Operation, Parts



GH[™]130/200/230/300 Hydraulic Sprayers

334558L

ΕN

For professional use only.

Not approved for use in explosive atmosphere or hazardous locations. For portable airless spraying of architectural paints and coatings.

3300 psi (22.8 MPa, 228 bar) Maximum Working Pressure
See page 3 for model information, including maximum working pressure and approvals.



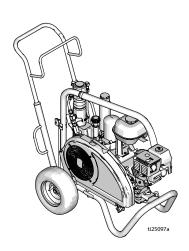
Important Safety Instructions

Read all warnings and instructions in this manual and in related manuals. Be familiar with the controls and the proper usage of the equipment. Save these instructions.

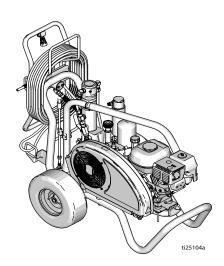
Related Manuals:

311861 GH130/200 Gun 334654 Pump

311254 GH230/300 Gun 310812 Electric Motor







ProContractor Series

Use only genuine Graco replacement parts. The use of non-Graco replacement parts may void warranty.



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Models

		GH130	
Model:	Standard	120V Motor Kit (Non CSA)	
24W923	✓		
18A957	✓		
24W924	✓	✓	
•		GH200	
Model:	Standard	ProContractor	120V Motor Kit (Non CSA)
24W925	✓		
18A958	✓		
24W926	✓		✓
24W927		✓	
24W928		✓	✓
'		GH230	•
Model:	Standard	ProContractor	120V Motor Kit (Non CSA)
24W929	✓		
18A975	✓		
24W930	✓		✓
24W932		✓	
24W933		✓	✓
•		GH300	•
Model:	Standard	ProContractor	
24W935	✓		
18A956	✓		
24W936		✓	
24W935V	√		
24W936V		✓	

Electric Motor Kit Options

Kit Number	Sprayer Model	Description
288473	GH130	120VAC, 60Hz, 15A
248949	GH200/GH230/GH300*	120 VAC, 60Hz, 15A

^{*}Performance is limited when using electric motor vs internal combustion engine

OEM Kits

Kit Number	OEM Model	Description
24W297	GH130 OEM	3300 psi (22.8 MPa, 228 bar) Maximum Working Pressure (psi)
24W298	GH200 OEM	3300 psi (22.8 MPa, 228 bar) Maximum Working Pressure (psi)
24W299	GH230/300 OEM	3330 psi (22.8 MPa, 228 bar) Maximum Working Pressure (psi)

Warnings

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.

MARNING



GROUNDING

This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This product is equipped with a cord having a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.

- Improper installation of the grounding plug is able to result in a risk of electric shock.
- When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal.
- The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.
- Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the product is properly grounded.
- Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.
- This product is for use on a nominal 120V or 230V circuit and has a grounding plug similar to the plugs illustrated in the figure below.









- Only connect the product to an outlet having the same configuration as the plug.
- Do not use an adapter with this product.
- Extension Cords:
- Use only a 3-wire extension cord that has a grounding plug and a grounding receptacle
 that accepts the plug on the product.
- Make sure your extension cord is not damaged. If an extension cord is necessary, use 12 AWG (2.5 mm²) minimum to carry the current that the product draws.
- An undersized cord results in a drop in line voltage and loss of power and overheating.

Electric Motor Warnings

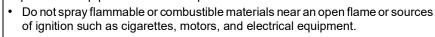
MARNING



FIRE AND EXPLOSION HAZARD



Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent fire and explosion:







- Paint or solvent flowing through the equipment is able to result in static electricity.
 Static electricity creates a risk of fire or explosion in the presence of paint or
 solvent fumes. All parts of the spray system, including the pump, hose assembly,
 spray gun, and objects in and around the spray area shall be properly grounded
 to protect against static discharge and sparks. Use Graco conductive or
 grounded high-pressure airless paint sprayer hoses.
- Verify that all containers and collection systems are grounded to prevent static discharge. Do not use pail liners unless they are anti static or conductive.
- Connect to a grounded outlet and use grounded extensions cords. Do not use a 3-to-2 adapter.
- Do not use a paint or a solvent containing halogenated hydrocarbons.
- Do not spray flammable or combustible liquids in a confined area.
- Keep spray area well-ventilated. Keep a good supply of fresh air moving through the area.
- Sprayer generates sparks. Keep pump assembly in a well ventilated area at least 20 feet (6.1 m) from the spray area when spraying, flushing, cleaning, or servicing. Do not spray pump assembly.
- Do not smoke in the spray area or spray where sparks or flame is present.
- Do not operate light switches, engines, or similar spark producing products in the spray area.
- Keep area clean and free of paint or solvent containers, rags, and other flammable materials.
- Know the contents of the paints and solvents being sprayed. Read all Safety Data Sheets (SDS) and container labels provided with the paints and solvents.
 Follow the paint and solvents manufacturer's safety instructions.

· Fire extinguisher equipment shall be present and working.

Internal Combustion Engine Warnings

△WARNING



FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent fire and explosion:



- · Use equipment only in well ventilated area.
- 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.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).
- Keep work area free of debris, including solvent, rags and fuel.



- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Ground all equipment in the work area. See Grounding instructions.
- · Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners
 unless they are anti static or conductive.
- Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.



CARBON MONOXIDE HAZARD

Exhaust contains poisonous carbon monoxide, which is colorless and odorless. Breathing carbon monoxide can cause death.

· Do not operate in an enclosed area.



BURN HAZARD

Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:

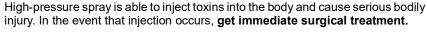
Do not touch hot fluid or equipment.

Electric Motor/Internal Combustion Engine Warnings

MARNING



SKIN INJECTION HAZARD

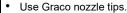


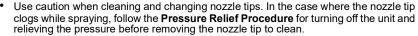


- Do not aim the gun at, or spray any person or animal.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.



Always use the nozzle tip guard. Do not spray without nozzle tip guard in place.







- Equipment maintains pressure after power is shut off. Do not leave the equipment energized or under pressure while unattended. Follow the Pressure Relief Procedure when the equipment is unattended or not in use, and before servicing, cleaning, or removing parts.
- Check hoses and parts for signs of damage. Replace any damaged hoses or parts.
- This system is capable of producing 3300 psi (22.8 MPa, 228 bar). Use Graco replacement parts or accessories that are rated a minimum of 3300 psi (22.8 MPa, 228 bar).
- 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

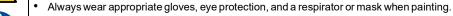
Warnings

** WARNING**



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.



- 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 operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not kink or over-bend the hose.
- Do not expose the hose to temperatures or to pressures in excess of those specified by Graco
- Do not use the hose as a strength member to pull or lift the equipment.
- Do not spray with a hose shorter than 25 feet.
- 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 usina it.



PRESSURIZED ALUMINUM PARTS HAZARD

Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.



MOVING PARTS HAZARD

Moving parts can pinch, cut 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 and disconnect all power sources.



MARNING



ENTANGLEMENT HAZARD

Rotating parts can cause serious injury.



- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Do not wear loose clothing, jewelry or long hair while operating equipment.
- Equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure and disconnect all power sources.



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 SDSs 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.



RECOIL HAZARD

Gun may recoil when triggered. If you are not standing securely, you could fall and be seriously injured.



PERSONAL PROTECTIVE EQUIPMENT

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. Protective equipment includes but is not limited to:

- Protective eve wear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

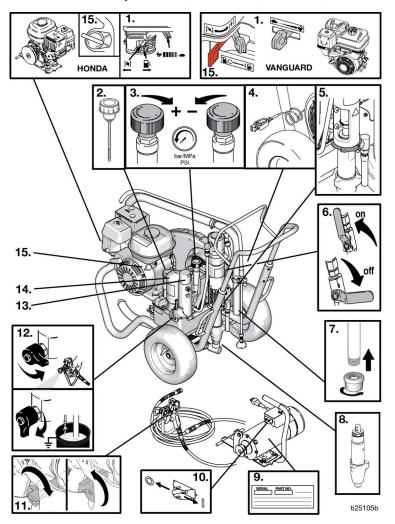
CALIFORNIA PROPOSITION 65

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.

Component Identification

Component Identification Standard Models (GH130, GH200, GH230, GH300)

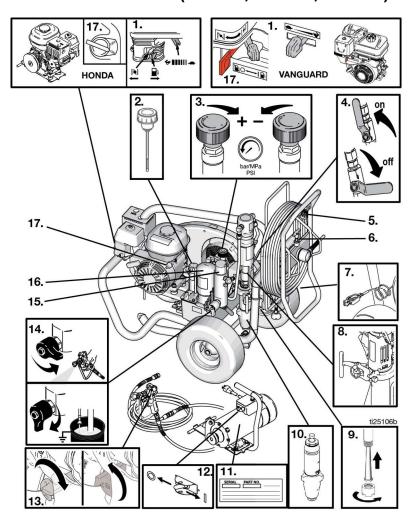


1	Engine Controls
2	Hydraulic Oil Cap / Dipstick
3	Pressure Control
4	Grounding Clamp
5	Threaded Pump Connection
6	Hydraulic Pump Valve
7	Inlet Strainer

8	Displacement Pump		
9	Serial Number Tag (2 places)		
10	Electric Motor On/Off Switch		
11	Gun Trigger Lock		
12	Prime/Drain Valve		
13	Easy Out™ Paint Filter		
14	Hydraulic Oil Filter		
15	Engine On/Off Switch		

Component Identification

ProContractor Models (GH200, GH230, GH300)



1	Engine Controls	
2	Hydraulic Oil Cap / Dipstick	
3	Pressure Control	
4	Hydraulic Pump Valve	
5	Hose Reel Handle	
6	Hose Reel Lock	
7	Grounding Clamp	
8	ProConnect	
9	Inlet Strainer	

10	Displacement Pump	
11	Serial Number Tag (2 places)	
12	Electric Motor On/Off Switch	
13	Gun Trigger Lock	
14	Prime/Drain Valve	
15	Easy Out™ Paint Filter	
16	Hydraulic Oil Filter	
17	Engine On/Off Switch	

Grounding

Grounding

Grounding Procedure for Internal Combustion Engine

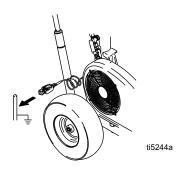








The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.



To ground sprayer: Attach sprayer grounding clamp to earth ground.

Air and fluid hoses: Use only electrically conductive hoses with a maximum of 500ft. (150 m) combined hose length to ensure grounding continuity. Check electrical resistance of hoses. If total resistance to ground exceeds 29 megaohms, replace hose immediately.

Spray gun: Ground through connection to a properly grounded fluid hose and pump.

Grounding Procedure for Electric Motor









The equipment must be grounded to reduce the risk of static sparking and electric shock. An electric or static spark can cause fumes to ignite or explode. An improper ground can cause electric shock. A good ground provides an escape wire for the electric current.

If using the electric motor, plug must be plugged into an actual outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided; if it does not fit the outlet, have the proper outlet installed by a qualified electrician.

Power Requirements

- 110-120V units require 100-120 VAC, 50/60 Hz, 15A, 1 phase.
- 230V units require 230 VAC, 50/60 Hz, 16A, 1 phase

Extension Cords

Use an extension cord with an undamaged ground contact. If an extension cord is necessary, use a 3-wire, 12 AWG (2.5 mm²) minimum.

NOTE: Smaller gauge or longer extension cords may reduce sprayer performance.

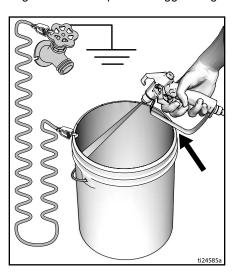
Grounding of Pails

Solvent pails used when flushing: Follow local code. Use only conductive metal pails, placed on a grounded surface. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts grounding continuity.



Always ground a metal pail: connect a ground wire to the pail. Clamp one end to the pail and the other end to a true earth ground such as a water pipe.

To maintain ground continuity when sprayer is flushed or pressure is relieved: hold metal part of spray gun firmly to the side of a grounded metal pail then trigger the gun.



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.

- Engage trigger lock.
- 2. Turn sprayer OFF:
 - Turn gas engine or electric motor ON/OFF switch to OFF.

OR

Move Diesel throttle lever to STOP.

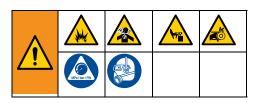
OR

- Unplug power cord to electric motor.
- Move pump valve to OFF and turn pressure control knob fully counterclockwise to lowest setting.
- Disengage trigger lock. Hold metal part of gun firmly to side of grounded metal pail, and trigger gun to relieve pressure.
- Engage gun trigger lock.
- Turn prime valve down to DRAIN position. Leave prime valve down until ready to spray again.
- If you suspect the spray tip or hose is clogged or that pressure has not been fully relieved:
 - a. VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually.
 - b. Loosen nut or coupling completely.
 - c. Clear hose or tip obstruction.

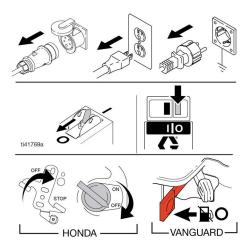
Setup

Setup

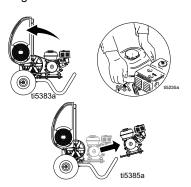
Change Engine or Motor



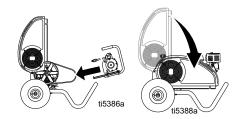
1 Turn motor OFF and unplug or turn engine to the OFF/STOP position. Loosen belt guard knob and motor clamp. Perform Pressure Relief Procedure, page 13.



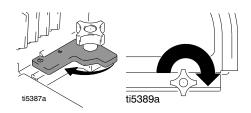
2 Lift belt guard. Remove belt. Tilt engine/motor and remove engine/motor.



3 Tilt engine/motor. Install engine/motor. Install belt. Lower belt guard.



4 Swivel motor clamp. Tighten motor clamp and belt guard knob.



Complete Setup



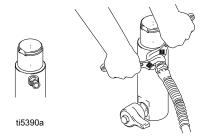




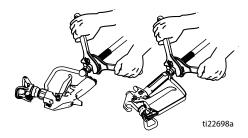




 All sprayers except ProContractor: Connect appropriate Graco high-pressure hose to sprayer.



2. Install hose to spray gun and tighten securely.

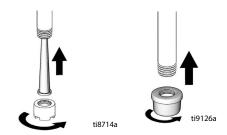


3. Engage gun trigger lock.

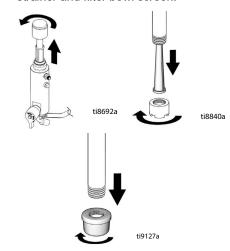


- 4. Remove Tip Guard.
- ProContractor Series: Install inlet strainer into bottom of suction tube, place inlet nut over end and hand tighten securely.

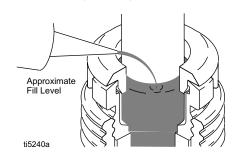
Standard Series: Screw inlet strainer to bottom of suction hose and hand tighten securely.



6. When spraying texture, remove inlet strainer and filter bowl screen.



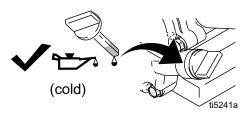
Fill throat packing nut with TSL to prevent premature packing wear. Do this each time you spray.



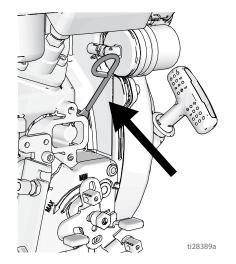
Setup

8. Check engine oil level.

Gasoline Engine

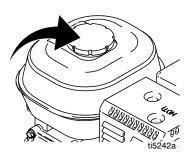


Diesel Engine

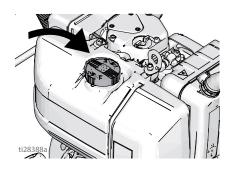


9. Fill fuel tank.

Gasoline Engine



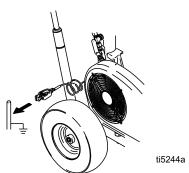
Diesel Engine



 Check hydraulic oil level. See page 25 for hydraulic oil specifications. Add hydraulic oil as needed until the level is between the MIN and MAX (Safe Range when cold). Hydraulic tank capacity is five quarts (4.75 liters).



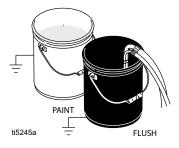
11. Attach sprayer grounding clamp to earth ground.



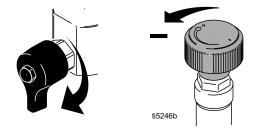
Startup



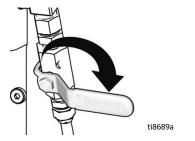
 Place suction tube and drain tube in grounded metal pail partially filled with flushing fluid. Attach ground wire to pail and to earth ground.



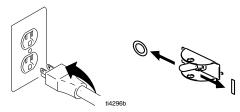
 Turn prime valve down to DRAIN position. Turn pressure control counterclockwise to lowest pressure.



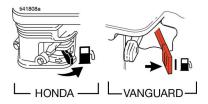
3. Set hydraulic pump valve OFF.



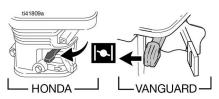
4. If using electric motor, plug cord into outlet and turn switch to ON.



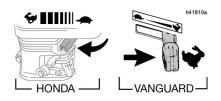
- 5. If using gasoline engine, start engine.
 - a. Move fuel valve to open.



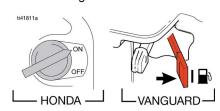
b. Move choke to closed.



c. Set throttle to fast.

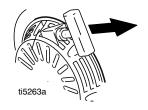


d. Set engine switch to ON.

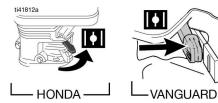


Startup

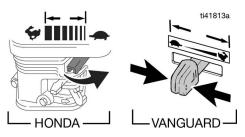
e. Pull starter rope.



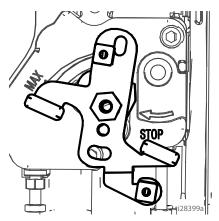
f. After engine starts, move choke to open.



g. Set throttle to desired setting.



- 6. If using Diesel engine, start engine.
 - a. Move throttle lever to MIN position.



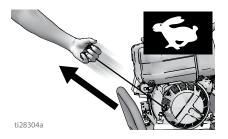
 Grip the starter rope handle. Gently pull the rope until it is extended to the full length revealing the RED indicator mark on the rope.



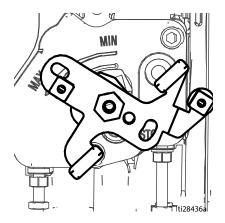
 Without releasing the starter rope handle allow the rope to rewind completely.



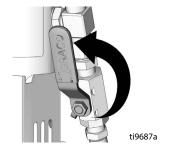
d. Start the engine by pulling the rope using a firm steady pull.



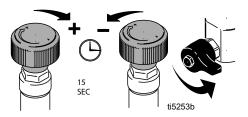
e. After engine starts move throttle lever to MAX (full throttle) position.



7. Set hydraulic pump valve ON (hydraulic motor is now active).



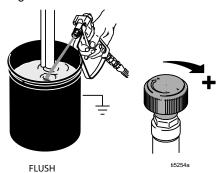
 Increase pressure enough to start hydraulic motor stroking and allow fluid to circulate for 15 seconds; turn pressure down, turn prime valve horizontal.



9. Disengage spray gun trigger lock.



 Hold gun against grounded metal flushing pail. Trigger gun and increase fluid pressure slowly until pump runs smoothly. Release trigger and allow sprayer to build pressure. Engage trigger lock.



Startup









High-pressure spray is able to inject toxins into the body and cause serious bodily injury. Do not stop leaks with hand or rag.

- Inspect for leaks. If leaks occur, turn sprayer OFF immediately. Perform Pressure Relief Procedure, page 13. Tighten leaky fittings. Repeat Startup procedure steps 2-8. If no leaks, continue to trigger gun until system is thoroughly flushed.
- 12. Place siphon tube in paint pail.



13. Trigger gun again into flushing fluid pail until paint appears.



Switch Tip™ and Guard Assembly

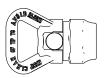




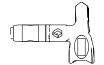




- Perform Pressure Relief Procedure, page 13.
- Engage gun trigger lock. Insert Switch Tip. Insert seat and OneSeal™.

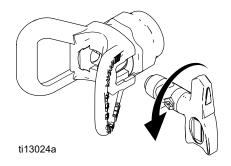




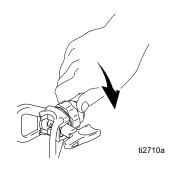


ti13023a

3. Insert Switch Tip and face forward.



4. Screw assembly onto gun. Tighten.

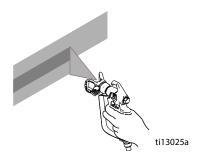


Spray

 Spray test pattern. Increase pressure to eliminate heavy edges. Use smaller tip size if pressure adjustment can not eliminate heavy edges.



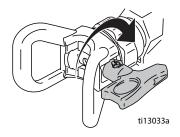
 Hold gun perpendicular, 10-12 in. (25-30 cm) from surface. Spray back and forth. Overlap by 50%. Trigger gun after moving and release before stopping.



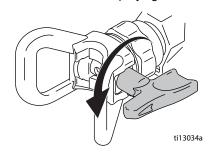
Clear Tip Clog



 Release trigger, engage trigger lock. Rotate Switch Tip. Disengage trigger lock. Trigger gun to clear clog.



 Engage trigger lock. Return Switch Tip to original position. Disengage trigger lock and continue spraying.



Startup

Hose Reel

(ProContractor Series only)



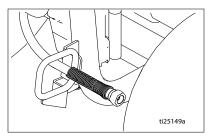




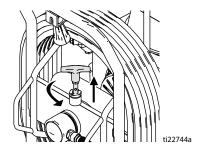


To avoid injury, keep your head clear of hose reel while winding up hose.

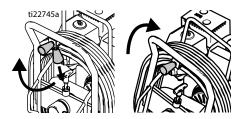
1. Make sure hose is routed through hose guide.



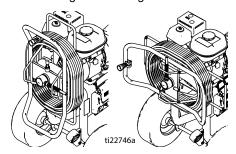
 Lift and turn pivot lock 90° to unlock hose reel. Pull on hose to remove it from hose reel.



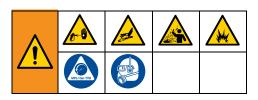
3. Pull reel handle down and turn clockwise to reel in hose.



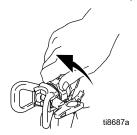
NOTE: The hose reel can be locked into two positions: Usage and Storage.



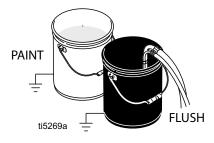
Clean Up



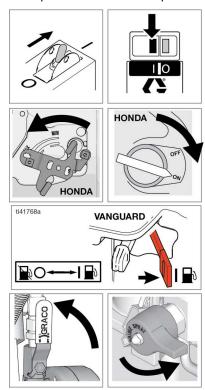
- Perform Pressure Relief Procedure, page 13, steps 1-7.
- 2. Remove Guard and SwitchTip.



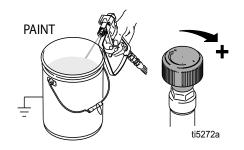
 Remove siphon tube set from paint and place in flushing fluid. Use water for water-based paint and mineral spirits for oil based paint.



 Turn engine ON and start engine or plug motor in and turn ON. Move throttle to MAX on internal combustion engine. Turn hydraulic pump valve ON. Turn prime valve to SPRAY position.

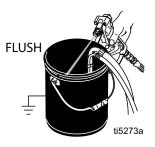


 Hold gun against pail. Disengage trigger lock. Turn pressure control up until motor begins to drive pump. Trigger gun until flushing fluid appears.



Clean Up

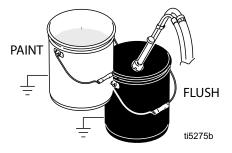
 Move gun to waste pail, hold gun against pail, trigger gun to thoroughly flush system. Release trigger and engage trigger lock.



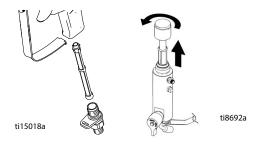
 While continuing to trigger gun, turn prime valve down. Then release gun trigger. Allow flushing fluid to circulate until fluid comes out of drain tube clear.



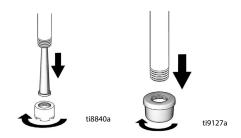
 Raise siphon tube above flushing fluid and run sprayer for 15 to 30 seconds to drain fluid. Turn hydraulic valve OFF. Turn engine OFF or turn electric motor OFF and unplug.



 Engage trigger lock. Remove filters from gun and sprayer, if installed. Clean and inspect. Reinstall filters.



 Depending on model, either remove nut and inlet strainer screen from bottom of suction tube, or unscrew and remove inlet strainer. Clean and replace strainer screen if necessary. Reassemble.



- If flushing with water, flush again with mineral spirits, or Pump Armor, to leave a protective coating to prevent freezing or corrosion.
- 12. Wipe sprayer, hose and gun with a rag soaked in water or mineral spirits.



Maintenance



NOTE: For detailed engine maintenance and specifications, refer to separate Honda or Kohler Engine Owner's Manual, supplied.

DAILY: Check engine oil level and fill as necessary.

DAILY: Check hydraulic oil level and fill as necessary.

DAILY: Check hose for wear and damage.

DAILY: Check gun trigger lock for proper operation.

DAILY: Check prime/drain valve for proper operation.

DAILY: Check and fill the fuel tank.

DAILY: Check that displacement pump is tight.

DAILY: Check level of Throat Seal Liquid (TSL) in displacement pump packing nut. Fill nut, if necessary. Keep TSL in nut to help prevent fluid buildup on piston rod and premature wear of packings and pump corrosion.

GASOLINE ENGINE, AFTER THE FIRST 20 HOURS OF OPERATION: Drain engine oil and refill with clean oil. Reference Honda or Vanguard Engine Owner's Manual for correct oil grade.

DIESEL ENGINE, AFTER THE FIRST 50 HOURS OF OPERATION: Drain engine oil and refill with clean oil. Replace oil filter.
Reference Kohler Engine Owner's Manual for correct oil grade.

WEEKLY: Remove engine air filter cover and clean element. Replace element, if necessary. If operating in an unusually dusty environment: check filter daily and replace, if necessary.

Replacement elements can be purchased from your local HONDA/Kohler/Vanguard dealer.

WEEKLY/DAILY: Remove any debris or media from hydraulic rod.

AFTER EACH 100 HOURS OF

OPERATION: Change engine oil. Reference Honda or Vanguard Engine Owner's Manual for correct oil viscosity.

DIESEL ENGINE, AFTER EACH 250 HOURS OF OPERATION: Drain engine oil and refill with clean oil. Replace oil filter.
Reference Kohler Engine Owner's Manual for correct oil grade.

SEMI-ANNUALLY: Check belt wear. Replace if necessary.

YEARLY OR 2000 HOURS: Replace belt. Replace hydraulic oil with Mobil SHC 526 or other high quality ISO viscosity grade 68 hydraulic oil. Replace hydraulic oil filter 246173.

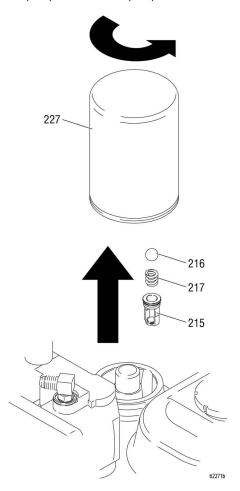
SPARK PLUG: Use only BPR6ES (NGK) or W20EPR-U (NIPPONDENSO) plug. Gap plug to 0.028 to 0.031 in. (0.7 to 0.8 mm). use spark plug wrench when installing and removing plug.

Maintenance

Hydraulic Oil/Filter Change

- Place drip pan or rags under sprayer to catch hydraulic oil that drains out.
- Remove drain plug (2). Allow hydraulic oil to drain.
- 3. Unscrew filter (227) slowly oil runs into groove and drains out rear.
- 4. Remove and replace ball (216), spring (217), and retainer (215).

- Install drain plug (2) and oil filter (227). tighten oil filter additional 3/4 turn after gasket contacts the base.
- Fill with oil tank with five quarts (4.75 liters) of hydraulic oil. See page 25 for hydraulic oil specifications.
- 7. Check oil level.



Troubleshooting



















Problem	Cause	Solution
Internal combustion engine pulls hard (won't start)	Hydraulic pressure is too high	Turn hydraulic pressure knob counterclockwise to lowest setting
Gasoline engine does not start	Switch OFF, low oil, no gasoline	Consult engine manual
	Fuel shut off valve closed	Open fuel shut off valve
Gasoline engine does not work properly	Faulty engine	Consult engine manual
ргорепу	Elevation	Refer to Engine Repair Kit, 4.0 hp - 288678 / 5.5 hp - 248943 / 6/5 hp - 248944 / 9.0 hp - 248945
Diesel engine does not start	No fuel Incorrect injection timing, rings worn or sticking.	Consult engine manuals
Diesel engine does not work	Faulty engine	Consult engine manuals
properly	Poor fuel quality	Drain fuel tank and replace fuel with good clean fuel
Internal combustion engine	Hydraulic pump valve is OFF	Set hydraulic pump valve ON
operates, but displacement pump does not operate	Pressure setting too low	Increase pressure, page 19.
	Displacement pump outlet filter (if used) is dirty or clogged	Clean the filter
	Tip or tip filter (if used) is clogged	Remove tip and/or filter and clean
	Hydraulic fluid too low	Shut off sprayer. Add fluid*. See page 16.
	Belt worn or broken or off	Replace.
	Hydraulic pump worn or damaged	Bring sprayer to Graco distributor for repair
	Dried paint seized paint pump rod	Service pump. See manual 334654
	Hydraulic motor not shifting	Set pump valve OFF. Turn pressure down. Turn engine OFF. Pry rod up or down until hydraulic motor shifts.
Displacement pump operates, but output is low on upstroke	Piston ball check not seating properly	Service piston ball check. See manual 334654
	Piston packings worn or damaged	Replace packings. See manual 334654

Troubleshooting

Problem	Cause	Solution
Displacement pump operates, but output is low on down stroke and/or on both strokes	Piston packings worn or damaged	Tighten packing nut or replace packings. See manual 334654
and/or on both strokes	Intake valve ball check not seating properly	Service intake valve ball check See manual 334654
	Suction tube air leak	
	Hydraulic oil filter is dirty	Replace filter.
Paint leaks and runs over side of wet cup	Loose wet cup	Tighten wet cup enough to stop leakage
	Throat packings worn or damaged	Replace packings. See manua 334654
Excessive leakage around hydraulic motor piston rod wiper	Piston rod seal worn or damaged	Replace these parts. See manual 334654
Fluid delivery is low	Pressure setting too low	Increase pressure, page 19.
	Displacement pump outlet filter (if used) is dirty or clogged	Clean or replace.
	Contractor gun filter (if used) is dirty or clogged	Clean or replace.
	Intake line to pump inlet is not tight	Tighten.
	Hydraulic motor is worn or damaged	Bring sprayer to Graco distributor for repair.
	Large pressure drop in fluid hose	Reduce length or increase diameter.
The sprayer overheats	Paint buildup on hydraulic components	Clean
	Oil level is low	Fill with oil. See page 16.
Spitting from gun	Air in fluid pump or hose	Check for loose connections or siphon assembly, tighten, then reprime pump
	Loose intake suction	Tighten
	Fluid supply is low or empty	Refill supply container
Pump noise	Low hydraulic fluid level	Turn sprayer OFF. Add fluid*. See page 16
Electric motor does not operate	Power switch is not ON	Turn power switch ON
	Tripped circuit breaker	Check circuit breaker at power source. Reset motor switch

Standard Series Pump

Standard Series Pump

Removal











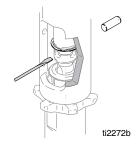
See pump manual 334654 for pump repair.

- 1. Flush pump.
- 2. Perform Pressure Relief Procedure, page 13.
- 3. Remove suction tube and paint hose (remove at swivel end).

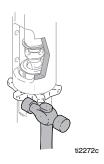




4. Push retaining ring up; push out pin.



5. Loosen jam nut. Unscrew pump.

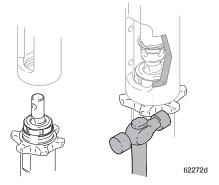


Installation

NOTICE

If pump jam nut loosens during operation, the threads of the bearing housing and drive train will be damaged. Tighten jam nut as specified.

 Screw jam nut to bottom of pump threads. Screw pump completely into manifold. Unscrew pump from manifold until pump outlet aligns with hose. Hand tighten jam nut, then tap 1/8 to 1/4 turn with hammer



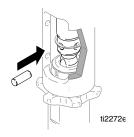
Standard Series Pump



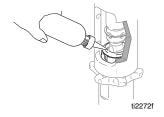


If pin is loose, parts could break off and project through the air, resulting in serious injury or property damage. Make sure pin is properly installed.

 Slowly pull engine starter rope until pump rod pin hole is aligned with hydraulic rod hole. Push pin into hole. Push retaining ring into groove.



3. Fill packing nut with Graco TSL.



ProContractor Series Pump

ProContractor Series Pump

Removal









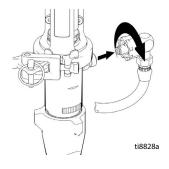


See pump manual 334654 for pump repair.

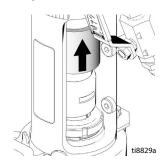
- 1. Flush pump.
- 2. Perform **Pressure Relief Procedure**, page 13.
- 3. Remove suction hose.



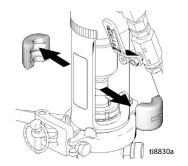
4. Remove paint hose fitting and paint hose from pump fitting.



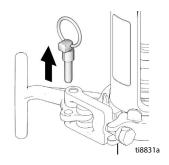
Slide coupler cover up to fully expose rod couplers.



6. Remove rod couplers.



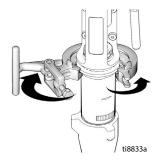
7. Remove pin.



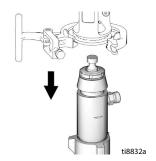
NOTE: Support pump with your hand before opening t-handle.

ProContractor Series Pump

8. Open clamp.

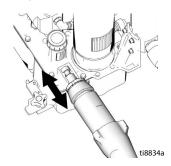


9. Remove pump from unit.



Installation

If needed, place pump rod in adjustment casting and pull pump to extend rod.



2. Reverse removal steps to reassemble pump.

Repair

Hydraulic Pump







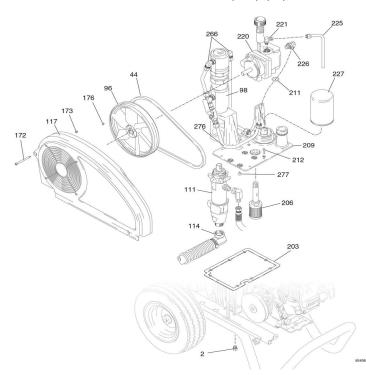


Removal

Let hydraulic system cool before starting service.

- Place drip pan or rags under sprayer to catch hydraulic oil that leaks out during repair.
- 2. Remove drain plug (2) and oil filter (227) and allow hydraulic oil to drain.
- 3. Disconnect suction tube (114).

- 4. Disconnect paint pump (111), page 29 or 31.
- 5. Remove screw (172), nut (173) and belt guard (117).
- 6. Raise motor and remove belt (44).
- 7. Remove two set screws (176) and fan pulley (96).
- 8. Remove case drain tube (225).
- 9. Remove elbow (221).
- Remove tube (276) from elbow (226).
 Remove elbow (226) from hydraulic pump (98).
- 11. Remove eight screws (212) reservoir cover (209) filter assembly (206) and gasket (203).
- 12. Remove four screws (277) and hydraulic pump (98) from reservoir cover (209).



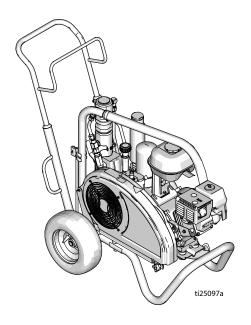
Repair

Installation

- Install hydraulic pump (98) to reservoir cover (209) with four screws (277); torque 100 in-lb (11 N·m).
- Install gasket (203) and reservoir cover (68) with eight screws (212); torque 90 in-lb (10 N·m).
- Install elbow (226) in hydraulic pump (98). Install elbow (226) in tube (276). Torque to 15 ft-lb (20.3 N·m).
- 4. Install elbow (221); torque to 15 ft-lb (20.3 N·m).
- 5. Install case drain tube (225); torque to 25 ft-lb (33.9 N·m).
- 6. Install fan pulley (96) with two set screws (176).
- 7. Raise motor and install belt (44).
- 8. Install belt guard (117) with screw (172) and nut (173).
- 9. Connect paint pump (111), page 29 or 32.
- 10. Connect suction tube (114).
- Install drain plug (40); torque to 110 in-lb (12.4 N·m). Install oil filter (47); tighten 3/4 turn after gasket contacts base. Fill hydraulic pump with Graco hydraulic oil, page 6, through elbow (22) port until full. Fill reservoir with remaining hydraulic oil.
- Start up and allow pump to operate at low pressure for approximately 5 minutes to purge all air.
- 13. Check oil hydraulic oil and top off, if required.

GH™130/200/230/300 Standard Series Parts

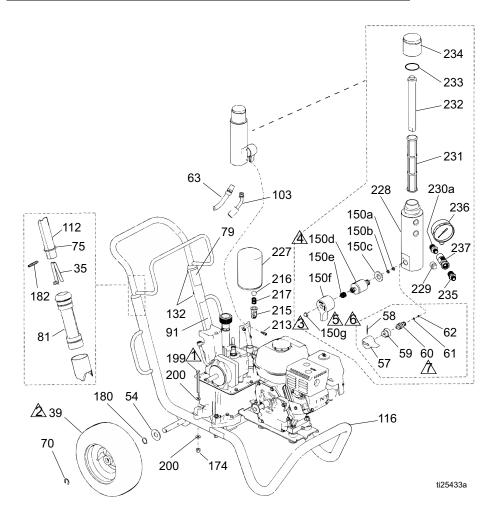
GH™130/200/230/300 Standard Series Parts



GH™130/200/230/300 Standard Series Parts

GH™130/200/230/300 Standard Series

Ref.	Torque	Ref.	Torque
Λ	120-130 in-lb (13.6 - 14.7 N•m)	<u></u>	15-25 in-lb (1.7 - 2.8 N•m)
<u> </u>	Inflate tires to 25-35 psi (1.7-2.4 bar)	Â	Apply Locktite 242
<u> 3</u>	110-120 in-lb (12.4 - 13.6 N•m)	\triangle	35-45 ft-lb (47.5 - 61.0 N•m)
<u> </u>	355-395 in-lb (40.1 - 44.6 N•m)		



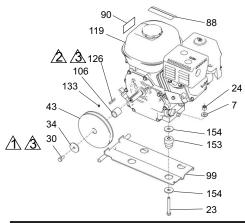
Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
35	112827	BUTTON, snap	2	150d ★		VALVE, assembly	1
39		WHEEL, pneumatic,	2	150e ★	114708	SPRING, compression	1
		GH130 & 200		150f★	15G563	HANDLE, valve	1
	119509	WHEEL, pneumatic,	2	150g ★	116424	NUT, cap, hex hd	1
		GH230 & 300		174	110838	NUT, hex	2
54	156306	WASHER, flat	2	180	116038	WASHER, wave spring	2 2
57	15C780	HANDLE, GH130	1	182	101354	PIN, spring, straight,	2
58		PIN, grooved, GH130	1			GH130 & 200	
59	224807	BASE, valve, GH130	1		108068	PIN, spring, straight,	2
60	235014	VALVE, replacement, kit,	1			GH230 & 300	
		GH130		199	867539	SCREW, flat head	2
61◆	15E022	SEAT, valve, GH130	1	200	100527	WASHER	4
62◆	277364	GASKET, seat, valve,	1	213	119426	SCREW	3 1
		GH130		215	198841	RETAINER	
63	243814	HOSE	1	216	100084		1
70	120211	CLIP, retaining	2	217	116967		1
75	15J645	WASHER, GH130 & 200	2	227	246173	FILTER, oil, spin on	1
	183350	WASHER, GH230, & 300	2	228‡	15E599		1
79▲	189246	LABEL, warning	1	229‡	15G331		1
	17D947	LABEL, warning,	1	230a	196178	ADAPTER 3/8 npsm (m)	1
		multi-languages				hose connection	
81	192027	SLEEVE, cart	2	231‡	244067		1
91▲	194317	LABEL, warning	1	232‡		TUBE, diffusion	1
	16N948	LABEL, warning, ISO	1	233‡	117285		1
	17D947	LABEL, warning,	1	234‡		CAP, filter	1
		multi-languages		235	196177		1
103	288732	HOSE, drain	1	000	196178		1
112		HANDLE, cart	1	236	102814		1
116	288169	FRAME, cart, GH130 &	1	237	243683	SWIVEL	1
		200		4.5			
	248815	CART, frame, GH230 & 300	1	cost.		arning labels are available	
132	109032	SCREW, mach, pnh	4			rain Valve Replacement Kit	
150‡		VALVE, drain, GH200,	•	235	014		
		230, 300		★ Incl	uded in Di	rain Valve Replacement Kit	
1502	★ 193710		1	2451	103		
	★ 193709		1	‡ Inclu	ded in Filt	er Replacement Kit 24W75	3
	★ 114797	GASKET	1				

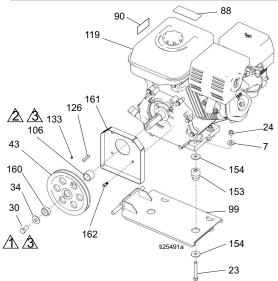
Parts-Engines GH™130/200/230 Standard Series

Ref.	Torque	Ref.	Torque
Λ	120-130 in-lb (13.6 - 14.7 N•m)	<u> 3</u>	Apply Locktite 242
2	58-62 in-lb (6.6 - 7.0 N•m)		

GH[™]130/200/230 Standard Series



GH[™]300 Standard Series

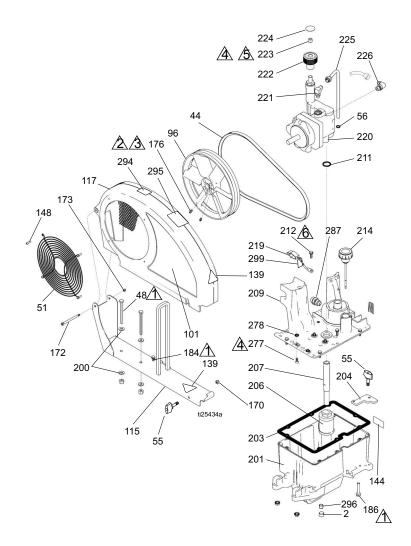


Parts List Engines

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
7	100023		4		25P300	ENGINE, gasoline, 160 cc, (China Only)	1
	400400	200, 230, & 300 (Vanguard)			116298	ENGINE, gasoline, 200 cc,	1
23	113664	WASHER, flat, GH300 SCREW, cap, hex hd,	4 4		110200	Honda, GH230	•
23	113004	GH130, 200, 230, & 300	4		25P370	ENGINE, gasoline, 200 cc,	1
		(Vanguard)				GH230 (China only)	
	106212		4		803900		1
		GH300	•			Honda, GH300	
24	110838	NUT, lock, GH130, 200,	4		248945V	ENGINE, gasoline, 10 HP,	1
		230, & 300 (Vanguard)				(Vanguard, California com-	
	101566	- , ,	4			pliant)	
30	108842	, , ,	1	126	117632	KEY, square, 3/16 X 1.25,	1
		GH130, 200 & 230			440404	GH130, 200 & 230	
	116645	SCREW, cap, hex hd,	1		119484	KEY, parallel, square,	1
0.4	440747	GH300		133	100002	GH300 SCREW, set, sch	1
34	112717	WASHER, GH130, 200 &	1	153	15E888		
	119438	230 WASHER, GH300	1	100	102000	GH130, 200, 230, & 300	-
43		PULLEY, 5.50 in, GH130,	1			(Vanguard)	
.0	110000	200 & 230	•		195515	` ' '	4
	119401	PULLEY, GH300	1			GH300	
88▲	194126	LABEL, warning	1	154	108851	WASHER, plain	8
	16Y631	LABEL, warning, Chinese	1	160		SPACER, GH300	1
90▲	16Y720	LABEL, warning, ISO	1	161		SHIELD, GH300	1
		engine		162	C20010	SCREW, GH300	4
99	15F157	- , 5,	1	≜ Do	naar and l	Marning labels are sucilable	at na
	455500	engine, GH130, 200 & 230		▲ Da	•	Narning labels are available	at no
	15E583	BRACKET, mounting,	1	003	οι.		
106	15B317	engine, GH300 SLEEVE, motor shaft,	1	*Engi	no Bonoir	Vito:	
100	130314	GH130, 200 & 230	'	2886	ne Repair 78 - 120	cc (4.0 HP)	
	15E586	SLEEVE, motor shaft,	1	25P9		cc (4.0 HP) (China only)	
	102000	GH300	•	2489		cc (4.5 HP)	
119*	120590	ENGINE, gasoline, 120 cc,	1			,	
		Honda, GH130		18A9		cc (5.5 HP) (China only)	
	25P297	ENGINE, gasoline, 120, cc	1	2489		cc (6.5 HP)	
		(China Only)		18A9		cc (6.5 HP) (China only)	
	802264	ENGINE, gasoline, 160 cc,	1	2489	45 270	cc (9.0 HP)	
		GH200					

Parts - Fan Belt GH™130/200/230/300 Standard Series

Ref.	Torque	Ref.	Torque
\triangle	120-130 in-lb (13.6 - 14.7 N•m)	<u> </u>	90-110 in-lb (10.2 - 12.4 N•m)
<u>^</u>	Apply Locktite 242	<u>\$</u>	Apply Locktite 277
3	55-62 in-lb (6.7 - 7.0 N•m)	<u>6</u>	110-120 in-lb (12.4 - 13.6 N•m)

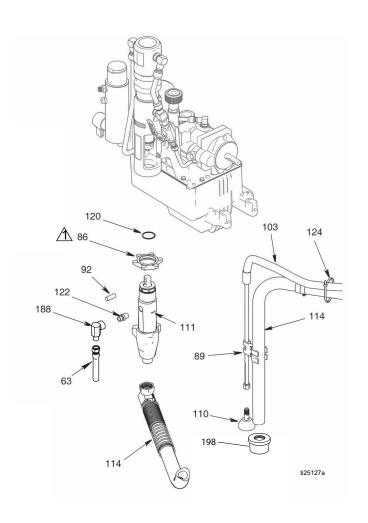


Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
2	101754	PLUG.	1	203	120604	GASKET, reservoir	1
44		BELT, GH130, 200, 230	1	204	15E476	BRACKET, retainer, motor	1
• •		BELT, GH300	1	206*	116919	FILTER	1
48		SCREW, hex head	2	207*	15E587	TUBE, suction	1
51		GRILL, fan guard	1	208	154594	PACKING, o-ring	1
55		NUT, hand	2	209	15J363	COVER, reservoir	1
56		O-RING	1	211	156401	PACKING, o-ring	1
96		PULLEY, fan	1	212	119426	SCREW	8
101		LABEL, GH130	1	214	120726	CAP, breather, filler	1
		LABEL, GH200	1	219	237686	WIRE, ground with clamp	1
		LABEL, GH230	1	220	288733	PUMP, hydraulic, GH130	1
		LABEL, GH300	1		246178	PUMP, hydraulic, GH200	
115		RAIL, belt guard, assembly,	1		249003	PUMP, hydraulic, 230/300	
		GH130 & 200		221	110792	FITTING, elbow, male, 90°	1
	288393	RAIL, belt guard, assembly,	1	222	15B438	KNOB, pressure	1
	200000	GH230 & 300	•	223	117560	SCREW, set, socket head	1
117	288734		1	224	15A464	LABEL, control	1
117	200704	painted, GH130 & 200	,	225	246167	TUBE, hydraulic, case	1
	248973		1			drain	
	240913		ı	226	116829	FITTING, elbow, with	1
400 4	4014700	painted, GH230 & 300	•			o-rings	
		LABEL, warning	2	277	117471		4
144	15K440	LABEL, GH/EH cooling		278	107188	PACKING, o-rings	4
		system		284		LABEL, hydraulic fluid, GH	1
148	115477	, , ,		287		FITTING	1
170		NUT, lock, hex	1	294	16D576	LABEL, made in USA	1
172	119434	SCREW, shoulder, socket	1	295	16X983	LABEL, standard series	1
		head		296	116618	MAGNET	1
173		NUT, lock	1	299	290079	LABEL, ground warning,	1
176		SCREW, set, 1/4 X 1/2	2			English	
184	260212	SCREW, hex washer hd,	1		16Y633	LABEL, ground warning,	1
		thd form				Chinese	-
186	120655	SCREW, mach, hex	2			Grimioed.	
		washer head		▲ Da	nger and I	Narning labels are available	at no
200	100527	WASHER	4	COS	•	varining labels are available	a. 110
201	15J513	TANK, reservoir	1			used with #207	
202	101754	PLUG, pipe	1	# 20	o musi be	α30α WIIII π201	

Parts GH™130/200/230/300 Standard Series

Ref.	Torque
\triangle	70-80 ft-lb (94.9 - 108.5 N•m)

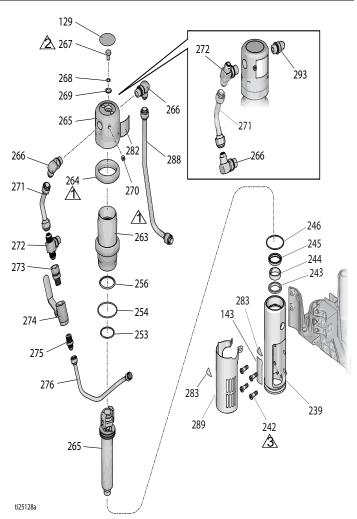


Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
63	243814	HOSE, coupled	1	114	288251	HOSE, suction, 5 gallon,	1
86	193031	NUT, retaining, GH130	1			GH130	
	193394	NUT, retaining,	1		288252	HOSE, suction, 5 gallon,	1
		GH200/230/300				GH200, 230 & 300	
89	15D000	CLIP, drain line	1	115	208259	Hose, suction, 30/55 gal-	1
92	155141	PIN, pump, GH130	1			lon, GH130 (not shown)	
	197443	PIN, pump,	1		289669	HOSE, suction, 30/55 gal-	1
		GH200/230/300				lon, GH200/230/300 (not	
103	288732	KIT, drain hose	1			shown)	
110	241920	DEFLECTOR, threaded	1	120	116551	RING, retaining	1
111	24B748	PUMP, kit, displacement,	1	122	196178	ADAPTER, nipple	1
		GH130		124	114958	STRAP, tie	4
	24W995	PUMP, kit, displacement,	1	188	155494	UNION, swivel, 90°	1
		GH200		198	189920	INLET, filter, 8 mesh	1
	24W997	PUMP, kit, displacement,	1				
		GH230 & 300					

Parts GH™130/200/230/300 Standard Series

Ref.	Torque	Ref.	Torque
Λ	145-155 ft-lb (196.6 - 210.2 N•m)	<u> 3</u>	140-160 in-lb (15.8 - 18.1 N•m)
<u>^</u>	12-18 ft-lb (16.3 - 24.4N•m)		



Parts List

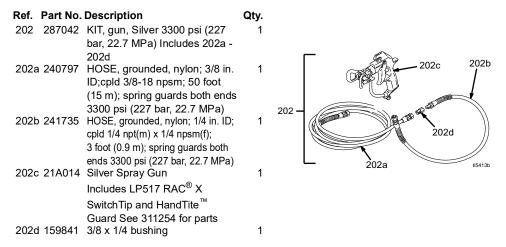
Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
129▲◆✓	15B063	LABEL, warning, hot surface	1	272♦	117609	FITTING, tee, branch, str thd	1
143▲	17D050	LABEL, GH130	1	273	117328	FITTING, nipple,	1
		LABEL, GH200	1			straight	
	17D053	LABEL, GH230	1	274	117441	VALVE, ball	1
		LABEL, GH300	1	275	116813	FITTING, nipple,	1
239◆		MANIFOLD, GH130	1			hydraulic	
		MANIFOLD, GH200	1	276	15J819	TUBE, hydraulic,	1
	15E243	MANIFOLD, GH230 &	1			supply, GH130	
0.40.4	450504	300			17D268		1
242♦		SCREW, cap socket	4			supply, GH200	
243‡ ♦ 244 ‡♦		WIPER, rod BEARING, rod	1 1		17D270	TUBE, hydraulic,	1
244↓ ▼ 245‡◆		PACKING, block	1		.====	supply, GH230, GH300	
245‡ ▼ 246‡ ♦		PACKING, block PACKING, o-ring	2	282√		LABEL, Graco logo	1
253‡◆✓		PACKING, o-ring	1	283▲◆	15H108	LABEL, warning, finger	2
254‡◆✓		SEAL, piston	1	288	15J824	pinch	1
256‡◆✓		BEARING, piston	1	200	15J624	TUBE, hydraulic,	- 1
263◆	246176	SLEEVE, hydraulic	1		170267	return, GH130 TUBE, hydraulic,	1
		cylinder, kit, GH130 &			170207	return, GH200	'
		200			170260	TUBE, hydraulic,	1
	248991	SLEEVE, hydraulic	1		170209	return, GH230 & 300	'
		cylinder, kit, GH230 &		289	24¥473	SHIELD, rod,	1
		300)		203	24/14/0	GH130/200	'
264◆		NUT, jam	1		24X474	SHIELD, rod,	1
265◆	288735	KIT, repair, trip rod,	1		21/(11/1	GH230/300	
		piston; GH130 only		293	120184		1
	288754	KIT, repair, trip rod,	1	_00		kits only	•
		piston; GH 200 only					
	288755	KIT, repair, trip rod, piston; GH 230/300	1	▲Dange cost.	er and War	ning labels are available	at no
		only			ed in Hydr	aulic Motor Repair Kit: 28	8758
266◆	117607	FITTING, elbow std thd	2			1- GH200; 248977 - GH2	
267√◆	106276	SCREW, cap, hex head	1 1	300	50, 27002	011200, 210011 0112	00 u
268√◆		PACKING, o-ring	1		ed in Trip I	Rod/Piston Kit: 288735 -	
269√◆		WASHER, sealing	1			- GH200: 288755 - GH23	ያስ ዴ
270√◆		PLUG, pipe	1	300	o, 200707	07.1200, 200700 07.120	
271♦	198629		1		ed in Seal	Kit 246174	
	155500	supply, GH130 & 200	1	+		= . *** *	
	100090	TUBE, hydraulic,	ı				
		supply, GH230 & 300					

Parts

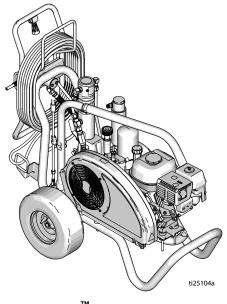
GH™130/200 Standard Series w/ Spray Gun and Hose

Ref.	Part No.	Description	Qty.	
202	240794	HOSE, grounded, nylon; 1/4 in.	1	
		ID;cpld 1/4-18 npsm; 50 foot (15 m); spring guards both ends		€>
		3300 psi (227 bar, 22.7 MPa)	,	203
203	18H150	Contractor Spray Gun	1	
		Includes LP517 RAC® X		
		SwitchTip and HandTite [™]		
		Guard See 311861 for parts		
				ti25435a
				202

GH™230/300 Standard Series w/ Spray Gun and Hose



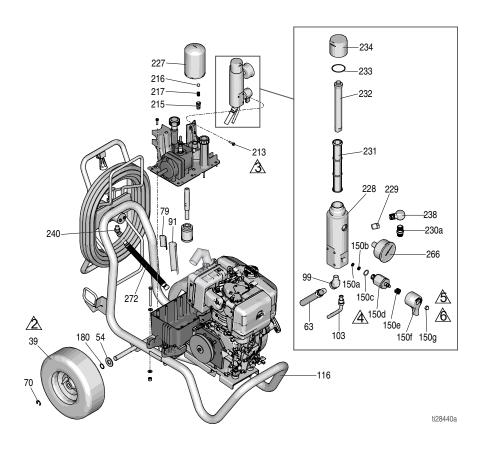
GH™200/230/300 ProContractor Series Parts (OEM Kits)



GH[™]200/230/300

Parts GH™200/230/300 ProContractor Series

Ref.	Torque	Ref.	Torque
\triangle	120-130 in-lb (13.6 - 14.7 N•m)	<u>A</u>	355-395 in-lb (40.1 - 44.6 N•m)
<u>^</u>	Inflate tires to 25-35 psi (1.7-2.4 bar)	<u>\$</u>	15-25 in-lb (1.7 - 2.8 N•m)
3	110-120 in-lb (12.4 - 13.6 N•m)	<u>^</u>	Apply Locktite 242



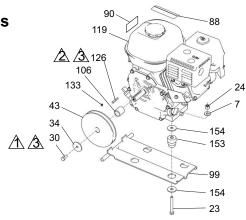
Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
39	119509	WHEEL, pneumatic	2	215	198841	RETAINER	1
54	156306	· •	2	216	100084	BALL, metallic	1
63	243814	•	1	217	116967	SPRING, compression	1
70	120211	CLIP, retaining	2	227	246173	FILTER, oil, spin on	1
79▲	189246	LABEL, warning	1	228‡	15E599		1
	17D947	LABEL, warning,	1	229‡	15G331		1
		multi-languages		230a	196178	ADAPTER 3/8 npsm (m)	1
91▲	194317	0 0	1			hose connection	
· · <u> </u>		LABEL, warning, ISO	1	231‡	244067	,	1
		LABEL, warning,	1	232‡	15C766	- ,	1
		multi-languages	•	233‡	117285	PACKING, o-ring	1
99	116756		1	234‡	15C765	- ,	1
116		FRAME, cart	1	238	196179		1
150±		VALVE, drain	•	240	161889	, , -	1
	193710	•	1	266	868015		1
	193709	*	1	272	198847	HOSE, coupled	1
	114797	GASKET	1	A D	1 14	to make a lab alo and a constitution	-4
1500★ 150d★		VALVE, assembly	1			/arning labels are available	at no
	114708	, , , , , , , , , , , , , , , , , , ,	1	cost	-		
			1	★ Inc	luded in D	rain Valve Replacement Kit	
	15G563	·	1	245	103		
	116424		1	‡ Inclu	ıded in Filt	ter Replacement Kit 24W75	3
180	116038	WASHER, wave spring	2			-	
213	119426	SCREW	3				

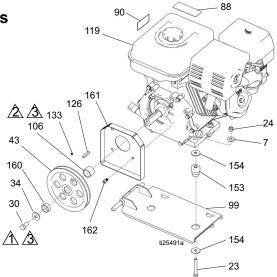
Parts - Engines

Ref.	Torque	Ref.	Torque
Λ	120-130 in-lb (13.6 - 14.7 N•m)	<u> </u>	Apply Locktite 242
<u>^</u>	58-62 in-lb (6.6 - 7.0 N•m)		

GH[™]200/230 ProContractor Series



GH[™]300 ProContractor Series

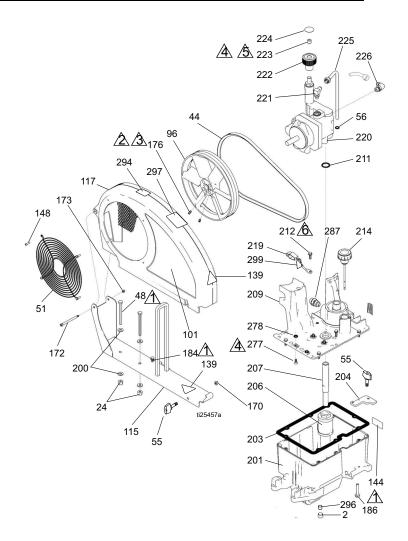


Engine Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
7	100023	WASHER, flat, GH200,	4		803900	, , ,	1
		230, & 300 (Vanguard)				Honda, GH300	
		WASHER, flat, GH300	4		248945V	ENGINE, gasoline, 10 HP,	1
23	113664	SCREW, cap, hex hd,	4			(Vanguard, California com-	
		GH200, 230, & 300 (Van-		126	117632	pliant) KEY, square, 3/16 X 1.25,	1
	100010	guard) SCREW, cap, hex hd,	4	120	117032	GH130, 200 & 230	'
	100212	GH300	4		119484	•	1
24	110838	NUT, lock, GH200, 230, &	4			GH300	•
	110000	300 (Vanguard)		133	100002	SCREW, set, sch	1
	101566	NUT, lock, GH300	4	153	15E888	DAMPENER, motor mount,	4
30		SCREW, cap, hex hd				GH200, 230, & 300 (Van-	
		GH200 & 230	1			guard)	
		GH300	1		195515		4
34		WASHER, GH200 & 230	1	454	400054	GH300	•
43		WASHER, GH300 PULLEY, 5.50 in, GH200 &	1 1	154 160		WASHER, plain	8 1
40	110000	230		161	130704	SPACER, GH300 SHIELD	'
	119401	PULLEY, GH300	1	101	15E973	GH300	1
88▲		LABEL, warning	1	162		SCREW, GH300	4
	16Y631	LABEL, warning, Chinese	1	196⊿	17K859	LABEL, safety, hot surface	2
90▲	16Y720	LABEL, warning, ISO	1				
		engine			•	Warning labels are available	at no
99	15F157	- , J,	1	cos	st.		
	455500	engine, GH200 & 230					
	15E583	BRACKET, mounting,	1				
106	15B31/	engine, GH300 SLEEVE, motor shaft,	1	*Engi 2489	ne Repair		
100	130314	GH200 & 230				0 cc (5.5 HP)	
	15E586	SLEEVE, motor shaft,	1	2489		0 cc (6.5 HP)	
		GH300	•	2489	145 270	cc (9.0 HP)	
119*	802264	ENGINE, gasoline, 160 cc,	1				
		GH200					
	116298	, 0 ,	1				
		Honda, GH230					

Parts - Fan Belt GH™200/230/300 ProContractor Series

Ref.	Torque	Ref.	Torque
Λ	120-130 in-lb (13.6 - 14.7 N•m)	<u>A</u>	90-110 in-lb (10.2 - 12.4 N•m)
<u>^</u>	Apply Locktite 242	<u>\$</u>	Apply Locktite 277
<u>3</u>	55-62 in-lb (6.7 - 7.0 N•m)	<u></u>	110-120 in-lb (12.4 - 13.6 N•m)

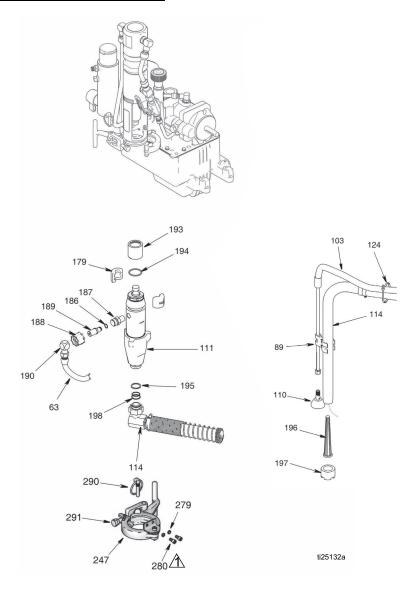


Parts List

Ref	Part	Description	Qty.	Ref.	Part	Description	Qty.
2	101754	•	1	203	120604	GASKET, reservoir	1
2 24		NUT. lock	2	204		BRACKET, retainer, motor	i
24 44		BELT, GH200, 230	1	206	116919		1
44		BELT, GH300	1	207		TUBE, suction	1
48		SCREW, hex head	2	208	154594		1
51		GRILL, fan guard	1	209	15J363		1
55		NUT, hand	2	211	156401	,	1
56		O-RING	1	212	119426		8
96		PULLEY. fan	1	214		CAP, breather, filler	1
101		LABEL, GH200	1	219		WIRE, ground with clamp	1
101		LABEL, GH230	1	220		PUMP, hydraulic, GH200	•
		LABEL, GH300	1		249003		
115		RAIL, belt guard, assembly,	1	221	110792		1
110	200201	GH200	'	222	15B438	KNOB, pressure	1
	200202	RAIL, belt guard, assembly,	1	223	117560		1
	200393	GH230 & 300	ļ	224		LABEL, control	1
117	200724		1	225	246167	TUBE, hydraulic, case	1
117	200/34	GUARD, belt assembly,	ı			drain	
	0.40070	painted, GH200		226	116829	FITTING, elbow, with	1
	248973	GUARD, belt, assembly,	1			o-rings	
	401.	painted, GH230 & 300	_	277	117471		4
		LABEL, safety, warning	2	278		PACKING, o-rings	4
144	15K440	LABEL, GH/EH, cooling	1	284		LABEL, hydraulic fluid, GH	1
		system		287		FITTING	1
148	115477		4	294		LABEL, made in USA	1
170		NUT, lock, hex	1	296	116618		1
172	119434	SCREW, shoulder, socket	1	297		LABEL, ProContractor	1
		head				series	•
173	116969	NUT, lock	1	299	290079		1
176	120087	SCREW, set, 1/4 X 1/2	2	200	200010	English	•
184	260212	SCREW, hex washer hd,	1		16Y633	0	1
		thd form			101000	Chinese	'
186	17D142	SCREW, mach, hex	2			Crimese	
		washer head		A Do	naor ond	Marning labels are evallable	ot no
200	100527	WASHER	4		•	Warning labels are available	at 110
201	15J513	TANK, reservoir	1	cosi	ſ.		
202		PLUG, pipe	1				
		• •					

Parts GH™200/230/300 ProContractor Series

Ref	Torque
Λ	90-110 in-lb (10.2 - 12.4 N•m)



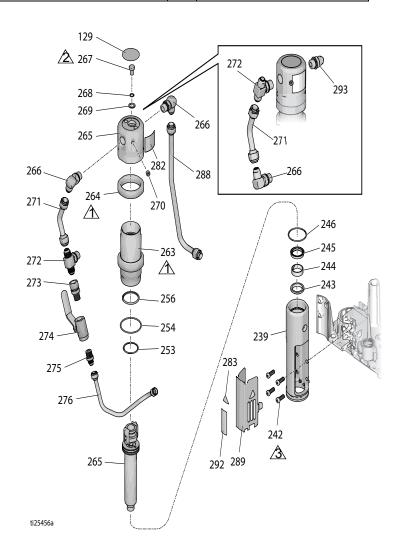
GH[™] 200/230/300 ProContractor Series Parts

Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
63	243814	HOSE, coupled	1	194	156698	PACKING, o-ring	1
111		PUMP, kit, displacement,	1	195	119566	WASHER, garden hose	1
		GH200	•	196*	288472	INLET FILTER, 10 mesh	1
	24\\/\008	PUMP, kit, displacement,	1		289131	INLET FILTER, 16 mesh	1
	2411000	GH230 & 300	'	197*	288480	NUT, strainer, inlet	1
114	288252	HOSE, suction, 5 gallon,	1	198	117559	O-RING	2
114	200232		'	247	288344	CLAMP, pump; GH 200,	1
115	200660	GH200, 230 & 300	4			230, 300	
115	289669	HOSE, suction, 30/55 gal-	ı	279	105510	WASHER, lock, spring	2
		lon, GH200/230/300 (not				(hi-collar), GH200, GH230,	
		shown)	•			GH300	
179	277377	COUPLER	2	280	101550		2
186	107505	PACKING, o-ring	1	290	288741	KIT, repair, pin/spacer; GH	1
187	15J413	FITTING, pump, QD	1	200	200711	200. 230. 300	•
188	120583	NUT, hand,	1	291	15J417	BOLT, adjustment; GH 200,	1
		GH200/230/300		201	100+17	230, 300	
189	15J410	FITTING, QD	1	N Inc	ludad in A	•	ah) ar
190	196179	FITTING, elbow, street,	1			ccessory Kit 288481 (10 mes	511) 01
		sprayer		Acc	essory Ki	t 289132 (16 mesh)	
193	15H957	COVER, coupler	1				

Parts GH™200/230/300 ProContractor Series

Ref.	Torque	Ref.	Torque
Λ	145-155 ft-lb (196.6 - 210.2 N•m)	<u> 3</u>	140-160 in-lb (15.8 - 18.1 N•m)
2	12-18 ft-lb (16.3 - 24.4N•m)		



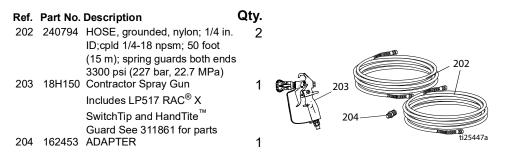
GH[™] 200/230/300 ProContractor Series Parts

Parts List

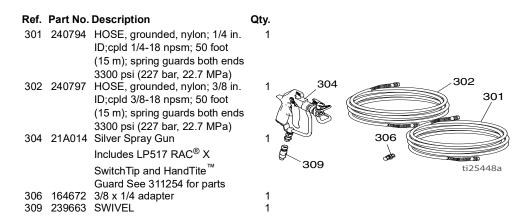
Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
129▲◆√	15B063	LABEL, warning, hot	1		15E596	TUBE, hydraulic,	1
		surface	•			supply, GH230 & 300	
143▲	17D051	LABEL, GH200	1	272◆	117609	FITTING, tee, branch,	1
		LABEL, GH230	1			str thd	
		LABEL, GH300	1	273	117328	FITTING, nipple,	1
239◆	15J278	MANIFOLD, GH200	1			straight	
	15J279	MANIFOLD, GH230 &	1	274	117441	VALVE, ball	1
		300		275	116813	FITTING, nipple,	1
242◆	15B564	SCREW, cap socket	4			hydraulic	
243‡◆	117739	WIPER, rod	1	276	15J846	TUBE, hydraulic,	1
244‡◆		BEARING, rod	1			supply, GH200	
245‡◆	112561	PACKING, block	1		15J864	TUBE, hydraulic,	1
246‡◆		PACKING, o-ring	2			supply, GH230, GH300	
253‡◆√		PACKING, o-ring	1	282▲✓		LABEL, Graco logo	1
254‡◆√	178226	SEAL, piston	1	283▲◆		LABEL, warning	2
256‡◆√	178207	BEARING, piston	1	288	15J845	TUBE, hydraulic,	1
263◆	246176	SLEEVE, hydraulic	1			return, GH200	
	040004	cylinder, kit, GH200	4		15J863	TUBE, hydraulic,	1
	248991	SLEEVE, hydraulic	1			return, GH230 & 300	
		cylinder, kit, GH230 &		289	15J503	, ,	1
0044	454700	300			16M749	SHIELD, rod, GH230 &	1
264◆		NUT, jam	1			300	
265◆	288736	KIT, repair, trip rod,	1	292◆	15F584	,	1
	000707	piston; GH 200 only	4	293	120184	FITTING, straight, OEM	1
	288737	KIT, repair, trip rod,	1			kits only	
		piston; GH 230/300					
000 4	447007	only		•	er and vvar	ning labels are available	at no
266♦	117607	FITTING, elbow std thd		cost.			
267√◆ 268√◆	106276 155685	SCREW, cap, hex head PACKING, o-ring	1 1 1		•	aulic Motor Repair Kit: 28	8759
269√◆	178179	WASHER, sealing	1) - GH230 & 300	
270√♦	100139	PLUG, pipe	1		,	Rod/Piston Kit: 288736 -	
271♦	198629	TUBE, hydraulic,	1		,	- GH230 & 300	
	.00020	supply, GH200	•	‡ include	a in Seal F	Kit 246174	
		Supply, Olizon					

Parts

GH[™]200 ProContractor Series Spray Gun and Hoses (Assembled on Hose Reel)

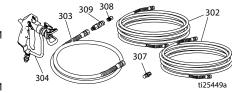


GH[™]230 ProContractor Series Spray Gun and Hoses (Assembled on Hose Reel)



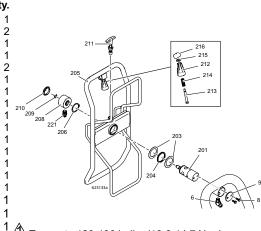
GH[™]300 ProContractor Series Spray Gun and Hoses (Assembled on Hose Reel)

				•
Ref.	Part No.	Description	Qty.	
302	240797	HOSE, grounded, nylon; 3/8 in. ID;cpld 3/8-18 npsm; 50 foot (15 m); spring guards both ends 3300 psi (227 bar, 22.7 MPa)	1	303 309 3
303	241735	HOSE, grounded, nylon; 1/4 in. ID; cpld 1/4 npt(m) x 1/4 npsm(f); 3 foot (0.9 m); spring guards both ends 3300 psi (227 bar, 22.7 MPa)	1	
304	21A014	Silver Spray Gun Includes LP517 RAC® X SwitchTip and HandTite™ Guard See 311254 for parts	1	304
307	162485	3/8 x 3/8 nipple	1	
308	159841	3/8 x 1/4 bushing	1	
309	239663	SWIVEI	1	



Hose Reel (ProContractor Series)

Ref.	Part	Description	Qt
6	161889	FITTING, connector	
8	260212	SCREW, hex washer hd	
9	16C975	PLATE, pivot mount	
201	24E016	SEAL, fitting, flared	
203	122607	WASHER, flat	
204	122534	SPRING, wave	
205	24B691	REEL, hose	
206	122524	RING, retaining, external	
208	24B248	CAP, swivel, complete	
209	122347	RING, retaining, external	
210	122787	CAP	
211	24E400	PIN, pop, lock out	
212	278085	HANDLE, swivel	
213	122518	SCREW, shoulder, sch	
214	122542	SPRING, die	
215	122669	WASHER, flat	
216	15X618	NUT, swivel, handle	
221	164672	ADAPTER, GH200	
	196178	ADAPTER GH230/300	



1 Torque to 120-130 in-lbs (13.6-14.7 N·m)

1 A Torque to 25-35 ft-lbs (33.9-47.5 N·m)

⚠ Torque to 130-150 in-lbs (14.7-16.9 N·m)

A Loctite 277

	US	Metric			
Maximum fluid working pressure	3300 psi	22.8 MPa, 228 ba			
Hydraulic reservoir capacity	1.25 gallons	4.75 liters			
Maximum hydraulic pressure	1510 psi	10.4 MPa,104 bar			
Engine	120 cc (4.0 HP)				
Maximum tip size		0.037			
Maximum free-flow delivery	1.30 gpm	5.9 l/min			
Hose connection		npsm (m)			
Noise (dBa)					
Maximum sound pressure	8	8 dBa			
Maximum sound power	10	03 dBa			
Inlet/Outlet Sizes					
Fluid inlet size	3/4	npt (m)			
Fluid outlet size	3/8 npt (f)				
Dimensions					
Weight	155 lb.	70.3 kg			
Width	24 in.	61 cm			
Length	41 in.	104.1 cm			
Height (Handle extended)	39.5 in.	100.3 cm			
Height (Handle retracted)	30.3 in.	77.0 cm			
OEM Kit					
Paint/Hydraulic pressure ratio	2	2.19:1			
Max cycle rate	12	25 cpm			
User Supplied Input					
Max hydraulic pressure	1510 psi	10.4 MPa,104 ba			
Hydraulic flow required in free-flow	4.01 gpm	15.2 l/min			
Unit Output					
Max fluid Pressure	3300 psi	22.8 MPa, 228 ba			
Max flow	1.30 gpm	4.92 l/min			
Weight	27.5 lb.	12.5 kg			
Width	5.70 in.	145 mm			
Depth	3.14 in.	80 mm			
Height	25.4 in. 64				

	US	Metric			
	-				
Maximum fluid working pressure	3300 psi	22.8 MPa, 228 ba			
Hydraulic reservoir capacity	1.25 gallons	4.75 liters			
Maximum hydraulic pressure	1855 psi	12.8 MPa,128 ba			
Engine	160 cc (5.5 HP)			
Maximum tip size	0.04	47			
Maximum free-flow delivery	2.15 gpm 9.8 l/min				
Hose connection	1/4 npsm (m)				
Noise (dBa)					
Maximum sound pressure	96 d	lBa			
Maximum sound power	110 (dBa			
Inlet/Outlet Sizes					
Fluid inlet size	1 5/16-12	2 UN-ZA			
Fluid outlet size	3/8 n _l	pt (f)			
Weight	160 lb.	73.4 kg			
Width	24 in.	61 cm			
Length	41 in.	104.1 cm			
Height (Handle extended)	39.5 in.	100.3 cm			

	US	Metric
Maximum fluid working pressure	3300 psi	22.8 MPa, 228 ba
Hydraulic reservoir capacity	1.25 gallons	4.75 liters
Maximum hydraulic pressure	1855 psi	12.8 MPa,128 ba
Engine	200 cc (6.5 HP)	
Maximum tip size	0.053	
Maximum free-flow delivery	2.35 gpm	10.7 l/min
Hose connection	3/8 npsm (m)	
Noise (dBa)		
Maximum sound pressure	96 dBa	
Maximum sound power	110 dBa	
Inlet/Outlet Sizes		
Fluid inlet size	1 5/16-12 UN-ZA	
Fluid outlet size	3/8 npt (f)	
Weight	168 lb.	75.6 kg
Width	24 in.	61 cm
Length	48 in.	121.92 cm
Height (Handle extended)	41.0 in.	104.1 cm
Height (Handle retracted)	33.0 in.	83.8 cm

GH™300 Standard Se	ries	
	US	Metric
Maximum fluid working pressure	3300 psi	22.8 MPa, 228 bar
Hydraulic reservoir capacity	1.25 gallons	4.75 liters
Maximum hydraulic pressure	1855 psi	12.8 MPa,128 bar
Engine	270 cc / 305 cc	(9.0 HP / 10 HP)
Maximum tip size	0.057	
Maximum free-flow delivery	3.0 gpm	11.4 l/min
Hose connection	3/8 npsm (m)	
Noise (dBa)		
Maximum sound pressure	96	dBa
Maximum sound power	110 dBa	
Inlet/Outlet Sizes		
Fluid inlet size	1 5/16-	12 UN-ZA
Fluid outlet size	3/8 npt (f)	
Weight	195 lb.	87.8 kg
Width	24 in.	61 cm
Length	48 in.	121.92 cm
Height (Handle extended)	41.0 in.	104.1 cm
Height (Handle retracted)	33.0 in.	83.8 cm

	US	Metric
Maximum fluid working pressure	3300 psi	22.8 MPa, 228 bar
Hydraulic reservoir capacity	1.25 gallons	4.75 liters
Maximum hydraulic pressure	1855 psi	12.8 MPa,128 bar
Engine	160 cc (5.5 HP)	
Maximum tip size	0.047	
Maximum free-flow delivery	2.15 gpm	9.8 l/min
Hose connection	1/4 npsm (m)	
Noise (dBa)		
Maximum sound pressure	96 dBa	
Maximum sound power	110 dBa	
Inlet/Outlet Sizes		
Fluid inlet size	1 5/16-12 UN-ZA	
Fluid outlet size	3/8 npt (f)	
Weight	188 lb.	85.3 kg
Width	25.3 in.	64.3 cm
Length	44.8 in.	113.8 cm
Height (Hose Reel Up)	38.5 in.	97.8 cm
Pump Height (Hose Reel Sideways)	31.0 in.	78.7 cm
OEM Kit		
Paint/Hydraulic pressure ratio	1.78:1	
Max cycle rate	160 cpm	
User Supplied Input		
Max hydraulic pressure	1855 psi	12.8 MPa,128 bar
Hydraulic flow required in free-flow	5.13 gpm	19.4 l/min
Unit Output		
Max fluid Pressure	3300 psi	22.8 MPa, 228 ba
Max flow	2.15 gpm	8.14 l/min
Weight	32.5 lb.	14.7 kg
Width	5.39 in.	137 mm
Depth	5.39 in.	137 mm
Height	25.60 in.	650 mm

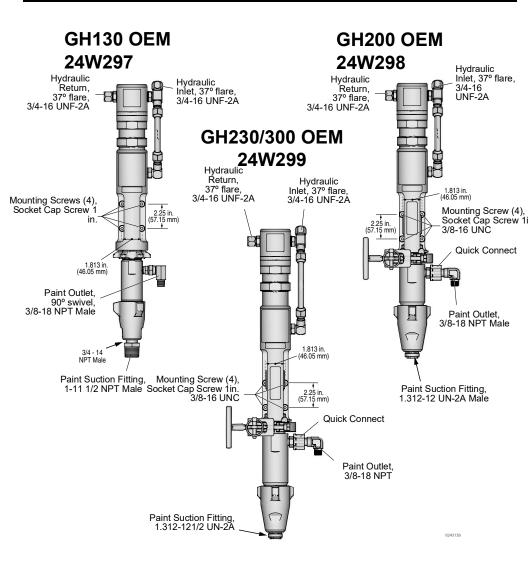
	US	Metric
Maximum fluid working pressure	3300 psi	22.8 MPa, 228 ba
Hydraulic reservoir capacity	1.25 gallons	4.75 liters
Maximum hydraulic pressure	1855 psi	12.8 MPa,128 ba
Engine	200 cc (6.5 HP)	
Maximum tip size	0.053	
Maximum free-flow delivery	2.35 gpm	10.7 l/min
Hose connection	3/8 npsm (m)	
Noise (dBa)		
Maximum sound pressure	96 dBa	
Maximum sound power	110 dBa	
Inlet/Outlet Sizes		
Fluid inlet size	1 5/16-12 UN-ZA	
Fluid outlet size	3/8 npt (f)	
Weight	193 lb.	87.5 kg
Width	25.3 in.	64.3 cm
Length	44.8 in.	113.8 cm
Height (Hose Reel Up)	38.5 in.	97.8 cm
Pump Height (Hose Reel Sideways)	33.0 in.	83.8 cm
OEM Kit		
Paint/Hydraulic pressure ratio	1.78:1	
Max cycle rate	145 cpm	
User Supplied Input		
Max hydraulic pressure	1855 psi	12.8 MPa,128 ba
Hydraulic flow required in free-flow	6.60 gpm	25.0 l/min
Unit Output		
Max fluid Pressure	3300 psi	22.8 MPa, 228 ba
Max flow	3.0 gpm	11.4 l/min
Weight	35 lb.	15.9 kg
Width	8.94 in.	227 mm
Depth	5.38 in.	137 mm
Height	28.80 in.	732 mm

	US	Metric
Maximum fluid working pressure	3300 psi	22.8 MPa, 228 ba
Hydraulic reservoir capacity	1.25 gallons	4.75 liters
Maximum hydraulic pressure	1855 psi	12.8 MPa,128 bai
Engine	270 cc / 305 cc (9.0 HP / 10 HP)	
Maximum tip size	0.057	
Maximum free-flow delivery	3.0 gpm	11.4 l/min
Hose connection	3/8 npsm (m)	
Noise (dBa)		
Maximum sound pressure	96 dBa	
Maximum sound power	110 dBa	
Inlet/Outlet Sizes		
Fluid inlet size	1 5/16-12 UN-ZA	
Fluid outlet size	3/8 npt (f)	
Weight	222 lb.	100.7 kg
Width	25.3 in.	64.3 cm
Length	44.8 in.	113.8 cm
Height (Hose Reel Up)	38.5 in.	97.8 cm
Pump Height (Hose Reel Sideways)	33.0 in.	83.8 cm
OEM Kit		
Paint/Hydraulic pressure ratio	1.78:1	
Max cycle rate	145 cpm	
User Supplied Input		
Max hydraulic pressure	1855 psi	12.8 MPa,128 bai
Hydraulic flow required in free-flow	6.60 gpm	25.0 l/min
Unit Output		
Max fluid Pressure	3300 psi	22.8 MPa, 228 ba
Max flow	3.0 gpm	11.4 l/min
Weight	35 lb.	15.9 kg
Width	8.94 in.	227 mm
Depth	5.38 in.	137 mm

All Models:

Basic Sprayer Wetted Parts:

Zinc and nickel-plated carbon steel, stainless steel, PTFE, acetal, chrome plating, leather, V-Maxt UHMWPE, stainless steel, tungsten carbide, ceramic, nylon, aluminum



Graco Standard Warranty

Graco Standard Warranty

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Graco Headquarters: Minneapolis International Offices: Belgium, China, Japan, Korea

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