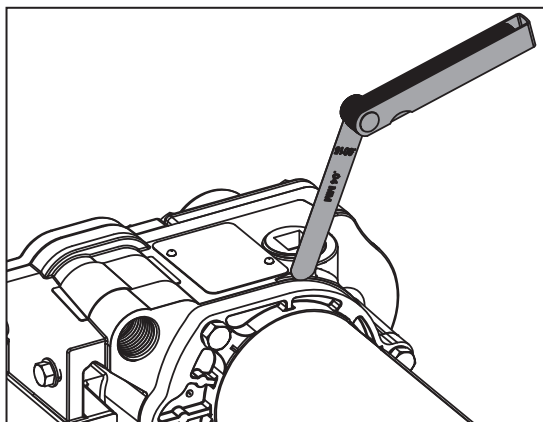


Figure 23

REPAIR (CONTINUED)

Replace Power Switch

1. Turn the pump OFF and disconnect from power.
2. Remove the switch coverplate from the pump housing (see Figure 24).
3. Remove the Torx head screw, then remove the switch assembly (see Figure 25).
4. Unscrew both terminals and remove red pump wires from the back of the switch (see Figure 26).
5. Install a new switch by reversing the above procedure. Insert the switch assembly into the pump cavity. Make sure the O-ring is seated properly before tightening the switch coverplate.

NOTE: For the proper operation of the switch lever and cam, attach the mounting plate to the switch with a clearance of 0.175 in. or about 3/16 inch (4.44 mm) (see Figure 27).

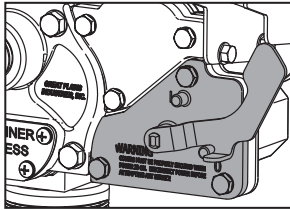


Figure 24

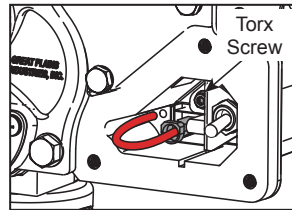


Figure 25

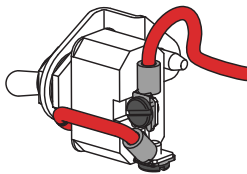


Figure 26

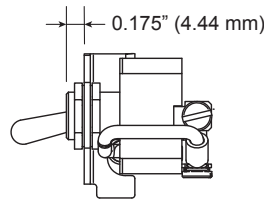


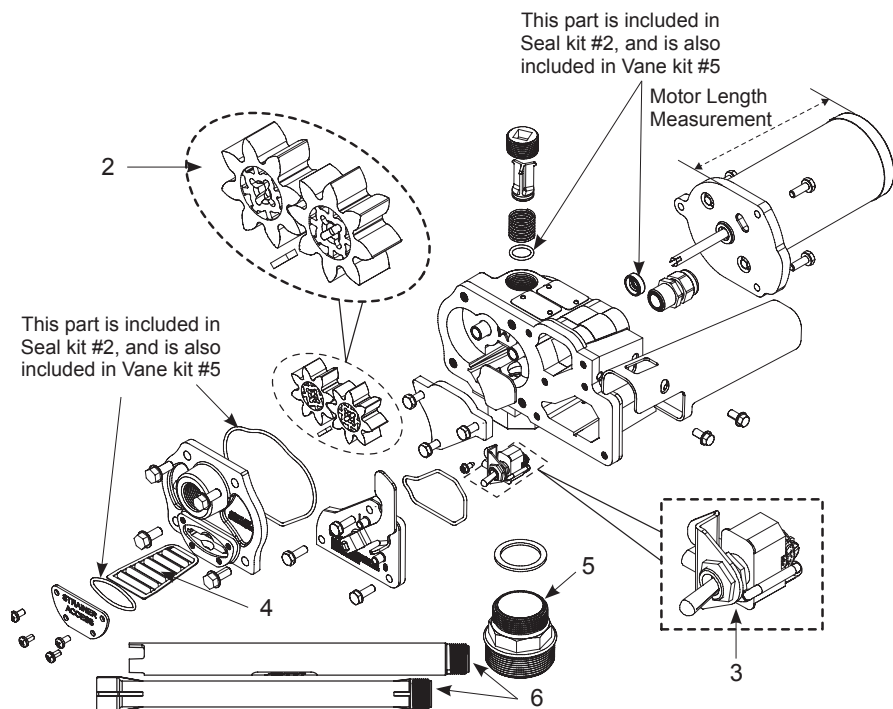
Figure 27

Replace Motor

In order to preserve the UL Listing or CSA Certification for pump safety, return the entire pump to the factory for motor repair or replacement. For products serviced outside the factory, the UL and CSA nameplates must be defaced to indicate the equipment may no longer meet the requirements for UL Listing or CSA Certification. This does not apply to products serviced outside the factory under the UL program for Rebuilt Motors for Use in Hazardous Locations and the CSA rebuild program.



REPAIR PARTS ILLUSTRATION FOR M-1115S-PO, M-1115S-MU AND M-1115S-AU



REPAIR PARTS LIST (M-1115S-PO, M-1115S-MU AND M-1115S-AU)

| Ref. No. | Description | Part Number: | Qty. |
|----------|----------------------------|-----------------|------|
| 1 | Wet Seal Kit | 110906-1 | |
| | Gear Coverplate O-ring | ▲ | 1 |
| | Strainer Coverplate O-ring | ▲ | 1 |
| | Bypass Poppet O-ring | ▲ | 1 |
| | Motor Shaft Seal | ▲ | 1 |
| 2 | Overhaul Kit | 110504-1 | |
| | Wet Seal Kit | ▲ | 1 |
| | Gear | ▲ | 2 |
| | Drive Key | ▲ | 1 |
| 3 | Switch Assembly | 110910-503 | 1 |
| 4 | Inlet Strainer | 110009-501 | 1 |
| 5 | Tank Adapter | 110909-1 | 1 |
| 6 | Suction Pipe Assembly | 110241-01 | 1 |

(▲) Available as part of kit only.

INTERNATIONAL ISO SAFETY SYMBOLS



This symbol indicates a general warning to the user. See additional specific warnings.



This symbol indicates electrical shock hazard. Follow proper installation and maintenance instructions in this manual.



This symbol indicates hot surface. Take care to avoid coming into contact with hot surface.



This symbol indicates automatic restart. Pump contains thermal protection which automatically shuts off motor before overheating. Pump will turn back on automatically after cooling. Turn switch OFF and wait 30 minutes to resume normal pumping. Disconnect power before any inspection or service.



Owner's manual must be read before using, inspecting, or servicing this product.



Disconnect power when product is unattended or in the case of a malfunction. Disconnect power before any inspection, servicing, or maintenance.



Smoking, open flames, fires, and open ignition sources are prohibited in the vicinity of this product.

GPI® TWO-YEAR LIMITED WARRANTY

Great Plains Industries, Inc. 5252 E. 36th Street North, Wichita, KS USA 67220-3205, hereby provides a limited warranty against defects in material and workmanship on all products manufactured by Great Plains Industries, Inc. This product includes a 2 year warranty from date of purchase as evidenced by the original sales receipt. A 30 month warranty from product date of manufacture will apply in cases where the original sales receipt is not available. Reference product labeling for the warranty expiration date based on 30 months from date of manufacture. Manufacturer's sole obligation under the foregoing warranties will be limited to either, at manufacturer's option, replacing or repairing defective goods (subject to limitations hereinafter provided) or refunding the purchase price for such goods theretofore paid by the buyer, and buyer's exclusive remedy for breach of any such warranties will be enforcement of such obligations of manufacturer. The warranty shall extend to the purchaser of this product and to any person to whom such product is transferred during the warranty period. This warranty shall not apply if:

A. the product has been altered or modified outside the warrantor's duly appointed representative;

B. the product has been subjected to neglect, misuse, abuse or damage or has been installed or operated other than in accordance with the manufacturer's operating instructions.

To make a claim against this warranty, contact the GPI Customer Service Department at

316-686-7361 or 800-835-0113.

Or by mail at:

Great Plains Industries, Inc.

5252 E. 36th St. North

Wichita, KS, USA 67220-3205

The company will guide you through a product troubleshooting process to determine appropriate corrective actions.

GREAT PLAINS INDUSTRIES, INC., EXCLUDES LIABILITY UNDER THIS WARRANTY FOR DIRECT, INDIRECT, INCIDENTAL AND CONSEQUENTIAL DAMAGES INCURRED IN THE USE OR LOSS OF USE OF THE PRODUCT WARRANTED HEREUNDER.

The company herewith expressly disclaims any warranty of merchantability or fitness for any particular purpose other than for which it was designed.

This warranty gives you specific rights and you may also have other rights which vary from U.S. state to U.S. state.

Note: In compliance with MAGNUSON-MOSS CONSUMER WARRANTY ACT – Part 702 (governs the resale availability of the warranty terms).

Wichita / Sydney

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