OPERATION MANUAL

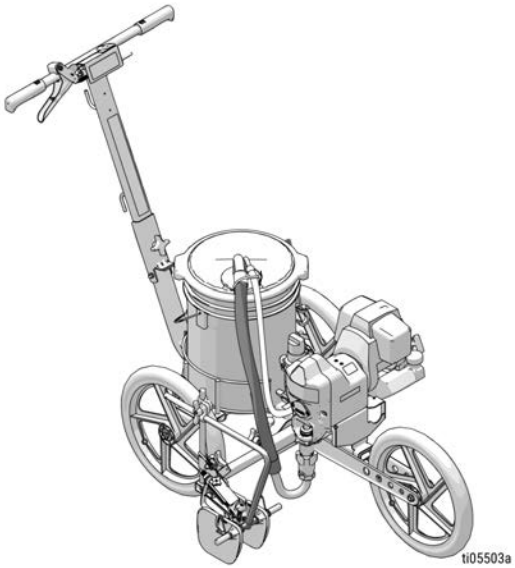
MANUAL NUMBER X047328 | REVISION A | ENGLISH (US)

# FieldLazer™ S100

For application of water-based field striping materials. For professional use only. Not approved for use in explosive atmospheres or hazardous (classified) locations.

**Important Safety Instructions**

Read all warnings and instructions in this manual before using the equipment. Be familiar with the proper control and usage of the equipment. Save these instructions.




graco.com/contact

# CONTENTS


Models 3
Related Manuals 4
Translated Manuals 4
Safety Symbols 5
Warnings 6
Technical Specifications 10
Component Identification 11
Pressure Relief Procedure 13
Setup 14
Startup 17
Operation 20
Spraying 20
Stencil Spraying 23
Clear Tip Clog 24
Cleanup 26
Troubleshooting 29
Repair 32
Pump Removal 32
Pump Installation 33
Engine Removal 34
Engine Installation 36
Drive Housing Removal 37
Drive Housing Installation 38
Clutch Housing Removal 39
Clutch Housing Installation 39
Prime Valve Removal 40
Prime Valve Installation 40
Engine RPM Adjustments 41
FieldLazer™ S100 Parts 43
Spray Tip Selection 53
California Proposition 65 54

## MODELS

The part numbers reflect distinct features and characteristics of the FieldLazer™ S100.

### FIELDLAZER™, S100 MODELS AND APPROVALS

**Maximum Working Pressure:** 900 psi (6.2 MPa, 62 bar)

| MODEL | APPROVALS |
|---|---|
| 248942 | CE |

## RELATED MANUALS

Additional documents are available to support the operation, repair, and maintenance of the FieldLazer™ S100. Find English manuals and any available translations at www.graco.com.

Table 2-1: Related Manuals for FieldLazer™ S100 Operation Manual X047328

| ENGLISH MANUAL | DESCRIPTION |
|---|---|
| 309045 | SG2, SG3 Airless Spray Guns, Instructions |
| 309053 | 295ST, 395/455/495ST PRO™, STX™, SPX™ Displacement Pump, Repair |

## TRANSLATED MANUALS

Additional language documents are available to support all regions where the FieldLazer™ S100 is sold. Find any available translations at www.graco.com.

Table 2-2: Translations for FieldLazer™ S100 Operation Manual

| LANGUAGE | MANUAL NUMBER |
|---|---|
| English | X047328EN |
| French | X047328FR |
| German | X047328DE |
| Spanish | X047328ES |

## SAFETY SYMBOLS

The following safety symbols appear throughout this manual and on warning labels. Read the table below to understand what each symbol means.

| SYMBOL | MEANING |
|---|---|
| | Burn Hazard |
| | Equipment Misuse Hazard |
| | Fire and Explosion Hazard |
| | Moving Parts Hazard |
| | Skin Injection Hazard |
| | Skin Injection Hazard |
| | Splash Hazard |
| | Toxic Fluid or Fumes Hazard |
| | Do Not Place Hands or Other Body Parts Near Fluid Outlet |

| SYMBOL | MEANING |
|---|---|
| | Do Not Stop Leaks with Hand, Body, Glove or Rag |
| | Do Not Use Flammable Materials |
| | Eliminate Ignition Sources |
| | Follow Pressure Relief Procedure |
| | Read Manual |
| | Ventilate Work Area |
| | Wear Personal Protective Equipment |

**Safety Alert Symbol**

This symbol indicates: Attention! Become Alert! Look for this symbol throughout the manual to indicate important safety messages.

## WARNINGS

**The following warnings apply throughout this manual.** Read, understand, and follow the warnings before using this equipment. Failure to follow these warnings can result in serious injury.

### ⚠ WARNING

**FIRE AND EXPLOSION HAZARD**

Flammable fumes, such as solvent, gasoline, and paint fumes, in **work area** can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:

- Do not spray or clean with flammable materials. Use water-based materials only.
- Use equipment only in well-ventilated area.
- Keep work area free of debris, including solvent, rags, and gasoline.
- **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.

Gasoline vapors can ignite or explode. To help prevent fire and explosion:

- Do not fill fuel tank or remove fuel tank cap while engine is running or hot; turn off engine and let it cool. Fuel is flammable and can ignite or explode if spilled on or near a hot surface.
- Do not overfill fuel tank. Clean up spilled fuel and move equipment from fueling location before starting the engine.
- Do not fill fuel tank indoors. Only refuel equipment when it is located on the ground.

# ⚠ WARNING

**SKIN INJECTION HAZARD**

High-pressure spray is able to inject toxins into the body and cause serious injury that can result in amputation. In the event that injection occurs, **get immediate surgical treatment.**

- 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 spray tip guard. Do not spray without spray tip guard in place.
- Use Graco spray tips.
- Use caution when cleaning and changing spray tips. In the case where the spray tip clogs while spraying, follow the **Pressure Relief Procedure** for turning off the unit and relieving the pressure before removing the spray tip to clean.
- Equipment maintains pressure after power is turned 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 900 psi (62 bar, 6.2 MPa). Use Graco parts or accessories that are rated a minimum of 900 psi (62 bar, 6.2 MPa).
- 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.

**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.
- Equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.

# ⚠ 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 overbend 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 (7.6 m).
- 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.

**CARBON MONOXIDE HAZARD**

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

- Do not operate internal combustion engine 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.

## ⚠ WARNING

**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 Safety Data Sheets (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.

**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 eyewear and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

## TECHNICAL SPECIFICATIONS

The table provides important information related to the FieldLazer™ S100, including product attributes, measurements, and performance characteristics that support the use of the equipment.

Table 5-1: Technical Specifications for FieldLazer™ S100

| | US | METRIC |
|---|---|---|
| Maximum working pressure | 900 psi | 6.2 MPa, 62 bar |
| Idle RPM | 4400 to 4600 | |
| High Speed RPM | 5700 to 5900 | |
| Dimensions (handle down) | 48 x 24 x 24 in. | 121 x 61 x 61 cm |
| Weight | 82 lb | 37.2 kg |
| Wetted Parts | Zinc-plated carbon steel, polyethylene, stainless steel, PTFE, Acetal, chrome plating, leather, V-Max™ UHMWPE, aluminum, tungsten carbide | |
| Sound Levels* | | |
| Sound Pressure | 87 dBa | |
| Sound Power | 101 dBa | |
| * Measured at maximum normal load conditions per ISO 3744<br>All trademarks or registered trademarks are the property of their respective owners. | | |

The diagram highlights the controls and features on the FieldLazer™ S100 that are used during typical operation

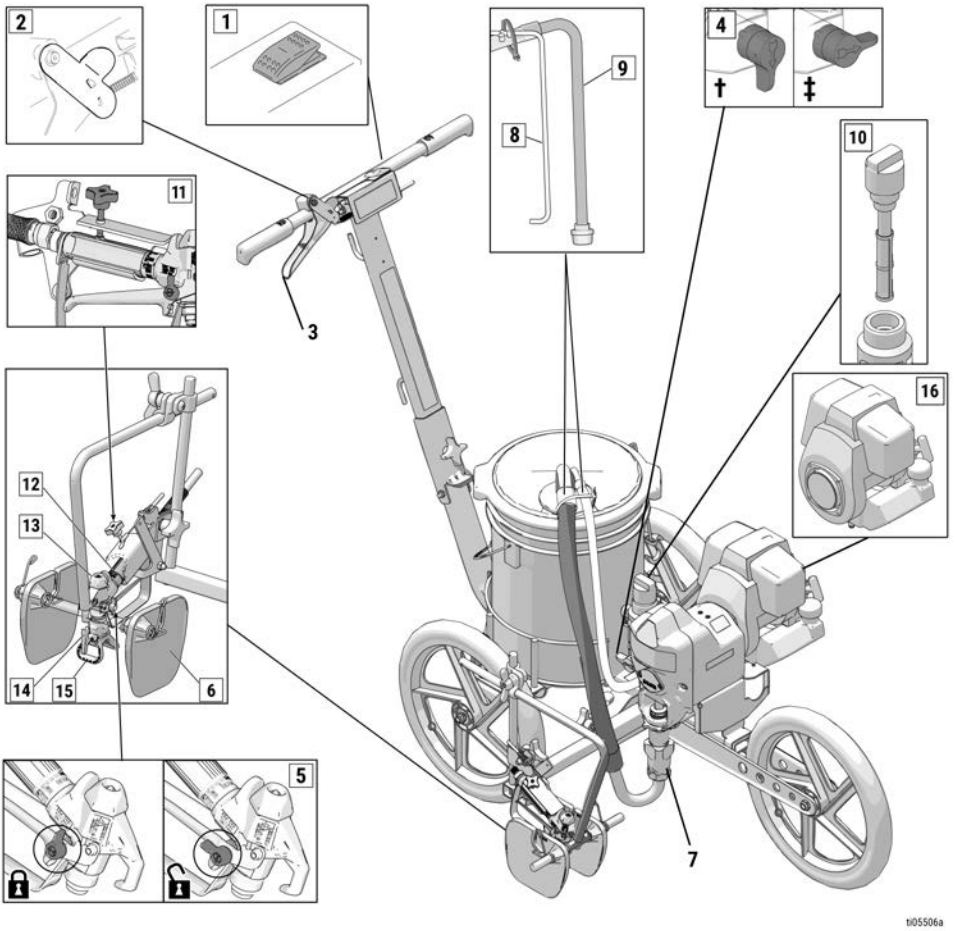



Figure 6-1: FieldLazer™ S100 Diagram

| KEY | |
|---|---|
| 1 | Engine OFF |
| 2 | Stencil Lever |
| 3 | Spray Gun Control |
| 4 | Prime Valve |
| † | Prime |
| ‡ | Spray |
| 5 | Spray Gun Trigger Lock |
| 6 | Spray Shield |
| 7 | Pump |
| 8 | Drain Tube |
| 9 | Suction Tube |
| 10 | Fluid Filter |
| 11 | Gun Retainer Knob |
| 12 | Gun Fluid Filter (optional, located in handle) |
| 13 | Airless Spray Gun |
| 14 | Reversible Spray Tip |
| 15 | Tip Guard |
| 16 | Engine |

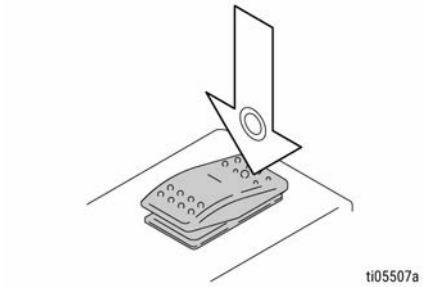
Relieve pressure on the FieldLazer™ S100 when operation is stopped, and before cleaning, checking, or servicing the equipment.

Follow the Pressure Relief Procedure whenever you see this symbol.

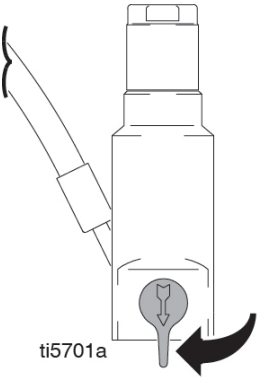
**⚠ WARNING**

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 dispensing and before cleaning, checking, or servicing the equipment.

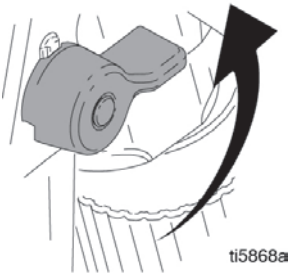
1. Turn engine **OFF**.



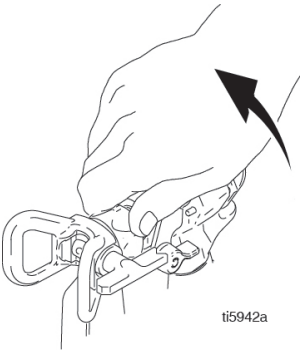

2. Turn Prime Valve down.




3. Engage the trigger lock.




4. Remove Tip Guard and Reversible Spray Tip.

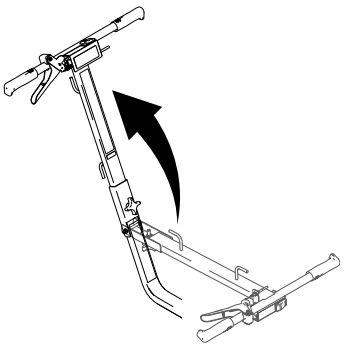



5. Disengage the trigger lock. Trigger Airless Spray Gun into pail to relieve pressure.

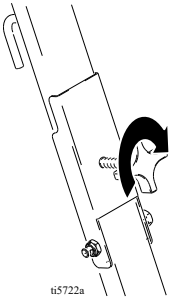
6. If suspect the spray tip or hose is clogged or that pressure has not been fully relieved:
   a. Using a wrench, VERY SLOWLY loosen the tip guard retaining nut or the hose end coupling to relieve pressure gradually.
   b. Using a wrench, loosen the nut or the coupling completely.
   c. Clear the obstruction in the hose or tip.

When using the equipment for the first time or after long term storage, follow the steps to prepare the FieldLazer™ S100 for operation.

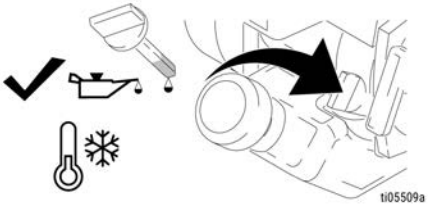
1. Take the sprayer out of the box. Fold handle up.



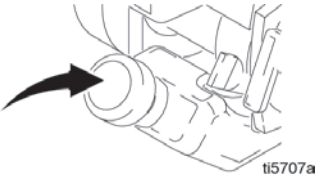
2. Tighten knob and secure handle.



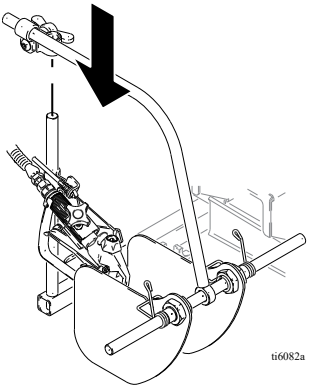

3. Check engine oil level. See Honda engine manual.



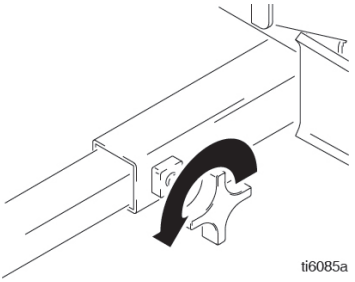

4. Allow the engine to cool. Remove the cap and fill the fuel tank. Securely tighten the cap.

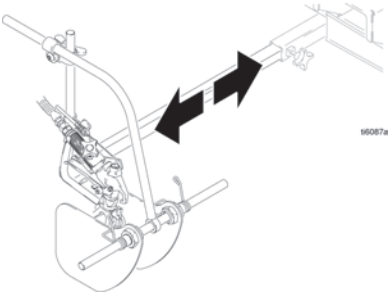


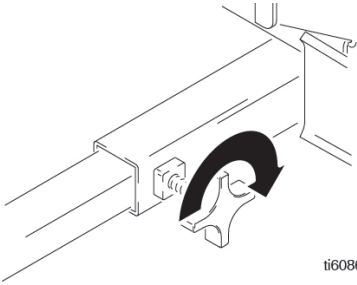

5. Attach Spray Shields to striper.



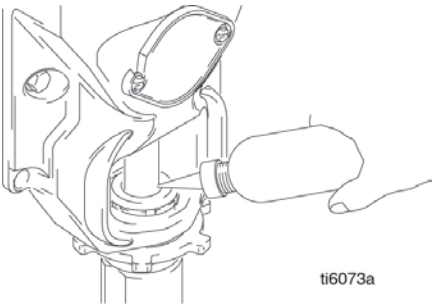
6. Loosen knob and slide Airless Spray Gun outside of wheel. Tighten knob.



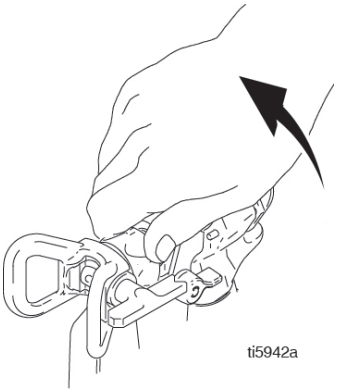




7. Fill wet-cup with Throat Seal Liquid™ (TSL) to extend Pump life.

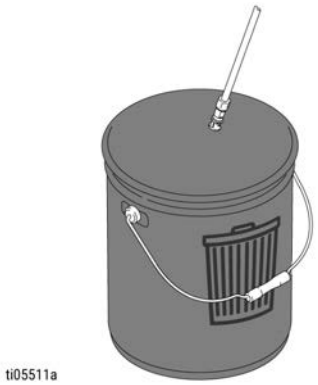



8. Ensure Tip Guard and Reversible Spray Tip are removed.

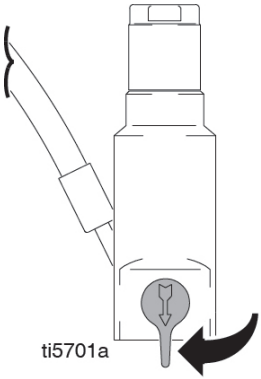



9. Place Suction Tube in water pail.

10. Place Drain Tube in waste pail.



11. Turn Prime Valve down.



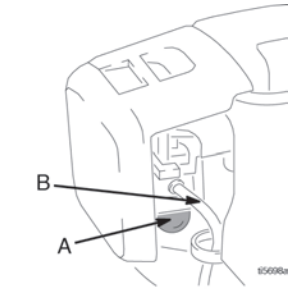
**⚠ WARNING**

**NOTICE**

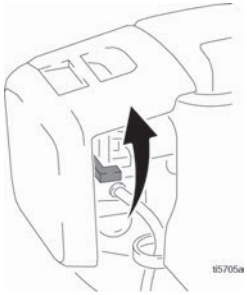
To reduce risk of pressure control or sprayer damage.

- Keep drain line clean and free of obstructions. Obstruction in drain line may cause pressure control malfunction and engine stall.
- Do not allow material to freeze in sprayer.

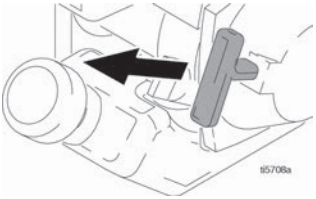
1. Start engine.
   a. If engine is cold or has previously run out of fuel, press priming bulb (A) repeatedly until gasoline is seen in fuel return tube (B).



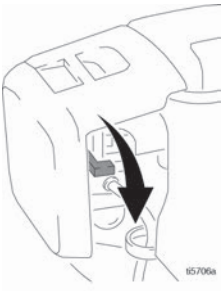

   b. Move choke to closed.



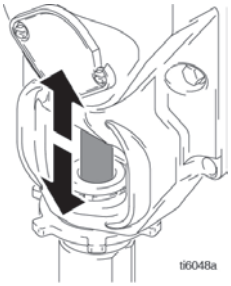

   c. Pull starter rope.

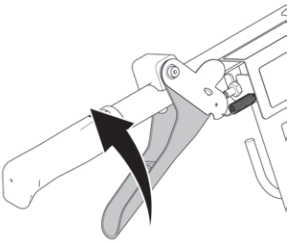



   d. After engine start, move choke to open. Let sprayer run for 20 seconds.



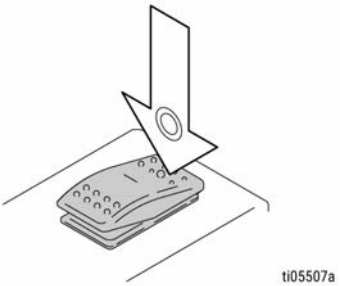

2. Ensure Pump is cycling. If not, momentarily squeeze Spray Gun Control.



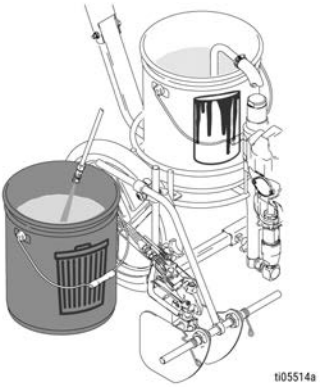
3. Allow Pump to prime until water comes out of Drain Tube.

4. Turn engine **OFF**.

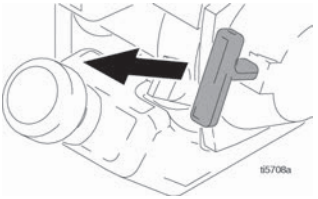



5. Prepare paint according to specification of paint manufacturer.

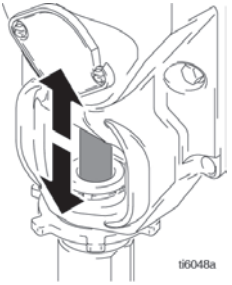
6. Place Suction Tube in paint.

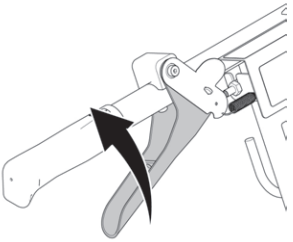



7. Start engine.



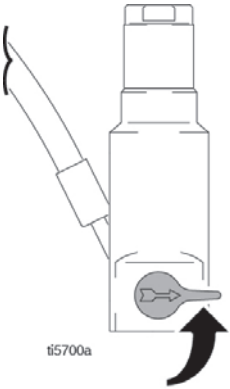

8. Ensure Pump is cycling. If not, momentarily squeeze Spray Gun Control.



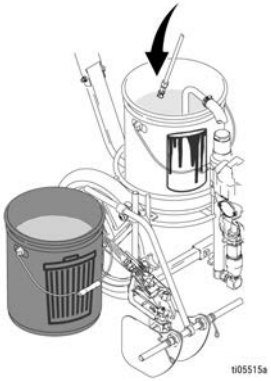



9. Allow Pump to prime until paint comes out of Drain Tube.

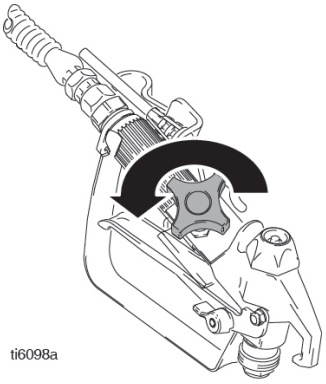
10. Turn Prime Valve horizontal.




11. Move Drain Tube to paint pail.

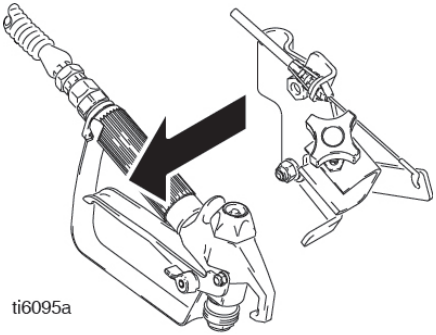



12. Loosen Gun Retainer Knob.




ti05512a

13. Remove Airless Spray Gun from holder.



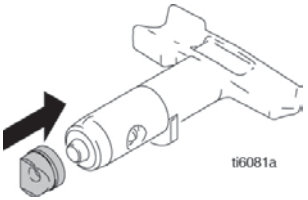

14. Point Airless Spray Gun into waste pail. Squeeze spray gun trigger. Release spray gun trigger when paint comes out of Airless Spray Gun.

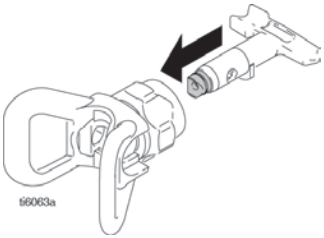
The instructions provide guidance on how to use the FieldLazer™ S100.

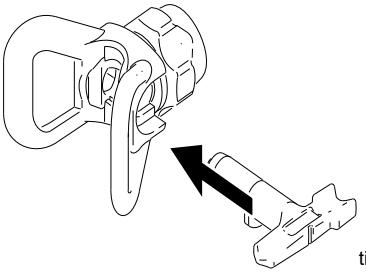
## SPRAYING

**⚠ WARNING**

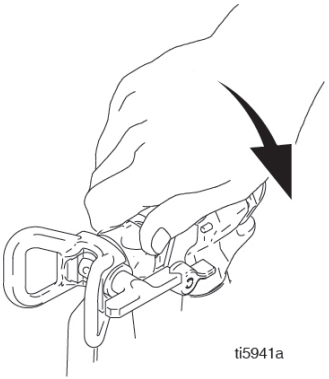
1. Perform **Pressure Relief Procedure**.
2. Insert seat and OneSeal onto Reversible Spray Tip end. Insert seat and OneSeal into Tip Guard. Insert Reversible Spray Tip.



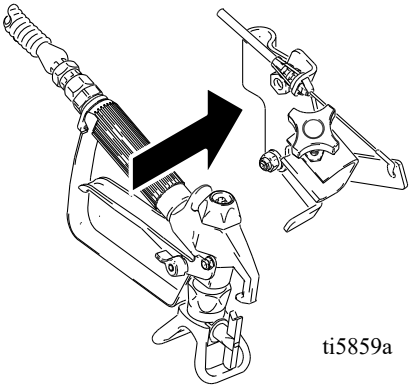



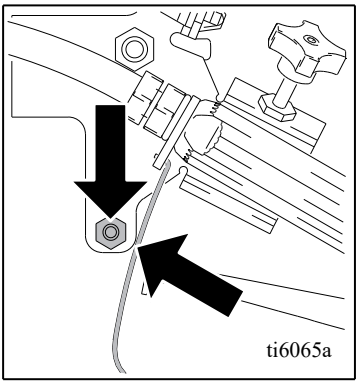

3. Screw Tip Guard assembly onto Airless Spray Gun. Hand tighten.

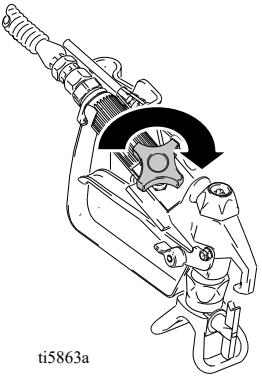



4. Return Airless Spray Gun to holder.

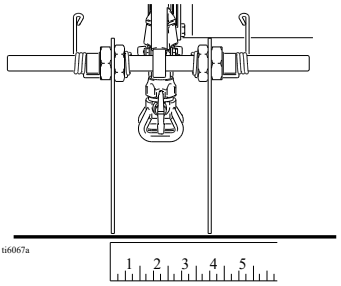


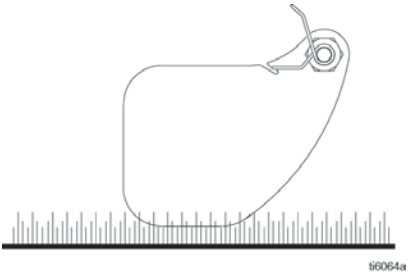
5. Place trigger guard in front of nut on gun holder. Tighten Gun Retainer Knob.



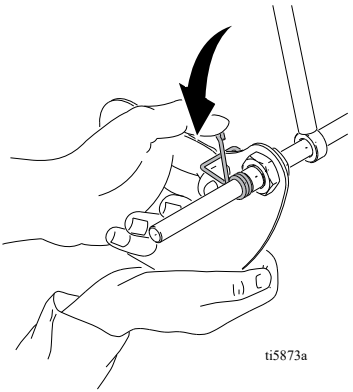




6. Adjust Spray Shields for desired line width.

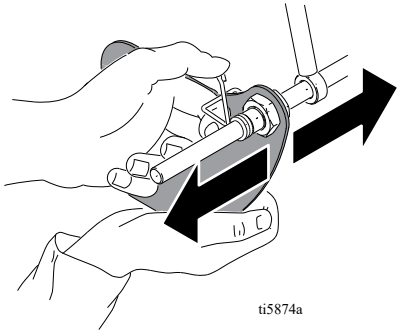


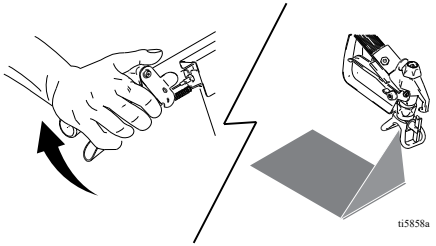

a. Grasp Spray Shield with one hand and squeeze spring arms with the other hand.



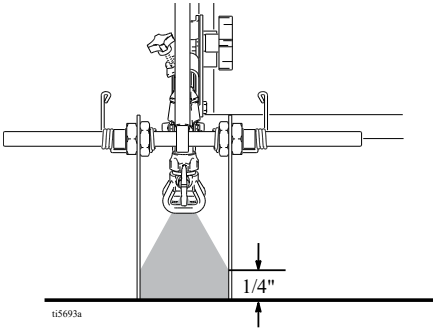
b. Slide Spray Shield to desired position and release spring.



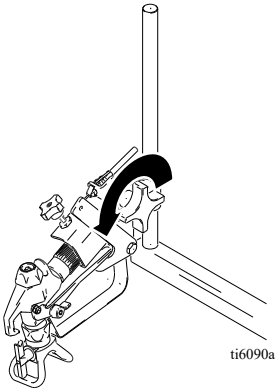

7. Squeeze Spray Gun Control and push striper forward to spray a test stripe.



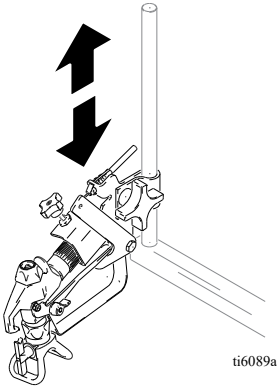

8. Adjust Airless Spray Gun height so paint spray strikes Spray Shields 1/4 in. (6.35 mm) from bottom of Spray Shields.




a. Loosen Gun Retainer Knob.

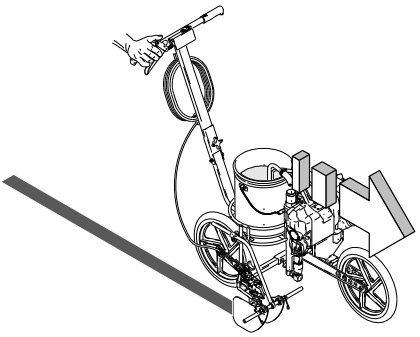



b. Slide Airless Spray Gun up or down.



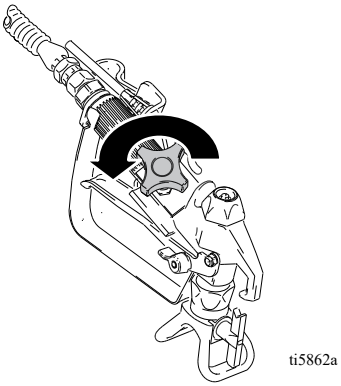
## SPRAY A TEST STRIPE

Spray a test stripe before spraying the actual field.

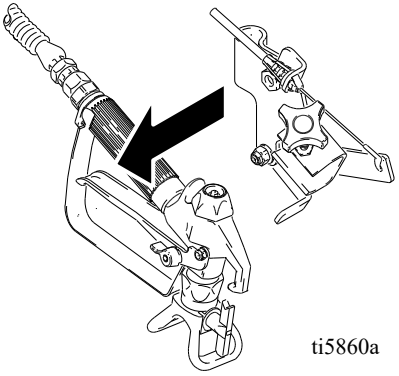


## STENCIL SPRAYING

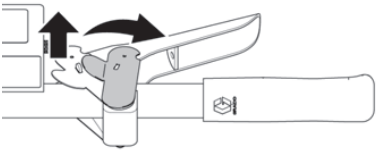
1. Loosen Gun Retainer Knob.



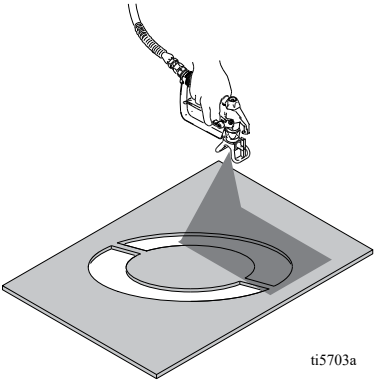

2. Remove Airless Spray Gun from holder.



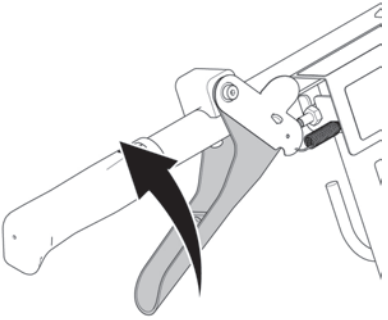

3. Lift Stencil Lever up and rotate right. This increases engine speed, which engages Pump.



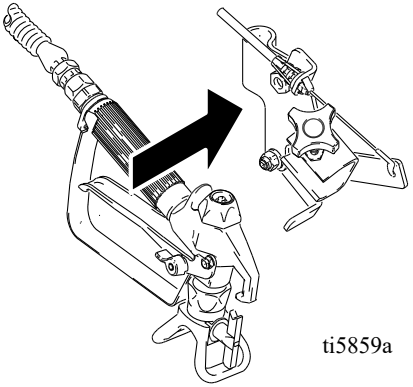
4. Trigger Airless Spray Gun over stencil pattern.



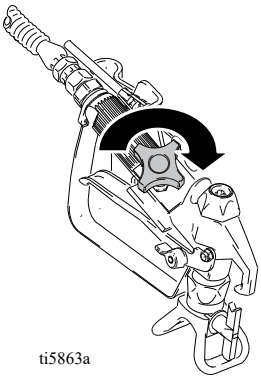

5. Momentarily squeeze Spray Gun Control to release Stencil Lever and decrease engine speed.



6. Return Airless Spray Gun to holder.




7. Tighten Gun Retainer Knob.

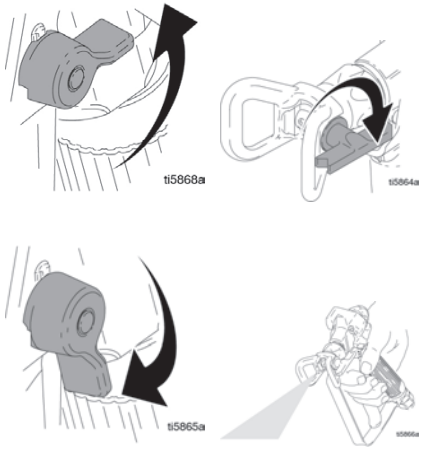



## CLEAR TIP CLOG

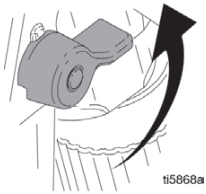
**⚠ WARNING**

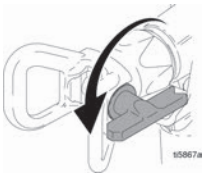
To avoid injury from skin injection, never point gun at your hand or into a rag!

1. Release trigger, turn Spray Gun Trigger Lock **ON**. Rotate Reversible Spray Tip. Turn Spray Gun Trigger Lock **OFF** and trigger gun to clear the clog.



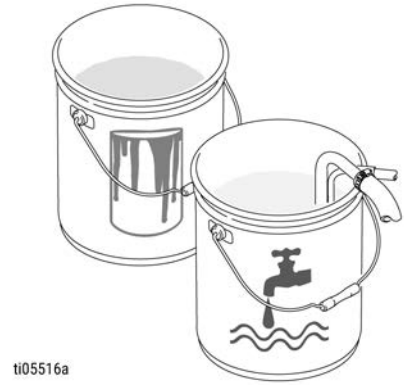
2. Turn Spray Gun Trigger Lock **ON**, return Reversible Spray Tip to original position, turn Spray Gun Trigger Lock **OFF** and continue spraying.



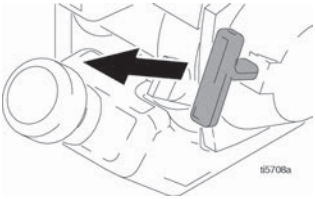



**⚠ WARNING**

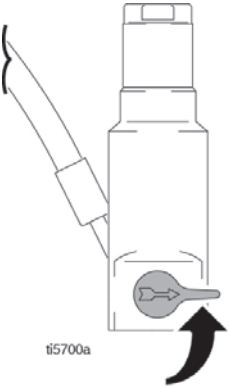
1. Perform **Pressure Relief Procedure**. Remove Siphon Tube set from paint and place in water.




2. Start engine.

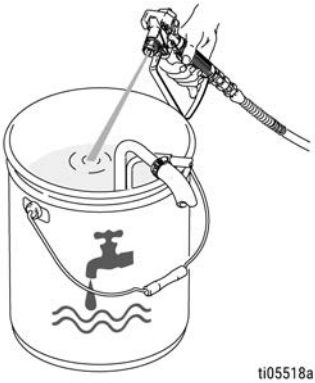



3. Turn Prime Valve horizontal.

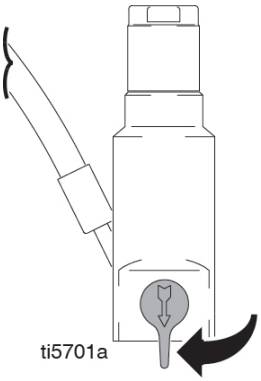



4. Hold gun against paint pail. Take Spray Gun Trigger Lock **OFF**. Trigger Airless Spray Gun until water appears.

5. Move Airless Spray Gun to water pail, hold Airless Spray Gun against pail, trigger Airless Spray Gun to thoroughly flush system. Release trigger and put Spray Gun Trigger Lock **ON**.



6. Turn Prime Valve down and allow flushing fluid to circulate for approximately 20 seconds to clean Drain Tube.



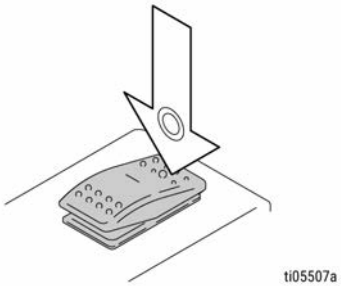

**NOTE:**

If Drain Tube is not properly flushed and becomes plugged, sprayer will malfunction.

**NOTE:**

After flushing with water, do not leave water in sprayer. Flush again with oil or Pump Armor and leave this protective coating in the sprayer to prevent freezing and increase sprayer life.

7. Turn engine **OFF**.




8. Unscrew cap; remove Fluid Filter.

9. Place Fluid Filter, Tip Guard, and Reversible Spray Tip in flushing fluid.

10. Clean Fluid Filter, Tip Guard, and Reversible Spray Tip with a soft bristle brush to prevent part failure due to dried materials. Assemble parts. Wipe sprayer, hose, and Airless Spray Gun with a rag soaked in water or mineral spirits.

ti05521a

When problems occur, use the table to identify potential cause and solutions to repair the FieldLazer™ S100.

Follow **Pressure Relief Procedure** before checking or repairing the equipment.

**NOTE:**

Check all possible problems and causes before disassembling the equipment.

| PROBLEM | CAUSE | SOLUTION |
|---|---|---|
| Gas engine does not start. | No gasoline. | Fill gasoline tank. Consult engine manual, supplied. |
| Gas engine does not work properly. | Faulty engine. | Consult engine manual. |
| | Elevation (above 5000 ft). | Carburetor needs modification. Consult engine manual. |
| Gas engine operates, but displacement pump does not operate. | Dried paint, seized pump rod. | Service Pump. See manual 309053. |
| | New Pump, new pump packings, and/or low engine speed. | Squeeze Spray Gun Control to momentarily increase engine speed. |
| Displacement pump operates, but output is low. | Pump ball checks not seating properly. | Service ball checks. See manual 309053. |
| | Piston packings worn or damaged. | Tighten packing nut or replace packings. See manual 309053. |
| | Displacement pump outlet filter (if used) is dirty or clogged. | Clean filter. |
| | Suction Tube to Pump inlet is not tight. | Tighten Suction Tube. |
| | Worn Prime Valve. | Replace Prime Valve. |
| 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 309053. |
| Gas engine overheats. | Paint buildup on engine components. | Clean paint off engine components. |
| | Oil level is low. | Fill with oil. See **Setup**. |
| Spitting from Airless Spray Gun. | Air in fluid pump or hose. | Check for loose connections on siphon assembly, tighten, then reprime Pump. |
| | Loose intake suction. | Tighten Suction Tube. |
| | Fluid supply is low or empty. | Refill supply container. |
| Cannot achieve a good line. | Cold weather. | Warm paint or thin with water. |
| | Paint too thick. | Thin paint as necessary. |

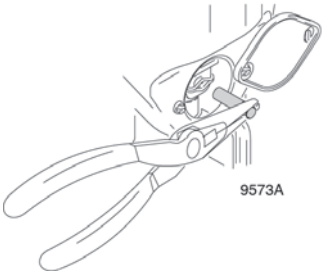
| PROBLEM | CAUSE | SOLUTION |
|---|---|---|
| | Bumpy turf. | Use Spray Shields. |
| | Worn Reversible Spray Tip. | Replace Reversible Spray Tip. |
| | Wrong Reversible Spray Tip size. | Replace Reversible Spray Tip with appropriate size. See **Tip Selection Chart**. |
| Sprayer will not prime. | Inlet ball stuck. | Tap Pump with hammer handle to loosen ball. |
| | | Store sprayer with Pump Armor in Pump. |
| | Pump not cycling. | Increase engine speed. |
| Poor starting spray pattern. | Worn Prime Valve. | Replace Prime Valve. |
| | Engine RPM set too low. | Increase engine speed. See **Engine RPM Adjustments**. |

When replacing parts, follow the instructions to restore the components on the FieldLazer™ S100.

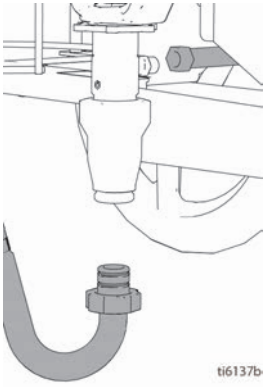
## PUMP REMOVAL

**⚠ WARNING**

1. Perform **Cleanup** procedure.
2. Perform **Pressure Relief Procedure**.
3. Loosen two screws and rotate cover. Cycle Pump to position pump pin to be removed. Remove pump pin.




4. Remove Suction Tube and hose. Loosen pump jam nut. Unscrew Pump.

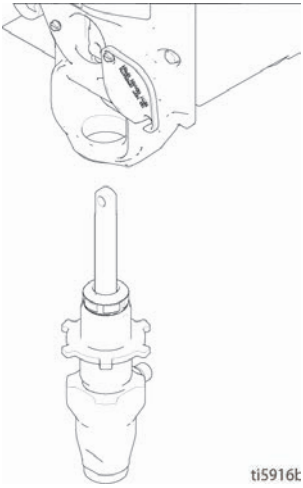


## PUMP INSTALLATION

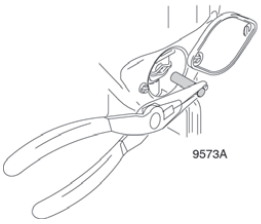
**NOTICE**

If pump lock nut loosens during operation, drive housing threads will be damaged.

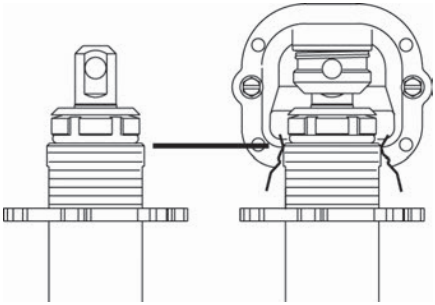
1. Extend pump piston rod fully.



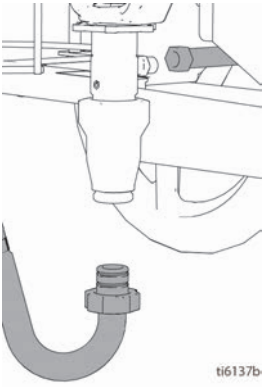

2. Apply grease to pump pin. Install pump pin. Verify retainer spring is in groove of pump pin. Push Pump up until pump threads engage.



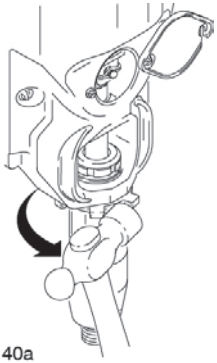

3. Screw in Pump until threads are flush with drive housing opening. Align pump outlet to back.



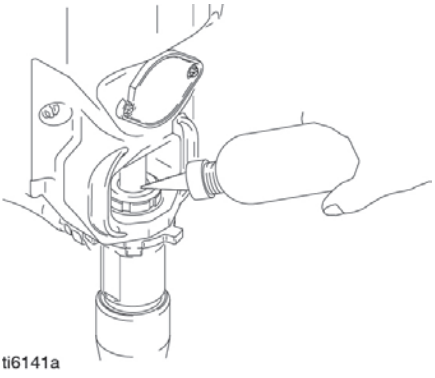
4. Install Suction Tube and hose.



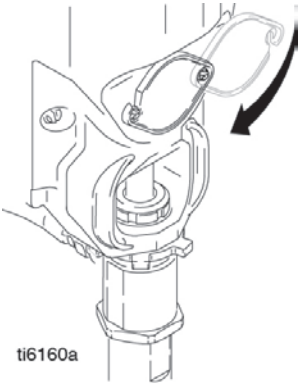

5. Screw jam nut up onto Pump until nut stops. Tighten jam nut by hand, then tap one-eighth to one-fourth turn with a 20 oz (maximum) hammer to approximately 75 +/- 5 ft-lb (102 N·m).



6. Fill packing nut with Graco TSL until fluid flows onto top of seat.




7. Rotate cover; tighten screws.

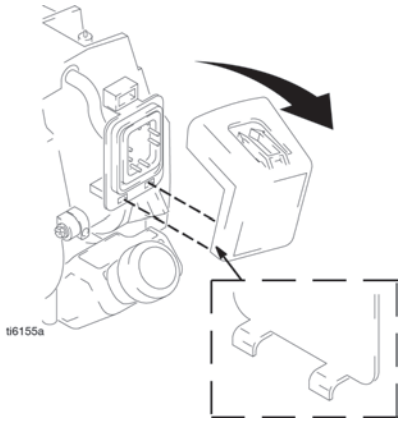



## ENGINE REMOVAL

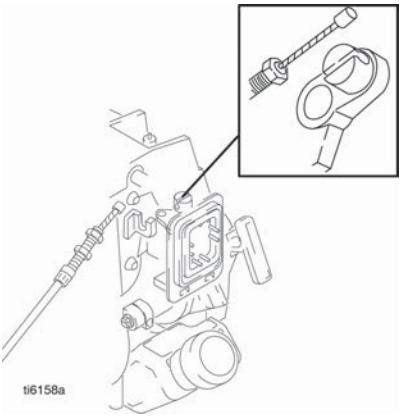
1. Perform **Pressure Relief Procedure**.

2. Disconnect throttle cable, **OFF** wire, and ground wires.

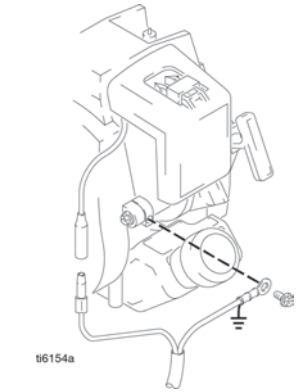
   a. Remove air cleaner cover.



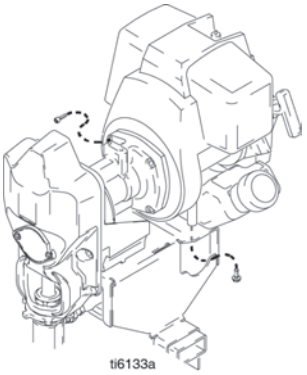

   b. Loosen rear nut or throttle cable. Slide cable out of holder.



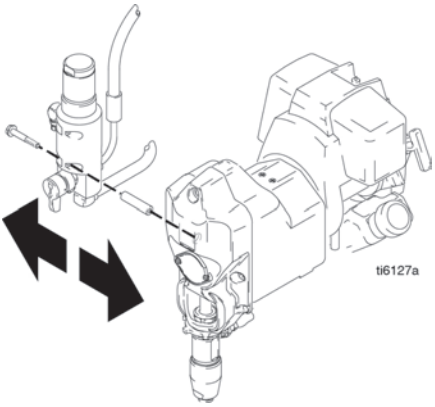
c. Disconnect **OFF** wire. Remove ground screw and wire.



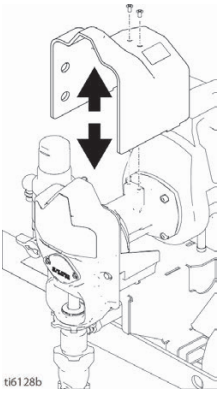

5. Remove four screws (88), two screws (91) and slide engine back to remove.




3. Remove three screws and filter assembly.

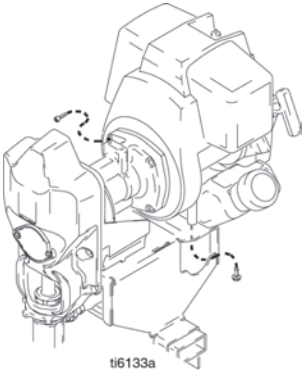



4. Remove two screws and shroud.

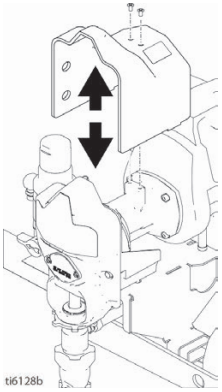


## ENGINE INSTALLATION

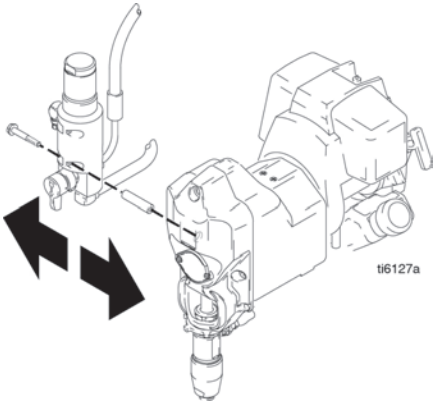
1. Slide engine in and install with two screws (91), spacer, and four screws (88).



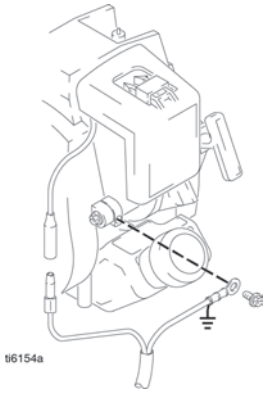

2. Install shroud with two screws (102).



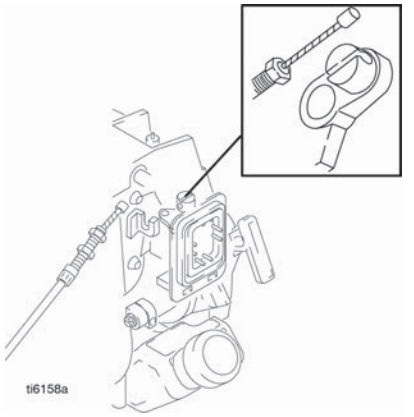

3. Install filter assembly with three screws.



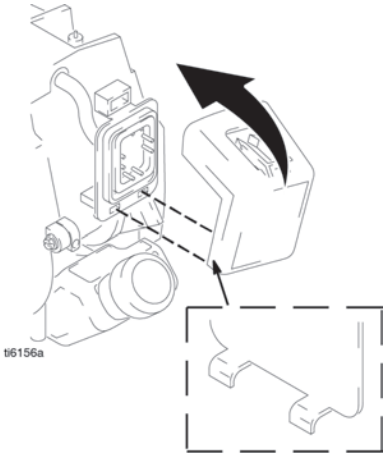

4. Connect throttle cable, **OFF** wire, and ground wires.
   a. Install ground wire and screw. Connect **OFF** wire.




   b. Slide cable into holder. Tighten rear nut on throttle cable.

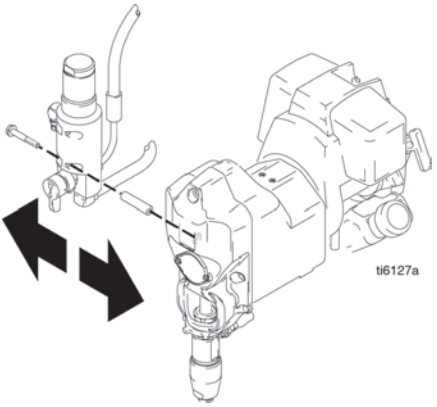


c. Install air cleaner cover. If new engine is installed, perform **Engine RPM Adjustments**.

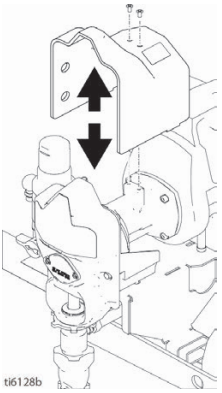



## DRIVE HOUSING REMOVAL

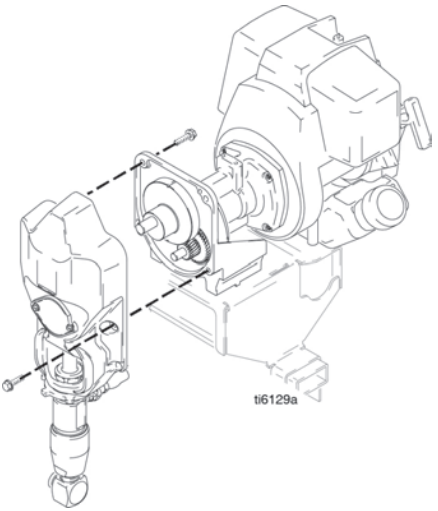
1. Perform **Pump Removal**.
2. Remove three screws (41) and filter.




3. Remove two screws (102) and shroud.

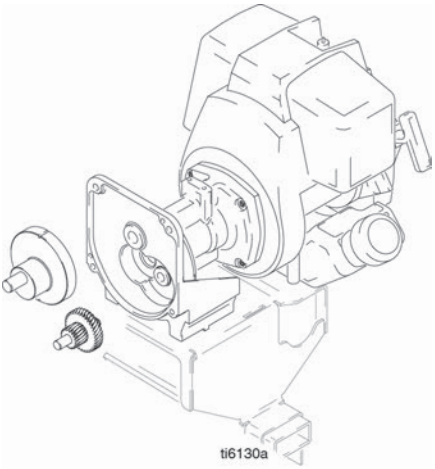



4. Remove four screws (89) and drive housing.



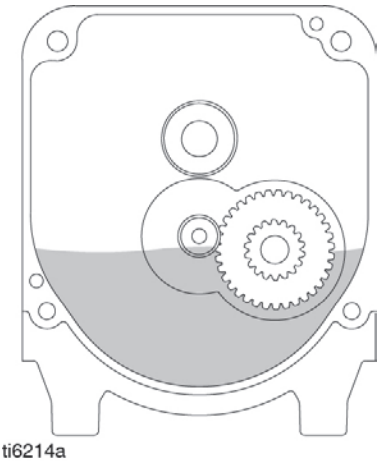

**NOTE:**

Crankshaft and gear may stick to grease between drive housing and clutch housing. Do not drop crankshaft or gear on floor.

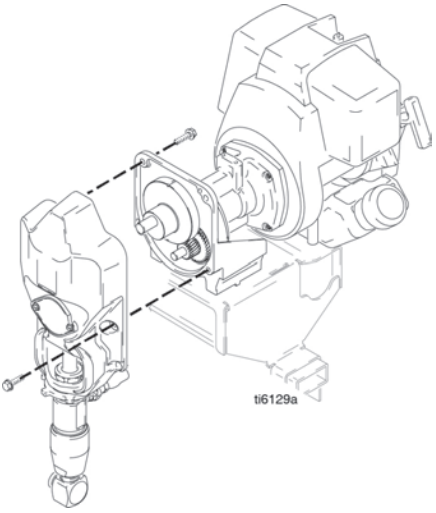



## DRIVE HOUSING INSTALLATION

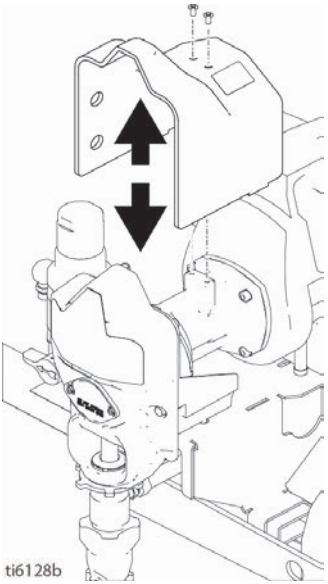
1. Apply supplied grease in back of drive housing.



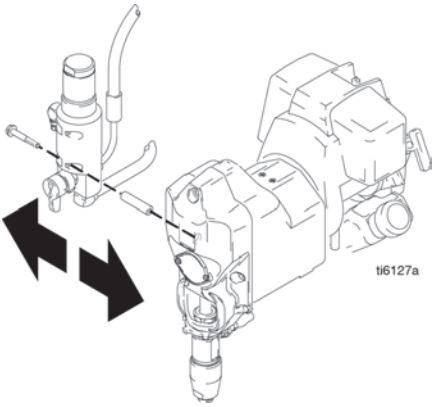

2. Install drive housing with four screws (89).




3. Install shroud with two screws (102).



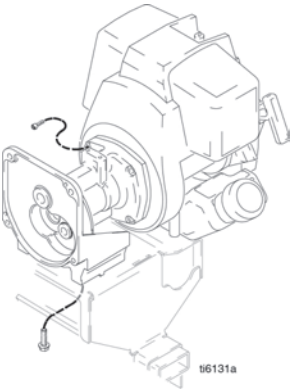
4. Install filter with three screws (4).




5. Perform **Pump Installation**.

## CLUTCH HOUSING REMOVAL

1. Perform **Pump Removal**.
2. Perform **Drive Housing Removal**.
3. Remove four screws (88). Remove four screws (89). Slide clutch housing forward and remove.

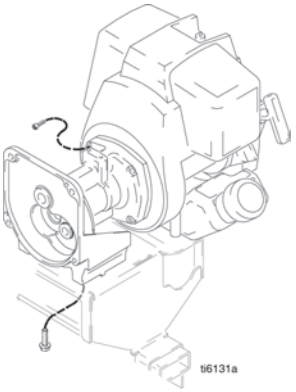



**NOTICE**

Do not run engine unless connected to striper. Centrifugal force will damage clutch shoes and engine case. Go to an authorized Honda repair center for clutch repairs.

## CLUTCH HOUSING INSTALLATION

1. Slide clutch housing into engine. Install four screws (89). Install four screws (88).

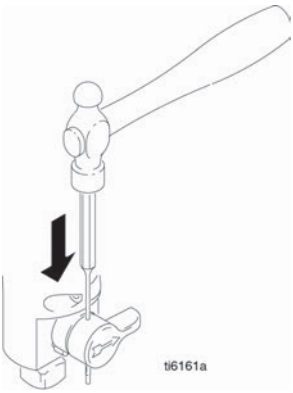



2. Perform **Drive Housing Installation** and **Pump Installation**.

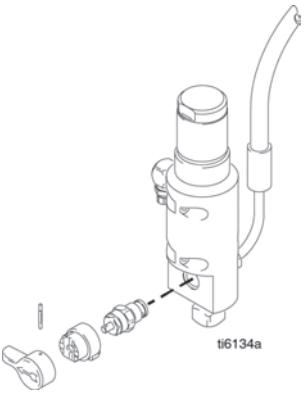
## PRIME VALVE REMOVAL

**⚠ WARNING**

1. Perform **Pressure Relief Procedure**.
2. Remove pin and Prime Valve handle.

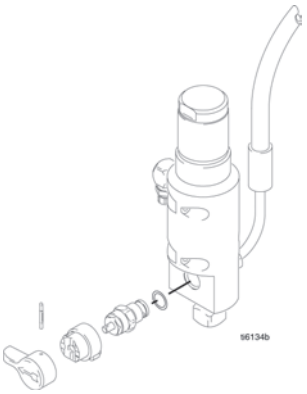



3. Remove valve base and Prime Valve.

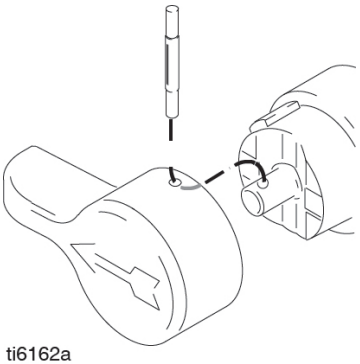



## PRIME VALVE INSTALLATION

1. Apply grease to rear of Prime Valve. Install o-ring over threads to base of hex. Apply thread sealant to Prime Valve threads.
2. Install Prime Valve. Torque prime valve to 220 - 260 in-lbs (24.9 - 29.4 N·m). Install valve base.



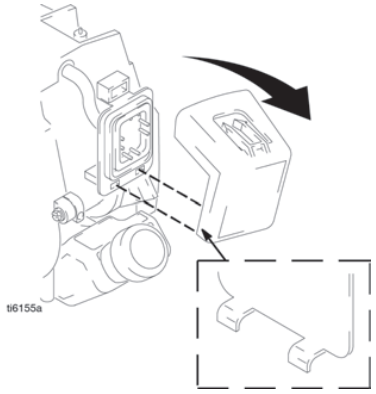

3. Install Prime Valve handle and pin as shown.



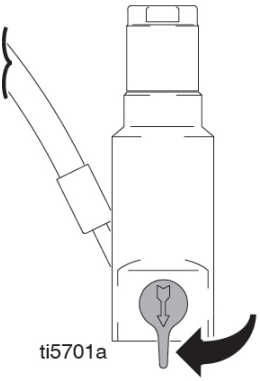
## ENGINE RPM ADJUSTMENTS

### LOW SPEED (IDLE)

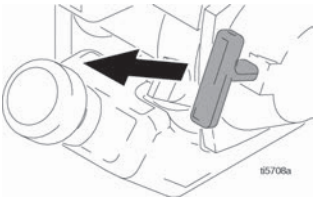
1. Remove cover.



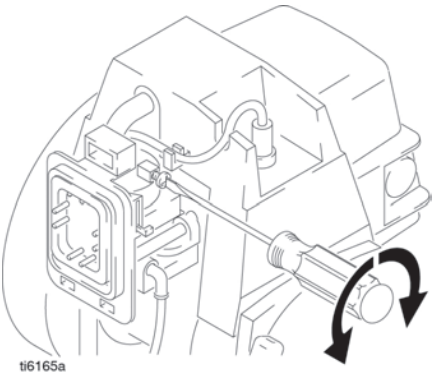

2. Install tachometer lead to spark plug.
3. Turn Prime Valve down.




4. Start engine.




5. Adjust idle adjustment screw until RPM is 4400 to 4600.

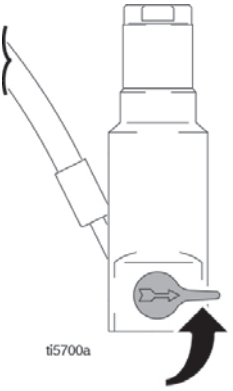



**NOTE:**

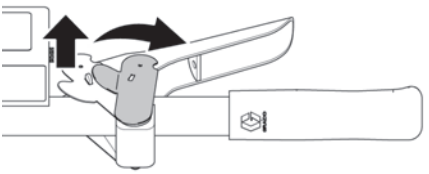
Pump starts to cycle.

### HIGH SPEED (IDLE)

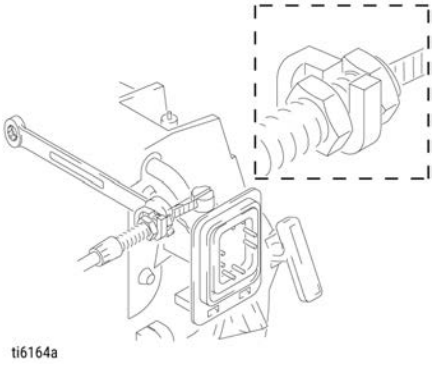
1. Turn Prime Valve horizontal (pump stalls). Pump must contain fluid (water/paint) and be primed.




2. Set Throttle Override: Lift stencil plate up and rotate right.

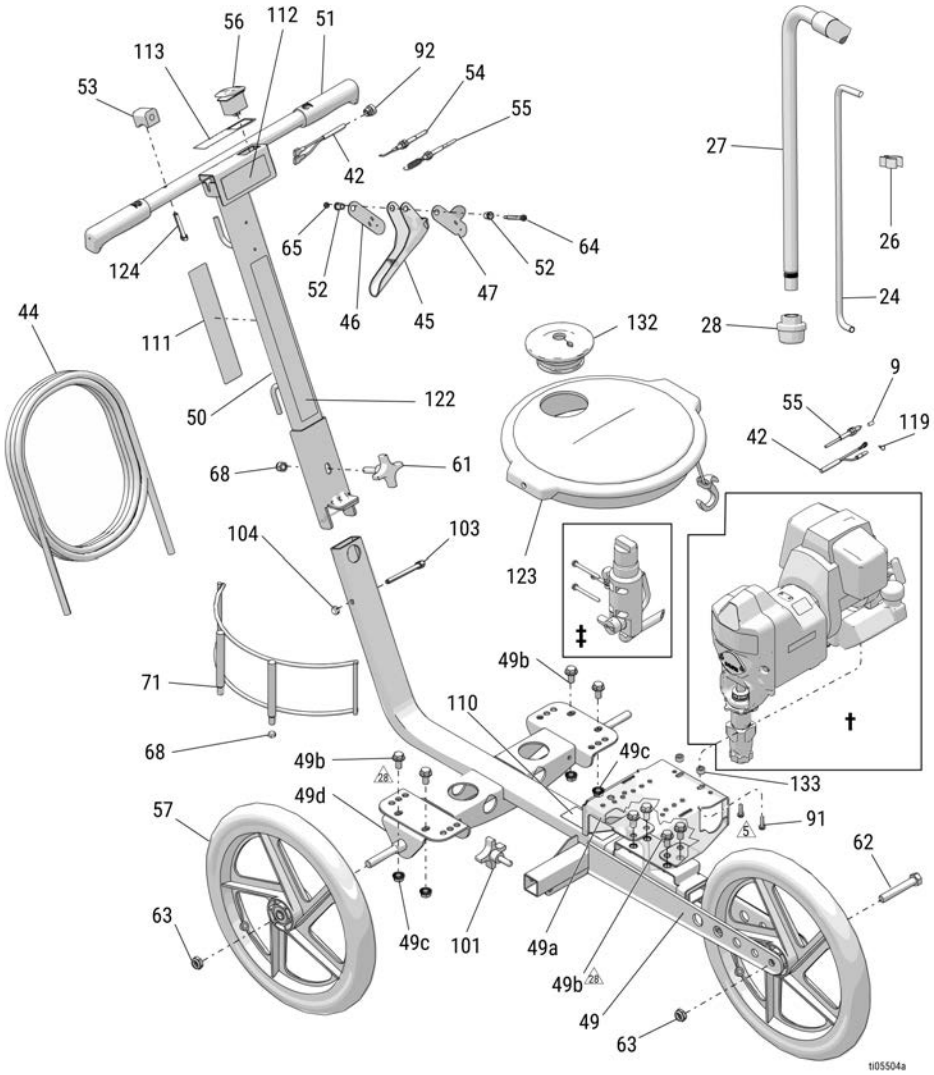


3. Adjust idle adjustment screw until RPM is 5700 to 5900.




- Increase RPM: Loosen front nut and tighten rear nut.
- Decrease RPM: Loosen rear nut and tighten front nut.

The parts illustration and list show the components of the FieldLazer™ S100 and their connections that are required for assembly, repair, and maintenance.




‡ See **Filter Parts**

† See **Engine Parts**

Figure 14-1: FieldLazer™ S100 Parts Diagram

| REF. | PART | DESCRIPTION | QTY. |
|---|---|---|---|
| 9 | | SPACER, throttle, *included in 55* | 1 |
| 24 | 24V688 | HOSE, drain | 1 |
| 26 | 195400 | CLIP | 1 |
| 27 | 17M875 | HOSE, suction, *includes 27a, 27b* | 1 |
| 27a | 117559 | O-RING | 2 |
| 27b | 115099 | Fitting Garden Hose | 1 |
| 28 | 276897 | Strainer, intake, 7/8-14 UNF | 1 |
| 42 | 119544 | WIRE, engine ground | 1 |
| 44 | 240793 | HOSE, coupled, 1/4 in. x 25 ft | 1 |
| 45 | 245676 | HANDLE | 1 |
| 46 | 198895 | PLATE, lever, pivot | 1 |
| 47 | 15E864 | PLATE, lever, pivot | 1 |
| 49 | 2011519 | FRAME, fieldmarker | 1 |
| 49a | 2013526 | BRACKET, mount, S100 | 1 |
| 49b | 112395 | SCREW, cap, flng hd | 8 |
| 49c | 112958 | NUT, hex, flanged, 3/8-16 | 4 |
| 49d | 2013389 | AXLE, narrow | 1 |
| 50 | 15F645 | HANDLE, fieldmarker | 1 |
| 51 | 116139 | GRIP, handle | 2 |
| 52 | 111017 | BEARING, flange | 2 |
| 53 | 198896 | BLOCK, mounting (mach) | 1 |
| 54 | 119534 | CABLE, gun | 1 |
| 55 | 17K772 | KIT, S100 throttle cable, *includes 9* | 1 |
| 56 | 114954 | SWITCH, rocker | 1 |

| REF. | PART | DESCRIPTION | QTY. |
|---|---|---|---|
| 57 | 119528 | TIRE, semi-pneumatic | 3 |
| 61 | 108471 | KNOB, pronged | 1 |
| 62 | 101147 | SCREW, cap, hex hd | 1 |
| 63 | 119547 | NUT, hex, lock, nylon, thin | 3 |
| 64 | 116941 | SCREW, shoulder, socket head | 1 |
| 65 | 129476 | NUT, lock | 1 |
| 68 | 101566 | NUT, lock | 5 |
| 71 | 15E955 | HOLDER, bracket | 2 |
| 82 | 206994 | FLUID, TSL, 8 oz (not shown) | 1 |
| 91 | 119791 | SCREW, mach, slt hex hd | 2 |
| 92 | 119868 | BUSHING, Strain Relief | 1 |
| 101 | 111145 | KNOB, pronged | 1 |
| 103 | 113664 | SCREW, cap, hex hd | 1 |
| 104 | 112746 | NUT, hex | 1 |
| 110 ▲ | 15F129 | LABEL, safety | 1 |
| 111 ▲ | 2013879 | LABEL, safety | 1 |
| 112 ▲ | 194126 | LABEL, warning | 1 |
| 113 | 15F130 | LABEL, instructions | 1 |
| 119 | 106084 | SCREW, mach, pan hd | 1 |
| 122 | 2014338 | LABEL, Field Lazer, handle | 1 |
| 123 | 24U241 | KIT, pail cover | 1 |
| 124 | 116973 | SCREW, 10-24 x 1.5 in., taptite, phil | 1 |
| 132 | 278723 | GASKET, pail | 1 |

| REF. | PART | DESCRIPTION | QTY. |
|---|---|---|---|
| 133 | 15F789 | SPACER, used with GX35 engines | 2 |

▲ *Replacement safety labels, tags, and cards are available at no cost.*

## ENGINE PARTS

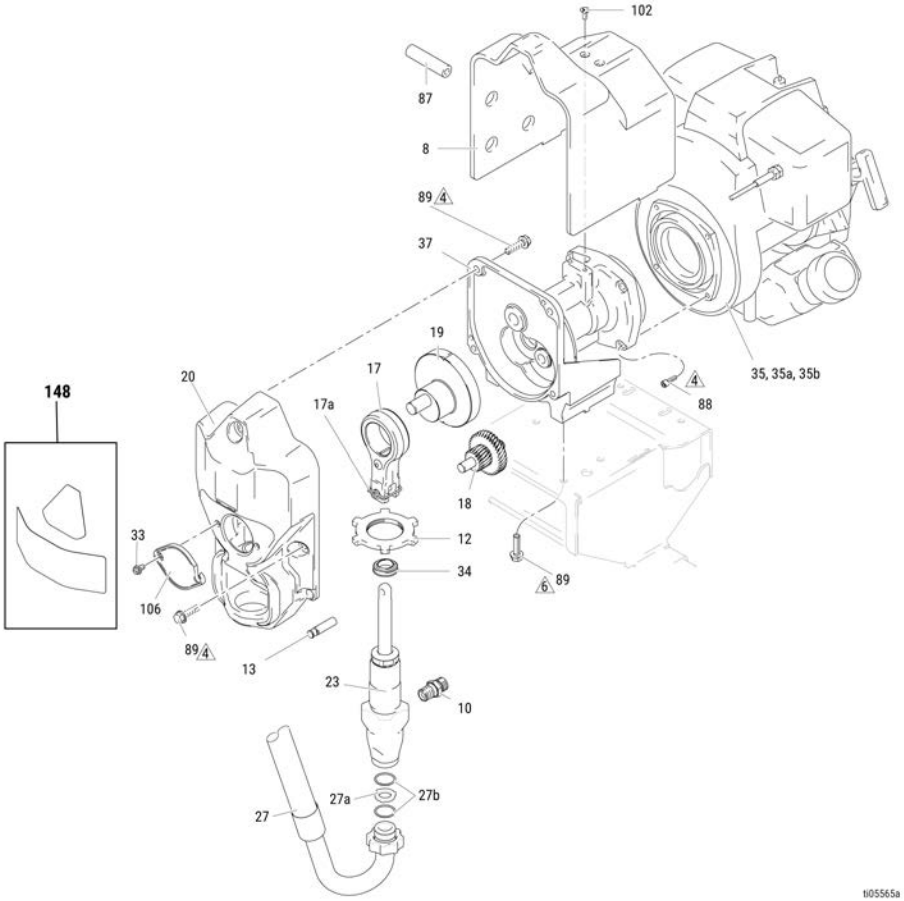



Figure 14-2: Engine Parts Diagram

| REF. | PART | DESCRIPTION | QTY. |
|---|---|---|---|
| 8 | 287582 | KIT, cover, field lazer | 1 |
| 10 | 162453 | NIPPLE, 1/4 npsm x ¼ npt | 1 |
| 12 | 195150 | NUT, jam, pump | 1 |
| 13 | 195175 | PIN, straight, headless | 1 |
| 17 | 243221 | KIT, rod, connecting, *includes 13, 17a* | 1 |
| 17a | 195512 | Retainer, pin | 1 |
| 18 | 243219 | KIT, gear, combination | 1 |
| 19 | 243218 | KIT, shaft, crank | 1 |
| 20 | 243220 | KIT, housing, drive, *includes 33, 34* | 1 |
| 23 | 17M873 | KIT, pump, displacement, *includes 10, 13, 23a* | 1 |
| 23a | 115099 | FITTING, garden | 1 |
| 33 | 115492 | SCREW, mach, slot hex wash hd | 2 |
| 34 | 115491 | WIPER, rod | 1 |
| 35 | 287583 | KIT, engine | 1 |
| 35a | 25R083 | KIT, carburetor, engine, S100 | 1 |
| 35b | 25R080 | KIT, gasket, carburetor, S100 | 1 |
| 37 | 287546 | KIT, housing, clutch | 1 |
| 87 | 119556 | SPACER | 3 |
| 88 | 117029 | SCREW, shcs m6 x 25 | 4 |
| 89 | 115495 | SCREW, mach, hex washer hd | 8 |
| 102 | 106078 | SCREW, flat head | 2 |
| 106 | 195099 | COVER, access | 1 |
| 148 | 2014739 | KIT, brand label, S100 | 1 |

## GUN ARM PARTS

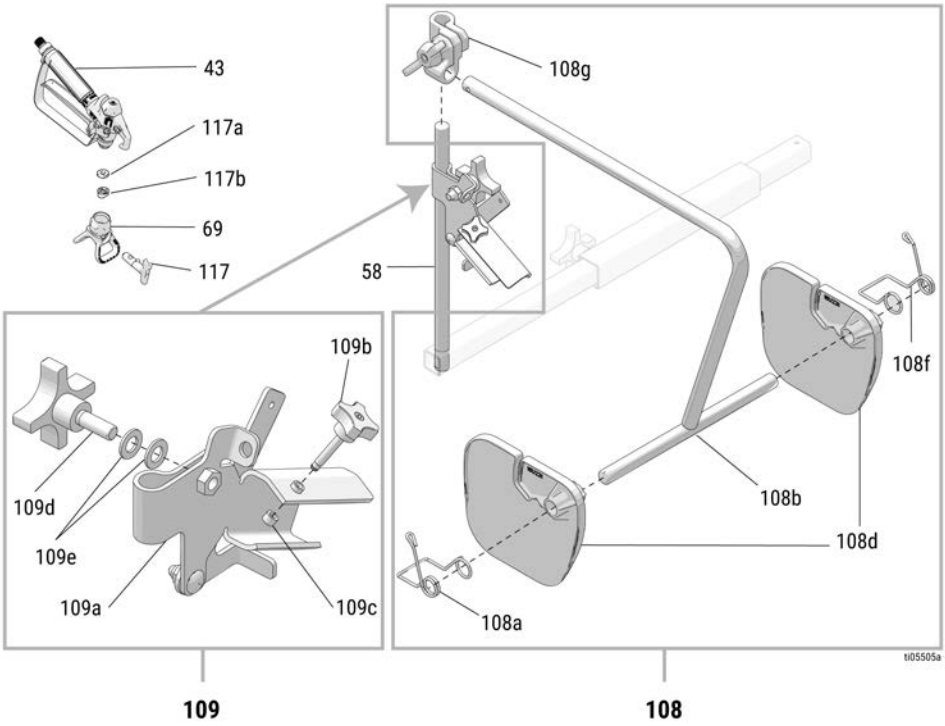



Figure 14-3: Gun Arm Parts Diagram

| REF. | PART | DESCRIPTION | QTY. |
|---|---|---|---|
| 43 | 243011 | KIT, gun, spray, SG2 | 1 |
| 58 | 287453 | BRACKET, support, extension | 1 |
| 69 | 243161 | KIT, guard, RAC 5 | 1 |
| 108 | 249081 | KIT, spray shield, *includes 108a - 108g* | 1 |
| 108 a | 15F142 | GUIDE, wire, right shield | 1 |
| 108 b | 287494 | BAR, guide shield | 1 |
| 108 d | 16U231 | SHIELD, guide | 2 |
| 108f | 15F143 | GUIDE, wire, left shield | 1 |
| 108 g | 287566 | KIT, clamp | 1 |
| 109 | 287529 | KIT, gun holder | 1 |
| 109 a | | GUN HOLDER | 1 |
| 109 b | 119619 | KNOB | 1 |
| 109 c | 119666 | PAD, swivel | 1 |
| 109 d | 111145 | KNOB, pronged | 1 |
| 109 e | 112914 | WASHER, plain | 2 |
| 117 | LL5421 | TIP, spray RAC 5, striping, *includes 117a, 117b* | 1 |
| 117 a | 115524 | GASKET | 1 |
| 117 b | 195558 | SEAT, cylinder | 1 |

## FILTER PARTS

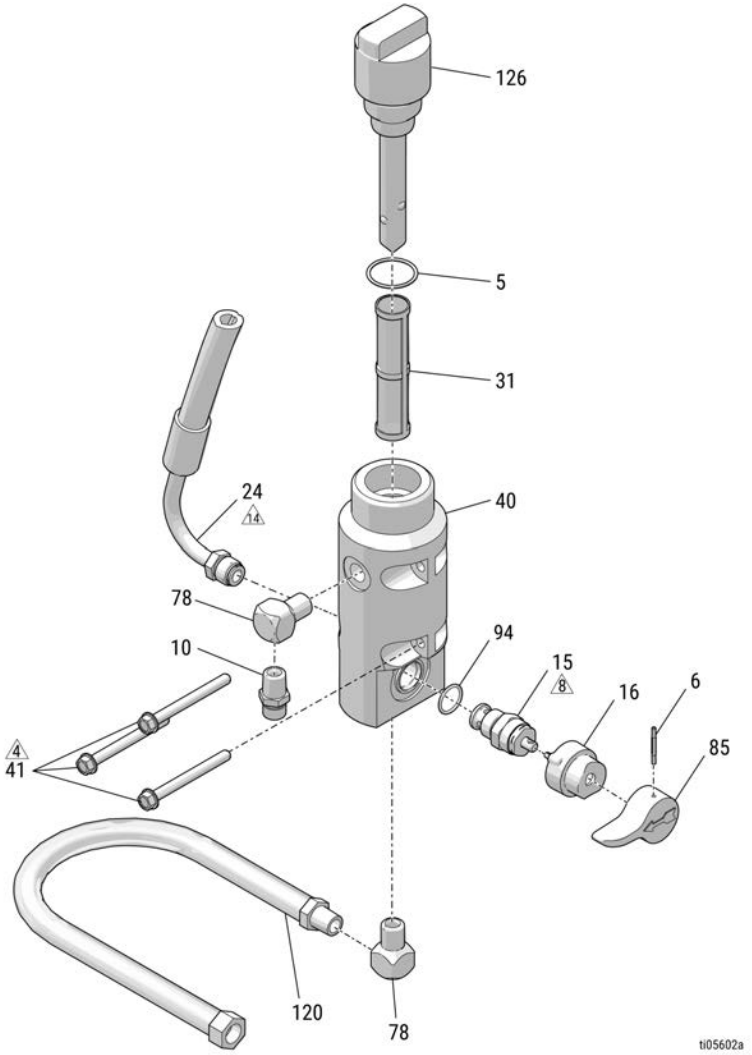



Figure 14-4: Filter Parts Diagram

| REF. | PART | DESCRIPTION | QTY. |
|---|---|---|---|
| 5 | 117828 | KIT, o-ring | 1 |
| 6 | 111600 | PIN, grooved | 1 |
| 10 | 162453 | FITTING, 1/4 npsm x 1/4 npt | 1 |
| 15 | 287545 | KIT, repair, prime valve | 1 |
| 16 | 224807 | BASE, valve | 1 |
| 24 | 24V688 | HOSE, drain | 1 |
| 31 | 246384 | FILTER, fluid, 60 mesh, original equipment | 1 |
|  | 246425 | 30 mesh | 1 |
|  | 246382 | 100 mesh | 1 |
|  | 246383 | 200 mesh | 1 |
| 40 | 15E830 | MANIFOLD, filter | 1 |
| 41 | 119525 | SCREW, thread-forming | 3 |
| 78 | 100840 | ELBOW | 2 |
| 85 | 187625 | HANDLE, valve, drain | 1 |
| 94 | 109576 | O-RING (INC w/ 15) | 1 |
| 120 | 287003 | HOSE, cpld, 1/4 (f) x 11 in. HP | 1 |
| 126 | 287902 | KIT, cap, filter | 1 |

## TORQUE SPECIFICATIONS

| | |
|---|---|
| 4 | 120 ± 10 in-lbs (12.4–14.7 N·m) |
| 5 | 50 ± 10 in-lbs (4.5–6.8 N·m) |
| 6 | 100 ± 10 in-lbs (10.2–12.4 N·m) |
| 8 | 240 ± 20 in-lbs (24.9–29.4 N·m) |
| 14 | 25 - 30 ft-lbs (33.9–40.7 N·m) |
| 28 | 19 ± 2 ft-lbs (23–28.5 N·m) |

## SPRAY TIP SELECTION

| LINE WIDTH | SPRAY TIP |
|---|---|
| 2 in. | LL5217 |
| 4–8 in. and Stenciling | LL5421 |
| 8–12 in. | LL5627 |

## CALIFORNIA PROPOSITION 65

**CALIFORNIA RESIDENTS**

**WARNING** Cancer and reproductive harm — www.P65warnings.ca.gov.

## NOTES

## GRACO STANDARD WARRANTY

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

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

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

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.** Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

**GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO.** These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

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

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

**GRACO INC. AND SUBSIDIARIES I P.O. BOX 1441 I MINNEAPOLIS MN 55440-1441 I USA**

Graco Headquarters: Minneapolis, MN USA | International Offices: Australia, Belgium, China, Japan, Korea | Toll Free Phone Number: 1-800-690-2894 (Contractor Division) and 1-800-328-0211 (Industrial Division) | For patent information, see graco.com/patents

©2025 Graco Inc. All written and visual data in this document are based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice. All Graco manufacturing locations maintain ISO 9001:2015 certifications, each certified by accredited certification bodies. Original Instructions. This manual contains English. Revision A, December 2025