

Instructions–Parts List

DURA-FLO[®], 45:1 AND 56:1 RATIO,

Premier[®] and King[®] Booster Packages

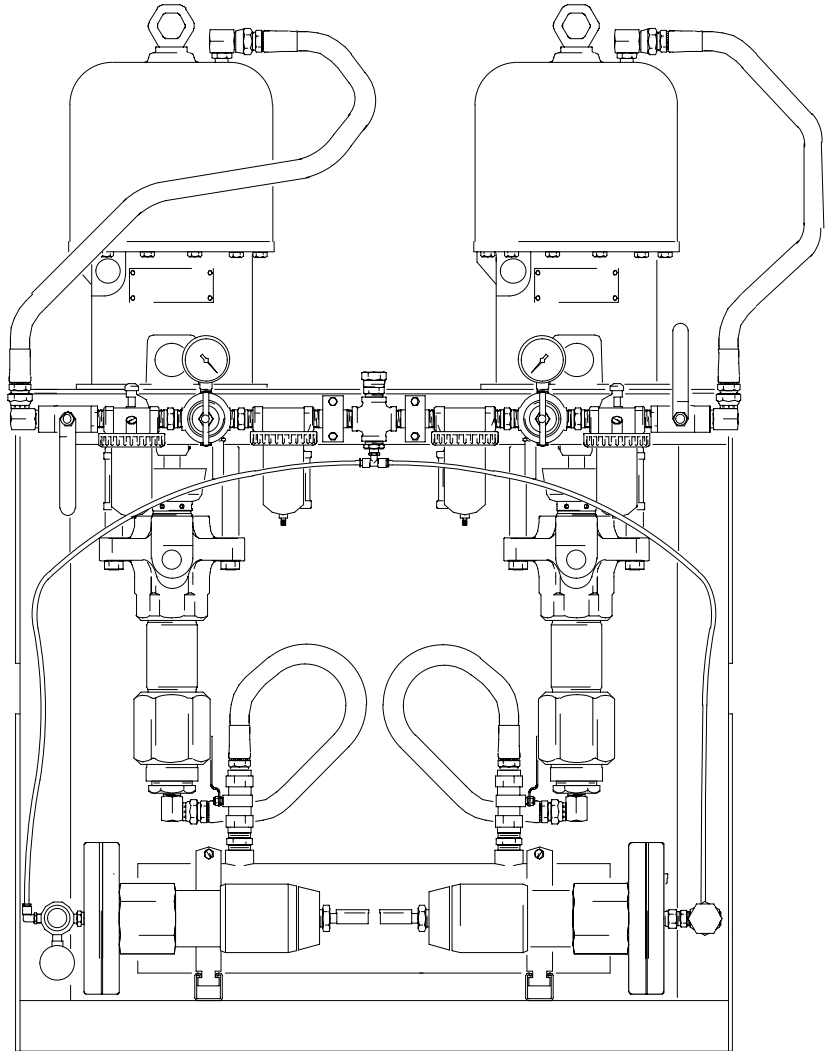
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For transferring and dispensing low- to medium-viscosity sealants and adhesives.

Related Manuals:

- 309347 King Air Motors
- 307517 Mastic Regulators
- 308147, 308148 Dura–Flo 1800 Pumps
- 308168 High Volume Air Regulators
- 308213 Premier Air Motors
- 308354 Dura–Flo 900 Pumps
- 308547 Pressure Relief Valves



T10870



Important Safety Instructions

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

See page 2 for Table of Contents and List of Models.

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List of Models

Model	Pump	Description/ Pump Model	Maximum Fluid Inlet Pressure	Ratio	Maximum Fluid Working Pressure	Maximum Pump Air Input Pressure	Parts Page
970121	King	Dual King Dura-Flo™ 900	2000 psi (13.6 MPa, 136 bar)	56:1	5600 psi (38.5 MPa, 385 bar)	100 psi (0.7 Ma, 7 bar)	12
970122	King	Triple King Dura-Flo™ 900	2000 psi (13.6 MPa, 136 bar)	56:1	5600 psi (38.5 MPa, 385 bar)	100 psi (0.7 Ma, 7 bar)	14
234675	Premier	Dual Premier Dura-Flo™ 1800	2500 psi (20.4 MPa, 204 bar)	45:1	4500 psi (31.5 MPa, 315 bar)	100 psi (0.7 MPa, 7 bar)	16

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



INSTRUCTIONS

EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are uncertain about usage, call your Graco distributor.
- Do not alter or modify this equipment. Use only genuine Graco parts and accessories.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure stated on the equipment or in the **Technical Data** for your equipment. Do not exceed the maximum working pressure of the lowest rated component in your system.
- Use fluids and solvents which are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 180°F (82°C) or below -40°F (-40°C).
- Wear hearing protection when operating this equipment.
- Do not lift pressurized equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.



PRESSURIZED EQUIPMENT HAZARD

Spray from the dispense valve, hose leaks, or ruptured components can splash fluid in the eyes or on the skin and cause serious injury.

- Do not point the dispense valve at anyone or at any part of the body.
- Do not stop or deflect leaks with your hand, body, glove or rag.
- Follow the **Pressure Relief Procedure** on page 8 whenever you: are instructed to relieve pressure; stop spraying; clean, check, or service the equipment; and install or clean the spray tip.
- Tighten all fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn, damaged, or loose parts immediately. Permanently coupled hoses cannot be repaired; replace the entire hose.

WARNING



MOVING PARTS HAZARD

Moving parts, such as the air motor piston, can pinch or amputate your fingers.

- Keep clear of all moving parts when starting or operating the pump.
- Before servicing the equipment, follow the **Pressure Relief Procedure** on page 8 to prevent the equipment from starting unexpectedly.



FIRE AND EXPLOSION HAZARD

Improper grounding, poor ventilation, open flames or sparks can cause a hazardous condition and result in a fire or explosion and serious injury.

- Ground the equipment and the object being sprayed. Refer to **Grounding** on page 7.
- If there is any static sparking or you feel an electric shock while using this equipment, **stop spraying immediately**. Do not use the equipment until you identify and correct the problem.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvents or the fluid being sprayed.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Electrically disconnect all equipment in the spray area.
- Extinguish all open flames or pilot lights in the spray area.
- Do not smoke in the spray area.
- Do not turn on or off any light switch in the spray area while operating or if fumes are present.
- Do not operate a gasoline engine in the spray area.

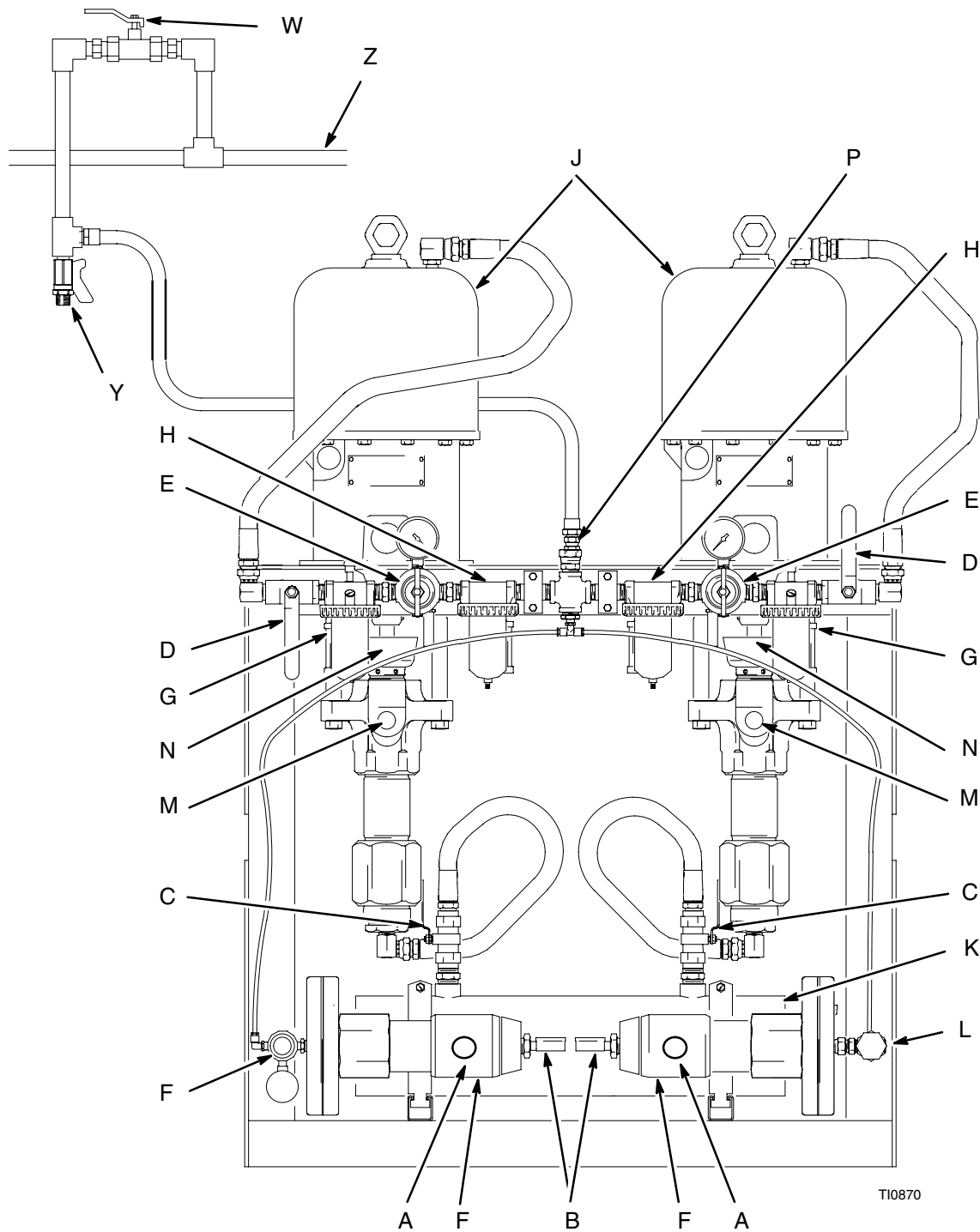


TOXIC FLUID HAZARD

Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, or swallowed.

- Know the specific hazards of the fluid you are using.
- Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state and national guidelines.
- Always wear protective eyewear, gloves, clothing and respirator as recommended by the fluid and solvent manufacturer.

Component Identification



Model 970121 Shown

KEY

- | | |
|-----------------------------------|-------------------------|
| A Fluid Inlets | H Pump Air Filters |
| B Fluid Inlet Pressure Gauges | J Pumps |
| C Pump Inlet Valves | K Accumulator |
| D Pump Air Supply Valves | L Pressure Relief Valve |
| E Pump Air Supply Regulators | M Fluid Outlets |
| F Fluid Inlet Pressure Regulators | N Packing Nuts |
| G Pump Air Lubricator | P Air Inlet |

Fig. 1

Setup

WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 8.

Site Preparation

Ensure that you have an adequate compressed air supply.

Bring an air supply line from the facility air supply (Z) to the booster package location. Be sure all air lines are properly sized and pressure-rated for the system. Use only electrically conductive hoses. The air hose should have a 3/4 npt(m) thread.

Install a bleed-type shutoff valve (W) in the air line to isolate the air line components for servicing. Install a moisture trap and drain valve (Y) to help remove moisture and contaminants from the compressed air supply.

Keep the site clear of any obstacles or debris that could interfere with the operator's movement.

Have a grounded, metal pail available for use when flushing the system.

Supplied Components

Refer to Fig. 1.

WARNING

A red-handled bleed-type master air valve (K) and a fluid drain valve (F) are supplied. These components help reduce the risk of serious injury, including splashing of fluid in the eyes or on the skin, and injury from moving parts if you are adjusting or repairing the pump.

The bleed-type master air valve relieves air trapped between this valve and the pump after the air is shut off. Trapped air can cause the pump to cycle unexpectedly.

The fluid drain valve assists in relieving fluid pressure in the displacement pump, fluid filter, hose, and dispense valve. Triggering the dispense valve to relieve pressure may not be sufficient.

- **The red-handled bleed-type master air valves (D)** are required in your system to relieve air trapped between it and the air motor when the valve is closed (see the preceding **WARNING**).
- **The pump air filters (H)** include an air filter with a 40 micron polypropylene element, to remove harmful dirt and moisture from the compressed air supply.
- **The pump air regulators and gauges (E)** control pump speed and outlet pressure by adjusting the air pressure to the pumps. The gauges provide a readout of air pressure to the pumps. See regulator manual for further details.
- **The air line lubricators (G)** provide automatic lubrication of the air motors.
- **The pumps (J)**, run by air motor, circulate fluid throughout the system. See pump manual and air motor manual for further details.
- Fluid is supplied to the pump through the **fluid supply inlet (A)** and **accumulator (K)**. Fluid pressure to the accumulator is controlled by the two **pressure regulators (F)**.

Setup

Connect the Fluid Lines

Fig. 1. Connect system fluid supply line to the booster package at fluid supply inlet (A). Close filter ball valves (C) to isolate the booster package from the main fluid supply line.

Connect booster package to the system fluid return line at fluid return outlet (M).


Note: The pressure relief valve (L) is supplied with a bare outlet. If desired, the valve may be plumbed to a waste container or back to the material supply.

Connect the Air Line

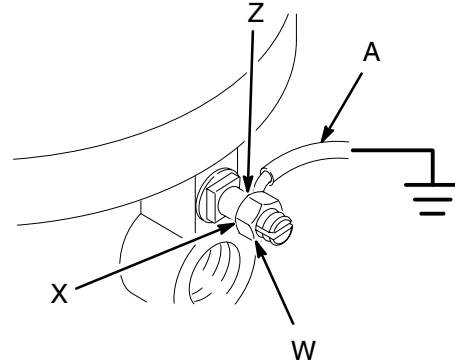
Fig. 1. Bring an air supply line from the facility air supply (Z) to the booster package location. Be sure all air lines are properly sized and pressure-rated for the system. Use only electrically conductive hoses. Air hose should have a 3/4 npt(m) thread.

Install a bleed-type shutoff valve (W) in the air line to isolate the air line components for servicing. Install a moisture trap and drain valve (Y) to help remove moisture and contaminants from the compressed air supply.

Grounding

⚠ WARNING	
	FIRE AND EXPLOSION HAZARD Before operating the booster package, ground the system as explained below. Also read the section FIRE AND EXPLOSION HAZARD on page 4.

1. *Pump:* use the ground wire and clamp (A, supplied). See Fig. 2. Loosen the grounding lug locknut (W) and washer (X). Insert one end of the ground wire (A) into the slot in lug (Z) and tighten the locknut securely. Connect the ground clamp to a true earth ground.



0720

Fig. 2

2. *Air and fluid hoses:* use only electrically conductive hoses.
3. *Air compressor:* follow manufacturer's recommendations.
4. *Dispense valve:* ground through connection to a properly grounded fluid hose and pump.
5. *Fluid supply container:* follow your local code.
6. *Object being sprayed:* follow your local code.
7. *Solvent pails used when flushing:* follow your local code. Use only metal pails, which are conductive, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts the grounding continuity.
8. *To maintain grounding continuity when flushing or relieving pressure,* hold a metal part of the spray dispense valve firmly to the side of a grounded metal pail, then trigger the dispense valve.

Operation

Pressure Relief Procedure

WARNING

PRESSURIZED EQUIPMENT HAZARD

The system pressure must be manually relieved to prevent the system from starting or spraying accidentally. To reduce the risk of an injury from accidental spray from the dispense valve, splashing fluid, or moving parts, follow the **Pressure Relief Procedure** whenever you:

- are instructed to relieve the pressure,
- stop spraying,
- check or service any of the system equipment,
- or install or clean the dispense equipment.

1. Fig. 1. Relieve the fluid pressure to the main fluid inlet by following the applicable feeder package pressure relief procedures.
2. Close the red-handled bleed-type master air valve (W, required in your system).
3. Trigger the fluid dispense valve to relieve fluid pressure. Maintain firm metal-to-metal contact between the dispense valve and a grounded waste pail. Repeat for all stations.
4. Close the pump inlet valves (C) to isolate the booster pumps from the fluid supply.

If you suspect that pressure is not fully relieved after following the steps above, wrap a fitting near the pump outlet with a rag, and slowly and carefully loosen the fitting to relieve pressure. Be careful to protect your eyes from splashing.

Packing Nut

Fig. 1. Before starting, fill the packing nut (N) 1/3 full with Graco Throat Seal Liquid (TSL) or compatible solvent.

WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** at left.

The packing nut is torqued at the factory and is ready for operation. If it becomes loose and there is leaking from the throat packings, relieve pressure, then torque the nut as specified in the particular pump manual. Do this whenever necessary. Do not overtighten the packing nut.

Flush the Booster Package Before First Use

The booster package is tested with lightweight oil, which is left in to protect the booster package parts. If the fluid you are using may be contaminated by the oil, flush it out with a compatible solvent. See **Flushing** on page 10.

Operation

Starting and Adjusting the Pump

1. Fig. 1. Open all fluid shutoff valves.
2. Open fluid dispense valve and keep it open while starting pump.
3. Slowly open air regulator (E) until the pump starts. The air regulator controls the pump speed and fluid outlet pressure.
4. Adjust the fluid pressure to the lowest setting necessary to get the desired results.

WARNING



COMPONENT RUPTURE HAZARD

To reduce the risk of overpressurizing your system, which could cause component rupture and serious injury, *never exceed the specified maximum air input pressure to the pump (see **Technical Data** on page 18).*

CAUTION

Do not allow the pump to run dry. It will quickly accelerate to a high speed, causing damage. If your pump is running too fast, stop it immediately and check the fluid supply. If the container is empty and air has been pumped into the lines, refill the container and prime the pump and the lines, or flush and leave it filled with a compatible solvent. Eliminate all air from the fluid system.

Shutdown

WARNING

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 8.

For overnight shutdown, stop the pump at the bottom of its stroke to prevent fluid from drying on the exposed displacement rod and damaging the throat packings. **Relieve the pressure.**

Always flush the pump before the fluid dries on the displacement rod. See **Flushing** on page 10.

Maintenance

Preventive Maintenance Schedule

The operating conditions of your particular system determine how often maintenance is required. Establish a preventive maintenance schedule by recording when and what kind of maintenance is needed, and then determine a regular schedule for checking your system.

Flushing




 WARNING	
	FIRE AND EXPLOSION HAZARD Before flushing, read the section FIRE AND EXPLOSION HAZARD on page 4. Be sure the entire system and flushing pails are properly grounded. Refer to Grounding on page 7.

Fig. 1. Flush the pump:

- Before the first use
- When changing colors or fluids
- Before fluid can dry or settle out in a dormant pump (check the pot life of catalyzed fluids)
- Before storing the pump.


Flush with a fluid that is compatible with the fluid you are pumping and with the wetted parts in your system. Check with your fluid manufacturer or supplier for recommended flushing fluids and flushing frequency.

 WARNING	
To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the Pressure Relief Procedure on page 8.	

1. Fig. 1. Relieve the pressure.
2. Hold metal part of dispense valve firmly to side of grounded *metal* pail.
3. Start pump. Always use lowest possible fluid pressure when flushing.
4. Trigger dispense valve. Flush system until clear solvent flows from dispense valve. Repeat for all dispense stations.
5. Close fluid dispense valves.
6. Relieve the pressure.

Air Filter Service

1. Fig. 1. Every day, drain contaminants from the air filter bowl (H) before reaching the baffle level by opening the drain at the bottom of the bowl.

 WARNING	
To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the Pressure Relief Procedure on page 8.	

2. Clean the air filter regularly to maximize filtering efficiency and to avoid excessive pressure drop. Fully relieve pressure to remove the bowl.
3. Clean the sight glass thoroughly. Do not leave solvent residue in the sight glass as it may attack or weaken the glass. If the sight glass appears damaged, replace it immediately.

Troubleshooting

⚠ WARNING



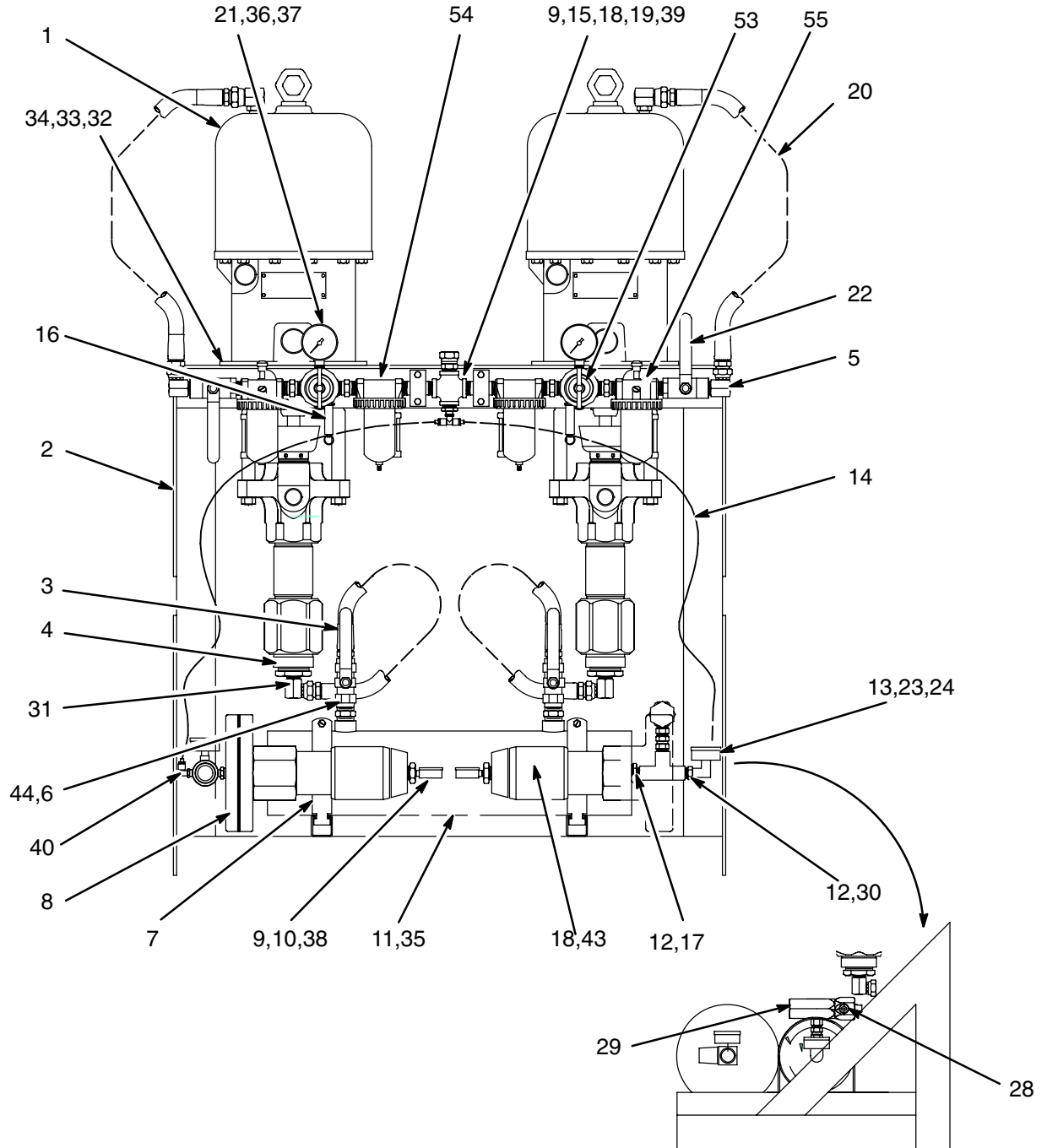
To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** (page 8).

For pump service see manual 308147 or 308053. For air motor service see manual 306968 (King) or 308243 (Premier).

Problem	Cause(s)	Solution(s)
Pump output low on both strokes	Restricted air or hydraulic lines	Clear any obstructions; be sure all valves are open; increase pressure.
	Empty fluid supply	Refill and reprime pump. In an air-powered system, use pump runaway valve.
	Clogged fluid outlet line, valves, etc.	Clear.
	Worn packings	Tighten packing nut; replace all packings. See pump manual.
Pump output low on only one stroke	Held open or worn check valve	Check and repair. See pump manual.
	Worn piston packings	Replace. See pump manual.
No output	Improperly installed ball check valves	Check and correct. See pump manual.
Pump operates erratically	Exhausted fluid supply	Refill and reprime pump. In an air-powered system, use pump runaway valve.
	Held open or worn check valves	Check and repair. See pump manual.
	Worn piston packings	Replace. See pump manual.
Pump does not operate	Restricted air or hydraulic power supply lines	Clear any obstructions; be sure all shut-off valves are open; increase pressure.
	Exhausted fluid supply	Refill and reprime pump.
	Clogged fluid outlet line, valves, etc.	Clear.
	Damaged air motor	See air motor manual.
	Fluid dried on piston rod	Disassemble and clean pump. Stop pump at bottom of stroke. See pump manual.

Parts

Dual King Model: 970121
56:1 Ratio, King Pump



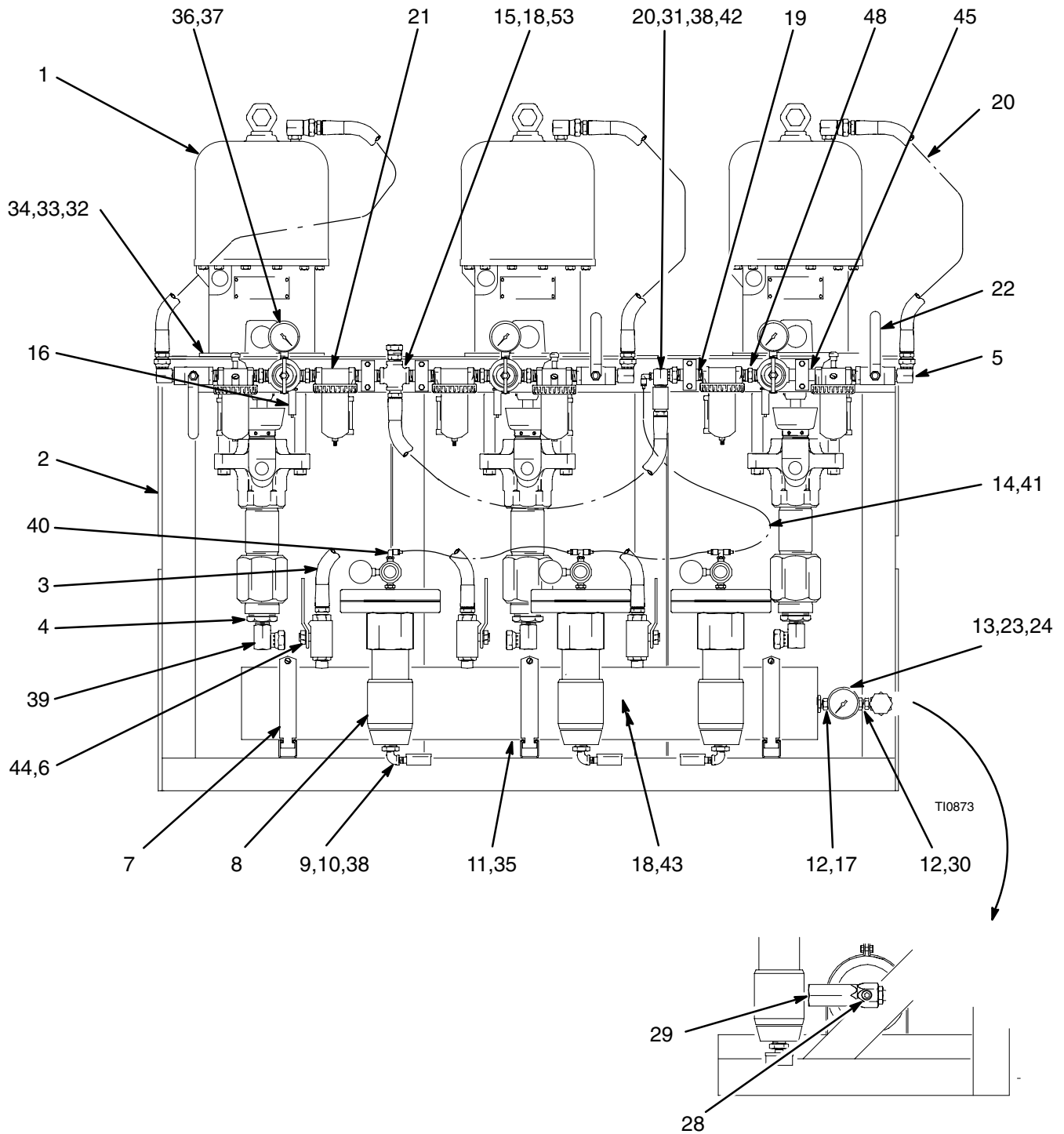
Parts

Dual King Model: 970121 56:1 Ratio, King Pump

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
1	245172	PUMP, 56:1 King See 308354 for parts	2	22	107141	VALVE, ball, air, 3/4 npt	2
2	C58304	FRAME, pump mounting	1	23	102397	GAUGE, 0–3000 psi, 1/4 npt	1
3	C12577	HOSE, material, 1 in. npt x 3 in.	2	24	100206	BUSHING, reducer, 1/2 x 1/4 npt	1
4	C19669	BUSHING, reducer, 2 in. x 1 in. npt cs	2	28	100361	PLUG, pipe, 1/2 npt	1
5	160327	UNION, 90°, swivel, 3/4	2	29	237073	VALVE, relief, 2500 psi See 308547 for parts	1
6	521477	VALVE, h.p., ball 1 in. npt cs	2	30	155470	UNION, swivel, 90°	1
7	C58308	CLAMP, pipe, 6 in. pipe	2	31	102806	UNION, adapter, 90°, 1 in. npt, cs	2
8	961635	REGULATOR, mastic See 307517 for parts	2	32	100307	NUT, hex, 3/8	8
9	100615	BUSHING, reducer, 3/4 x 1/4 npt	3	33	100132	WASHER, lock, 3/8	8
10	102814	GAUGE, fluid, 0–5000 psi	2	34	100004	SCREW, cap, hex hd	8
11	C59770	ACCUMULATOR, matl, 2000 psi	1	35	112880	PLUG, sh, 1 in. npt	1
12	158491	NIPPLE, hex, 1/2 npt	2	36	C19425	ELBOW, 90°, plain, 1/4 npt	2
13	103475	TEE, pipe, 1/2 npt	1	37	C19337	NIPPLE, hex, 1/4 x 1–1/2	2
14	C12508	TUBING, poly, 3/8 od, 8 ft	1	38	100840	ELBOW, street, 1/4 npt	3
15	516043	CROSS, 3/4, npt, ss	1	39	C38157	FITTING, tee, air, q.d., 3/8 in. tube	1
16	110065	VALVE, relief, 60 psi See 308547 for parts	2	40	C38161	FITTING, elbow, 3/8 in. tube x 1/4 in. npt(f)	2
17	100380	BUSHING, reducer, 1 x 1/2 npt	1	43	175013	NIPPLE, hex, 3/4 npt	2
18	157785	UNION, swivel, 3/4	3	44	C20489	NIPPLE, hex, 1 in. npt	2
19	101407	NIPPLE, pipe, 3/4 x 3	6	48	237569	GROUND WIRE ASSY	2
20	517290	HOSE, air, 3/4 x 3 ft	2	53	207755	REGULATOR, air	2
21	101689	GAUGE, pressure, air	2	54	106150	FILTER, air, 3/4 npt	2
				55	214849	LUBRICATOR, air line	2

Parts

Triple King Model: 970122
56:1 Ratio, King Pump



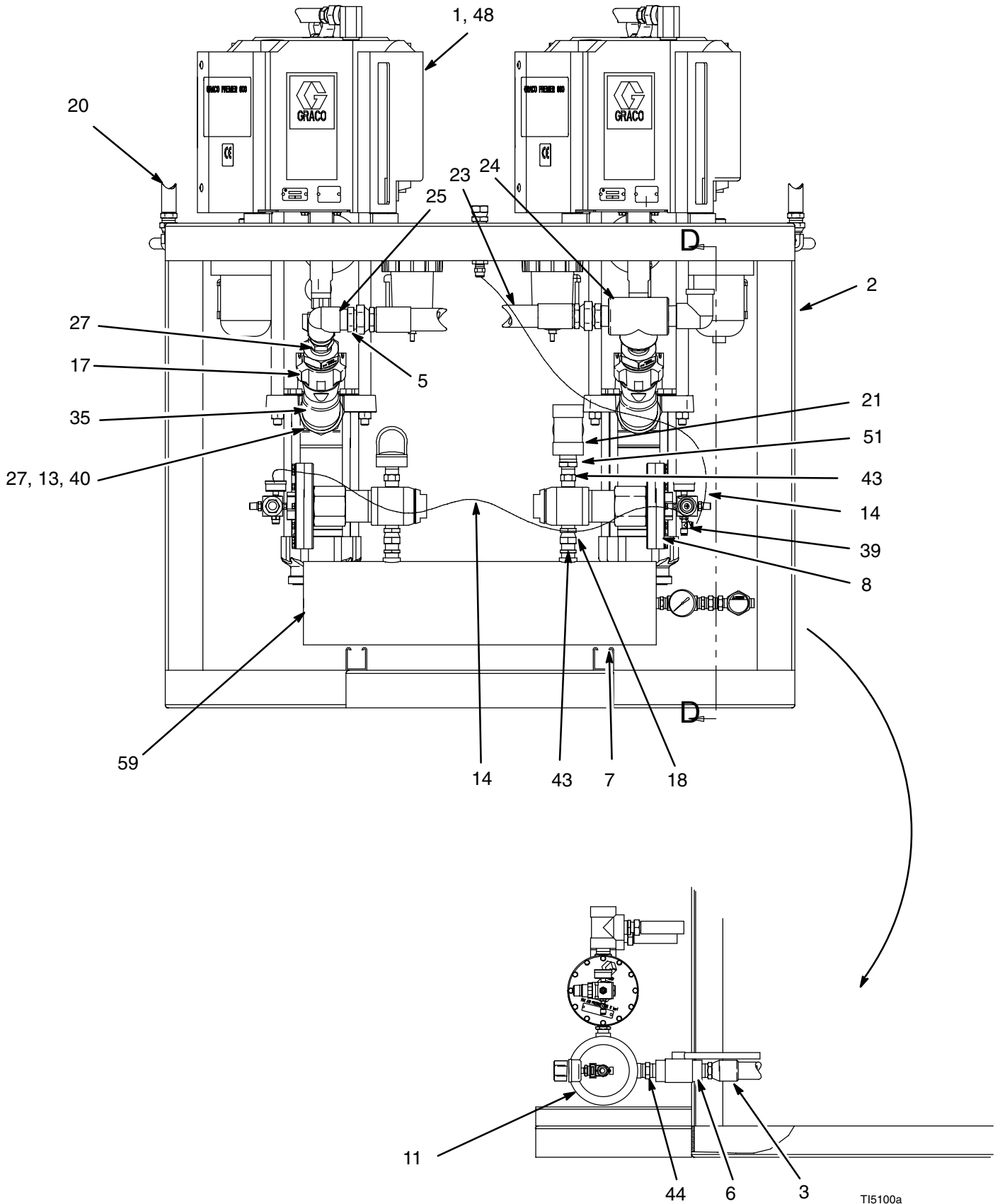
Parts

Triple King Model: 970122 56:1 Ratio, King Pump

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
1	245172	PUMP, 56:1 King See 308354 for parts	3	22	107141	VALVE, ball, air, 3/4 npt	3
2	C59689	FRAME, pump mounting	1	23	102397	GAUGE, 0–3000 psi, 1/4 npt	1
3	C12577	HOSE, material, 1 in. npt x 3 in.	3	24	100206	BUSHING, reducer, 1/2 x 1/4 npt	1
4	C19669	BUSHING, reducer, 2 in. x 1 in. npt cs	3	28	100361	PLUG, pipe, 1/2 npt	1
5	160327	UNION, 90°, swivel, 3/4	3	29	237073	VALVE, relief, 2500 psi See 308547 for parts	1
6	521477	VALVE, h.p., ball 1 in. npt cs	3	30	190451	UNION, swivel, 90°	1
7	C58308	CLAMP, pipe, 6 in. pipe	3	31	100385	COUPLING, full, 3/4 npt, cs	1
8	961635	REGULATOR, mastic See 307517 for parts	3	32	100307	NUT, hex, 3/8	12
9	100615	BUSHING, reducer, 3/4 x 1/4 npt	3	33	100133	WASHER, lock, 3/8	12
10	102814	GAUGE, fluid, 0–5000 psi	2	34	100004	SCREW, cap, hex hd	12
11	C59690	ACCUMULATOR, matl, 2000 psi	1	35	112880	PLUG, sh, 1 in. npt	1
12	158491	NIPPLE, hex, 1/2 npt	2	36	C19425	ELBOW, 90°, plain, 1/4 npt	3
13	103475	TEE, pipe, 1/2 npt	1	37	C19337	NIPPLE, hex, 1/4 x 1–1/2	3
14	C12508	TUBING, poly, 3/8 od, 8 ft	1	38	100840	ELBOW, street, 1/4 npt	3
15	C20434	CROSS, 3/4, npt, cs	1	39	102806	FITTING, tee, air, q.d., 3/8 in. tube	3
16	110065	VALVE, relief, 60 psi See 308547 for parts	3	40	C19395	FITTING, elbow, 3/8 in. tube x 1/4 in. nptf	1
17	100380	BUSHING, reducer, 1 x 1/2 npt	1	41	502937	TEE, branch, male, 3/8 x 1/4	2
18	157785	UNION, swivel, 3/4	5	42	207675	MANIFOLD, swivel, 90°, 3/4 npt	1
19	101407	NIPPLE, pipe, 3/4 x 3	2	43	175013	NIPPLE, hex, 3/4 npt	3
20	240900	HOSE, air, 3/4 x 30 in.	4	44	C20489	NIPPLE, hex, 1 in. npt	3
21	217073	FILTER/REGULATOR/LUBRICATOR, air, 3/4 npt, See 308168 for parts	3	48	237569	GROUND WIRE ASSY	2
				53	157129	NIPPLE, pipe, 3/4 x 3	2

Parts

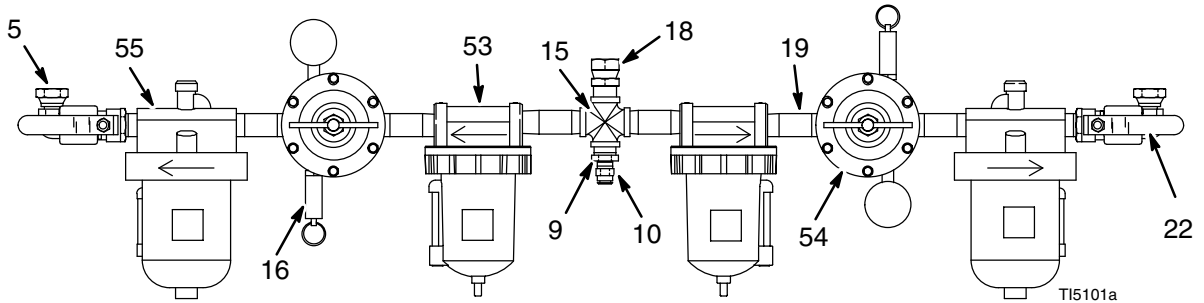
Dual Premier Model: 234675
45:1 Ratio, Premier Pump



T15100a

Parts

Dual Premier Model: 234675 45:1 Ratio, Premier Pump



Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
1	234667	PUMP, 45:1 Premier See 308148 for parts	2	28	158491	NIPPLE	1
2	C59694	FRAME, pump mounting	1	29	103475	TEE	1
3	C12577	HOSE, 1 in. x 36 in.	2	30	190451	UNION	1
4	C19669	BUSHING, reducer, 2 in. x1 in. npt cs	2	31	102806	UNION, adapter, 90°	2
5	C38324	UNION, 90°, swivel, 3/4	1	32	237073	VALVE, relief	1
6	521477	VALVE, ball, 1 in. npt	2	33	100133	WASHER, lock	6
7	C58308	CLAMP, pipe, 6 in. pipe	2	34	516595	BOLT, 3/8-16 x 2.5 lg.	6
8	246687	REGULATOR, mastic See 307517 for parts	2	35	118447	ELBOW, 40°	2
9	C19683	BUSHING, reducer,	1	36	C19425	ELBOW, 90°	2
10	C19411	FITTING	1	37	C19337	NIPPLE	2
11	C59770	ACCUMULATOR, tank	1	38	100361	PLUG, pipe	1
12	102814	GAUGE, pressure	2	39	C20365	TEE	1
13	521975	UNION	2	40	15E270	OUTLET, fitting 1 1/4 npt	2
14	520563	TUBING, poly, 3/8 od x .062 in.	4	43	175013	NIPPLE, pipe	4
15	516043	CROSS, 3/4 npt	1	44	C20489	NIPPLE	2
16	110065	VALVE, safety	2	45	100206	BUSHING, pipe	1
17	246929	VALVE, check	2	48	237569	WIRE ASSY. 25 ft	2
18	157785	SWIVEL	3	49	102397	GAUGE, pressure, fluid	1
19	101407	NIPPLE, pipe	6	50	119370	HOSE, regulator	1
20	517290	HOSE	2	51	158586	BUSHING	1
21	C19488	TEE	1	52	113671	ELBOW, street	1
22	107141	VALVE, ball, vented	2	53	106150	FILTER, air, 3/4 npt	2
23	119369	HOSE, dispense, Assy.	1	54	207755	REGULATOR	2
24	C19491	TEE, 1-1/4 npt(f)	1	55	214849	LUBRICATOR, air line	2
25	C19441	ELBOW	1	56	106145	BRACKET, mounting	4
26	160327	UNION, 90°	2	58	502851	BUSHING, hex	1
27	C20490	NIPPLE	4	59	112880	PLUG, pipe	1
				61	119395	PLUG, cap	1

Technical Data

56:1 Ratio King Pump, Models 970121 and 970122

WARNING

Be sure that all fluids and solvents used are chemically compatible with the Wetted Parts listed below. Always read the manufacturer's literature before using fluid or solvent in this pump.

Category	Data
Ratio	56:1
Maximum fluid working pressure	38.5 MPa, 385 bar (5600 psi)
Maximum air input pressure	0.7 MPa, 7 bar (100 psi)
Pump cycles per 3.8 liters (1 gal.)	18
Fluid flow at 60 cycles/min	12.9 liters/min (3.4 gpm)
Air motor piston effective area	506 cm ² (78.5 in. ²)
Stroke length	120 mm (4.75 in.)
Displacement pump effective area	9 cm ² (1.40 in. ²)
Maximum pump operating temperature	82°C (180°F)
Air inlet size	3/4 npsm(f)
Fluid inlet size	2 in. npt(f)
Fluid outlet size	1 in. npt(f)
Weight	approx. 59 kg (130 lb)
Wetted parts	316, 440, and 17-4 PH Grades of Stainless Steel; Tungsten Carbide; PTFE; Glass-Filled PTFE

Sound Level Data*

Model	Air Pressure	Cycle Rate	Sound Pressure Level	Sound Power level
970121 (King)	70 psi	15 cycles/min	82.7 dBa	88.8 dBa
970122 (King)	70 psi	15 cycles/min	82.7 dBa	88.8 dBa

* Tested in accordance with ISO 3744.

Technical Data

45:1 Ratio Premier Pump, Model 234675

WARNING

Be sure that all fluids and solvents used are chemically compatible with the Wetted Parts listed below. Always read the manufacturer's literature before using fluid or solvent in this pump.

Category	Data
Ratio	45:1
Maximum fluid working pressure	31 MPa, 310 bar (4500 psi)
Maximum air input pressure	0.7 MPa, 7 bar (100 psi)
Pump cycles per 3.8 liters (1 gal.)	8.7
Fluid flow at 60 cycles/min	26.1 liters/min (6.9 gpm)
Air motor piston effective area	800 cm ² (124 in. ²)
Stroke length	120 mm (4.75 in.)
Displacement pump effective area	18 cm ² (2.79s in. ²)
Maximum pump operating temperature	65.5°C (150°F)
Air inlet size	3/4 npsm(f)
Fluid inlet size	2 in. npt(f)
Fluid outlet size	1-1/2 in. npt(m)
Weight	approx. 109 kg (240 lb)
Wetted parts	Carbon Steel; Chrome, Zinc, and Nickel Plating; 304, 440, and 17-4PH Grades of Stainless Steel; Tungsten Carbide; Ductile Iron; PTFE; Acetal; Leather

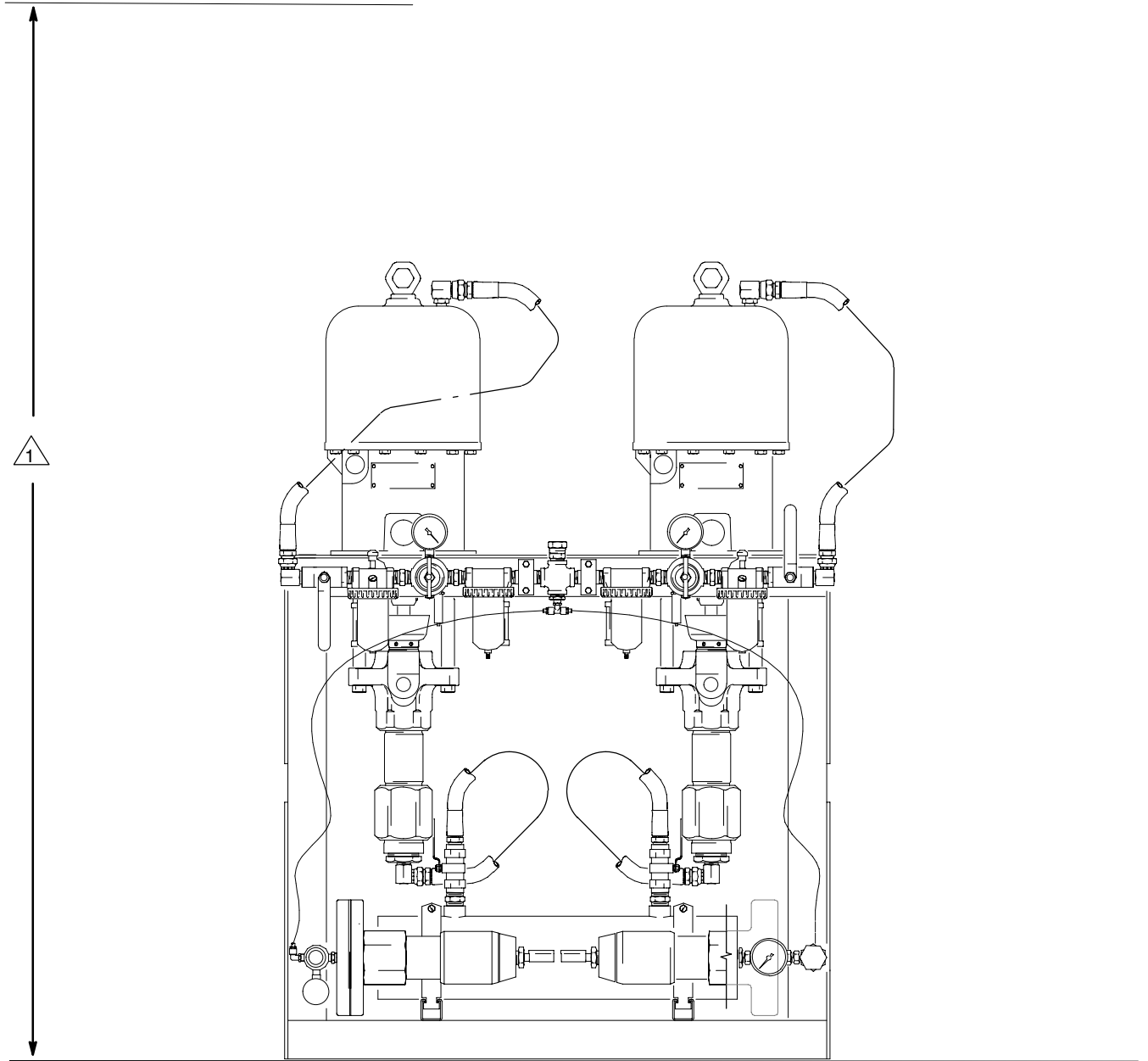
Sound Level Data*

Model	Air Pressure	Cycle Rate	Sound Pressure Level	Sound Power level
234675 (Premier)	77 psi	25 cycles/min	88 dBa	103 dBa

* Tested in accordance with ISO 3744.

Dimensions

1 Ensure that there is at least 7 ft (2.1 m) overhead clearance for booster packages.



Model 970121 Shown

T10872

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.

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

Phone: 612-623-6921 or **Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

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