Instructions

Displacement Pump

311845K

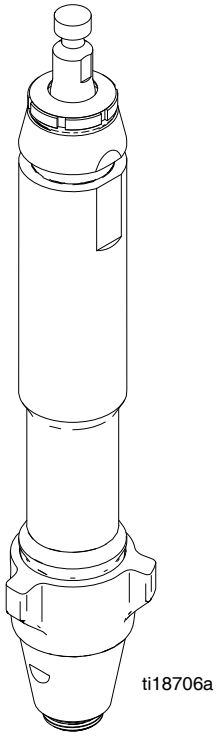
EN

For portable spray application of architectural paints and coatings.
For professional use only.
Not approved for use in European explosive atmosphere locations.

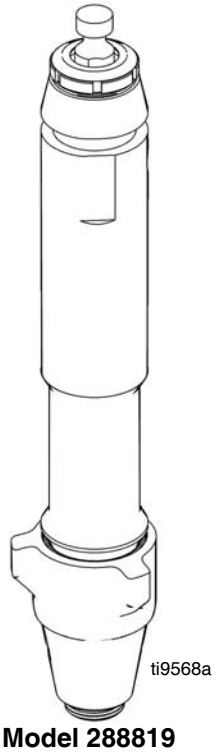
Model 24B748, 288467, 288468, 288819, 24M629

3300 psi (22.8 MPa, 25 bar) Maximum Working Pressure

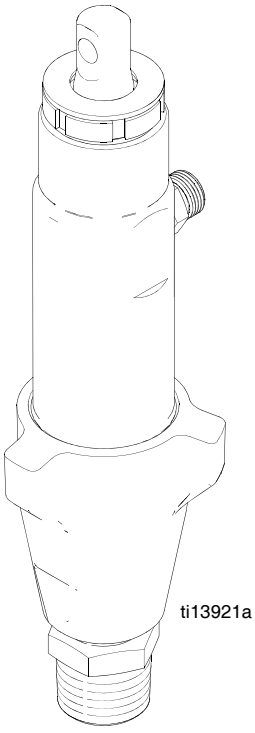
Important Safety Instructions
Read all warnings and instructions in this manual.
Save these instructions.



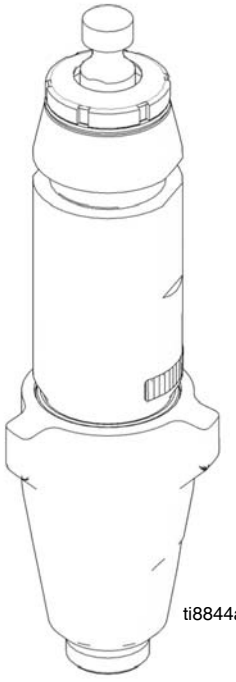
Model 24M629



Model 288819



Model 24B748



Model 288467/288468

PROVEN QUALITY. LEADING TECHNOLOGY.

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 symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

⚠ 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 Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Data** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment.
- 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.



MOVING PARTS HAZARD

Moving parts can pinch or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** in this manual. Disconnect power or air supply.

CALIFORNIA PROPOSITION 65

This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.

Service

Pressure Relief Procedure



The system pressure must be manually relieved to pre vent the system from starting or spraying accidentally. To reduce the risk of an injury from accidental spray from the gun, 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
- install or clean the spray nozzle.

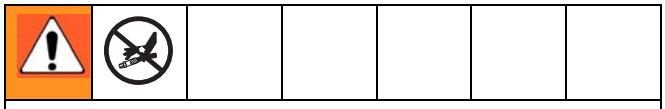
1. Engage trigger lock.
2. Turn engine ON/OFF switch to OFF.
3. Move pump switch to OFF and turn pressure control knob fully clockwise.
4. Unlock trigger lock. Hold metal part of gun firmly to side of grounded metal pail and trigger gun to relieve pressure.
5. Engage the trigger lock.
6. Open all fluid drain valves in the system, having a waste container ready to catch drainage. Leave drain valve(s) open until you are ready to spray again.

If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved after following the steps above, VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Clear hose or tip obstruction.

Tools Needed

- Vise
- 12-inch adjustable, open-end wrench (2)
- Hammer, 20 oz. maximum
- Small screwdriver
- Throat Seal Liquid
- Pick or long small screwdriver

Cleaning and Inspecting Parts



Never use a sharp or pointed tool to remove sleeve or other components which could result in pump rup ture and cause serious bodily injury. If the sleeve cannot be removed easily, return the sleeve and cyl inder to an authorized Graco distributor for removal.

- Clean and inspect all parts. Replace worn or dam aged parts.

Component	What to look for
Ball seats in intake valve and piston	Nicks or wear
Inside sleeve	Worn or scratched
Piston rod	Worn or scratched

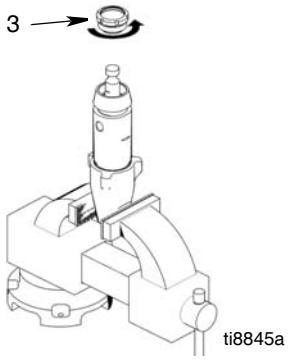
- Remove and clean the sleeve when you are repack ing the pump.

Repair

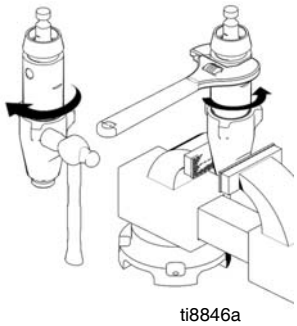
See your sprayer instruction manual for complete instructions for removing and installing the pump in your sprayer.

Disassembly

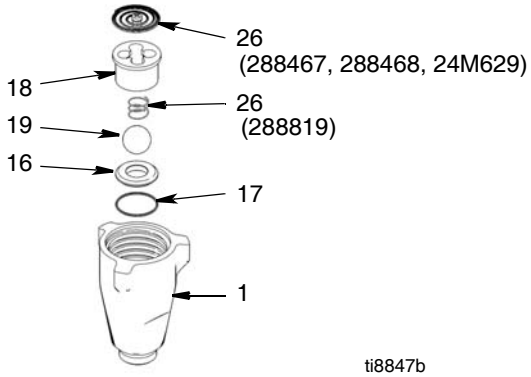
1. Remove packing nut (3).



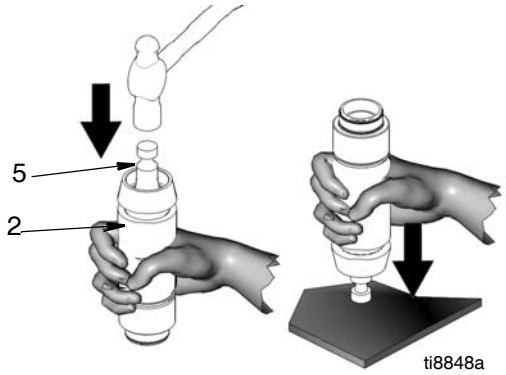
2. Unscrew intake valve from cylinder.



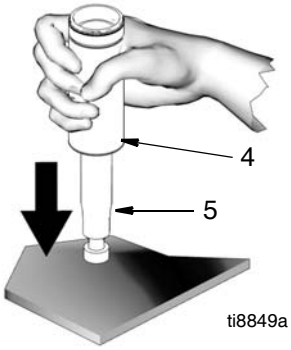
3. Disassemble intake valve. Clean and inspect o-ring (17). You may need to use a pick to remove o-ring. **NOTE:** Spring (26) for model 288819 is optional and is not included with the pump.



4. Use a hammer to tap piston rod (5) out of cylinder (2), or flip pump over and tap piston rod out against work bench.

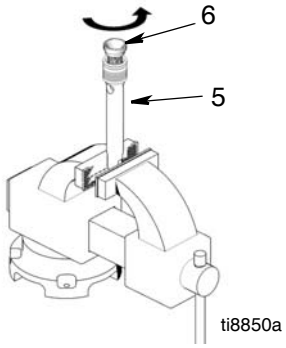


5. Remove piston rod (5) from sleeve (4).

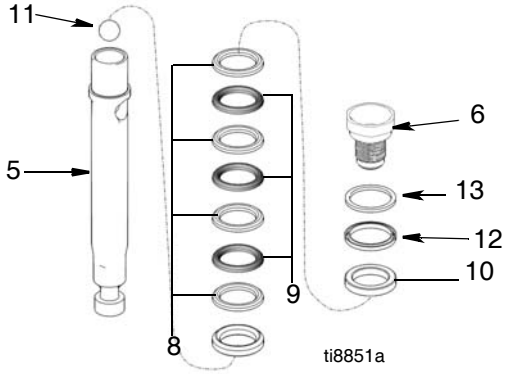


Do not clean or wipe piston valve (6) threads. Cleaning the piston valve threads could destroy the special sealing patch and cause the piston valve to come loose during operation.

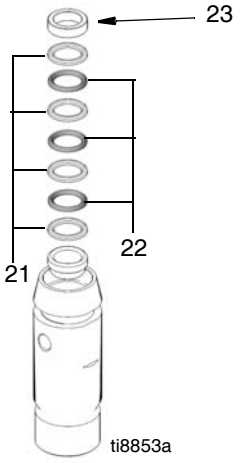
6. Unscrew piston valve (6) from piston rod (5). Clean and inspect parts. The piston has a special thread locking/sealing patch. Do not remove the patch. The patch allows for disassembly/assembly procedures before it is necessary to apply thread sealant to the threads.



7. Remove packing and glands from piston rod. Note orientation for installation.



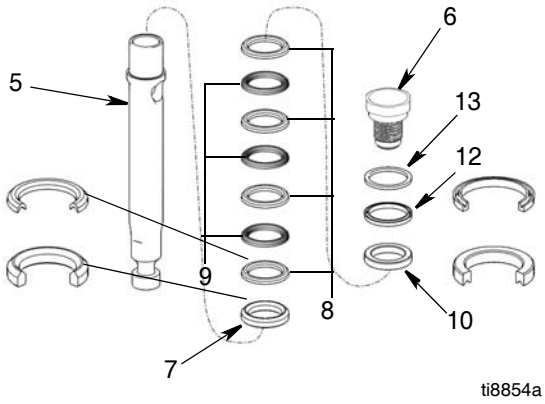
8. Remove throat packings and glands from cylinder. Discard throat packings and glands.



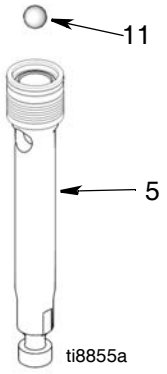
Reassembly

1. Stack male gland (7) on piston rod (5).
2. Alternately stack blue UHMWPE (8) and brown UHMWPH (9) (24B748, 288467, 2884680, 24M629) or leather (288819) packings on piston rod. Note orientation.
3. Install female gland (10).
4. Install backup washer (13) and piston wiper (12) on piston valve (6). Note orientation.

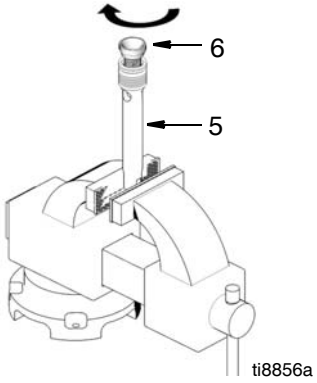
   The special sealing patch on piston valve threads is good for 4 repackings. Use thread sealant on piston valve threads after 4 repackings.



5. Install ball (11) in piston rod (5). If thread sealant is applied to piston valve threads, ensure that none gets on ball.



6. Install piston valve (6) to piston rod (5). Torque to 100 ± 5 ft-lb (136 ± 7 N• m).

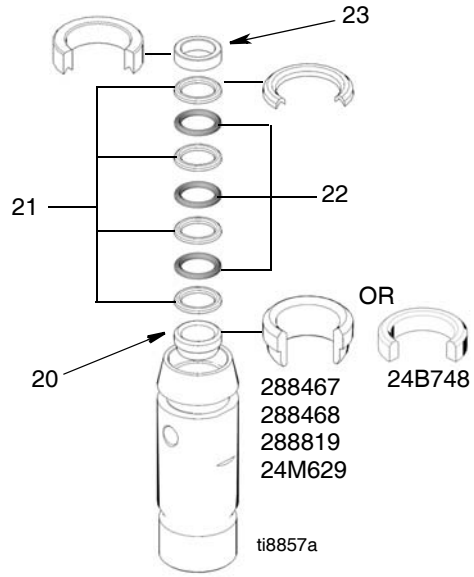


7. Soak all leather packings in SAE 30W oil for 1 hour minimum prior to assembly.

8. Place male gland (20) in cylinder.

9. Alternately stack UHMWPE (21) and leather pack ings (22). Note orientation.

10. Place female gland (23) in top of cylinder. Seat packings.



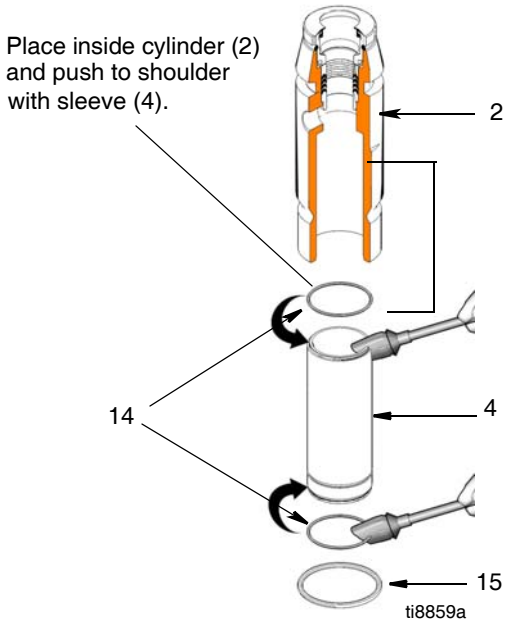
11. Install packing nut (3) into cylinder and hand tighten.



NOTICE

Never slide piston assembly (5) into top of sleeve (4) as this may damage piston packings.

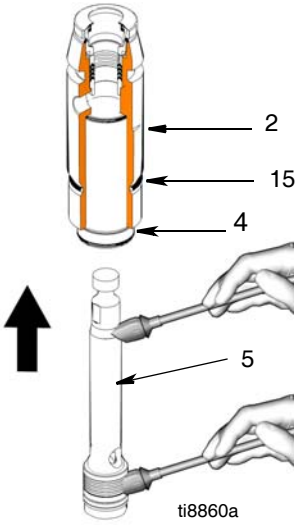
12. Install o-rings (14) inside cylinder (2) and on sleeve (4). Slide sleeve (4) into bottom of cylinder (2). Replace o-ring (15) if desired.



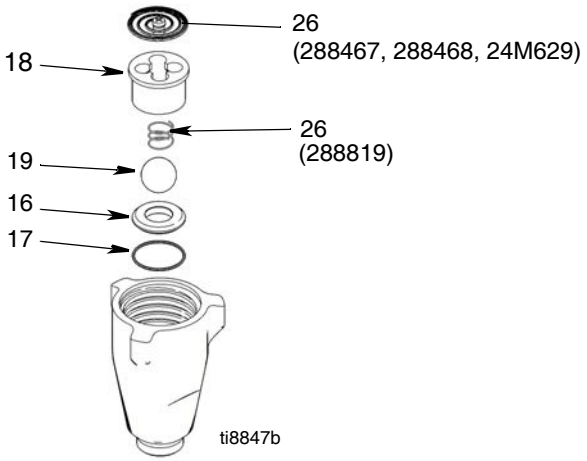
NOTE: O-ring (15) is not required for safe pump opera tion.

13. Grease top inch or two of piston rod (5) that goes through the sleeve/cylinder assembly throat pack ings. Grease piston packings at bottom of piston pump.

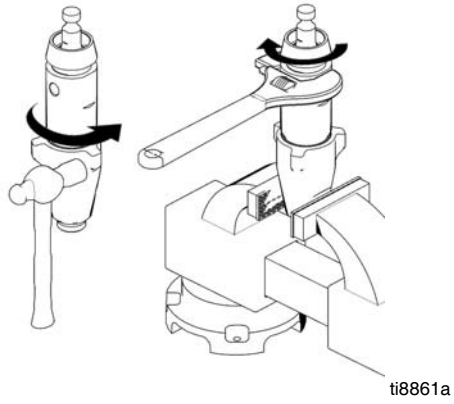
    Carefully slide piston assembly (5) into bottom of sleeve/cylinder assembly (2) until pump rod pro trudes out the top and piston packings are totally inside the sleeve (4).



14. Reassembly intake valve with new o-ring (17), seat (16) and ball (19). Seat may be flipped over and used on the other side. Clean seat thoroughly. **NOTE:** Spring (26) for model 288819 is optional and is not included with the pump.



15. Install intake valve on cylinder. Torque to: 200 +/- 15 ft-lb (271 +/- 20 N•m) for 288467, 288468, 288819, 24M629; 110+/- 5 ft-lb (149 +/- 7 N•m) for 24B748.



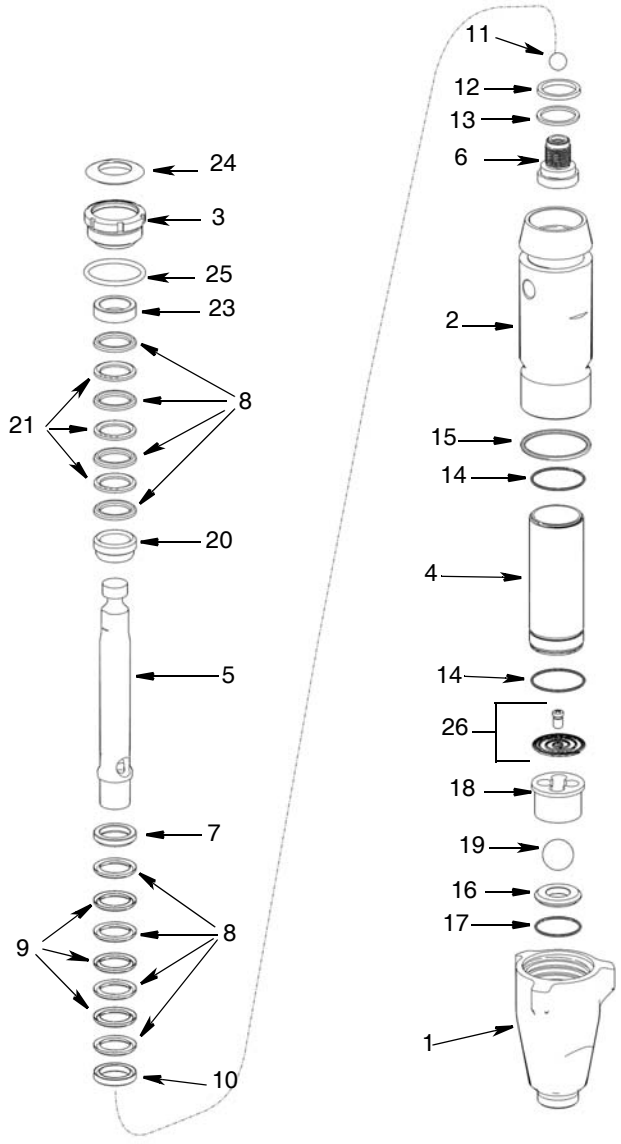
16. Torque packing nut to:
    140 +/- 10 in-lb (15 +/- 1 N•m) 288467, 288468, 288819, 24M629.

    125 +/- 10 in-lb (14 +/- 1 N•m) 24B748

    When pump packings begin to leak, tighten packing nut down until leakage stops or lessens. This allows approximately 100 gallons of additional operation before repacking is required.

Parts

Model 288467/288468



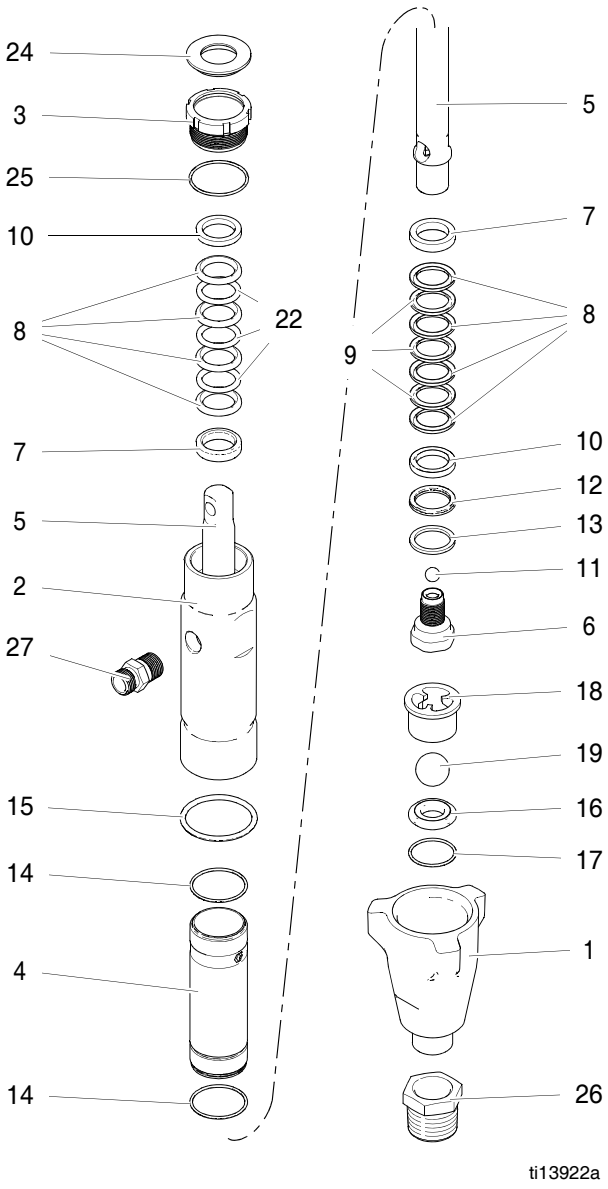
ti8826a

Ref	Part	Description	Qty
1	15E655	HOUSING	1
2	288482	CYLINDER (model 288467)	1
	288483	CYLINDER (model 288468)	
3	15J792	NUT, packing	1
4	249121	SLEEVE, cylinder (model 288467)	1
	287817	SLEEVE, cylinder (model 288468)	
5	288469	ROD, piston (model 288467)	1
	288470	ROD, piston (model 288468)	
6	249177	VALVE, piston	1
7*	189585	GLAND, packing, male	1
8*		PACKING,VEE (blue)	8
9*		PACKING,VEE (brown)	3
10*	198765	GLAND, packing, female	1
11*	107203	BALL, valve, check	1
12*	119636	WIPER, piston	1
13*	15J800	WASHER, back up	1
14*	108822	PACKING, o-ring	2
15*	160325	PACKING, o-ring	1
16†	240918	SEAT, carbide	1
17†*	107098	PACKING, o-ring	1
18	198505	GUIDE, ball	1
19†*	107167	BALL,SST	1
20*	15G658	GLAND, male	1
21*		PACKING,VEE (leather)	3
23*	15G657	GLAND, female	1
24*	112590	PLUG, throat, seal	1
25*	157195	PACKING, o-ring	1
26	233698	SPRING, intake ball	1

* Included in Repair Kit 287813

† Included in Repair Kit 240918

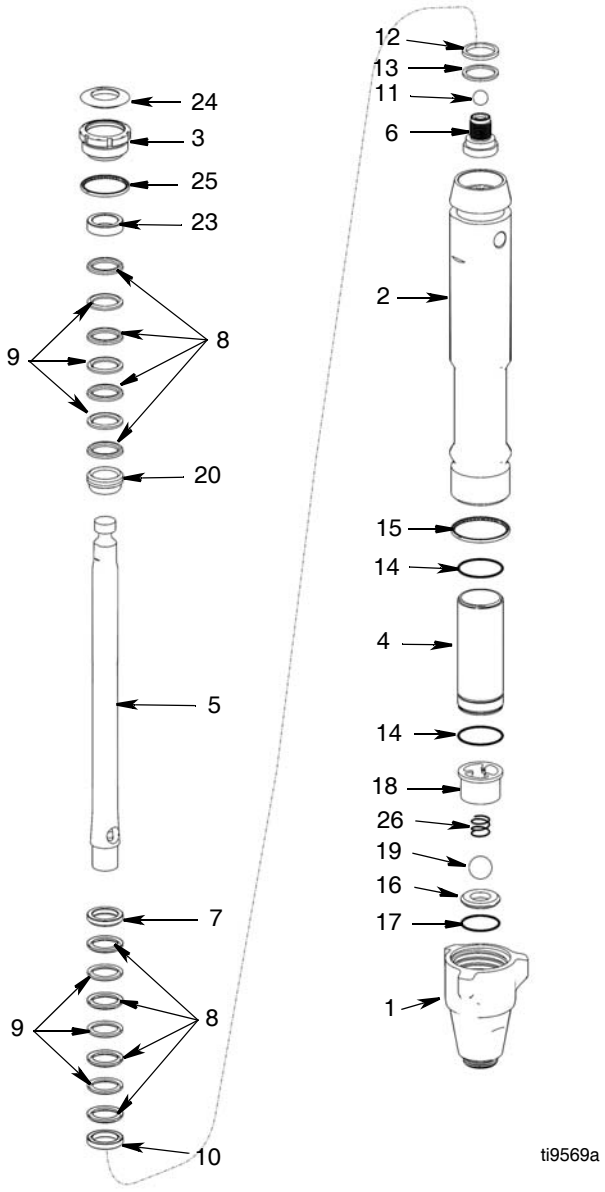
Model 24B748



Ref	Part	Description	Qty
1	195894	HOUSING, intake	1
2	288727	CYLINDER	1
3	193032	NUT, packing	1
4	248210	SLEEVE, cylinder	1
5	288479	ROD, piston	1
6	24U993	VALVE, piston	1
7*	183178	GLAND, packing, male	2
8*		PACKING (blue)	8
9*		PACKING,VEE (brown)	3
10*	183185	GLAND, packing, female	2
11*	101947	BALL, bearing	1
12*	118504	WIPER, piston	1
13*	15C998	WASHER, backup	1
14*	107098	PACKING, o-ring	2
15*	106556	PACKING, o-ring	1
16†	244199	SEAT, carbide	1
17†	108526	PACKING, o-ring	1
18	193027	GUIDE, ball	1
19†*	102972	BALL	1
22*		PACKING,VEE (leather)	3
24*	183171	PLUG	1
25*	C20987	PACKING, o-ring	1
26	15Y463	BUSHING	1
27	196178	FITTING, nipple, 3/8 npt x 3/8 npsm	1

*Included in Repair Kit 288471
†Included in Repair Kit 244199

Model 288819

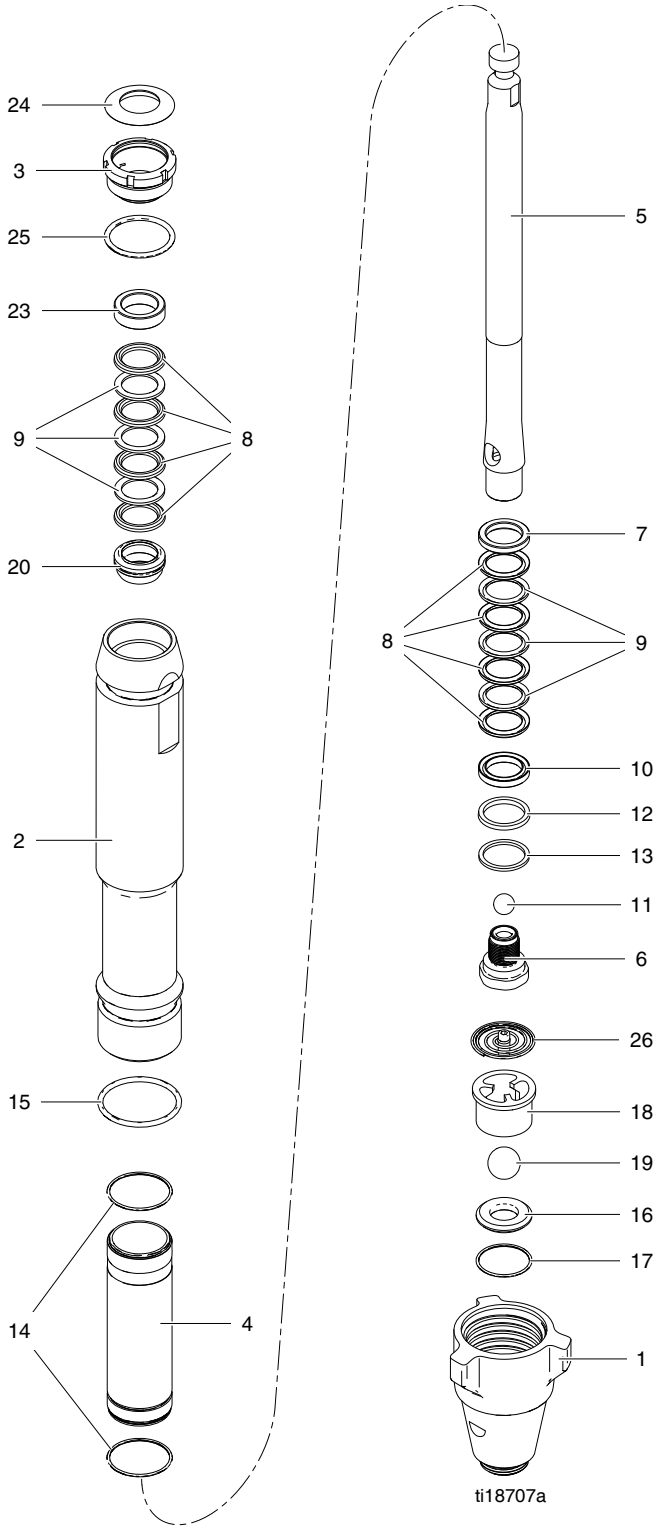


Ref	Part	Description	Qty
1	15A303	HOUSING, intake	1
2	288822	CYLINDER, pump	1
3	15J792	NUT, packing	1
4	248979	SLEEVE, cylinder	1
5	288821	ROD, piston	1
6	249177	VALVE, piston	1
7*	189585	GLAND, packing, male	1
8*		PACKING, vee, blue	8
9*		PACKING, vee, leather	6
10*	198765	GLAND, packing, female	1
11*	118601	BALL, ceramic, 0.5625 dia	1
12*	119636	WIPER, piston	1
13*	15F183	WASHER, backup	1
14*	108822	PACKING, o-ring	2
15*	107306	PACKING, o-ring	1
16†	245885	SEAT, carbide	1
17†*	107098	PACKING, o-ring	1
18	15D158	GUIDE, ball	1
19†*	118602	BALL, ceramic, 0.875 dia	1
20*	15G658	GLAND, packing, male	1
23	15G657	GLAND, female	1
24*	112590	PLUG, throat seal	1
25*	108832	PACKING, o-ring	1
26†	118600	SPRING, compression; optional, not included with pump	1

* Included in Repair Kit 288820

† Included in Repair Kit 245885

Model 24M629



Ref.	Part	Description	Qty.
1	15A303	HOUSING, intake	1
2	24N062	CYLINDER, pump, EH/GH 200/300 DI	1
3	15J792	NUT, packing	1
4	248980	SLEEVE, cylinder, chrome	1
5	288821	ROD, piston	1
6	249177	VALVE, piston	1
7◆	189585	GLAND, packing, male	1
8◆		PACKING, vee, blue	8
9◆		PACKING, vee, leather	6
10◆	198765	GLAND, packing, female	1
11◆	118601	BALL, ceramic, .5625 dia	1
12◆	119636	WIPER, piston	1
13◆	15F183	WASHER, backup	1
14◆	108822	PACKING, o-ring, ptfe	2
15◆	160325	PACKING, o-ring, buna-n	1
16†	15J038	SEAT, carbide	1
17†◆	107098	PACKING, o-ring	1
18	193391	GUIDE, ball	1
19†◆	118602	BALL, ceramic, .875 dia	1
20◆	15G658	GLAND, male	1
23◆	15G657	GLAND, female	1
24◆	112590	PLUG, throat seal	1
25◆	157195	PACKING, o-ring, buna-n	1
26†	24E027	SPRING, intake ball	1

† *Included in Repair Kit 24N013.*

◆ *Includes in Repair Kit 24N012.*

Technical Data

Maximum working pressure	3300 psi, 25 bar, 22.8 MPa
Fluid inlet size	1-5/16 UN (m) models 288467/288468 1-11 1/2 NPSM (M) models 24M629/288819 3/4-14 npt (m) model 24B748
Fluid outlet size	3/8 npt (f)
Wetted parts	stainless steel, PTFE, leather, nylon, zinc-plated carbon steel, tungsten carbide, brass, fluorelastomer, acetal, polyethylene, ceramic

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is 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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For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor or call 1-800-690-2894 to identify the nearest distributor.

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