Instructions – Parts List

Parts

2.5 HP (1865 W) AIR MOTOR DRIVEN

Outboard Agitator

306426F

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

Model 225883, Series B
Clamps to side of open 55 gallon drum

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

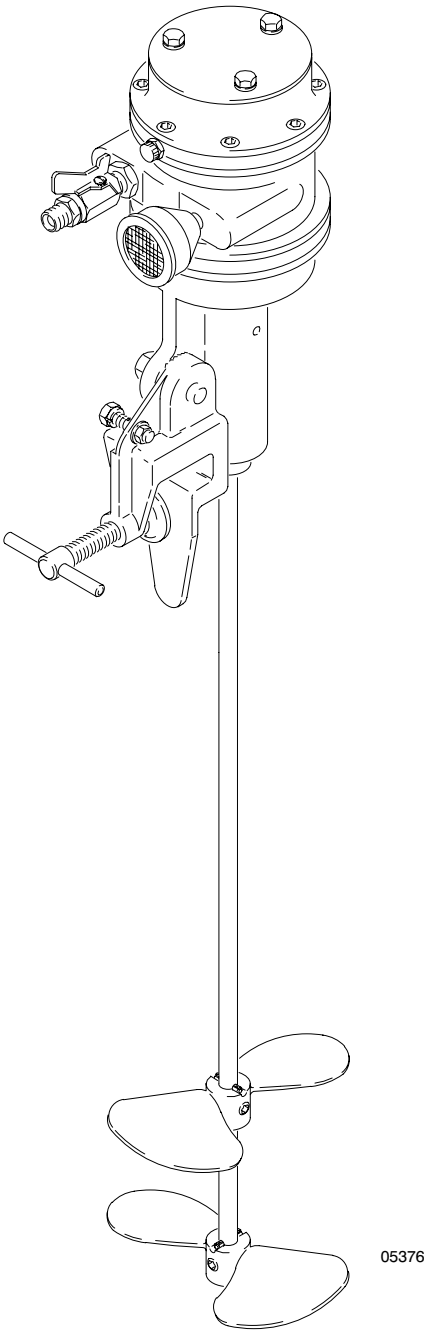

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Table of Contents

Warnings 2
Installation 4
Operation 5
Service 6
Parts 7
Technical Data 8
Air Consumption Chart 8
Warranty 10
Graco Information 10

PROVEN QUALITY. LEADING TECHNOLOGY.

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440–1441

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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 Graco Technical Assistance at 1–800–543–0339.
- 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 **100 psi (0.7 MPa, 7 bar) maximum working pressure.**
- 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.
- Do not use 1,1,1–trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents with this equipment. Such use could result in a serious chemical reaction, with the possibility of explosion.
- Always wear protective eyewear, gloves, clothing and respirator as recommended by the fluid and solvent manufacturer.
- Keep face away from the exhaust port.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.

⚠ WARNING

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.

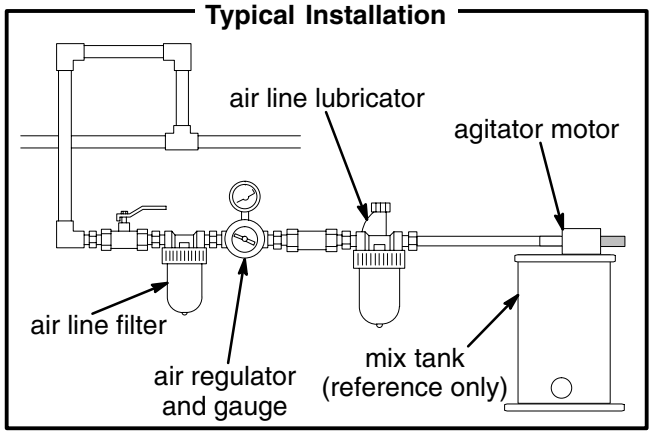
- Ground the equipment and the object being sprayed. Refer to **Grounding** on page 4.
- If there is any static sparking or you feel an electric shock while using this equipment, **stop spraying immediately.** Do not use the equipment until you identify and correct the problem.
- Do not drive this equipment with combustible gases.
- Do not use kerosene or other flammable solvents.
- 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.
- Before operating this equipment, electrically disconnect all equipment in the spray area.
- Before operating this equipment, 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 spraying or while there are any fumes in the air.
- Do not operate a gasoline engine in the spray area.
- Keep a fire extinguisher in the work area.

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 disconnect the air line before adjusting the angle of the agitator, removing the agitator from the drum or checking or repairing any part of the agitator.

Installation



NOTE: Reference numbers and letters in parentheses in the text refer to the Parts Drawing, Fig. 1 and Fig. 2.

Grounding

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

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

To ground the agitator:

Connect one end of the ground wire (A) to the agitator's ground connector (B). See Fig. 1. Connect the other end of the ground wire to a true earth ground. Order Part No. 237569, Ground Wire and Clamp.

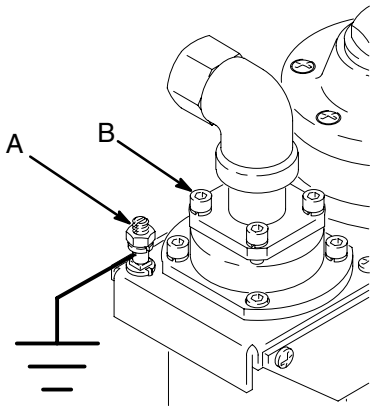


Fig. 1

Air Requirements

At 500 rpm and 20 psi (1.4 bar), the agitator air motor requires 22 cfm (0.65 m^3/min.) of air. Air consumption increases as the speed and air pressure is increased. See the graph on page 8.

Preparing the Agitator for Use (See Fig. 2)

On the air line, install an **air line filter** to remove harmful dirt and moisture from the compressed air supply. Order Part No. 106148, 3/8 npt(f) or 106149, 1/2 npt(f).

⚠ CAUTION

Not lubricating the air motor will cause air motor failure.

Downstream from the filter, install an air line lubricator for automatic air motor lubrication. Set the lubricator feed rate at 1 drop of oil per minute for high speed or continuous duty usage. Do not overfeed oil or exhaust air may become contaminated. To manually lubricate the air motor, see **Lubricating the Air Motor** below. *To order a 3/8" npt air line lubricator, order Part No. 214847.*

Mount the agitator on the edge of the drum or tank and securely tighten the clamp screw (2). To adjust the angle of the agitator in the drum, loosen the bracket screw (4). Adjust the agitator to the desired angle, then retighten the screw securely.

Connect the air supply hose between the 3/8 npt(m) ball valve (1) and the air supply line.

Operation

Operating the Agitator

Open and adjust the ball valve (1) until the motor is running at the lowest speed needed to thoroughly agitate the fluid. Excessive agitator speed may cause the paint to foam.

If heavy or caked material in the center of the container is not being agitated, shut off the agitator and disconnect the air hose from the ball valve (1). Loosen the screw (4) and adjust the angle of the agitator shaft (18).

Lubricating the Bearing

During continuous operation, lubricate the bearing (10) every week by injecting several drops of light lubricating oil into the hole (F) in the motor support (19). See Fig. 2.

Cleaning the Shaft

Each week, clean any dried fluid from around the bearing (10) and motor support (19) area of the shaft (18).

Lubricating the Air Motor

⚠ CAUTION

Not lubricating the air motor will cause air motor failure.

If an air line lubricator is not installed, the air motor must be manually lubricated every 8 hours. Lubricate the agitator air motor by placing 10–20 drops of SAE #10 light oil in the motor's air inlet. Run the agitator for about 30 seconds.

Service

Servicing

If the unit requires more than installation of a service kit, it is usually quicker and least expensive to send the unit in for repair.

⚠ WARNING

- To prevent explosive hazard do not drive this air motor with combustible gases. Injury and/or property damage can result.
- **Do not use kerosene or other combustible solvents.**
- Eye protection is **required.**
- Keep face away from exhaust port and do not flush unit with flammable solvent.
- Foreign material exiting the air motor can be hazardous.

⚠ CAUTION

Do not drive the air motor in excess of the recommended speeds.

Flushing

If the motor is sluggish or inefficient, try flushing with solvent.

The recommended solvent for air motors and lubricated pumps is Gast Flushing Solvent, Gast Part No. AH255 or AH255A, Loctite Safety Solvent, or Inhibisol Safety Solvent.

1. To flush a unit, disconnect air line and muffler (E).
2. Add several teaspoons or spray solvent directly into the motor.
3. Rotate the shaft by hand in both directions for a few minutes.
4. Reconnect the air line and slowly apply pressure until there is no trace of solvent in the exhaust air.
5. Flush the unit in a well ventilated area.
6. Re-lubricate the motor with a squirt of oil in the chamber.

NOTE: If the vanes need replacing or foreign material is present in the motor chamber, an experienced mechanic may remove the end plate opposite the drive shaft end. Do not pry with a screwdriver. It will dent the surface of the plate and body, causing leaks.

A puller tool should be used which will remove the end plate while maintaining the position of the shaft. New vanes should have the edge with the corners cut on angle or the notched edge (if reversible) toward the bottom of the vane slot.

NOTE: If the air motor still doesn't operate properly, contact a Graco distributor. Do not try to repair the air motor yourself.

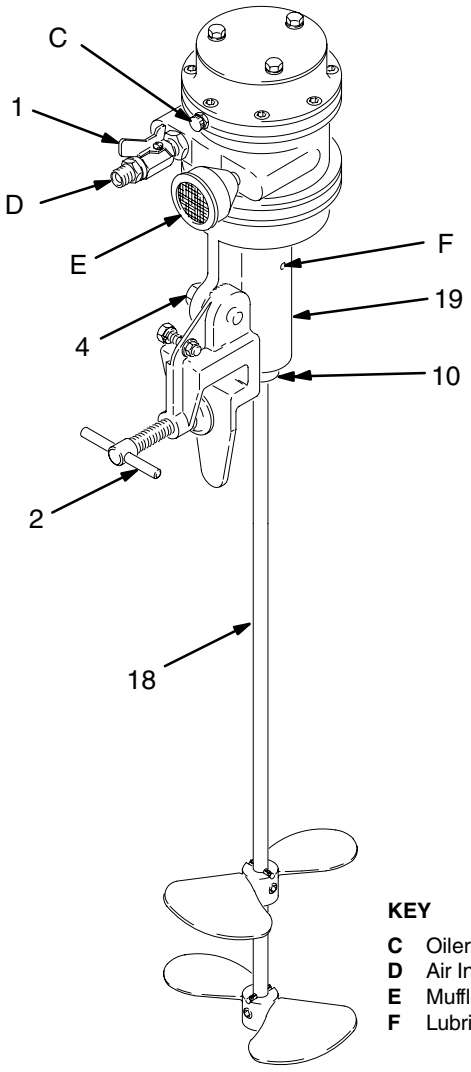
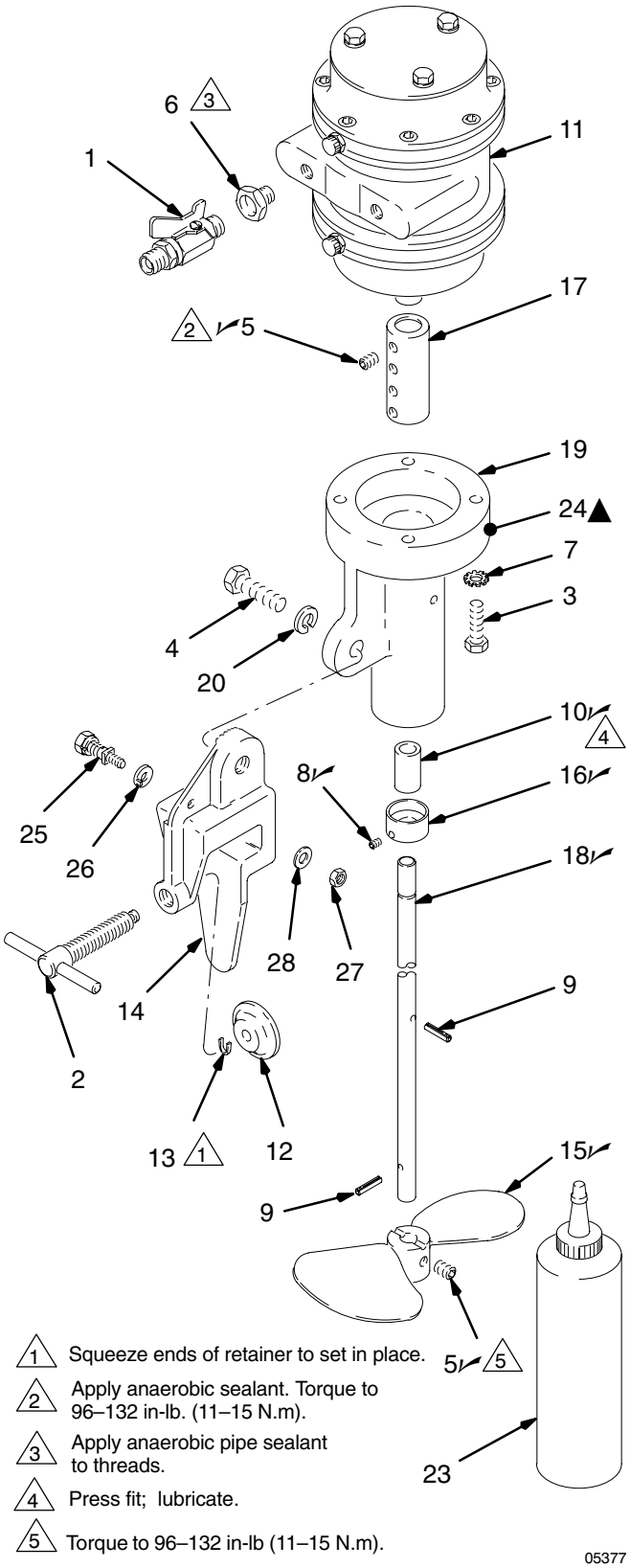


Fig. 2 05376

Parts



1 Squeeze ends of retainer to set in place.

2 Apply anaerobic sealant. Torque to 96–132 in-lb. (11–15 N.m).

3 Apply anaerobic pipe sealant to threads.

4 Press fit; lubricate.

5 Torque to 96–132 in-lb (11–15 N.m).

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Model 225883

Carbon Steel Agitator for 55 gallon drum

Ref. No.	Part No.	Description	Qty.
1	208393	BALL VALVE; See 307068 for service	1
2	203399	SCREW, clamp	1
3	100003	SCREW, hex hd cap; 3/8-16 x 1-1/2”	4
4	100017	SCREW, hex hd cap; 1/2-13 x 1-1/2”	1
5✓	100053	SCREW, soc hd set; 5/16-18 x 1/4”	5
6	100081	BUSHING, hex pipe; 1/2 x 3/8 npt	1
7	100639	LOCKWASHER, ext shkprf; 3/8”	4
8✓	101118	SCREW, soc hd set; #10-24 x 1/4”	1
9	101349	PIN, roll; 0.16” (4.0 mm) dia; 0.875” (22.2 mm) long	2
10✓	104391	BEARING, sleeve	1
11	101487	MOTOR, air	1
12	159056	PAD, clamp screw	1
13	159057	RETAINER, pad	1
14	159864	MOUNTING, agitator	1
15✓	159703	PROPELLER, agitator	2
16✓	159704	CUP, bearing protector	1
17	159705	COUPLING	1
18✓	159706	SHAFT, agitator	1
19	159707	SUPPORT, motor	1
20	100018	LOCKWASHER, spring; 1/2”	1
21	101369	WRENCH, hex; for #10 set screw (not shown)	1
22	100633	WRENCH, hex; for 5/16” set screw (not shown)	1
23	202659	OIL, air motor; 1 pint (0.47 liter)	1
24▲	290152	LABEL, warning	1
25	104029	LUG, grnd	1
26	104582	WASHER, tab	1
27	110911	NUT, hex, M5	1
28	100718	WASHER, star	1

✓ *Keep these spare parts on hand to reduce down time.*

▲ *Replacement Danger and Warning labels, tags and cards are available at no cost.*

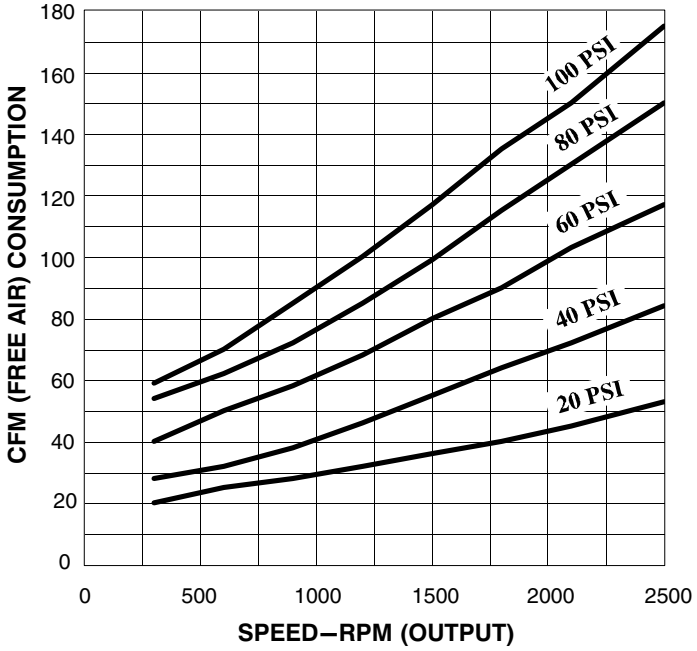
Technical Data

Maximum Working Pressure	100 psi (7 bar)
Motor Power Rating	2.5 HP (1865 W)
Overall Length	42.125 in. (1069.9 mm)
Weight	36 lb (16.3 kg)
Wetted Parts	Aluminum, Carbon Steel, Iron
Air Consumption	See graph below
*Noise Level @ 100 psi normal load	
@ 800 rpm: Pressure	74.3 dB(A)
Power	87.4 dB(A)
*Noise Level @ 100 psi @ no load	
@ max rpm: Pressure	80.4 dB(A)
Power	92.2 dB(A)

*Tested to CAGI-PNEUROP–1969

Air Consumption

NOTE: *Graphed lines show air inlet pressure.*



Notes

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.

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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MM 306426

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PRINTED IN USA 306840 05/1964, Revised 05/2005