Operation, Parts



DH230/GH[™]130/200/230/300 Hydraulic Sprayers

334558D

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.



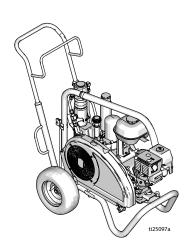
Important Safety Instructions

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.

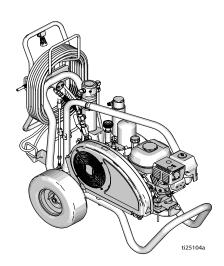
Related Manuals:

311861 GH130/200 Gun 334654 Pump

311254 DH230/GH230/300 Gun 310812 Electric Motor



Standard Series



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	~			
24W924	~	V		
		DH230		
Model:	Standard	ProContractor		
17G591		V		
		GH200	1	
Model:	Standard	ProContractor	120V Motor Kit (Non CSA)	
24W925	~			
24W926	~		~	
24W927		V		
24W928		V	~	
		GH230	1	
Model:	Standard	ProContractor	120V Motor Kit (Non CSA)	120V ETL/CSA/U Motor Kit
24W929	~			
24W930	~		~	
24W931	~			~
24W932		V		
24W933		~	~	
24W934		~		~
		GH300	1	ı
Model:	Standard	ProContractor		
24W935	~			
24W936		V		

Electric Motor Kit Options

Kit Number	Sprayer Model	Description
288474	GH130	120VAC, 60Hz, 20A, ETL/CSA/UL Approved
288473	GH130	120VAC, 60Hz, 15A
248950	GH200/DH230/GH230/GH300*	120VAC, 60Hz, 20A, ETL/CSA/UL Approved
248949	GH200/DH230/GH230/GH300*	120 VAC, 60Hz, 15A
24M668	GH200/DH230/GH230/GH300*	240VAC, 50Hz, 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.

WARNING



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

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:



Do not spray flammable or combustible materials near an open flame or sources of ignition such as cigarettes, motors, and electrical equipment.





- 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:

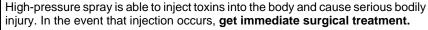
Do not touch hot fluid or equipment.

Electric Motor/Internal Combustion Engine Warnings

MARNING



SKIN INJECTION HAZARD





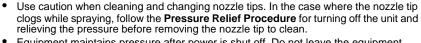
- Do not aim the gun at, or spray any person or animal.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.



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



Use Graco nozzle tips.





- 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.

WARNING



EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.



- Always wear appropriate gloves, eye protection, and a respirator or mask when painting.
- 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 using 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

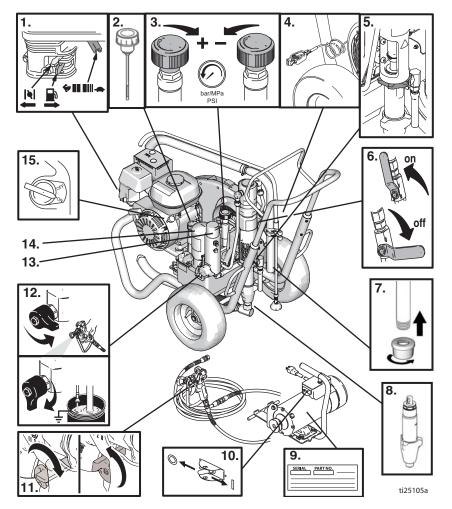
The engine exhaust from this product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

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)

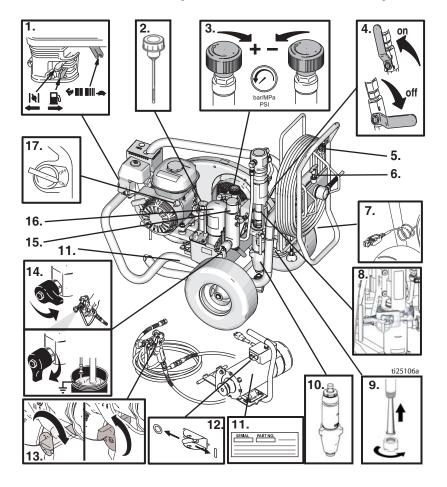


1	Engine Controls
2	Hydraulic Oil Cap / Dipstick
3	Pressure Control
4	Grounding Clamp
5	Threaded Pump Connection
6	Hydraulic Pump Valve
7	Inlet Strainer

8	Displacement Pump	
9	Serial Number Tag (2 places)	
10	Electric Motor On/Off Switch	

Component Identification

ProContractor Models (GH200, GH230, GH300)

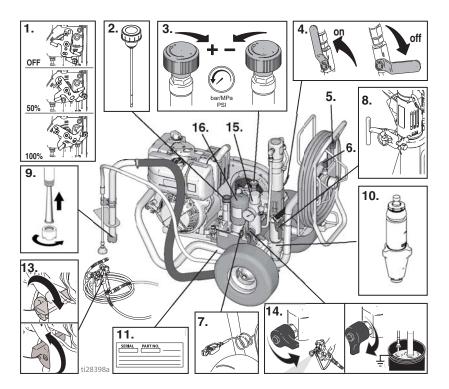


1	Engine Controls
2	Hydraulic Oil Cap / Dipstick
3	Pressure Control
4	Hydraulic Pump Valve
5	Hose Reel Handle
6	Hose Reel Lock
7	Grounding Clamp
8	ProConnect
9	Inlet Strainer
10	Displacement Pump

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	

Component Identification

ProContractor Models (DH230)



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
13	Gun Trigger Lock
14	Prime/Drain Valve
15	Easy Out™ Paint Filter
16	Hydraulic Oil Filter

Grounding

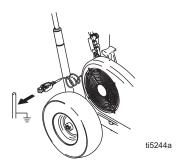
Grounding Procedure for Internal Combustion Engine







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

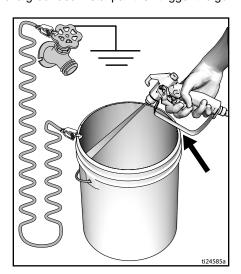
Grounding of Pails

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.

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

OR

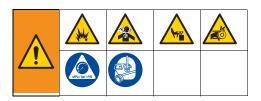
Move Diesel throttle lever to STOP.

OR

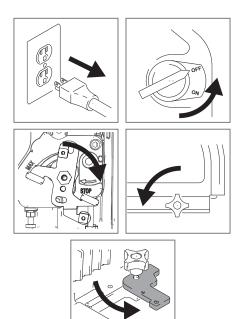
- Unplug power cord to electric motor.
- Move pump valve to OFF and turn pressure control knob fully counterclockwise to lowest setting.
- 4. Disengage trigger lock. Hold metal part of gun firmly to side of grounded metal pail, and trigger gun to relieve pressure.
- 5. Engage gun trigger lock.
- Turn 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:
 - VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually.
 - h. Loosen nut or coupling completely.
 - Clear hose or tip obstruction. c.

Setup

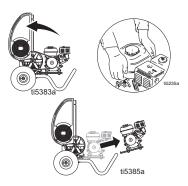
Change Engine or Motor



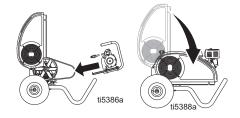
Turn motor OFF and unplug or turn engine to the OFF/STOP position. Loosen belt guard knob and motor clamp. Perform Pressure Relief Procedure, page 13.



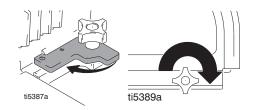
2 Lift belt guard. Remove belt. Tilt engine/motor and remove engine/motor.



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



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



Setup

Complete Setup



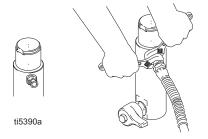




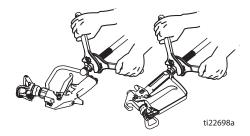




 All sprayers except ProContractor: Connect appropriate Graco high-pressure hose to sprayer.



2. Install hose to spray gun and tighten securely.

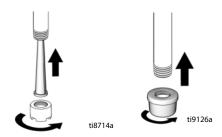


3. Engage gun trigger lock.

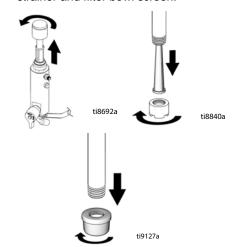


- 4. Remove Tip Guard.
- ProContractor Series: Install inlet strainer into bottom of suction tube, place inlet nut over end and hand tighten securely.

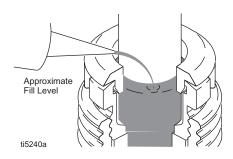
Standard Series: Screw inlet strainer to bottom of suction hose and hand tighten securely.



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.



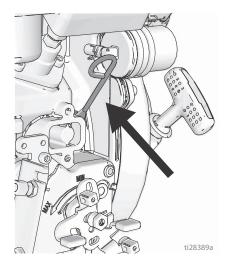


8. Check engine oil level.

Gasoline Engine

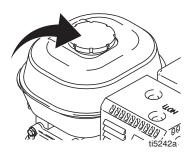


Diesel Engine

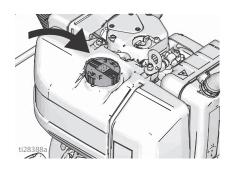


9. Fill fuel tank.

Gasoline Engine



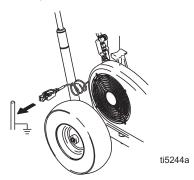
Diesel Engine



 Check hydraulic oil level. Add Graco Hydraulic Oil, ISO Grade 46, 169236 (5 gallon/18.9 liter) or 207428 (1 gallon/3.8 liter). Hydraulic tank capacity is 1.25 gallon (4.75 liters).



11. Attach sprayer grounding clamp to earth ground.

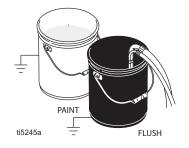


Startup

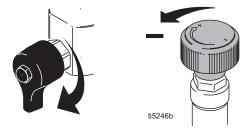
Startup



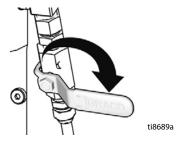
 Place suction tube and drain tube in grounded metal pail partially filled with flushing fluid. Attach ground wire to pail and to earth ground.



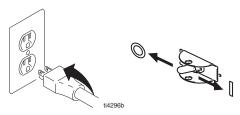
Turn prime valve down to DRAIN position. Turn pressure control counterclockwise to lowest pressure.



3. Set hydraulic pump valve OFF.



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



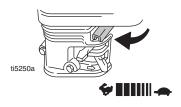
- 5. If using gasoline engine, start engine.
 - a. Move fuel valve to open.



b. Move choke to closed.



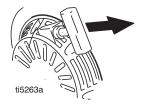
c. Set throttle to fast.



d. Set engine switch to ON.



e. Pull starter rope.



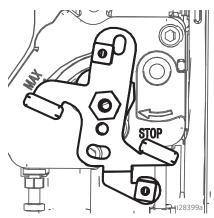
f. After engine starts, move choke to open.



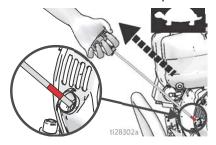
g. Set throttle to desired setting.



- 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.

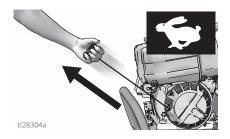


 Without releasing the starter rope handle allow the rope to rewind completely.

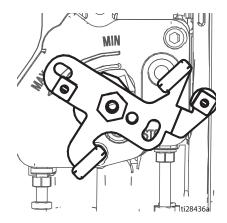


Startup

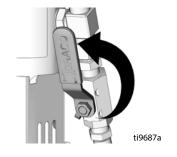
d. Start the engine by pulling the rope using a firm steady pull.



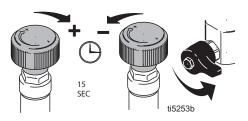
e. After engine starts move throttle lever to MAX (full throttle) position.



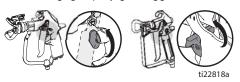
 Set hydraulic pump valve ON (hydraulic motor is now active).



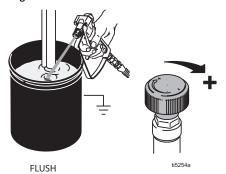
 Increase pressure enough to start hydraulic motor stroking and allow fluid to circulate for 15 seconds; turn pressure down, turn prime valve horizontal.



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.









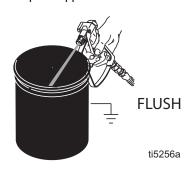


High-pressure spray is able to inject toxins into the body and cause serious bodily injury. Do not stop leaks with hand or rag.

- 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

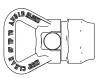


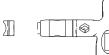






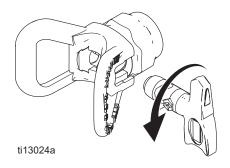
- Perform Pressure Relief Procedure, page 13.
- Engage gun trigger lock. Insert Switch Tip. Insert seat and OneSeal™.





ti13023a

3. Insert Switch Tip and face forward.



4. Screw assembly onto gun. Tighten.



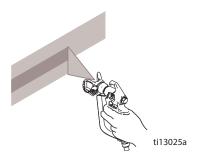
Startup

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

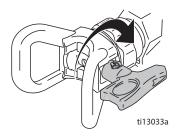




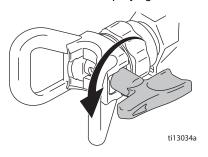




 Release trigger, engage trigger lock. Rotate Switch Tip. Disengage trigger lock. Trigger gun to clear clog.



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



Hose Reel

(ProContractor Series only)

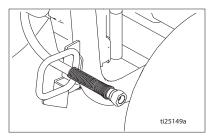






To avoid injury, keep your head clear of hose reel while winding up hose.

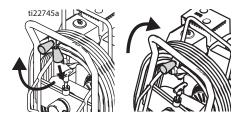
1. Make sure hose is routed through hose guide.



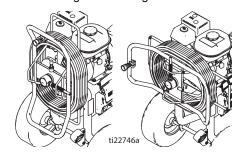
 Lift and turn pivot lock 90° to unlock hose reel. Pull on hose to remove it from hose reel.



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.

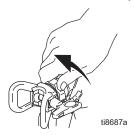


Clean Up

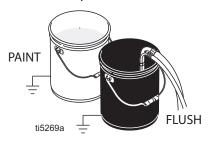
Clean Up



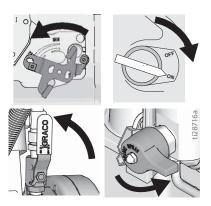
- Perform Pressure Relief Procedure, page 13, steps 1-7.
- 2. Remove Guard and SwitchTip.



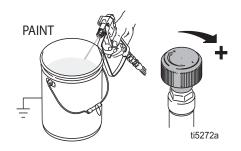
 Remove siphon tube set from paint and place in flushing fluid. Use water for water-based paint and mineral spirits for oil based paint.



 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.



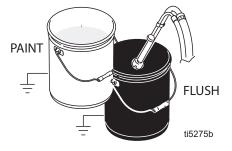
 Move gun to waste pail, hold gun against pail, trigger gun to thoroughly flush system. Release trigger and engage trigger lock.



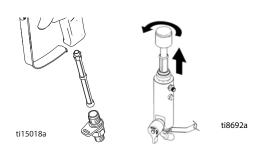
 While continuing to trigger gun, turn prime valve down. Then release gun trigger. Allow flushing fluid to circulate until fluid comes out of drain tube clear.



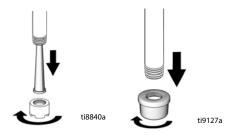
 Raise siphon tube above flushing fluid and run sprayer for 15 to 30 seconds to drain fluid. Turn hydraulic valve OFF. Turn engine OFF or turn electric motor OFF and unplug.



 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

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 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 dealer.

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

AFTER EACH 100 HOURS OF **OPERATION:** Change engine oil. Reference Honda Engines Owner's Manual for correct

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 hydraulic oil and filter with Graco hydraulic oil 169236 (5 gallon/20 liter) or 207428 (1 gallon/3.8 liter) and filter 116909.

Replace belt.

oil viscosity.

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.

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	Faulty engine	Consult engine manual
properly	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 operates, but displacement	Hydraulic pump valve is OFF	Set hydraulic pump valve ON
pump does not operate	Pressure setting too low	Increase pressure, page 20.
	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 17.
	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 manual 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 20.
	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 17.
Spitting from gun	Air in fluid pump or hose	Check for loose connections on 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 17
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











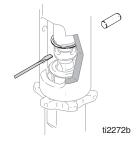
See pump manual 334654 for pump repair.

- 1. Flush pump.
- 2. Perform Pressure Relief Procedure, page 14.
- 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.

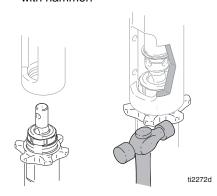


Installation

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.



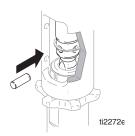




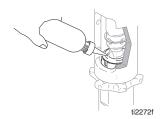
If pin is loose, parts could break off and project through the air, resulting in serious injury or property damage. Make sure pin is properly installed.

ProContractor Series Pump

2. 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

Removal









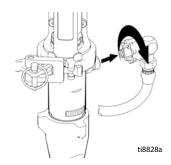


See pump manual 334654 for pump repair.

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

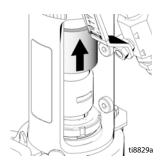


Remove paint hose fitting and paint 4. hose from pump fitting.

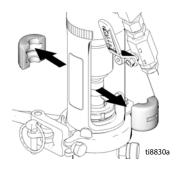


ProContractor Series Pump

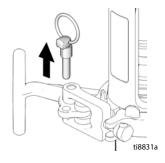
5. Slide coupler cover up to fully expose rod couplers.



6. Remove rod couplers.

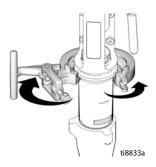


7. Remove pin.

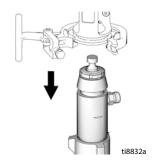


NOTE: Support pump with your hand before opening t-handle.

8. Open clamp.

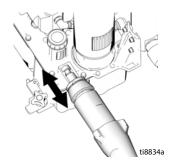


9. Remove pump from unit.



Installation

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

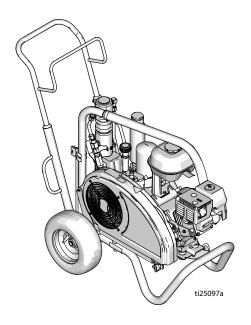


2. Reverse removal steps to reassemble pump.

ProContractor Series Pump

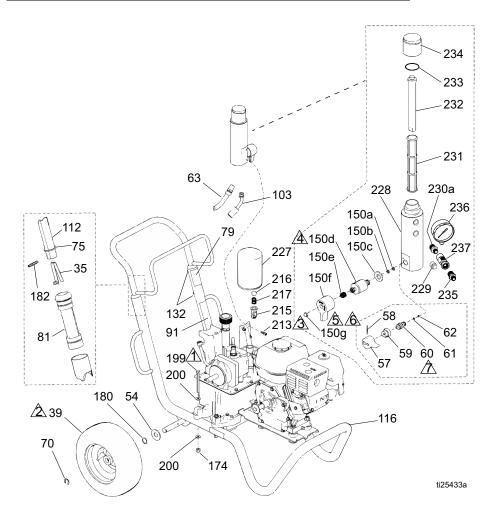
Notes	
-	

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



GH™130/200/230/300 Standard Series

Ref.	Torque	Ref.	Torque
\triangle	120-130 in-lb (13.6 - 14.7 N•m)	<u>/</u> 5\	15-25 in-lb (1.7 - 2.8 N•m)
<u>^2</u>	Inflate tires to 25-35 psi (1.7-2.4 bar)	<u></u>	Apply Locktite 242
3	110-120 in-lb (12.4 - 13.6 N•m)	\triangle	35-45 ft-lb (47.5 - 61.0 N•m)
4	355-395 in-lb (40.1 - 44.6 N•m)		



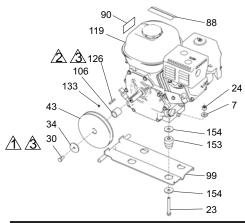
Parts List

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
57	15C780	HANDLE, GH130	1	182	101354	PIN, spring, straight,	2
58	15C972	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		2
61◆	15E022	SEAT, valve, GH130	1	200	100527	•	4
62◆	277364	GASKET, seat, valve,	1	213	119426	SCREW	3
		GH130		215	198841	RETAINER	1
63	243814	HOSE	1	216	100084	BALL, metallic	1
70	120211	CLIP, retaining	2	217	116967	SPRING, compression	1
75	15J645	WASHER, GH130 & 200	2	227	246173	FILTER, oil, spin on	1
		WASHER, GH230, & 300	2	228‡	15E599	HOUSING	1
79▲	189246	LABEL, warning	1	229‡	15G331	PLUG, pipe	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▲		LABEL, warning	1	232‡		TUBE, diffusion	1
		LABEL, warning, ISO	1	233‡		PACKING, o-ring	1
		LABEL, warning,	1	234‡		CAP, filter	1
		multi-languages		235		ADAPTER, GH130/200	1
103	288732	HOSE, drain	1			ADAPTER, GH230/300	1
112		HANDLE, cart	1	236	102814	/ /	1
116		FRAME, cart, GH130 &	1	237	243683	SWIVEL	1
		200					
	248815	CART, frame, GH230 &	1	•	-	/arning labels are available a	at no
		300	•	cost.			
132	109032		4			rain Valve Replacement Kit	
150‡	245103	,,	•	235	014		
.004		230, 300		★ Incl	uded in D	rain Valve Replacement Kit	
150a ±	193710	SEAL, valve	1	245			
		SEAT, valve	1	‡ Inclu	ded in Filt	ter Replacement Kit 24W75	3
		GASKET	1	-		•	
1500	114/9/	GAGNET	ı				

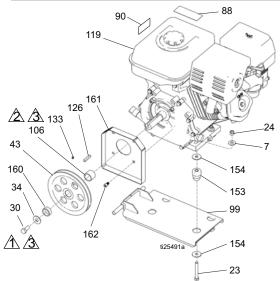
Parts-Engines GH™130/200/230 Standard Series

Ref.	Torque	Ref.	Torque
1	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

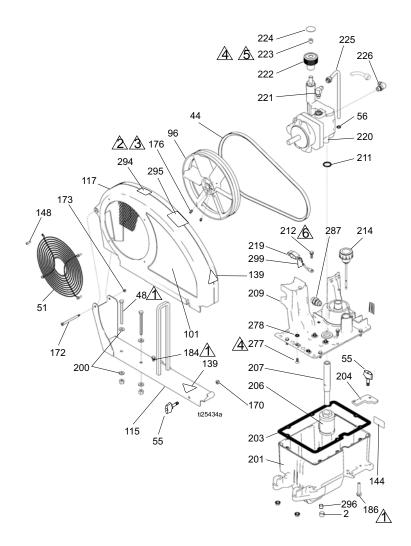


Parts List Engines

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
7	100023	•	•	119*	120590	ENGINE, gasoline, 120 cc, Honda, GH130	1
	100132	WASHER, flat, GH300	4		802264	•	1
23		SCREW, cap, hex hd,	4			GH200	
		GH130, 200 & 230			116298	, 0 ,	1
	106212	SCHREW, cap, hex hd,	4			Honda, GH230	
		GH300			803900	- , 3,	1
24	110838	NUT, lock, GH130, 200 &	4	100	117600	Honda, GH300	1
	404500	230		126	117632	KEY, square, 3/16 X 1.25,	- 1
20		NUT, lock, GH300	4		110/18/	GH130, 200 & 230 KEY, parallel, square,	1
30	108842	SCREW, cap, hex hd, GH130, 200 & 230	1		113404	GH300	'
	116645	•	1	133	100002		1
	1100-10	GH300	•	153	15E888		4
34	112717	WASHER, GH130, 200 &	1			GH130, 200 & 230	
		230			195515	DAMPENER, motor mount,	4
	119438	WASHER, GH300	1			GH300	
43	116908	PULLEY, 5.50 in, GH130,	1	154	108851	· •	8
		200 & 230		160		SPACER, GH300	1
		PULLEY, GH300	1	161 162		SHIELD, GH300 SCREW, GH300	1 4
88▲		LABEL, warning	1	102	C20010	SCREW, GH300	4
00 4		LABEL, warning, Chinese	1 1	▲ Da	nger and	Warning labels are available	at no
90▲	161720	LABEL, warning, ISO	1	cos	•	varing labele are available t	at 110
99	15F157	engine BRACKET, mounting,	1				
33	131 137	engine, GH130, 200 & 230		*Engi	ne Repair	Kits:	
	15E583	BRACKET, mounting,	1	2886		cc (4.0 HP)	
		engine, GH300		2489	43 160	cc (5.5 HP)	
106	15B314	SLEEVE, motor shaft,	1	2489		cc (6.5 HP)	
		GH130, 200 & 230		2489		cc (9.0 HP)	
	15E586	SLEEVE, motor shaft, GH300	1	2-100	.0 210	55 (5.5111)	

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)
2	Apply Locktite 242	<u>\$</u>	Apply Locktite 277
<u>3</u>	55-62 in-lb (6.7 - 7.0 N•m)	<u>6</u>	110-120 in-lb (12.4 - 13.6 N•m)



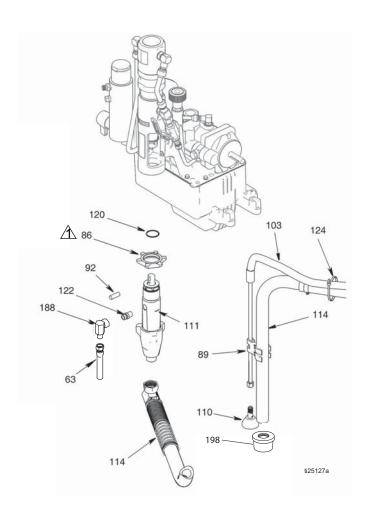
Parts List

202 101754 PLUG, pipe

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
2	101754	PI UG	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		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
,	200704	painted, GH130 & 200		225	246167	TUBE, hydraulic, case	1
	248973	GUARD, belt, assembly,	1			drain	
	240373	painted, GH230 & 300	'	226	116829	FITTING, elbow, with	1
400	A 16M760	•	2			o-rings	
		LABEL, warning	2	277	117471	SCREW	4
144	15K440	LABEL, GH/EH cooling		278	107188	PACKING, o-rings	4
		system		284	16P142	LABEL, hydraulic fluid, GH	1
148		SCREW, mach, torx pan ho		287	120184	FITTING	1
170		NUT, lock, hex	1	294		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				
		washer head		▲ Da	nger and \	Warning labels are available	at no
200		WASHER	4	COS	•		
201	15J513	TANK, reservoir	1	500			

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

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

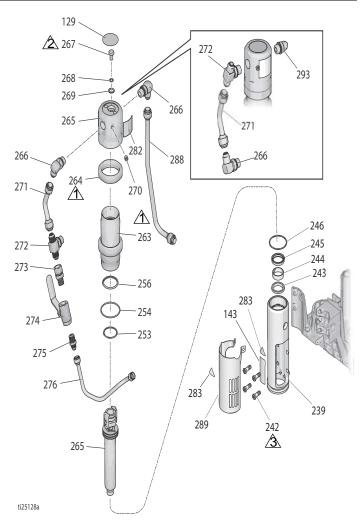


Parts List

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
1	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)		



Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
129▲◆✓	15B063	LABEL, warning, hot	1		15E596	TUBE, hydraulic,	1
143▲		surface LABEL, GH130 LABEL, GH200	1 1	272♦	117609	supply, GH230 & 300 FITTING, tee, branch, str thd	1
	17D053	LABEL, GH230 LABEL, GH300	1	273	117328		1
239◆		MANIFOLD, GH130	1	274	117441		1
		MANIFOLD, GH200 MANIFOLD, GH230 &	1 1	275	116813	FITTING, nipple, hydraulic	1
242◆	1EDE64	300 SCREW, cap socket	4	276	15J819	TUBE, hydraulic,	1
242 ▼ 243‡◆		WIPER, rod	1		17D268	supply, GH130 TUBE, hydraulic,	1
244‡◆	112342	BEARING, rod	1			supply, GH200	•
245‡◆		PACKING, block	1		17D270	TUBE, hydraulic,	1
246‡♦		PACKING, o-ring	2			supply, GH230, GH300	
253‡◆✓	178226	PACKING, o-ring SEAL, piston	1 1	282✓		LABEL, Graco logo	1
256‡◆✓	178220		1	283▲◆	15H108	LABEL, warning, finger	2
263◆	246176	SLEEVE, hydraulic cylinder, kit, GH130 &	1	288	15J824		1
	248991	200 SLEEVE, hydraulic cylinder, kit, GH230 &	1		17D267	return, GH200	1
		300)			17D269	TUBE, hydraulic, return, GH230 & 300	1
264 ♦ 265 ♦	15A726 288735	NUT, jam KIT, repair, trip rod,	1 1	289	24X473	SHIELD, rod, GH130/200	1
	288754	piston; GH130 only KIT, repair, trip rod,	1		24X474	SHIELD, rod, GH230/300	1
	288755	piston; GH 200 only KIT, repair, trip rod, piston; GH 230/300	1	293	120184	FITTING, straight, OEM kits only	1
266 ♦ 267 √♦	117607 106276	only FITTING, elbow std the SCREW, cap, hex head	1 2 1	cost. ♦ Include	ed in Hydr	ning labels are available aulic Motor Repair Kit: 28 1- GH200: 248977 - GH2	8758
268√◆ 269√◆ 270√◆ 271◆		PACKING, o-ring WASHER, sealing PLUG, pipe TUBE, hydraulic, supply, GH130 & 200	1 1 1	300 ✓ Include GH130 300	ed in Trip); 288754	i- GH200; 248977 - GH2 Rod/Piston Kit: 288735 - - GH200; 288755 - GH23 Kit 246174	

Parts

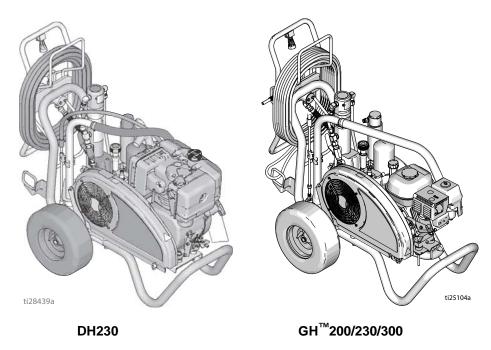
GH™130/200 Standard Series w/ Spray Gun and Hose

Ref.	Part No.	Description	Qty.	
202	240794	HOSE, grounded, nylon; 1/4 in. ID;cpld 1/4-18 npsm; 50 foot	•	
		(15 m); spring guards both ends 3300 psi (227 bar, 22.7 MPa)	3	203
203	288420	Contractor Spray Gun Includes 517 RAC [®] X	1	
		SwitchTip and HandTite [™] Guard See 311861 for parts		
				11254358

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

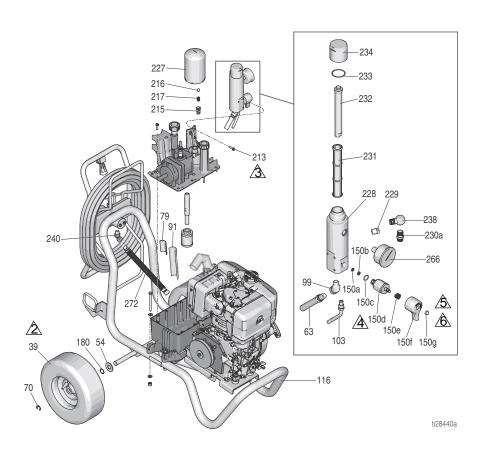
Ref.	Part No.	Description	Qty.	
202	287042	KIT, gun, Silver 3300 psi (227	1	
		bar, 22.7 MPa) Includes 202a -		
		202d		
202a	240797	HOSE, grounded, nylon; 3/8 in.	1	2020
		ID;cpld 3/8-18 npsm; 50 foot		
		(15 m); spring guards both ends		
2026	044705	3300 psi (227 bar, 22.7 MPa)	4	202
2020	241735	HOSE, grounded, nylon; 1/4 in. ID; cpld 1/4 npt(m) x 1/4 npsm(f);	ı	202d
		3 foot (0.9 m); spring guards both		
		ends 3300 psi (227 bar, 22.7 MPa)		
2020	246240	Silver Spray Gun	1	2 02a ti5413b
		Includes 517 RAC® X		
		SwitchTip and HandTite [™]		
		Guard See 311254 for parts		
202d	159841	3/8 x 1/4 bushing	1	

DH230/GH™200/230/300 ProContractor Series Parts (OEM Kits)



Parts DH230/GH™200/230/300 ProContractor Series

Ref.	Torque	Ref.	Torque
\triangle	120-130 in-lb (13.6 - 14.7 N•m)	<u> </u>	355-395 in-lb (40.1 - 44.6 N•m)
<u>^2</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>6</u>	Apply Locktite 242



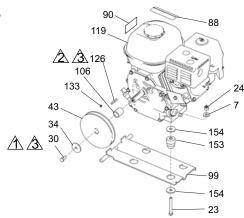
Parts List

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	HOUSING	1
		LABEL, warning,	1	229‡	15G331		1
		multi-languages		230a	196178	ADAPTER 3/8 npsm (m)	1
91▲	194317	LABEL, warning	1			hose connection	
٠. _		LABEL, warning, ISO	1	231‡	244067	,	1
		LABEL, warning,	1	232‡	15C766	•	1
		multi-languages	•	233‡	117285	PACKING, o-ring	1
99	116756	FITTING, elbow 45°	1	234‡	15C765	- ,	1
116		FRAME, cart	1	238	196179	FITTING, elbow, street	1
150‡		VALVE, drain	·	240	161889	, , -	1
	193710	•	1	266	868015	GAUGE	1
	193709	· ·	1	272	198847	HOSE, coupled	1
	114797		1	4.5	, , ,		
1500★ 150d★			1		J	Varning labels are available	at no
		VALVE, assembly	1	cost	•		
	114708		1	★ Inci	luded in D	rain Valve Replacement Ki	t
	15G563	·	1	245	103		
_	116424	•	1	‡ Inclu	ıded in Fili	ter Replacement Kit 24W75	53
180	116038	, ,	2	•		•	
213	119426	SCREW	3				

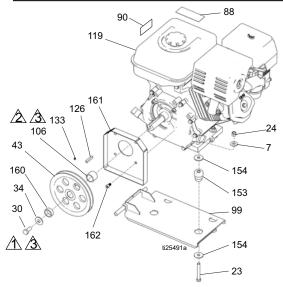
Parts - Engines

Ref.	Torque	Ref.	Torque
\triangle	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[™]200230 ProContractor Series

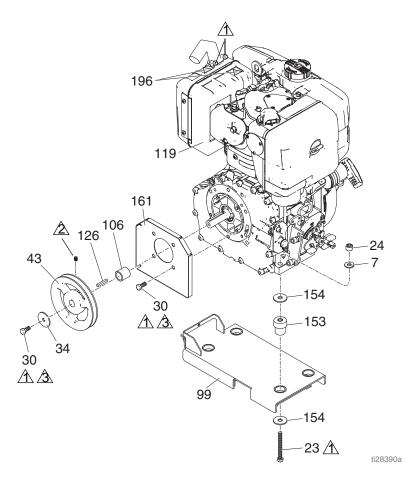


GH[™]300 ProContractor Series



Parts - Engines DH230 ProContractor Series

Ref.	Torque	Ref.	Torque
1	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)	<u></u>	65-85 in-lb (7.3 - 9.6 N•m)



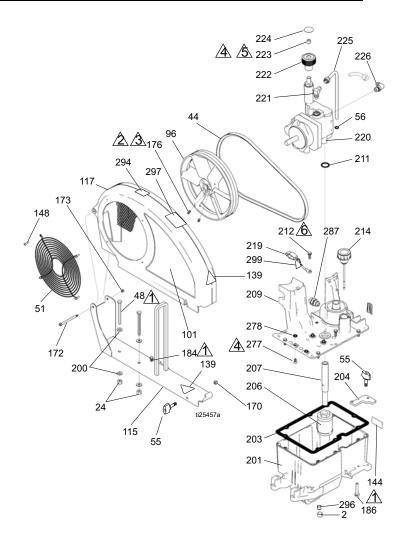
ProContractor

En	aine F	Parts List		Ref.	Part	Description	Qty.
,	9			119*	802264	ENGINE, gasoline, 160 cc,	1
Ref.	Part	Description	Qty.			GH200	
7	100023	WASHER, flat, DH230,	4		116298	ENGINE, gasoline, 200 cc,	1
		GH200 & 230				Honda, GH230	
	100132	WASHER, flat, GH300	4		803900	, , , ,	1
23	113664	SCREW, cap, hex hd,	4			Honda, GH300	
		GH200 & 230			17H150	ENGINE, Diesel, 350 cc,	1
	106212	SCREW, cap, hex hd,	4	400	4.47000	Kohler, DH230	
		GH300		126	11/632	KEY, square, 3/16 X 1.25,	1
	110385	SCREW, cap, hex hd,	4		171.006	GH130, 200 & 230	1
		DH230			171620	KEY, square, 3/16 X 1.125, DH230	1
24	110838		4		110/0/	KEY, parallel, square,	1
		& 230			119404	GH300	'
00	101566	NUT, lock, GH300	4	133	100002	SCREW, set, sch	1
30	100012	SCREW, cap, hex hd GH200 & 230	1	153		DAMPENER, motor mount,	
		DH230	5	100	102000	DH230, GH200 & 230	
		GH300	1		195515	DAMPENER, motor mount,	4
34		WASHER, GH200 & 230	i			GH300	
-		WASHER, GH300	1	154	108851	WASHER, plain	8
43	116908	PULLEY, 5.50 in, GH200 &	1	160	15E764	SPACER, GH300	1
		230		161		SHIELD	
		PULLEY, 6 in, DH230	1			GH300	1
		PULLEY, GH300	1		_	DH230	1
88▲		LABEL, warning	1	162		SCREW, GH300	4
		LABEL, warning, Chinese	1	196 ⊿	17K859	LABEL, safety, hot surface	2
90▲	16Y720	LABEL, warning, ISO	1	≜ Do	ngar and	Warning labels are available	ot no
	455453	engine			•	Warning labels are available	at no
99	15F157	BRACKET, mounting,	1	cos	st.		
	455500	engine, GH200 & 230	4				
	155583	BRACKET, mounting,	1	*=		. IZ'ı-	
	174140	engine, GH300 BRACKET, mounting,	1	^ <i>Engil</i> 2489	ne Repair	· Kits:) cc (5.5 HP)	
	1711140	engine, DH230	'			,	
106	15B314	SLEEVE, motor shaft,	1	2489) cc (6.5 HP)	
100	130314	GH200 & 230		2489	45 270) cc (9.0 HP)	
	15F586	SLEEVE, motor shaft,	1				
	.02000	GH300	•				
	17L823	SLEEVE, motor shaft,	1				
		DH230	-				
		-					

Notes			

Parts - Fan Belt DH230/GH™200/230/300 ProContractor 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)
2	Apply Locktite 242	5	Apply Locktite 277
<u>3</u>	55-62 in-lb (6.7 - 7.0 N•m)	<u>6</u>	110-120 in-lb (12.4 - 13.6 N•m)

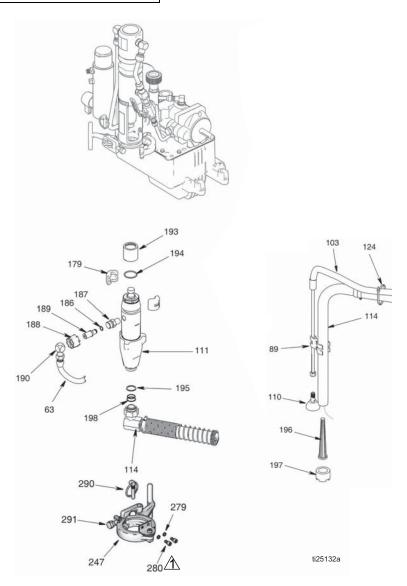


Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
2	101754	PLUG.	1	203	120604	GASKET, reservoir	1
24		NUT, lock	2	204	15E476	BRACKET, retainer, motor	1
44		BELT, GH200, 230	1	206	116919	FILTER	1
		BELT, GH300	i	207	15E587	TUBE, suction	1
		BELT, DH230	i	208	154594		1
48		SCREW, hex head	2	209		COVER, reservoir	1
51		GRILL, fan guard	1	211	156401		1
55		NUT, hand	2	212	119426		8
56		O-RING	1	214	120726	CAP, breather, filler	1
96		PULLEY, fan	i		17L080		1
101		LABEL, GH200	i			(DH230)	
101		LABEL, GH230	i	219	237686		1
		LABEL, GH300	i	220	246178	PUMP, hydraulic, DH230,	•
		LABEL, DH230	i			GH200	
115		RAIL, belt guard, assembly,	i		249003		
110	200201	GH200		221		FITTING, elbow, male, 90°	1
	200202	RAIL, belt guard, assembly,	1	222		KNOB, pressure	i
	200393	, ,	1	223	117560		i
117	288734	DH230, GH230 & 300	1	224		LABEL, control	1
117	288734		1	225	246167	•	i
		painted, GH200		220	240101	drain	'
	248973	, , , , ,	1	226	116829	FITTING, elbow, with	1
		painted, DH230, GH230 &		220	110029	, ,	'
		300		277	117471	o-rings SCREW	4
139▲	⊾16M768	LABEL, safety, warning	2	278	107188		4
144	15K440	LABEL, GH/EH, cooling	1	284		PACKING, o-rings LABEL, hydraulic fluid, GH	1
		system		287		FITTING	1
148	115477	SCREW, mach, torx pan hd	4	294		LABEL, made in USA	1
170	102040	NUT, lock, hex	1	296	116618		1
172	119434	SCREW, shoulder, socket	1	290	17D033		1
		head		291	170033	•	'
173	116969	NUT, lock	1	000	000070	series	
176		SCREW, set, 1/4 X 1/2	2	299	290079	, 0	1
184	260212		1			English	
		thd form			16Y633		1
186	17D142	SCREW, mach, hex	2			Chinese	
100	.,,,,,,,	washer head	-				
200	100527		4	▲ Dar	nger and V	Varning labels are available a	at no
201	15J513	TANK, reservoir	1	cos	t.		
202	101754	PLUG, pipe	1				
202	101734	i Loo, pipe	1				

Parts DH230/GH™200/230/300 ProContractor Series

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

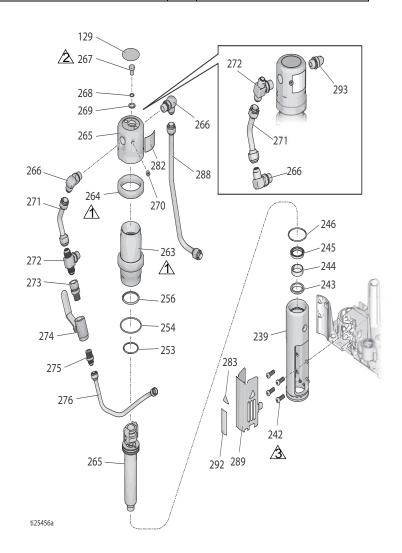


Parts List

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
	24W998	PUMP, kit, displacement,	1		289131	INLET FILTER, 16 mesh	1
	2111000	DH230, GH230 & 300	•	197≉	288480	NUT, strainer, inlet	1
114	288252	HOSE, suction, 5 gallon,	1	198	117559	O-RING	2
	200202	GH200, 230 & 300		247	288344	CLAMP, pump; DH230, GH	1
115	289669	HOSE, suction, 30/55 gal-	1			200, 230, 300	
113	203003	•	'	279	105510	WASHER, lock, spring	2
		lon, DH230,				(hi-collar), DH230, GH200,	
		GH200/230/300 (not				GH230, GH300	
470	077077	shown)	•	280	101550	SCREW, cap, sch	2
179	277377	COUPLER	2	290	288741	KIT, repair, pin/spacer;	1
186	107505	PACKING, o-ring	1			DH230, GH 200, 230, 300	
187	15J413	FITTING, pump, QD	1	291	15J417	BOLT, adjustment; DH230,	1
188	120583	NUT, hand, DH230,	1			GH 200, 230, 300	
400	45 1440	GH200/230/300			luded in A	ccessory Kit 288481 (10 mes	sh) or
189	15J410	FITTING, QD	1			t 289132 (16 mesh)	,
190	196179	FITTING, elbow, street,	1	7100	.000019 14	1200 102 (10 1/10011)	
400	4511057	sprayer					
193	15H957	COVER, coupler	1				

Parts DH230/GH™200/230/300 ProContractor Series

Ref.	Torque	Ref.	Torque
1	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)		



Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
129▲◆✓	15B063	LABEL, warning, hot surface	1		15E596	TUBE, hydraulic, supply, DH230, GH230	1
143▲	17D051		1			& 300	
		LABEL, GH230	1	272♦	117609	FITTING, tee, branch,	1
		LABEL, GH300	1			str thd	
		LABEL, DH230	1	273	117328	FITTING, nipple,	1
239◆		MANIFOLD, GH200	1			straight	
	15J279		1	274	117441	VALVE, ball	1
		GH230 & 300		275	116813	FITTING, nipple,	1
242♦	15B564	,	4			hydraulic	
243‡♦	117739	,	1	276	15J846	TUBE, hydraulic,	1
244‡♦	112342	-,	1			supply, GH200	
245 ‡ ♦ 246 ‡ ♦	112561 117283	•	1 2		15J864	TUBE, hydraulic,	1
253‡♦✓			1			supply, DH230,	
254‡♦✓			1		_	GH230, GH300	
256‡◆✓	178207	· •	1	282▲✓	15B804	,	1
263♦	246176		1	283▲◆		LABEL, warning	2
		cylinder, kit, GH200		288	15J845	TUBE, hydraulic,	1
	248991	SLEEVE, hydraulic	1		45 1000	return, GH200	
		cylinder, kit, DH230,			15J863	TUBE, hydraulic,	1
		GH230 & 300)				return, DH230, GH230	
264◆	15A726	NUT, jam	1	000	45 1500	& 300	
265◆	288736		1	289	15J503	SHIELD, rod, GH200	1
		piston; GH 200 only			16101749	SHIELD, rod, DH230,	1
	288737		1	2024	455504	GH230 & 300	
		piston; DH230, GH		292 ♦ 293	15F584 120184	,	1 1
		230/300 only		293	120104	FITTING, straight,	
266◆	117607	,	1 2			OEM kits only	
267√◆	106276	•	1	▲ Dange	r and Mar	ning labels are available	at no
		head		cost.	i aliu vvai	illing labels are available	atno
268√◆	155685	PACKING, o-ring	1		ad in Hydr	aulic Motor Repair Kit: 28	8750
269✓◆	178179	WASHER, sealing	1		•	o - DH230, GH230 & 300	
270✓◆	100139	PLUG, pipe	1			Rod/Piston Kit: 288736 -	
271♦	198629	TUBE, hydraulic,	1		•	- DH230, GH230 & 300	
		supply, GH200			,	Kit 246174	

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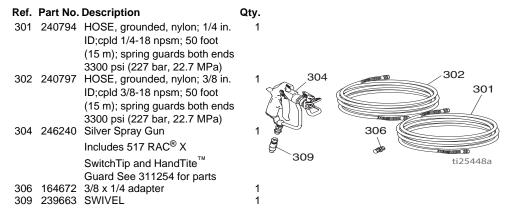
ProContractor

Parts

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

Ref.	Part No.	Description	Qty.	
202	240794	HOSE, grounded, nylon; 1/4 in.	2	
		ID;cpld 1/4-18 npsm; 50 foot		
		(15 m); spring guards both ends	3	202
		3300 psi (227 bar, 22.7 MPa)		
203	288420	Contractor Spray Gun	1	203
		Includes 517 RAC® X		
		SwitchTip and HandTite [™]		204
		Guard See 311861 for parts		
204	162453	ADAPTER	1	ti25447a

DH230/GH[™]230 ProContractor Series Spray Gun and Hoses (Assembled on Hose Reel)

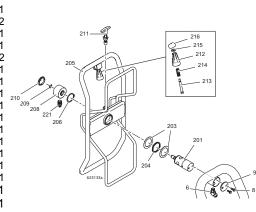


GH[™]300 ProContractor Series Spray Gun and Hoses (Assembled on Hose Reel)

Ref.	Part No.	Description	Qty.
302	240797	HOSE, grounded, nylon; 3/8 in. ID;cpld 3/8-18 npsm; 50 foot	1
303	241735	(15 m); spring guards both ends 3300 psi (227 bar, 22.7 MPa) HOSE, grounded, nylon; 1/4 in. ID;	1
	2	cpld 1/4 npt(m) x 1/4 npsm(f); 3 foot (0.9 m); spring guards both	·
304	246240	ends 3300 psi (227 bar, 22.7 MPa) Silver Spray Gun	1
		Includes 517 RAC [®] X SwitchTip and HandTite [™]	
007	400405	Guard See 311254 for parts	4
307 308		3/8 x 3/8 nipple 3/8 x 1/4 bushing	1 1
309		SWIVEL	1

Hose Reel (ProContractor Series)

	_		_	
Ref.	Part	Description	Qty.	
6	161889	FITTING, connector	1	
8	260212	SCREW, hex washer hd	2	
9	16C975	PLATE, pivot mount	1	211 -
201	24E016	SEAL, fitting, flared	1	
203	122607	WASHER, flat	2	205
204	122534	SPRING, wave	1	203
205	24B691	REEL, hose	1	0 × \
206	122524	RING, retaining, external	1	210
208	24B248	CAP, swivel, complete	1	209
209	122347	RING, retaining, external	1	221 /
210	122787	CAP	1	
211	24E400	PIN, pop, lock out	1	
212	278085	HANDLE, swivel	1	JJ
213	122518	SCREW, shoulder, sch	1	(k
214	122542	SPRING, die	1	ti2
215	122669	WASHER, flat	1	
216	15X618	NUT, swivel, handle	1	
221	164672	ADAPTER, GH200	1	Torque to 120
	196178	ADAPTER,	1	Δ
		DH230/GH230/300	•	✓2 Torque to 25-3



↑ Torque to 120-130 in-lbs (13.6-14.7 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 ba
Engine	120 cc (4.0 HP)	
Maximum tip size	0.037	
Maximum free-flow delivery	1.30 gpm	5.9 l/min
Hose connection	1/4 npsm (m)	
Noise (dBa)		
Maximum sound pressure	88	8 dBa
Maximum sound power	103 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	2.19:1	
Max cycle rate	125 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.	645 mm

GH™200 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	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	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
		Wetric
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 (9	.0 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 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	0.047	
Maximum free-flow delivery	2.15 gpm	9.8 l/min
Hose connection	1/4 r	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 ba
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	·	,
DH230	350 cc (6.7 HP)	
GH230	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		
DH230	9	1 dBa
GH230	96 dBa	
Maximum sound power	<u>_</u>	
DH230	106 dBa	
GH230	110 dBa	
Inlet/Outlet Sizes		О СВС
Fluid inlet size	1 5/16	-12 UN-ZA
Fluid outlet size	3/8 npt (f)	
Weight		1 (7
DH230	230 lb.	104.2 kg
GH230	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
1	28.80 in.	732 mm

	US	Metric
Maximum fluid working pressure	3300 psi	22.8 MPa, 228 bai
Hydraulic reservoir capacity	1.25 gallons	4.75 liters
Maximum hydraulic pressure	1855 psi	12.8 MPa,128 bar
Engine	270 c	c (9.0 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 bar
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

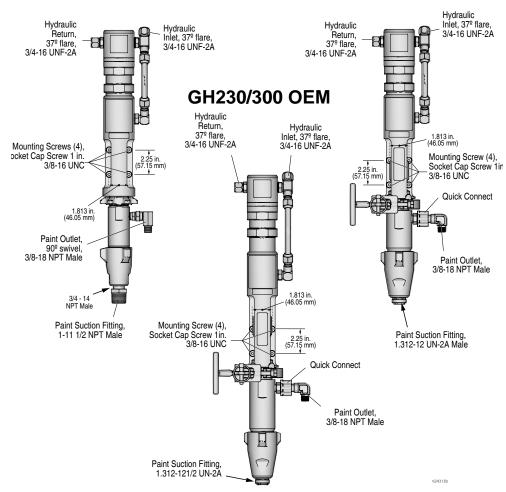
All Models:

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

GH130 OEM

GH200 OEM



Graco Standard Warranty

Graco Standard Warranty

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Original instructions. This manual contains English. MM 334558

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

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