

Evacuation System Accessories

307870 rev.L

Air Supply Kit

Part No. 221147

Evacuation Control Valve

Part No. 220969

Suction Wand Kits

Part No. 221146 15 in. wands

Part No. 224762 48 in. wands

Waste Oil Suction Tube

Part No. 222178



Important Safety Instructions.

Read all warnings and instructions in this manual.
Save these instructions.

WARNING

Installation and use must be in accordance with the Flammable and Combustible Liquids Code (NFPA 30) and Automotive and Marine Service Station Code (NFPA 30A) and must comply with all local, state, and federal codes.

PROVEN QUALITY. LEADING TECHNOLOGY.

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Symbols

Warning Symbol



This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

Caution Symbol



This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

! WARNING



HAZARDOUS FLUIDS HAZARD

Improper handling of hazardous fluids or inhaling of toxic vapors can cause extremely serious injury or death due to splashing into the eyes, ingestion, or bodily contamination. Observe all of the following precautions when handling know or potentially hazardous fluids.

- Know what fluid you are pumping and its specific hazards. Take precautions to avoid a toxic fluid spill.
- Always wear protective eyewear, gloves, clothing, and respirator as recommended by the fluid and solvent manufacturer.
- Store hazardous fluid in an appropriate, approved container. Dispose of it according to all local, state, and federal guidelines for hazardous fluids.
- Secure the fluid outlet hose tightly into the receiving container to prevent it from coming loose and improperly draining the fluid.
- Pipe and dispose of the exhaust air safely, away from people, animals, and food handling areas. If the diaphragm fails, the fluid is exhausted along with the air. Refer to your pump instruction manual.



FIRE AND EXPLOSION HAZARD

Static electricity is created by the flow of fluid through the pump and hoses. If the equipment is not properly grounded, sparking may occur. Sparks can ignite fumes from solvents and the fluid being pumped, dust particles, and other flammable substances, whether you are pumping indoors or outdoors, and it can cause a fire or an explosion and serious injury and property damage.

- To reduce the risk of static sparking, ground the pump and all other equipment used or located in the work area. Check your local electrical code for detailed grounding instructions for your area and type of equipment.
- If you experience any static sparking or even a slight shock while using this equipment, **stop pumping immediately**. Check the entire system for proper grounding. Do not use the system again until the problem has been identified and corrected.

Typical Gear Oil Receiver Evacuation System

The system in Fig. 1 is for the fast evacuation of gear oil from vehicles. One centrally mounted **Graco Husky 1040** pump can have suction line drops to as many as four service bays, when activated singly. One control valve at each bay remotely activates the pump and quickly suctions the gear oil. Interchangeable, nylon suction wands are available to fit most differentials and transmissions (see page 6). This system can also be used to remove waste oil from rolling waste oil drain carts using a high capacity wand or Suction Tube 222178 (see page 7).

Starting and Adjusting the Pump

1. Be sure the pump is properly grounded and bonded. Read and follow **FIRE AND EXPLOSION HAZARD** on page 2.
2. Be sure all fittings are tight. Use a compatible liquid thread sealant on all male threads. Do not overtighten the fittings into the pump.
3. Install a ground wire and clamp.

4. Attach an appropriate wand to the control valve. See Suction Differential Kit 221146.
5. Connect the quick coupler of the Air Supply Kit 221147, to the pump air inlet. Open and set the air regulator to about 3.5 bar (50 psi).
6. Place the suction wand in the differential, transmission, or fluid to be suctioned.
7. Pull down the handle of the Evacuation Control Valve, 220969, to start the pump.
8. Adjust the regulator until you get good suction. Do not use higher air pressure than needed.
9. If you are using a Husky 1040 pump, perform the **Vacuum Test** given in the pump manual.
10. Always push the control valve handle up when you are finished. Place the wand in the holder on the control valve.

NOTE: *Be sure the control valve handle is closed when the evacuation is completed.* Failure to close it may prevent other service bays on the line from working at optimum performance.

Three-Bay System shown

1. Ground wire and clamp. Purchase separately. Always ground pump and system properly.
2. For clarity in this illustration, the air hose and regulator to the pump are shown above the level of the air inlet. For efficient operation, these parts must be level with the air inlet of the pump.

KEY

- A Air from compressor
 B To storage tank
 — Direction of air flow
 → Direction of fluid flow

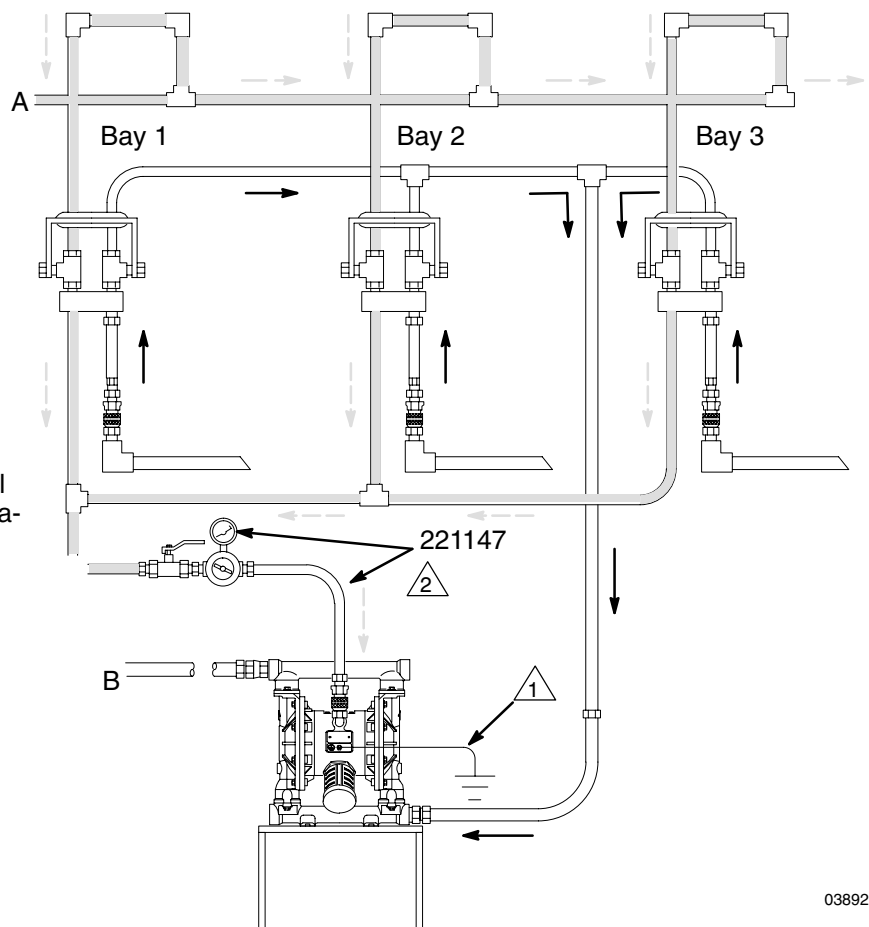


Fig. 1

03892

Air Supply Kit 221147

For maximum performance from your **Graco Husky 1040** pump, use this kit to control the maximum regulated pressure setting and the proper pump speed.

Ref. No.	Part No.	Description	Qty.
1	183595	Hose, Restrictor	1
2	104815	Regulator, Air	1
3	104655	Gauge, Air Pressure	1
4	151519	Nipple, reducing, 1/4 X 1/8"	1
5	155495	Swivel, 90°	1
6	156971	Nipple, 1/4"	1
9	169970	Fitting, Pin, 1/4"	1
10	114558	Quick Disconnect Coupler, 1/4"	1
11	100206	Bushing, 1/2" x 1/4"	1
		(not assembled, not shown)	1

Installation

1. Assemble the kit as shown below.
2. Mount the regulator assembly for convenient access by the operator, and so that no stress is placed on the restrictor hose (1).

Startup

1. Back out the air regulator knob (2) completely. Connect the main air supply line to the swivel (5).
2. Slowly close the regulator (2) until the desired pump performance is obtained. While the system is pressurized, check for leaks throughout the system. If leaks are evident, disconnect the air supply line to relieve pressure. Correct the leaks and retest.

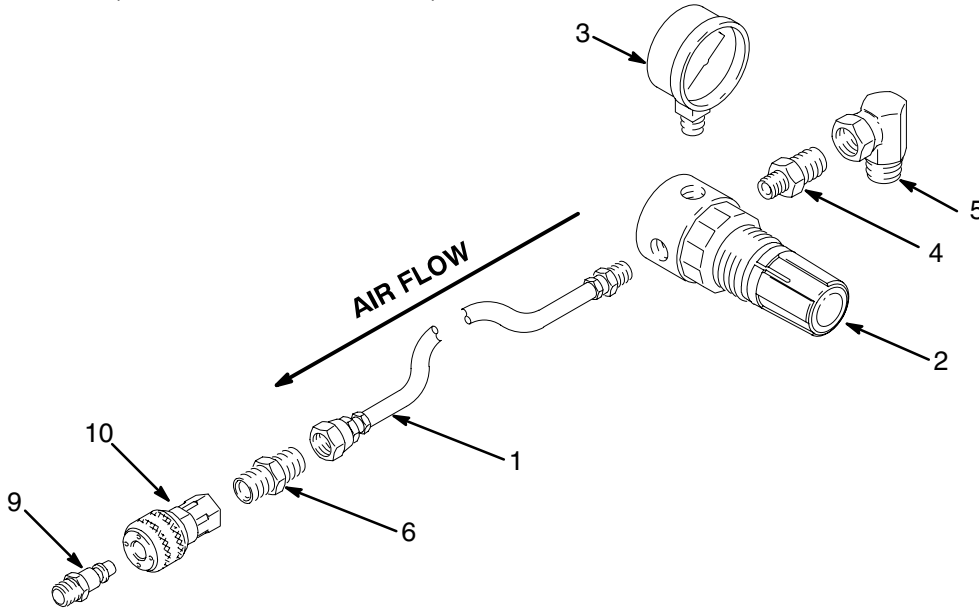


Fig. 2

03888

Evacuation Control Valve, 220969

Provides ON/OFF control for both the air supply to the pump and the suction line from the pump to the evacuation wand using a single hand. A wand storage bracket is included. The valve is designed for mounting with Unistrut® tubing.

Unistrut® is a registered trademark of the Unistrut Corporation.

Installation

1. Unistrut tubing is recommended for mounting this valve. Insert capscrews of the appropriate size through the holes (E) in the valve housing and secure to the Unistrut tubing.
2. Plumb the main air supply line to **A**, and the pump air from **B**. Plumb the pump fluid inlet line to **C**. Connect the suction kit (221146) at **D**.

Ref. No.	Part No.	Description	Qty.
1	183447	Block	1
2	108841	Valve	2
3	183446	Arm	1
4	167124	Grip, Hand	1
5	102410	Capscrew	2
6	167125	Grip, Hand	1
7	108840	Pin, Spring	2
8	183661	Bracket	1

- 1 Spring pin located in here
- 2 Maintain a 0.42-in. (10.7 mm) gap between arm and main body of valve

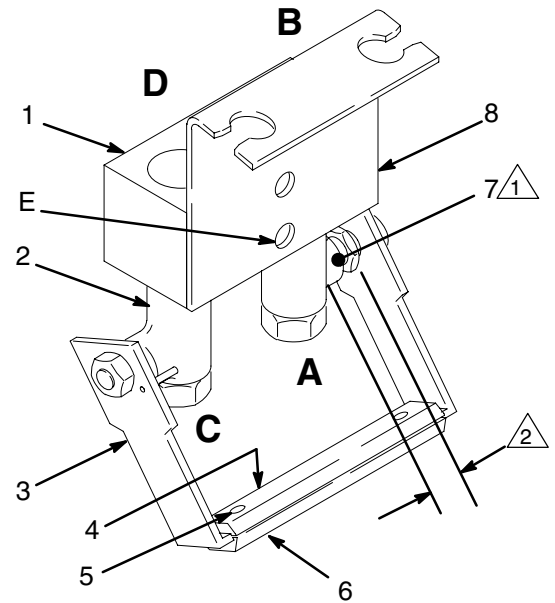


Fig. 3

03890

Suction Kits

Kit 221146 has a 10-ft suction hose and quick coupler with four interchangeable 15-in. suction wands to evacuate lube from most differential and transmission cases. A 48-in. suction wand kit (224762) is also available. See page 7.

Installation

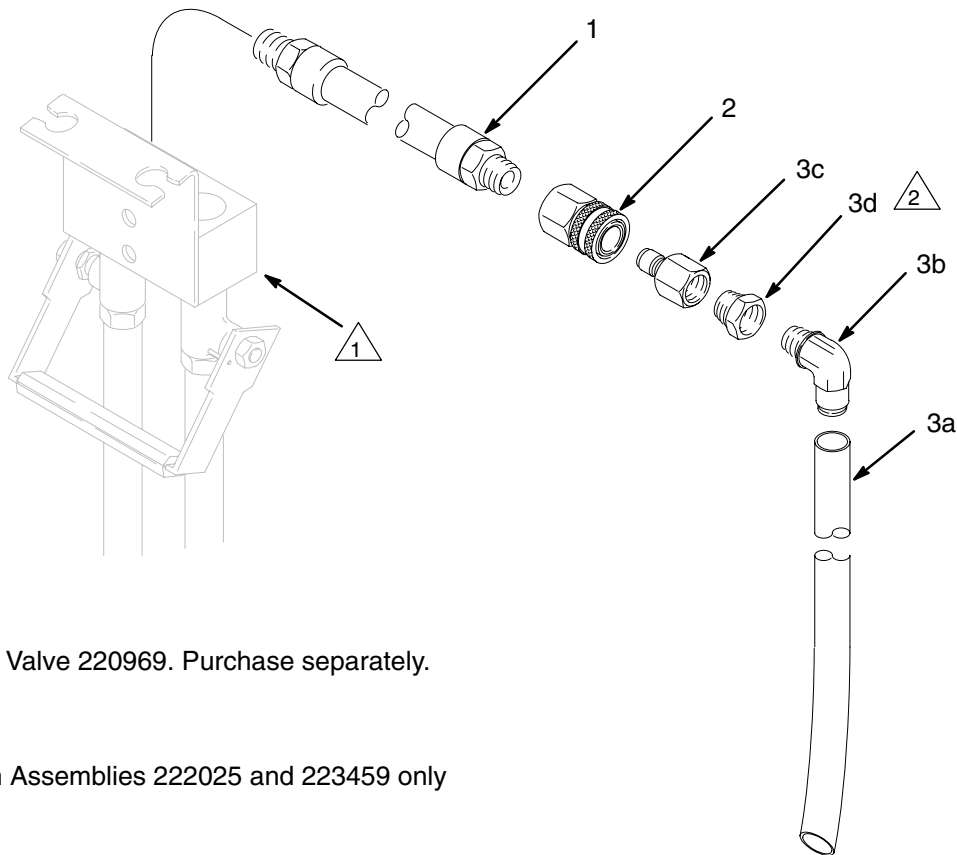
1. Connect the restrictor end of the hose (1) into the pump suction line of the control valve. Connect the female coupler (2) to the other end.
2. Attach an appropriate suction wand assembly. For the best results, use the largest diameter wand possible for the job.

Ordering Note

Order one Suction Differential Kit, 221146, and one Evacuation Control Valve, 220969, for each suction point.

Suction Differential Kit 221146

Ref. No.	Part No.	Description	Qty.
1	109063	Hose, Cpld, 10 Ft	1
2	801569	Quick Disconnect, Female	1
3	222025	3/16" OD Suction Assembly	1
3a	183736	•15 In. Wand	1
3b	109028	•Elbow	1
3c	801568	•Quick Coupler	1
3d	100730	•Bushing	1
3	222024	1/4" OD Suction Assembly	1
3a	183735	•15 In. Wand	1
3b	109027	•Elbow	1
3c	801568	•Quick Coupler	1
3	221144	3/8" OD Suction Assembly	1
3a	183689	•15 In. Wand	1
3b	109004	•Elbow	1
3c	801568	•Quick Coupler	1
3	221145	1/2" OD Suction Assembly	1
3a	183688	•15 In. Wand	1
3b	109005	•Elbow	1
3c	801568	•Quick Coupler	1



1 Control Valve 220969. Purchase separately.

2 Used in Assemblies 222025 and 223459 only

Fig. 4

03887

Suction Kits

48-Inch Suction Wand Kit 224762

Ref. No.	Part No.	Description	Qty.
3	223459	3/16" OD Suction Assembly	
3a	186087	•48 In. Wand	1
3b	109028	•Elbow	1
3c	801568	•Quick Coupler	1
3d	100730	•Bushing	1
3	223458	1/4" OD Suction Assembly	
3a	186086	•48 In. Wand	1
3b	109027	•Elbow	1
3c	801568	•Quick Coupler	1

Ref. No.	Part No.	Description	Qty.
3	223457	3/8" OD Suction Assembly	
3a	186085	•48 In. Wand	1
3b	109004	•Elbow	1
3c	801568	•Quick Coupler	1
3	223456	1/2" OD Suction Assembly	
3a	186084	•48 In. Wand	1
3b	109005	•Elbow	1
3c	801568	•Quick Coupler	1

Waste Oil Suction Tube, 222178

Recommended for evacuating waste oil from rolling carts. Designed to be connected to Suction Differential Kit 221146. See page 6.

Ref. No.	Part No.	Description	Qty.
1	183832	Tube	1
2	181073	Strainer	1
3	156022	Adapter	1
4	801568	Quick Coupler	1

Installation

1. Connect quick coupler (4) to the female quick disconnect fitting on the Suction Differential Kit.
2. Clean strainer (2) after use to prevent clogging.

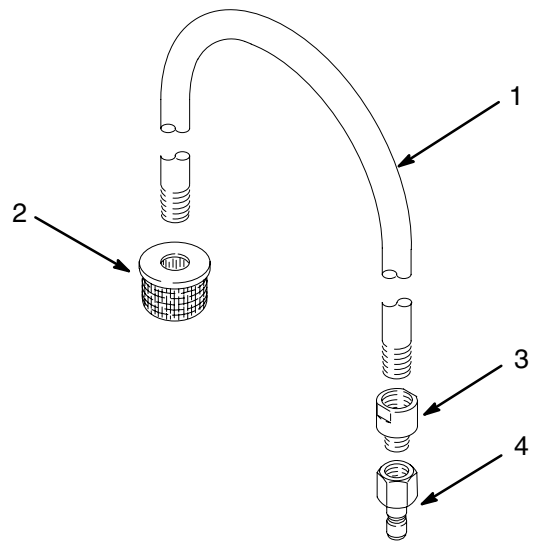


Fig. 5

Graco Standard Warranty

Graco warrants all equipment manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

Graco makes no warranty, and disclaims all implied warranties of merchantability and fitness for a particular purpose in connection with accessories, equipment, materials or components sold but not manufactured by Graco. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

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Graco Phone Numbers

TO PLACE AN ORDER, contact your Graco distributor, or call one of the following numbers to identify the distributor closest to you:

1-800-533-9655 Toll Free

612-623-6928

612-378-3590 Fax

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