

Instructions – Parts List



HYDRAULIC POWERED

Agitator

307331 rev.F

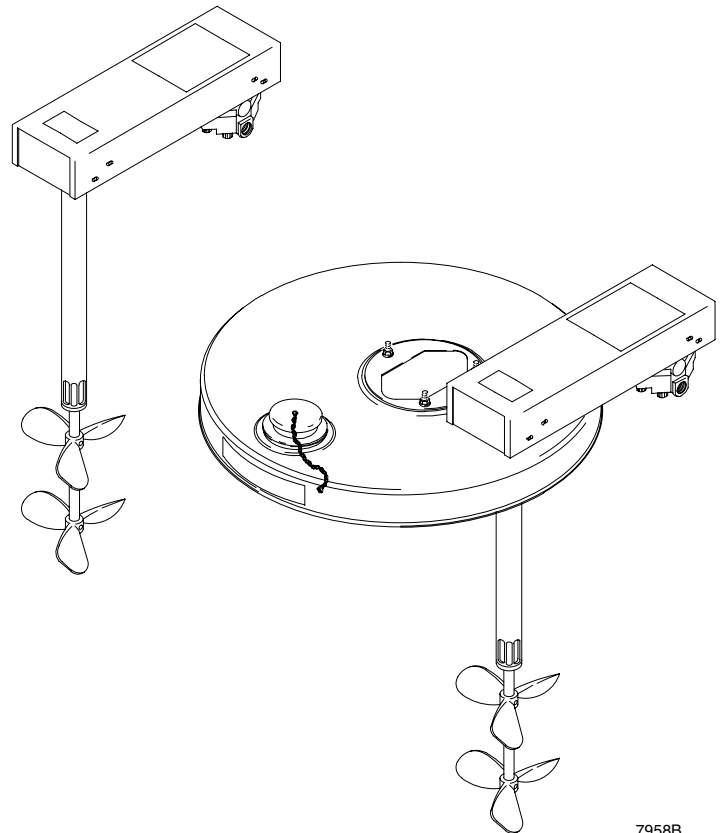
1500 psi (10.5 MPa, 105 bar) Maximum Hydraulic Input Pressure

Model 214853, Series B

Mounts on 55 gal (208 liter) drum cover.



Read warnings and instructions.
See page 2 for table of contents.



7958B

Model 214906, Series A (Reference Only)

Includes Model 214853 and
55 gal (208 liter) drum cover.



0359



II 1/2 G T6
ITS03ATEX11226

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Symbols

Warning Symbol



WARNING

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

Caution Symbol



CAUTION

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 not sure, call your Graco distributor.
- Do not alter or modify this equipment.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated component in your system. This equipment has a **1500 psi (10.5 MPa, 105 bar) maximum working pressure**.
- Use fluids and solvents that 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.
- Always wear protective eyewear, gloves, clothing, and respirator as recommended by the fluid and solvent manufacturer.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.



MOVING PARTS HAZARD

Moving parts, such as the rotating blades of the agitator, can pinch or amputate your fingers or other body parts and can cause splashing in the eyes or on the skin.

- Keep clear of all moving parts when starting or operating the agitator.
- Always shut off the agitator and hydraulic power supply line before you remove the agitator from the drum or check or repair any part of the agitator.

WARNING



INJECTION HAZARD

Spray from the gun, leaks, or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Fluid splashed in the eyes or on the skin can also cause serious injury.

- Fluid injected into the skin might look like just a cut, but it is a serious injury. **Get immediate medical attention.**
- Do not stop or deflect leaks with your hand, body, glove or rag.
- Follow the **Pressure Relief Procedure** on page 7 if the spray tip clogs and before cleaning, checking, or servicing the equipment.
- Tighten all fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn or damaged parts immediately. Do not repair high pressure couplings; you must replace the entire hose.
- Fluid hoses must have spring guards on both ends to help protect them from rupture caused by kinks or bends near the couplings.



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 all equipment. Refer to **Grounding** on page 5.
- If there is any static sparking or you feel an electric shock while using this equipment, **shut off the agitator immediately.** Do not use the equipment until you identify and correct the problem.
- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents, or fluids containing such solvents in aluminum equipment. Such use could result in a serious chemical reaction, with the possibility of explosion.
- Do not use kerosene or other flammable solvents or combustible gases to flush the unit.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvents or the fluid being dispensed.
- Keep the dispensing area free of debris, including solvent, rags, and gasoline.
- Do not smoke in the dispensing area.

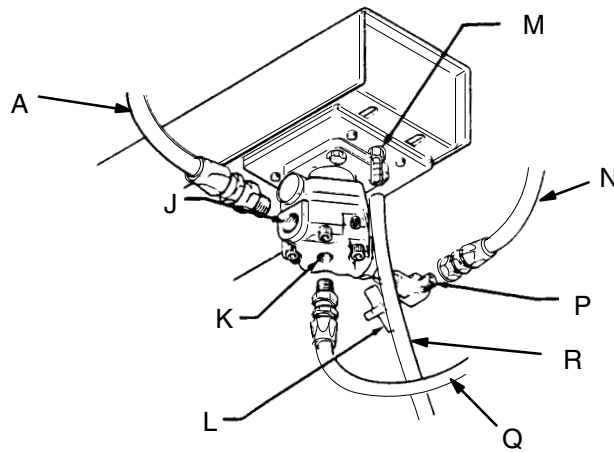
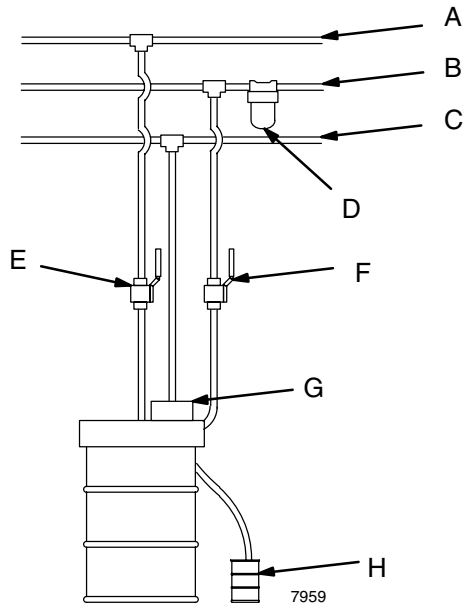
Installation

Typical Installation

KEY

- A** Hydraulic Supply Line
- B** Hydraulic Return Line
- C** Case Drain Line
- D** 10 Micron (minimum) Filter
- E** Supply Line on/off Valve
- F** Return Line on/off Valve
- G** Agitator
- H** Waste Container

- J** 1/2 npt(f) Outlet Port
- K** 7/16-20 SAE-4(f) Case Drain Port
- L** Needle Valve
- M** Weepage Fitting
- N** Hydraulic Supply Line
- P** 1/4 npt(m) Inlet Port
- Q** Case Drain Line to Reservoir
- R** Weepage Line to Waste Container



7960

Installation



WARNING



FIRE AND EXPLOSION HAZARD

Always maintain a minimum of 1 in. clearance between rotating agitator parts and container to prevent sparks from contact.

NOTE: Numbers in parenthesis in the text refer to the Figures and Parts Drawings.

NOTE: The hydraulic supply must have 10 micron filtration and use Graco-approved hydraulic oil.

Remove the screws (7) from the agitator cover (36). Loosen the motor mounting plate screws (1) and slide the motor (16) toward the mixer shaft (34). Remove the belt (18) from the pulleys (19). Remove the pulley from the mixer shaft (34) only. See Fig. 2.

Insert the agitator through the agitator mounting hole on the drum cover. Tilt the agitator from side to side to fit the blades through the hole.

Using the parts provided with the drum cover, attach the agitator base (39) to the drum cover so that the motor mounting plate rests over the side of the drum and the fluid lines can be attached easily without obstructing the drum openings, lines, etc. See Fig. 2 and your separate drum cover manual.

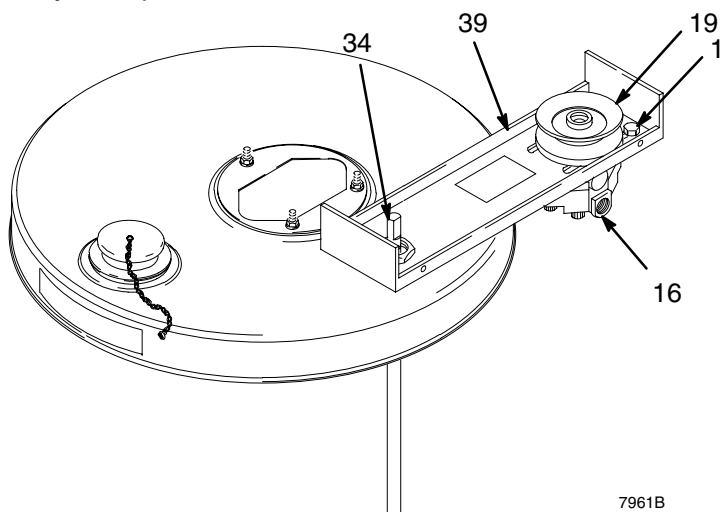


Fig. 1

Reinstall the pulley (19) and the drive belt (18) using a straight edge across the pulley faces to ensure groove alignment and eliminate excessive wear on the belt. Use the hex key wrench (6) to securely tighten the setscrew holding the pulley (19) to the shaft (34). To adjust drive belt tension, slide the motor right or left until the drive belt deflection is about 1/2 in. (13 mm). Tighten the mounting screws (1) and replace the cover (36) and screws (7). See Fig. 1.

Connect a hydraulic supply line to the needle valve (13) and a hydraulic return line to the motor outlet. The case drain must also be connected to a return line to the reservoir. You should use a separate return line for the case drain to minimize hydraulic motor weepage.

The hydraulic lines must be properly sized for your particular application.

Connect a tube to the weepage fitting and route to a waste container.

Grounding

Proper grounding is an essential part of maintaining a safe system.

To reduce the risk of static sparking, the mounting cover and all electrically conductive objects or devices in the dispensing area **must** be properly grounded. Check your local electrical code for detailed grounding instructions for your area and type of equipment.

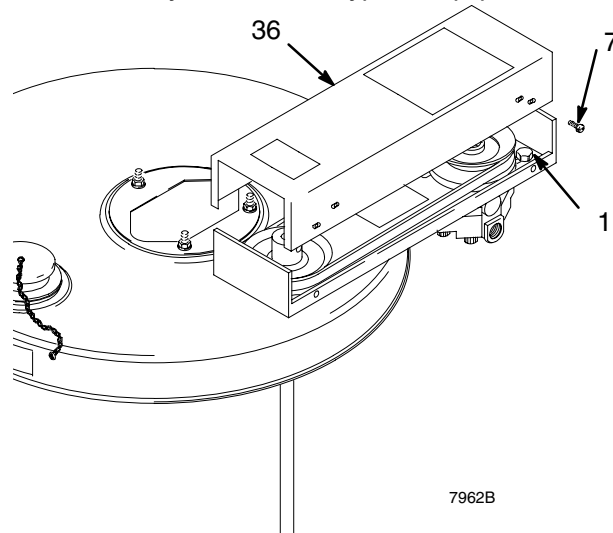


Fig. 2

Operation

⚠ WARNING

To reduce the risk of component rupture, which can result in serious injury, including fluid injection and splashing in the eyes or on the skin, never exceed the 1500 psi (10.5 MPa, 105 bar) hydraulic input pressure of the agitator. Be sure that all equipment on the hydraulic supply and return lines is rated to withstand this maximum fluid pressure.

Open the return line valve and start the agitator by opening the main hydraulic valve and then the needle valve (13). Use the slowest speed needed for thorough agitation. If the agitator runs too fast, paint may foam.

Operate the agitator continuously while supplying paints or other fluids to a system.

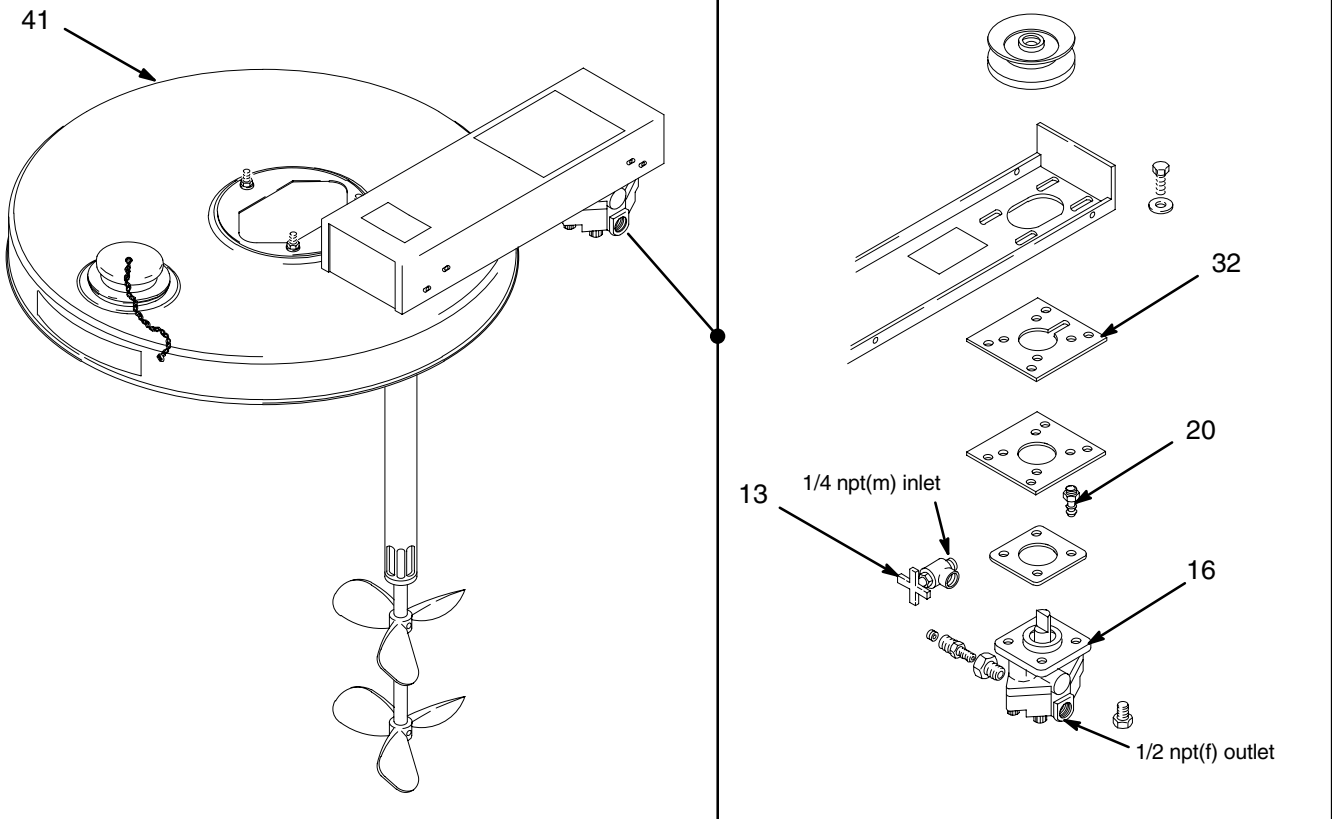
⚠ CAUTION

To stop the agitator, always close the agitator needle valve (13) in the agitator first. Then the hydraulic return line valve may be closed. See Fig. 3 and the Typical Installation on page 4.

Never stop the agitator with the return line valve. It creates static pressure buildup that will cause the shaft seal to fail.

⚠ WARNING

To reduce the risk of pinching or amputating your fingers or other body parts, never operate the agitator with the cover removed. The cover encloses the pulleys and belt which move at high speed. Keep your hands away from the blade when the agitator is operating.



7963B

Fig. 3

Service

Pressure Relief Procedure



WARNING



INJECTION HAZARD

The system pressure must be manually relieved to prevent the system from starting or spraying accidentally. Fluid under high pressure can be injected through the skin and cause serious injury. To reduce the risk of an injury from injection, 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 spray tip.

1. Shut off the main hydraulic supply valve.
2. Close the needle valve on the motor.
3. Shut off the hydraulic return valve.
4. Disconnect the hydraulic lines to the agitator.

If the agitator motor is removed, be sure to reinstall it correctly. To ensure correct mounting, install the weepage fitting (20) on the mounting plate (32) first. Then position the motor (16) so that the inlet port is to the right of the fitting, and the outlet port is to the right of the fitting, and the outlet port is to the left. Secure it in place. The motor cannot be mounted any other way if the weepage fitting is in place. See the Typical Installation.

Check the belt (18) periodically for excessive wear. Adjust the belt tension as explained in Installation on page 4.

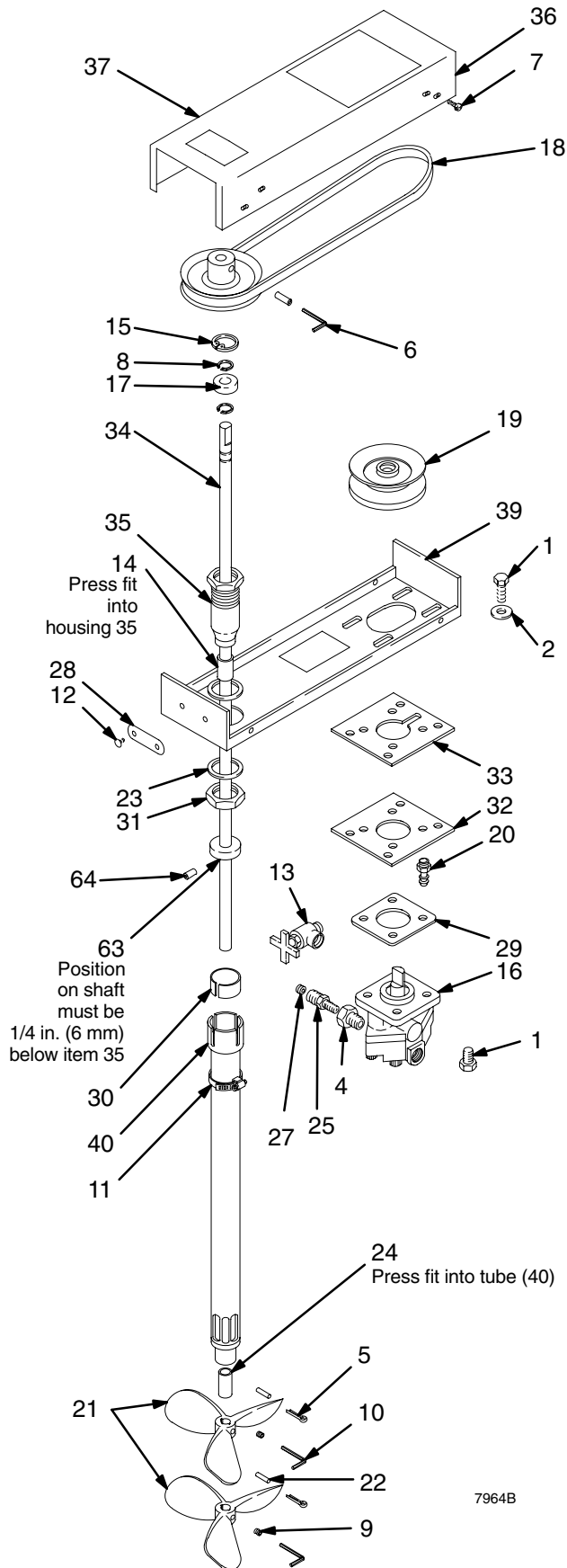
Parts

Model 214853

Includes items 1–40, 63, 64

Model 214906

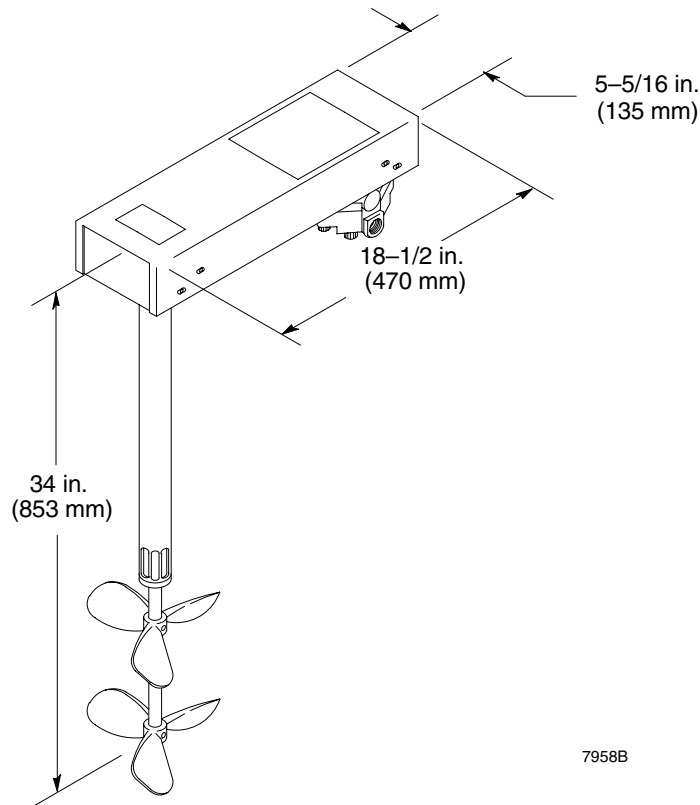
Includes item 1–64



Ref No.	Part No.	Description	Qty.
1	100001	SCREW, hex hd cap; 5/16–16 x 5/8	8
2	100023	WASHER, flat; 3/8	4
4	100206	BUSHING, pipe; 1/2 x 1/4 (npt m x f)	1
5	100579	PIN, cotter; 7/64 dia; 1"	2
6	100633	WRENCH, hex key; for 5/16 setscrew	1
7	100979	SCREW, self-tapping; No. 10–24 x 11/32	4
8	101079	RING, retaining	2
9	101118	SETSCREW, soc hd cup pt No. 10–24 x 1/4	2
10	101369	WRENCH, hex key; for No. 10 setscrew	1
11	101818	CLAMP, tube	1
12	102556	RIVET, blind	2
13	103067	NEEDLE VALVE; 1/4 npt(m x f)	1
14	104391	BEARING, sleeve	1
15	104996	RING, retaining	1
16	104997	MOTOR, hydraulic; gear	1
17	104998	BALL BEARING	1
18*	104999	DRIVE BELT	1
19	105238	PULLEY, v-belt	2
20	152274	STUD (for 1/4 ID weepage tube)	1
21	159854	PROPELLER, agitator	2
22	160077	PIN, shear	2
23	160632	WASHER	2
24	166565	BEARING, PTFE	1
25	168389	NIPPLE, filter; 3/8–24	1
26	171001	LABEL, warning	1
27	172619	RESTRICTOR, flow	1
28	175000	PLATE, designation	1
29	176292	GASKET, motor; hydraulic	1
30	176294	DAMPENER, agitator	1
31	176295	NUT, jam; hex, 1–3/8 ID	1
32	176296	PLATE, mounting	1
33	176297	GASKET, plate mounting	1
34	176300	SHAFT, mixer	1
35	176301	HOUSING, bearing	1
36	176302	COVER, agitator	1
37	176303	LABEL, caution	1
39	214854	BASE, agitator	1
40	214855	TUBE, agitator	1
41	237306	DRUM COVER ASSEMBLY See manual 308466 for parts	1
63	181798	RING, slinger	1
64	102387	SETSCREW, soc hd cup pt; No. 10–32 x 3/8	1

* Recommended "tool box" spare parts. Keep these spare parts on hand to reduce down time.

Dimensions



Technical Data

Output Horsepower Rating	0.5 hp (0.23 kW) at 1200 rpm and 750 psi (10.5 MPa, 105 bar)
Theoretical Output Torque Rating	3.04 in-lb (0.4 N•m) per 100 psi (0.7 MPa, 7 bar)
Fluid Consumption	0.84 gpm (1.1 l/min) at 750 rpm and 2300 psi (10.5 MPa, 105 bar)
Inlet Port Size	1/4 npt(m)
Return Port Size	1/2 npt(f)
Case Drain Port Size	7/16-20 SAE-4(f)
Maximum Working Pressure	1500 psi (10.5 MPa, 105 bar)
Wetted Parts	Carbon Steel, PTFE, Aluminum

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

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

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

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

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

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

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

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Graco Information

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

1-800-328-0211 Toll Free

612-623-6921

612-378-3505 Fax

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PRINTED IN USA 307331 11/1978, Revised 05/2004