Instructions - Parts List



Mini Fire-Ball[®] 225, 50:1 Grease Pump Packages

309967A

Portable units for dispensing heavy grease.

See page 2 for model numbers.

5000 psi (34 MPa, 345 bar) Maximum Working Pressure 100 psi (0.7 MPa, 7 bar) Maximum Air Working Pressure

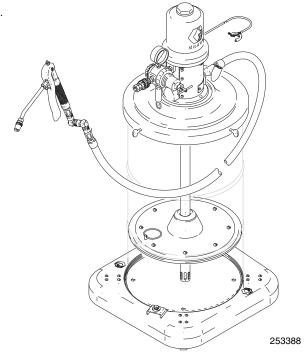


Important Safety Instructions

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

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Model 253388 shown

PROVEN QUALITY. LEADING TECHNOLOGY.





Models

Model No.	Size	Dispense Kit 236058	Hose/Fitting Kit 222072	Base Type	Cover	Follow Plate	Handle	Pail	CE Kit 240979
246910	35-50 lb (16-23 kg)	V			222059	220653	~		
253384†	35-50 lb (16-23 kg)	V			222059	220653	~		~
253362	35-50 lb (16-23 kg)	V			222059	220653			
246911	35-50 lb (16-23 kg)	V			204574		~	~	
253385†	35-50 lb (16-23 kg)	V			204574		~	~	~
246913	35-50 lb (16-23 kg)	~		2-wheel truck	204574		~	~	
253386†	35-50 lb (16-23 kg)	V		2-wheel truck	204574		~	~	~
246914	120 lb (55 kg)		~		204574	220654			
253387†	120 lb (55 kg)		~		204574	220654			~
246915	120 lb (55 kg)	V		portable	204574	220654			
253388†	120 lb 55 kg)	V		portable	204574	220654			~
246916	120 lb (55 kg)	V		2-wheel truck	204574	220654			
253389†	120 lb (55 kg)	~		2-wheel truck	204574	220654			~
246917	400 lb (180 kg)		~		200326	223845			
253390†	400 lb (180 kg)		~		200326	223845			~

[†] These models are CE certified.

Warnings

The following general warnings are for the setup, use, grounding, maintenance, and repair of this equipment. Additional, more specific warnings may be found throughout the body of this manual where applicable. Symbols appearing in the body of the manual refer to these general warnings. When these symbols appear throughout the manual, refer back to these pages for a description of the specific hazard.

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 Graco replacement parts only.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your Graco 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.



SKIN INJECTION HAZARD



High-pressure fluid from dispense valve, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**



- Do not point dispense valve at anyone or at any part of the body.
- Do not put your hand over the end of the dispense nozzle.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow **Pressure Relief Procedure** in this manual, when you stop dispensing and before cleaning, checking, or servicing equipment.



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.

WARNING



FIRE AND EXPLOSION HAZARD

When flammable fluids are present in the work area, such as gasoline and windshield wiper fluid, be aware that flammable fumes can ignite or explode. To help prevent fire and explosion:

- · Use equipment only in well ventilated area.
- Eliminate all ignition sources, such as cigarettes and portable electric lamps.
- Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline.
- Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.
- Ground all equipment in the work area.
- Use only grounded hoses.
- If there is static sparking or you feel a shock, **stop operation immediately.** Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.



TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read MSDS's to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.



PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:

- Protective evewear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- · Hearing protection

Operation/Service

Refer to pump manual 309966 (supplied) for operating and service instructions.

Installation

General Information

Reference numbers and letters in parentheses in the text refer to the callouts in the figures and parts drawing.

Always use genuine Graco parts and accessories, available from your Graco distributor.

Air Line Accessories

See page 6 for recommended air accessories and installation.

Grounding



To reduce the risk of static sparking, ground the pump and all other components used or located in the dispensing area. Check your local electrical code for detailed instructions for your area and type of equipment.

Ground this equipment:

Pump: remove the ground screw (Z) and insert through the eye of the ring terminal at end of ground wire (Y). Fasten the ground screw back onto the pump and tighten securely. Connect the other end of the ground wire to a true earth ground. See Fig. 1. *To order a ground wire and clamp, order Part No. 222011.*

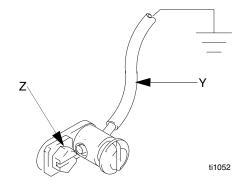


Fig. 1

Air and fluid hoses: use only grounded hoses.

Air compressor: follow manufacturer's recommendations.

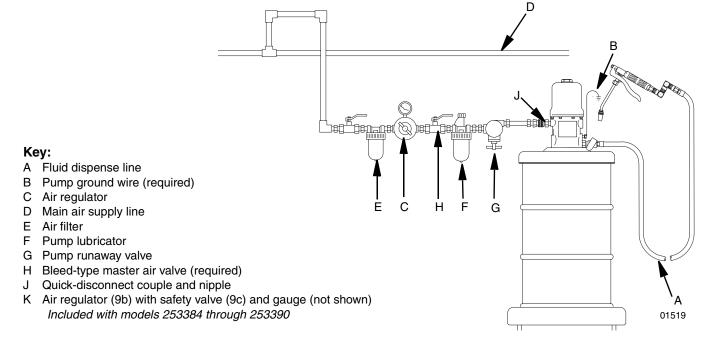
Dispense valve: ground through connection to a properly grounded fluid hose and pump.

Fluid supply container: follow local code.

To maintain grounding continuity when flushing or relieving pressure: hold metal part of the dispense valve firmly to the side of a grounded metal pail, then trigger the valve.

Typical Installation

The installation shown below is only a guide for selecting and installing system components and accessories. Contact your Graco distributor for assistance in designing a system to suit your particular needs.



Air Line and Accessories

Install air line accessories in the order shown in the Typical Installation illustration.



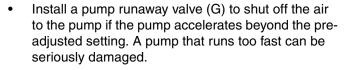












- Install an air line lubricator (F) for automatic air motor lubrication.
- Install a bleed-type master air valve (H) to relieve air trapped between the valve and the motor when the valve is closed.



Trapped air can cause the air motor to cycle unexpectedly, causing serious injury if you are adjusting or repairing the pump. Be sure to follow the **Pressure Relief Procedure** on page 11.

- Install the air regulator (C) to control pump speed and pressure.
- On the main air supply line from the compressor, install an air line filter (E) to remove harmful dirt and contaminants fro the compressed air supply.
- For models 253384 through 253390, install the provided air regulator/safety valve (K) at the pump air inlet with the nipple (9a, also included).

Avoid hanging air accessories directly on the pump air inlet. The fittings are not strong enough to support the accessories and may cause one or more to break. If accessories must be installed directly on the pump, provide a bracket on which to mount them.

Models 246910, 253362, and 253384 (Fig. 2)

- 1. Remove the cover from the pail, and scoop the lubricant from the center to the sides of the pail to make its surface concave.
- 2. Center the follow plate (5) in the pail opening. Press the plate firmly downward and rotate it over the lubricant surface to eliminate air pockets and prevent channeling.
- 3. Insert the pump through the cover (4a) and slide the cover up far enough to let the pump pass easily

- through the follow plate grommet. The pump stop plate(4b) will secure the pump in place.
- 4. Place the cover (4a) on the pail, and tighten the thumbscrews (4f).
- 5. Assemble the gun (2b) and hose (2a), and connect the hose to the pump fluid outlet.
- 6. Connect the nipple (2d) to the pump air inlet or air regulator (9b) inlet, whichever is applicable. Connect the quick–disconnect coupler (2c) to the air supply hose.

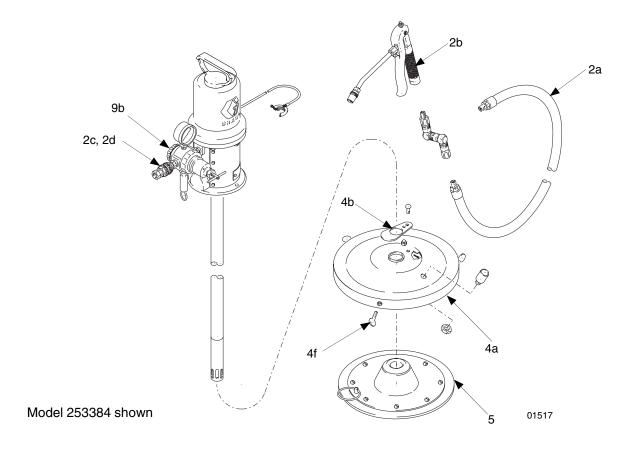
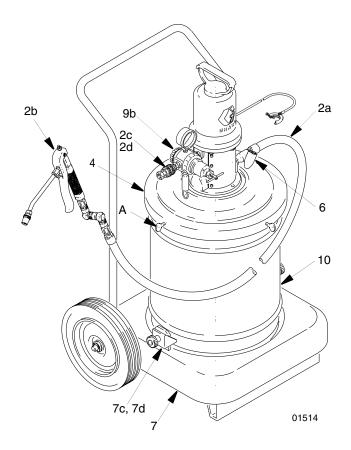


Fig. 2

Models 246911, 246913, 253385 and 253386 (Fig. 3)

- 1. Remove the fluid outlet adapter included with the pump, and screw the holster (6) into the pump outlet using thread sealant.
- 2. Models 246913 and 253386: Assemble the truck (7) as shown in the parts drawing on page 17. Secure the truck pail (10) to the truck base with the pointed clamps (7d) and thumbnuts (7c).
- 3. Remove the cover from the pail of lubricant. Place the pail of lubricant into the truck pail.

- 4. Secure the cover (4) on the pail with the three thumbscrews (A).
- 5. Insert the pump riser tube through the top of the cover (4). Lower the pump until it rests on the cover.
- 6. Assemble the gun (2b) and hose (2a), and connect the hose to the pump fluid outlet.
- 7. Connect the nipple (2d) to the pump air inlet or air regulator (9b) inlet, whichever is applicable. Connect the quick-disconnect coupler (2c) to the air supply hose.

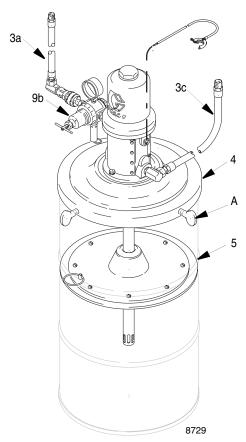


Model 253386 shown

Fig. 3

Models 246914, 246917, 253387 and 253390 (Fig. 4 and Fig. 5)

- 1. Remove the cover from the pail, and scoop the lubricant from the center to the sides of the pail to make its surface concave.
- Center the follow plate (5) in the pail opening. Press the follow plate firmly downward and rotate it over the lubricant surface to eliminate air pockets and prevent channeling.
- 3. Place the cover (4) on the pail ant tighten the thumbscrews (A).
- 4. Connect the swivel adapter to the pump fluid outlet. Connect fluid hose (3c) to the swivel adapter. Connect a suitable dispense valve.
- 5. Connect the swivel adapter to the pump air inlet or air regulator (9b), whichever is applicable. Connect the air hose (3a) to the swivel. Connect the air hose to the air accessories.



Model 253387 shown

Fig. 4

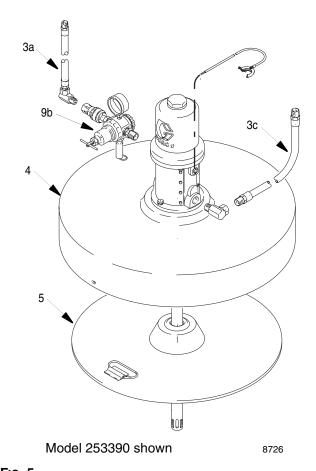


Fig. 5

309967A S

Models 246915, 246916, 253388 and 253389 (Fig. 6)

1. For Models 246915 and 253388: Assemble the portable base (8) as shown in the parts drawing on page 17

For Models 246916 and 253389: Assemble the truck (7) as shown in the parts drawing on page 17.

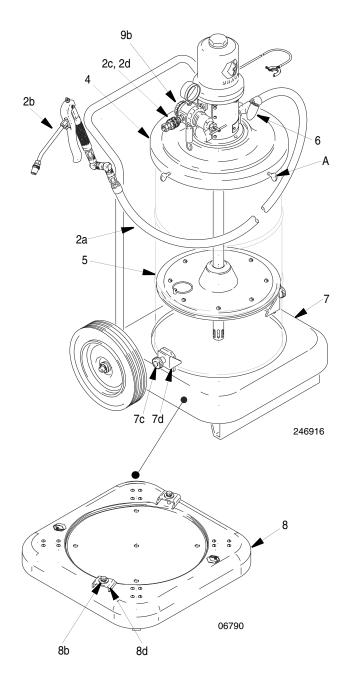
- 2. Remove the fluid outlet adapter included with the pump, and screw the holster (6) into the pump outlet, using thread sealant.
- 3. Place an open 120-lb drum of grease on the mounting base or truck, and secure it with hold-down clamps (7d or 8d).

For Models 246915 and 253388: Use pointed end of clamps (8d) for steel drums only. Position the clamp above the drum bead. Tighten bolts (8b). Reverse clamps (8d) to use the flat end for fiber drums.

For Models 246916 and 253389: Use pointed end of clamps (7d) for steel drums only. Position the clamp above the drum bead. Tighten the thumbnuts (7c).

- 4. Press the follow plate (5) down firmly onto the grease, and rotate it to eliminate air pockets and reduce channeling. Insert the pump through the cover (4). Slide the cover up far enough to let the pump pass easily through the follow plate grommet.
- Secure the cover on the drum with the thumbscrews

 (A). It is not necessary to bolt the pump to the cover.
- 6. Assemble the gun (2b) and hose (2a), and connect the hose to the pump fluid outlet.
- 7. Connect the nipple (2d) to the pump air inlet or air regulator (9b) inlet, whichever is applicable. Connect the quick–disconnect coupler (2c) to the air supply hose.



Model 253389 shown

Fig. 6

Operation

Pressure Relief Procedure









- 1. Shut off the air to the pump.
- 2. Bleed off the air pressure by closing the air regulator (self-relieving type), or closing the bleed-type master air valve installed upstream of the air regulator, or disconnecting the air supply hose at the quick-disconnect.
- 3. Hold a metal part of the gun or valve firmly to the side of a grounded metal waster container and trigger to relieve fluid pressure.

Start-up: Single or Multiple Pump Systems

- Close the air regulators and bleed-type master air valves to all but one pump.
- 2. Open the master air valve from the compressor.
- 3. For the pump which is connected, trigger the dispensing valve into a grounded metal waste container, making firm metal-to-metal contact between the container and valve. Open the bleed-type master air valve, and open the pump air regulator slowly until the pump is running. When the pump is primed and all air has been pushed out of the lines, release the trigger.
- 4. If you have more than one pump, repeat this procedure for each pump.
 - When the pump is primed, and with sufficient air supplied, the pump starts when the dispensing valve is opened and shuts off when it is closed.
- 5. Set the air pressure to each pump at the lowest pressure needed to get the desired results.

A pump runaway valve can be installed on the air line to automatically shut off the pump if it starts to run too fast.

Never allow the pump to run dry of the fluid being pumped. A dry pump will quickly accelerate to a high speed, possibly damaging itself. If the pump accelerates quickly or is running too fast, stop it immediately and check the fluid supply. If the supply container is empty and air has been pumped into the lines, prime the pump and lines with fluid, or flush it and leave it filled with a compatible solvent. Be sure to eliminate all air from the fluid system





The maximum working pressure of each pump in your system may not be the same. To reduce the risk of over-pressurizing any part of your system, be sure you know the maximum working pressure rating of each pump and its connected components. Never exceed the maximum working pressure of the lowest rated component connected to a particular pump.

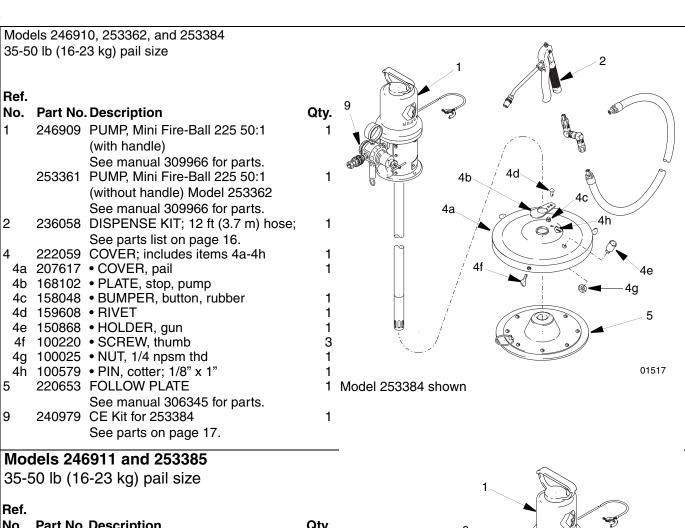
To determine the fluid output pressure using the air regulator reading, multiply the ratio of the pump by the air pressure shown on the regulator gauge. For example:

- 50:(1) ratio x 100 psi air = 5000 psi fluid output
- 50:(1) ratio x 0.7 MPa air = 35 MPa fluid output
- 50:(1) ratio x 7 bar air = 350 bar fluid output

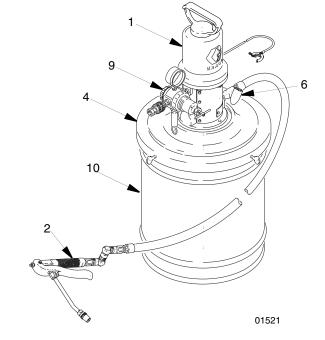
Limit the air to the pump so that no air line or fluid line component or accessory is overpressurized.

- 6. Read and follow the instructions supplied with each component in the system.
- 7. When shutting off the system, always follow the Pressure Relief Procedure.

Parts



No.	Part No	. Description	Qty.
1	246909	PUMP, Mini Fire-Ball 225 50:1	1
2	236058	See manual 309966 for parts. DISPENSE KIT; 12 ft (3.7 m) hose;	1
4	204574	See parts list on page 16. COVER	1
6	203976	See manual 306345 for parts. HOLSTER	1
9	240979	CE Kit for 253385	1
10	204134	See parts on page 17. PAIL	1
1			



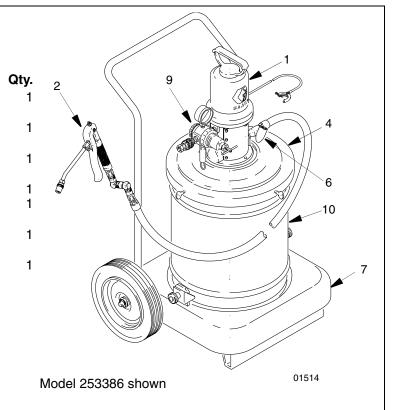
Model 253385 shown

Models 246913 and 253386

35-50 lb (16-23 kg) pail size

Ref. No. Part No. Description

-		
1	246909	PUMP, Mini Fire-Ball 225 50:1
		See manual 309966 for parts.
2	236058	DISPENSE KIT; 12 ft (3.7 m) hose;
		See parts list on page 16.
4	204574	COVER
		See manual 306345 for parts.
6 7	203976	HOLSTER
7	203650	TRUCK, 2-wheel;
		See parts list on page 17.
9	240979	CE Kit for 253386
		See parts on page 17.
10	204134	PAIL
1		

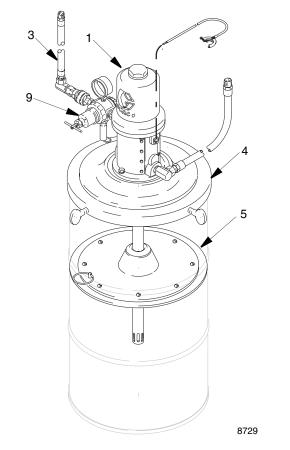


Models 246914 and 253387

120 lb (55 kg) drum size

Ref.

No.	Part No	. Description	Qty.
1	246780	PUMP, Mini Fire-Ball 225 50:1	1
3	222072	See manual 309966 for parts. Hose and Fitting Kit; 6 ft (1.8 m)	1
4	204574	hose; See parts list on page 16. COVER	1
5	220654	See manual 306345 for parts. FOLLOW PLATE	1
9	240979	See manual 306345 for parts. CE Kit for 253387 See parts on page 17.	1

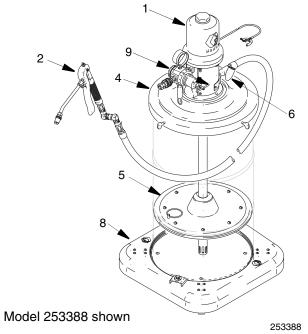


Model 253387 shown

Models 246915 and 235388

120 lb 55 kg) drum size

Part No	. Description	Qty.
246780	PUMP, Mini Fire-Ball 225 50:1	1
236058		1
204574	COVER	1
220654	FOLLOW PLATE	1
	HOLSTER	1
203622	•	1
240979		1
	246780 236058 204574 220654 203976 203622	236058 DISPENSE KIT; 12 ft (3.7 m) hose; See parts list on page 16. 204574 COVER See manual 306345 for parts. 220654 FOLLOW PLATE See manual 306345 for parts. 203976 HOLSTER 203622 PORTABLE BASE; See parts list on page 17. 240979 CE Kit for 235388

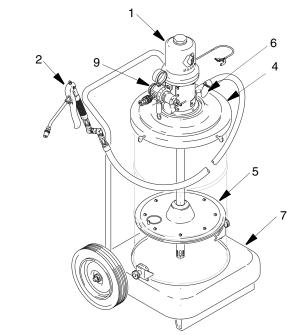


Models 246916 and 253389

120 lb 55 kg) drum size

Ref.

Part No	. Description	Qty.
246780	PUMP, Mini Fire-Ball 225 50:1	1
236058		1
204574	COVER	1
220654	FOLLOW PLATE	1
	HOLSTER	1
203650	•	1
240979		1
	246780 236058 204574 220654 203976 203650	236058 DISPENSE KIT; 12 ft (3.7 m) hose; See parts list on page 16. 204574 COVER See manual 306345 for parts. 220654 FOLLOW PLATE See manual 306345 for parts. 203976 HOLSTER 203650 TRUCK, 2-wheel; See parts list on page 17. 240979 CE Kit for 253389



Model 253389 shown

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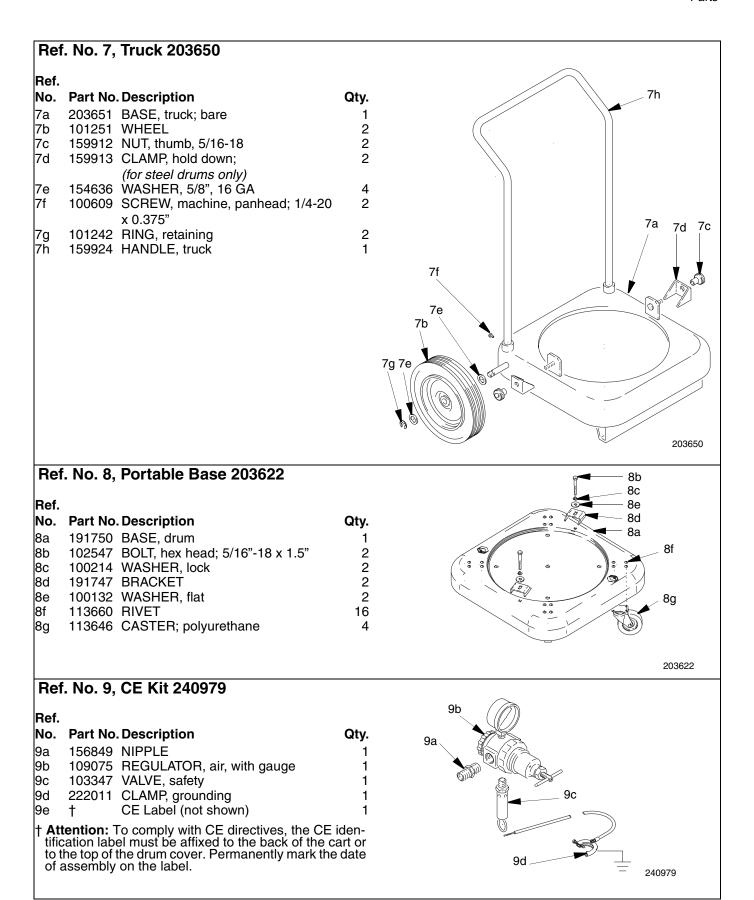
Models 246917 and 253390 400 lb (180 kg) drum size Ref. No. Part No. Description Qty. 246781 PUMP, Mini Fire-Ball 225 50:1 1 See manual 309966 for parts. 222072 Hose and Fitting Kit; 6 ft (1.8 m) 1 hose; See parts list on page 16. 200326 COVER 1 See manual 306345 for parts. 223845 FOLLOW PLATE 1 See manual 306345 for parts. 240979 CE Kit for 253389 See parts on page 17. 5 lod 8726 Model 253390 shown

Ref. No. 2, Dispense Kit 236058 2b Ref. Qty. No. Part No. Description 109151 HOSE; 1/4 npt(mbe) x 12 ft (3.7 m) 2a 1 242056 VALVE, grease dispense 2b 1 See manual 309032 114558 COUPLER, quick-disconnect 2c 1 2d 169971 NIPPLE, quick-disconnect 1 202577 Z-SWIVEL 2e 1

Ref. No. 3, Hose and Fitting Kit 222072

_	,				
Ref. No.	Part No	. Description	Qty.		
		-	~y.	3b 😭	63
3а	203320	HOSE; air, buna-N; 3/8 npt(mbe) x 6	1	30	
		ft (1.8 m)			
2h	155404	` '	4		<u></u>
3b	155494	UNION, 90°; 3/8 npt(m) x 3/8	J		<u> </u>
		npsm(f) swivel			\Box
3с	109150	HOSE; fluid, buna-N; 1/4 npt(mbe) x	1	√ ∞	
			•	20	
		6 ft (1.8 m)		3a´	~ ·
3d	155541	UNION, 90°; 1/4 npt(m) x 1/4	1		<u> </u>
		npsm(f) swivel		$\overline{\Box}$	
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l					222072

236058



Sound Data

See the pump instruction manual for technical data including wetted parts, port sizes, maximum air consumption, maximum delivery, and so on. Sound data for the air motors of the pumps on these portable units is as follows:

Tested at 140 psi (1.0 MPa, 10 bar) at 100 cycles per minute				
Sound Pressure Level, measured at 1 meter from unit	77.8 dB(A)			
Sound Power Level, tested in accordance with ISO 9614-2	85.6 dB(A)			

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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.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

Phone: 612-623-6928 or Toll Free: 1-800-533-9655, Fax: 612-378-3590

All written and visual data contained in this document reflects the latest product information available at the time of publication.

Graco reserves the right to make changes at any time without notice.

This manual contains English. MM 309967

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