

Pressure Washers

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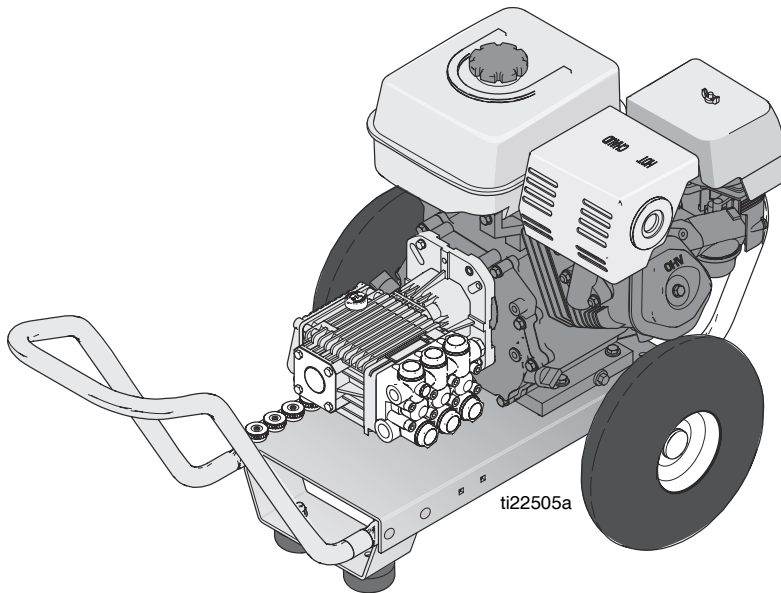
For high pressure water cleaning. For professional use only.

See page 2 for model information and maximum working pressure.

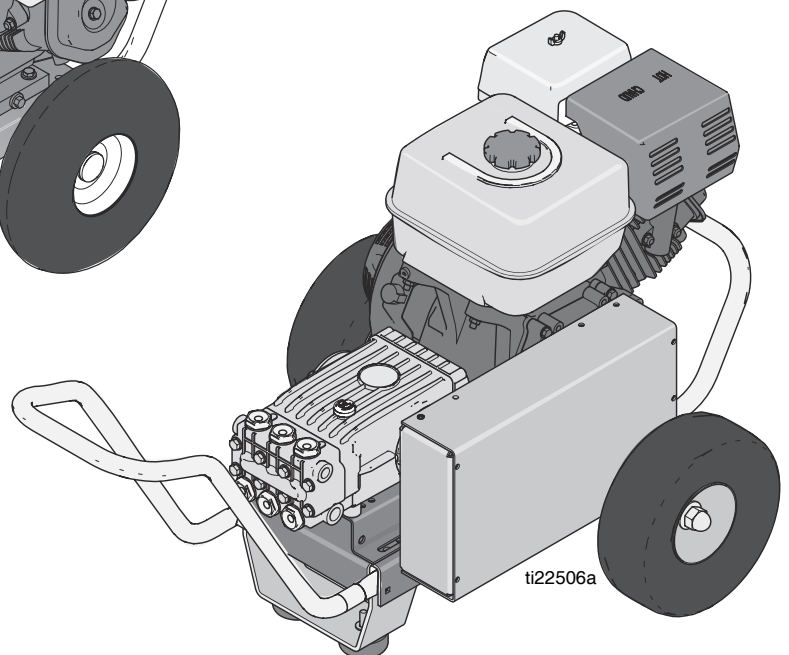


Important Safety Instructions

Read all warnings and instructions in this manual and in the gas engine manual. Save these instructions.



Direct-Drive Models



Belt-Drive Models



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Models

Part No.	Model	Operating Pressure		
		PSI	MPa	Bar
24U618	2525DD	2500	17.2	172
24U626				
24U619	2532DD	3200	22	220
24U985				
24U620	3027DD	2700	18.6	186
24U986				
24U987	3032DD	3200	22	220
24U621				
24U988	4040DD	4000	27.6	276
24U622				
24U989	4040DDC	4000	27.6	276
24U623				
24U990	4040BD	4000	27.6	276
24U624				
24U991	4040BDC	4000	27.6	276
24U625				

Safety Symbols and Meanings







The following safety symbols appear on the equipment and throughout this manual. It is important that you read the table below and understand what each symbol means.

Symbol	Meaning
	Burn Hazard
	Ejected Parts Hazard
	Electric Shock Hazard
	Fall Hazard
	Fire and Explosion Hazard
	Entanglement Hazard
	Recoil Hazard
	Skin Injection Hazard
	Splash Hazard
	Toxic Fluid or Carbon Monoxide Hazard










Symbol	Meaning
	Do Not Stop Leaks or Deflect Leaks
	Do Not Use Flammable Liquids
	Do Not Spray People or Animals
	Eliminate Ignition Sources
	Hold Firmly With Both Hands
	Perform Pressure Relief Procedure
	Read Manual Before Using Equipment
	Wear Personal Protective Equipment
	Equipment Misuse Hazard

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 symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 WARNING	
	<p>CARBON MONOXIDE HAZARD</p> <p>Exhaust contains poisonous carbon monoxide, which is colorless and odorless. Breathing carbon monoxide can cause death.</p> <ul style="list-style-type: none"> • Do not operate in an enclosed area.
	<p>RECOIL HAZARD</p> <p>Gun may recoil when triggered. If you are not standing securely, you could fall and be seriously injured.</p> <ul style="list-style-type: none"> • Hold onto gun/wand firmly with both hands to avoid kickbacks.
	<p>FALL HAZARD</p> <p>Use of this equipment can create puddles and slippery surfaces. High pressure spray could cause you to fall if you are too close to the cleaning surface.</p> <ul style="list-style-type: none"> • Keep spray nozzle between 8 to 24 inches (20 to 60 cm) away from cleaning surface. • Always operate equipment on a stable surface. • Cleaning area should have adequate slopes and drainage to reduce possibility of falls due to slippery surfaces. • Be extremely careful if you must operate equipment from ladder, scaffolding, or any other relatively unstable location.
	<p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable vapors in the work area and can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> • Do not spray flammable liquids. • Operate pressure washers outdoors only. • Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc). • When transporting or repairing equipment, transport or repair with the fuel tank empty or with fuel shutoff valve turned off. • Do not fill fuel tank while engine is running or hot; shut off engine and let it cool. Fuel is flammable and can ignite or explode if spilled on hot surface. • Keep work area free of debris, including solvent, rags and gasoline.
	<p>ELECTRIC SHOCK HAZARD</p> <p>Spray contact with electrical wiring can result in serious injury or death.</p> <ul style="list-style-type: none"> • Keep water spray away from electric wiring.

! WARNING

   	<p>SKIN INJECTION HAZARD</p> <p>High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, get immediate surgical treatment.</p> <ul style="list-style-type: none"> • Keep clear of nozzle. Do not spray any person, yourself or any animal. • Keep hands and other body parts away from the discharge. Do not try to stop leaks with any part of the body. • This product is to be used only by trained operators. • Use caution when cleaning and changing nozzle tips. In the case where the nozzle tip clogs while spraying, follow the Pressure Relief Procedure for turning off the unit and relieving the pressure before removing the nozzle tip to clean. • Do not leave the unit energized or under pressure while unattended. When the unit is not in use, turn off the unit and follow the Pressure Relief Procedure for turning off the unit. • Check hoses and parts for signs of damage. Replace any damaged hoses or parts. • Use Graco replacement parts or accessories that are approved for the rated pressure of the pressure washer. • Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly. • Verify that all connections are secure before operating the unit. • Know how to stop the unit and bleed pressure quickly. Be thoroughly familiar with the controls.
	<p>BURN HAZARD</p> <p>Running engines produce heat and hot exhaust gases. Temperature of muffler and nearby areas can reach or exceed 150° F (65° C). Fire or severe burns can occur.</p> <ul style="list-style-type: none"> • Do not touch hot surfaces. • Stay clear of exhaust gases. • Never move equipment while operating. • Allow equipment to cool before touching.
	<p>ENTANGLEMENT HAZARD</p> <p>Rotating parts can cause serious injury.</p> <ul style="list-style-type: none"> • Keep clear of moving parts. • Do not operate equipment with protective guards or covers removed.
 	<p>TOXIC FLUID HAZARD</p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> • Do not use pressure washer to dispense hazardous detergents or acid-type cleaners. • Do not alter chemical injector feature that is listed in the manual. • Read MSDSs to know the specific hazards of the fluids you are using. • Route exhaust away from work area.
	<p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This protective equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear, and hearing protection. • Respirators, protective clothing, and gloves as recommended by the detergent manufacturer.

! WARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Always wear appropriate gloves, eye protection, and a respirator or mask when spraying.
- Do not operate or spray near children. Keep children away from equipment at all times.
- Do not overreach or stand on an unstable support. Keep effective footing and balance at all times.
- Stay alert and watch what you are doing.
- Do not leave the unit energized or under pressure while unattended. When the unit is not in use, turn off the unit and follow the **Pressure Relief Procedure** for turning off the unit.
- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Keep operating area clear of all persons.
- Do not kink or over-bend the hose.
- Do not expose the hose to temperatures or to pressures in excess of those specified by manufacturer.
- Do not use the hose as a strength member to pull or lift the equipment.
- Follow the maintenance instructions specified in the manual.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.

CALIFORNIA PROPOSITION 65

The engine exhaust from this product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.



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

The following instructions are required by California state law, section 4442 of the California Public Resource Code. Other states may have similar laws. Federal laws apply on federal land.

- A spark arrestor must be added to the muffler of this engine if it is to be used on any forest-covered, brush-covered, or grass-covered unimproved land.
- See your engine or equipment dealer for spark arrestor muffler options.



Installation

Personal Protective Equipment



						
<p>INJECTION AND INHALATION HAZARD Proper attire is essential to your safety. It is advised to utilize whatever means necessary to protect eyes, ears and skin. Additional safety attire (such as respiratory mask) may be required when using detergent cleaning agents with this washer.</p>						

Setup

This unit should only be placed on a level surface while operating to ensure proper lubrication for the engine and water pump.

						
<p>FIRE AND EXPLOSION HAZARD Do not use unit in an area:</p> <ul style="list-style-type: none"> • with insufficient ventilation • where there is evidence of oil or gas leaks • where flammable gas vapors may be present 						



Be certain to block wheels to prevent unit from moving while operating.

						
<p>BURST HAZARD Do not allow unit to be exposed to rain, snow or freezing temperatures. If any part of the unit becomes frozen, excessive pressure may build up which could cause it to burst and result in possible serious injury.</p>						

Before initial use, make sure the oil cap/dipstick is inserted into the pump. Because of varying shipping requirements, the pump may need to be shipped with an oil travel plug instead of the dipstick in the pump. If your pump has been shipped with an oil travel plug, you will need to remove it and replace the plug with the oil dipstick provided with the unit.

Once properly installed, check the oil sight glass on the pump crankcase. Make sure the oil level is in the center of the sight glass before each use. If the level appears to be low, add pump oil and fill only to the center of the oil sight glass. Refer to the Parts List for the correct pump oil. Do not overfill!

Engine Fuel Tank

						
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A minimum of 86 octane fuel is recommended for use with this unit. Do not mix oil with gasoline.

Purchase fuel in quantities that may be used within 30 days. Use of clean, fresh lead-free gasoline is recommended. Leaded gasoline may be used if lead-free is unavailable. Do not use gasoline containing methanol or alcohol.

Check the engine oil level before starting the engine (see engine manual).

Fill the fuel tank according to engine manual.

Occasional carburetor and choke adjustments will be necessary for the engine. Refer to the engine manual supplied with this unit for proper adjustment procedures.

Review the engine manual accompanying this pressure washer for correct engine start-up and maintenance procedures.

Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.






This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.

1. Engage trigger lock.
2. Turn unit off.
3. Shut off water supply. Disconnect from water.
4. Disengage trigger lock.
5. Trigger gun to relieve pressure.
6. Engage trigger lock.
7. 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 hose end coupling to relieve pressure gradually, then loosen completely. Clear hose or tip obstruction.

Nozzle Review

Various nozzles may be quick-connected into the end of the wand to change the spray pattern or use the detergent feature.

						
<p>EJECTED PARTS HAZARD When using Quick Connects, be certain the connection is securely locked. If connections are not securely locked, the high pressure water may eject the nozzle from the wand, causing severe injury or serious damage.</p> <p>Always point wand always from you when changing nozzle. Perform Pressure Relief Procedure (page 8) before changing nozzle.</p>						

To determine spray fan, refer to the number stamped on the nozzle. The first two digits indicate the spray fan degrees, i.e.; 0=0°, 25=25°, 40=40°, 65 = detergent/low pressure.

0° nozzle (RED): This is a blasting nozzle, which delivers a very concentrated stream of water. Be cautious when using the straight narrow stream. It is not recommended for use on painted or wood surfaces, or items attached with adhesive backings. Uses: Removing weeds from sidewalk cracks, stubborn stains from concrete, masonry, aluminum and steel, caked mud from equipment, and cleaning lawn mower undersides.

15° nozzle (YELLOW): This is a chiseling nozzle. The spray should be directed at a 45° angle to the surface and used like a scraper to remove paint, grease and dirt. Uses: Surface preparation (removing mildew stains and paint chips).

25° nozzle (GREEN): This is a flushing nozzle. This pattern is best suited for flushing dirt, mud, and grime. Uses: Wet sweeping leaves from walks, curbs and driveways, cleaning stable floors, washing swimming pool bottoms, and de-greasing engines.

40° nozzle (WHITE): This is a wash nozzle. This wide spray pattern disperses the water pressure over a larger area and is recommended for moderate washing. Uses: Washing down aluminum siding, cleaning windows, washing vehicles, spraying sidewalks, driveways and patios. **NOTE:** Not available for Model 2525.

65° nozzle (BLACK): This is a low pressure detergent application nozzle. This broad spray pattern distributes solution over vast areas under low pressure. Uses: Detergent application, misting or rinsing.

Nozzle Connection



1. Perform **Pressure Relief Procedure**, page 8.
2. Engage trigger lock.
3. The nozzle assembly should be disconnected from the gun/wand assembly at this time by retracting the locking ring on the quick-connect fitting to remove the nozzle.

Water Supply

Select a water supply hose which is a quality grade of garden hose measure at least 3/4 in. (19.05 mm) ID and no longer than 50 feet (15.24 m).

Check the water inlet strainer to make sure it is clean and free of any obstructions. Periodic cleaning of the water strainer will help prevent pump problems.

NOTICE

As a strainer becomes obstructed, it restricts proper flow of water to the pump. This can result in cavitation which will cause premature failure of pump packings.

1. Unscrew garden hose inlet connection from front of filter assembly.
2. Remove clear plastic cover and clean filter screen.

Connect the hoses

1. Connect one end of water supply hose to water inlet of unit.

2. Connect other end of hose to pressurized water supply. When connecting water inlet to water supply mains, local regulations of your water company must be observed. In some areas, the unit must not be connected directly to public drinking water supply. This prevents feedback of the detergents into the water supply. Direct connection is permitted if a back flow preventer is installed.
3. Quick-connect high pressure discharge hose to water outlet of unit.
4. Connect other end of discharge hose to gun assembly.

Follow incoming water requirements listed below:

1. Water pressure must be a minimum of 25 psi (0.17 MPa, 1.72 bar) and a maximum of 125 psi (0.86 MPa, 8.6 bar). **NOTE:** A typical outdoor faucet will generally supply this psi if fully turned on.
2. Incoming GPM must be at least one gallon more than the outgoing GPM stated on pressure washer nameplate. **NOTE:** You can check GPM by timing how long it takes to fill a 5 gallon container.

NOTICE

Incoming water temperature must not exceed 140° F (60° C). Excessive pump damage may result if the water temperature exceeds this acceptable level.

Never allow the unit to operate without the incoming water line attached and the water supply fully turned on. Damage to the equipment could occur.

Unloader

Adjustment Knob

The unloader valve on your machine is equipped with an adjustment knob to adjust the pressure. If less pressure is needed, turn the adjustment knob counter-clockwise. To set back to maximum, turn adjustment knob fully clockwise. Do not over tighten.

NOTICE
Do not overtighten the unloader. Breakage could result in immediate loss of water pressure and costly repairs.

Thermal Relief Valve



To ensure the water temperature does not exceed acceptable levels, never allow the unit to operate in the bypass mode (unit running with gun trigger closed) for more than three minutes.




A thermal relief valve has been added to this unit to protect the pump. It may begin to open and release water if the water temperature in the pump has exceeded 140°F (60°C). This will allow fresh, cool water to enter the system.

Pre-Start Inspection Procedures

Before starting the unit, perform the following procedures:

1. Check oil level in pump and engine.
2. Inspect water inlet strainer. Clean or replace if necessary (see **Water Supply**, page 10).
3. Check all hose connections to make sure they are tightened securely (see **Water Supply**, page 10).

						
FIRE AND EXPLOSION HAZARD						
Inspect for system fuel leaks. If a fuel leak is found, do not start unit. See Fire and Explosion Hazard on page 4. Make sure all damaged parts are replaced and mechanical problems are corrected prior to operation of unit. If service is required, contact Graco Customer Service.						

						
INJECTION HAZARD						
Inspect high pressure hoses for kinking, cuts and leaks. If a cut or leak is found, do not use hose. Replace hose before starting unit (see Skin Injection Hazard , page 5). Be sure that all damaged parts are replaced and that the mechanical problems are corrected prior to operation of the unit. If you require service, contact Graco Customer Service.						

Operation

Priming the Pump

It is essential to prime the pump on initial start-up and each time the water supply is disconnected from the unit after initial use.

1. Lay high pressure hose out to remove any loops. Water flow will constrict hose and create tight loops if hose is not straight.

NOTE: The nozzle assembly should not be connected to the gun assembly at this time. See **Nozzle Connection**, page 10.

2. Engage trigger lock and turn water supply fully on. Point gun away from yourself or anyone else, disengage trigger lock and squeeze trigger.




NOTE: Low pressure water will begin flowing from hose/gun assembly. This allows unit to prime and purge any air from system. Unit is primed when water flow is uninterrupted by air.

3. Once unit is primed, release trigger and engage trigger lock. Securely connect nozzle assembly (see **Nozzle Connection**, page 10).



NOTICE




Make sure the nozzle is not connected to the unit while priming the pump. Priming allows mineral deposits to be released from the system which could obstruct or damage the nozzle assembly resulting in costly repairs.

Start-Up

						
<p>Never look directly into the nozzle. High pressure water creates a risk for severe injury.</p>						

1. Engage trigger lock and point gun away from yourself or anyone else. Make sure water supply is fully turned on.
2. Disengage trigger lock and squeeze trigger. Low pressure water will begin flowing from nozzle.
3. Make sure gun remains in an open position while starting engine. **NOTE:** Brace yourself. Gun will kickback from high pressure created by pump once engine has started.
4. Steady unit during engine start-up. See accompanying engine manual for correct procedures needed to start engine.
5. Once engine has started, perform the following procedures with gun open:

						
<p>FIRE AND EXPLOSION HAZARD Inspect for system oil leaks and fuel leaks. If a fuel leak is found, immediately turn off unit. Make sure all damaged parts are replaced and mechanical problems are corrected prior to operation of unit. If service is required, contact Graco Customer Service.</p>						

						
<p>INJECTION HAZARD Inspect high pressure hoses for kinking, cuts and leaks. If a cut or leak is found, do not touch hose at leak. Turn unit off immediately. Replace hose before restarting unit. Make sure all damaged parts are replaced and mechanical problems are corrected prior to operation of unit. If service is required, contact Graco Customer Service.</p>						




6. Trigger gun several times. Make sure to engage trigger lock whenever changing quick-connect nozzles.

NOTICE						
<p>Do not allow unit to operate in bypass mode (with trigger closed) for more than three minutes without triggering gun. This can cause premature failure of pump packing seals and result in costly pump repair.</p>						

This pressure washer delivers a high pressure spray and a variety of spray patterns. There are many cleaning jobs that can be done without the use of detergents. If a cleaning agent is required, see **Cleaning with Detergents** (page 14) for correct procedures.

NOTICE						
<p>Do not allow spray pattern to remain on a fixed area for an extended period of time. Possible damage to that area may occur.</p>						

Cleaning with Detergents

						
<p>BURN OR EXPLOSION HAZARD Always wear protective safety attire.</p> <p>Prepare detergent solution according to label directions. Never pump hazardous detergents or acid-type cleaners through unit.</p>						

Some units are equipped with adjustable detergent knobs. Locate the clear vinyl hose which leads to the pump head.

If injector is equipped with adjustment knob on pump head, detergent amount can be adjusted by turning the knob completely counter-clockwise to set at maximum siphon rate.

If injector is not equipped with an adjustment knob, detergent ratio is preset and cannot be adjusted.




1. Immerse detergent strainer into detergent solution to allow detergent to siphon.
2. Engage trigger lock and secure quick-connect detergent spray nozzle (#6540° BLACK) into end of wand.

NOTE: This injection system is designed to apply detergents under low pressure only. It will not allow detergent solutions to be introduced into the system unless the nozzle assembly is in the low pressure detergent mode.

3. To apply solution; disengage trigger lock and squeeze trigger. A detergent/water mixture will exit low pressure nozzle. Start spraying lower portion of surface being cleaned and move up, using long overlapping strokes. **NOTE:** Applying from the bottom up helps avoid streaking. Allow to soak briefly. Do not allow detergent solution to dry on the surface. Avoid working on hot surfaces or in direct sunlight to minimize the chances of the detergent drying, which may result in damaging painted surfaces. Rinse a small section at a time.

4. To rinse; engage trigger lock and securely connect desired high pressure nozzle into end of wand. Disengage trigger lock and spray. It will take about 30 seconds to purge all detergent from line. For best rinsing results, start at the top and work down.
5. Siphon a gallon of water through low pressure detergent injection system after each use. This reduces the possibility of corrosion or detergent residue causing mechanical problems during next use.

Shutdown

						
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1. Turn engine "OFF" (see engine manual).
2. Turn water supply "OFF".
3. Point gun in a safe direction and trigger gun to relieve any trapped pressure.
4. Once pressure is relieved, disconnect nozzle assembly.
5. Disconnect and drain gun, wand and hose.
6. Wipe unit clean and store with gun, wand and hoses in a non-freezing area.

Maintenance

Engine

The engine instructions that accompany the unit detail specific procedures for engine maintenance. Following the engine manufacturer's recommendations will extend engine work life.

Pump

The pump oil must be changed after the first 25 hours of operation on all units. Once the initial oil change has been completed, it is recommended the oil be changed every 3 months or 250 hour intervals. If oil appears dirty or milky, changes may be required at a greater frequency. Add pump oil and fill only to the center of the sight glass. Refer to the parts listing for the correct pump oil. Do not overfill.

Nozzles

Water flow through the spray nozzle will erode the orifice, making it larger and result in a pressure loss. Nozzles should be replaced whenever pressure is less than 85% of the maximum. The frequency of replacement will depend upon such variables as mineral content in the water and number of hours the nozzle is used.

Quick Couplers

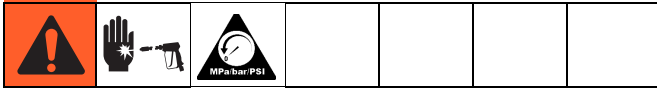
There is an o-ring seal inside the female quick coupler. This o-ring will deteriorate or, if the unit is allowed to pump without the high pressure hose or nozzle attached, the o-ring may be blown out occasionally. Insert a replacement o-ring to correct the leak. Additional o-rings can be purchased from your dealer.

Belt Tension Adjustment

To maintain peak performance, it may be necessary to occasionally adjust the belt tension. Perform the following steps:

1. Remove belt guard and loosen two nuts on each side of pump (A).
2. Turn cap screw (B) clockwise until a 1/2 in. (12.7 mm) belt deflection is noticed between the pulleys.
3. Tighten side nuts (A).
4. Put a straight edge across both pulleys. If necessary, loosen one set of pulley screws and adjust in or out to properly align. Tighten pulley screws and check tension again.
5. Replace belt guard and tighten fasteners securely.

Winterizing



For storage and transportation purposes in subfreezing ambient temperatures, it will be necessary to winterize the unit. The unit must be protected to the lowest incurred temperature for the following reasons:

- If any part of the pumping system becomes frozen; excessive pressure may build up in the unit which could cause the unit to burst and result in possible serious injury.
- The pumping system in this unit may be permanently damaged if frozen. Freeze damage is not covered by warranty.

If you must store the unit in an area where the temperature falls below 32° F (0° C), perform the following steps:

NOTICE

Do not store/operate unit in a freezing environment. Damage to washer could occur.

Gather the following items:

- Two 5 gallon containers.
- One gallon of antifreeze.
- Water supply.
- Three foot hose, 1/2-3/4 in. ID with a 3/4 in. male garden hose fitting.

Procedure

1. To start winterizing, unit must be run and primed (see **Start-Up**, page 13).
2. After running and priming, shut off unit and water supply.
3. Relieve system pressure by pointing gun away from yourself and anyone else and squeezing trigger until water flow ceases to exit nozzle.
4. Engage trigger lock and remove nozzle.
5. In one 5 gallon container, mix antifreeze and water according to manufacturer's recommendations for winterizing temperature.

NOTE: Proper winterizing is based on the recommended manufacturer's instructions listed on the Protections Chart shown on the back label of most antifreeze containers.

6. Remove water supply hose from unit and attach 3 ft hose securely to inlet connection. Submerge other end into antifreeze solution.
7. Shut off detergent injector if applicable.
8. Point wand into empty container and start unit.
9. Trigger gun until antifreeze begins to exit wand. Release trigger for 3 seconds, then trigger gun for 3 seconds. Continue cycling gun several times until all antifreeze mixture is siphoned from container.
10. Stop unit.
11. Detach 3 ft hose from unit and drain any excess antifreeze back into 5 gallon container.
12. Disconnect hose/gun/wand assembly from unit and drain any excess antifreeze back into 5 gallon container.
13. Store hose, gun and wand with unit in a non-freezing area.
14. Store antifreeze solution for next use or dispose according to state EPA laws.

Optional Procedure

1. Shut off unit and water supply.
2. Relieve system pressure by pointing gun away from yourself and anyone else and squeezing trigger until water flow ceases to exit nozzle.
3. Disconnect and drain hose, gun and wand.
4. Start unit and allow it to run until all water exits from unit. Once water has stopped flowing from unit, turn unit off.

NOTICE

When using this procedure, caution should be used as ice chips can form from drops of water which could cause the unit to burst. Allow unit to completely thaw before starting.

Troubleshooting



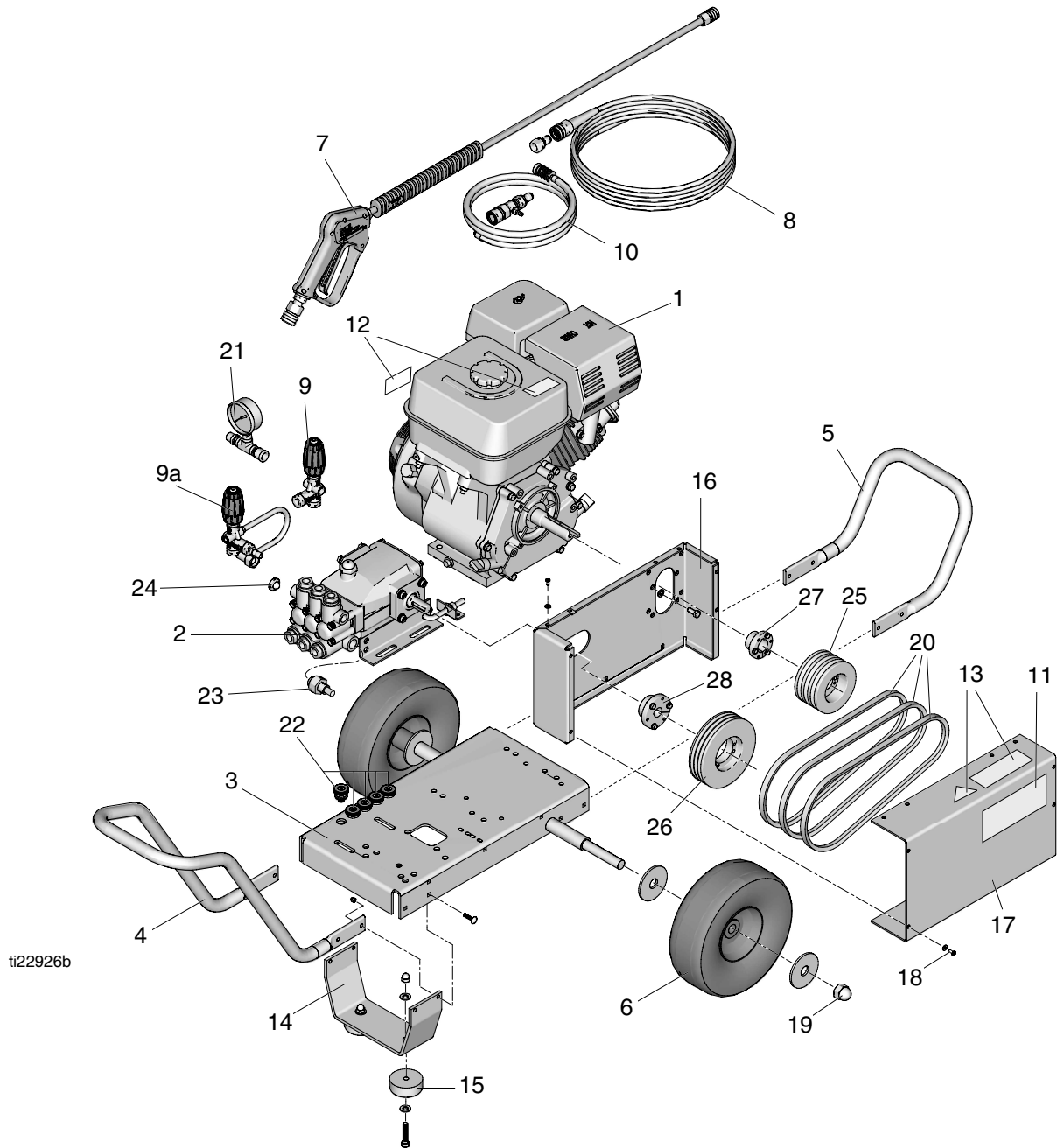
1. Follow **Pressure Relief Procedure**, page 12, before checking or repairing gun.
2. Check all possible problems and causes before disassembling gun.

Problem	Cause	Solution
Engine not starting or hard to start	No gasoline in fuel tank or carburetor	Fill the tank with gasoline and open fuel shut off valve. Check fuel line to carburetor.
	Low oil	Add oil to proper level.
	Start/Stop switch in STOP position	Move switch to START position.
	Water in fuel, or old fuel	Drain fuel tank and carburetor. Use new fuel, and make sure spark plug is dry.
	Engine flooded or improperly choked	Open choke, and crank engine several times to clear out gas. Make sure spark plug is dry.
	Dirty air cleaner filter	Remove and clean.
	Dirty spark plug, wrong gap, or wrong type	Clean spark plug, adjust the gap, or replace.
	Gun not triggered	Trigger gun while starting engine.
Engine not operating properly or lacking power	Partially plugged air cleaner filter	Remove and clean.
	Spark plug dirty, wrong gap, or wrong type	Clean spark plug, adjust the gap, or replace.
Pressure too low and/or pump running roughly	Worn or wrong size tip	Replace with tip of proper size
	Inlet filter clogged	Clean filter. Check more frequently.
	Worn packings, abrasives in water, or natural wear	Check filter. Replace packings.
	Inadequate water supply	Check water flow rate to pump.
	Belts slipping	Tighten or replace belts; use correct belts, and replace both at same time.
	Fouled or dirty inlet or discharge valves	Clean inlet and discharge valve assemblies. Check filter.
	Restricted inlet	Check if garden hose is collapsed or kinked.
	Worn inlet or discharge valves	Replace worn valves.
	Leak in high-pressure hose	Replace high-pressure hose.
Water leaking from under pump manifold	Worn packings	Install new packings.

Problem	Cause	Solution
Water in pump oil	Humid air condensing inside crankcase	Change oil as specified in Maintenance on page 15.
	Worn packings	Install new packings.
	Oil seals are leaking	Install new oil seals.
Packings failing frequently or prematurely	Scored, damaged, or worn plungers	Install new plungers.
	Abrasive material in the fluid being pumped	Install proper filtration on pump inlet plumbing.
	Inlet water temperature too high	Check water temperature. It should not exceed 140°F (60°C).
	Over pressurized pump	Do not modify any factory-set adjustments. See Equipment Misuse Hazard on page 6.
	Excessive pressure due to partially plugged or damaged nozzle	Clean or replace nozzle. See Nozzle Connection on page 10.
	Pump running too long without spraying	Never run pump more than 10 minutes without spraying.
	Running pump dry	Do not run pump without water.
Strong surging at inlet, and low pressure on discharge side	Foreign particles in the inlet or discharge valve, or worn inlet and/or discharge valves	Clean or replace valves.

Parts (Belt-Drive Models)

Sprayer Parts



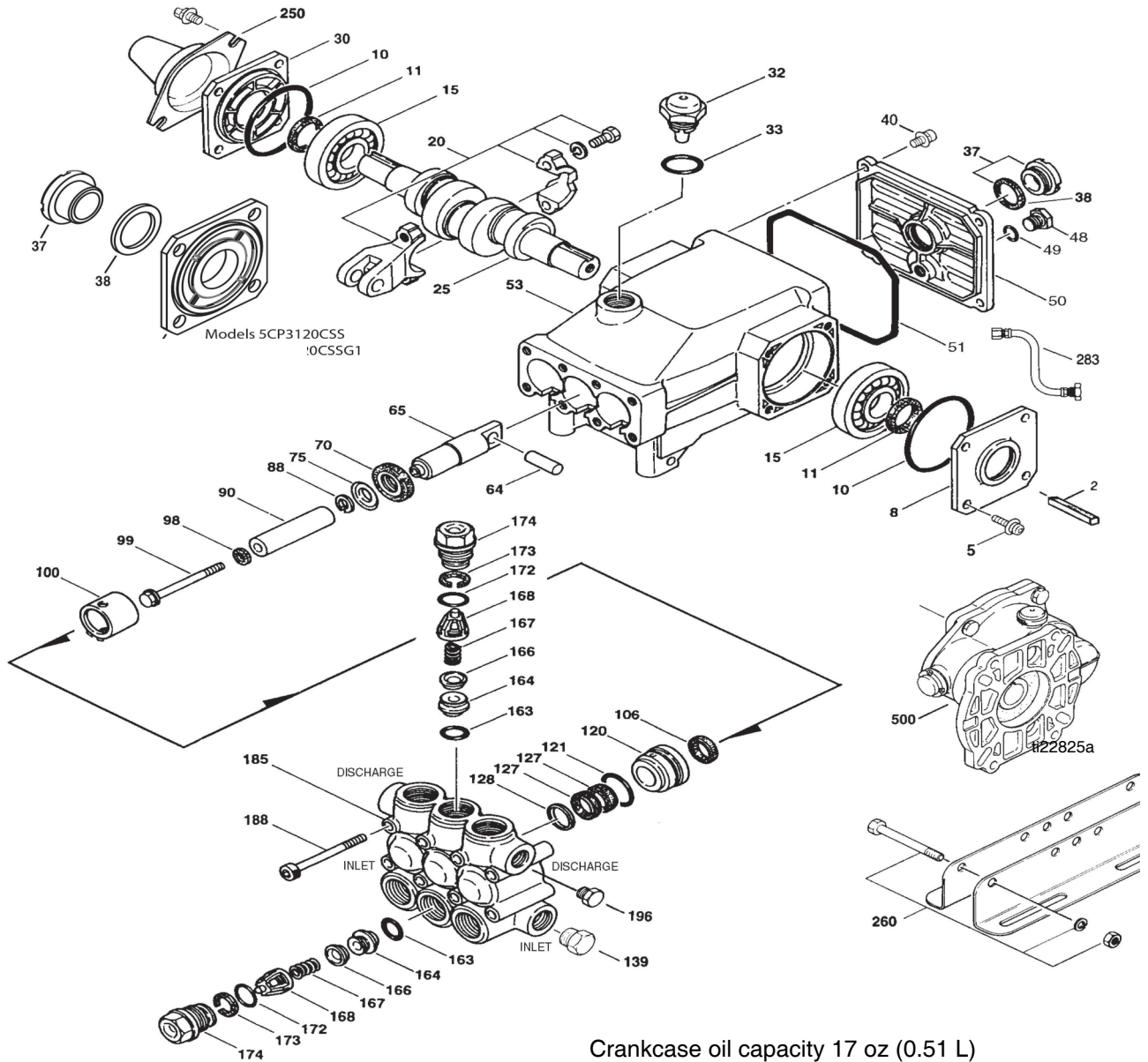
Sprayer Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	114703	ENGINE, GX390 (Models 24U624, 24U625, 24U990, 24U991)	1	16C394	Models 24U990, 24U991	1	
2		Pump		14	127539	BRACKET, foot (Models 24U624, 24U625, 24U990, 24U991)	1
	127384	GP - TSS series or HP series (Models 24U624, 24U990)	1	15	127541	PAD, foot	1
	127382	CAT - 5CP series or 5PP series (Models 24U625, 24U991)	1	16	127525	BELT GUARD, back	1
3	127470	FRAME (Models 24U624, 24U625, 24U990, 24U991)	1	17	127521	BELT GUARD, cover	1
4	127466	HANDLE, long (Models 24U624, 24U625, 24U990, 24U991)	1	18	127542	FASTENERS, belt guard cover	1
5	127467	HANDLE, short	1	20	127527	BELT	1
6	16Y890	WHEEL/TIRE, 12 in. (Models 24U624, 24U625, 24U990, 24U991)	1	21	127558	GAUGE, quick disconnect (Models 24U620, 24U621, 24U622, 24U623, 24U625, 24U986, 24U987, 24U988, 24U989, 24U990, 24U991)	1
7	244784	GUN (Models 24U624, 24U625, 24U990, 24U991)	1		127557	GAUGE, 22mm (Models 24U618, 24U985, 24U626, 24U619)	1
8	244783	HOSE (Models 24U624, 24U625, 24U990, 24U991)	1	22	805543	NOZZLE, 0°, red, 4.0	1
9	127526	UNLOADER	1		805544	NOZZLE, 15°, yellow, 4.0	1
9a	17A644	UNLOADER, complete	1		805545	NOZZLE, 25°, green, 4.0	1
10	127529	HOSE with chemical injector	1		805546	NOZZLE, 40°, white, 4.0	1
11		LABEL, product			805634	NOZZLE, chemical, black	1
	16X994	Model 24U624, 24U990	1	23	17A564	THERMAL VALVE	1
	16X995	Model 24U625, 24U991	1	24	801112	STRAINER, inlet	1
12▲		LABEL, safety, gas tank		25	127706	PULLEY, engine, 2.65	1
	194126	Models 24U624, 24U625	1	26	127705	PULLEY, pump, 6"	1
	16Y720	Models 24U990, 24U991	1	27	127703	BUSHING, engine	1
	16Y721	Models 24U990, 24U991	1	28		BUSHING, pump	
13▲		LABEL, safety, frame			127704	BUSHING, pump, 24mm, models 24U624, 24U990	1
	16X819	Models 24U624, 24U625	1		127707	BUSHING, pump, 20 mm, models 24U625, 24U991	1
	16Y739	Models 24U990, 24U991	1				

▲ Extra Safety & Warning tags & labels available free.

Pump 127382

(Used in models 24U991, 24U625)

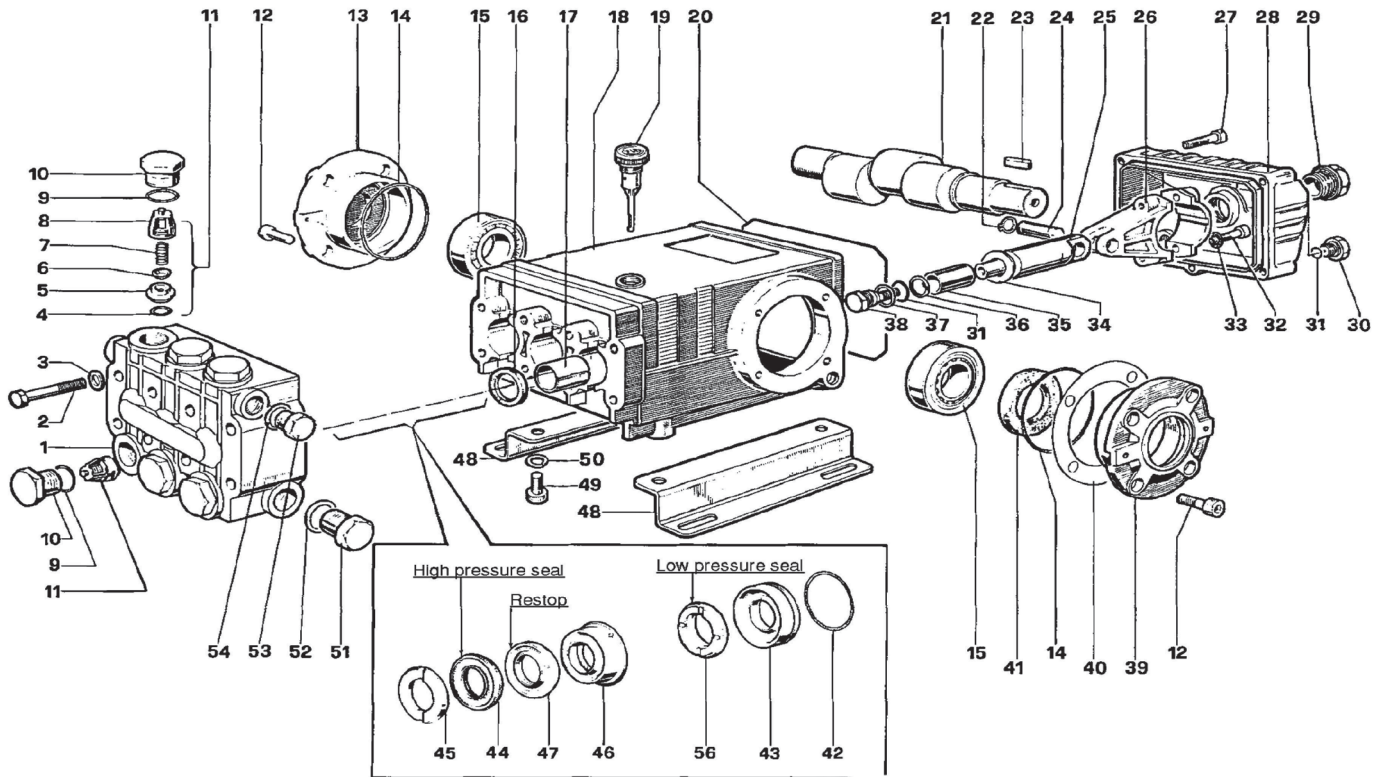


Parts List - Pump 127382

Part	Description	Qty.	Part	Description	Qty.
127498*	KIT, repair valve (includes 163, 164, 166, 167, 168, 172, 173)	1	246377	PUMP OIL, 32 oz	1
127499★	KIT, oil seal (includes 98, 106, 121, 127, 128)	1	17A564	THERMAL VALVE, (139)	1
127500★	KIT, piston (includes 90)	1		* 3 valves per kit	
				★ Kit services 1 cylinder	
				† Not all repair parts available through Graco.	

Pump 127384

(Used in models 24U990, 24U624)



Crankcase oil capacity 40.6 oz (1.2 L)

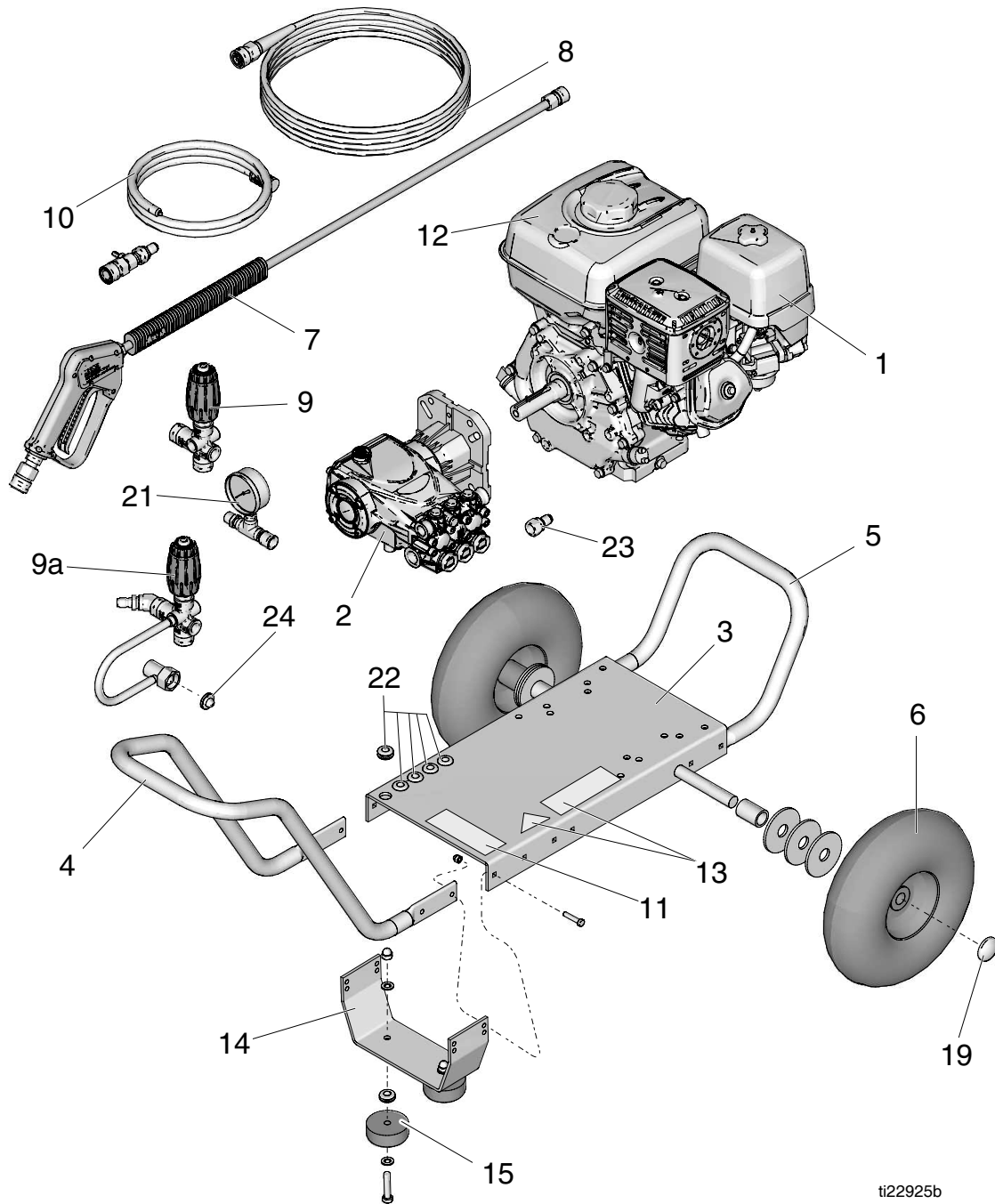
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Parts List - Pump 127384

Part	Description	Qty.	Part	Description	Qty.
127489	★ KIT, repair valve (includes 11)	6	246377	PUMP, oil, 32 oz	1
127490	★ KIT, valve cap (includes 9, 10)	6		★ Kit will service 3 cylinders	
127491	★ KIT, oil seal (includes 16)	3		❖ Kit will service 1 cylinder	
127492	★ KIT, packing (includes 44, 47, 56)	3		† Not all repair parts available through Graco.	
127493	❖ KIT, piston (includes 35)	1			
17A564	THERMAL VALVE	1			

Parts (Direct-Drive Models)

Sprayer Parts



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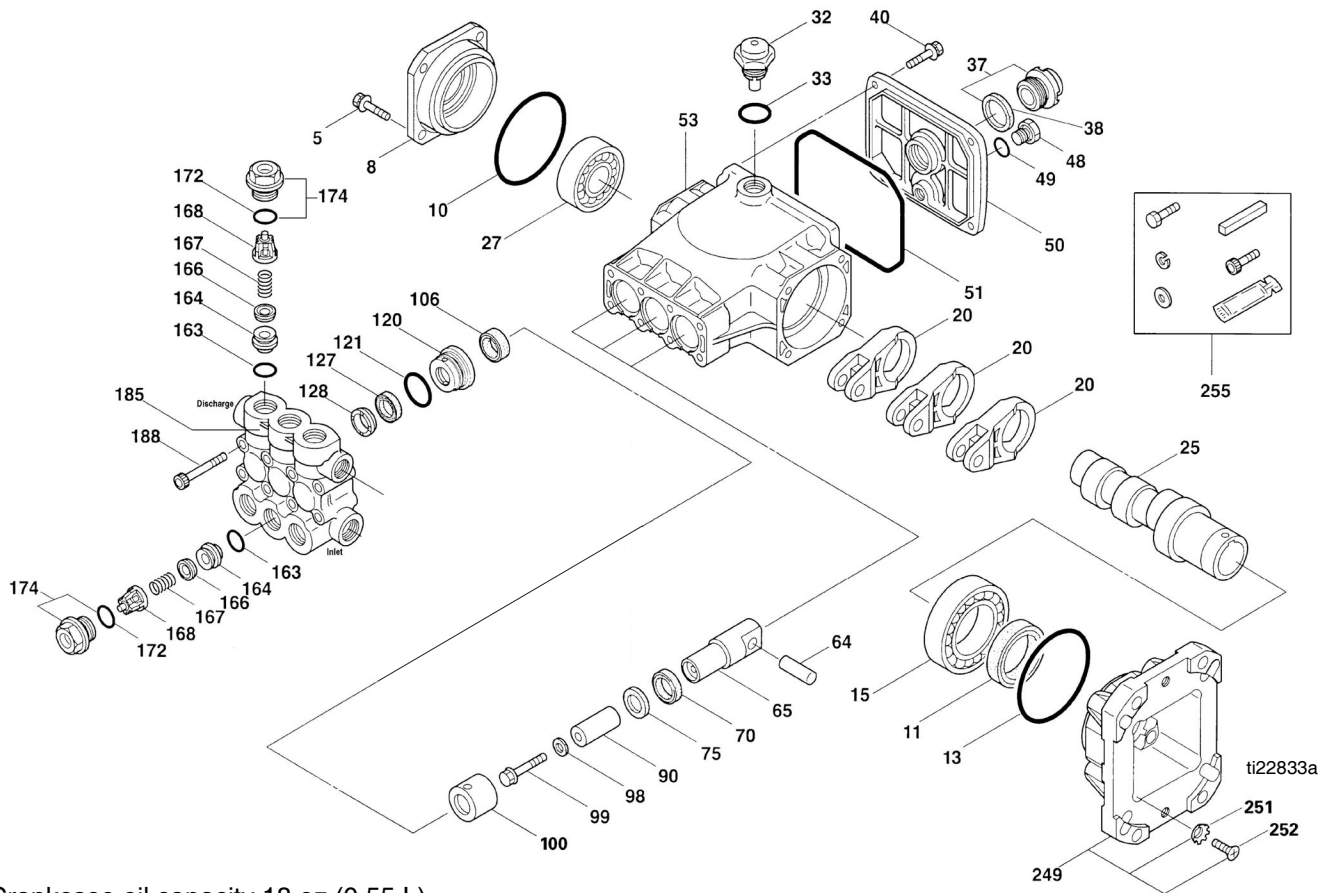
Sprayer Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1		ENGINE			16X988	Models 24U619, 24U985	1
	16Y886	GC160 (Model 24U618)	1		16X989	Models 24U620, 24U986	1
	16Y887	GC190 (Model 24U626)	1		16X990	Models 24U621, 24U987	1
	116298	GX200 (Models 24U619, 24U620, 24U895, 24U896)	1		16X992	Models 24U622, 24U988	1
	803900	GX270 (Models 24U621, 24U987)	1	12▲	16X993	Models 24U623, 24U989	1
	114703	GX390 (Models 24U622, 24U623, 24U998, 24U989)	1		194126	Models 24U626, 254U619, 24U620, 24U621, 24U622, 24U623	1
2		PUMP			16Y720	Models 24U618, 24U985, 24U986, 24U987, 24U988, 24U989	1
	127420	AR/Alum (Models 24U626, 24U618)	1		16Y721	Models 24U618, 24U985, 24U986, 24U987, 24U988, 24U989	1
	127419	AR/Brass (Models 24U619, 24U985)	1	13▲		LABEL, safety, frame	
	127417	GP - TP series (Models 24U620, 24U986)	1		16X819	Models 24U626, 24U619, 24U620, 24U621, 24U622, 24U623	1
	127418	GP - EP series (Models 24U621, 24U987)	1		16Y739	Models 24U618, 24U985, 24U986, 24U987, 24U988, 24U989	1
	127385	GP - EZ series (Models 24U622, 24U988)	1	14		BRACKET, foot	
	127383	CAT - 66DX series or 66PPX series (Models 24U623, 24U989)	1		127537	Models 24U626, 24U619, 24U618, 24U985	1
		FRAME			127538	Models 24U620, 24U621, 24U622, 24U623, 24U986, 24U987, 24U988, 24U989	1
3							
	127471	Models 24U626, 24U619, 24U819, 24U985	1	15	127541	PAD, foot	1
	127523	Models 24U620, 24U986	1	21	127558	GAUGE, quick disconnect (Models 24U620, 24U621, 24U622, 24U623, 24U625, 24U986, 24U987, 24U988, 24U989, 24U990, 24U991)	1
	127468	Models 24U621, 24U622, 24U623, 24U987, 24U988, 24U989	1				
4		HANDLE, long			127557	GAUGE, 22mm (Models 24U618, 24U985, 24U626, 24U619)	1
	127522	Models 24U626, 24U619, 24U618, 24U985	1	22	805535	NOZZLE, 0°, red, 3.0 (Models 24U626, 24U618, 24U619, 24U985)	1
	127466	Models 24U620, 24U621, 24U622, 24U623, 24U987, 24U988, 24U989	1		805536	NOZZLE, 15°, yellow, 3.0 (Models 24U626, 24U618, 24U619, 24U985)	1
5	127467	HANDLE, short	1		805537	NOZZLE, 25°, green, 3.0 (Models 24U626, 24U618, 24U619, 24U985)	1
6		WHEEL/TIRE			805538	NOZZLE, 40°, white, 3.0 (Models 24U626, 24U618, 24U619, 24U985)	1
	16Y888	10 in. (Models 24U626, 24U618, 24U619, 24U985)	1		805634	NOZZLE, chemical, black (all models)	1
	16Y889	11 in. (Models 24U620, 24U621, 24U622, 24U623, 24U986, 24U987, 24U988, 24U989)	1		805539	NOZZLE, 0°, red, 3.5 (Models 24U620, 24U621, 24U986, 24U987)	1
7		GUN			805540	NOZZLE, 15°, yellow, 3.5 (Models 24U620, 24U621, 24U986, 24U987)	1
	127469	Models 24U626, 24U618, 24U619, 24U985	1		805541	NOZZLE, 25°, green, 3.5 (Models 24U620, 24U621, 24U986, 24U987)	1
	244784	Models 24U620, 24U621, 24U622, 24U623, 24U986, 24U987, 24U988, 24U989	1		805542	NOZZLE, 40°, white, 3.5 (Models 24U620, 24U621, 24U986, 24U987)	1
8		HOSE			805543	NOZZLE, 0°, red, 4.0 (Models 24U622, 24U623, 24U988, 24U989)	1
	16E286	3/8 x 25 w/22mm (Models 24U626, 24U618)	1		805544	NOZZLE, 15°, yellow, 4.0 (Models 24U622, 24U623, 24U988, 24U989)	1
	127534	3/8 x 50 w/22mm (Models 24U619, 24U985)	1		805545	NOZZLE, 25°, green, 4.0 (Models 24U622, 24U623, 24U988, 24U989)	1
	244783	3/8 x 50 w/QD (Models 24U620, 24U621, 24U622, 24U623, 24U986, 24U987, 24U988, 24U989)	1		805546	NOZZLE, 40°, white, 4.0 (Models 24U622, 24U623, 24U988, 24U989)	1
9	127526	UNLOADER	1				
9a		UNLOADER, complete	1	23		THERMAL VALVE	1
	17A641	Models 24U621, 24U622, 24U987, 24U988	1		17A562	THERMAL VALVE, Models 24U626, 24U618, 24U619, 24U985	1
	17A642	Models 24U623, 24U989	1		17A563	THERMAL VALVE, Models 24U620, 24U986	1
	17A644	Models 24U624, 24U625, 24U990, 24U991	1		17A564	THERMAL VALVE, Models 24U621-24U623, 24U987-24U989	1
10	127528	HOSE with chemical injector (Models 24U618, 24U619, 24U620, 24U626, 24U985, 24U986)	1	24	801112	INLET, strainer	1
10a	127529	HOSE with chemical injector (Models 24U621, 24U622, 24U623, 24U987, 24U988, 24U989)	1				
11		LABEL, product					
	16X987	Models 24U626, 24U618	1				

▲ Extra Safety & Warning tags & labels available free.

Pump 127383

(Used in 24U989, 24U623)



Crankcase oil capacity 18 oz (0.55 L)

Parts List - Pump 127383

Part	Description	Qty.
127494*	KIT, repair valve (includes 163, 164, 166, 167, 168, 172)	1
127495★	KIT, oil seal (includes 98, 106, 121, 127, 128)	1
127496❖	KIT, piston (includes 90)	1
246377	PUMP, oil, 32 oz	1
17A564	THERMAL VALVE	1

* 3 valves per kit

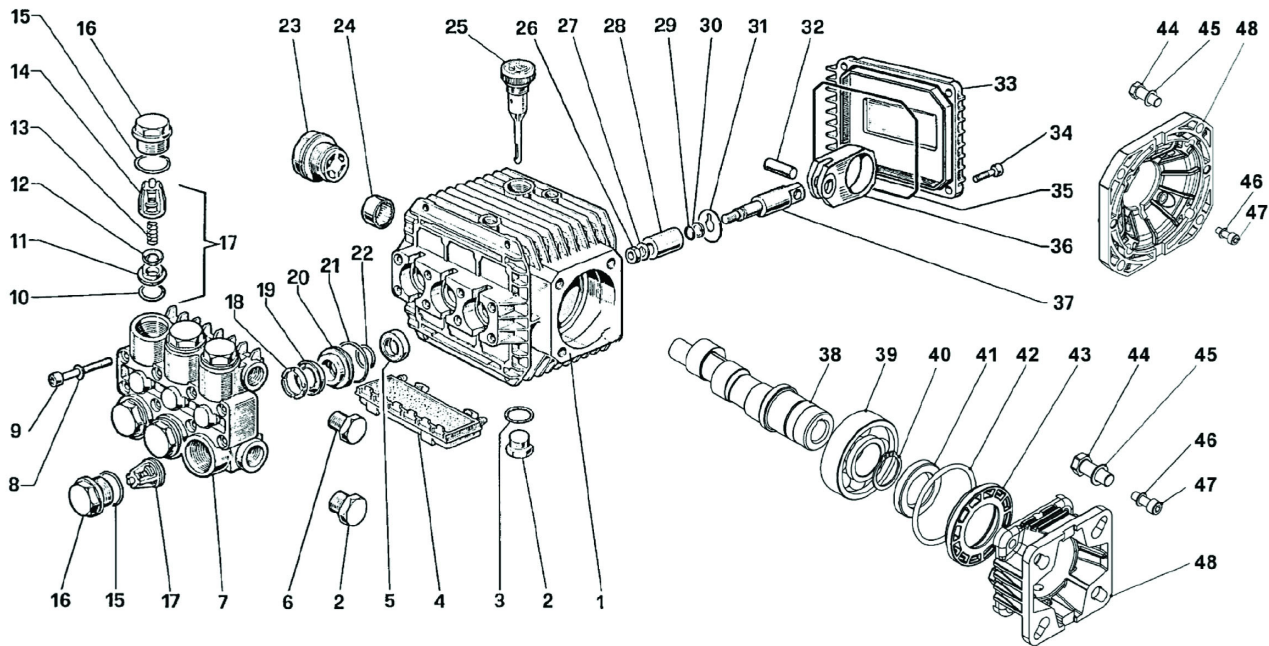
★ Kit will service 3 cylinders

❖ Kit will service 1 cylinder

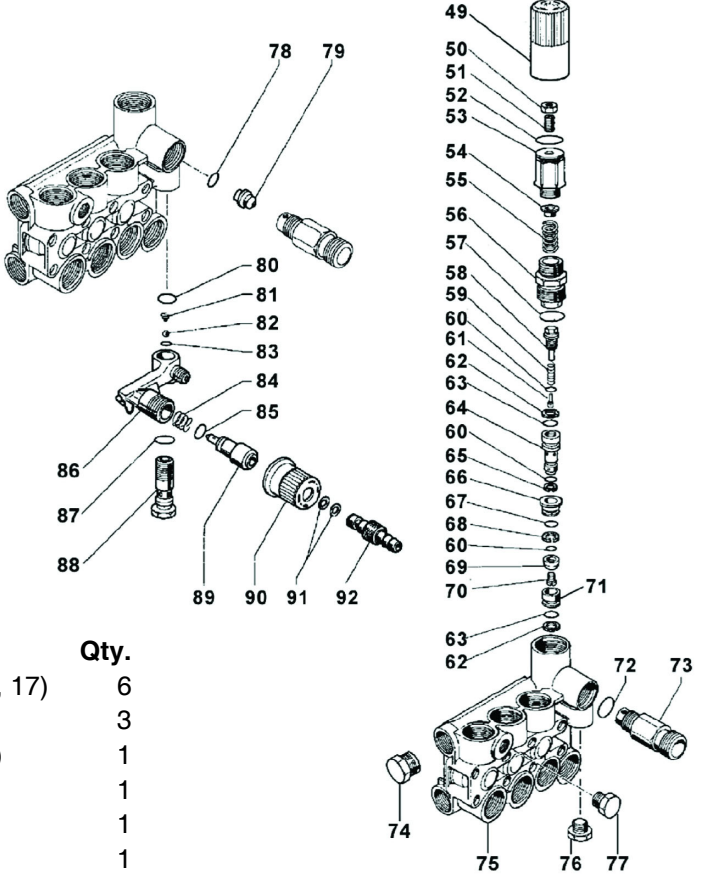
† Not all repair parts available through Graco.

Pump 127417

(Used in 24U620, 24U986)



Crankcase oil capacity 11 oz (0.32 L)



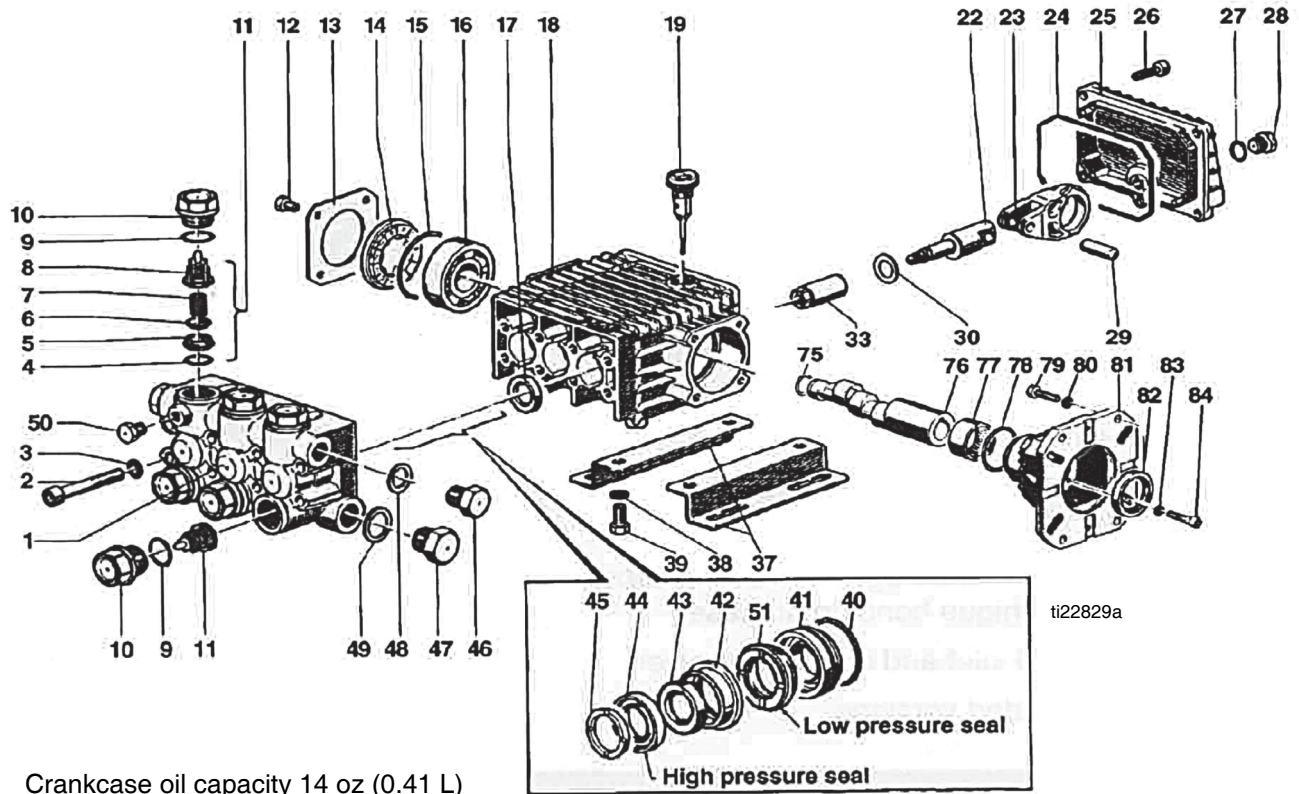
Parts List - Pump 127417

Part	Description	Qty.
127481★	KIT, repair valve (includes 10, 11, 12, 13, 14, 17)	6
127482★	KIT, oil seal (includes 5)	3
127483❖	KIT, packing (includes 18, 19, 20, 21, 22, 28)	1
127484❖	KIT, piston (includes 28)	1
246377	PUMP, oil, 32 oz	1
17A563	THERMAL VALVE	1

★Kit will service 3 cylinders
 ❖Kit will service 1 cylinder
 † Not all repair parts available through Graco.

Pump 127385

(Used in 24U988, 24U622)



Crankcase oil capacity 14 oz (0.41 L)

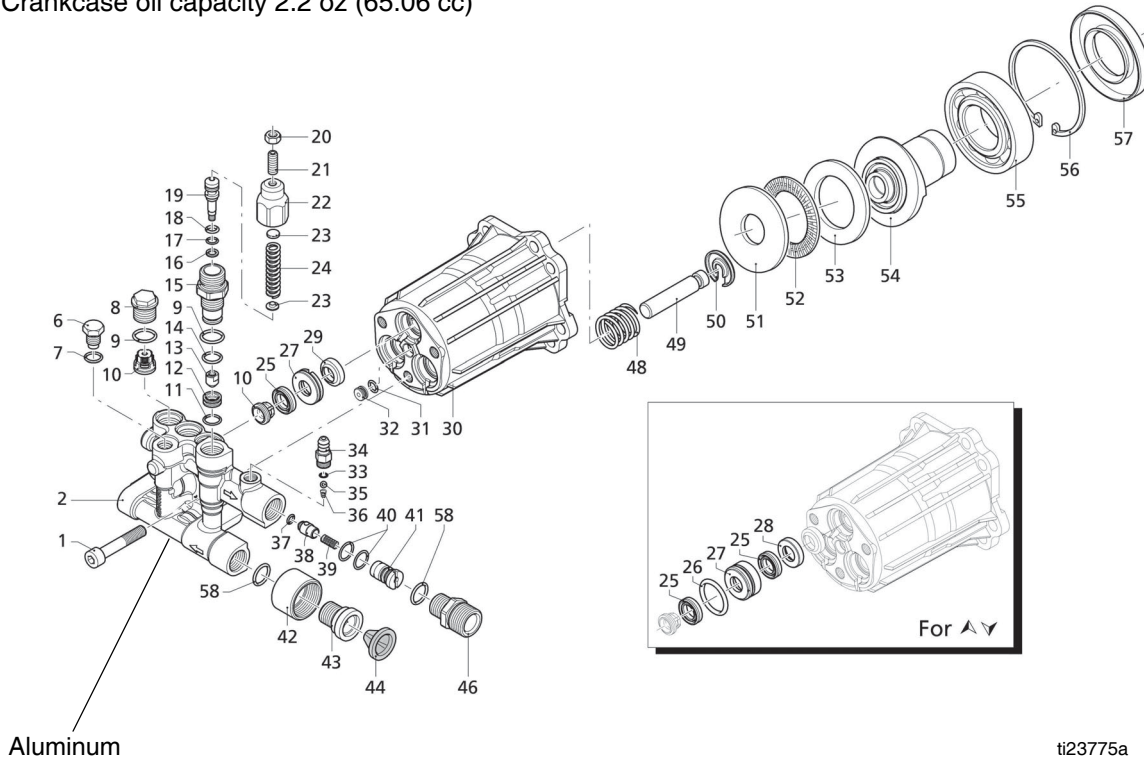
Parts List - Pump 127385

Part	Description	Qty.	Part	Description	Qty.
127481★	KIT, repair valve (includes 11)	6	17A564	THERMAL VALVE	1
127485★	KIT, valve cap (includes 9, 10)	6	★	Kit services 3 cylinders	
127486★	KIT, oil seal (includes 17)	3	❖	Kit services 1 cylinder	
127487★	KIT, packing (includes 43, 44, 51)	3	†	Not all repair parts available through Graco.	
127488❖	KIT, piston (includes 33)	1			
246377	PUMP, oil, 32 oz	1			

Pump 127420

(Used in 24U618, 24U626)

Crankcase oil capacity 2.2 oz (65.06 cc)



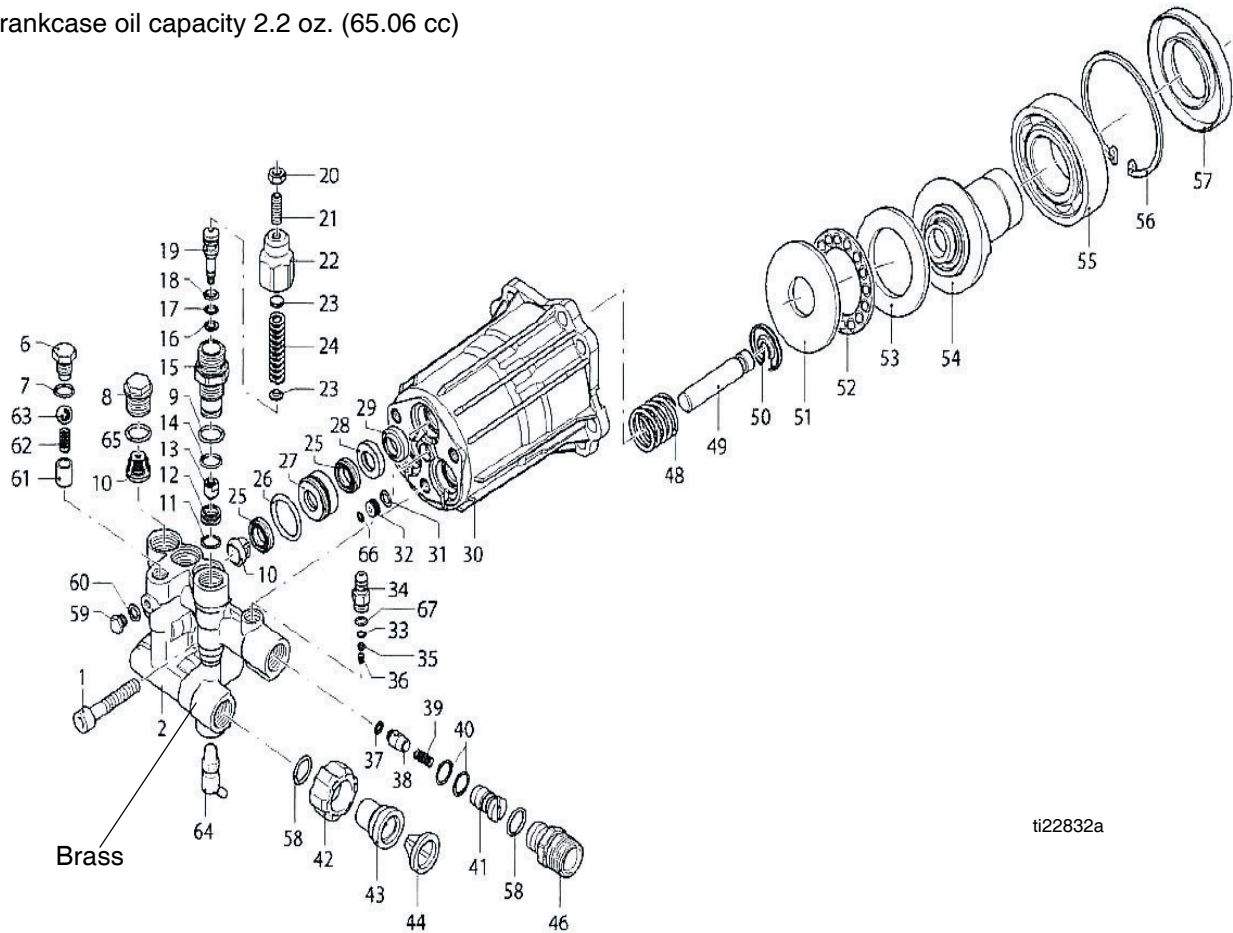
Parts List - Pump 127420

Part	Description	Qty.	Part	Description	Qty.
127501	KIT, unloader (includes 9, 11-24)	1	117784	PUMP, oil, 4.5 oz	1
127503★	KIT, valves (includes 10)	6	17A562	THERMAL VALVE	1
127504★	KIT, water seals (includes 25)	3	★ Kit services 3 cylinders		
127506	KIT, chemical injector (includes 33, 35, 36)	1	† Not all repair parts available through Graco.		
127519★	KIT, oil seals (includes 29, 57)	3, 1			

Pump 127419

(Used in 24U619, 24U985)

Crankcase oil capacity 2.2 oz. (65.06 cc)



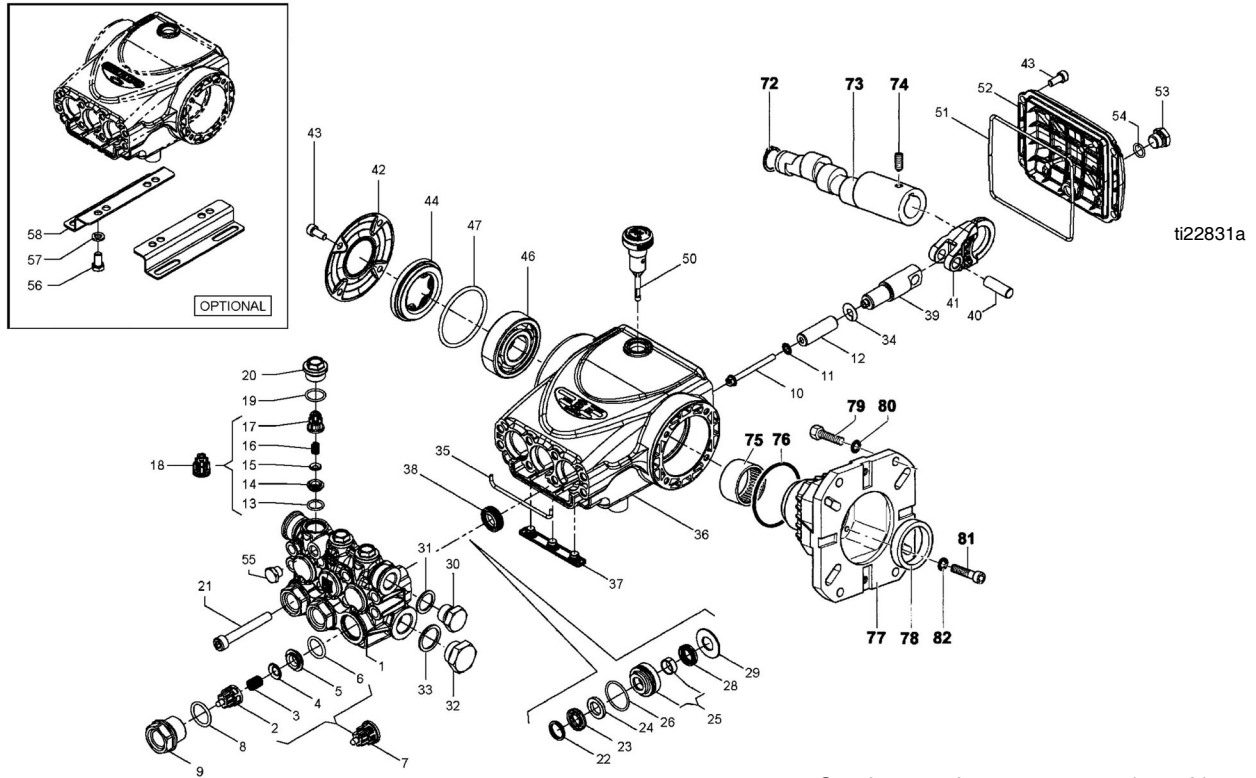
Parts List - Pump 127419

Part	Description	Qty.	Part	Description	Qty.
127501	KIT, unloader (includes 9, 11-24)	1	117784	PUMP, oil, 4.5 oz	1
127502★	KIT, valves (includes 10)	6	17A562	THERMAL VALVE	1
127505★	KIT, water seals (includes 25)	6	★	Kit services 3 cylinders	
127506	KIT, chemical injector (includes 33-36)	1			
127519★	KIT, oil seals (includes 29, 57)	3, 1			

† Not all repair parts available through Graco.

Pump 127418

(Used in 24U987, 24U621)



Crankcase oil capacity 15 oz (0.44 L)

Parts List - Pump 127418

Part	Description	Qty.
127476★	KIT, repair valve (includes 7, 18)	6
127477★	KIT, valve cap (includes 8, 9, 19, 20)	6
127478★	KIT, oil seal (includes 38)	3
127479❖	KIT, packing (includes 22, 23, 24,25, 26, 28, 29)	1
127480❖	KIT, piston (includes 12)	1
246377	PUMP, oil, 32 oz	1
17A564	THERMAL VALVE	1

★ Kit services 3 cylinders

❖ Kit services 1 cylinder

Technical Data

2525DD Models (24U618, 24U626)		
	U.S.	Metric
Washer		
Maximum Working Pressure	2500 psi	17.2 MPa, 172bar
Honda Engine Size	GC190	GC160
Gas Tank Capacity	1.82 quarts	1.7 liters
Maximum Delivery	2.5 gpm	9.5 lpm
Drive	Direct	Direct
Hose	3/8 in. x 25 ft (4000 psi)	9.5 mm x 7.6 m (27.6 MPa, 276 bar)
Dimensions		
Length	30.0 in.	76.2 cm
Width	21.5 in.	54.6 cm
Height	23.75 in.	60.3 cm
Weight (bare)	58 lb	26.3 kg
Performance		
Pump Inlet	3/4 ghf	3/4 ghf
Pump Outlet	22 mm	22 mm
Inlet Filter	50 mesh 0.012 in.	50 mesh 0.012 in.
Operating Temperature Range	40° F - 140° F	4.4° C - 60° C
Sound Pressure	92.5 dB(A)	92.5 dB(A)
Sound Power	109 dB(A)	106 dB(A)

2532DD Models (24U619, 24U985)		
	U.S.	Metric
Washer		
Maximum Working Pressure	3200 psi	22 MPa, 220 bar
Honda Engine Size	GX200	GX200
Gas Tank Capacity	3.8 quarts	3.6 liters
Maximum Delivery	2.5 gpm	9.5 lpm
Drive	Direct	Direct
Hose	3/8 in. x 50 ft (4000 psi)	9.5 mm x 15.2 m (27.6 MPa, 276 bar)
Dimensions		
Length	30.0 in.	76.2 cm
Width	21.5 in.	54.6 cm
Height	23.75 in.	60.3 cm
Weight (bare)	67 lb	30.3 kg
Performance		
Pump Inlet	3/4 ghf	3/4 ghf
Pump Outlet	3/8 QC	3/8 QC
Inlet Filter	50 mesh 0.012 in.	50 mesh 0.012 in.
Operating Temperature Range	40° F - 145° F	4° C - 63° C
Sound Pressure	89.6 dB(A)	89.6 dB(A)
Sound Power	103.6 dB(A)	103.6 dB(A)

3027DD Models (24U620, 24U986)		
	U.S.	Metric
Washer		
Maximum Working Pressure	2700 psi	18.6 MPa, 186 bar
Honda Engine Size	GX200	GX200
Gas Tank Capacity	3.8 quarts	3.6 liters
Maximum Delivery	3 gpm	11.4 lpm
Drive	Direct	Direct
Hose	3/8 in. x 50 ft (4000 psi)	9.5mm x 15.2 m (27.6 MPa, 276 bar)
Dimensions		
Length	41.5 in.	105.4 cm
Width	23.5 in.	59.7 cm
Height	25.0 in.	63.5 cm
Weight (bare)	82 lb	37.2 kg
Performance		
Pump Inlet	3/4 ghf	3/4 ghf
Pump Outlet	3/8 QC	3/8 QC
Inlet Filter	50 mesh 0.012 in.	50 mesh 0.012 in.
Operating Temperature Range	40° F - 145° F	4° C - 63° C
Sound Pressure	89.6 dB(A)	89.6 dB(A)
Sound Power	103.6 dB(A)	103.6 dB(A)

3032DD Models (24U987, 24U621)		
	U.S.	Metric
Washer		
Maximum Working Pressure	3200 psi	22 MPa, 220 bar
Honda Engine Size	GX270	GX270
Gas Tank Capacity	6.2 quarts	5.9 liters
Maximum Delivery	3 gpm	11.4 lpm
Drive	Direct	Direct
Hose	3/8 in. x 50 ft (4000 psi)	9.5 mm x 15.2 m (27.6 MPa, 276 bar)
Dimensions		
Length	41.5 in.	105.4 cm
Width	23.5 in.	59.7 cm
Height	25.0 in.	63.5 cm
Weight (bare)	113 lb	51.2 kg
Performance		
Pump Inlet	3/4 ghf	3/4 ghf
Pump Outlet	3/8 QC	3/8 QC
Inlet Filter	50 mesh 0.012 in.	50 mesh 0.012 in.
Operating Temperature Range	40° F - 145° F	4° C - 63° C
Sound Pressure	93.1 dB(A)	93.1 dB(A)
Sound Power	107.2 dB(A)	107.2 dB(A)

4040DD Models (24U988, 24U622)		
	U.S.	Metric
Washer		
Maximum Working Pressure	4000 psi	27.6 MPa, 276 bar
Honda Engine Size	GX390	GX390
Gas Tank Capacity	6.9 quarts	6.5 liters
Maximum Delivery	4 gpm	15.1 lpm
Drive	Direct	Direct
Hose	3/8 in. x 50 ft (4000 psi)	9.5 mm x 15.2 m (27.6 MPa, 276 bar)
Dimensions		
Length	41.5 in.	105.4 cm
Width	23.5 in.	59.7 cm
Height	25.0 in.	63.5 cm
Weight (bare)	129 lb	58.5 kg
Performance		
Pump Inlet	3/4 ghf	3/4 ghf
Pump Outlet	3/8 QC	3/8 QC
Inlet Filter	50 mesh 0.012 in.	50 mesh 0.012 in.
Operating Temperature Range	40° F - 145° F	4° C - 63° C
Sound Pressure	92.2 dB(A)	92.2 dB(A)
Sound Power	106.4 dB(A)	106.4 dB(A)

4040DDC Models (24U989, 24U623)		
	U.S.	Metric
Washer		
Maximum Working Pressure	4000 psi	27.6 MPa, 276 bar
Honda Engine Size	GX390	GX390
Gas Tank Capacity	6.9 quarts	6.5 liters
Maximum Delivery	4 gpm	15.1 lpm
Drive	Direct	Direct
Hose	3/8 in. x 50 ft (4000 psi)	9.5 mm x 15.2 m (27.6 MPa, 276 bar)
Dimensions		
Length	41.5 in.	105.4 cm
Width	23.5 in.	59.7 cm
Height	25.0 in.	63.5 cm
Weight (bare)	133 lb	60.3 kg
Performance		
Pump Inlet	3/4 ghf	3/4 ghf
Pump Outlet	3/8 QC	3/8 QC
Inlet Filter	50 mesh 0.012 in.	50 mesh 0.012 in.
Operating Temperature Range	40° F - 145° F	4° C - 63° C
Sound Pressure	92.2 dB(A)	92.2 dB(A)
Sound Power	106.4 dB(A)	106.4 dB(A)

4040BD Models (24U990, 24U624)		
	U.S.	Metric
Washer		
Maximum Working Pressure	4000 psi	27.6 MPa, 276 bar
Honda Engine Size	GX390	GX390
Gas Tank Capacity	6.9 quarts	6.5 liters
Maximum Delivery	4 gpm	15.1 lpm
Drive	Belt	Belt
Hose	3/8 in. x 50 ft (4000 psi)	9.5 mm x 15.2 m (27.6 MPa, 276 bar)
Dimensions		
Length	42.0 in.	106.7 cm
Width	27.0 in.	68.6 cm
Height	26.0 in.	66 cm
Weight (bare)	159 lb	72.1 kg
Performance		
Pump Inlet	3/4 ghf	3/4 ghf
Pump Outlet	3/8 QC	3/8 QC
Inlet Filter	50 mesh 0.012 in.	50 mesh 0.012 in.
Operating Temperature Range	40° F - 145° F	4° C - 63° C
Sound Pressure	92.2 dB(A)	92.2 dB(A)
Sound Power	106.4 dB(A)	106.4 dB(A)

4040BDC Models (24U991, 24U625)		
	U.S.	Metric
Washer		
Maximum Working Pressure	4000 psi	27.6 MPa, 276 bar
Honda Engine Size	GX390	GX390
Gas Tank Capacity	6.9 quarts	6.5 liters
Maximum Delivery	4 gpm	15.1 lpm
Drive	Belt	Belt
Hose	3/8 in. x 50 ft (4000 psi)	9.5 mm x 15.2 m (27.6 MPa, 276 bar)
Dimensions		
Length	42.0 in.	106.7 cm
Width	27.0 in.	68.6 cm
Height	26.0 in.	66 cm
Weight (bare)	158 lb	71.6 kg
Performance		
Pump Inlet	3/4 ghf	3/4 ghf
Pump Outlet	3/8 QC	3/8 QC
Inlet Filter	50 mesh 0.012 in.	50 mesh 0.012 in.
Operating Temperature Range	40° F - 145° F	4° C - 63° C
Sound Pressure	92.2 dB(A)	92.2 dB(A)
Sound Power	106.4 dB(A)	106.4 dB(A)

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

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Graco Information

For the latest information about Graco products, visit www.graco.com.

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.

*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.*

For patent information, see www.graco.com/patents

Original instructions. This manual contains English. MM 333031

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