

215 Gallon Waste Oil Tank With Metering Pump Installation Instructions

Lanair Products LLC

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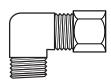
BEFORE YOU BEGIN INSTALLATION...

IMPORTANT

Read and understand this manual completely before beginning installation.

- This tank is for <u>commercial</u> and <u>industrial</u> use only. **This unit is not intended for residential** use.
- Install Heater/Tank combination in an area that is protected from fork lift and motor vehicle traffic.
- Bolt tank to floor before you fill the tank or install the heater.
- Secure the heater to a permanent structure after installation.
- Install the heater according to the printed information in your owners manual.
- Installation of this unit must be made in accordance with state and local codes or authorities having jurisdiction over environmental control, fuel, fire and electrical safety.
- Read and familiarize yourself with these instructions and associated photos, diagrams and illustrations before beginning installation or operation. These instructions should be followed closely, to achieve the best possible results.
 - If you have questions or concerns at any time during the installation, stop the installation and contact a Lanair Service Representative.
- Check to make sure you have all the required components needed for proper installation and operation.
- Check each component for visible damage. If you find a damaged component, contact a Lanair Service Representative for a replacement. **Do not install broken or damaged parts.**
- Read and understand the warranty. Fill out the enclosed warranty card and return within 10 days of purchase.
- Clean and de-burr all pipe connections prior to use. Loose filings and burrs can clog the nozzle.
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Section 1 - Plumbing Kit Parts List



Part # 8917 Brass Elbow 3/8" Comp x 1/4" NPT QTY: 2



Part # 8186 Nipple Close 1/2" QTY: 5



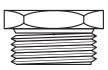
Part # 8185 Pipe Plug 1/2" QTY: 2



Part # 8902 Elbow Street 1/2" QTY: 3



Part # 8647 Nipple Close 1/4" QTY: 1



Part # 8904 Bushing 1/2" x 1" QTY: 2



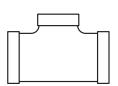
Part # 8602 Elbow 1/2" QTY: 1



Part # 8558 Coupling Reducing 1/2" x 1/4" QTY: 2



Part # 8556 Union 1/2" QTY: 1



Part # 9412 Tee 1/2" x 1/4" x 1/2" QTY: 1

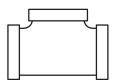


Part # 7101 Screw #10 x 1" QTY: 4

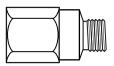


Part # 8557 Nipple 1/2" x 5-1/2" QTY: 1

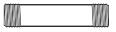
METERING PUMP TEE ASSEMBLY (P/N 9981) PARTS LIST



Part # 8909 Tee 1/4" x 1/4" x 1/4" QTY: 1



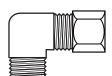
Part # 8462 Check Valve 1/4" NPT x 1/4" FNPT QTY: 1



Part # 8915 Nipple 1/8" x 2" QTY: 1



Part # 8908 Bushing 1/8" x 1/4" QTY: 1



Part # 8917 Brass Elbow 3/8" Comp x 1/4" NPT QTY: 1



Part # 8939 Brass Fitting 3/8" Comp x 1/4" NPT QTY: 1





Section 1 - Plumbing Kit Parts List





Screw 5/16" - 18 x 1"

Qty:4



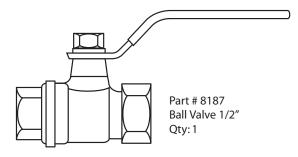
Part # 7427 Washer Lock 5/16" Qty: 4

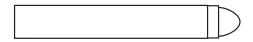


Part # 7417 Washer Flat 5/16" Qty:4



Part # 7207 Nut 5/16" - 18 Qty: 4

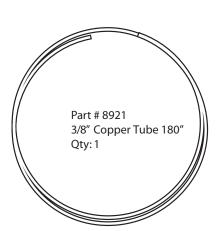




Part # 5277 Thread Sealing Compound Qty: 1



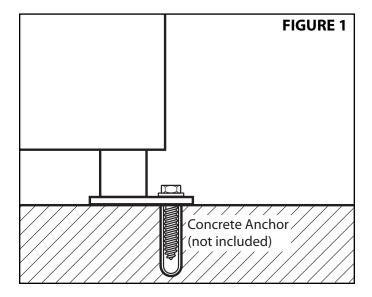
Part # 9030 Pick-up Tube Qty: 1



Section 2 - Installation Instructions

TANK INSTALLATION

- 1. Unwrap the tank and parts.
- 2. Choose tank location. Locate the tank in an area that is protected from lift truck and motor vehicle traffic. **NOTE**: Make sure you have enough room to install and service your heater.
- **3.** Anchor all four legs of the tank to the floor as indicated In Fig. 1. **NOTE:** This method of anchoring is a suggestion only. Anchoring methods may vary per individual applications and environments. Check state and local codes for clarification.
- **4.** Install the four tank legs included with the tank on top of the bottom legs (see Fig. 2).
- **5.** Using a forklift, lift and center the heater on top of the platform. **NOTE:** The front of each unit is indicated on the top of the tank platform
- **6.** Using a forklift, carefully raise the platform and heater assembly and place on top of the previously installed legs (see Fig. 2).
- 7. Locate the four holes on the bottom side of the heater platform. Attach the heater to the platform using four #10 x 1" screws provided.



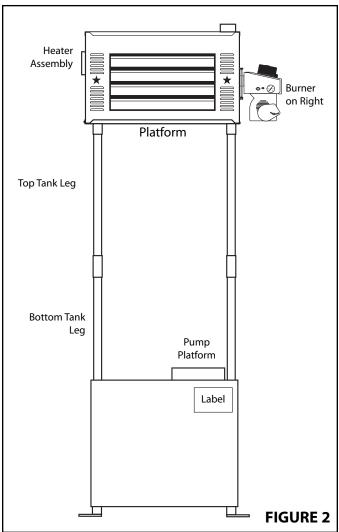
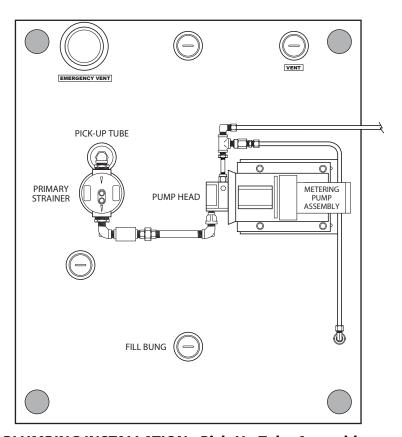


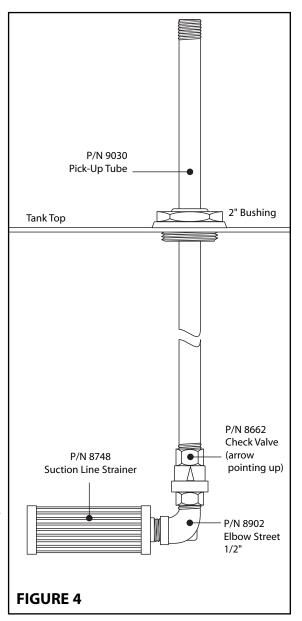


FIGURE 3- Top View of Tank

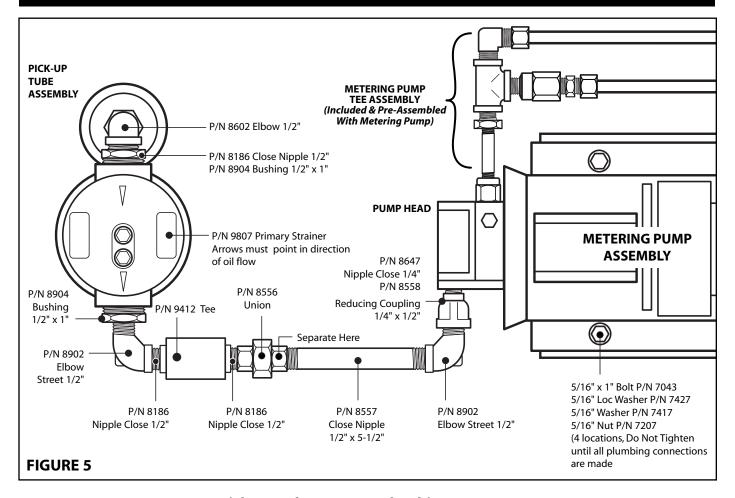


PLUMBING INSTALLATION - Pick-Up Tube Assembly

1. Unpack and lay out all of the parts shipped with your tank and heater. Before beginning assembly, make sure all lines and fittings are free of dirt and/or burrs. NOTE: When making plumbing connections, use the thread seal compound (P/N 5277) included in the plumbing kit on all joints. DO NOT USE TEFLON TAPE.



- 2. Locate the pick-up tube assembly (P/N 9030). This tube will have a 2" bushing welded onto it.
- **3.** Attach the brass check valve (P/N 8662 included in the heater accessory kit) to the bottom of the pick-up tube assembly (P/N 9030). **NOTE:** The arrow on the check valve must point in the direction of the oil flow (up) or the check valve will not work properly (see Fig. 4).
- **4.** Attach the 1/2" elbow (P/N 8902) to the check valve. Attach the suction line strainer (P/N 8748 included in the heater accessory kit) to the 1/2" elbow (P/N 8902) as indicated in Fig. 4.
- 5. Insert the pick-up tube assembly into the 2" bung (hole) and tighten (see Fig. 3 for bung location).



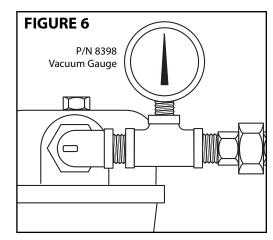
PLUMBING INSTALLATION - Pick-Up Tube to Pump Plumbing

- Attach the pump assembly to the top of the tank bracket (see Figs. 2 and 3 for bracket location) using four 5/16" x 1" bolts, loc washers, washers and nuts (See Fig. 5). NOTE: Do not tighten until all plumbing connections are made.
- 2. Install a 1/2" elbow (P/N 8602), 1/2" close nipple (P/N 8186) and 1/2" x 1" bushing (P/N 8904) to the top of the previously installed pick-up tube assembly. **NOTE:** When making plumbing connections, use the thread seal compound (P/N 5277) included in the plumbing kit on all joints. **DO NOT USE TEFLON TAPE.**
- **3.** Attach the primary strainer assembly (P/N 9807 included in heater accessory kit) to the previously installed components. **NOTE:** Make sure that the arrows on the top of the strainer are pointed in the direction of the oil flow (see Fig. 5).
- **4.** Install a 1/2" x 1" bushing (P/N 8904), 1/2" elbow street (P/N 8902), 1/2" close nipple (P/N 8186), 1/2" x 1/4" x 1/2" tee (P/N 9412), 1/2" close nipple (P/N 8186) and Union (P/N 8556) to the primary strainer assembly (P/N 9807) as indicated in Fig. 5 above. **NOTE:** When making plumbing connections, use the thread seal compound (P/N 5277) included in the plumbing kit on all joints. **DO NOT USE TEFLON TAPE.**



PLUMBING INSTALLATION - Pick-Up Tube to Pump Plumbing (cont.)

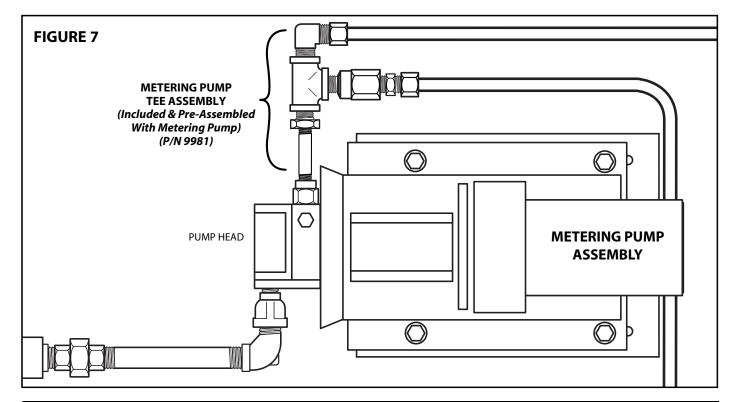
- **5.** Install a 1/4" close nipple (P/N 8647) to the pump head (see Fig. 5, page 7).
- **6.** Install a 1/4" x 1/2" reducing coupling (P/N 8558), 1/2" street elbow (P/N 8902) and 1/2" x 5" nipple to the previously installed 1/4" close nipple (see Fig. 5, page 7).
- 7. Separate the 1/2" union (P/N 8556) as indicated in Fig. 5.
- **8.** Attach the separated part of the union to the 1/2" x 5" nipple. Re-assemble the union and tighten.



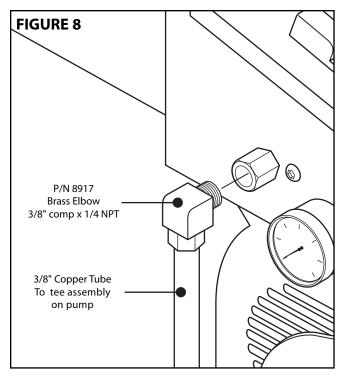
9. Check to make sure all joints are tight. **NOTE:** Failure to do so will result in suction leaks (drawing air into oil) causing the heater to operate improperly. Tighten the pump assembly to the bracket. Install the vacuum gauge (P/N 8398 - included in the heater accessory kit) to the previously attached 1/2" x 1/4" x 1/2" tee (P/N 9412) as indicated in Fig. 6.

PLUMBING INSTALLATION - Pump to Burner Assembly

- 1. Install the Metering Pump Tee Assembly into the pump head outlet as indicated in Fig. 7.
- 2. Install the 3/8" copper tube (P/N 8921) between the compression fitting of the Metering Pump Tee Assembly and and the compression fitting on the burner assembly (see Fig 7)







PLUMBING INSTALLATION - To Burner

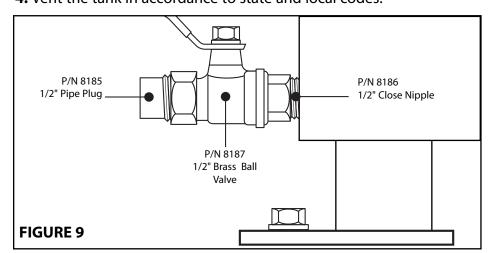
- **1.** Attach the 3/8" comp x 1/4" NPT brass elbow (P/N 8917) as indicated in Fig 8.
- **2.** Install the remaining 3/8" copper tube between the compression fittings of the by-pass regulator and burner (see Fig 8).

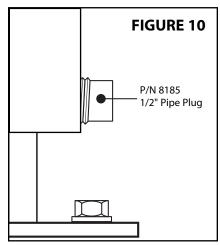
NOTE: Make sure all fittings are properly tightened. Leaking fittings may cause delayed ignition in the burner.

3. Assemble a 1/2" close nipple (P/N 8186, 1/2" x 1/4" reducing coupling (P/N 8558), and 3/8" comp x 1/4" MPT brass elbow (P/N 8917). Install this assembly into the 1/2" bung on the top of the tank. Connect a 3/8" copper tube from the relief valve on the metering pump to the assembly described above (see Fig 3 & 8).

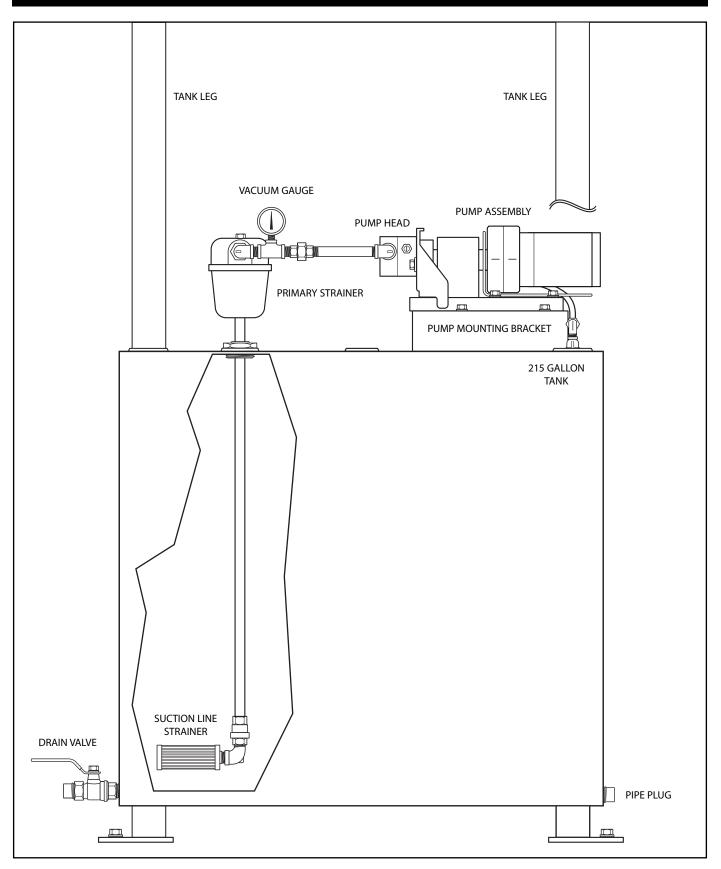
Tank Drain and Plug

- **1.** Determine which side of the tank the drain will be on. On that side, install a 1/2" close nipple (P/N 8186) to the drain hole (see Fig 9).
- 2. Install the 1/2" brass ball valve (P/N 8187) to the 1/2" close nipple. Install a 1/2" pipe plug (P/N 8185) into the end of the ball valve (see Fig 9).
- 3. Install a 1/2" pipe plug (P/N 8185) into the hole on the opposite side of the tank (see Fig 10).
- **4.** Vent the tank in accordance to state and local codes.





Section 5 - Reference Diagram





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