

# Repair - Parts List



## LineLazer™ III 200HS







309896J

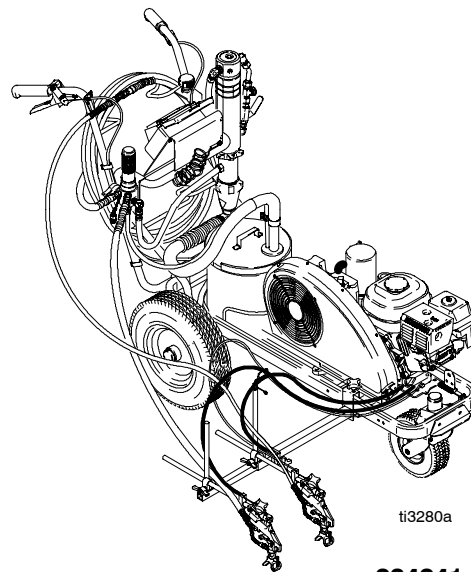
### AIRLESS PAINT STRIPERS

3300 psi (228 bar, 22.8 MPa) Maximum Working Pressure



Read warnings and instructions.

						
234240	✓		✓			
234241		✓	✓			
234242	✓				✓	
234243		✓			✓	
234244	✓		✓			✓
234245		✓	✓			✓



PROVEN QUALITY. LEADING TECHNOLOGY.



# Table of Contents

Warnings .....	3	Hydraulic Pump .....	17
Spray Tip Selection Table .....	6	Fan Belt .....	19
General Repair Information .....	7	Engine .....	20
Maintenance .....	8	Hydraulic Motor Yoke .....	21
Troubleshooting .....	9	Oil/Filter Change .....	23
Repair		Displacement Pump .....	24
Digital Tracking System .....	13	Parts .....	26
PC Board Diagnostics .....	15	Technical Data .....	41
Trigger Sensor Adjustment .....	16	Graco Warranty .....	42
Distance Sensor Adjustment .....	16		




## Related Manuals

Operator .....	309892
Displacement Pump .....	309277
Spray Gun .....	309741
Spray Tip .....	*
PC Board .....	309459
Drain Valve Kit .....	308961

\* for spray tip selection, see page 6

# Warnings

## WARNING

	<p><b>INJECTION HAZARD</b></p> <p>Spray from the spray tip, hose leaks or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Splashing fluid in the eyes or on the skin can also cause serious injury.</p> <ul style="list-style-type: none"><li>• Fluid injected into the skin might look like just a cut, but it is a serious injury. <b>Get immediate medical attention.</b></li><li>• Do not point the spray tip at anyone or any part of the body.</li><li>• Do not put hand or fingers over the spray tip, and do not stop or deflect fluid leaks with your hand, body, glove or rag.</li><li>• Do not “blow back” fluid; this is not an air spray system.</li><li>• Always have the tip guard and the trigger guard on the in-line valve when spraying.</li><li>• Be sure the trigger safety lever operates before operating the in-line valve.</li><li>• Lock the trigger safety lever when you stop spraying.</li><li>• Follow the <b>Pressure Relief Procedure</b> on page 8 when you are instructed to relieve pressure; stop spraying; check, clean, or service any system equipment; or install or change spray tips.</li><li>• Tighten all fluid connections before each use.</li><li>• Check the hoses, tubes and couplings daily. Replace worn or damaged parts immediately. Permanently coupled hoses cannot be repaired.</li><li>• Handle and route hoses and tubes carefully. Keep hoses and tubes away from moving parts and hot surfaces. Do not use the hoses to pull equipment. Do not expose Graco hoses to temperatures above 150°F (65°C) or below -40°F (-40°C).</li></ul>
	<p><b>TOXIC FLUID HAZARD</b></p> <p>Hazardous fluids or toxic fumes can cause a serious injury or death if the fluid is swallowed or splashed in the eyes or on the skin or if the fumes are inhaled.</p> <ul style="list-style-type: none"><li>• Know the specific hazards of the fluid you are using.</li><li>• Store hazardous fluid in an approved container. Dispose hazardous fluid according to all local, state and national guidelines.</li><li>• Dress appropriately for your application. Wear protective eyewear, noise protection for the ears, a personal respirator, gloves, and clothing.</li></ul>
	<p><b>RECOIL HAZARD</b></p> <p>Due to the high pressure fluid emitted, a strong recoil action may occur when you trigger the pole gun. If you are unprepared, your hand could be forced back toward your body or you could lose your balance and fall, resulting in serious injury.</p>

# WARNING



## FIRE AND EXPLOSION HAZARD

Improper grounding, poor air ventilation, open flames, or sparks can cause a hazardous condition and result in fire or explosion and serious injury.

- Ground the equipment and the object being sprayed. See **Electrical Grounding** on page 7.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvent or the fluid being sprayed.
- Extinguish all the open flames or pilot lights in the spray area.
- Electrically disconnect all the equipment in the spray area.
- Keep the spray area free of debris, including solvent, rags, and gasoline.
- Do not turn on or off any light switch in the spray area while operating or if fumes are present.
- Do not smoke in the spray area.
- Do not operate a gasoline engine in the spray area.
- If there is any static sparking while using the equipment, **stop spraying immediately**. Identify and correct the problem.



INSTRUCTIONS

## EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are uncertain about the usage, call your distributor.
- Do not alter or modify this equipment. Use only genuine Graco parts and accessories.
- Check the equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated system component. This equipment has a **3600 psi (25 MPa, 248 bar) maximum working pressure**.
- Route the hoses away from the traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose Graco hoses to temperatures above 150°F (65°C) or below -40°F (-40°C).
- Do not use the hoses to pull the equipment.
- Use fluids or solvents that are compatible with the equipment wetted parts. See the **Technical Data** section of all the equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Fluid hoses must have spring guards on both ends to protect them from rupture caused by kinks or bends near the couplings.
- Comply with all applicable local, state and national fire, electrical and other safety regulations.
- Wear hearing protection when operating this equipment.



## MOVING PARTS HAZARD

Moving parts can pinch or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** in this manual. Disconnect power or air supply.



### **HAZARD OF USING FLUIDS CONTAINING HALOGENATED HYDROCARBONS**

Never use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in this equipment. Such use could result in a serious chemical reaction, with the possibility of explosion, which could cause death, serious injury and/or substantial property damage.

Consult your fluid suppliers to ensure that the fluids being used are compatible with aluminum and zinc parts.

# Spray Tip Selection Table

**LineLazer Tip Selection Guide.** Sprayer is supplied with tip LL5319. For additional applications, use the tip selection table as follows:

**Note:** the last three digits (LL5319) of the tip part number identifies the line width and tip orifice (opening). For example: the line width for tip LL5319 is 4 in. as shown in the table below. The tip orifice for tip LL5319 is .019 in.

**LineLazer Tip Selection Table**

Tip Size	Line Width in inches	Used For
221203*	2	Sport court - light film build
LL5213*	2	Sport court - heavy film build
LL5215*	4	Alkyd paints only - light film build
LL5217	4	Alkyd paints only - medium film build
LL5219	4	Alkyd paints only - heavy film build
LL5315	4	Most traffic paints - light film build
LL5317	4	Most traffic paints - medium film build
LL5319	4	Most traffic paints - medium film build
LL5321	4	Most traffic paints - heavy film build
LL5323	4	Most traffic paints - heavy film build
LL5327†	4	Most traffic paints - heavy film build
LL5417#	4 - 8	All paints and high solids traffic paints - light film build
LL5419#	4 - 8	All paints and high solids traffic paints - medium film build
LL5421#	4 - 8	All paints and high solids traffic paints - heavy film build
LL5621	8 - 12	All traffic paints - light film build
LL5623	8 - 12	All traffic paints - medium film build
LL5625	8 - 12	All traffic paints - medium film build
LL5627	8 - 12	All traffic paints - heavy film build

\* May require 100 mesh filter to minimize tip plugging.

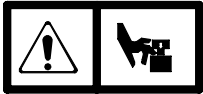
† Best for use with LineDriver.

# Best for cold weather applications.

**How to Maximize Line Quality and Reduce Tip Wear.** Observe the following suggestions to increase line quality and minimize sprayer tip wear.

1. Select a larger tip orifice and run the sprayer at a reduced operating pressure.
2. Running larger tip sizes (example: use tip LL5321 @ 2000 psi instead of LL5317 @ 3300 psi) will significantly increase tip life and reduce tip plugging. It will also produce a more uniform film build across the line.

# General Repair Information



**MOVING PARTS HAZARD;**  
page 4.

1. **Keep all screws, nuts, washers, gaskets, and electrical fittings removed during repair procedures.** These parts are not normally provided with replacement assemblies.
2. **Test repair** after problem is corrected.
3. **If sprayer does not operate properly,** review repair procedure to verify procedure was done correctly. If necessary, see Troubleshooting Guide, page 9, for other possible solutions.



**MOVING PARTS HAZARD;**  
page 4.

4. **Install belt guard before operation of sprayer** and replace if damaged. Belt guard reduces risk of pinching and loss of fingers; see preceding **WARNING**.

## Grounding



**FIRE AND EXPLOSION HAZARD;** page 4.

Ground sprayer with grounding clamp to earth ground when flushing sprayer. Fig. 1.

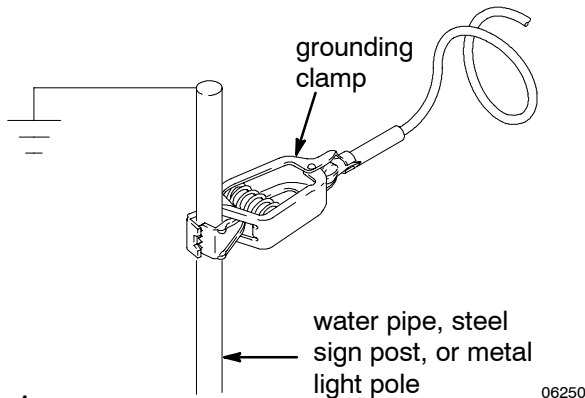
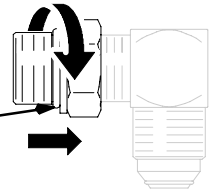


Fig. 1

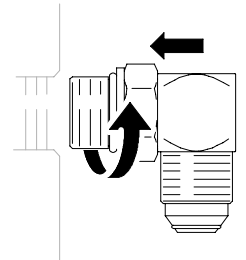
## SAE O-Ring Installation

1. Unscrew lock nut to touch fitting.

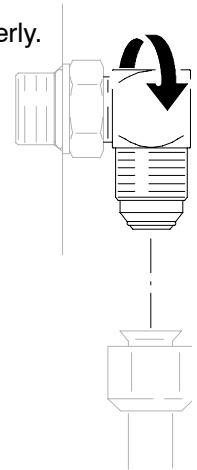


2. Lubricate o-ring

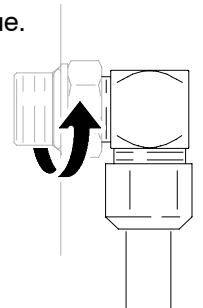
3. Screw in fitting hand tight.



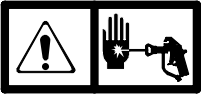
4. Unscrew fitting until oriented properly.



5. Tighten lock nut to indicated torque. (Make sure washer is seated properly without pinching o-ring).



# Maintenance



**FLUID INJECTION  
HAZARD;** page 3.

## Pressure Relief Procedure

1. Lock gun trigger safety.
2. Turn engine ON/OFF switch to OFF.
3. Move pump valve to OFF (down) and turn pressure control knob fully counterclockwise.
4. Unlock trigger safety. Hold metal part of gun firmly to side of grounded metal pail, and trigger gun to relieve pressure.
5. Lock gun trigger safety.
6. Open pressure drain valve. Leave valve open until ready to spray again.

*If you suspect that the spray tip or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, VERY SLOWLY loosen tip guard retaining nut or hose end coupling to relieve pressure gradually, then loosen completely. Now clear tip or hose.*

## CAUTION

For detailed engine maintenance and specifications, refer to separate Honda Engines Owner's Manual, supplied.

**DAILY:** Check engine oil level.

**DAILY:** Check hydraulic oil level.

**DAILY:** Check hose for wear and damage.

**DAILY:** Check gun safety for proper operation.

**DAILY:** Check pressure drain valve for proper operation.

**DAILY:** Check and fill gas tank.

**DAILY:** Check that displacement pump is tight.

**DAILY:** Top off TSL level in displacement pump packing nut to help prevent material buildup on piston rod and early wear of packings.

**AFTER THE FIRST 20 HOURS OF OPERATION:** Drain engine oil and refill with clean oil. Reference Honda Engines Owner's Manual for correct oil viscosity.

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

**WEEKLY/DAILY:** Remove any debris from hydraulic rod.

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

**SEMI-ANNUALLY:** Check belt wear, page 19; replace if necessary.

**YEARLY OR 2000 HOURS:** Replace hydraulic oil and filter element with Graco hydraulic oil 169236 (5 gallon/20 liter) or 207428 (1 gallon/3.8 liter) and filter element 246173; page 6.

## Caster Wheel

(See letter call-outs in **Parts** drawing on page 38)

1. Once each year, tighten nut (154m) until spring washer bottoms out. Then back off the nut 1/2 to 3/4 turn.
2. Once each year, tighten nut (76) until it begins to compress spring washer. Then tighten the nut an additional 1/4 turn.
3. Once each month, grease wheel bearing (F).
4. Check pin (154e) for wear. If pin is worn out, there will be play in the caster wheel. Reverse or replace pin as needed.
5. Check caster wheel alignment as necessary. To align: loosen bolt (155), align wheel and tighten bolt (155).



# Troubleshooting



**FLUID INJECTION HAZARD;** page 3. Relieve pressure; page 8.

PROBLEM	CAUSE	SOLUTION
E=XX is displayed	Fault condition exists	Determine fault correction from table, page 15.
Gas engine pulls hard (won't start)	Hydraulic pressure is too high	Turn hydraulic pressure knob counterclockwise to lowest setting
Engine won't start	Engine switch is OFF	Turn engine switch ON
	Engine is out of gas	Refill gas tank. Honda Engines Owner's Manual.
	Engine oil level is low	Try to start engine. Replenish oil, if necessary. Honda Engines Owner's Manual.
	Spark plug cable is disconnected or damaged	Connect spark plug cable or replace spark plug
	Cold engine	Use choke
	Fuel shutoff lever is OFF	Move lever to ON position
	Oil is seeping into combustion chamber	Remove spark plug. Pull starter 3 to 4 times. Clean or replace spark plug. Start engine. Keep sprayer upright to avoid oil seepage.
Engine operates, but displacement pump does not operate	Pump valve is OFF	Turn pump valve ON.
	Pressure setting is too low	Turn pressure adjusting knob clockwise to increase pressure. Manual 309892.
	Fluid filter (203) is dirty	Clean filter. Page 30.
	Tip or tip filter is clogged	Clean tip or tip filter. Manual 309741.
	Displacement pump piston rod is stuck due to dried paint	Repair pump. Manual 309277.
	Belt worn, broken or off pulley	Replace
	Hydraulic fluid too low	Shut of sprayer. Add fluid*.
	Hydraulic motor not shifting	Set pump valve OFF. Turn pressure down. Turn engine OFF. Pry rod up or down until hydraulic motor shifts.

\*Check hydraulic fluid level often. Do not allow it to become too low. Use only Graco approved hydraulic fluid, page 8.

# Troubleshooting

PROBLEM	CAUSE	SOLUTION
Displacement pump operates, but output is low on up-stroke	Piston ball (206) is not seating	Service piston ball. Manual 309277.
	Piston packings are worn or damaged	Replace packings. Manual 309277.
Displacement pump operates but output is low on downstroke and/or on both strokes	Strainer (31) is clogged	Clean strainer. Sprayer 233716 strainer is for use in paint only.
	O-ring (227) in pump is worn or damaged	Replace o-ring. Manual 309277.
	Intake valve ball is packed with material or is not seating properly	Clean intake valve. Manual 309277.
	Engine speed is too low	Increase throttle setting. Manual 309892.
	Suction tube air leak	Tighten suction tube.
	Pressure setting is too low	Increase pressure. Manual 309892.
	Fluid filter (203), tip filter or tip is clogged or dirty	Clean filter. Manual 309892 or 309741.
Pump is difficult to prime	Large pressure drop in hose with heavy materials	Use larger diameter hose and/or reduce overall length of hose. Use of more than 100 ft of 1/4 in. hose significantly reduces performance of sprayer. Use 3/8 in. hose for optimum performance (50 ft minimum).
	Air in pump or hose	Check and tighten all fluid connections. Reduce engine speed and cycle pump as slowly as possible during priming.
	Intake valve is leaking	Clean intake valve. Be sure ball seat is not nicked or worn and that ball seats well. Reassemble valve.
	Pump packings are worn	Replace pump packings. Manual 309277.
	Paint is too thick	Thin the paint according to the supplier's recommendations
High engine speed at no load	Engine speed is too high	Decrease throttle setting before priming pump. Manual 309892.
	Misadjusted throttle setting	Reset throttle to 3700 - 3800 engine rpm at no load
Low stall or run pressure shown on display	Worn engine governor	Replace or service engine governor
	New pump or new packings	Pump break-in period takes up to 100 gallons of material
	Faulty transducer	Replace transducer

# Troubleshooting

PROBLEM	CAUSE	SOLUTION
Excessive paint leakage into throat packing nut	Throat packing nut is loose	Remove throat packing nut spacer. Tighten throat packing nut just enough to stop leakage.
	Throat packings are worn or damaged	Replace packings. Manual 309277.
	Displacement rod is worn or damaged	Replace rod. Manual 309277.
Fluid is spitting from gun	Air in pump or hose	Check and tighten all fluid connections. Reprime pump. Manual 309892.
	Tip is partially clogged	Clear tip. Manual 309741.
	Fluid supply is low or empty	Refill fluid supply. Prime pump. Manual 309892. Check fluid supply often to prevent running pump dry.
Excessive leakage around hydraulic motor piston rod wiper	Piston rod seal worn or damaged	Replace these parts.
Fluid delivery is low	Pressure setting too low	Increase pressure. See manual 309548.
	Displacement pump outlet filter (if used) is dirty or clogged	Clean filter
	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	Use larger diameter or shorter hose
The sprayer overheats	Paint buildup on hydraulic components	Clean
	Oil level is low	Fill with oil, page 8.
Excessive hydraulic pump noise	Low hydraulic fluid level	Shut off sprayer. Add fluid*, page 8.
Gallon counter not working	Broken or disconnected wire	Check wires and connections. Replace broken wires.
	Bad sensor	Replace sensor
	Missing or damaged magnet	Replace magnet. Locate in correct spot.
Sprayer operates, but display does not	Bad connection between control board and display	Remove display and reconnect
	Display damaged	Replace display
	Loose cables	Connect cables to back of control board
	Control board LED not flashing	Replace control board

# Troubleshooting

PROBLEM	CAUSE	SOLUTION
Distance counter not operating properly	Trigger sensor not set correctly	See "Spray icon does not show on display when fluid is sprayed"
	Bad wiring connections	Check connector, and reconnect
	Distance sensor not spaced correctly from gear	Adjust space between sensor and gear to .050 +/- .020"
	Distance and gear not aligned	Remove tire, and press in or pull out gear to align sensor and gear.
	Gear teeth missing or damaged.	Replace distance gear/wheel
	Wire cracked or broken	Replace sensor
Mils not calculating	Distance sensor	See "Distance counter not operating properly"
	Trigger sensor	See "Spray icon does not show on display when fluid is sprayed"
	Gallon counter	See "Gallon counter not working"
	Bad or damaged control board	Replace control board
Fluid spray starts after spray icon is shown on display	Interrupter (213) is improperly positioned	Turn screw (218) counterclockwise until spray icon synchronizes with fluid spray
Fluid spray starts before spray icon is shown on display	Interrupter (213) is improperly positioned	Turn screw (218) clockwise until spray icon is synchronized with fluid spray
Spray icon does not show on display when fluid is sprayed	Loose connector	Check that 5-pin connector and reed switch are properly connected
	Interrupter (213) is improperly positioned	Turn screw (218) counterclockwise until spray icon synchronizes with fluid spray
	Reed switch assembly (211) is damaged	Replace reed switch assembly (211)
	Magnet on assembly (211) is missing	Replace reed switch assembly (211)
	A connector on wiring harness (60) or on reed switch (211) is damaged	Disconnect reed switch and 5-pin connector from back of control board. Check continuity between pin 1 on 2-pin connector and pin 1 on 5-pin connector. Check continuity between pin 2 on 2-pin connector and pin 4 on 5-pin connector. If there is no continuity in either case, replace wiring harness (60). If there is continuity in both cases replace reed switch assembly (211).
	Cut or sliced wire	Replace wiring harness (60)
	Control board is damaged	Replace control board
	Display is damaged	Replace display
Spray icon is always shown on display	Interrupter (213) is improperly positioned	Turn screw (215) clockwise until spray icon is synchronized with fluid spray
	Reed switch assembly (211) is damaged	Replace reed switch assembly (211)
Pressure control knob does not rotate	Knob is jammed	Pull back cover where remote cable connects to hydraulic pump and turn counter clockwise (ccw) until free
Pressure control knob rotates freely with no pressure change	Remote cable broken or disconnected	Replace or reconnect cable
Engine bounces when striping	Spring (122) is broken, loose or missing	Replace or reconnect spring

# Digital Tracking System

## ON/OFF Switch

### Removal



**FLUID INJECTION  
HAZARD;** page 3.

1. Relieve pressure; page 8.
2. Fig. 2. Remove four screws (93) and display/cover (95).
3. Pull display connector wings (A) open on PC board and pull display connector out.
4. Disconnect ON/OFF switch (30) connector (B) from PC board (123).
5. Press in on two retaining tabs on each side of ON/OFF switch (30) and remove switch.

### Installation

1. Fig. 2. Install new ON/OFF switch (30) so tabs of switch snap into place on inside of pressure control housing.
2. Connect ON/OFF switch connector (B) to PC board.
3. Push display connector into PC board and close display connector wings (A) on PC board (123).
4. Install display/cover (95) with four screws (93).

## PC Board

### Removal



**FLUID INJECTION  
HAZARD;** page 3.

1. Relieve pressure; page 8.
2. Fig. 2. Remove four screws (93) and display/cover (95). Pull display connector wings open on PC board and pull display connector out.
3. Disconnect ON/OFF switch (30), connector (B), at control board (123).
4. Remove six screws (217) from control board (123) and green ground wire (F).
5. Remove two connectors (Y) at backside of pressure control. Remove jam nuts (Z) and control board (123).

### Installation

When installing replacement control board, follow instructions with control board to set model type.

1. Fig. 2. Install control board (123) and jam nuts (Z). Install two connectors (Y) at backside of pressure control.
2. Install green ground wire and control board (123) with six screws (217).
3. Connect ON/OFF switch (30), connector (B), to control board (123).
4. Push display connector into PC board close display connector wings on PC board. Install display/cover (95) with four screws (93).

## Pressure Control Transducer

### Removal



**FLUID INJECTION  
HAZARD;** page 3.

1. Relieve pressure; page 8.
2. Fig. 2. Remove four screws (93) and display/cover (95).
3. Disconnect lead (E) from control board (123).
4. Remove strain relief (151). Pull transducer connector through control housing (112).
5. Remove pressure control transducer (203p) and o-ring (203r) from filter housing.

7. Remove pressure control transducer (203p) and o-ring (203r) from filter housing (203e).

### Installation

1. Fig. 2. Install o-ring (203r) and pressure control transducer (203p) in filter housing. Torque to 30–36 ft-lb.
2. Install transducer cable in strain relief through control box. Install filter housing and spacer to control box with two screws (270).
3. Connect lead (E) to motor control board (123).
4. Install display/cover (95) with four screws (93).

# Digital Tracking System

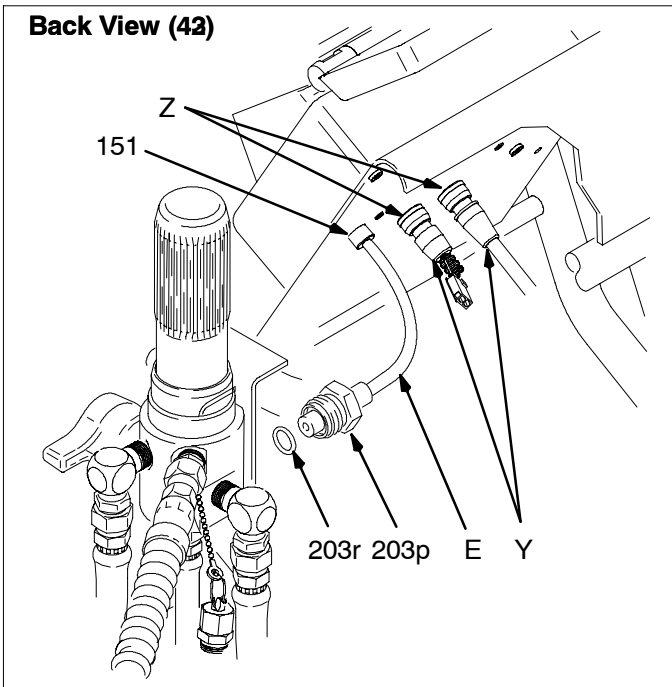
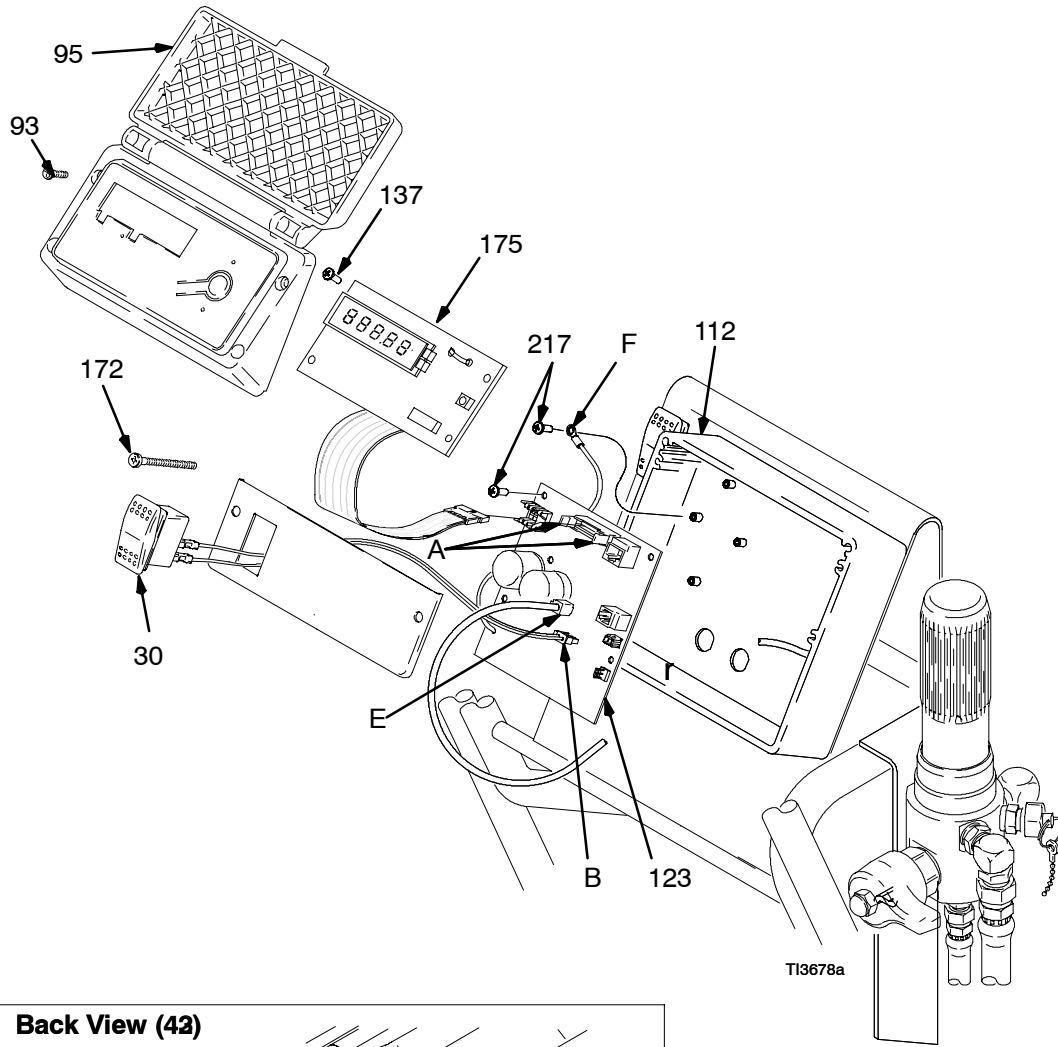


Fig. 2

TI3678a

# PC Board Diagnostics

## Digital Display Messages



Relieve pressure before repair; page 8. No display does not mean that sprayer is not pressurized.

DISPLAY	SPRAYER OPERATION	INDICATION	ACTION
No Display	Sprayer may be pressurized.	Loss of power or display not connected	Check power source. Relieve pressure before repair or disassembly. Verify display is connected.
- - - -	Sprayer may be pressurized.	Pressure less than 200 psi (14 bar, 1.4 MPa)	Increase pressure as needed
3000 psi 210 bar 21 MPa	Sprayer is pressurized. Power is applied. (Pressure varies with tip size and pressure control setting.)	Normal operation	Spray
E:02	Engine and system continue to run.	Exceeded pressure limit	Remove any filter clogs or flow obstructions.
E:03	Engine and system continue to run.	Pressure transducer faulty, bad connection or broken wire.	Check transducer connections and wire. Replace transducer or control board, if necessary.

### After a fault, follow these steps to restart sprayer:

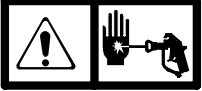
1. Correct fault condition
2. Turn sprayer OFF
3. Turn sprayer ON

# Trigger Sensor Adjustment

Refer to **Troubleshooting** for trigger sensor adjustment, and Operation Manual 309892.

## Distance Sensor Adjustment

### Gear Alignment

1.  **FLUID INJECTION HAZARD**; page 3.
2. Relieve pressure; page 8.
3. Fig. 3. Remove dust cap (77) from wheel. Remove nut (76).
4. Remove wheel (74) from LineLazer.
5. Align gear (59) with sensor.
  - a. Pull gear out from wheel with gear puller.

- b. Push gear in toward wheel with mallet.

6. Install wheel (74) on LineLazer.
7. Install nut (76) until tight, then back off 1/4 turn. Install dust cap (77) on wheel.

### Sensor Height Adjustment

1. Remove wheel (74) from LineLazer.
2. Remove sensor assembly (60).
3. Adjust sensor assembly height with two 17 mm nuts of sensor so bottom surface of sensor is  $0.638 \pm 0.020$  from bottom surface of shield. Torque to  $8 \pm 2$  in-lb.

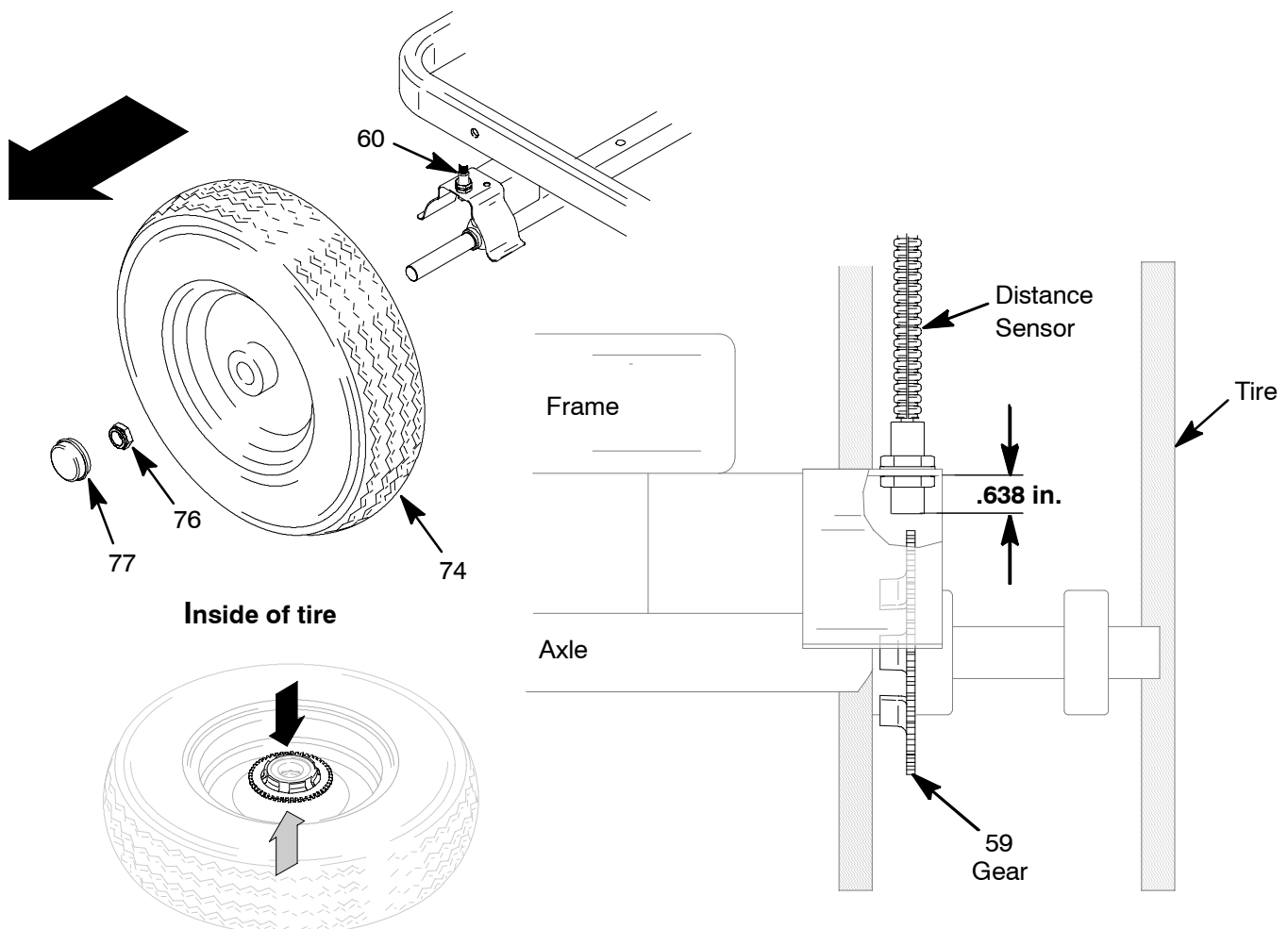


Fig. 3



# Hydraulic Pump

## Removal

-  **FLUID INJECTION HAZARD;** page 3.

Let hydraulic system cool before beginning service.

- Relieve pressure; page 8.
- Place drip pan or rags under sprayer to catch hydraulic oil that leaks out during repair.
- Remove drain plug (97) and oil filter (104) and allow hydraulic oil to drain.
- Remove two screws (214a), screw (269) and belt guard (223).
- Raise motor and remove belt (101).
- Remove two set screws (133) and fan pulley (167).
- Remove case drain tube (169).
- Disconnect hydraulic hoses (165) and (166).
- Remove elbow (37).
- Loosen screw (69) and remove pressure control guard (142).
- Loosen set screw (261) and remove remote pressure control cable (259).
- Remove eight screws (69) and washers (3), reservoir cover (68), filter assembly (A) and gasket (141).
- Remove four screws (5) and o-rings (17), o-ring (58) and hydraulic pump (181) from reservoir cover (68).

## Installation

- Install hydraulic pump (181) on reservoir cover (68) with four screws (5) and o-rings (17), o-ring (58); torque 100 in-lb (11 N·m).
- Install gasket (141) filter assembly (A) and reservoir cover (68) with eight washers (3) and screws (27); torque 90 in-lb (10 N·m).
- Install elbow (37) per instructions, page 4; torque to 15 ft-lb (20.3 N·m).
- Install pressure control guard (142) and tighten screw (69).
- Connect hydraulic hoses (165) and (166).
- Install case drain tube (169); torque to 25 ft-lb (33.9 N·m).
- Install fan pulley (167) with two set screws (133).
- Raise motor and install belt (101).
- Install belt guard (223) with two screws (214a) and screw (269).
- Install remote pressure control cable (259). Tighten set screw (261) against flat on compensator stud (260).
- Install drain plug (97); torque to 110 in-lb (12.4 N·m). Install oil filter (104); tighten 3/4 turn after gasket contacts base. Fill with Graco hydraulic oil, page 8.
- Start up and allow pump to operate at low pressure for approximately 5 minutes to purge all air.
- Check and top off hydraulic oil level.

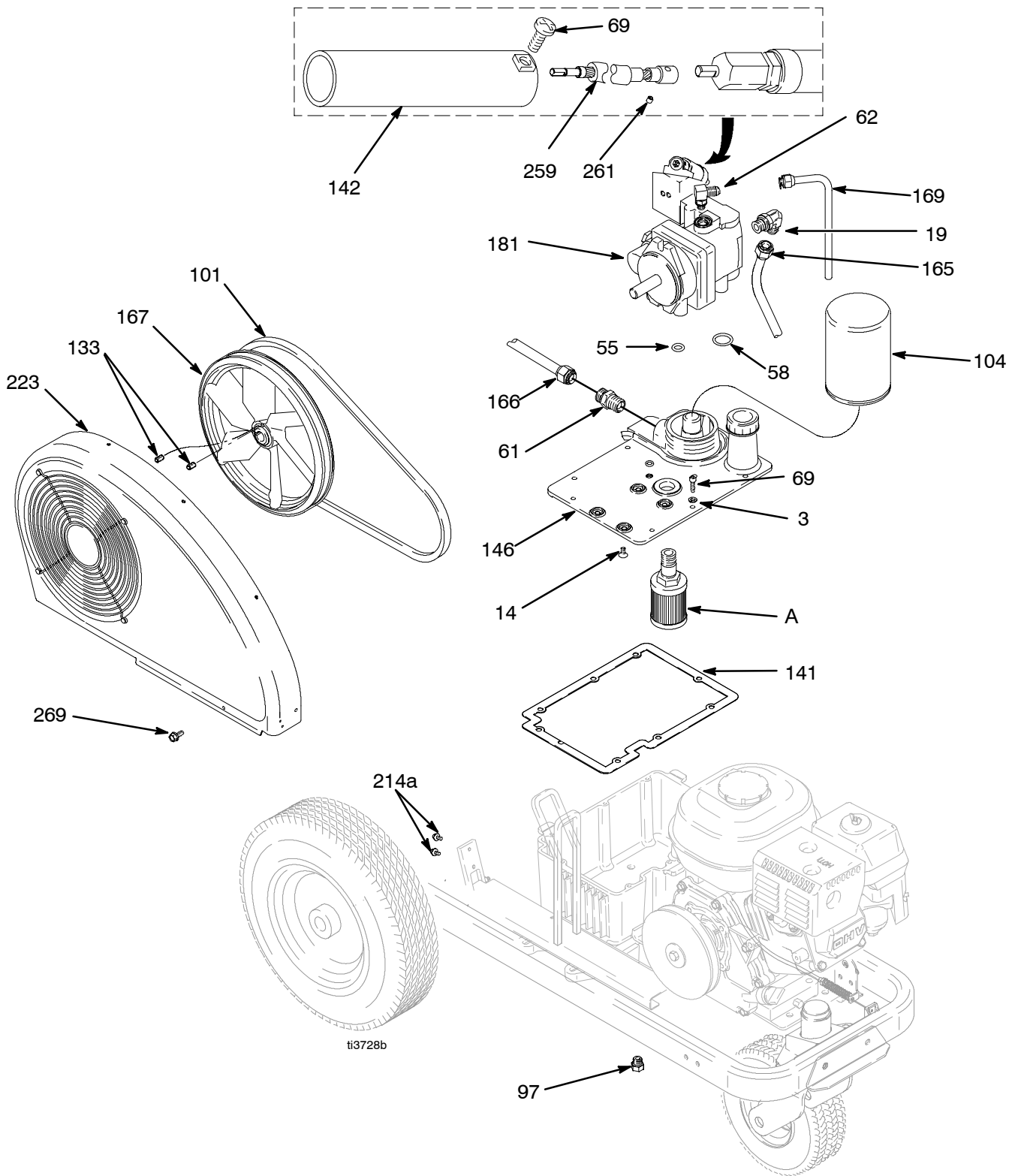



Fig. 4

# Fan Belt

## Removal

1.  **FLUID INJECTION HAZARD;** page 3.
2. Relieve pressure; page 8.
3. Fig. 5. Remove screw (269).
4. Rotate belt guard (223) up.
5. Lift engine (119) up to remove tension on belt (101).
6. Remove belt from fan pulley (167) and drive pulley (100).

## Installation

1. Thread belt (101) around drive pulley (100) and fan pulley (167).
2. Let engine (119) down to put tension on belt.
3. Rotate belt guard (223) down.
4. Install screw (269).

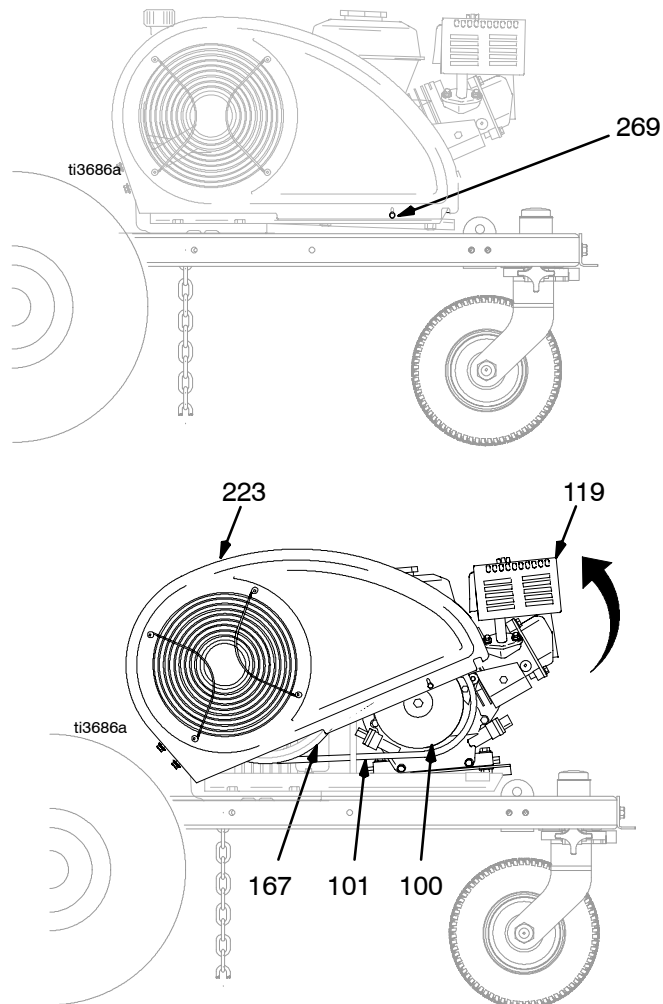



Fig. 5

# Engine

## Removal

1.  **FLUID INJECTION HAZARD**; page 3.
2. Relieve pressure; page 8.
3. Remove throttle cable from engine.
4. Loosen cap screw (69). Swing motor retainer bracket (207) out.
5. Do **Fan Belt, Removal**; page 19.
6. Fig. 6. Disconnect red, green and black leads from engine (119).
7. Remove engine and rocker plate (188) from sprayer.
8. Remove four screws (65), washers (22) and nuts (129) and remove rocker plate, dampeners (66) and washers (136) from engine.

## Installation

1. Install rocker plate (188), dampeners (66) and washers (136) on engine (119) with four screws (65), washers (22) and nuts (129); torque to 125 in-lb (14.1 N·m).
2. Install engine and rocker plate (188) on sprayer.
3. Connect red, green and black leads.
4. Do **Fan Belt, Installation**; page 19.
5. Swing motor retainer bracket (207) in. Tighten cap screw (69).

**NOTE:** All service to the engine must be performed by an authorized HONDA dealer.

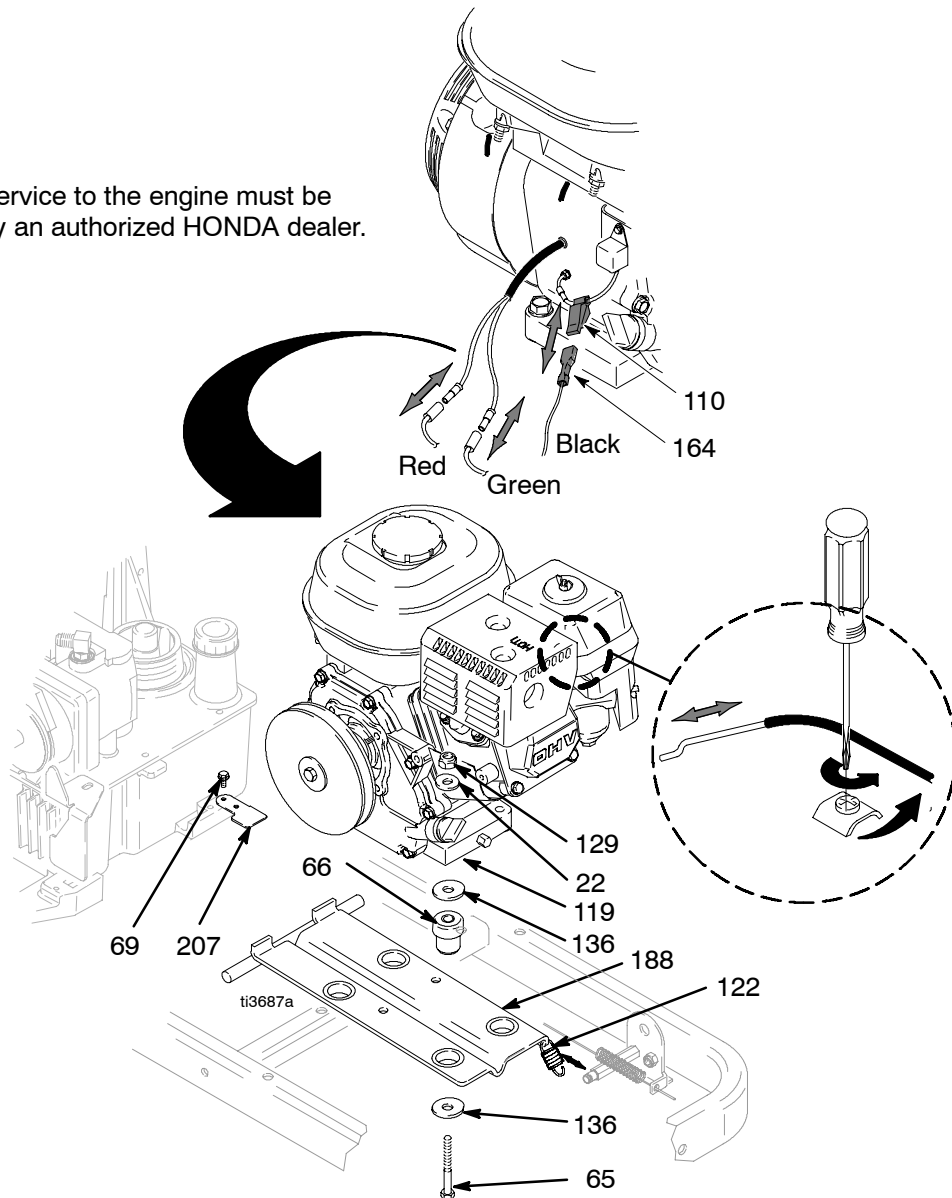



Fig. 6

# Hydraulic Motor Yoke

## Removal

-  **FLUID INJECTION HAZARD;** page 3.
- Relieve pressure; page 8.
- Place drip pan or rags under sprayer to catch hydraulic oil that leaks out during repair.
- Fig. 7. Slide retainer clip (114) and magnet ring (150) down to remove. Remove pump pin (126).
- Remove hydraulic lines (161, 166) from fittings (47) at top left and right side of hydraulic motor.
- Loosen jam nut (144).
- Unscrew and remove hydraulic motor cap (143).
- Slide piston rod/hydraulic motor cap assembly (A) from hydraulic motor cylinder.
- Remove yoke (228).
  - Clamp hydraulic motor cap in vise with hydraulic motor piston rod facing up.
  - Use shortened Allen wrench to remove two screws (34) from spring retainer (237). Remove yoke, spring retainer, piston and trip rod assembly from hydraulic motor cap.



**MOVING PARTS HAZARD;**  
page 4.

Do not remove spring retainer (237) from yoke (228). If yoke is worn, replace yoke and spring retainer assembly with Yoke Repair Kit 246175.

- Put yoke in vise. Remove set screw (228b) and remove piston rod assembly from yoke.

## Installation

- Assemble yoke (228) to trip rod (228a)
  - Clean threads with primer or chlorinated solvent and let dry 3 to 4 minutes. Apply thread sealant to female threads of yoke. Clamp yoke in vise and, with wrench on flats of trip rod, screw trip rod into yoke. Torque to 55 in-lb (6.2 N·m). Install set screw (228b). Allow thread sealant to dry for 3 hours prior to contact with hydraulic fluid.



**MOVING PARTS HAZARD;**  
page 4.

- Fig. 7. Put hydraulic motor cap (143) in vise.
  - Install yoke, spring retainer, piston and trip rod assembly in hydraulic motor cap. Use shortened Allen wrench to install two screws (34) in spring retainer to secure piston rod assembly to hydraulic motor cap.
- Slide piston rod assembly (A) into hydraulic motor cylinder.
  - Screw down hydraulic motor cap (143) until cap bottoms out. Unscrew hydraulic motor cap until inlet and outlet align with hydraulic line fittings and test hole in hydraulic motor cap points toward belt guard (223).
  - Torque jam nut (144) against hydraulic motor cap (143) to 150 ft-lb (17 N·m).
  - Install hydraulic lines (161, 166) to fittings (47) to top left and right side of hydraulic motor per procedure on page 7; torque to 40 ft-lb (54.2 N·m).
  - Pull start rope slowly to align pin holes of hydraulic motor and displacement pump (111). Connect with pump pin (126); install retainer clip (114), page 24.
  - Start engine and operate pump for 30 seconds. Turn engine OFF. Check hydraulic oil level and fill with Graco hydraulic oil, page 8.

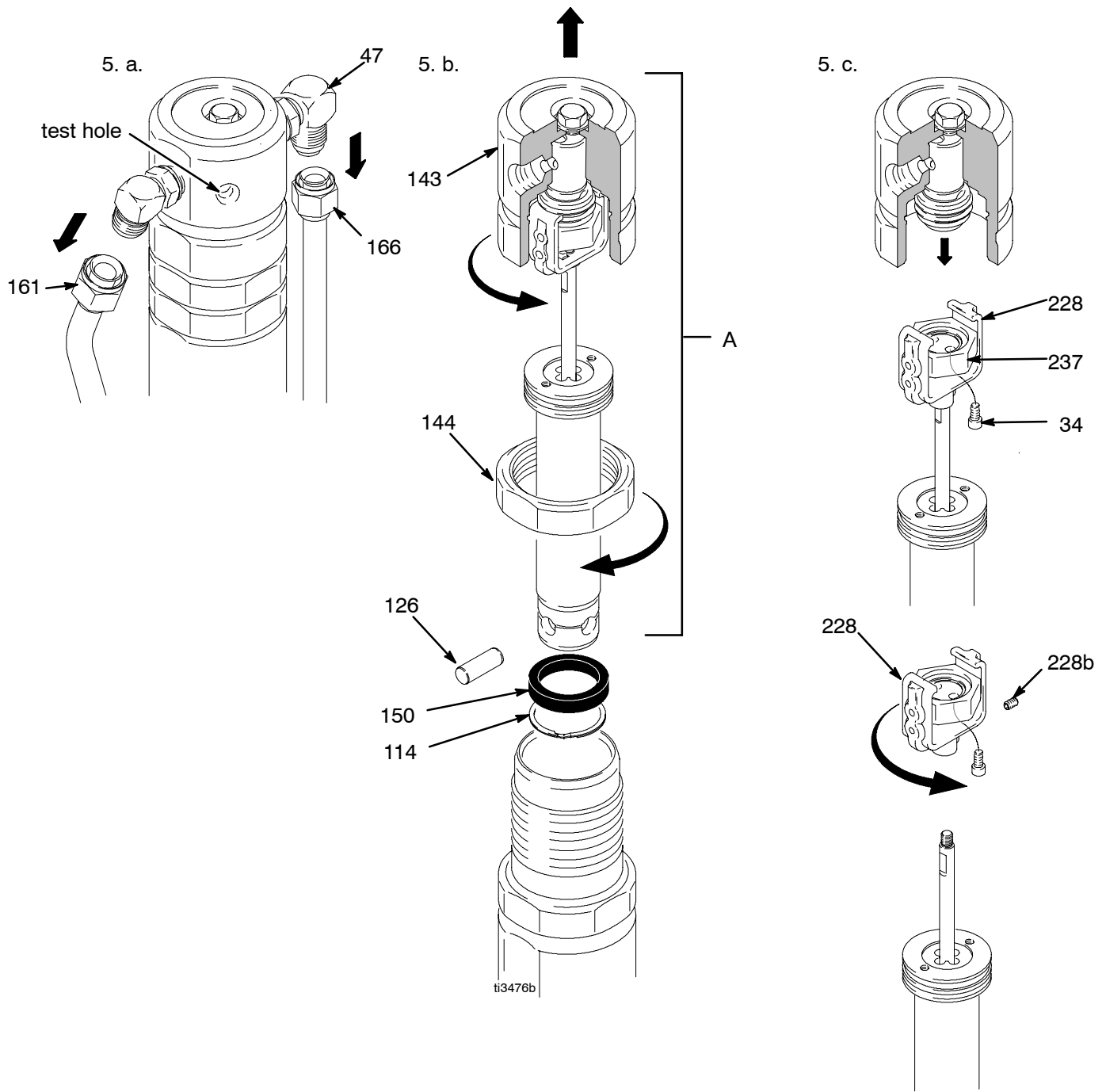


Fig. 7

# Oil/Filter Change

## Removal

1. Fig. 8. Place drip pan or rags under sprayer to catch hydraulic oil that drains out.
2. Remove drain plug (97). Allow hydraulic oil to drain.
3. Unscrew filter (104) slowly - oil runs into groove and drains out rear.

## Installation

1. Install drain plug (97). Apply a light coat of oil to oil filter gasket and install oil filter (104). Tighten oil filter 3/4 turn after gasket contacts base.
2. Fill with four quarts of Graco hydraulic oil 169236 (5 gallon/20 liter) or 207428 (1 gallon/3.8 liter)
3. Check oil level.

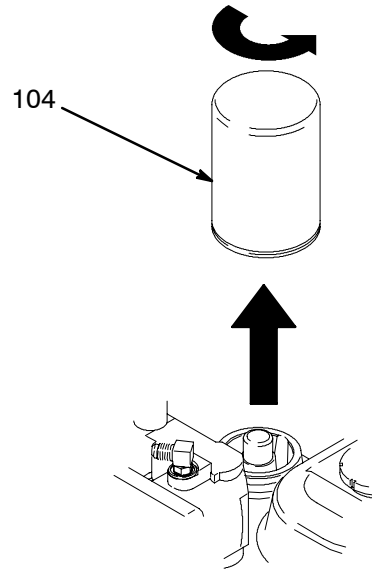


Fig. 8

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# Gallon Counter

## Removal

1. Fig. 9. Disconnect gallon counter cable at back of pressure control and at engine.
2. Remove reed switch from hydraulic motor.

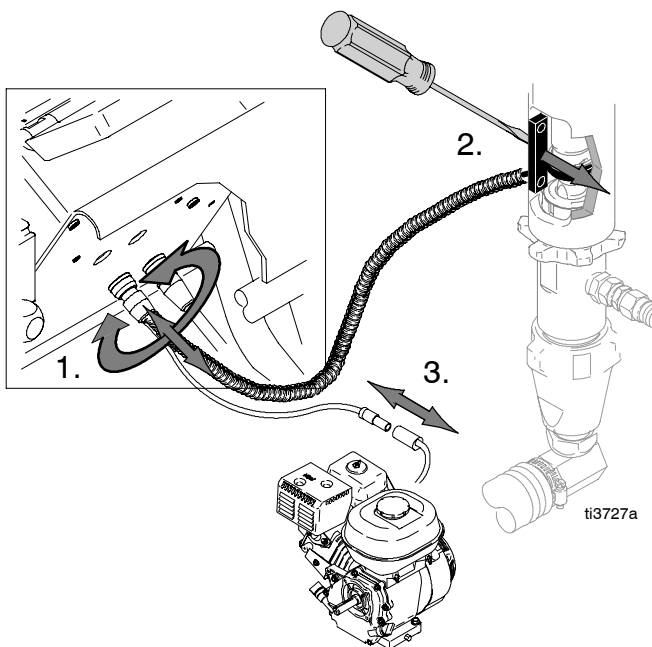


Fig. 9

3. Fig. 11 - 13. Remove pump.
4. Fig. 10. Remove ring magnet (150).

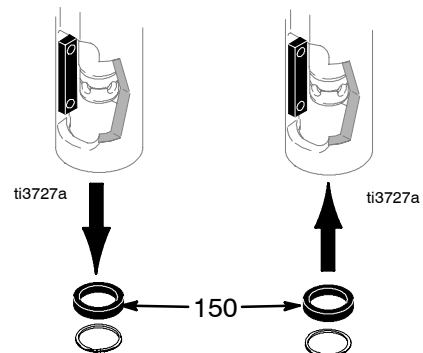


Fig. 10


## Installation

1. Fig. 10. Install new ring magnet (150) with dimple marks facing down.
2. Fig. 14 - 16. Install pump.
3. Install new reed switch on hydraulic motor.
4. Fig. 9. Connect gallon counter cable at back of pressure control and at engine.

# Displacement Pump

See manual 309277 for pump repair instructions.

## Removal

1. Flush pump.
2.  **FLUID INJECTION HAZARD;** page 3.
3. Relieve pressure; page 8.
4. Fig. 11. Remove suction tube (11) and hose (13).

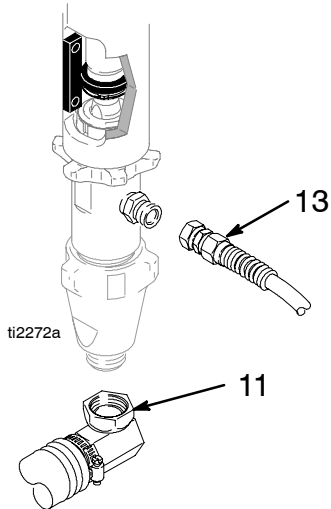


Fig. 11

## CAUTION

Gallon counter may error if magnet ring and/or sensor assembly are damaged during disassembly and assembly.

5. Fig. 12. Push magnet ring (150) up. Push retaining spring (114) up. Push out pin (126).

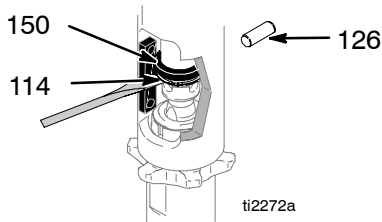


Fig. 12

6. Fig. 13. Loosen jam nut. Unscrew pump.

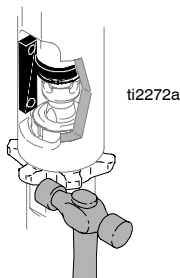


Fig. 13  
24 309896

## Installation

## CAUTION

If the pump jam nut loosens during operation, the threads of the hydraulic motor manifold will be damaged. Tighten jam nut as specified.

1. Fig. 14. 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 or torque to 200 ft-lb (270 N·m).

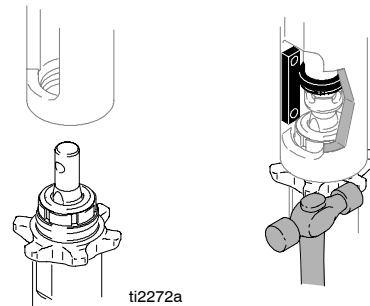


Fig. 14



**MOVING PARTS HAZARD;**  
page 4.

2. Fig. 15. Slowly pull engine starter rope until pump rod pin hole is aligned with hydraulic rod hole. Fig. 12. Push pin (126) into hole. Push magnet ring down. Push retaining spring (114) into groove.

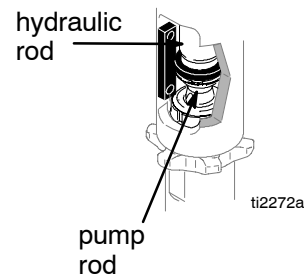


Fig. 15

- Fig. 16. Fill packing nut with Graco TSL.

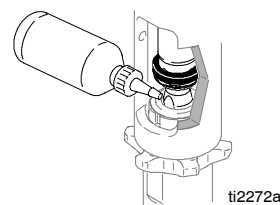
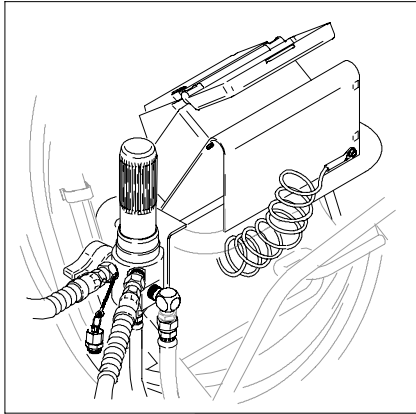


Fig. 16

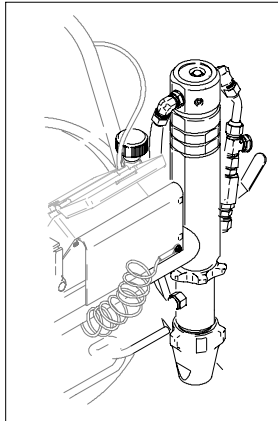


# Parts - LineLazer III 200Hs

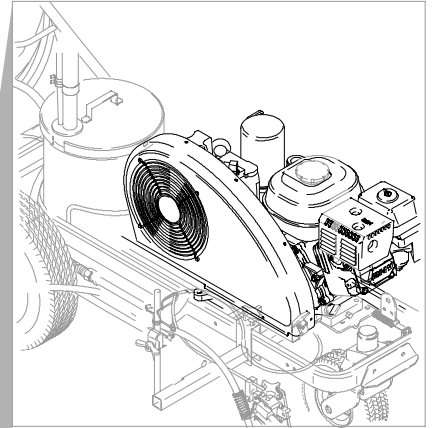
Parts Page 30 and 32



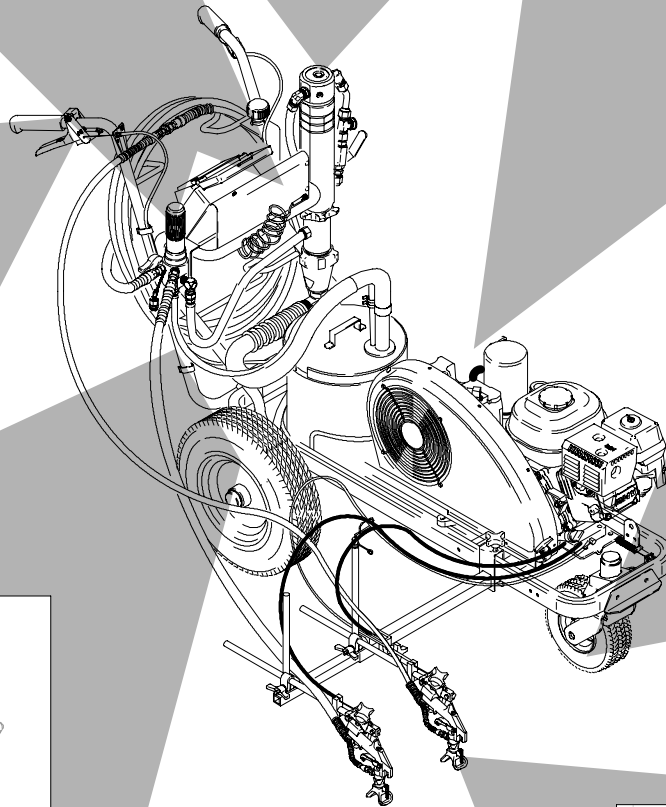
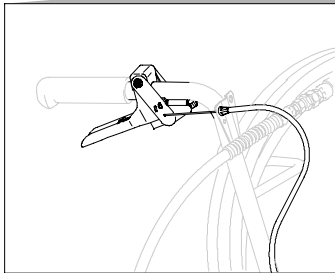
Parts Page 34



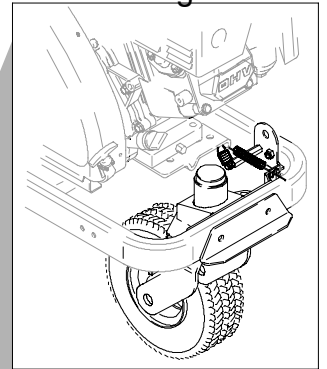
Parts Page 36



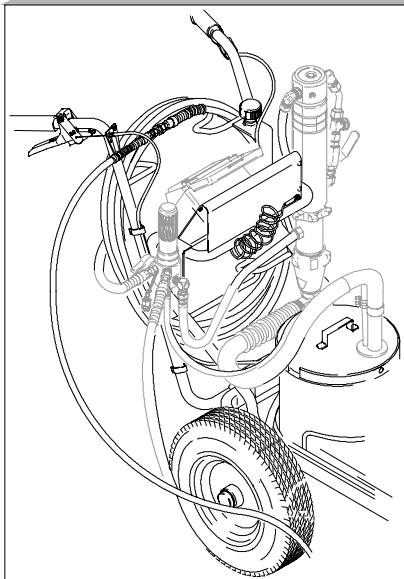
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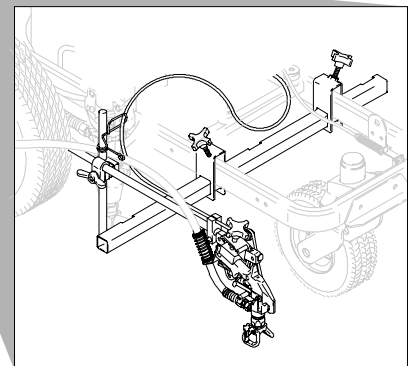
Parts Page 38



Parts Page 26



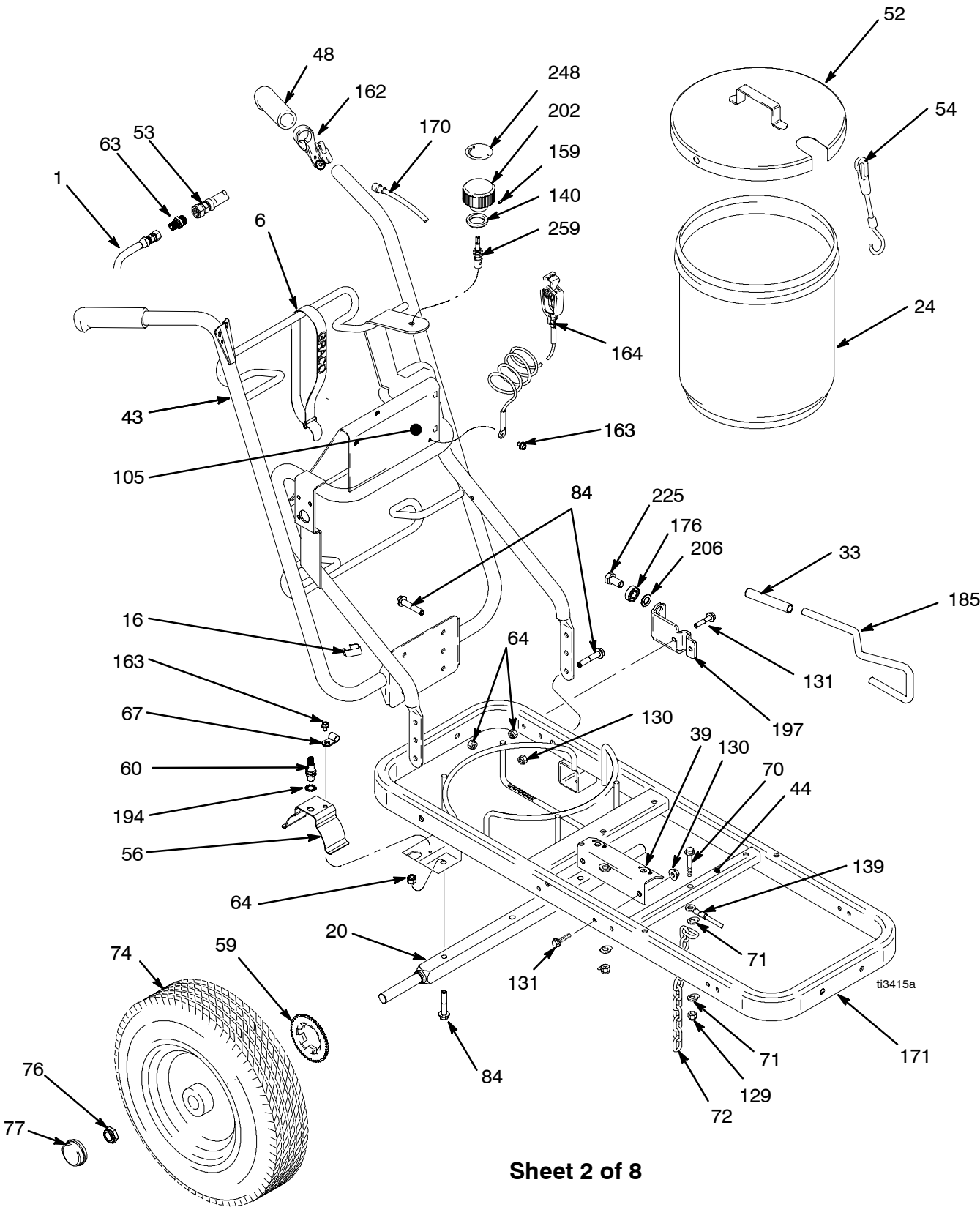
Parts Page 38



Sheet 1 of 8

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# Parts - LineLazer III 200Hs

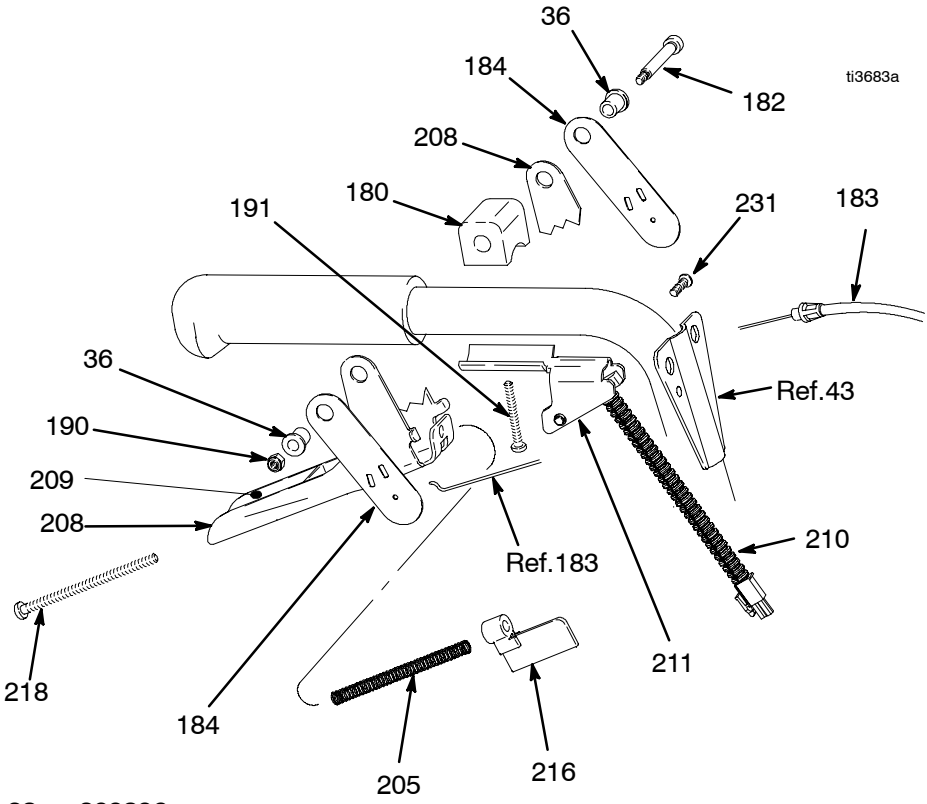
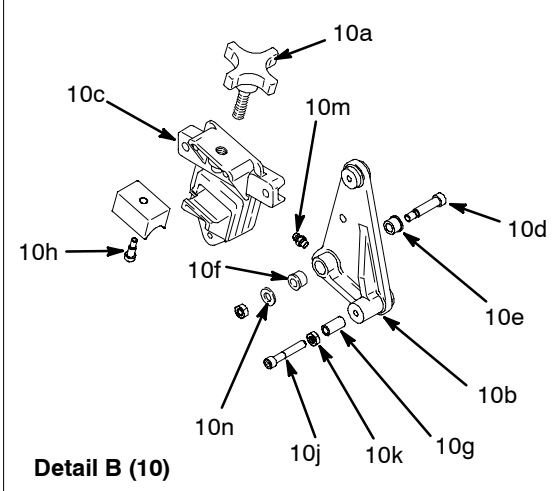
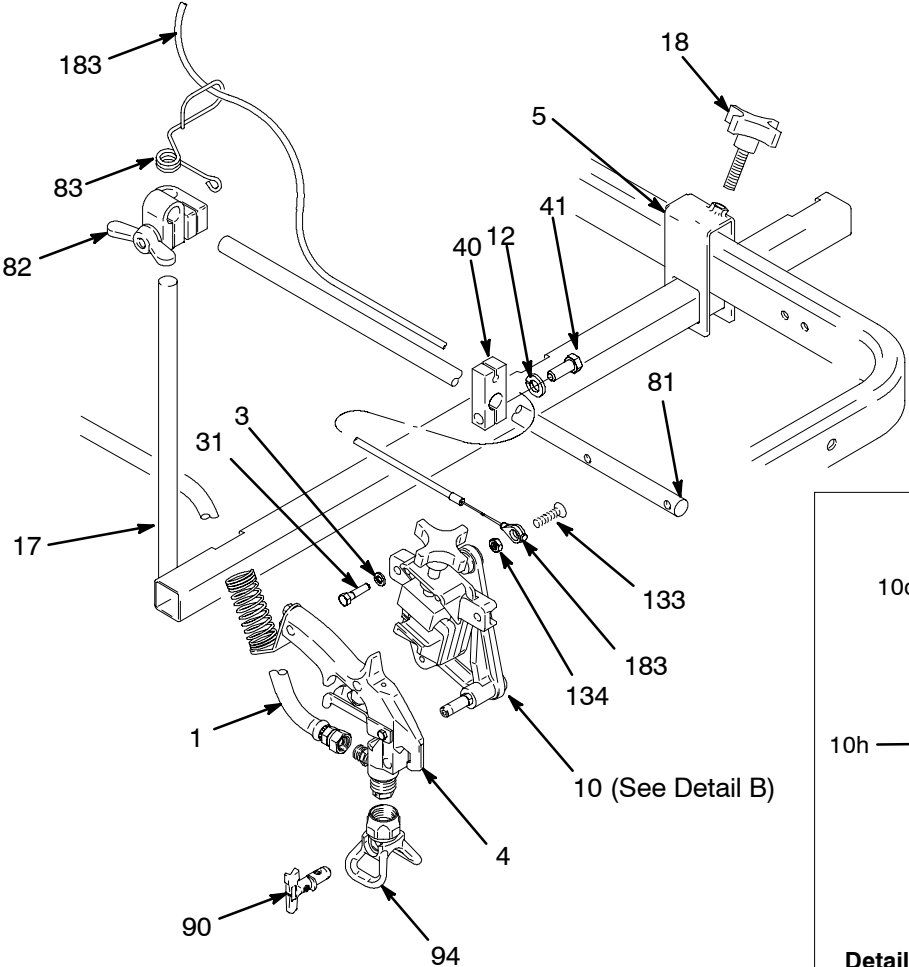


Sheet 2 of 8

# Parts - LineLazer III 200HS

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
1	245798	HOSE, 1/4 x 7 ft	1	76	112405	NUT, lock	3
6	114271	STRAP, retaining	1	77	114648	CAP, dust	2
16	178342	CLIP, spring	6	84	111194	SCREW, cap flange hd	6
20	193405	AXLE	1	105	15A621	LABEL, LineLazer III	1
24	115077	PAIL, plastic	1	129	110838	NUT, lock	7
33	114808	CAP, vinyl	1	130	111040	NUT, lock, insert, nylock, 5/16	5
39	15C360	BRACKET, mounting, res	1	131	111302	SCREW, cap, hex hd	4
43	246692	HANDLE, gh200 linelazer	1	139	240997	CONDUCTOR, ground	1
44	186620	LABEL, symbol, ground	1	140	176754	GLAND, packing, male	1
48	114659	GRIP, handle	2	159	100002	SCREW, set, sch	4
52	241005	COVER, pail	1	162	194310	LEVER, actuator	1
53	245225	HOSE, 3/8 in. X 50 ft	1	163	112798	SCREW, thread forming, hex hd	2
54	114690	STRAP	2	164	237686	CLAMP, grounding assy	1
56	198612	BRACKET, sensor, distance	1	170	245732	CABLE, 2nd gun	1
59	245734	KIT, repair, wheel, LineLazer includes 74	2	171	245246	FRAME, linestriper	1
60	245597	SENSOR, distance includes 56, 67, 163, 194	1	176	198931	BEARING	1
63	196176	ADAPTER, nipple	1	185	198930	ROD, brake	1
64	101566	NUT, lock	8	194	116287	WASHER, sst, ext, starwasher	1
67	108868	CLAMP, wire	2	197	198891	BRACKET, mounting	1
70	114653	SCREW, cap, flange hd	1	202	118359	KNOB, pressure control	1
71	100731	WASHER	4	206	195134	SPACER, ball guide	1
72	186812	CHAIN, ground 3.5 hp	1	225	113961	SCREW, cap, hex hd	1
74	111020	WHEEL, pneumatic	2	248	15A464	LABEL, control	1
				259	15C399	SHAFT, flexible	1

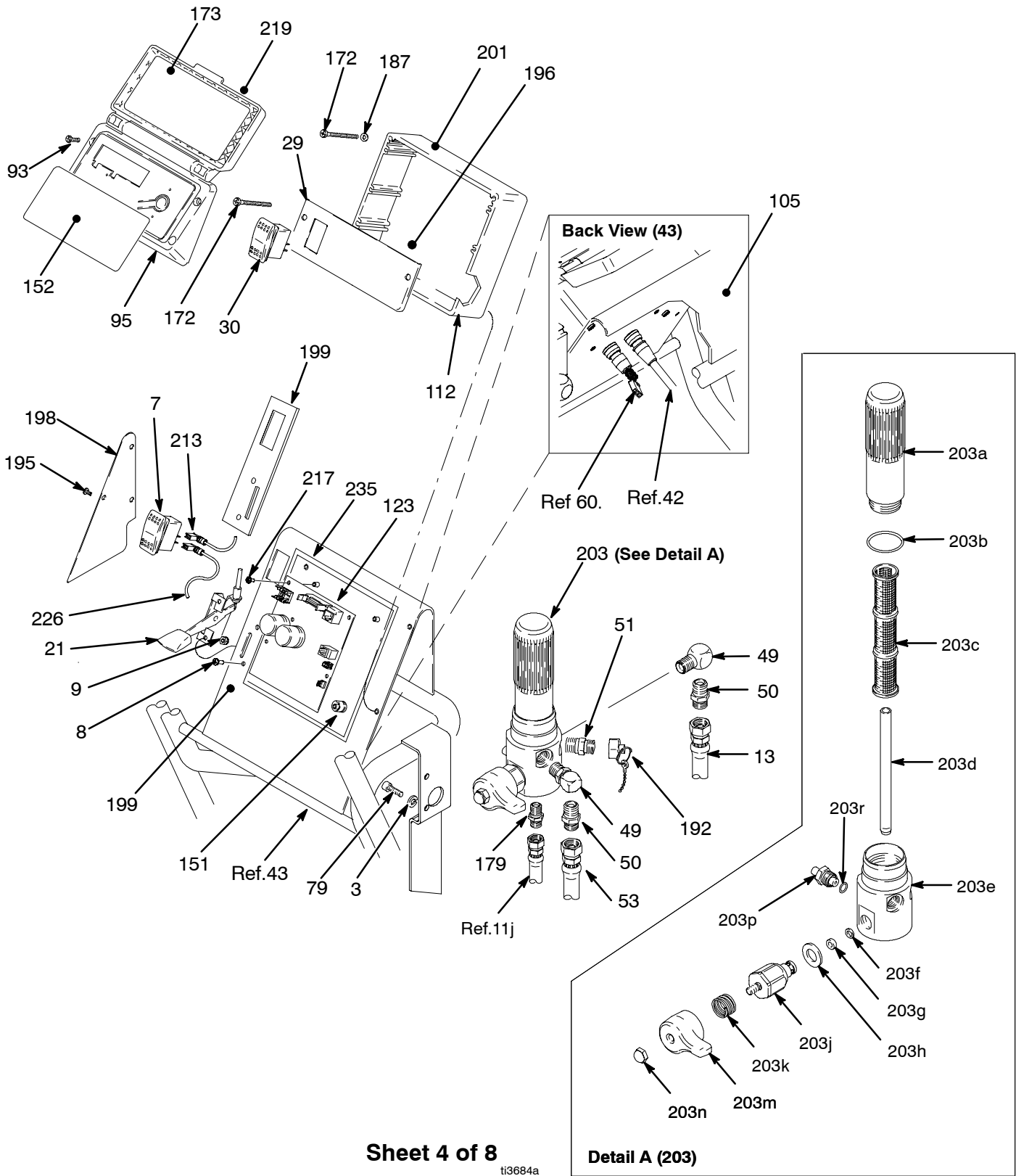
# Parts - LineLazer III 200Hs



# Parts - LineLazer III 200HS

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
3	100016	WASHER, lock	11	53	245225	HOSE, 3/8 in. X 50 ft	1
4	246468	GUN, flex, basic	1	81	181734	ARM, support	1
5	287144	BRACKET, arm, gun, right	1	82	114029	CLAMP, swivel, adjustable	1
	287143	BRACKET, arm, gun, left	1	83	188135	GUIDE, cable	1
10	241001	HOLDER, gun	1	90	LL5319	TIP, spray, RAC 5, stripinG	1
10a	181818	KNOB, pronged	1	94	243161	GUARD, RAC 5	1
10b	186747	LEVER, actuator	1	133	111230	SCREW, mach, flhd	1
10c	188452	HOLDER, gun	1	134	101345	NUT, hex, jam	1
10d	111045	SCREW, shoulder	1	180	198896	BLOCK, mounting (mach)	1
10e	111016	BEARING, flange	1	182	116941	SCREW, shoulder, socket head	1
10f	110755	WASHER, plain	1	183	245732	CABLE	1
10g	108535	BEARING, sleeve	1	184	198895	PLATE, lever, pivot	2
10h	108483	SCREW, shoulder, sch	1	190	116969	NUT, lock	1
10j	107445	SCREW, cap	1	191	116973	SCREW, #10 taptite phil	1
10k	101345	NUT, hex, jam	1	205†	117269	SPRING	1
10m	100846	FITTING, lubrication	1	208†	245676	HANDLE	1
10n	100015	NUT, hex, mscr	1	209†	15A644	LABEL, trigger	1
12	100133	WASHER, lock	1	210*	117274	SWITCH, reed w/, close diff	1
17	224052	BRACKET, support gun	1	211*	276907	BRACKET, trigger	1
18	108471	KNOB, pronged	2	216†	117268	BRACKET, interrupter	1
31	100021	SCREW, cap hex hd	2	218†	112381	SCREW, mach, pan hd	1
36	111017	BEARING, flange	2	231*	117317	SCREW, Plastite, pan hd	2
40	186699	BLOCK, mounting, cable	1			* Included in Trigger Repair Kit 245713	
41	100101	SCREW, cap, hex hd	1			† Included in Trigger Handle Repair Kit 245733	

# Parts - LineLazer III 200Hs



Sheet 4 of 8

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Detail A (203)

# Parts - LineLazer III 200HS

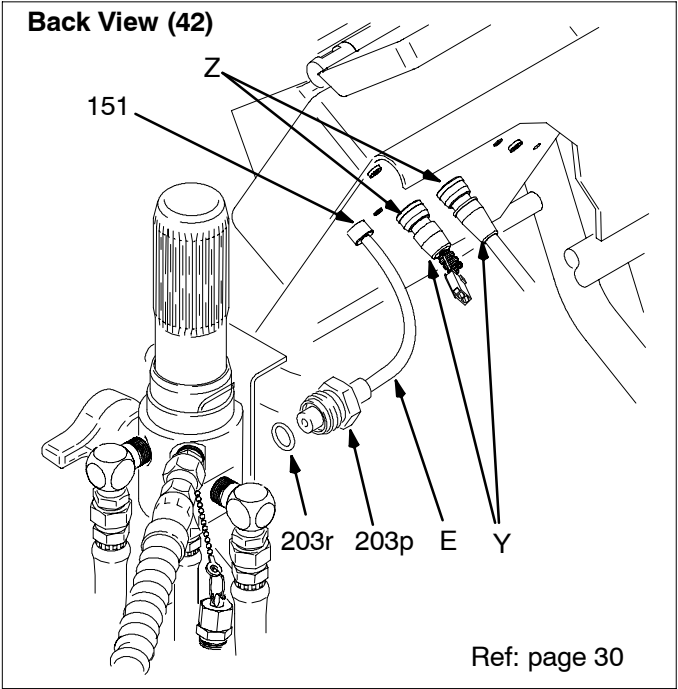
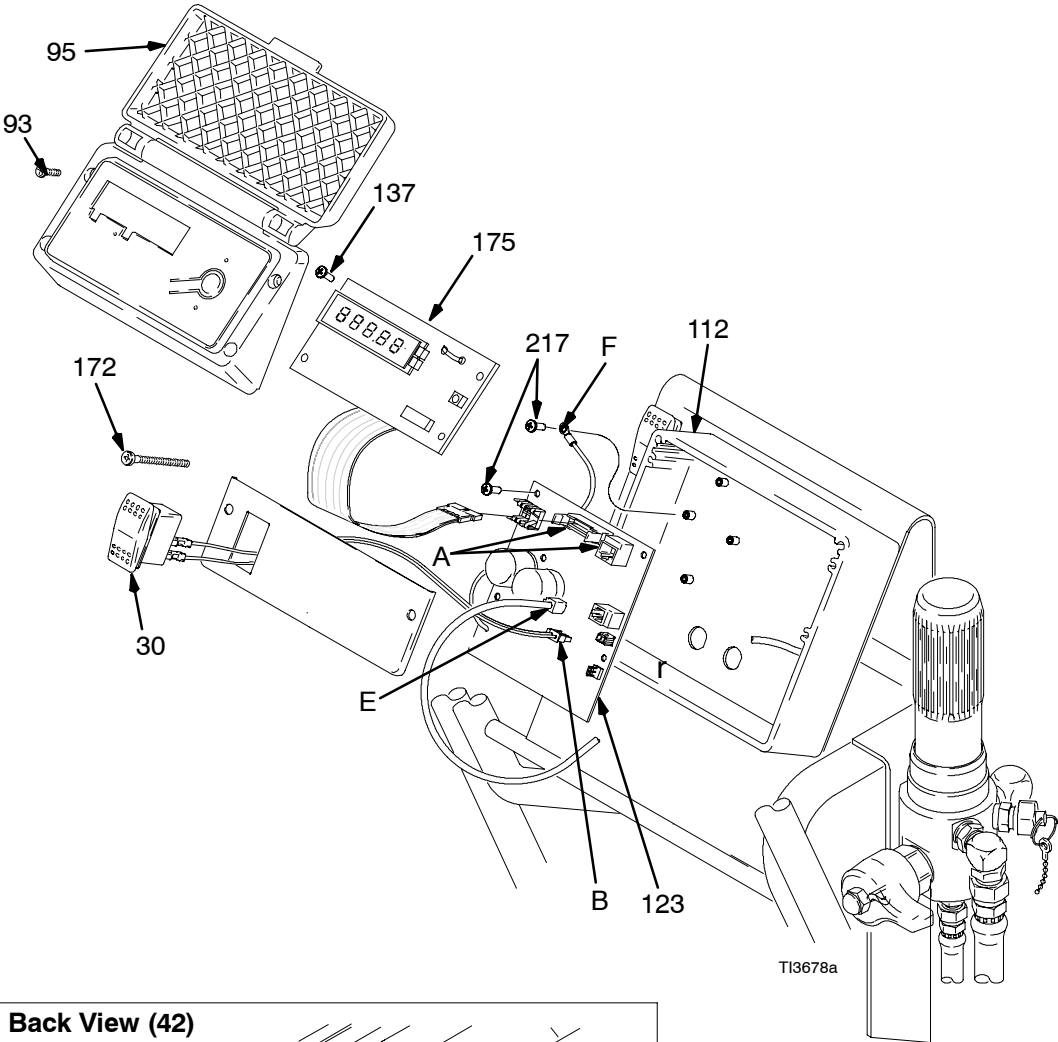
Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
3	100016	WASHER, lock	11	199	15A245	LABEL, warning	1
7	114954	SWITCH, rocker	1	201▲	189246	LABEL, warning	2
8	112380	SCREW, mach, pan hd	2	203	287171	FILTER, assembly	1
9	109466	NUT, lock, hex	2	203a	196675	BOWL, FILTER	1
13	248007	HOSE, coupled (3/8)	1	203b	104361	O-RING	1
21	114955	CONTROL, throttle	1	203c	244067	FILTER, fluid	1
29	197993	PLATE, switch, control box	1	203d	196786	TUBE, diffuser	1
30	116752	SWITCH, rocker	1	203e	245796	HOUSING, filter, 3/8 npt	1
49	196179	FITTING, elbow, street	2	203f	193710	SEAL, valve	1
50	196178	ADAPTER, nipple	2	203g	193709	SEAT, valve	1
51	196177	ADAPTER, nipple	1	203h	114797	GASKET	1
79	101550	SCREW, cap, sch, 1/4-20 x 1/2	3	203j	245103*	VALVE	1
93†	116252	SCREW, #8 taptite phil	4	203k	114708	SPRING, compression	1
95†	244032	COVER, control, ultra	1	203m	194102	HANDLE, valve	1
105	15A621	LABEL, LineLazer III	1	203n	114688	NUT, cap, hex hd	1
112	280430	HOUSING, control, GH	1	203p	287172	TRANSDUCER	1
123	245512	BOARD, control, linelazer, sk	1			includes 203r	
151	114296	BUSHING	1	203r	111457	SEAL	1
152†	15C003	LABEL, display LCD	1	204	101885	SCREW, cap	3
172	114393	SCREW, mach, pan hd	4	213	198975	WIRE, ground	1
173†	198649	LABEL, LCD instructional	1	219†	15C556	LABEL, control box cover	1
179	196181	FITTING, nipple	1	226	15A670	CONDUCTOR, electrical	1
187	116876	WASHER, flat	2	235	198671	GASKET, control	1
192	245441	PLUG, packless	1				
195	100035	SCREW, mach, pnh	3				
196	198999	LABEL, instruction	1				
198	198942	PLATE, side	1				

\* Drain valve kit 245103 includes 203f, g, h, k, m, n

† Display kit 287173 includes 93, 95, 152, 173, 219

▲ Replacement warning labels may be ordered free of charge

# Parts - LineLazer III 200Hs



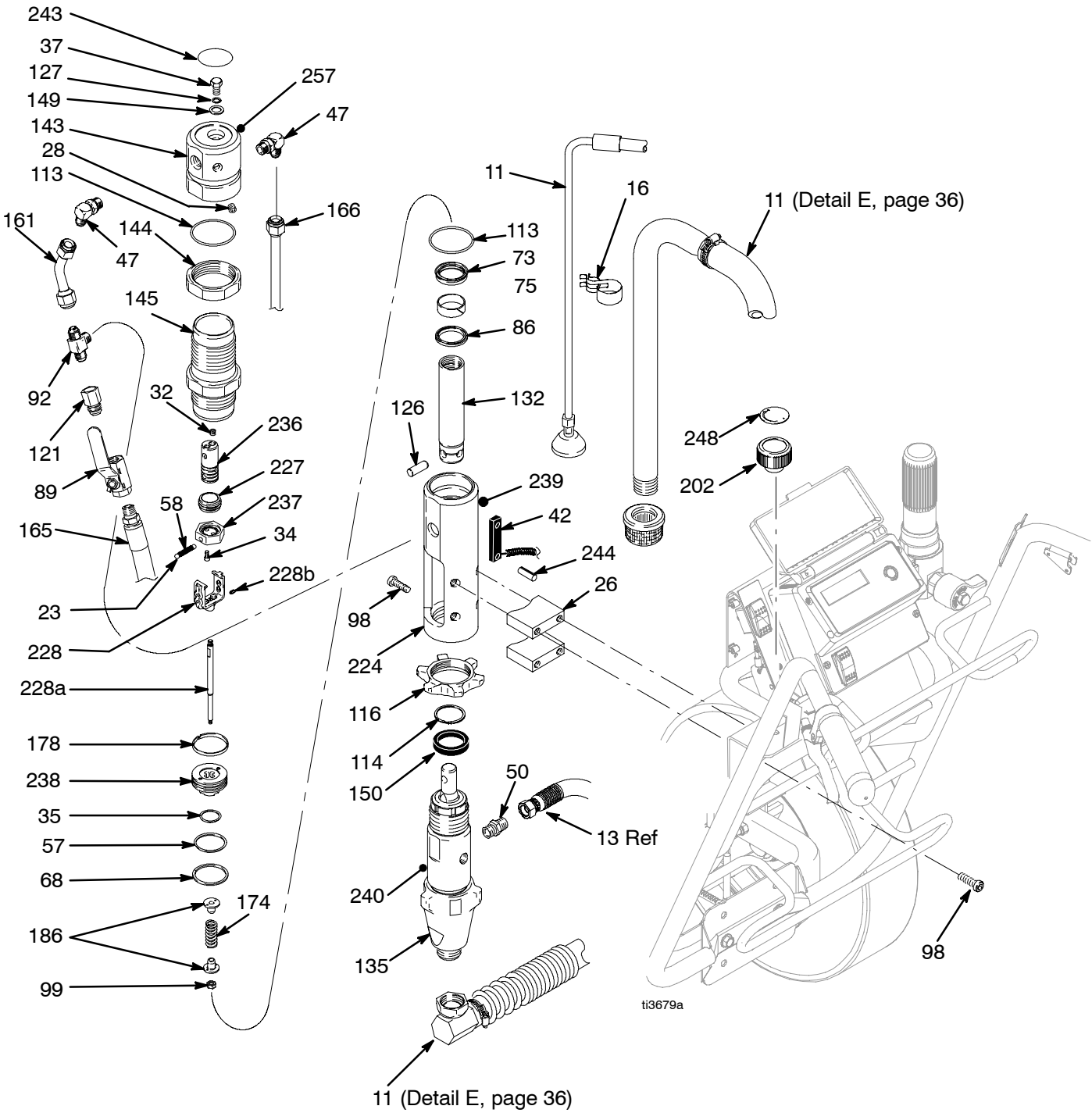
Sheet 5 of 8



# Parts - LineLazer III 200HS

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
30	116752	SWITCH, rocker	1	137	115522	SCREW, mach, pnh	3
93	116252	SCREW, #8 taptite phil	4	172	114393	SCREW, mach, pnh	4
95	244032	COVER, control, ultra	1	175	245791	BOARD, display GMax	1
112	280430	HOUSING, control, GH	1	217	114331	SCREW, mach, pnh, sems	6
123	245512	BOARD, LineLazer, sk	1	▲ Replacement warning labels may be ordered free of charge			

# Parts - LineLazer III 200Hs



# Parts - LineLazer III 200HS

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
11	287206	HOSE, suction/drain	1	145*	246176	SLEEVE, hydraulic cylinder includes 113	1
16	178342	CLIP, spring	6				
23†#	100069	BALL	2	149‡	178179	WASHER, sealing	1
26	15C362	BRACKET, pump	2	150	118141	MAGNET, ring	1
28‡	100139	PLUG, pipe	1	161	198629	TUBE, hydraulic, supply	1
32‡	103147	PLUG, pipe	1	165	287175	HOSE, hydraulic, supply	1
34†#	104092	SCREW, cap, sch	2	166	287176	HOSE, hydraulic, return	1
35*#	105765	O-RING	1	174#	117645	SPRING, compression	1
37‡	106276	SCREW, cap, hex hd	1	178*	178207	BEARING, piston	1
42	287174	SWITCH, reed, w/close diff.	1	186#	15B463	RETAINER, spring	2
47	117607	FITTING, elbow std thd	2	202	118359	KNOB, pressure control	1
57*	108014	O-RING	1	224	15A728	MANIFOLD, adapter	1
58†#	117494	SPRING, compression	1	227	189072	SLEEVE, valve	1
68*	178226	SEAL, piston	1	228†#	246610	YOKE, assembly (includes 228a, 228b)	1
69	112166	SCREW, cap, sch	10				
73*	117739	WIPER, rod	1	228a		ROD, trip (not included in Kit 246175)	1
75*	112342	BEARING, rod	1	228b†		SCREW, set, with patch	1
86*	112561	PACKING, block	1	236‡	15B454	SPOOL, hydraulic motor	1
89	117441	VALVE, ball	1	237†#	192654	STOP, valve (spring retainer)	1
92	117609	FITTING, tee, branch, str thd	1	238#	192656	PISTON,	1
98	15B564	SCREW, cap, socket low head	6	239	192840	LABEL, WARNING	1
99#	114231	NUT, lock, hex	1	240	194072	LABEL, Endurance pump	1
113‡*	117283	O-RING	2	243	15B063	LABEL,	1
114	116551	RING, retaining	1	244	116838	PIN, spring	2
116	193394	NUT, retaining	1	248	15A464	LABEL, control	1
121	117328	FITTING, nipple, straight	1	257	15B804	LABEL, Graco Logo	2
126	197443	PIN, pump	1	271	116838	PIN, spring	2
127‡	155685	O-RING	1				
132#	15A693	ROD, hydraulic motor	1				
135	246257	PUMP, displacement	1				
143‡	15A725	CAP, hydraulic motor	1				
144	15A726	NUT, jam	1				

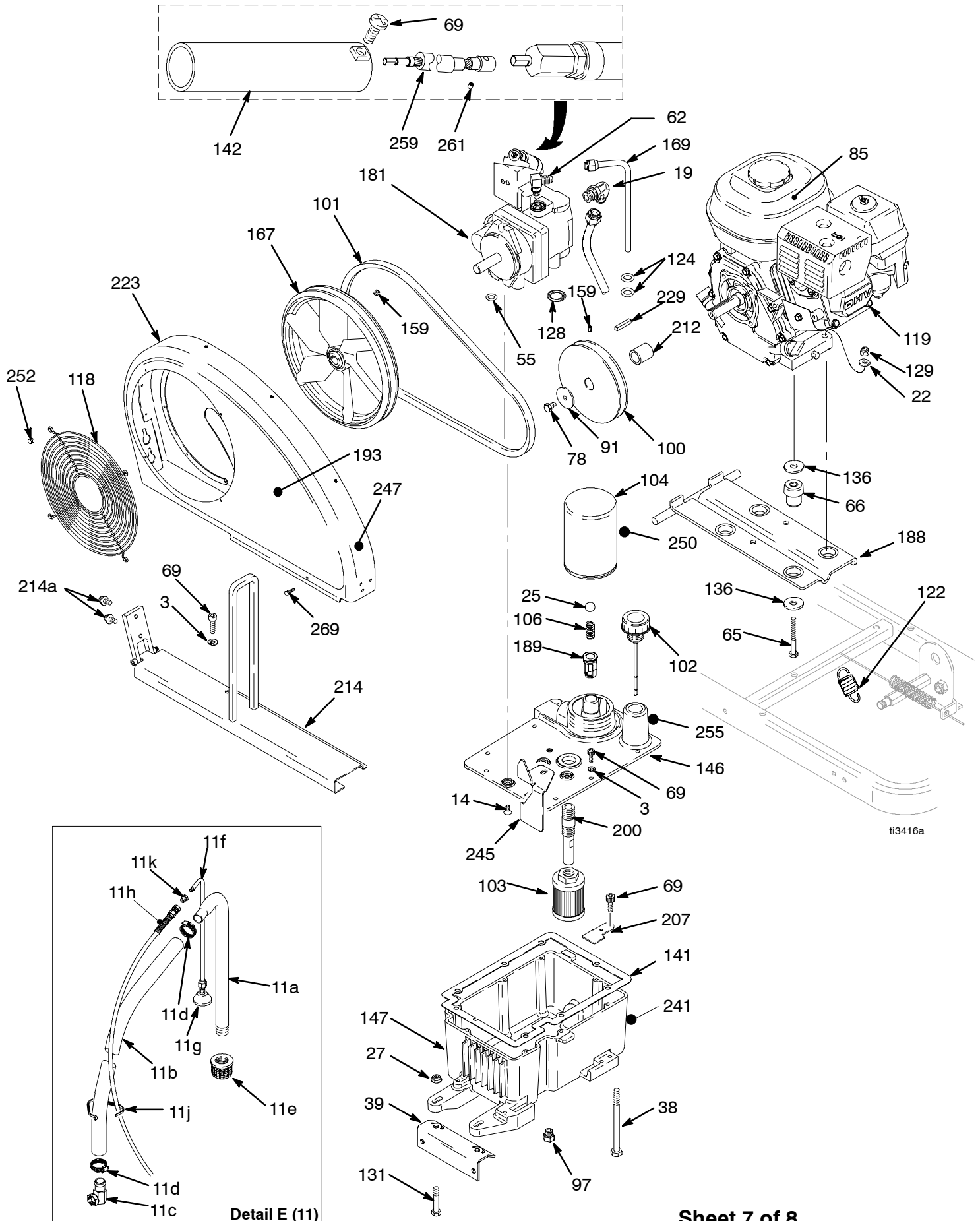
† Included in Yoke Kit 246175

‡ Included in Yoke Kit 246180

\* Included in Hydraulic Seal Repair Kit 246174

\* Included in Trip Rod/Piston Repair Kit 246255

# Parts - LineLazer III 200Hs



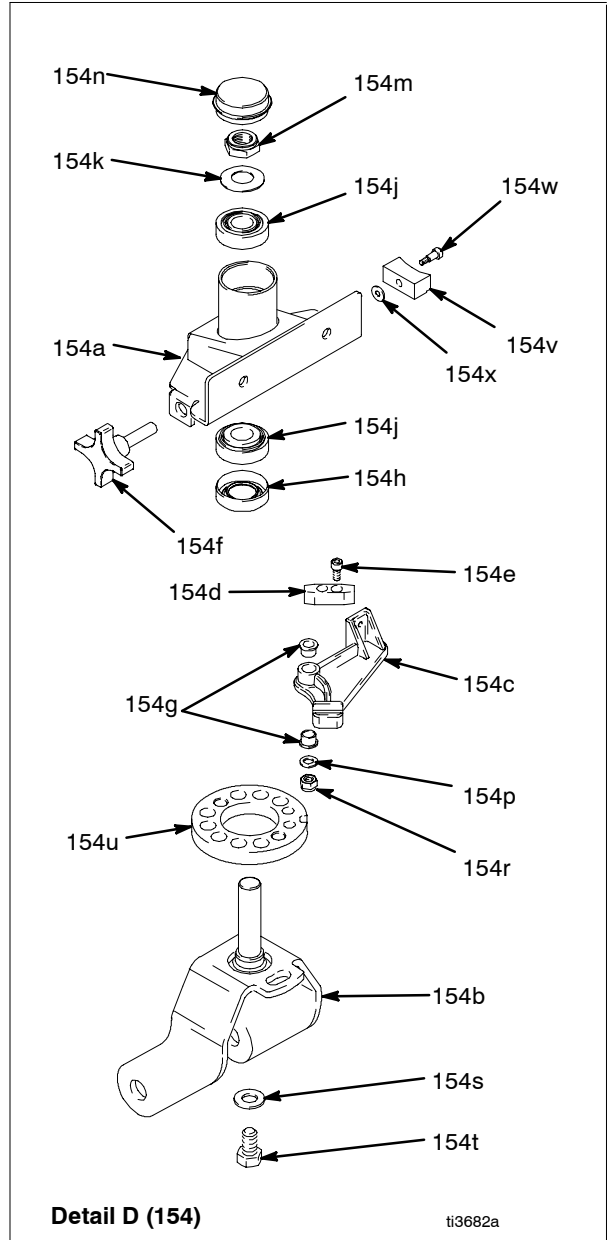
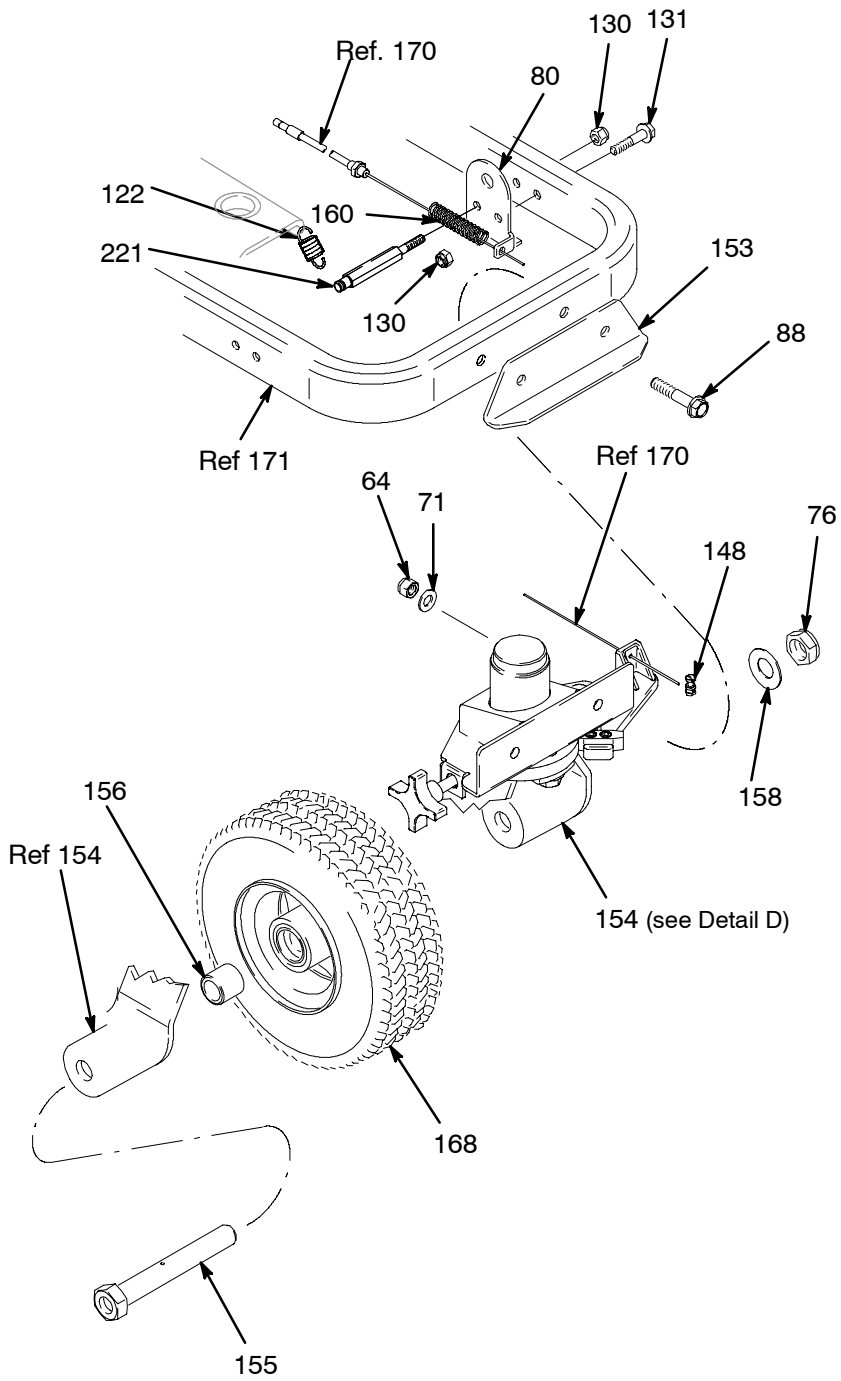
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# Parts - LineLazer III 200Hs

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
3	100016	WASHER, lock	11	122	118279	SPRING, extension	1
11	287206	HOSE, suction/drain	1	124	154594	O-RING	2
11a	170957	TUBE, suction	1	128	156401	O-RING	1
11b	194306	HOSE, fluid	1	129†		NUT	4
11c	198119	ELBOW, barbed	1	136†	108851	WASHER, plain	8
11d	101818	CLAMP, hose	1	141	246172	GASKET, reservoir	1
11e	181072	STRAINER, inlet	1	142	15C958	GUARD, pressure control	1
11f	198601	TUBE, drain	1	146	15C676	COVER, reservoir, GH200 LL	1
11g	241920	DEFLECTOR, threaded	1	147	15C682	TANK, reservoir	1
11h	248008	HOSE, coupled 1/4 in. x 4 ft	1	159	100002	SCREW, set, sch	4
11j	114958	STRAP, tie	2	164	237686	CLAMP, grounding assy	1
11k	196180	BUSHING	1	167	198636	PULLEY, fan	1
11m	195119	LABEL, warning (not shown)	1	169	246167	TUBE, hydraulic, case drain	1
14	117471	SCREW, 1/4-20 flat head mach	4	181	287179	PUMP, hydraulic	1
19	116793	FITTING, elbow, hydraulic	1	188†	15C550	BRACKET, mount, enginE	1
22†	100023	WASHER, flat	8	189	198841	RETAINER, ball, press bypass	1
25	100084	BALL, metallic	1	193	15C555	LABEL, GH200 LineLazer III	1
27	110996	NUT, hex, flanged	2	200	198844	TUBE, suction	1
38	118280	SCREW, hex washer hd	2	207	198865	BRACKET, retainer, motor	1
55	107188	O-RING	4	212†	15B314	SLEEVE, motor shaft	1
61	117608	FITTING, nipple, straight	1	214	245899	RAIL, belt guard	1
62	110792	ELBOW, male, 90 degree	1	214a	110997	SCREW, flange, hex hd	2
65†	113664	SCREW, flange, hex	4	223	287177	GUARD, belt (paint)	1
66†	195515	DAMPENER, motor mount	4			includes 118, 193, 252	
69	112166	SCREW, cap, sch	11	229†	117632	KEY, square, 3/16 X 1.25	1
78	108842	SCREW, cap, hex head	1	241	194317	LABEL, DANGER, English	1
91†	112717	WASHER,	1	245	15B248	BRACKET, guard	1
97	116754	PLUG, hex head, hydraulic	1	248	15A464	LABEL, control	1
100†	116908	PULLEY, 5.50 in.	1	250	189892	LABEL, identification	1
101	118336	BELT, vee, gripnotch	1	252	117531	RIVET, POP, 3/16 dia	4
102	116915	CAP, breather filler	1	255	198585	LABEL, hydraulic fluid, GH	1
103	116919	FILTER, hydraulic, suction	1	259	248027	KIT, repair, pressure control	1
104	116920	FILTER, oil	1	261		SCREW, set	1
106	116967	SPRING, compression	1	268†		SCREW	1
118	117284	GRILL, fan guard	1	269	115723	SCREW, drill, hex, washer head	1
119†	114530	ENGINE, gas, 5.5 hp, Honda	1				
120	15B438	KNOB, pressure	1				

† Included in Engine Kit 287178

# Parts - LineLazer III 200Hs



# Parts - LineLazer III 200HS

Ref. No.	Part No.	Description	Qty.	Ref. No.	Part No.	Description	Qty.
64	101566	NUT, lock	8	154j	113485	BEARING, cup/cone	2
71	100731	WASHER	4	154k	112825	SPRING, Belleville	1
76	112405	NUT, lock	3	154m	112405	NUT, lock	1
80	193665	BRACKET, cable	1	154n	114648	CAP, dust	1
88	114982	SCREW, cap, flng hd	4	154p	107194	WASHER, plain	1
122	118279	SPRING, extension	1	154r	108000	NUT, lock	1
130	111040	NUT, lock, insert, nylock, 5/16	5	154s	113962	WASHER, hardened	1
131	110837	SCREW, cap, hex hd	4	154t	114681	SCREW, cap, hex hd	1
148	114802	STOP, wire	1	154u	198606	DISK, adjuster	1
153	240991	BRACKET, caster, front	1	154v	193661	JAW	1
154	241105	CASTER, swivel	1	154w	108483	SCREW, shoulder, soc hd	1
154a	240940	KIT, repair, bracket, hub includes 154j (2), 154h	1	154x	112776	WASHER, plain	1
154b	240942	SHAFT, fork	1	155	113471	SCREW, cap, hex hd	1
154c	193528	ARM, detent	1	156	193658	SPACER, seal	2
154d	193662	PIN, locking, tapered	1	158	112825	SPRING, belleville	1
154e	110754	SCREW, cap, soc hd	1	160	114682	SPRING, compression	1
154f	181818	KNOB, pronged	1	168	114549	WHEEL, pneumatic	1
154g	114548	BEARING, bronze	1	170	241445	CABLE, wheel lock	1
154h	113484	SEAL, grease	1	221	15C701	SHAFT, spring	1

# Pressure Control Wiring Diagram

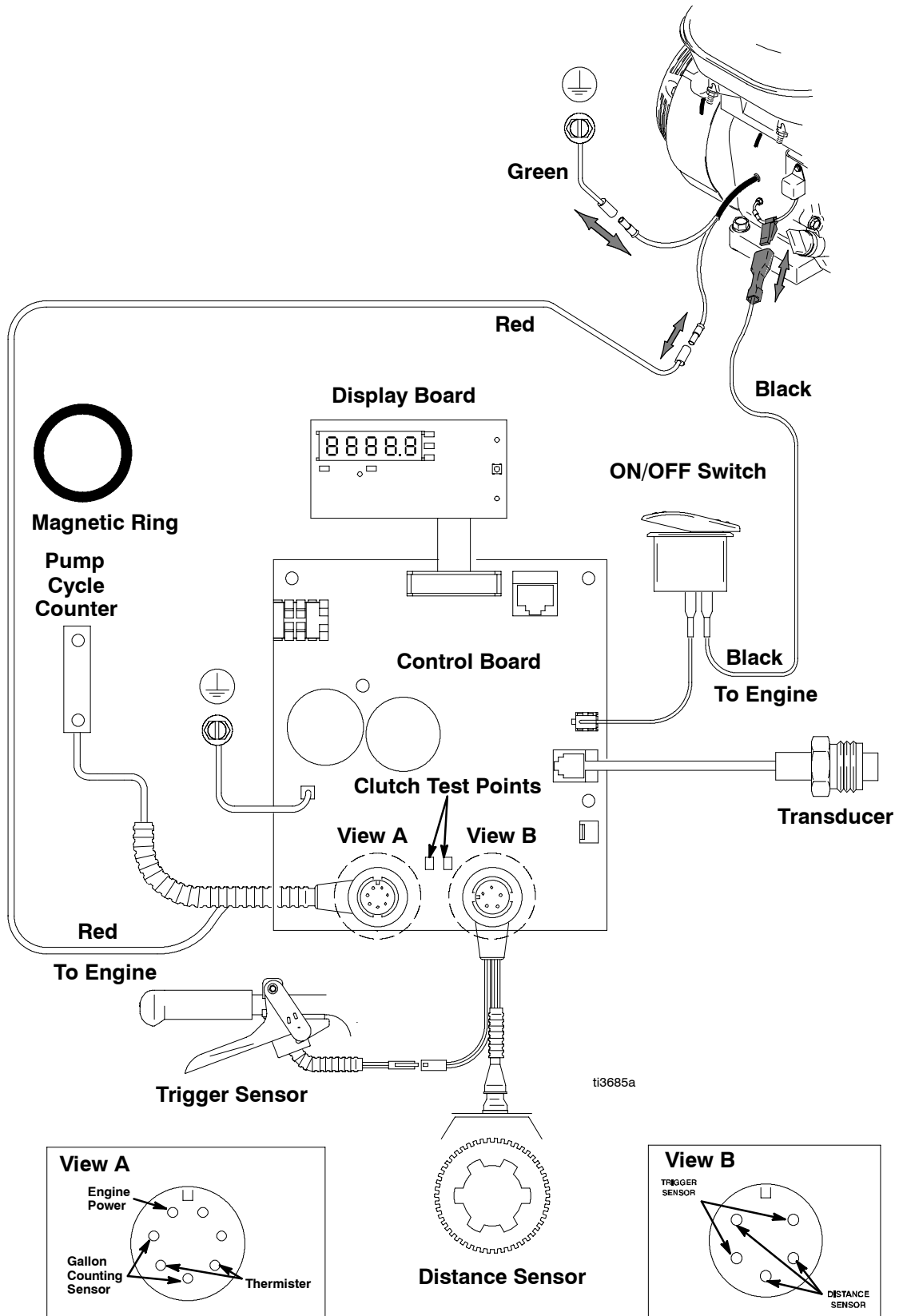


Fig. 17



# \*Technical Data

Honda GX160 Engine  
Power Rating @ 3600 rpm  
ANSI ..... 5.5 Horsepower  
DIN 6270B/DIN 6271  
NA ..... 2.9 Kw - 4.0 Ps  
NB ..... 3.6 Kw - 4.9 Ps  
Maximum working pressure ..... 3300 psi  
(227 bar, 22.7 MPa)  
Noise Level  
Sound power ..... 105 dBa  
per ISO 3744  
Sound pressure ..... 96 dBa  
measured at 3.1 feet (1 m)

Maximum delivery ..... 2.0 gpm (7.6 lpm)  
Maximum tip size  
1 gun ..... with 0.046 in. tip  
2 guns ..... with 0.033 in. tip  
Inlet paint strainer ..... 16 mesh (1190 micron)  
stainless steel screen, reusable  
Outlet paint filter ..... 60 mesh (250 micron)  
stainless steel screen, reusable  
Pump inlet size ..... 1 in. npsm(m)  
Fluid outlet size ..... 3/8 npt(f)  
Hydraulic reservoir capacity ..... 1.0 gallon (3.8 liters)  
Hydraulic pressure ..... 1800 psi (124 bar)  
Weight (dry, without packaging) ..... 242 lb (110 kg)  
Height ..... 40 in. (101.6 cm)  
Length ..... 65 in. (165.1 cm)  
Width ..... 32 in. (81.3 cm)  
Wetted parts ..... zinc-plated carbon steel,  
PTFE, Nylon, polyurethane, V-Max™ UHMWPE  
polyethylene, Viton®, Delrin®, leather, aluminum,  
tungsten carbide, stainless steel, chrome plating,  
nickel-plated carbon steel, ceramic,

**NOTE:** Delrin®, Viton® are trademarks of the DuPont Company.

## Accessories

Must be purchased separately.

### GRACO-APPROVED HYDRAULIC OIL

169236	5 Gallons (19 liters)
207428	1 Gallon (3.8 liters)

# Graco Warranty

Graco warrants all equipment manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

Graco makes no warranty, and disclaims all implied warranties of merchantability and fitness for a particular purpose in connection with accessories, equipment, materials or components sold but not manufactured by Graco. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

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## **ADDITIONAL WARRANTY COVERAGE**

Graco does provide extended warranty and wear warranty for products described in the "Graco Contractor Equipment Warranty Program".

**TO PLACE AN ORDER**, contact your Graco distributor, or call **1-800-690-2894** to identify your closest distributor

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