

## RoadLazer™ RoadPak™ Line Striping System

3A1214A

ENG

**- For the Application of Road Marking and Reflective Coatings -  
- For Professional Use Only -**

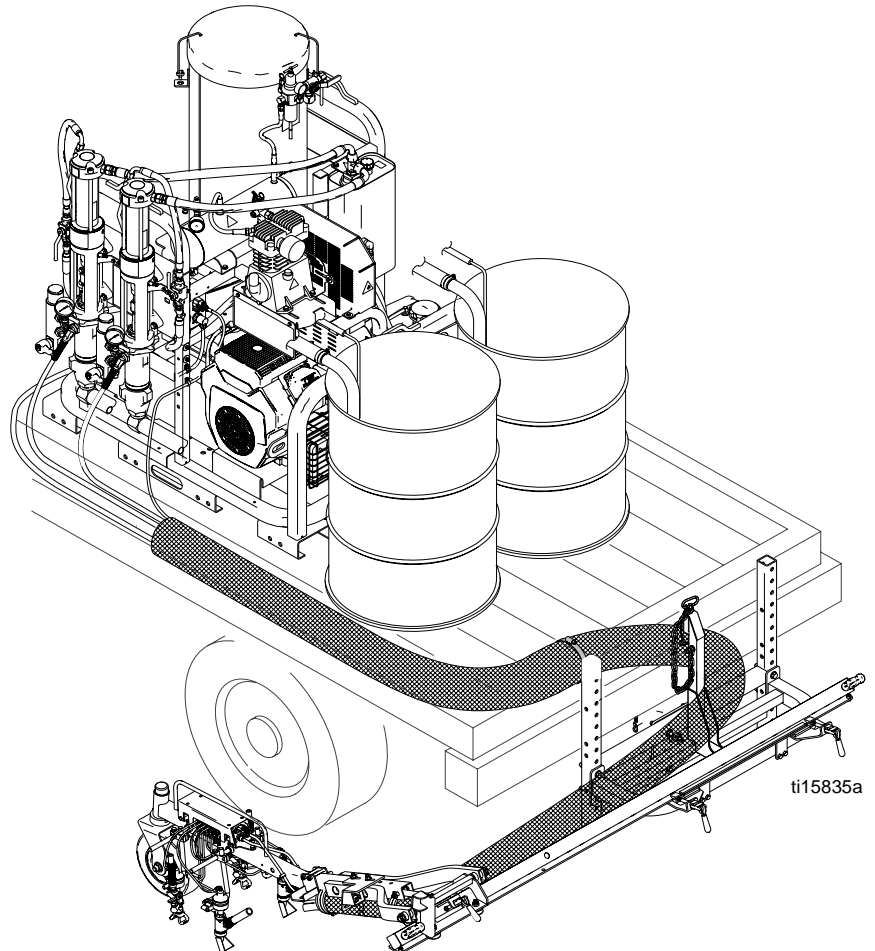
### List of Models (see page 2)

2900 psi (20 MPa, 200 bar) Maximum Working Pressure



### Important Safety Instructions

Read all warnings and instructions in this manual. Save these instructions.



## Models









Ref.	Model Number	Description
1	24G624	1 Pump RoadPak
2	24G625	2 Pump RoadPak
3	24G626	Single Hitch Mounting Frame
4	24G627	RoadPak Slide in Mounting Frame
5	24G628	1 Pump RoadPak Gun Arm
6	24G629	2 Pump RoadPak Gun Arm
7	24G630	Gun Arm Beam
8	24G632	RoadLazer/RoadPak Control
9	24G633	Road View Camera System
10	24G634	RoadPak Pointer System

## Complete Assemblies

Part Number	Description
24G677	RoadPak System Option 1 (1, 3, 5, 7, 8, 10)
24G679	RoadPak System Option 2 (1, 3, 5, 7, 8, 9, 10)
24G681	RoadPak System Option 3 (1, 4, 5, 7, 8, 10)
24G683	RoadPak System Option 4 (1, 4, 5, 7, 8, 9, 10)
24G685	RoadPak System Option 5 (2, 3, 6, 7, 8, 10)
24G687	RoadPak System Option 6 (2, 3, 6, 7, 8, 9, 10)
24G689	RoadPak System Option 7 (2, 4, 6, 7, 8, 10)
24G691	RoadPak System Option 8 (2, 4, 6, 7, 8, 9, 10)

# Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <b>WARNING</b>	
 	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in <b>work area</b> can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in well ventilated area.</li> <li>• Do not fill fuel tank while engine is running or hot; shut off engine and let it cool. Fuel is flammable and can ignite or explode if spilled on hot surface.</li> <li>• Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.</li> <li>• Ground all equipment in the work area. See <b>Grounding</b> instructions.</li> <li>• Use only grounded hoses.</li> <li>• Hold gun firmly to side of grounded pail when triggering into pail.</li> <li>• If there is static sparking or you feel a shock, <b>stop operation immediately</b>. Do not use equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul>
  	<p><b>SKIN INJECTION HAZARD</b></p> <p>High-pressure fluid from dispensing device, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. <b>Get immediate SURGICAL TREATMENT.</b></p> <ul style="list-style-type: none"> <li>• Keep clear of fluid outlet and leaks.</li> <li>• Use guns, hoses and other components with pressure ratings equal to or higher than the pump rating.</li> <li>• Follow the <b>Pressure Relief Procedure</b> before servicing or cleaning.</li> <li>• Do not point dispensing device at anyone or at any part of the body.</li> <li>• Do not stop or deflect leaks with your hand, body, glove, or rag.</li> <li>• Tighten all fluid connections before operating the equipment.</li> <li>• Check hoses and couplings daily. Replace worn or damaged parts immediately.</li> </ul>
 	<p><b>MOVING PARTS HAZARD</b></p> <p>Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> <li>• Keep clear of moving parts.</li> <li>• Do not operate equipment with protective guards or covers removed.</li> <li>• Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> and disconnect all power sources.</li> </ul>

# WARNING



## EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Data** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS from distributor or retailer.
- Do not leave the work area while equipment is energized or under pressure. Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.



## CARBON MONOXIDE HAZARD

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

- Do not operate in an enclosed area.



## 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 MSDSs 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.



## BURN HAZARD

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

- Do not touch hot fluid or equipment.



## PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This 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.

# Introduction and General Information

## Introduction

This manual and those listed below provide pre-setup requirements, parts lists, setup, operation, and maintenance instructions for the RoadLazer system. This manual includes instructions for a 2-pump system. For 1-pump systems, all parts remain the same with the exception of plugged ports for missing pumps and hoses.

## General Information

The RoadLazer is mounted to a vehicle and is used to stripe up to two stripes in one or two colors with glass beading.

The RoadLazer consists of a Programmable Skipline Controller, Displacement Pumps, two Paint Spray Guns, and two Bead Spray Guns.

### Programmable Skipline Controller

The Programmable Skipline Controller consists of the control box and a 30 ft cable. It is the main control for the RoadLazer system and turns the spray guns and accessories on and off.

### Front Guidance System

The Front Mechanical Guidance System provides the user with a pointer for alignment on either the left or right side of the vehicle.

### Video Guidance System™ (optional)

The Video Guidance System provides the user with video of a bore sight view for alignment on either the left or right side of the tow vehicle. The system consists of a 9 in. monitor, interfacing cables, video camera and mounting bracket.

### RPS 2900 Hydraulic Pumps

The RPS 2900 Hydraulic Pump supplies paint to the spray guns. There are two displacement pumps. Two displacement pumps allows the user to have a two-color system.

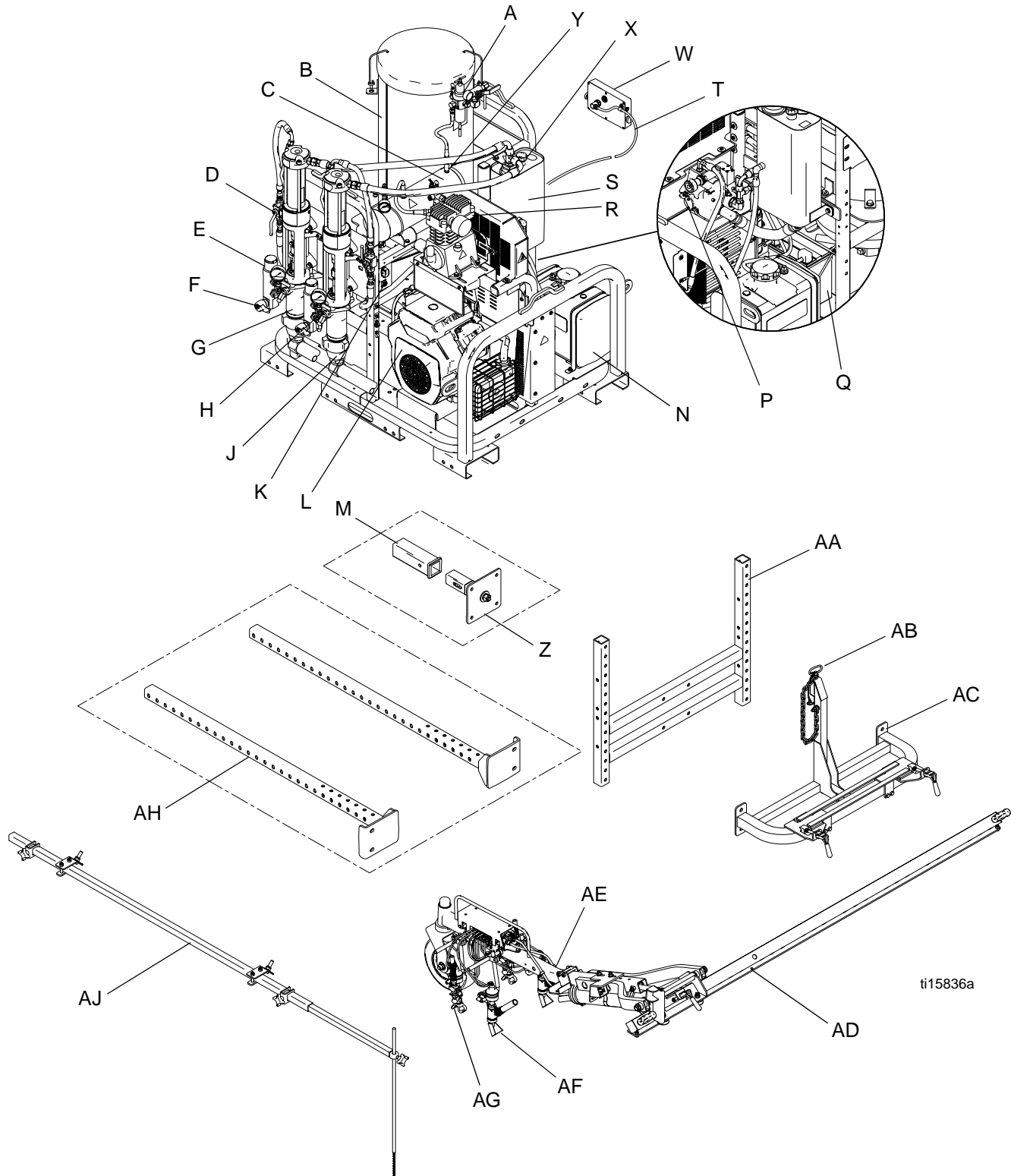
### Paint Spray Guns

The Paint Spray Guns are pneumatically triggered to spray paint stripes when commanded by the Programmable Skipline Controller.

### Bead Spray Guns

The Bead Spray Guns are pneumatically triggered to spray reflective materials when commanded by the Programmable Skipline Controller.

# Component Identification



# Component Function

<b>A</b>	Air Regulator	Allows regulation of the bead tank air pressure
<b>B</b>	Bead Tank	Holds up to 36 gallons of reflective materials or element for single or double drop beading
<b>C</b>	Air Accumulator Tank	Helps reduce air temperature from compressor
<b>D</b>	Hydraulic Valve	Valve to shut off/on the hydraulic fluid to the hydraulic motor
<b>E</b>	Fluid Filter	Filters fluid between the fluid source and the spray gun
<b>F</b>	Pressure Drain Valve	Relieves Fluid Pressure when open
<b>G</b>	RPS 2900 Hydraulic Pump	Provides fluid to be sprayed through the spray gun
<b>H</b>	Fluid Outlet	Supplies fluid from the displacement pump to the spray gun
<b>J</b>	Fluid Inlet	Displacement Pump entry for fluid from the paint drums (paint drums not shown)
<b>K</b>	Electrical Junction Box	Allows the user access to electrical system
<b>L</b>	18 HP Engine	Powers the hydraulic pump and the air compressor
<b>M</b>	2 in. Hitch Receiver (not provided)	Needed to hook-up the gun arm to the back of a truck
<b>N</b>	Fuel Tank	Holds 6 gallons (23 liters) of gasoline
<b>P</b>	Hydraulic Pressure Control Knob	Provides adjustment of hydraulic pressure (clockwise increases pressure)
<b>Q</b>	Battery	Provides power to start the Engine and Control Box
<b>R</b>	Compressor	Provides an air supply for the solenoids and pressurizes the bead tanks
<b>S</b>	Hydraulic Reservoir	Holds 4 gallons (15.1 liters) of hydraulic oil for the hydraulic pump
<b>T</b>	I/O Cable	Carries electronic control signals from the Controller to the RoadLazer
<b>W</b>	Programmable Skipline Controller	Allows the user to program the operation of the RoadLazer
<b>X</b>	Breather Cap	Provides a means for hydraulic reservoir ventilation, oil check, and fill
<b>Y</b>	Air Pressure Quick Release	Allows the user to use pressurized air
<b>Z</b>	Hitch Insert	Allows the user to connect the gun arm to a single hitch vehicle
<b>AA</b>	Mounting Bracket	Allows the user to connect the gun arm mount to the optimum height
<b>AB</b>	Stow Bracket Pin	Secures the spray gun boom arm when the RoadLazer is in transport mode
<b>AC</b>	Gun Arm Mount	Supports the main beam and the gun arm
<b>AD</b>	Slide Beam	Supports the spray gun boom arm
<b>AE</b>	Spray Gun Boom Arm	Allows striping on either side of the vehicle at adjustable distances
<b>AF</b>	Bead Spray Gun	Sprays beads when commanded by the Controller
<b>AG</b>	Paint Spray Gun	Sprays fluid when controller by the Controller
<b>AH</b>	Slide in Mounting Frame	Allows user to connect the gun arm to the RoadPak frame
<b>AJ</b>	RoadPak Pointer System	Allows the user an alignment tool

# Setup

## Charge Battery

If the battery is newly purchased or has not been used for a long time, charge it before you use it.

## Installing RoadLazer Into Vehicle



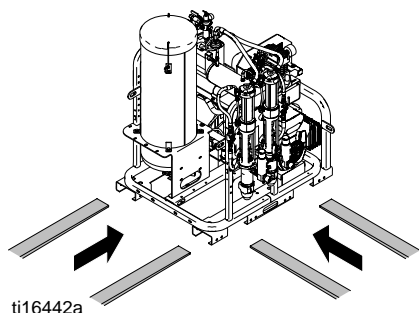
RoadLazer needs to be properly secured to prevent it from moving during transportation and operation.

Paint drums are heavy and could shift from side to side when the vehicle is cornering. The paint drums could fall from the vehicle and cause injury or death. Secure the drums when the vehicle is in transport or spraying.

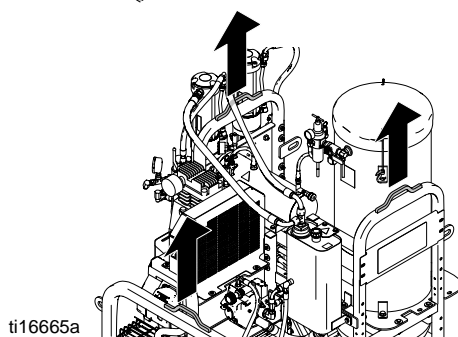
Paint could splash from the paint drum bung adapters when the paint drums are full and the vehicle is moving. Do not overfill the paint drums.

## RoadPak Installation (24G624, 24G625)

Load RoadPak into vehicle using a forklift or a hoist that is rated for the weight capacity of the RoadPak. For RoadPak weight information see **Technical Data**, page 27.

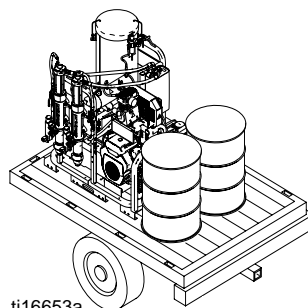


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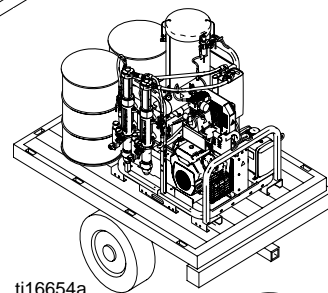


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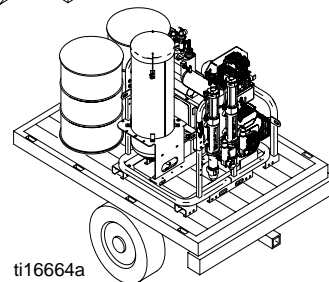
The RoadPak can be mounted in the front or rear of the vehicle bed as well as in any orientation desired. The base of the RoadPak is 39.5 in. x 49.5 in. (1.0m x 1.25m).



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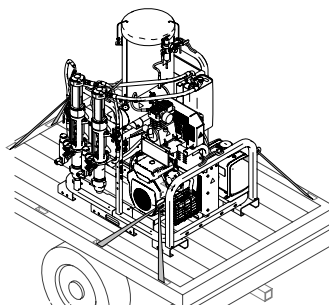


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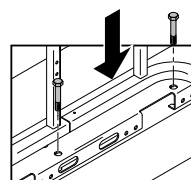


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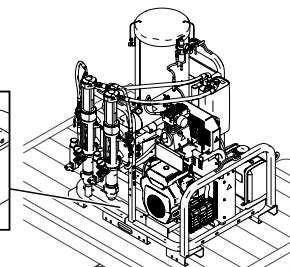
After mounting the RoadPak on the vehicle, firmly secure the RoadPak to the vehicle using the tie-down brackets at all four corners, or by bolting the RoadPak through the bed of the truck to the frame in all four locations.



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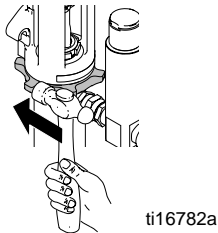




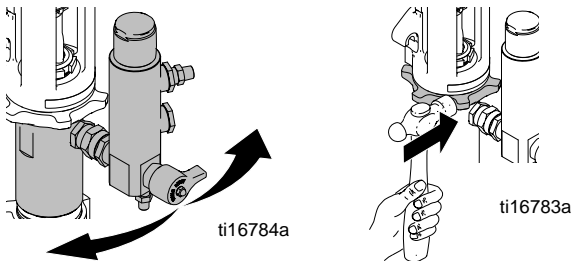
## Filter Orientation

After mounting and securing the RoadPak to the vehicle, position the filter assemblies as desired.

1. Use a hammer to loosen the large jam nut on the pump assembly.

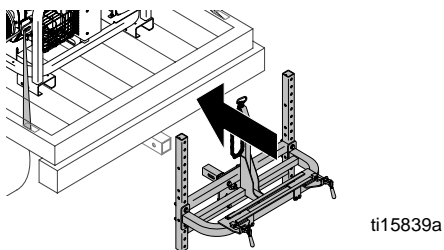


2. Rotate the filter assembly to the desired orientation and use a hammer to tighten the jam nut and lock the assembly into place.

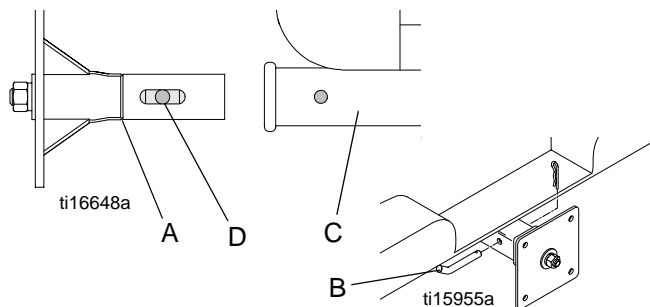


## Gun Arm Bracket Mount

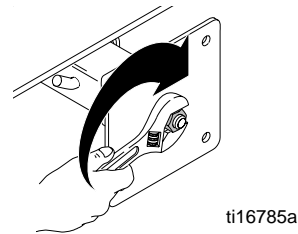
### Single Hitch Mounting Bracket (24G626) Installation (Option 1)



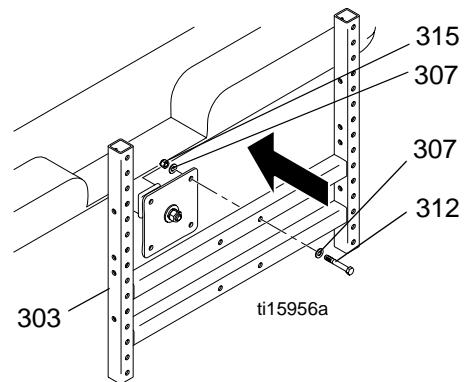
1. Install hitch insert bracket (A) into receiver (C). Ensure hitch pin (B) goes through tightening rod hole (D).



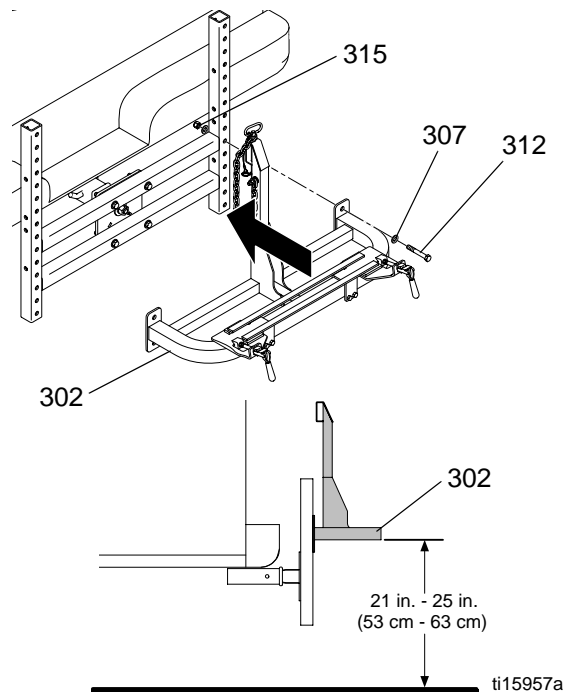
2. Tighten nut until the hitch insert bracket is pulled securely to the receiver and no play is seen between the two parts.



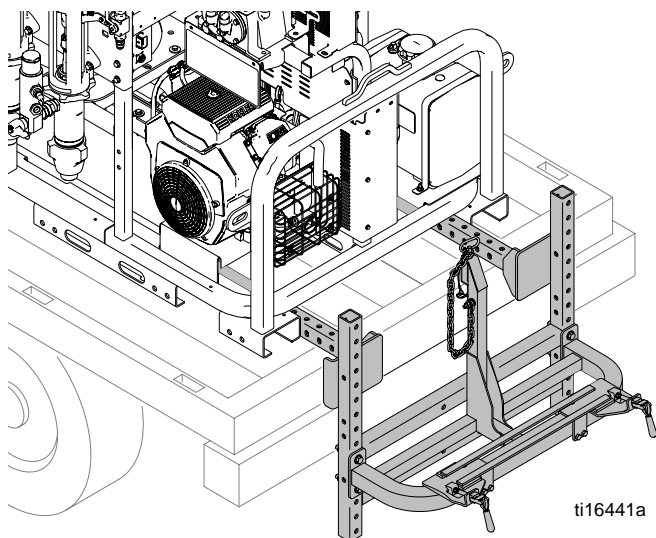
3. Install the height adjustment bracket (303) to the hitch insert bracket with bolts (312), washers (307), and nuts (315). Ensure the height adjustment bracket is installed level.



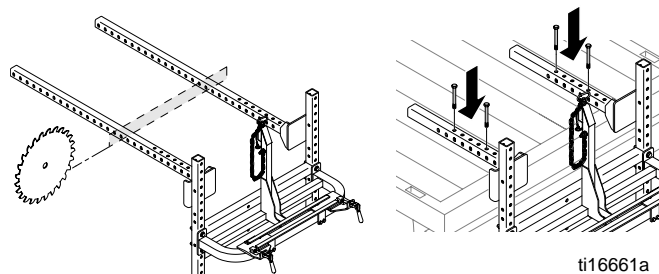
4. Install stow bracket (302) to height adjustment bracket (303) with bolts (312), washers (307), and nuts (315). Locate the bottom of the stow-bracket 21-in. to 25-in. (53cm - 63cm) from the ground. Ensure the stow-bracket is installed level.



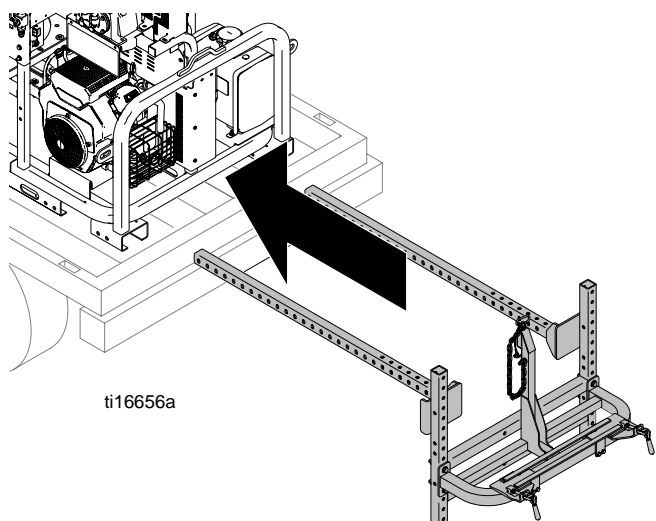
## RoadPak Mounting Bracket (24G627) Installation (Option 2)



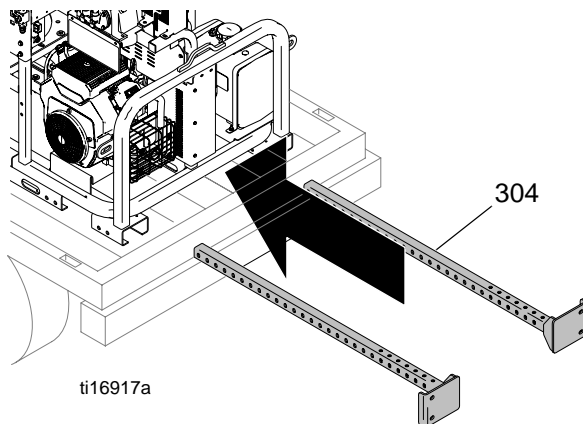
**NOTE:** Cutting the RoadPak mounting arms and bolting them through the bed to the frame of the vehicle is an option in addition to the following mounting techniques:



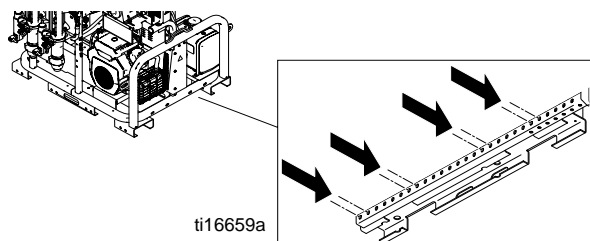
### Narrow Orientation



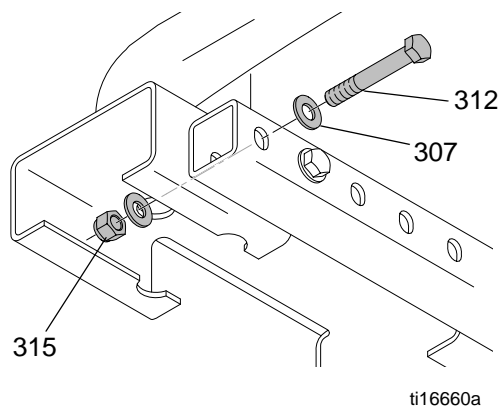
1. Slide the RoadPak mounting arms (304) between the two fork lift channels in the frame.



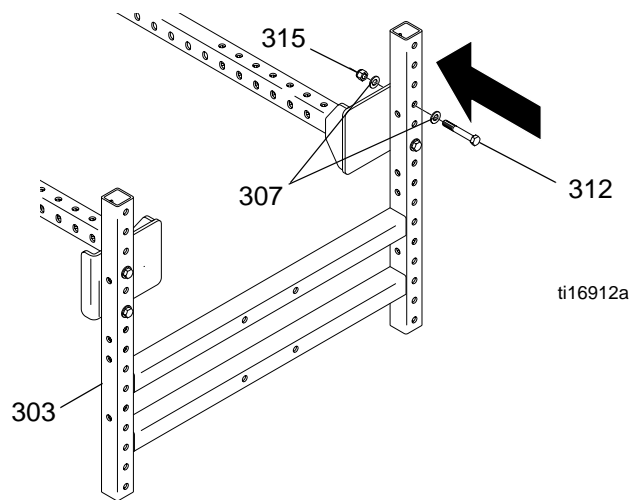
2. Depending on where the RoadPak is located on the vehicle determines which holes to bolt through on the RoadPak frame. There are 8 possible mounting holes for each mounting arm. Fasten to at least two holes on each side.



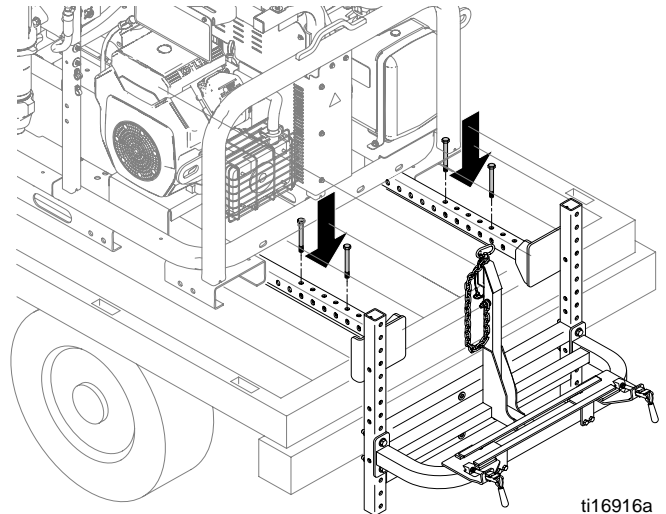
3. Hand-tighten bolts (312), nuts (315), and washers (307) to mounts.



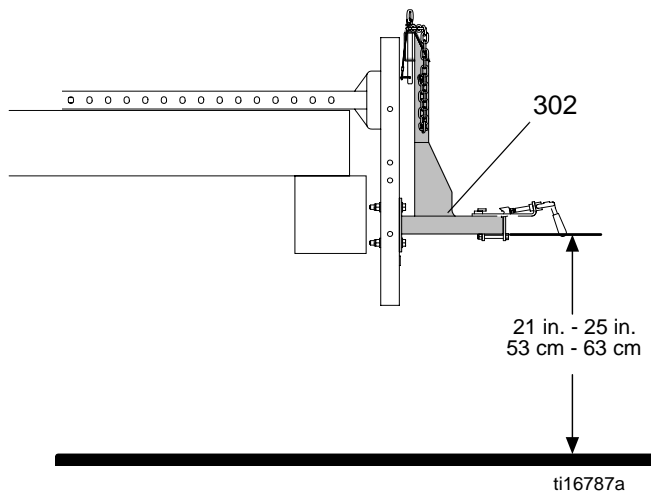
4. Install the height adjustment bracket (303) to the RoadPak mounting arms (304) with bolts (312), washers (307), and nuts (315).



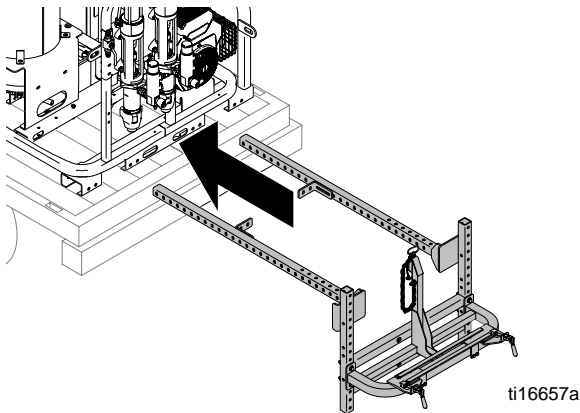
**NOTE:** It is recommended to bolt the mounting bracket through the bed of the vehicle to the frame of the vehicle.



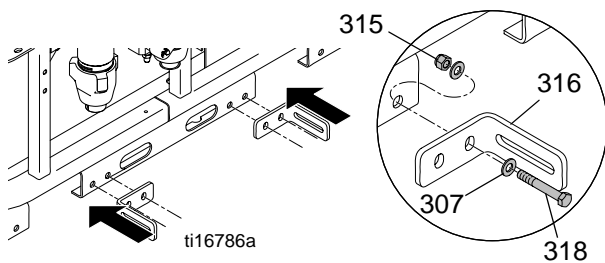
5. Use wrench to tighten all bolts to lock into place (torque to 28 ft-lb).
6. Install stow-bracket (302) to height adjustment bracket (303). Locate the bottom of the stow-bracket 21 in. to 25 in. (53cm - 63cm) from the ground. Ensure the stow-bracket is installed level.



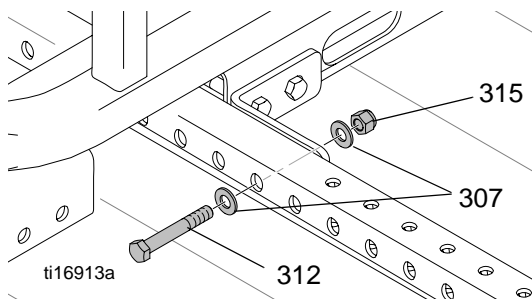
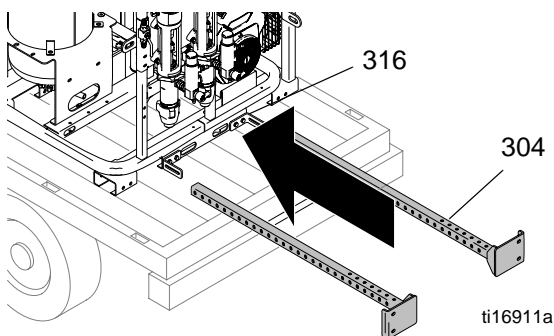
## Wide Orientation



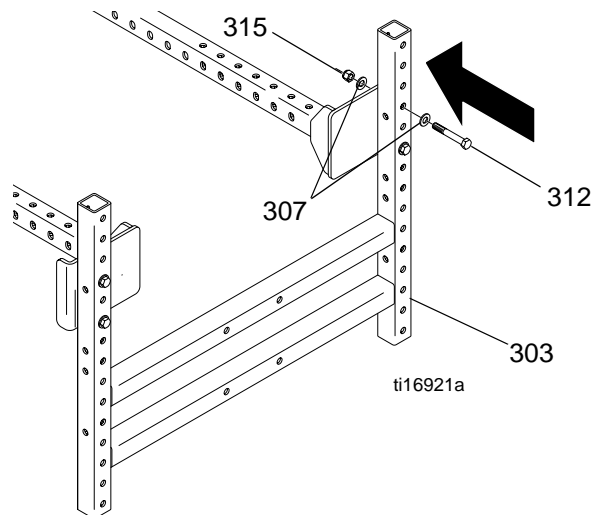
1. Bolt brackets (316) to the RoadPak in four locations with bolts (312), washers (307), and nuts (315). It is ideal to locate the brackets as far apart as possible to provide optimal support. The mounting location of the brackets will depend on where the RoadPak is mounted on the vehicle.



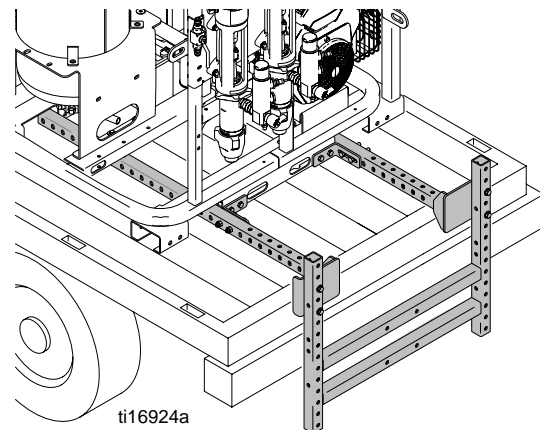
2. Slide the RoadPak mounting brackets (304) through the cut out holes in the frame and hand-tighten the mounting arms to the brackets with bolts (312), washers (307), and nuts (315).



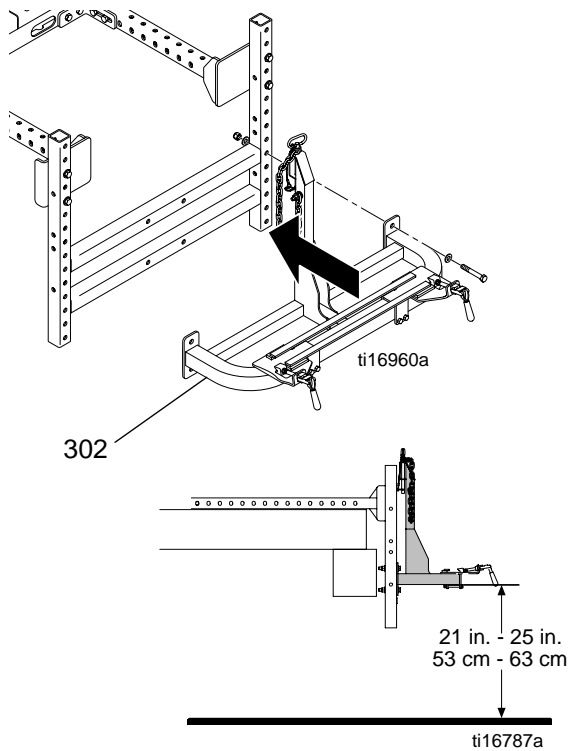
3. Install the height adjustment bracket to the RoadPak mounting arms (303).



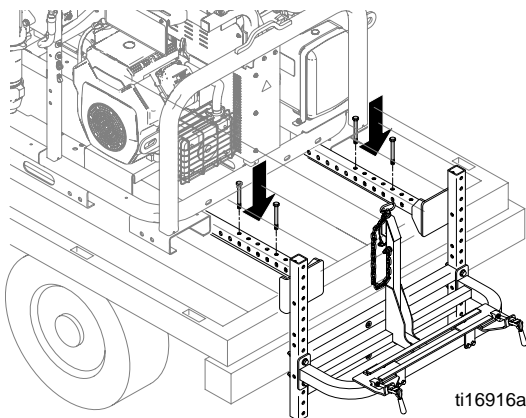
4. Use wrench to tighten all bolts to lock into place (torque to 28 ft-lb).



5. Install stow-bracket (302) to height adjustment bracket (303). Locate the bottom of the stow-bracket 21 in. to 25 in. (53cm - 63cm) from the ground. Ensure the stow-bracket is installed level.



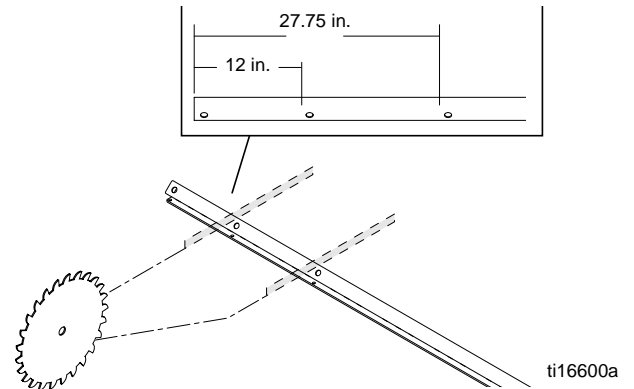
**NOTE:** It is recommended to bolt the mounting bracket through the bed of the vehicle to the frame of the vehicle.



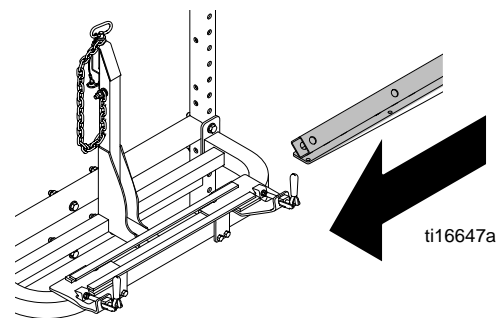
## Slide Beam Installation (24G630)

The slide beam is 87.75 in. (2.2m) long. The Slide Beam is shipped to accommodate wider vehicles. The beam can be cut down to 75.75 in. (1.9m) long or 60 in. (1.5m) long to accommodate different vehicle sizes.

1. To shorten the beam to 75.75 in. long, cut 12 in. from the end the beam towards the next hole on the beam. To shorten the beam to 60 in., cut 27.75 in. from the end of the beam towards the third hole as shown below.

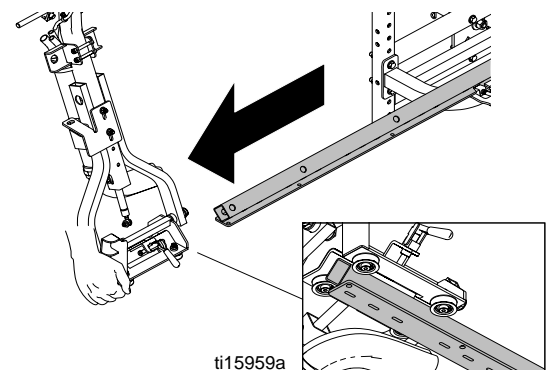


2. After determining the desired length, slide the beam into the bracket on the channel.

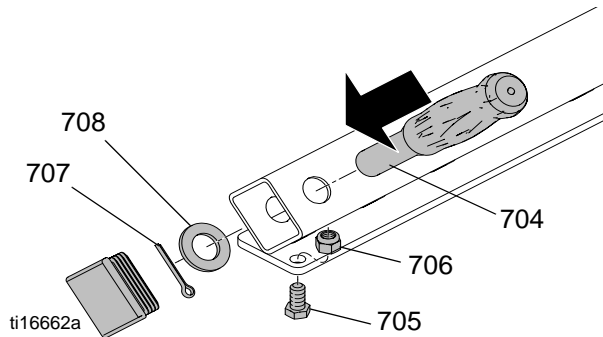


## Gun Arm Installation (24G628, 24G629)

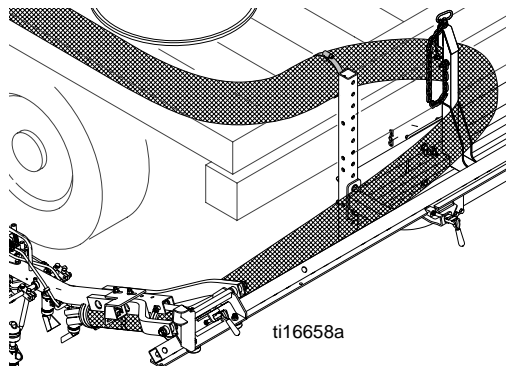
1. Position the gun arm assembly next to the vehicle.
2. Pull the slide beam out to the side of the vehicle where the gun arm is located. Lift the gun arm and hold the traverse bracket in the position shown below. Slide the beam through the wheels so they are mounted on the track of the slide beam as shown below.



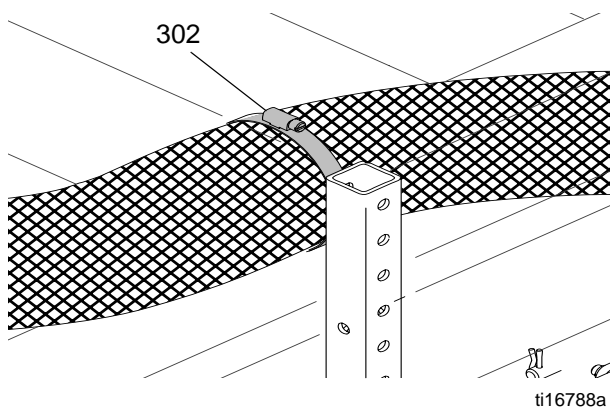
3. Attach the handle (702) to each end of the slide beam. Press the cotter pin (707) through the handle to hold it in place. Fasten nut (706) and bolt (705) through the slide beam on both ends to act as stops on the channel.



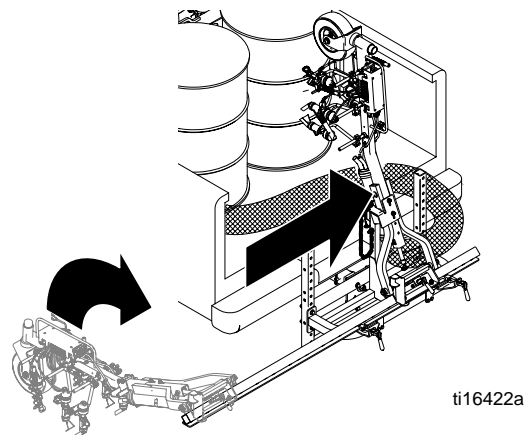
4. Route hoses for the gun arm before moving arm to prevent hoses from being pinched.



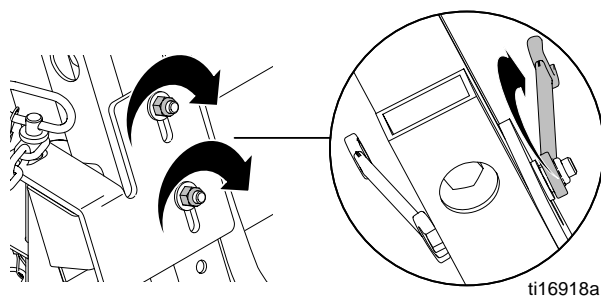
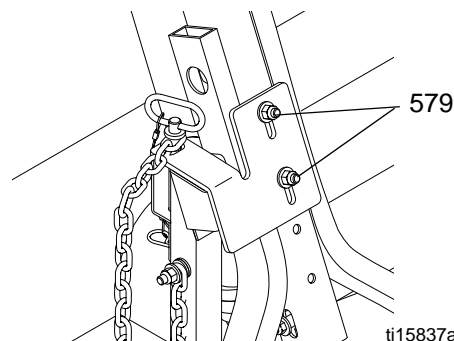
5. Position gun arm at the end of the slide beam and secure the hose bundle to the height adjustment bracket with a rubber pad and hose clamp (320).



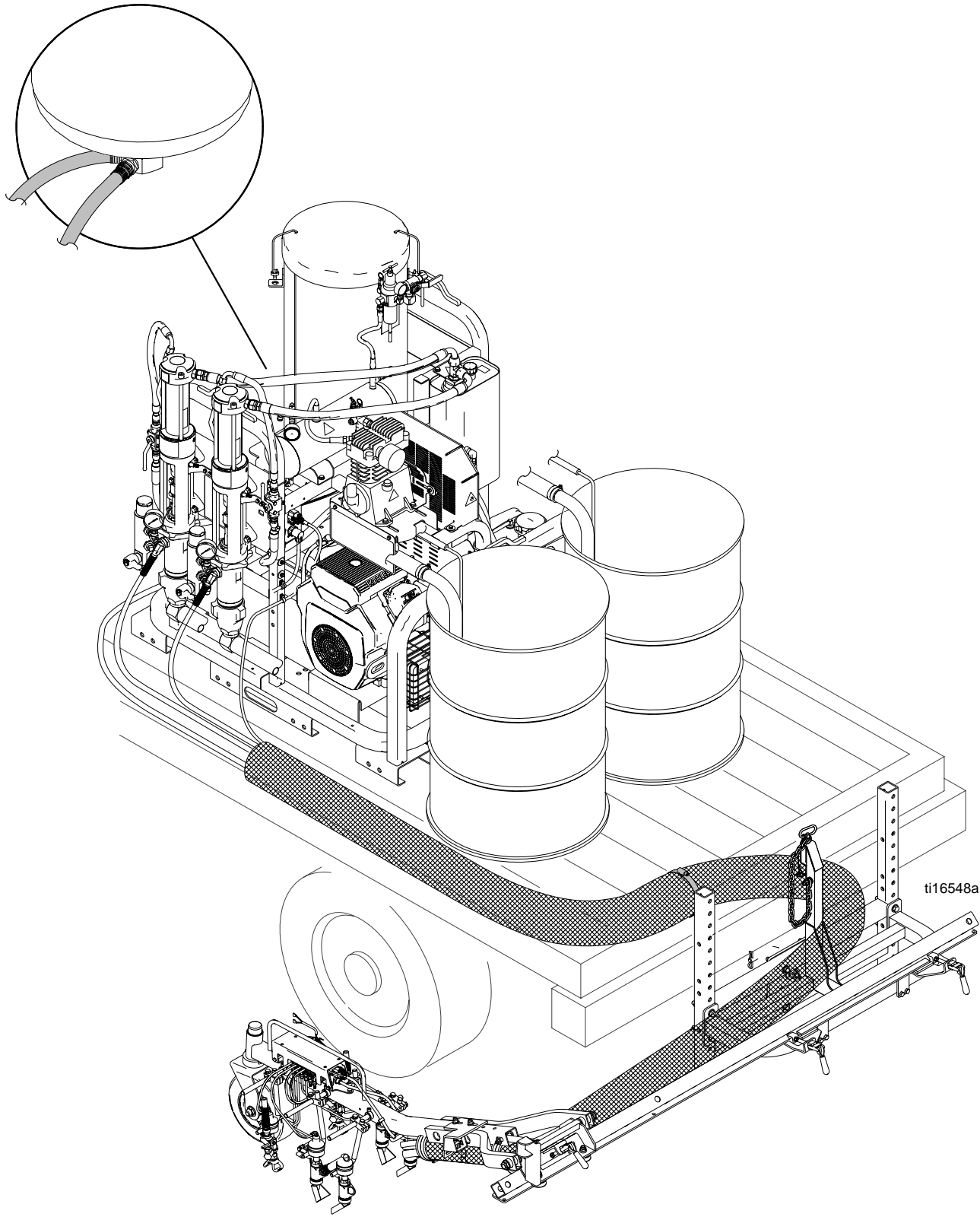
6. Lift gun arm to a vertical position and slide it over the stow bracket.



7. Rest the gun arm on the stow bracket and position the stop to sit properly on the stow bracket. Slide the pin (321) through the gun arm bracket and stow bracket to secure the gun arm. Tighten the two bolts (579) down to lock the gun arm bracket into place.

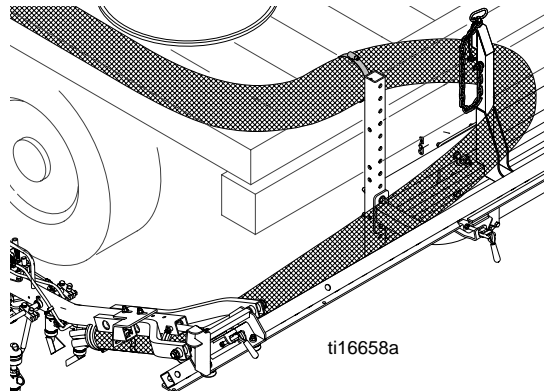


# Hose Routing to Pumps and Tanks

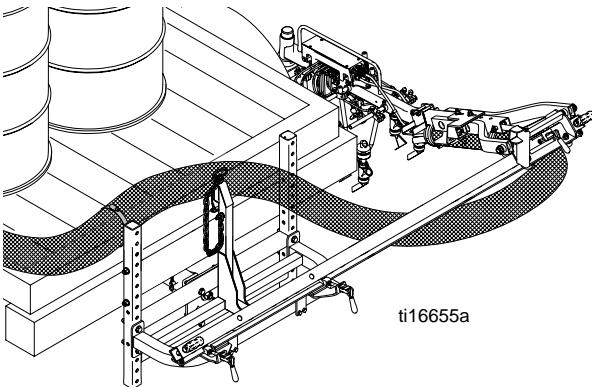


## Hose Routing

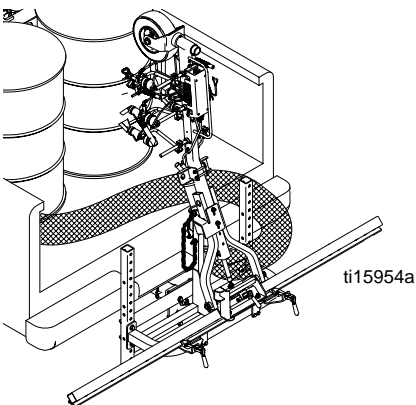
1. Pull slide beam out to one side of the vehicle. Pull gun arm out and lower it to make sure the hose bundle has been secured at the proper location to ensure full movement for the gun arm to move from one side to the other. Make adjustments to the hose clamp that secures the bundle as needed.



2. Lift gun arm back to the stow position. Pull slide beam out to other side of vehicle and pull the gun arm to that side to ensure the hose length is adequate for full movement.

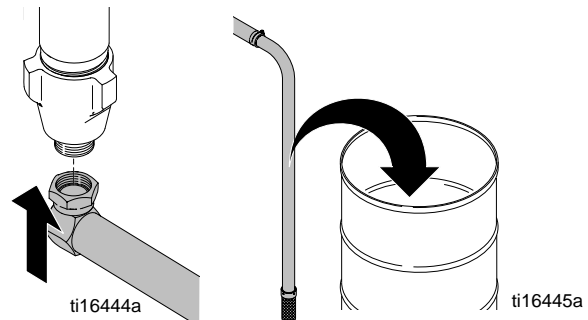


3. Put gun arm back to the stow position and pin it into place. Center the slide beam to the vehicle. Lock the slide beam and gun arm into place by engaging the clamps for each.

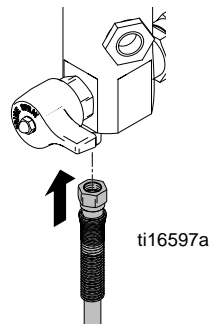


## Hose Connection

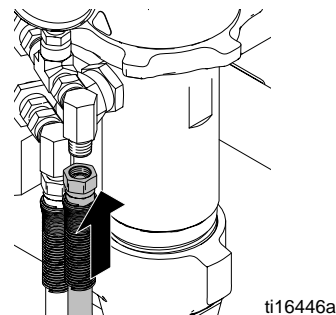
1. Install suction tubes to the RPS 2900 pump and route to paint drum.



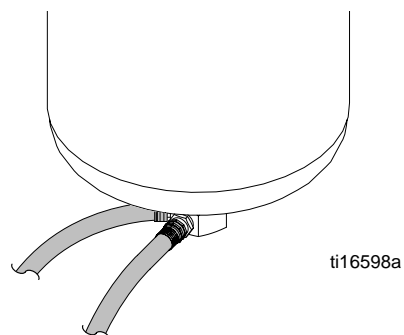
2. Install return line from the RPS 2900 filter assembly and route back to the paint drum.



3. Install paint lines to RPS 2900 filter assemblies. For a two color system, route the hose from paint gun 1 to pump 1 and route one hose from paint gun 2 to pump 1. Route the second hose from paint gun 2 to pump 2.

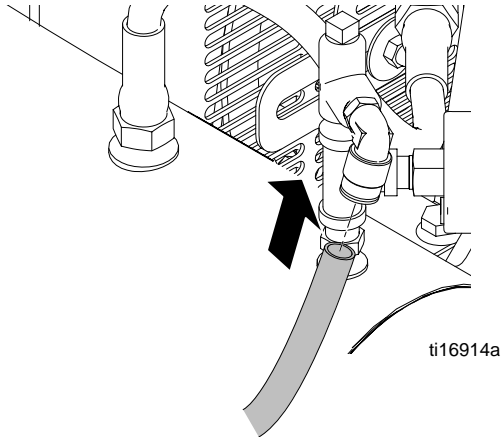


4. Install bead lines to the bead tank.



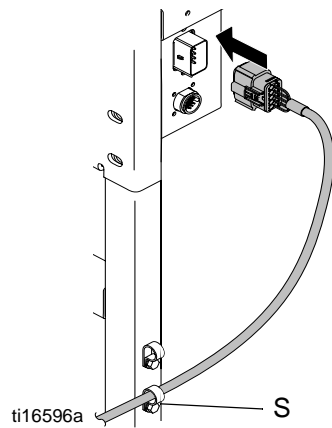


5. Install air hose to quick connect fitting on air tank.

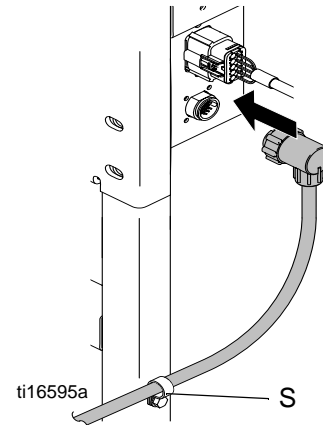


## Electrical Cable Connections

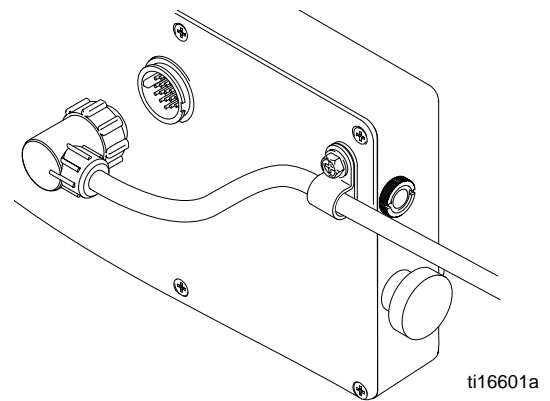
1. Connect gun arm cable to the junction box. Fasten cable to cable clamp for strain relief (S) on the connection.



2. Connect control cable to the junction box. Fasten cable to cable clamp for strain relief (S) on the connection.

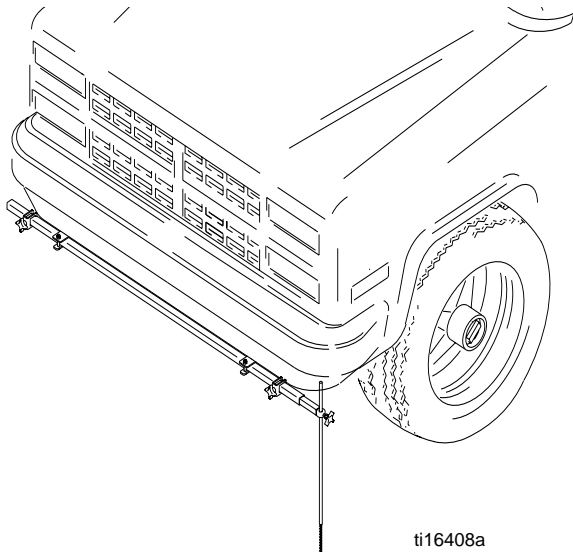


3. Route the control cable to the cab of the vehicle without pinching the cable. Connect the cable to the control box. Route cable through the cable clamp for strain relief on the connection.

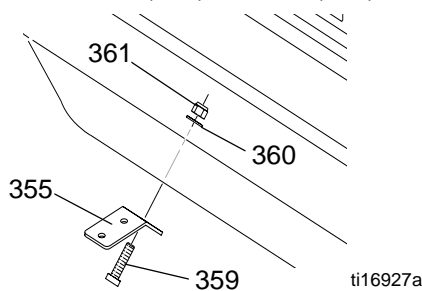


## Install Front Pointer Instructions

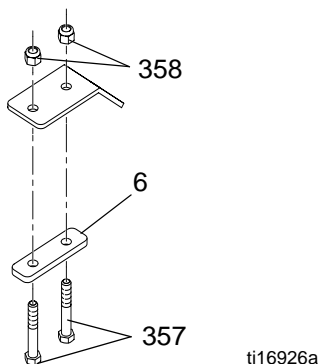
1. Locate an area on the vehicle to mount the Road-Pak pointer system that will allow the user to see the indicator rod from the driving position or with the help of the Road View Camera System.



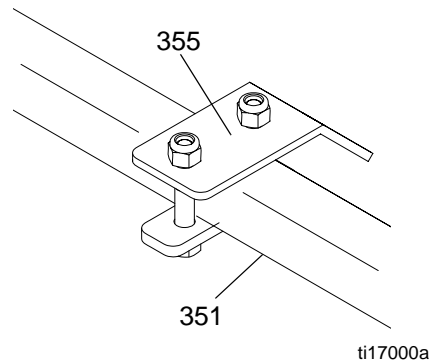
2. If needed, drill two 9/16 in. holes in the desired location.
3. Assemble mounting bracket (355) to desired location with bolt (359), washer (360), and nut (361).



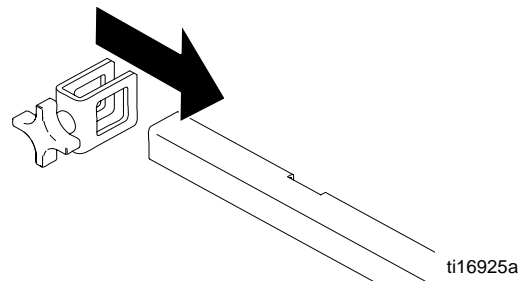
4. Hand tighten lock bar (6) to mounting bracket (355) with bolts (357) and nuts (358).



5. Slide support bar (351) through brackets (355) and tighten fasteners to secure in place.



6. Assemble extension clamp to support bar.



7. Insert indicator rod (362) into guide extension arm (352) and secure in place with knob (354).
8. Adjust the indicator rod by loosening extension clamps and sliding the guide extension arm (352) to desired position. Secure by tightening knob (354).

### Install and Align Front Mechanical Guidance System (Optional)

See Guidance System manual.

### Install and Align Video Guidance System (Optional)




See RoadView Camera System manual.



### Install Winch Kit (Optional)

See Winch Kit manual.

# Operation

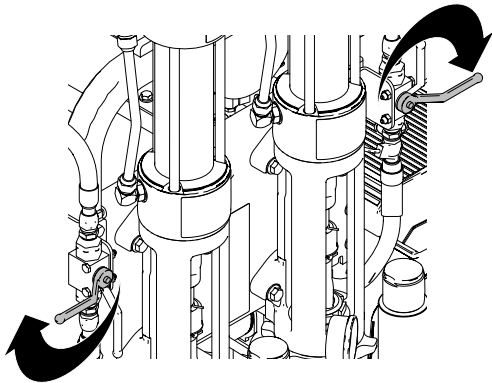
## Pressure Relief Procedure

  
<p><b>INJECTION HAZARD</b></p> <p>The system pressure must be manually relieved to prevent the system from starting or spraying accidentally. Fluid under high pressure can be injected through the skin and cause serious injury. To reduce the risk of an injury from injection, splashing fluid, or moving parts, follow the <b>Pressure Relief Procedure</b> whenever you:</p> <ul style="list-style-type: none"> <li>• are instructed to relieve the pressure</li> <li>• stop spraying</li> <li>• check or service any of the system equipment</li> <li>• install or clean the spray tip</li> </ul>

 
<p>When Flushing system, always connect grounding cord.</p>

### RPS 2900 Pump Fluid Pressure Relief

1. Set hydraulic valve to OFF position.



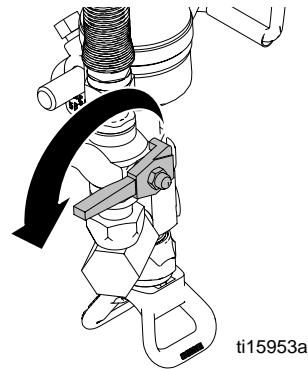
ti15838a

2. Run engine at half throttle.
3. Place empty pail under paint guns to catch drainage.

4. Relieve hose pressure through guns. Use Programmable Skipline Controller to trigger each gun for at least 3 seconds each.

**NOTE:** Always relieve pressure with the guns--not with the filter drain valves.

5. Close paint gun ball valves.



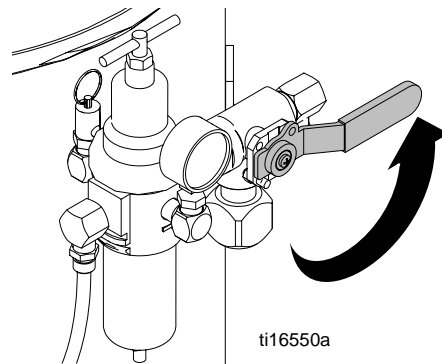
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6. Open all drain valves, one at a time.
7. Close valves immediately to prevent paint from drying in system.

**NOTE:** If you suspect that the spray gun or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, **very slowly** loosen the hose end coupling, and relieve pressure gradually. Then loosen it completely. Then clear the valve or hose.

### Bead System Pressure Relief

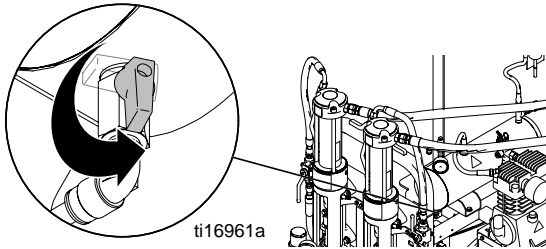
1. Relieve air pressure in bead tank by turning bead system valve to OFF position.



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## Air System Pressure Relief

1. Relieve air pressure in air tank by turning air valve to OPEN position.



## EMERGENCY SHUT OFF

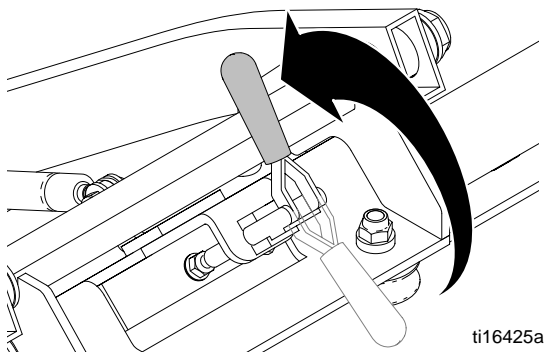
To shut down the entire RoadLazer system, set POWER ON/OFF on the Programmable Skipline Controller to the OFF position.

## Load Reflecting Materials

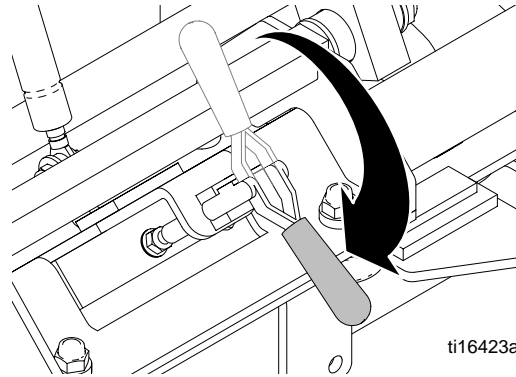
1. Set POWER ON/OFF on Programmable Skipline Controller to OFF.
2. Set RoadLazer engine ignition key to OFF.
3. Relieve air system pressure by opening ball valve until gauge reads 0.
4. Relieve air pressure in bead tank by turning bead system valve to OFF position.
5. Remove cover from bead tank.
6. Screen reflective materials to prevent debris from entering tank.
7. Load bead tank with reflective materials.

## Set Up Slide Beam and Gun Arm

1. Unlock gun arm clamp and slide beam clamps.



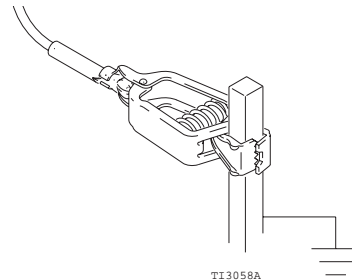
2. Pull slide beam to left or right side of vehicle. Lock slide beam clamps.
3. Remove gun arm from upright stowed position, and slide to end of boom. Slowly lower gun arm, and lock into position with clamp.



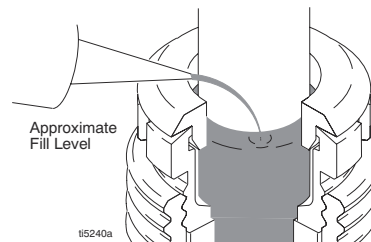
## Prepare System to Paint

### Initial Settings

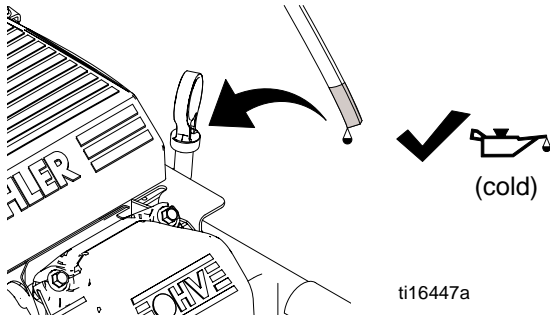
1. Ground RoadLazer ground strap to earth ground.



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



3. Check engine oil level. Add SAE 10W-30 (summer) or 5W-20 (winter), if necessary.

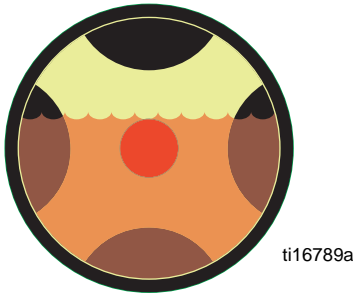


4. Fill fuel tank.

5. Check hydraulic oil level. Add only Graco Hydraulic Oil, ISO 46 169236 (5 gallon/18.9 liter) or 207428 (1 gallon/3.8 liter). Hydraulic tank capacity is approximately 4.0 gallons (15.14 liters).

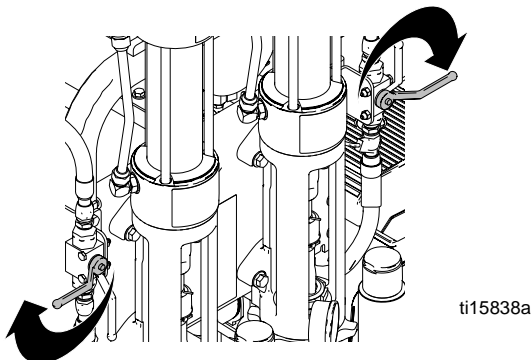


6. Check oil level in compressor. **NOTE:** If red dot is visible, add oil.

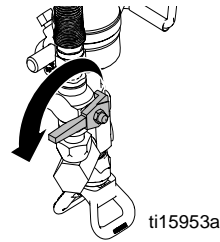


7. Verify all hose/fitting connections are tight.

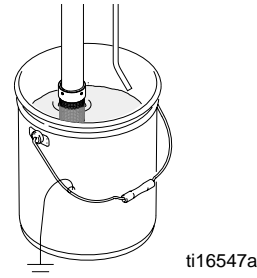
8. Turn hydraulic lines to closed position.



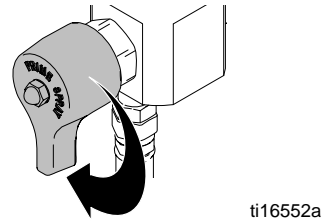
9. Turn pump lever by guns clockwise 1/4 turn to OFF position.



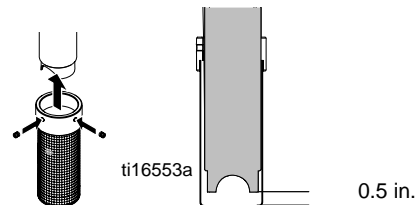
10. Place suction tube and drain tube in grounded metal pail partially filled with flushing fluid. Attach ground wire to pail and to earth ground.



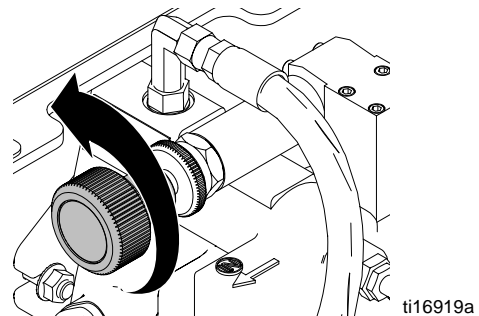
11. Turn prime valve down.



12. Install clean inlet strainer. **NOTE:** There must be a minimum of 0.5 in. between bottom of strainer and suction tube.



13. Turn pressure control counterclockwise to lowest pressure.



## Start Engine



Gasoline is extremely flammable and explosive under certain conditions. Fuel could spray from the fuel line connector when it is disconnected from engine. Fuel could come in contact with the hot muffler and cause fire or explosion. To reduce the risk of fire or explosion, always vent the fuel tank and allow engine muffler to cool before you disconnect the fuel line.

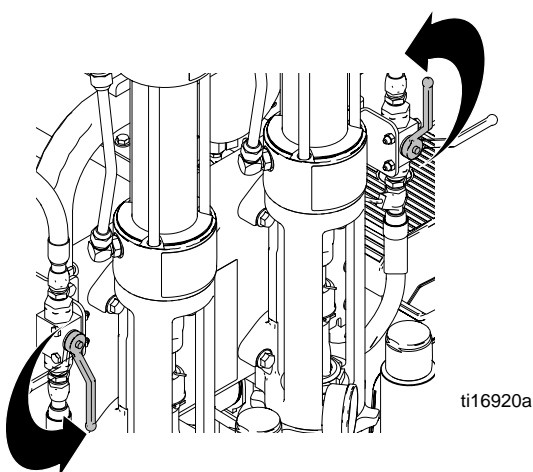
1. Set POWER ON/OFF on Programmable Skipline Controller to ON.
2. Set engine to choke position ON.
3. Set throttle to half speed and turn key.



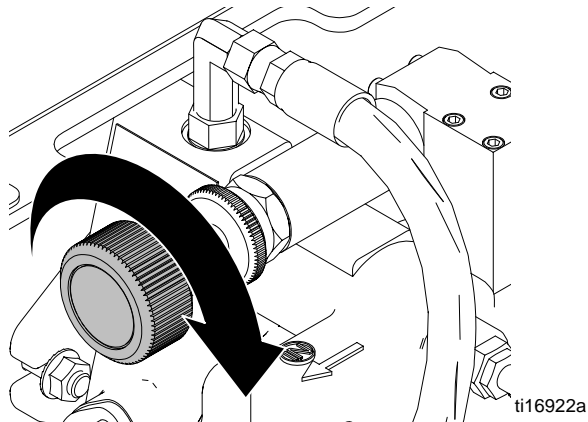
4. After engine starts, set choke to OFF.

## Select/Prime Pumps

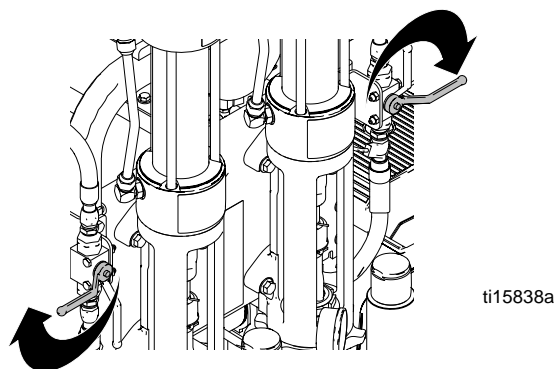
1. Open hydraulic valve to activate pumps.



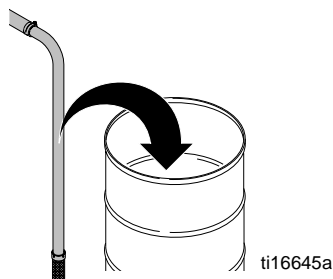
2. Slowly turn pressure control clockwise until pump begins to stroke.



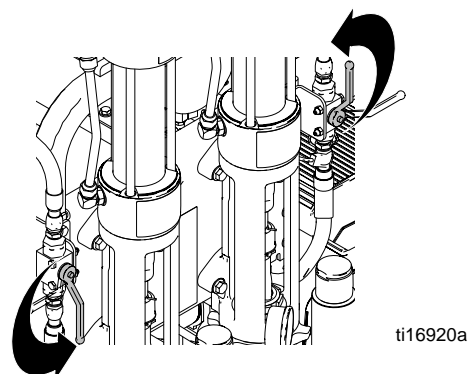
3. When flushing fluid comes out of return lines, set hydraulic valve to OFF position.



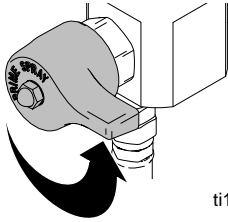
4. Place suction hoses in paint drums.



5. Open hydraulic valve to activate pumps.



6. When paint comes out of return lines, set hydraulic valve to OFF position.
7. Close all dump valves.

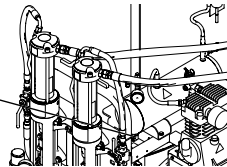
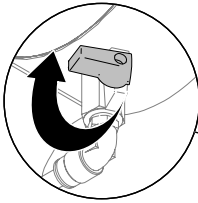


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8. Place return lines into paint drum.

## Prime Guns

1. Close air valve to pressurize air system.



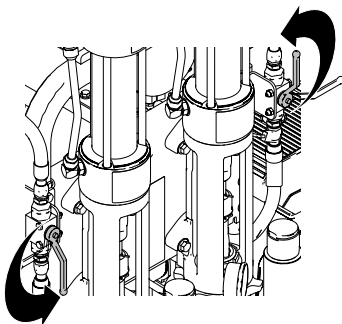
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2. Open only spray gun ball valves corresponding to paint pumps or color used. **NOTE:** Never open both ball valves on the two-color gun at the same time. Paint color contamination could result.



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3. Turn guns on with Programmable Skipline Controller (see Skipline Controller manual).
4. Place an empty pail under spray guns to catch drainage from spray guns.
5. Set hydraulic valve(s) to ON position to activate pumps.

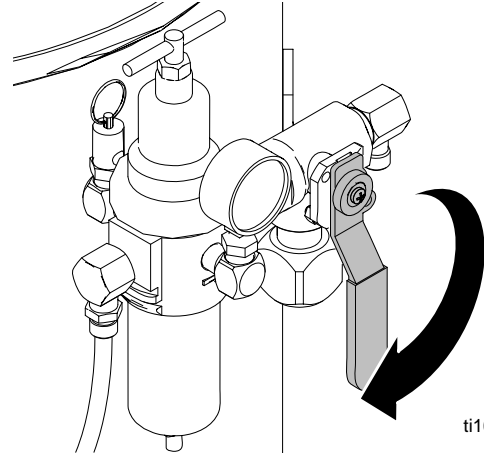


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6. Turn off guns with Programmable Skipline Controller.

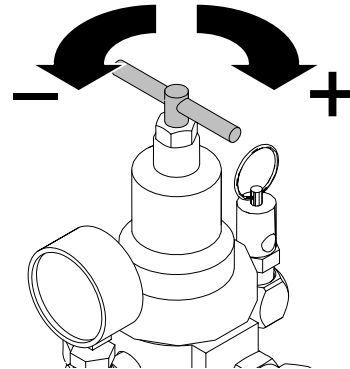
## Turn on Bead System

1. Turn bead system valve to ON position.



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2. Set desired bead tank pressure by turning regulator knob.



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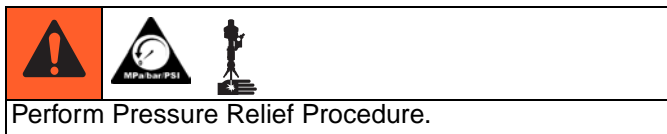
3. Remove and secure ground strap from earth ground.
4. System is now ready for painting. Select guns 1 or 2 with the Programmable Skipline Controller.

## Begin to Spray

Select appropriate procedure from menu on RoadLazer control system. See Skipline Controller manual.



## Flushing the System

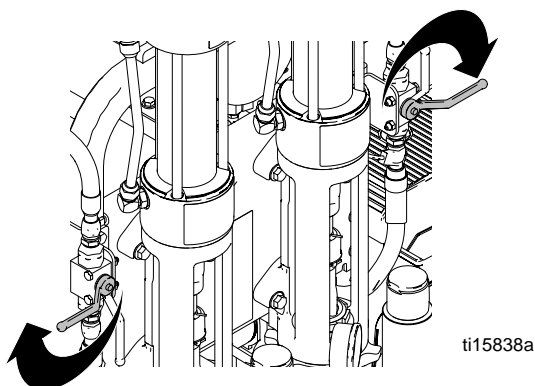


Flush the system with compatible solvent. Check the system under pressure for leaks. If any are found, **relieve the pressure**, and repair the leaks. Pressurize the system again, and check for leaks.

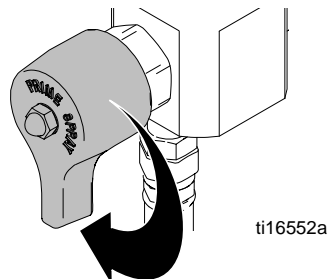
1. Ground RoadLazer with grounding clamp to earth ground.

**NOTE:** The grounding clamp and ground strap are both required for safe RoadLazer operation. The grounding clamp is for stationary use.

2. Set pump hydraulic valves to OFF position.



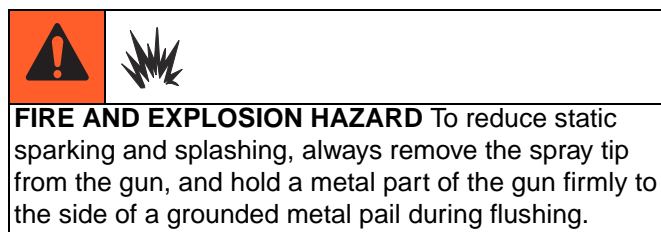
3. Fill a 5-gallon pail with water or compatible solvent. Place paint suction hose in pail.
4. Place paint return lines in empty pail.
5. Open all paint pump dump valves.



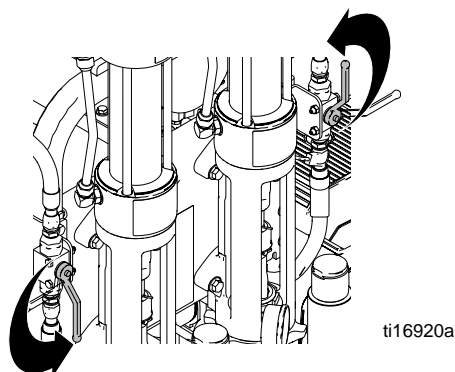
6. Turn on Programmable Skipline Controller.  
**NOTE:** Unit will not start until Controller is turned ON.

7. Start Engine as follows:

- a. Set Choke ON.
- b. Set throttle.
- c. Turn key.
- d. After engine starts, set choke to OFF.
- e. Set throttle to half speed.

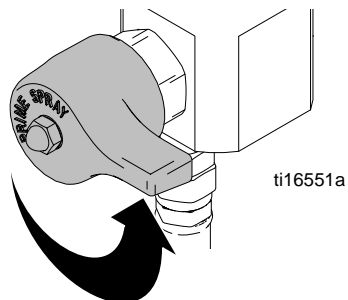


8. Set hydraulic valve to ON position to activate pumps.



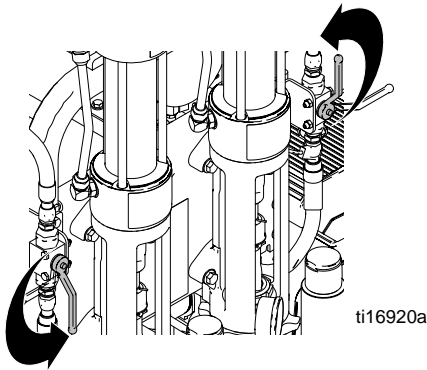
9. When water/solvent comes out of spray gun, set hydraulic valve to OFF position.

10. Close dump valves.





11. Open only spray gun ball valves corresponding to paint pumps or color used. **NOTE:** Never open both valves on the two-color gun at the same time. Paint color contamination could result.
12. Place empty pail under spray guns to catch drainage from spray guns.
13. Turn guns on with Programmable Skipline Controller.
14. Set hydraulic valves to ON position to activate pumps.

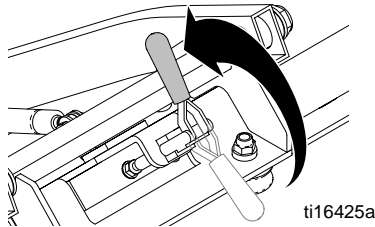


15. When water/solvent comes out of spray gun, set hydraulic valve to OFF position.
16. Turn off guns with Programmable Skipline Controller.
17. Shut off engine and Programmable Skipline Controller.
18. Leave paint pump dump valves and spray gun ball valves open.
19. Remove and secure ground strap from earth ground.

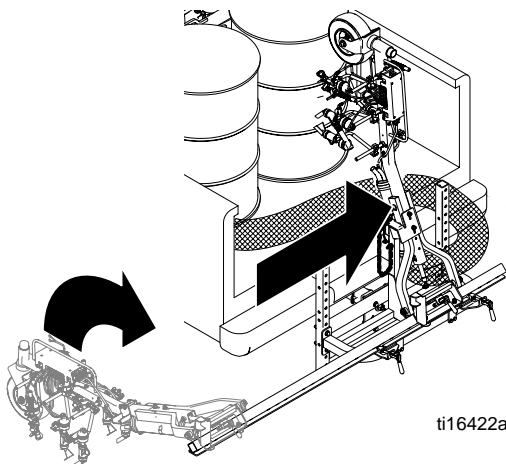
## Securing Gun Arm for Transportation

**NOTE:** Never transport the RoadLazer while the paint gun ball valves are open, the system is under pressure, and the engine is running, as this could cause damage to components.

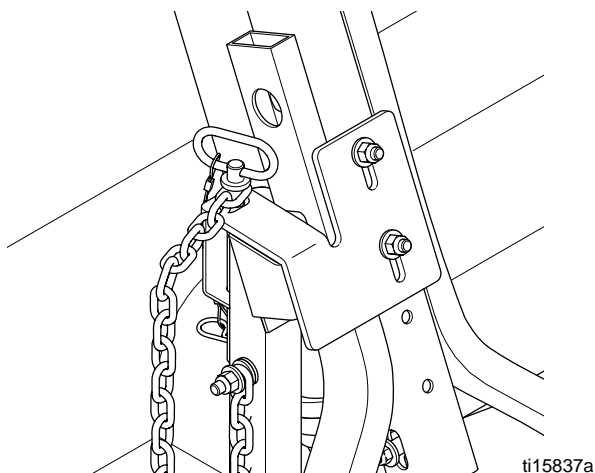
1. Unlock gun arm red-handled clamp on slide beam.



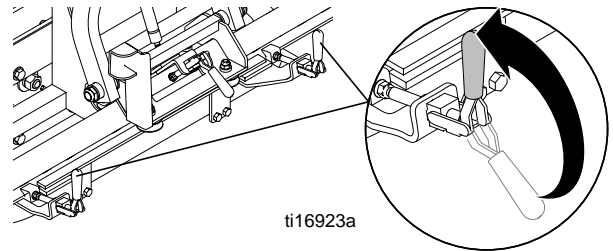
2. Lift gun arm up from ground, and push in to center of RoadLazer.



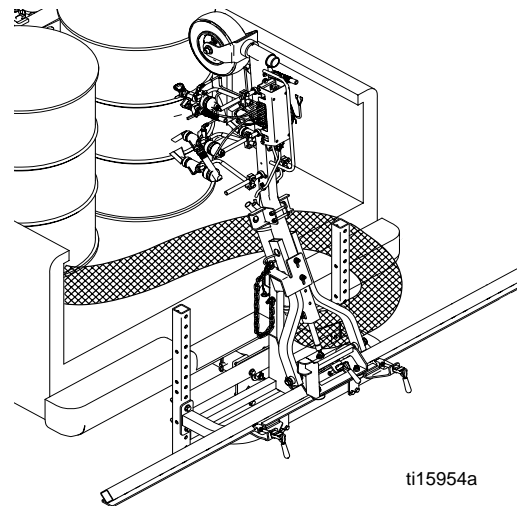
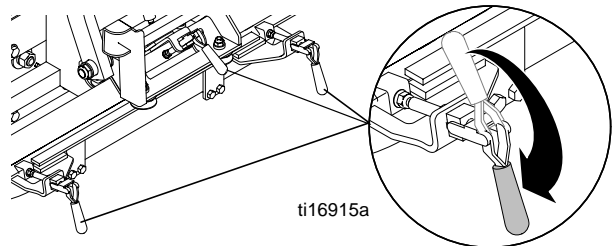
3. Pull gun arm hitch pin out of frame.
4. Put gun arm hitch pin back in frame and secure with clip.



5. Unlock two red-handled clamps and center the slide beam on the vehicle.



6. Lock three red-handle clamps to secure the slide beam and gun arm.



**RoadLazer in Storage Position**

# Technical Data

Maximum Working Pressure	
Paint	2900 psi (200 bar)
Hydraulics	1950 psi (134 bar)
Glass bead system	75 psi (5 bar)
Maximum paint flow	4.5 gpm @ 2000 psi (138 bar)
Operating pressure of air-actuated trigger	
Minimum	80 psi (5.5 bar)
Maximum	200 psi (14 bar)
Sound levels - measured at 6.2 ft (2 m) under maximum operating conditions per ISO-3744	
Sound power level	111.7 dB(A)
Sound pressure level	91.7 dB(A)
Weight	
24G624 (1) Pump RoadPak	850 lb (386 kg)
24G625 (2) Pump RoadPak	950 lb (431 kg)
24G629 (2) Pump Gun Arm	134 lb (61 kg)
24G627 Slide-in Mounting Frame	170 lb (77 kg)
24G626 Hitch Mounting Frame	120 lb (54 kg)
Engine	Kohler® 18 HP
Hydraulic oil reservoir capacity	4 gallons (15 liters)
Compressor Oil	9502 SAE 30W non-detergent oil
Hydraulic Oil	Graco approved 169236 (5 gal) 207428 (1 gal) ISO 46
Glass bead capacity	450 lb (204 kg)
<i>Kohler® is a registered trademark of the Kohler Co.</i>	

# 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 présent 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 Information

For the latest information about Graco products, visit [www.graco.com](http://www.graco.com).

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

*All written and visual data contained in this document reflects the latest product information available at the time of publication.  
Graco reserves the right to make changes at any time without notice.*

Original instructions. This manual contains English. MM 3A1214

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