

115 VAC EGP On-Demand Pump

3A8570B

EN

For pumping non-flammable fluids, including motor oils, hydraulic fluid, and antifreeze. Do not use to pump water. For professional use only.

Not approved for use in explosive atmospheres or hazardous (classified) locations.

25T817 Electric Gear Pump

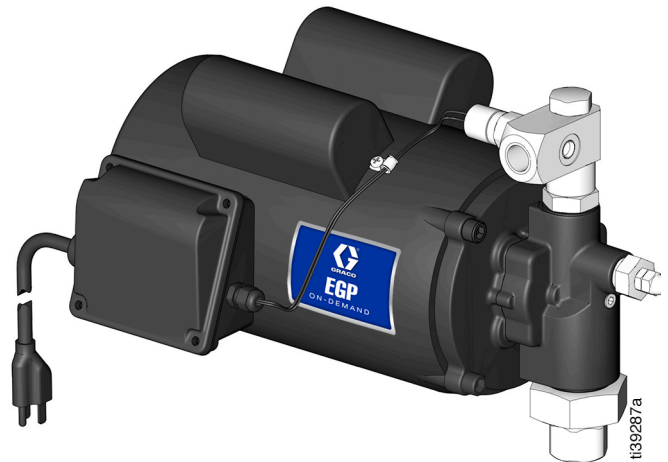
3.7 gpm (14.0 lpm)

500 psi (3.45 MPa, 34.5 bar) Maximum Working Pressure



Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment.
Save these instructions.









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Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 WARNING	
 	<p>FIRE AND EXPLOSION HAZARD</p> <p>When flammable fluids are present in the work area, such as gasoline and windshield wiper fluid, be aware that flammable fumes can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> • Use equipment only in well-ventilated area. • Eliminate all ignition sources, such as cigarettes and portable electric lamps. • Ground all equipment in the work area. • Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline. • Do not plug or unplug power cords or turn lights on or off when flammable fumes are present. • Use only grounded hoses. • Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem. • Keep a working fire extinguisher in the work area.
 	<p>ELECTRIC SHOCK HAZARD</p> <p>This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none"> • Turn off and disconnect power cord before servicing equipment. • Connect only to grounded electrical outlets. • Use only 3-wire extension cords. • Ensure ground prongs are intact on power and extension cords. • Do not expose to rain. Store indoors.
	<p>BURN HAZARD</p> <p>Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:</p> <ul style="list-style-type: none"> • Do not touch hot fluid or equipment.



WARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.



- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Specifications** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Specifications** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer.
- Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.



PRESSURIZED EQUIPMENT HAZARD

Fluid from the equipment, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.



- Follow the **Pressure Relief Procedure** when you stop spraying/dispensing and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.



PERSONAL PROTECTIVE EQUIPMENT

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:

- Protective eyewear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

Typical Installation

The installations shown in FIG. 1 - FIG. 3 are only guides for selecting and installing system components. Contact your local Graco Distributor for assistance with planning a system to suit your needs.

NOTE: The output line fluid pressure should not exceed 400 psi (2.76 MPa, 27.6 bar) while pumping the fluid. Exceeding this pressure can cause the motor to cycle on and off repeatedly.

The output pressure varies at the time of pump shut off. It is determined by many factors including: hose length, type of fittings used, and the speed that the outlet valve is closed. If pressure sensitive devices are installed downstream from the pump, an external pressure relief/bypass must be installed in order to vent excess pressure back to the tank.

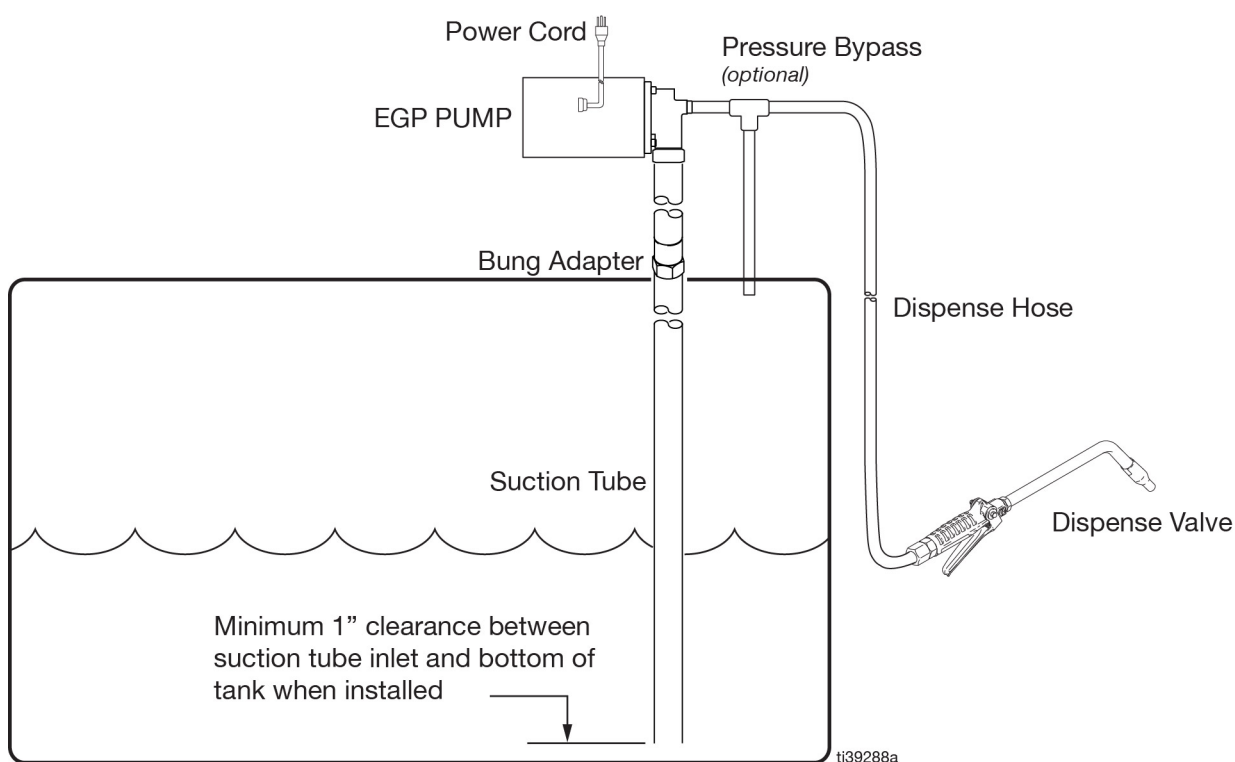


FIG. 1: Typical Installation - Option 1: Pump and Dispense Valve

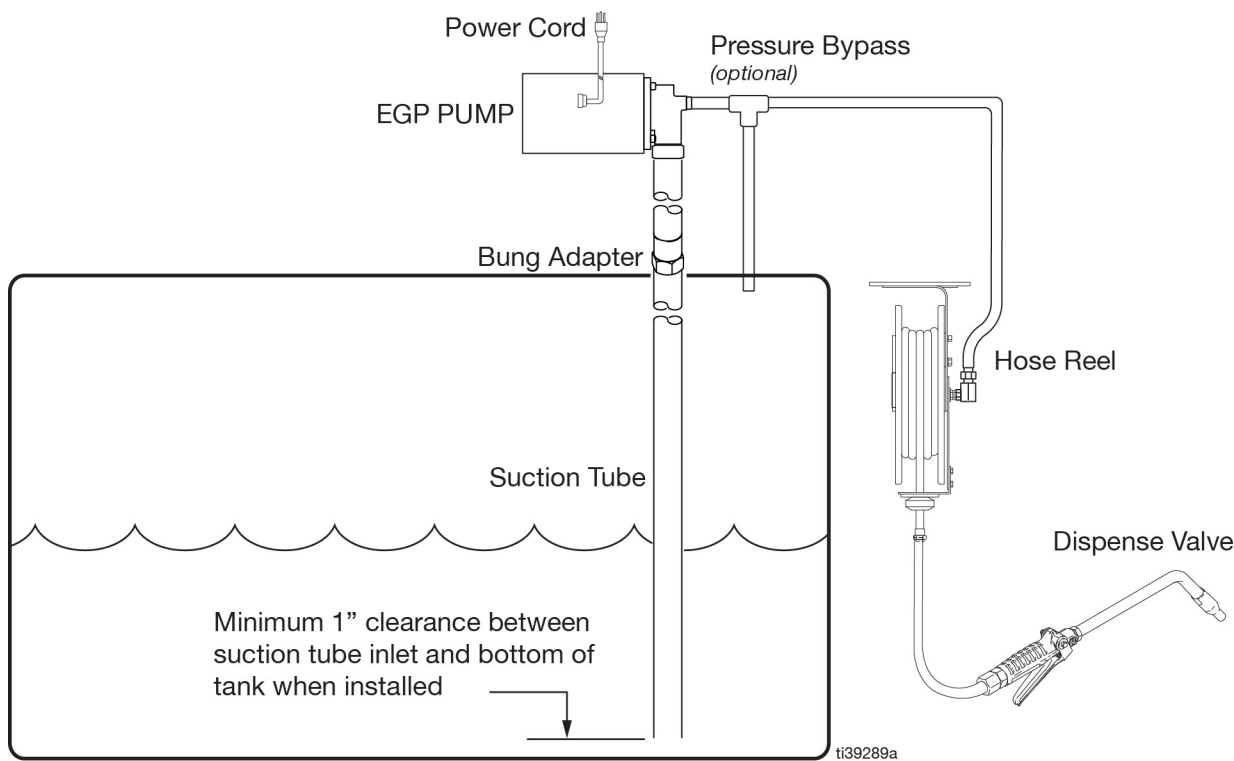


FIG. 2: Typical Installation - Option 2: Pump with Hose Reel

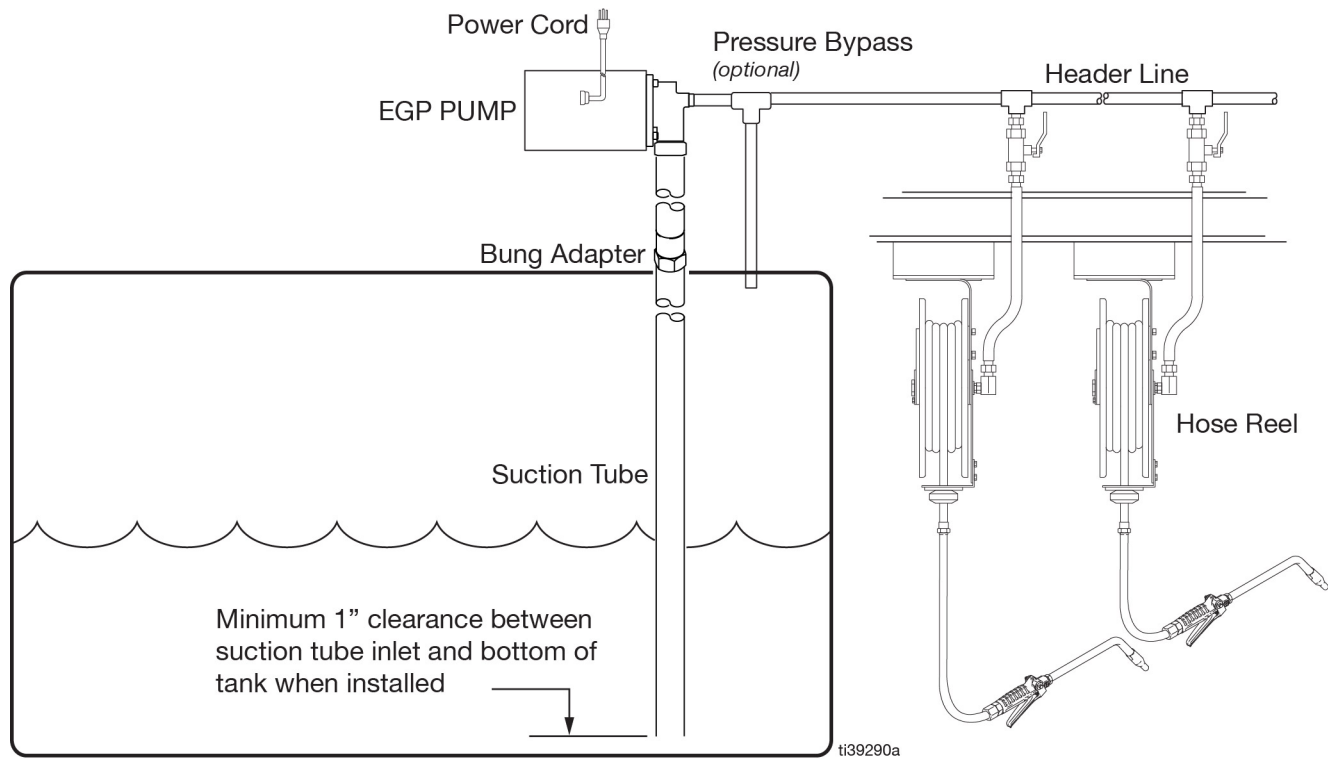


FIG. 3: Typical Installation - Option 3: Pump with More Than One Hose Reel

Component Identification

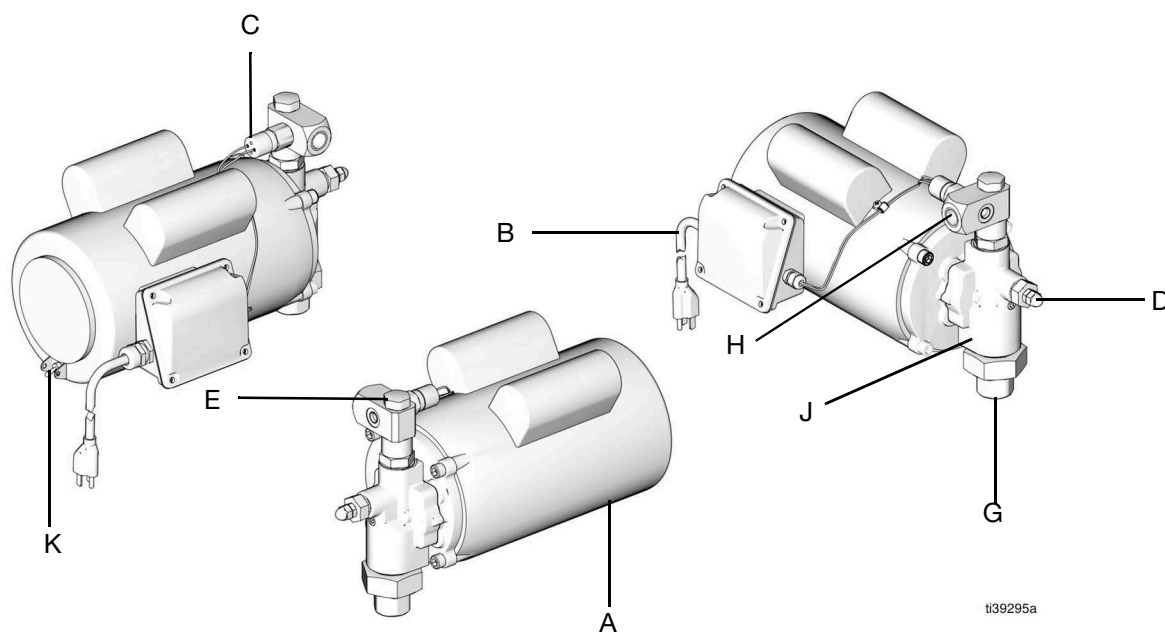


FIG. 4

Key:

- A Motor with built in relay
- B Power cord
- C Pressure switch
- D Pressure relief valve
- E Outlet check valve
- G Inlet check with thermal relief
- H Outlet 1/2 npt
- J Pump
- K Power Switch

Pump Internal Wiring

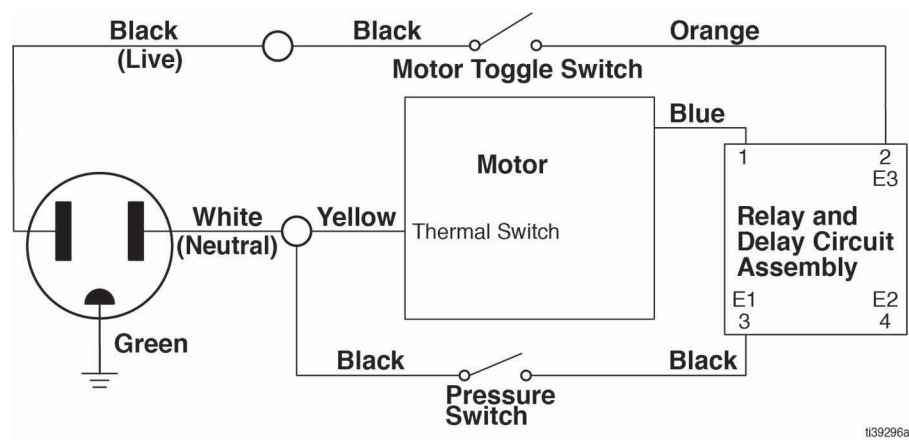








FIG. 5

Installation

Grounding

				
<p>The equipment must be grounded to reduce the risk of static sparking and electric shock. Electric or static sparking can cause fumes to ignite or explode. Improper grounding can cause electric shock. Grounding provides an escape wire for the electric current.</p>				

				
<p>All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.</p>				

NOTE: The reference numbers in the following instructions refer to **Parts**, page 26.

System Plumbing

The On-Demand pump delivers a constant output flow, even with a varying load.

It is important that the system plumbing be of adequate size so that the back pressure does not exceed 400 psi (2.76 MPa, 27.6 bar).

All plumbing and hoses used in the installation should have a minimum pressure rating of 500 psi (3.45 MPa, 34.5 bar).

If the system pressure drop at the rated pump flow is greater than, or close to, the pressure switch setting, the motor will cycle on and off when the dispense valve is opened to dispense fluid. If this happens, reduce system pressure by using a larger diameter hose or by using a less restrictive valve.

Graco recommends using 1/2 in. ID hose to keep the working pressure low while the dispense valve is being triggered. The output line fluid pressure should not exceed 400 psi (2.76 MPa, 27.6 bar) while pumping fluid.

The pump design includes a self-contained pressure relief valve (D), see **Component Identification**, page 7.

When activated, the valve relieves pressure back to the tank.

NOTICE

Never allow the pump to operate dry. Make sure that the pump has fluid in it when the pump is initially installed. Do not run the pump for more than five (5) minutes with the pump discharge blocked. Do not operate the pump continuously more than 30 minutes in one (1) hour. Failure to follow these instructions can result in damage to the pump.

Mount Pump on Tank with Suction Tube

1. Install the bung adapter (15) in the tank bung and tighten.
2. Use a 3/4 in. (19 mm) steel or PVC pipe with a 3/4 npt pipe threads on one end as a suction tube.
3. Measure the length from the top of the bung adapter to the bottom of the tank. Cut the suction tube length to 1/2 in. (13 mm) less than this measurement.
4. Apply pipe thread sealant to suction tube threads and install the pipe into the pump inlet.
5. Insert suction tube assembly through the bung adapter and lower the pump onto the bung adapter.
6. Position the pump so that the outlet port is in the desired position. Tighten the swivel nut (20) on the pump to the bung adapter.

Electrical Installation

115 VAC

The 115 VAC models come wired with a short power cord and a grounding electrical plug. Power to the unit must be grounded 115 VAC single phase. If an extension cord is required, it must be a 3-wire cord with a grounding plug and a grounding receptacle. Supply power to the pump using a 15 amp circuit with a minimum 12 AWG wire.

Priming

1. Attach a priming hose to the outlet of the pump. Insert the opposite end of the hose into the tank through the fill opening.
2. Turn the power switch ON. The pump should prime in a few seconds.

NOTE: If priming does not start:

Remove the priming plug (21) from the pump housing.

Using an oil can, fill the pump with 8 oz. (0.24 L) of oil.

Replace the priming plug (21).

Turn the power switch ON. The pump should prime in a few seconds.

Once the pump is primed, the inlet check valve will prevent loss of prime.

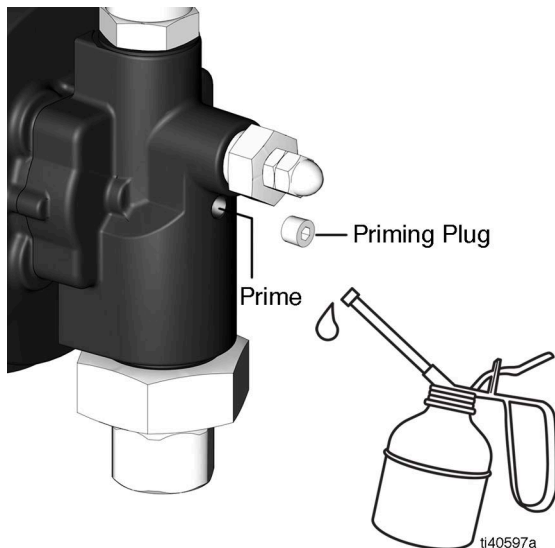


FIG. 6

3. When the pump starts to prime, turn the power switch OFF.
4. Disconnect the priming hose.
5. Attach system plumbing to the pump outlet.

Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.

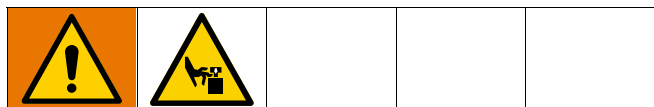


This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing the equipment.

1. Turn off and disconnect the power supply to the pump.
2. Open the dispense valve into a grounded waste container to relieve pressure.
3. Close the dispense valve.

Thermal Overload

The motor has a thermal overload switch that shuts the motor down when overheated. If the unit overheats, allow approximately 45 minutes for the unit to cool. Once the unit has cooled down, the switch will close and the unit will restart.



To reduce risk of injury from motor starting unexpectedly when it cools, always turn the power switch to OFF if the motor shuts down.

Duty Cycle

The pump is designed to operate at a 40% duty cycle. It can operate up to a maximum of 20 minutes of run time, with 30 minutes of down time.

NOTICE

Never allow the pump to operate dry. Make sure that the pump has fluid in it when the pump is initially installed. Do not run the pump for more than five (5) minutes with the pump discharge blocked. Do not operate the pump continuously more than 30 minutes in one (1) hour. Failure to follow these instructions can result in damage to the pump.

Operation

NOTE: When the system is not in use, always turn the power switch (K), (**Component Identification**, page 7) located on the back of the motor, off. Failure to do so can result in a spill if a hose ruptures or a leak occurs in the system plumbing. If a leak occurs, the pressure in the system will drop, signaling the pump to turn on.

NOTICE

Do not operate the pump continuously more than 30 minutes in one (1) hour. Failure to follow these instructions can result in damage to the pump.

See FIG. 4, page 7 for reference numbers in this section.

The on-demand dispensing pump turns on or off depending upon the pump outlet pressure. When the dispensing valve is open, the system pressure decreases and the pump will begin pumping fluid. When the dispensing valve is closed, the system pressure increases and the pump will stop pumping fluid.

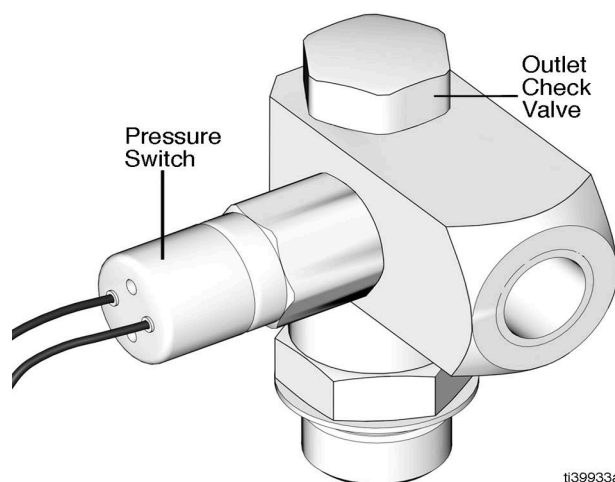
1. Turn the power switch (K), located on the back of the motor, ON.
2. Place the outlet of the dispensing valve into the fill container.
3. Open the dispensing valve to the full open position, until the desired amount of fluid is dispensed.
4. Close the dispensing valve to stop dispensing.

Pressure Switch

The pressure switch (C) (**Component Identification**, page 7) is factory set to 470 psi (3.24 MPa, 32.4 bar). Once the pressure in the system reaches 470 psi (3.24 MPa, 32.4 bar), the pressure switch (C) opens and stops the motor (FIG. 7).

Thermal Induced Pressure Relief

The pump is equipped with a standard outlet check valve (E) (**Component Identification**, page 7). If a check valve with thermal relief is required, purchase PN 133097 and replace the standard check valve (FIG. 7).



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FIG. 7

Recycling and Disposal

End of Product Life

At the end of the product's useful life, dismantle and recycle it in a responsible manner.

- Perform the **Pressure Relief Procedure**.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Remove motor and power cord components. Recycle according to applicable regulations.
- Deliver remaining product to a recycling facility.

Troubleshooting

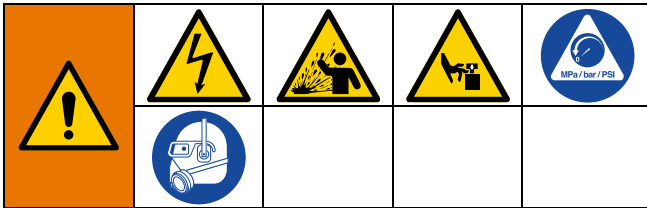


1. Follow **Pressure Relief Procedure**, page 10, before checking or repairing the equipment.
2. Check all possible problems and causes before disassembling the equipment.

Problem	Cause	Solution
Motor is running, but the pump will not prime.	The pump lost the prime.	Refer to Priming , page 10.
	There is dirt under the pressure relief valve.	Remove the pressure relief valve and inspect. Clean or replace the pump housing assembly.
	The gears are worn or damaged.	Remove the pump body and inspect the gears. If damaged, replace the pump housing assembly.
	The oil level is low.	Refill or replace the tank.
	There is an air leak in the suction tube.	Inspect all joints in the suction tube making sure that all threaded joints have sealant applied properly.
	There is an air lock in the system.	Fill the system with fluid by keeping nozzle open by operating the pump.
	The motor does not run at the proper speed.	Check the electric connections. Ensure the supply voltage is at the proper level.
Oil is leaking in the motor mount.	A faulty or damaged motor shaft seal.	Replace the pump housing assembly.
	Pressure switch is not activating.	Pressure switch is faulty.
	Pressure relief is relieving pressure internally for more than five (5) minutes.	Replace the pump outlet assembly with new pressure switch. Dirt is under the pressure relief valve. Remove the pressure relief valve and inspect. Clean or replace the pump housing assembly.
	A worn motor shaft.	Replace with a new pump.

Problem	Cause	Solution
The unit pumps, but the output flow is low.	The inlet suction screen is clogged (used oil).	Remove the inlet suction screen using a 3/4 in. (19 mm) hex wrench. Clean or replace the inlet suction screen.
	There is an air leak in the suction tube.	Inspect all joints in the suction tube making sure that they are sealed.
	The suction tube is too close to the tank bottom.	The suction tube must have a 1 in. (25.4 mm) minimum clearance.
	The tank is empty.	Refill or replace the tank.
	The tank is not vented.	Vent the tank to atmosphere.
	The gears are worn or damaged.	Inspect the gears. If damaged, replace the pump housing assembly.
	The motor does not run at the proper speed.	Check the electrical connection and verify the supply voltage.
	The suction tube, hose, or nozzle is clogged.	Inspect and clean the suction tube, hose, or nozzle, and replace as needed.
	Pressure relief is relieving pressure internally. There is dirt under the pressure relief valve.	Remove the pressure relief valve and inspect. Clean or replace the pump housing assembly.
The motor overheats.	The gears are binding.	Make sure that the gears turn freely. If not, replace the pump housing assembly.
	Pressure relief is relieving pressure internally at low pressure, not reading pressure switch set pressure.	Remove and inspect the pressure relief valve. Clean or replace the pump.
	Operating the pump for more than 20 minutes of continuous duty.	Limit operation to 20 minutes per hour.
	Defective pressure switch or electrical connection is wrong,	Inspect the electrical connection, Electrical Installation , page 9. Replace the pump outlet assembly with pressure switch.
Motor cycle On and Off	System pressure is close to the pressure switch setting.	Reduce system pressure by using a larger diameter hose or using a less restrictive dispense valve.
The switch does not turn the pump on.	The fuse or circuit breaker is blown.	Check the electrical supply.
	There is an electrical problem.	Check that proper supply voltage is getting to the pump. Inspect the electrical connection, Electrical Installation , page 9 and Pump Internal Wiring , page 8.
	There is a defective switch.	Replace the pump
	The motor is damaged or defective.	
	The pressure in the system is not being relieved. The pressure switch is activated.	Relieve pressure by dispensing oil.

Repair



Refer to **Parts**, on page 26 for the numbers in this section.

Replace/Clean Suction Screen P/N 133377

Disassembly

1. Follow **Pressure Relief Procedure**, page 10.
2. Turn off and disconnect the power to the pump.
3. Remove the pump from the tank.
4. Remove the suction tube from the pump.
5. Remove the inlet check valve assembly (12) using a 1 3/8 in. wrench (FIG. 8).
6. Remove the seal (14) (FIG. 8).

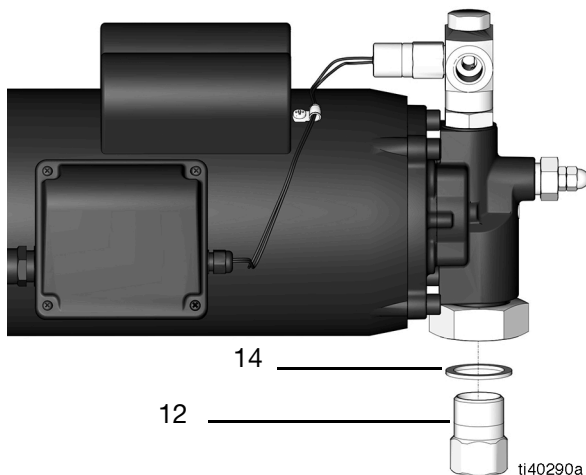


FIG. 8

7. Remove the suction filter (13) using a 3/4 in. (19 mm) hex wrench from the pump inlet (FIG. 9).

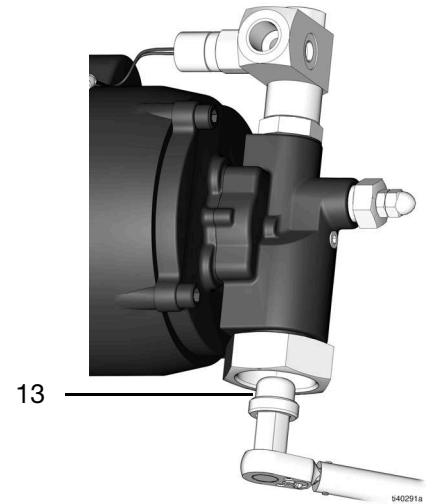


FIG. 9

8. Inspect the suction filter (13) and either clean or replace, as needed.

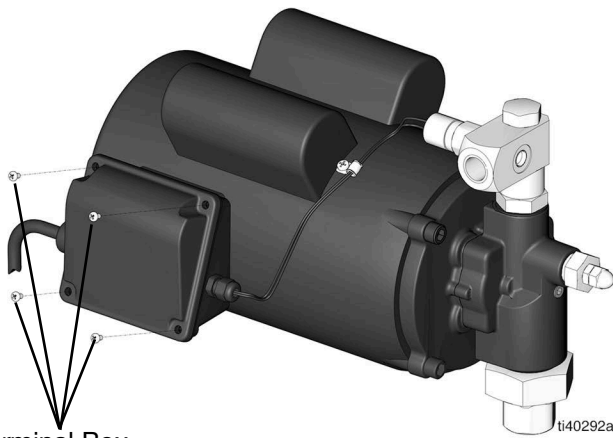
Reassembly

1. Place the suction filter (13) into the pump inlet assembly (12), using a 3/4 in. (19 mm) hex wrench (Torque 30 ft-lbs, 40.7 N•m)(FIG. 9).
2. Place the seal (14) (FIG. 8).
3. Put PTFE thread seal tape onto the thread of the inlet check valve assembly (12).
4. Insert the inlet check valve assembly (12) and hand tighten.
5. Turn the inlet check valve assembly 1/2 to 3/4 of a turn using a 1 3/8 in. wrench. Do not over tighten.
6. Complete using the **Installation** information beginning on page 9.

Outlet Assembly Kit P/N 133378

Disassembly

1. Follow **Pressure Relief Procedure**, page 10.
2. Turn off and disconnect the power to the pump.
3. Remove the pump from the tank.
4. Remove the suction tube from the pump.
5. Remove the four terminal box cover screws (FIG. 10).



Terminal Box
Cover Screws

FIG. 10

6. Pull the terminal box cover gently upward off of the terminal box.
7. Remove the gasket.
8. Use a screw driver to disengage pressure switch wire from E1. Unplug the other pressure switch wire from the connector containing the yellow and white cables (FIG. 11).
9. Cut the pressure switch wire (FIG. 11) with the fork connector.
10. Loosen the strain relief nut (FIG. 11).

11. Pull the pressure switch wire out of the terminal box through the strain relief (FIG. 11).

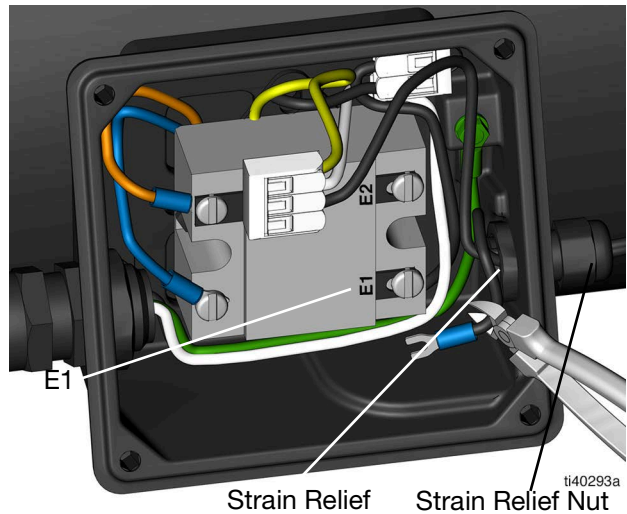


FIG. 11

12. Pull the pressure switch wire out of the wire clamp (FIG. 12).
13. Remove the outlet check valve assembly (16, 17, and 18) from the pump (1) (FIG. 12).

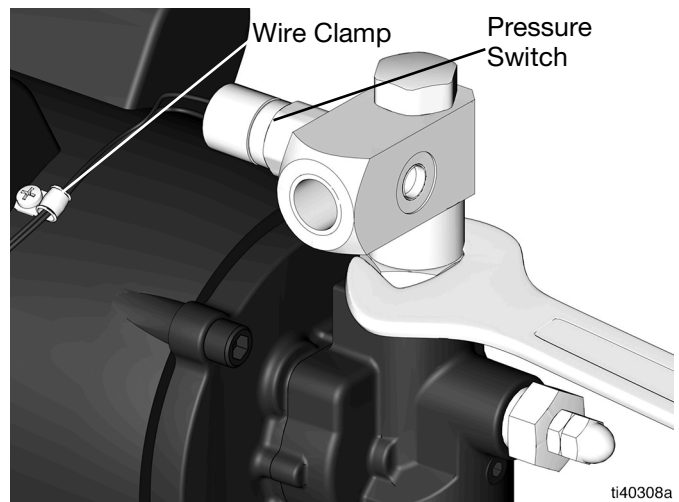
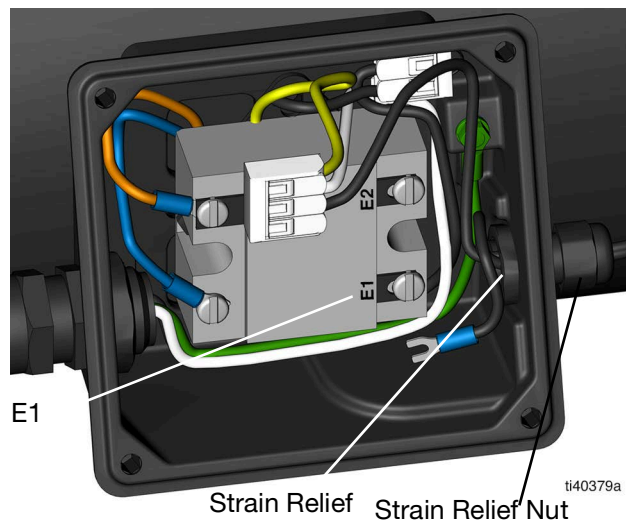


FIG. 12

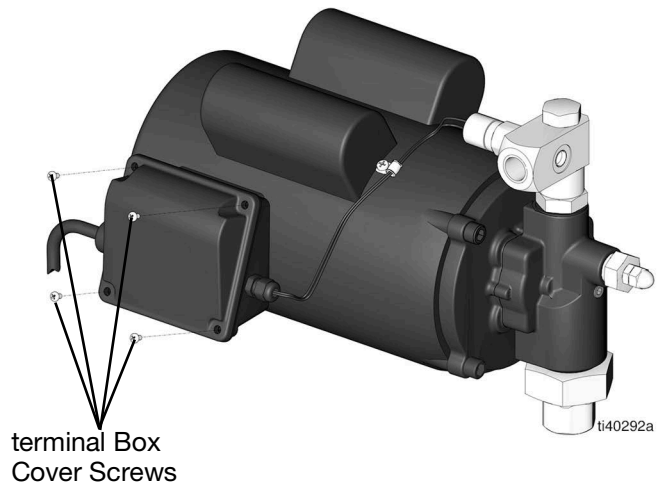
Reassembly

1. Tighten the new outlet check valve assembly (16, 17, and 18) into the pump (1), so the pressure switch faces the motor (19) (Torque 20 ft-lbs, 27.1 N•m) (see FIG. 12).

2. Push the pressure switch wire into the wire clamp and into the terminal box through the strain relief (FIG. 12 and FIG. 13).
3. Twist the strain relief nut on using a wrench until tightened (FIG. 13).
4. Crimp the fork connector to one of the pressure switch wires (FIG. 13).
5. Connect the crimped wire to E1.
6. Reinsert the second wire back into the connector containing the yellow and white cables (FIG. 13).
7. Place the gasket onto the terminal box.

**FIG. 13**

8. Replace the terminal box cover.
9. Insert the four terminal box cover screws and tighten (FIG. 14).

**FIG. 14**

10. Complete using the **Installation** information beginning on page 9.

Pump Housing Assembly P/N 133373

Disassembly

1. Follow **Pressure Relief Procedure**, page 10.
2. Turn off and disconnect the power to the pump.
3. Remove the pump from the tank.
4. Remove the suction tube from the pump.
5. Remove the four terminal box cover screws (FIG. 15).

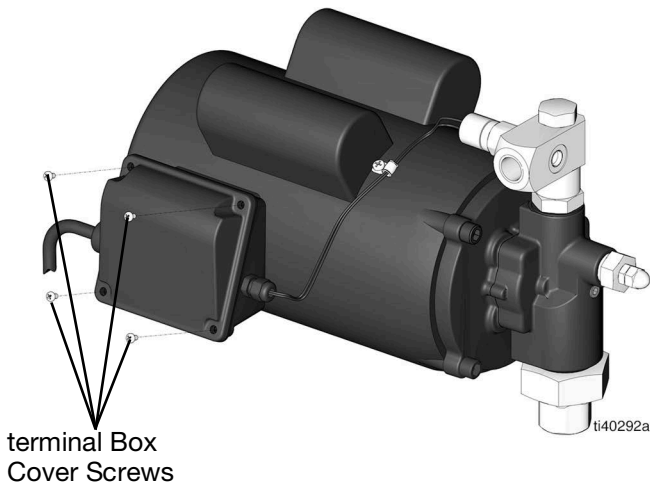


FIG. 15

6. Pull the terminal box cover gently upward off of the terminal box.
7. Remove the gasket.
8. Use a screw driver to disengage pressure switch wire from E1. Unplug the other pressure switch wire from the connector containing the yellow and white cables (FIG. 16).
9. Cut the pressure switch wire (FIG. 16) with the fork connector.
10. Loosen the strain relief nut (FIG. 16).
11. Pull the pressure switch wire out of the terminal box through the strain relief (FIG. 16).

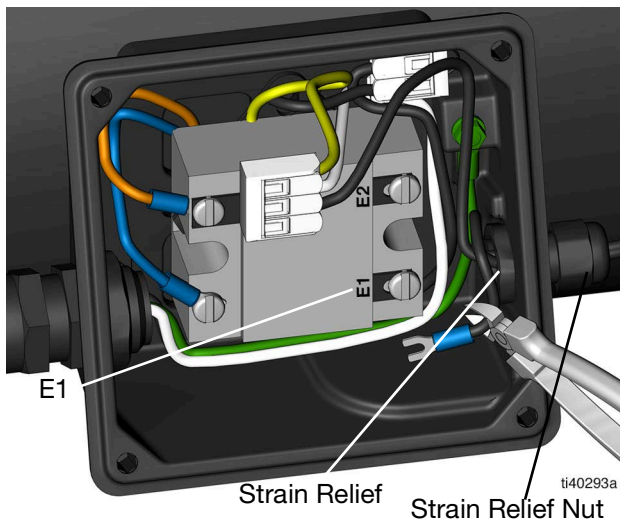


FIG. 16

12. Pull the pressure switch wire out of the wire clamp (FIG. 17).
13. Remove the four Allen screws (6) using an 5/16 in. (8 mm) hex wrench (FIG. 17).

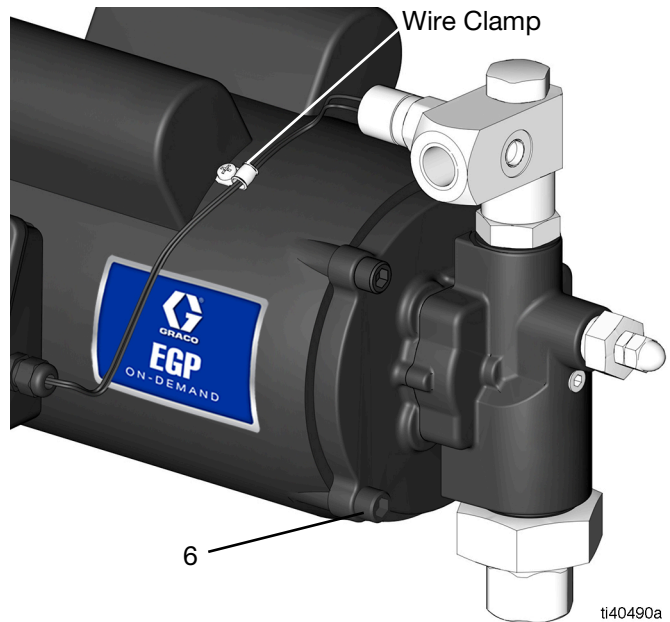


FIG. 17

14. Remove the pump housing assembly from the motor (FIG. 18).

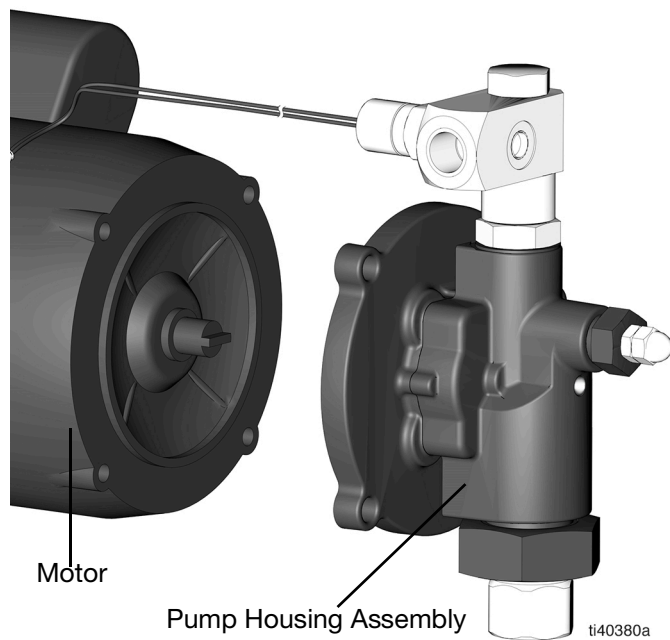


FIG. 18

Reassembly

1. Put the pump housing assembly onto the motor. The motor shaft key should match the slot on the gear on the inside cover. The pump outlet should face up and the terminal box should be centered between the pump outlet and the pump inlet (FIG. 19 and FIG. 21).

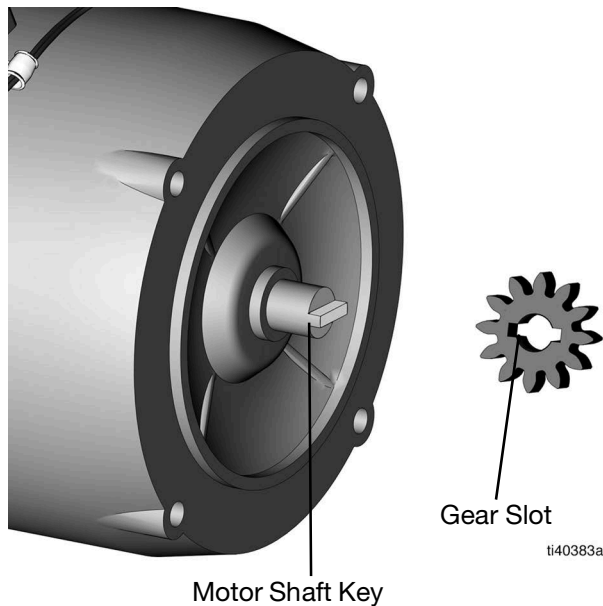


FIG. 19

2. Place and tighten the four Allen screws (6) using an 5/16 in. (8 mm) hex wrench (Torque 20 ft-lbs, 27.1 N•m) (FIG. 17).
3. Push the pressure switch wire into the wire clamp and through terminal box through the strain relief (FIG. 21).
4. Twist the strain relief nut on using a wrench until tightened (FIG. 20).
5. Crimp the fork connector to one of the pressure switch wires (FIG. 20).
6. Connect the crimped wire to E1.
7. Reinsert the second wire back into the connector containing the yellow and white cables (FIG. 20).

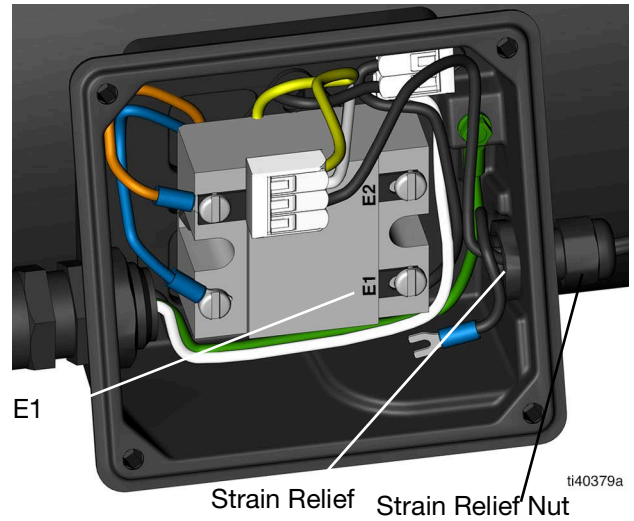


FIG. 20

8. Place the gasket onto the terminal box.
9. Replace the terminal box cover onto the terminal box.
10. Insert the four terminal box cover screws and tighten (see FIG. 15).

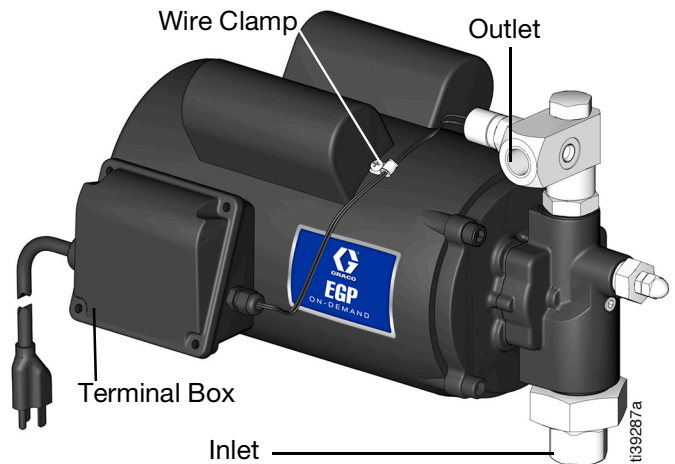


FIG. 21

11. Complete using the **Installation** information beginning on page 9.

Clean and Inspect Pump Gears

Disassembly

1. Follow **Pressure Relief Procedure**, page 10.
2. Turn off and disconnect the power to the pump.
3. Remove the pump from the tank.
4. Remove the suction tube from the pump.
5. Remove the four terminal box cover screws (FIG. 22).

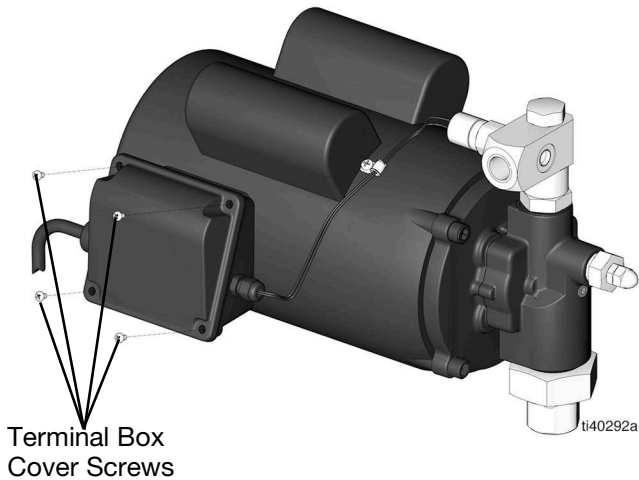


FIG. 22

6. Pull the terminal box cover gently upward off of the terminal box.
7. Remove the gasket.
8. Use a screw driver to disengage pressure switch wire from E1. Unplug the other pressure switch wire from the connector containing the yellow and white cables (FIG. 23).
9. Cut the pressure switch wire (FIG. 23) with the fork connector.
10. Loosen the strain relief nut (FIG. 23).

11. Pull the pressure switch wire out of the terminal box through the strain relief (FIG. 23).

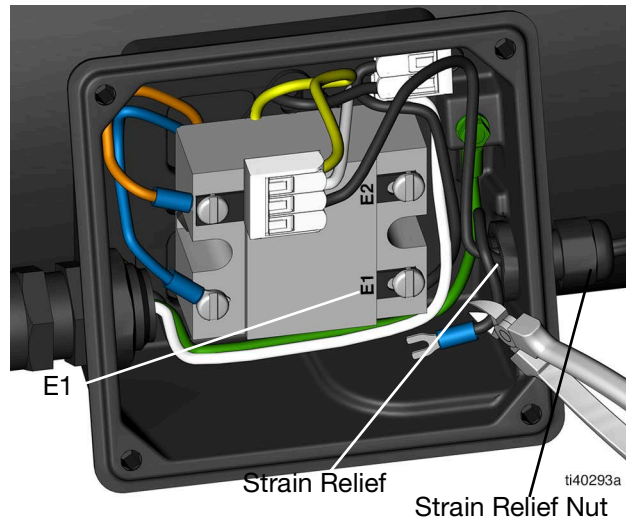


FIG. 23

12. Pull the pressure switch wire out of the wire clamp (FIG. 24).
13. Remove the four Allen screws (6) using a 5/16 in. (8 mm) hex wrench (FIG. 24).

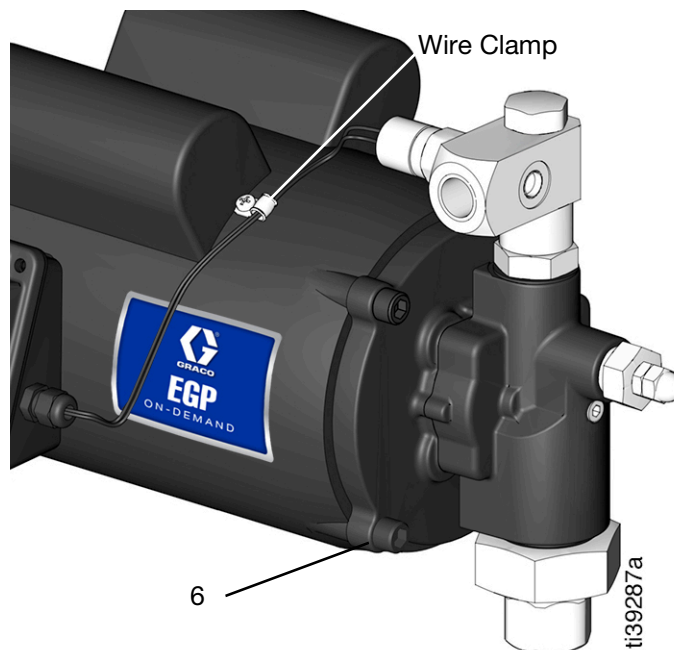
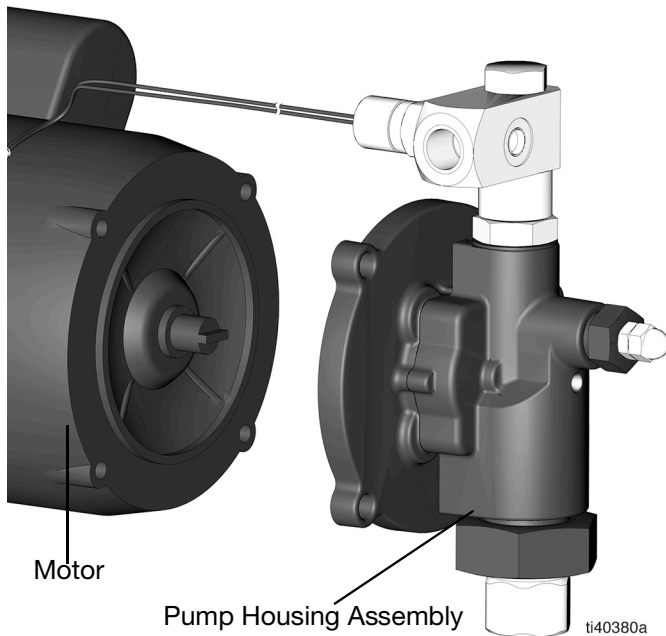
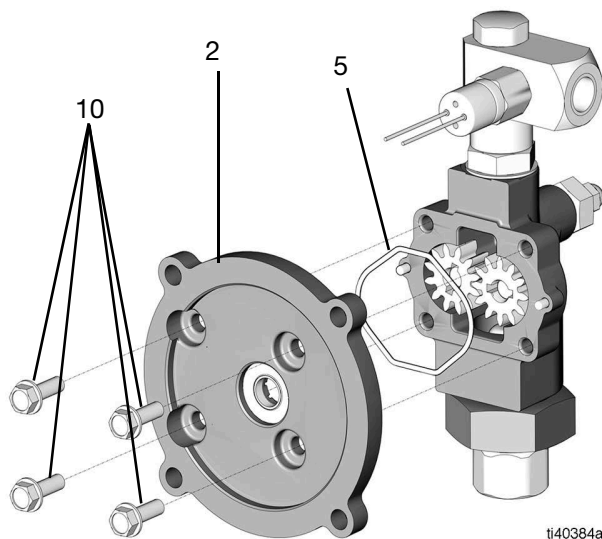


FIG. 24

14. Remove the pump housing assembly from the motor (FIG. 25).

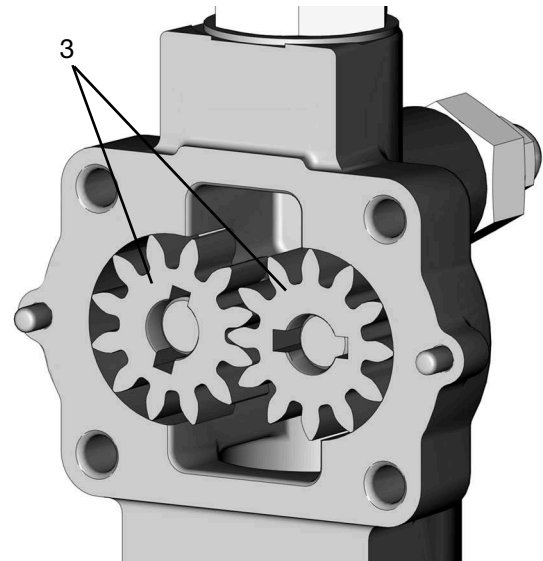
**FIG. 25**

15. Remove four screws (10) on the adapter plate (2) using a 1/2 in. socket wrench (FIG. 26).
16. Remove the adapter plate (2) (FIG. 26).

**FIG. 26**

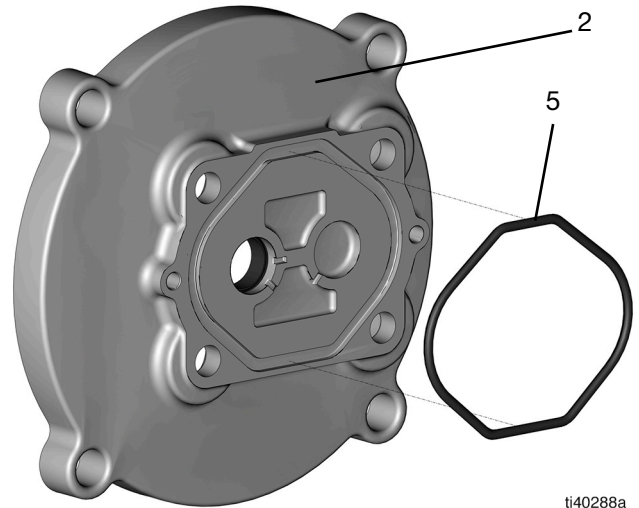
17. Remove the o-ring (5) (FIG. 27).
18. Remove both of the pump gears (3) (FIG. 27).
19. Inspect the pump cavity and pump gears (3) for damage or excessive wear. If there is damage or

wear, replace the pump housing assembly. If neither is present, clean the pump cavity and gears (3) (FIG. 27).

**FIG. 27**

Reassembly

1. Place the pump gears (3) into the pump cavity, making sure that they spin freely (FIG. 27).
2. Put the o-ring (5) into the groove on the adapter plate (2) cover (FIG. 28).

**FIG. 28**

3. Position the adapter plate on the pump housing so that the notches point toward the pump inlet (FIG. 29 and FIG. 30).

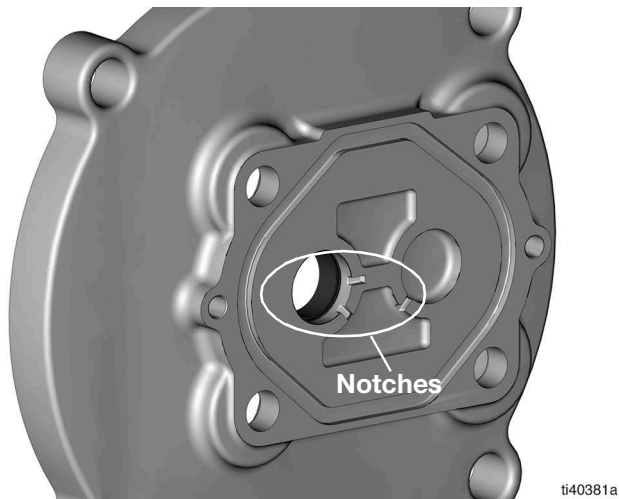


FIG. 29

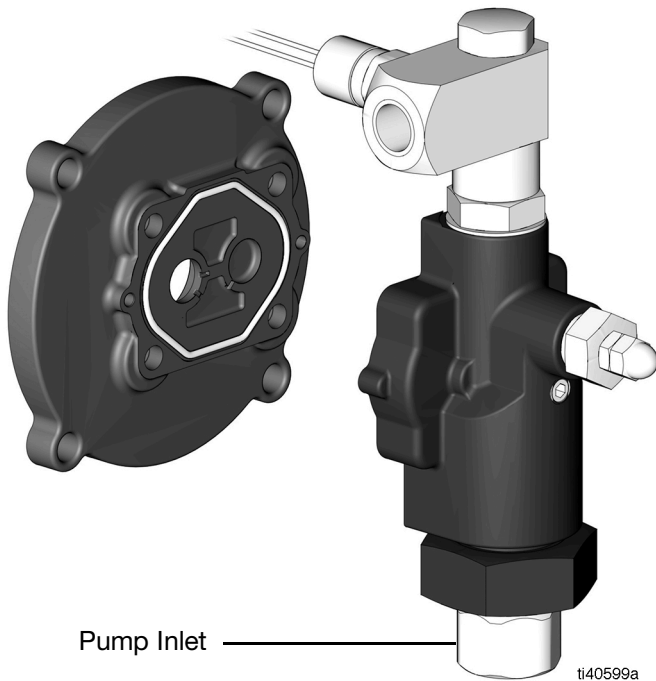


FIG. 30

4. Push the four screws (10) through the adapter plate (2) and use a 1/2 in. socket wrench to tighten (Torque 30 ft-lbs, 40.7 N•m) (see FIG. 26).

5. Put the pump housing assembly onto the motor. The motor shaft key should match the slot on the gear on the inside cover. The pump outlet should face up and the terminal box should be centered between the pump outlet and the pump inlet (FIG. 31 and FIG. 33).

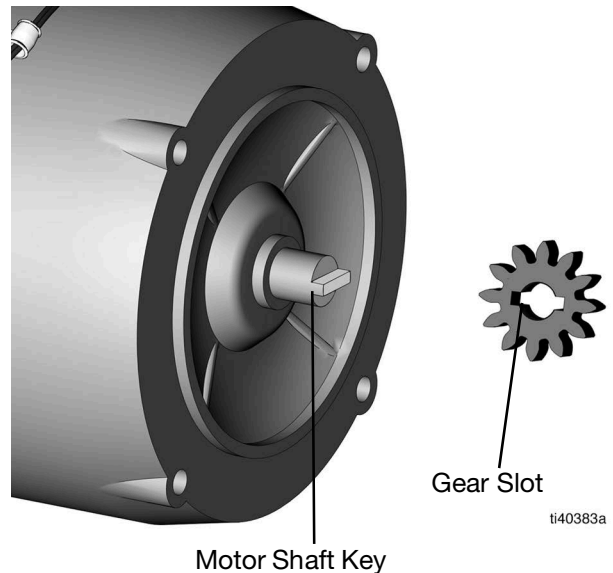
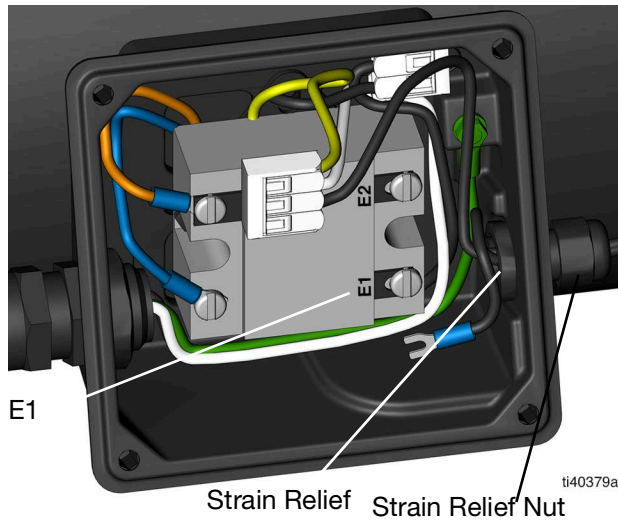
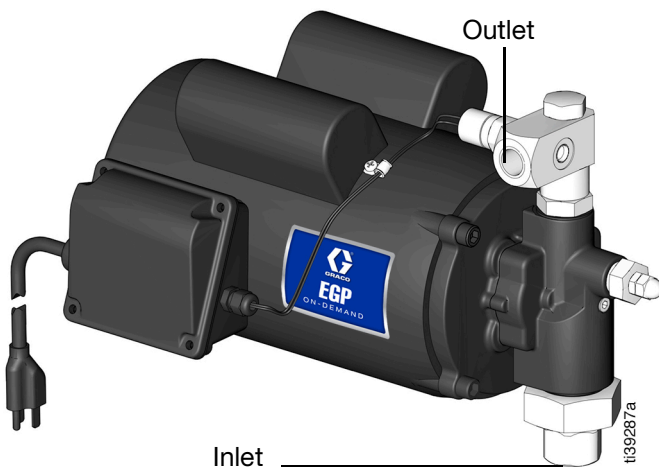


FIG. 31

6. Place and tighten the four Allen screws (6) using an 5/16 in. (8 mm) hex wrench (Torque 20 ft-lbs, 27.1 N•m) (see FIG. 24).
7. Push the pressure switch wire into the wire clamp and into the terminal box through the strain relief (see FIG. 24).
8. Twist the strain relief nut on using a wrench until tightened (see FIG. 32).
9. Crimp the fork connector to one of the pressure cable wires (see FIG. 32).
10. Connect the crimped wire to E1.
11. Reinsert the second wire back into the connector containing the yellow and white cables (FIG. 32).

**FIG. 32**

12. Place the gasket onto the terminal box.
13. Replace the terminal box cover onto the terminal box.
14. Insert the four terminal box cover screws and tighten (see FIG. 22).

**FIG. 33**

15. Complete using the **Installation** information beginning on page 9.

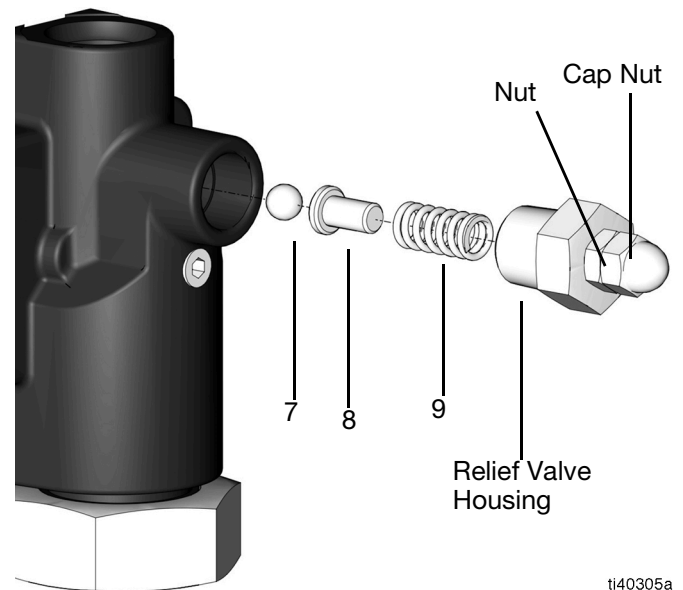
Clean and Inspect Pressure Relief Valve Assembly

Disassembly

1. Follow **Pressure Relief Procedure**, page 10.
2. Turn off and disconnect the power to the pump.
3. Remove the pump from the tank.
4. Remove the suction tube from the pump.
5. Remove the relief valve housing (FIG. 34).

NOTE: Do not loosen the cap nut and nut since this will change the pressure setting.

6. Remove the spring (9) (FIG. 34).
7. Remove the spring guide (8) (FIG. 34).
8. Remove the relief ball (7) (FIG. 34).

**FIG. 34**

9. Inspect for damage, excessive wear of the ball and the ball seat, and for any contamination. If damaged or excessive wear is present, replace the pump housing assembly. If neither is present, proceed to reassembly.

Reassembly

1. Place the relief ball (7) i into position in the pump housing (see FIG. 34).
2. Replace the spring guide (8) (see FIG. 34).
3. Replace the spring (9) (FIG. 34).
4. Tighten the relief valve housing into the pump housing (FIG. 34).

NOTE: Do not loosen the cap nut and nut since this will change the pressure setting.).

5. Complete using the **Installation** information beginning on page 9.

Pump Outlet Check Valve Replacement with Thermal Relief P/N 133097

Disassembly

1. Follow **Pressure Relief Procedure**. page 10.
2. Turn off and disconnect the power to the pump.
3. Remove the standard check valve (17) from the outlet fitting (18) (FIG. 35).

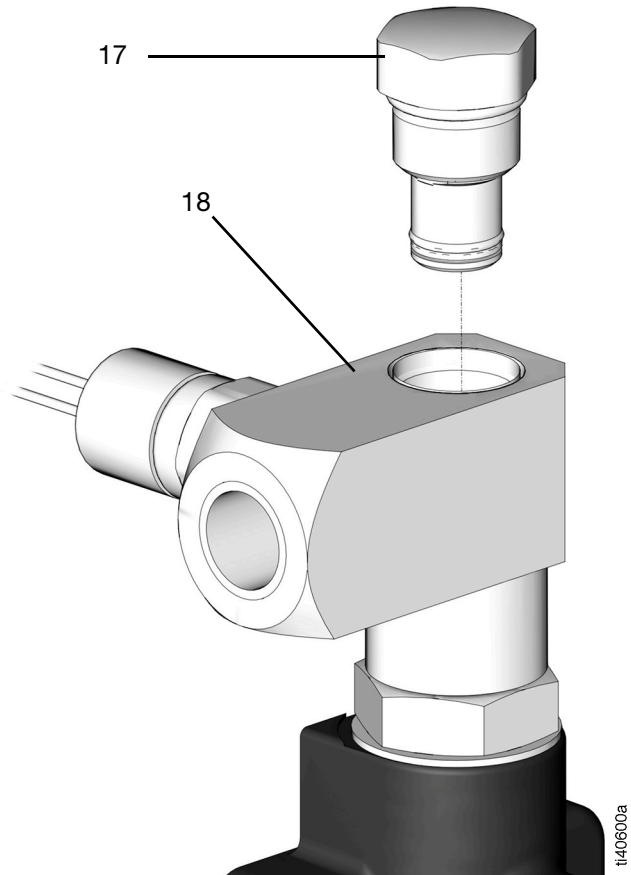


FIG. 35

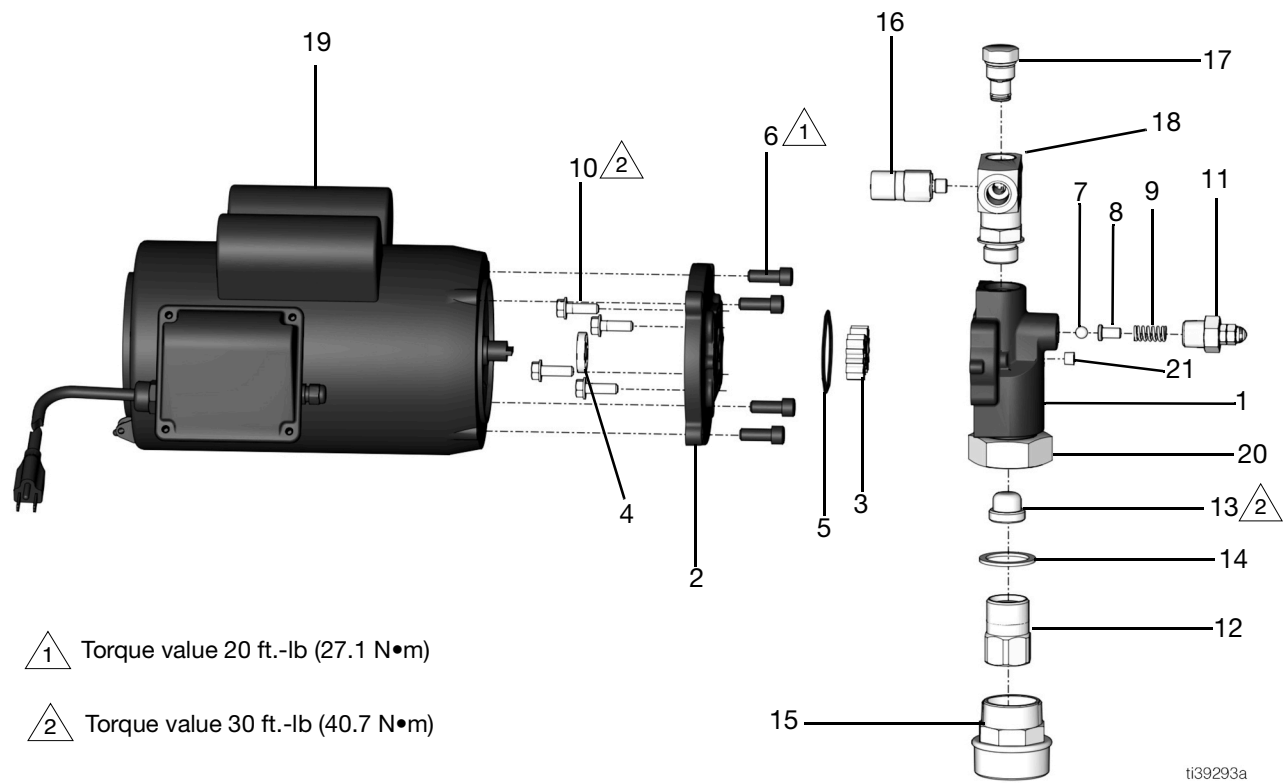
Reassembly

1. Tighten the outlet check valve with built-in thermal relief (Torque 30 ft-lbs, 40.7 N•m).
2. Complete using the **Installation** information beginning on page 9.

Notes

[illegible]

Parts



Parts


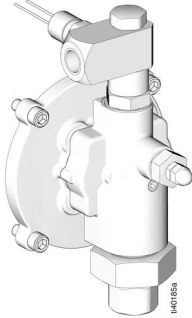


Ref.	Part No.	Description	Qty.
1❖		Pump body	1
2❖		Adapter, pump motor	1
3❖		Gear, pump	2
4❖		Seal, shaft	1
5❖		O-ring	1
6❖		Screw, 3/8 - 16 socket head, cap	4
7❖		Ball, relief valve	1
8❖		Guide, spring	1
9❖		Spring, relief valve	1
10❖		Screw, 5/16 - 18 x 1	4
11❖		Relief valve housing	1
12❖		Inlet check valve assembly	1
13❖	133377	Filter	1
14❖		Seal	1
15	260061	Bung adapter	1
16❖ †		Pressure switch	1
17❖ †		Outlet check valve	1
18❖ †		Outlet fitting	2
19		Motor, 1.5 HP 115 VAC	1
20❖		Swivel Nut	1
21❖		Priming Plug	1
22▲	133202	Warning label (not shown)	1

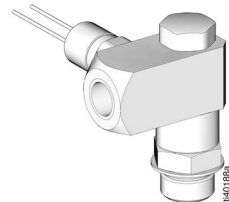

▲ Replacement safety labels, tags, and cards are available at no cost.

❖ Part of 133373 Pump Housing assembly kit

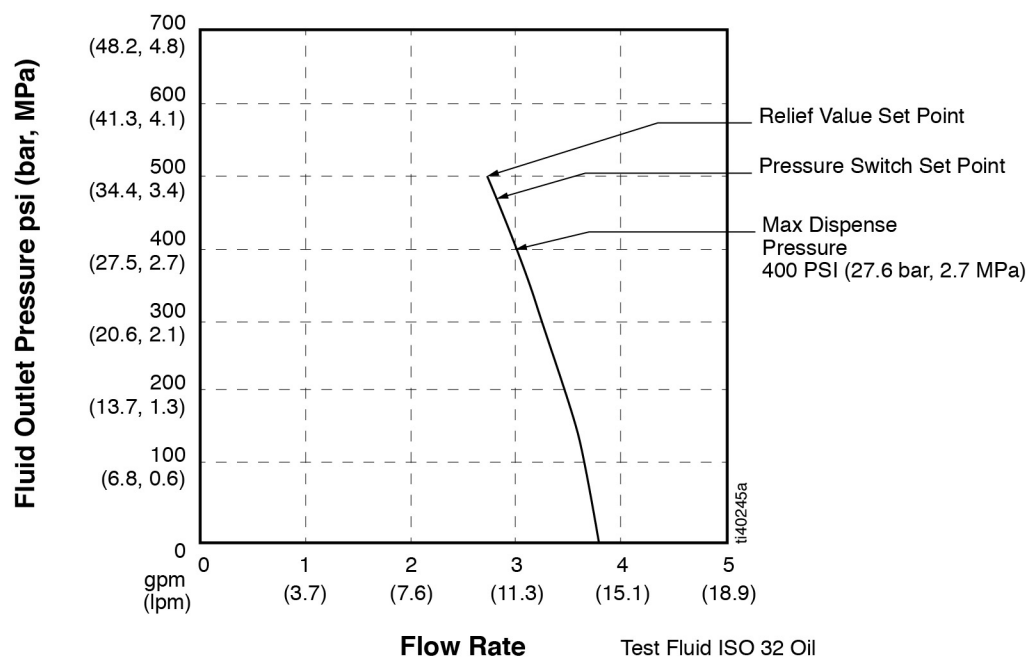
† Part of 133378 Outlet assembly Kit

Kits and Accessories

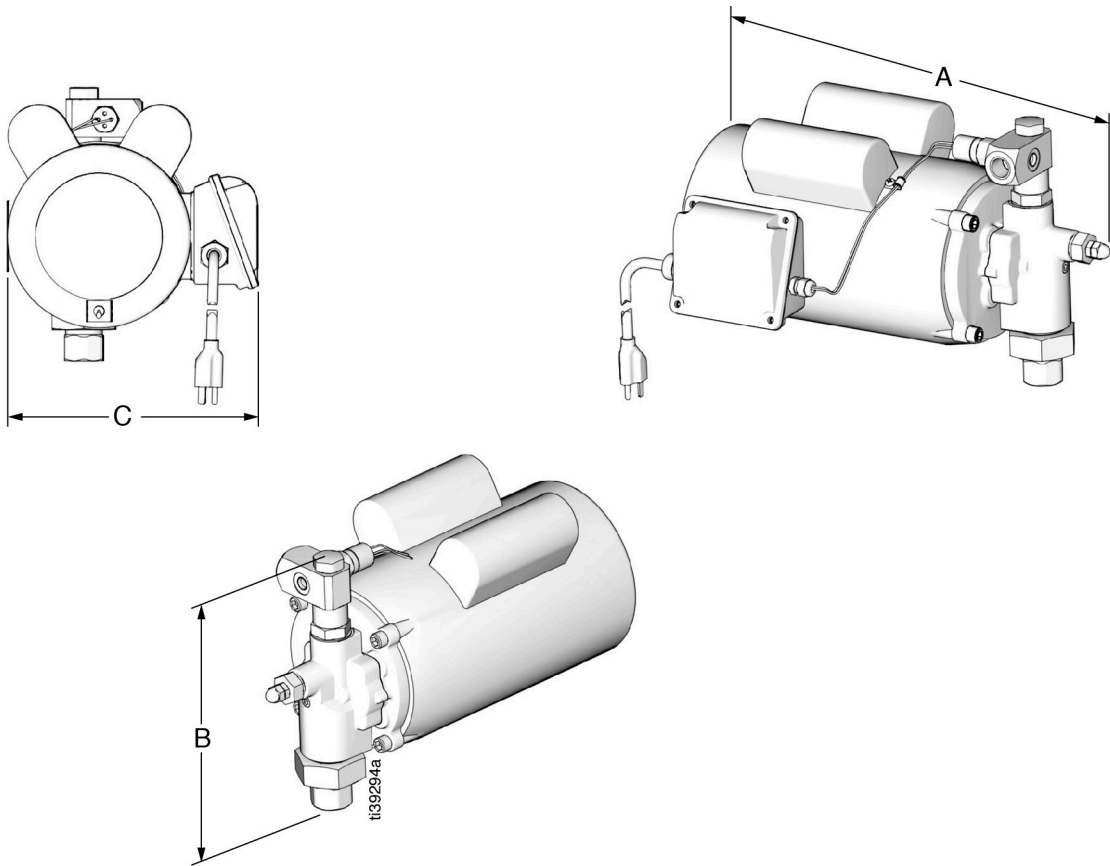
Part Number	Description	
260124	Suction tube with inlet check assembly	
133373	Pump housing assembly 115 V On-Demand Pump	
133377	Suction filter	
133375	Suction kit	

Part Number	Description	
133378	Outlet assembly kit 115 VAC On-Demand Pump	
133097	Outlet check valve with built-in thermal relief	

Pump Performance Chart



Dimensions



Models	Length (A)		Height (B)		Width (C)	
	Inches	mm	Inches	mm	Inches	mm
25T817	16.7	421.2	9.67	245.6	8.9	226.1

Technical Specifications

115 VAC Electric Gear On-Demand Pump			
		US	Metric
Maximum working pressure		500 psi	3.45 MPa, 34.5 bar
Automatic Relief Setting		500 psi	3.45 MPa, 34.5 bar
Pressure Switch Setting		470 psi	3.24 MPa, 32.4 bar
Output Flow at 0 psi (0 MPa, 0 bar), see Pump Performance Chart , page 29		3.7 gpm	14.0 L/min
Dimensions		See Dimensions , page 30	
Power Cord		30 in.	762 mm
Weight			
All models		36 lb.	16.3 kg
Motor Details			
Voltage		115 VAC	
Current		14.4 A	
Power		1.5 HP	
Enclosure		Totally Enclosed Non Ventilated (TENV)	
IP Protection		IP55	
RPM		1750	
Wetted Parts		Carbon steel with zinc plating, stainless steel, galvanized steel, aluminum, nitrile, rubber	
Inlet/Outlet Sizes			
Inlet size		3/4 in. npt(f)	
Outlet Size		1/2 in. npt(f)	

California Proposition 65

CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

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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.

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Original instructions. This manual contains English. MM 3A8570

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Revision B, October 2021