

Instructions – Parts List



ELECTRONIC

***POWERFIL* Metered Dispense Pumps**

307637 rev.P

Used for low-volume dispense of petroleum-based lubricants.

100 psi (0.7 MPa, 7 bar) Maximum Air and Fluid Working Pressure

Model 239702

Pump with gallon/quart/liter Electronic Meter

Model 222602

Unmetered Pump



Important Safety instructions.

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

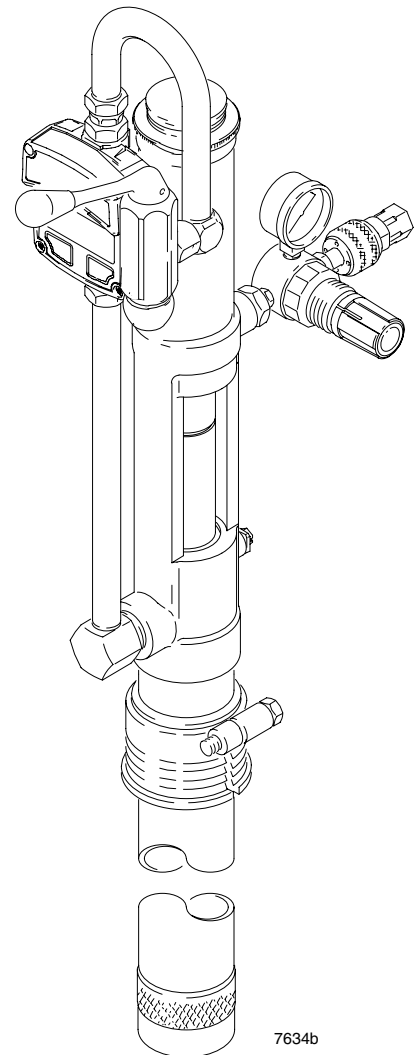


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Installation

1. Apply thread sealant to the male threads of the bushing (20g) and install the air regulator (20) at the pump air inlet. See Fig 1.
2. Apply thread sealant to the male threads of the elbow (11) and install the dispense valve assembly at the pump outlet. See Fig 1.
3. Install the pump in the bung hole of a fluid supply container. Screw the bung adapter (A) tightly into the hole. Raise the pump about 1/2 inch (12 mm) from the bottom of the container. Tighten the bung adapter screw. See Fig 1.

Fluid and Solvent Compatibility

WARNING

To reduce the risk of component rupture, which can result in serious bodily injury, all fluids used in this pump must be chemically compatible with the wetted parts shown on page 8. Consult your fluid supplier to ensure compatibility.

Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in this equipment, which contains aluminum and/or zinc parts. Such use could result in a serious chemical reaction, with the possibility of explosion, which could cause death, serious bodily injury and/or substantial property damage.

Operation

1. Start the pump. See instruction manual 307906, supplied.
2. To dispense fluid and adjust fluid flow from the valve, start with the air supply turned off at the regulator (20). Hold the valve handle (1a) in the **down** position to open the valve. Slowly open the regulator until the desired fluid flow is obtained. Air pressure of 30–40 psi (0.21–0.28 MPa, 2.1– 2.8 bar) is recommended to provide sufficient fluid flow without splashing.

WARNING

To reduce the risk of splashing fluid in the eyes or on the skin, always use the air regulator to control the fluid flow from the valve.

To use the electronic meter, see instruction manual 308687, supplied, for detailed operating instructions.

Maintenance

Electronically Metered Models Only

For electronically metered models, see instruction manual 308687, supplied.

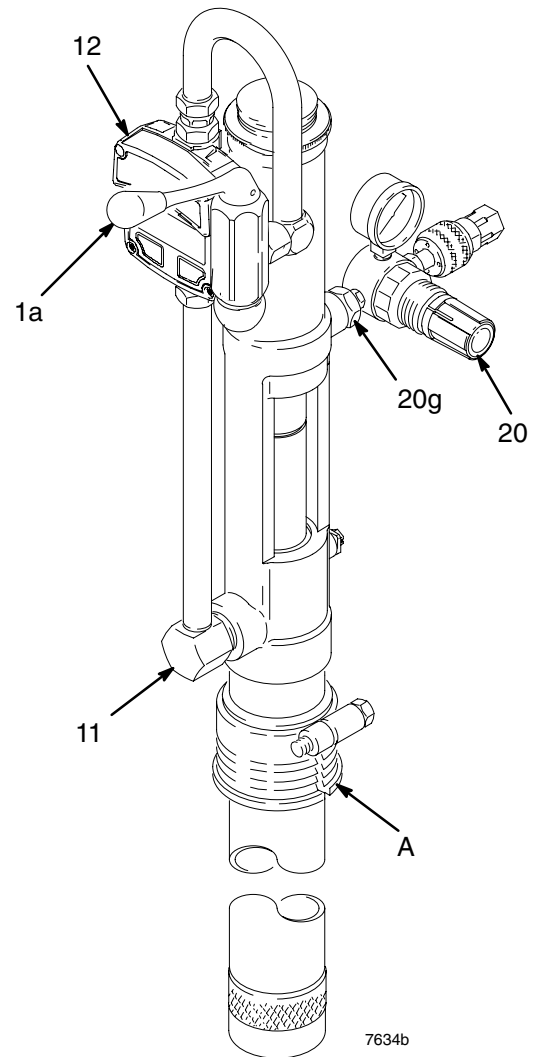


Fig. 1

Troubleshooting

NOTE: Check all possible solutions in the chart before disassembling any parts.

PROBLEM	CAUSE	SOLUTION
Valve will not dispense fluid.	Pump is not operating.	Check pump. See manual 307906.
	Valve diffuser is clogged.	Remove and clean valve diffuser.
	Strainer, if used, is clogged.	Remove and clean strainer.
	Electronic meter is malfunctioning.	Replace dispense meter. See manual 308687.
Fluid flow from dispense valve is low or irregular.	Pump is malfunctioning.	Check pump. See manual 307906.
	Valve diffuser is clogged.	Remove and clean valve diffuser.
	Strainer, if used, is clogged.	Remove and clean strainer.
Leakage at valve seat.	Valve seal is worn or damaged.	Replace.
	Valve spring is weak or broken.	Replace.
Fluid meter registers incorrectly or not at all.	Electronic control is malfunctioning.	Replace: see manual 308687.

Service

Dispensing Valve Service and Adjustment

1. To clean or replace the valve seal (1f), screw the valve nozzle (1e) off the valve housing (1k). Remove the gasket (1h). Unscrew the retaining screw (1g) from the valve stem (1j). Remove the valve seal (1f). See the Parts Drawing, page 5. Clean and inspect all parts and replace as necessary. Reassemble the valve, making sure the gasket (1h) is in place.
2. To adjust the dispensing valve, drive the pin (1m) out of the handle (1b) with a 1/8 in. drift pin. Remove the valve handle (1b) from the stem (1j). See Parts Drawing, page 5. Turn the adjusting nut (1c) upward until a small gap (0.040 in. maximum) exists between the handle (1b) and the valve housing (1k) when the valve is reassembled. Reinstall the handle on the stem. Reinstall the pin.

NOTE: Clearance between the valve handle (1b) and valve housing (1k) is necessary to ensure proper dispensing valve operation.

3. To replace the valve stem (1j), spring (1l) or packings (1d), remove the valve handle (1b) as described in step 2. Screw the valve nozzle (1e) off the valve housing (1k). Remove the gasket (1h). Screw adjusting nut (1c) off the valve stem. Pull the stem out through the bottom of the valve housing. See Parts Drawing, page 5. Clean and inspect all parts and replace as necessary. Reassemble valve. Adjust it as described in step 2.

Electronic Meter

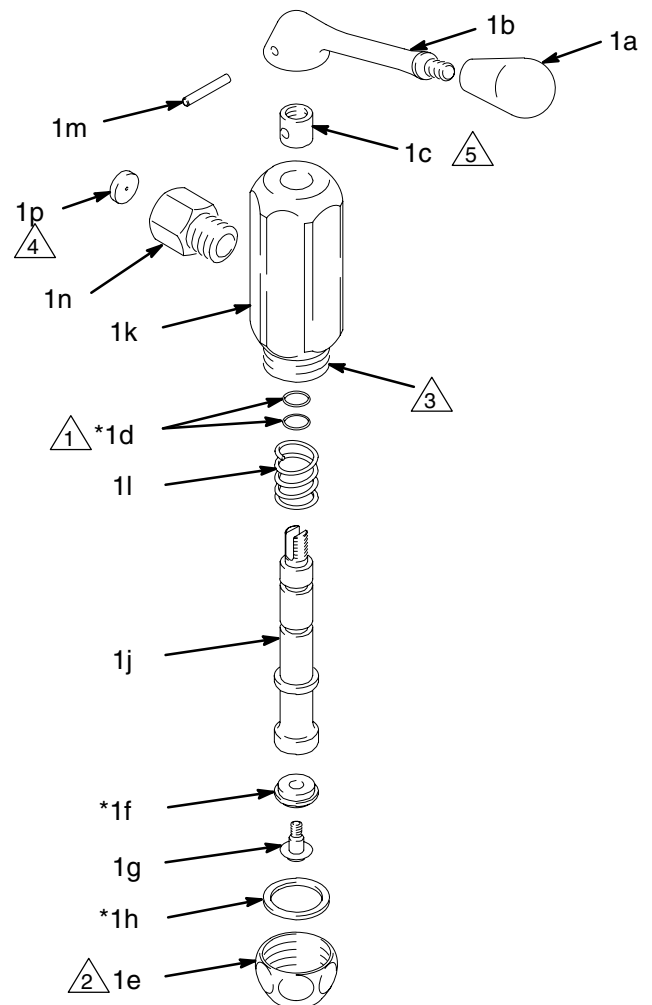
See instruction manual 308687 (included).

Parts

Ref. No. 1 Model 220110 Dispensing Valve

Ref. No.	Part No.	Description	Qty.
1a	108789	KNOB, handle	1
1b	154773	HANDLE	1
1c	154891	NUT, adjusting	1
1d*	154594	PACKING, o-ring; nitrile rubber	2
1e	166779	NOZZLE, valve	1
1f*	156312	SEAL, valve; nitrile rubber	1
1g	156311	SCREW, valve	1
1h*	154779	GASKET	1
1j	154781	STEM, valve	1
1k	179932	HOUSING, valve	1
1l	150534	SPRING, compression	1
1m	155473	PIN, 5/32 in. x 1 in. long	1
1n	112122	ADAPTER, 3/8 in. (m x f) npt	1
1p	190223	RESTRICTOR	1

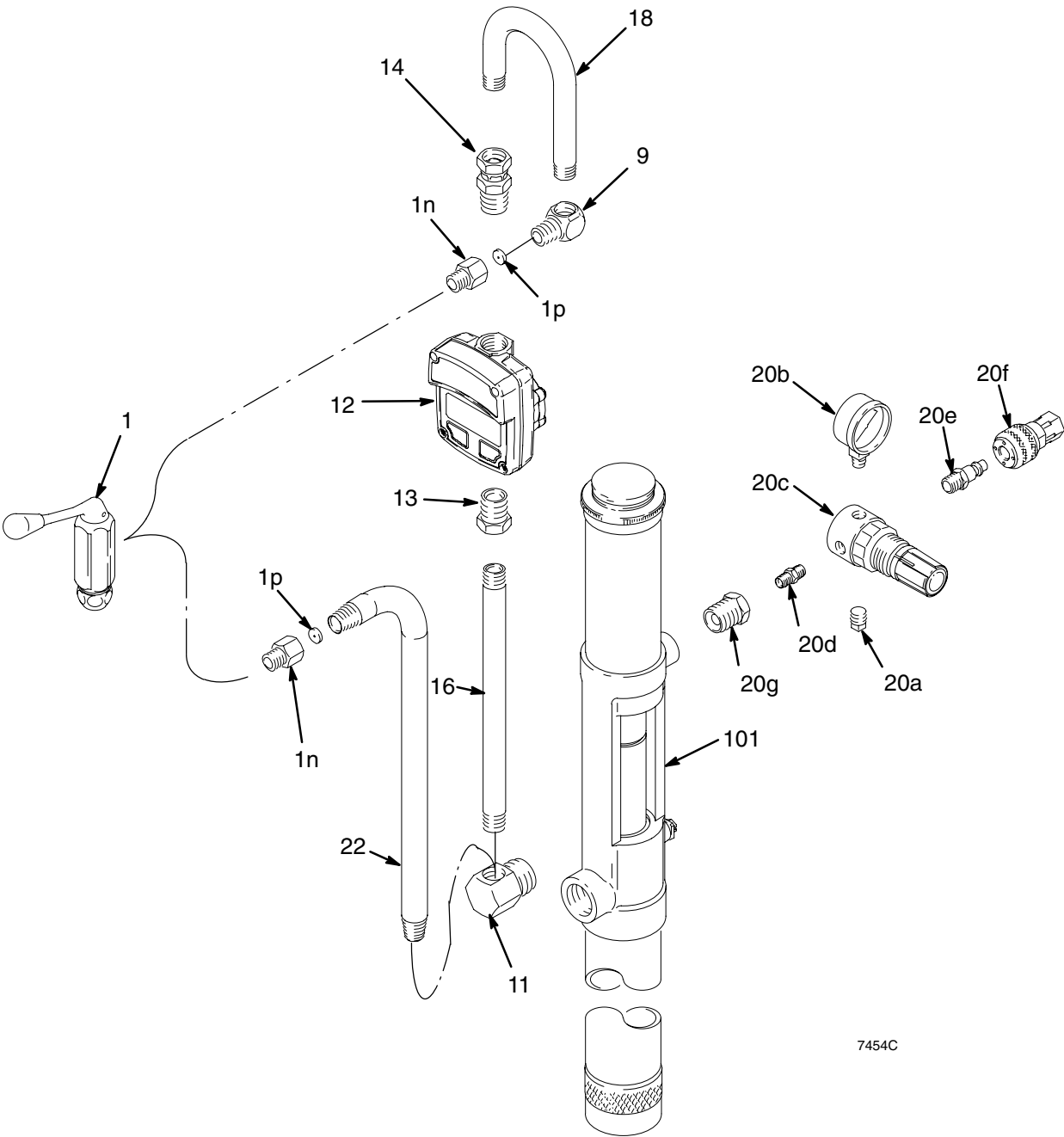
* Recommended "tool box" spare parts. Keep on hand to reduce downtime.



- 1 Apply lubricant to o-ring.
- 2 Torque to 120 to 130 in-lb (14 to 15 N-m).
- 3 Apply lubricant to housing threads.
- 4 Press fit.
- 5 Turn nut (1c) upward until a small gap (0.040 in. max.) exists between the handle (1b) and the housing (1k). See step 2 under Service.

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Parts Drawing



7454C

Parts Lists

Unmetered Dispense Pump

Model 222602, without meter

Ref. No.	Part No.	Description	Qty.
101	222103	PUMP <i>See 307906 for parts</i>	1
102	218115	UNMETERED DISPENSE KIT <i>See parts list below</i>	1
103	109125	HOSE, air; 1/4" ID; 1/4" npt(mbe); 72" long	1

Electronic Metered Dispense Pump

Model 239702, with gallon / quart / pint / liter electronic meter

Ref. No.	Part No.	Description	Qty.
101	222103	PUMP <i>See 307906 for parts</i>	1
102	239703	ELECTRONIC METERED DISPENSE KIT <i>See parts list below</i>	1

Unmetered Dispense Kit

Model 218115, Series E

Includes items 1, 11, 20, 22

Metered Dispense Kit

Model 239703, Series E

Includes items 1–20

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	220110	VALVE, dispense <i>See parts on page 5.</i>	1	20	218316	AIR REGULATOR KIT Includes items 20a–20g	1
9	155699	ELBOW, street; 3/8 npt (m x f)	1	20a	100403	. PLUG, pipe; 1/8 npt	1
11	157619	ELBOW, street; 3/8 npt(f) X 3/4 npt(m)	1	20b	104655	. GAUGE, air pressure, 0–60 psi (0–0.42 MPa, 0–4.2 bar); 1/8 npt inlet	1
12	239824	ELECTRONIC METER <i>See manual 308687.</i>	1	20c	104815	. REGULATOR, air; 0–60 psi; (0–0.42 MPa, 0–4.2 bar); <i>see manual 307204 for parts</i>	1
13	158212	BUSHING; 3/8 npt(f) x 1/2 npt(m)	1	20d	103656	. NIPPLE, pipe; 1/8 npt	1
14	158256	UNION, adapter; 1/2 npt(m) x 3/8 npsm(f) swivel	1	20e	169969	. FITTING, air coupler; 1/8 npt(m)	1
16	186034	TUBE	1	20f	114558	. COUPLER, air quick disconnect; 1/4 npt(f) inlet	1
18	185163	TUBE	1	20g	100030	. BUSHING, pipe; 1/4 npt(m) x 1/8 npt(f)	1
				22	179928	TUBE	1

Technical Data

See manual 308687 for electronic meter technical data.

See manual 307906 for pump technical data.

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.

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1-800-533-9655 Toll Free

612-623-6928

612-378-3590 Fax

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