

# PAINT HOG Operation Manual

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## WARNING



INCORRECT USE OF EQUIPMENT MAY CAUSE SERIOUS INJURY OR EVEN DEATH.

DO NOT USE THIS EQUIPMENT WITHOUT PROPER SUPERVISION AND TRAINING.

INEXPERIENCED PERSONNEL ATTEMPTING TO USE THIS EQUIPMENT MAY RESULT IN INJURY TO THEMSELVES, OTHER TEAM MEMBERS OR BYSTANDERS AND DAMAGE TO COMPONENTS.

ALL OPERATING AND MAINTENANCE PERSONNEL MUST BE THOROUGHLY TRAINED IN SAFE OPERATION BY A HOG TECHNOLOGIES CERTIFIED TRAINER, IN THE INSTALLATION AND MAINTENANCE OF THIS EQUIPMENT, AND PROVIDED WITH ADEQUATE SUPERVISION.

BEFORE ATTEMPTING TO CONNECT, OPERATE, OR REPAIR THIS EQUIPMENT, THOROUGHLY READ THESE INSTRUCTIONS AND ANY SAFETY WARNING OR INSTRUCTION PAMPHLETS INCLUDED WITH YOUR SHIPMENT.

FOR ANY QUESTIONS CONCERNING SAFE OPERATIONS AND MAINTENANCE PROCEDURES, CONTACT YOUR HOG TECHNOLOGIES REPRESENTATIVE PRIOR TO USE.

(772) 223-7393 OR (877) 964-7312 HOG TECHNOLOGIES WWW.HOGTECHNOLOGIES.COM





# STOP

TO AVOID SERIOUS INJURY, MAKE SURE TO COMPLETELY READ THIS MANUAL AND FOLLOW ALL SAFETY PRECAUTIONS LISTED IN THE MANUAL AND ON COMPONENT LABELS BEFORE OPERATING THIS EQUIPMENT.





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Congratulations on your recent purchase of the Paint Hog! The Paint Hog is the world's most advanced equipment for applying pavement markings. Your purchase demonstrates your commitment to excellence and positions you as a world leader in pavement marking.

Hog Technologies is excited to welcome you and your crew to the Paint Hog Operators' Team. Together we embrace the challenge of constantly developing our equipment, knowledge and skills so that our highways will be safer for all who rely on them and our pavement marking will last longer for those who pay for them. The Paint Hog, in the hands of a trained/certified/licensed operator with this work ethic, will be a fitting complement to our mutual commitment to excellence.

As you know, no machine is capable of outperforming its operator so we have designed a training experience that will equip your operators with the tools needed to maximize productivity and minimize operational expenses while building our mutual reputation for high quality, efficient pavement markings. This manual is designed to be used by operators trained by Hog Technologies. During the training experience your team will be given the basic knowledge and skills necessary to maintain, operate, troubleshoot and repair your Paint Hog.

Please take the time to read this operation manual before attempting to operate your system. This manual is an important aid in the operation and maintenance of your new equipment. The information is intended as a guide and cannot cover every question you may have about your Paint Hog or every operating situation. We encourage you to contact Hog Technologies for any additional information you might need. We provide support to our customers for all of the equipment we sell. We maintain an experienced support team that is available 24 hours a day 7 days a week along with a well-stocked inventory of parts and accessories for your convenience. Please contact us for any and all of your support issues and questions toll free at (877) 464-7623 or online at www.hogtechnologies.com or www.stripehogsupport.com

From our family to yours we would like to take a moment to say thank you from all of us at Hog Technologies! We look forward to many successful years working together to provide maximum productivity at minimal operational cost.





### Hog Technologies Limited Warranty

Hog Technologies warrants its components to be free from defects in material and workmanship while under normal use and service. Hog Technologies will, at its option, either repair or replace free of charge any such part that appears to us to be defective in material or workmanship during the warranty period. The warranty evaluation by Hog Technologies as to the cause of the defect shall be conclusive.

For approved warranty shipments, Hog Technologies will provide no charge Fed-ex ground or Fed-Ex Economy shipping. If customer requests expedited shipping, the difference in the shipping costs will be invoiced to the customer.

Hog Technologies reserves the right to request the component(s) to be returned, freight pre-paid, for analysis before proceeding with any warranty claim. The customer shall be responsible for payment of any replacement components requested. If the warranty claim is approved by Hog Technologies, credit will be issued for the components under warranty.

No warranty is made, either expressed or implied, for defects, failures or malfunctions resulting from corrosion, misapplication, over-pressurization, insufficient or lack of maintenance and any modifications to the component as supplied by Hog Technologies.

Any components replaced during the period of warranty will be warranted only during the period of the initial warranty, and no extensions shall be made, unless in writing by Hog Technologies in addition to the provision of the terms of the original warranty.

Hog Technologies will not be liable for damage, abnormal wear or consequential damage to their system components resulting from the use of replacement components that are not furnished by Hog Technologies.

Hog Technologies will not be liable for charges incidental to the removal of damaged or defective components, lost time and profits, or any consequential damages resulting from failure of the component.

Hog Technologies reserves the right to make improvements to future models without the need to retrofit or upgrade prior models. Hog Technologies shall not be obligated to perform retrofits and/or modifications to components manufactured prior to the incorporation of the new design and specifications.

Components that are not originally manufactured by Hog Technologies, including but not limited to, the truck chassis, Jetstream Pump, OMSI (Gear Box), Dresser Roots Blower, are warranted only to the extent of the original manufacturer's warranty and are subject to their allowance to us if found defective by them. Copies of other manufacturers warranty statements are supplied at the time of sale. Hog Technologies will assist with warranty claims on components not originally manufactured by Hog Technologies.

\*For approved warranty claims that include labor: If such labor is provided at customer location and not at Hog Technologies headquarters, Hog Technologies reserves the right to invoice customer for reimbursement of travel-related expenses.

### **Hog Technologies Warranty Schedule**

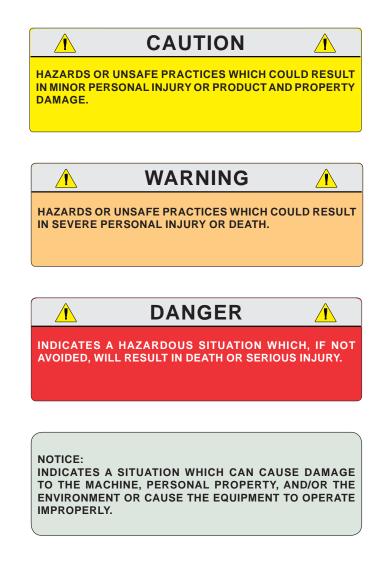
Warranty starts from the date of acceptance by the purchaser. Date of acceptance shall be defined as the time that the Stripe Hog is received by the purchaser. Acceptance of the Stripe Hog shall imply agreement to the terms and conditions of this warranty.

• 1 - 365 Days: 100% Parts and 100% Labor \*





This manual has been written to include a number of safety instructions to assure the safe operation and maintenance of the equipment. These instructions are in the form of a General Safety Section as well as individual NOTICE, CAUTION, WARNING and DANGER statements. There are also WARNING AND DANGER LABELS located on some components. You should read these warnings carefully and make sure you understand the nature of the hazard as well as the precautions and recommended procedures required to ensure your safety. The following definitions apply:



Every precaution has been taken by Hog Technologies to reduce the risks associated with possible injury and damage from electrical faults, high temperature antifreeze, paint or components, hydraulic components or mechanical failure. However, your own precaution and good maintenance procedures are necessary in order to maintain a safe working environment.

All instructions given in this book are as seen from the rear looking forward. Common industry terminology is used throughout the manual.





### **NOTES**





### **Safety Information**

### 1.1 General Safety

### **Use Professional Training**

Operating painting equipment requires professional training, including safe work practices and procedures. Only professionally trained personnel should be allowed to setup, operate, or maintain this equipment. If you have not completed the Hog Technologies training course you will be a danger to yourself and others.

### **Always Read Instructions**

Read this manual and all other equipment operation manuals and instructions prior to using any Hog Technologies product. Contact Hog Technologies (877-HOG ROAD) should any questions arise.

### **Major Component Operation Manuals**

The suppliers of some major components such as the truck chassis, air compressor, pumps, and heater, provide their own operation manuals which have been included with your equipment. Before operating this equipment, you should read the information in this manual and the manuals of other manufacturers completely and have a thorough understanding of all component systems and their proper operation.

REMEMBER - IT IS YOUR RESPONSIBILITY TO ENSURE THAT YOUR EQUIPMENT IS SAFE FOR YOU AND YOUR CREW. ALWAYS EXERCISE GOOD JUDGMENT WHEN INSTALLING OR REPAIRING EQUIPMENT AND WHILE OPERATING PAVEMENT MARKING EQUIPMENT.

### **Work Area Safety**

Remember, safety is first! Only set up to work in areas properly protected from traffic and other hazards. Individuals being struck by vehicles or mobile equipment lead to many work zone fatalities or injuries. Work zones need traffic controls identified by signs, cones, barrels and barriers. You should always wear high visibility clothing with a fluorescent background and made of retroreflective material to be more visible to motorists and reduce the possibility of an accident. Work stations should always be illuminated.

Outfit all operators with proper safety apparel.

Always use eye protection to shield from projected debris and ear protection to protect from noise. It is very important to wear boots that provide good traction on slippery surfaces.

Never wear loose clothing. Loose clothing can get caught on moving or rotating parts causing serious injury or even death.

Pavement marking application operations generate noise levels above 90 dB. Hearing protection is required in accordance with OSHA standards.

OSHA's Permissible Noise Exposure				
90 dB	8.0 hours			
92 dB	6.0 hours			
95 dB	4.0 hours			
97 dB	3.0 hours			
100 dB	2.0 hours			
102 dB	1.5 hours			
105 dB	1.0 hours			
110 dB	30 minutes			
115 dB	15 minutes			

### Î

### WARNING



ALL PERSONNEL EXPOSED TO 90 DB OR GREATER NOISE LEVELS SHOULD RECEIVE INSTRUCTION IN THE CORRECT USE OF EAR PROTECTION SO THAT THEIR NOISE EXPOSURE LIES WITHIN THE LIMITS SPECIFIED BY OSHA. NEVER ALLOW ANYONE NEAR THE WORK AREA WITHOUT PROPER EAR PROTECTION.

ALWAYS BE SURE YOUR WORK AREA IS CLEAR OF PEOPLE WHENEVER PAVEMENT MARKING EQUIPMENT IS ACTIVATED.





### **Product changes**

Hog Technologies is committed to the continuous improvement of our products. As a result, some of the equipment described in this manual or pictured in the catalog may change or no longer be available.

All information, illustrations, and specifications contained in this manual are based on the latest product information available at the time of publication. Hog Technologies reserves the right to make changes at any time, without notice, in colors, materials, equipment, specifications, and models.

If you have questions about the equipment on your Paint Hog, please contact the Customer support Department at (877) HOG ROAD or (001) 772-223-7393.

### **Never Alter a Hog Technologies Product**

Do not alter any product without written consent from the manufacturer. Any alterations could have serious consequences including bodily harm or death. Alterations without manufacturer consent will void the warranty.

### Inspect Equipment

Inspect the condition of all components prior to use. Do not use any item that is in questionable condition.

#### **IMPORTANT NOTE:**

YOUR EQUIPMENT USES INTERNAL COMBUSTION ENGINES AND FLAMMABLE FUEL. EVERY PRECAUTION HAS BEEN TAKEN BY HOG TECHNOLOGIES TO REDUCE THE RISKS ASSOCIATED WITH POSSIBLE INJURY AND DAMAGE FROM FIRE OR EXPLOSION, BUT YOUR OWN PRECAUTION AND GOOD MAINTENANCE PROCEDURES ARE NECESSARY TO ENSURE THE SAFE OPERATION OF YOUR EQUIPMENT.

### **Store Components Properly**

Protect all components from damage when not in use. Secure for travel.

### 1.2 Hot Fluids & Components Hazard

The optional paint heating system heat exchangers, tanks, pumps, and other components are heated by circulating hot antifreeze. The antifreeze is heated by a diesel fuel fired heater to high temperatures. Consequently, the heater, tanks, valves, pipes hoses and other components of the system are very hot during operation.

Always use extreme caution when working around heated components. Contacting hot components or antifreeze leaking from a damaged hose, pipe or fitting can cause severe burns.

# The following precautions apply whenever a vehicle equipped with an optional paint heating system is operating:

- Make sure all team members are properly trained and aware of hot components and the associated burn hazard.
- Always wear heavy gloves while working near hot components and never touch any hot component with bare hands.
- Make sure hoses are protected from contact with sharp objects or chaffing. Repair leaks in hot fluid hoses and fittings immediately. Never operate heating equipment with leaking hoses or fittings.
- Only use the specified antifreeze in the paint heating system. The use of any other fluid can damage equipment.
- Always allow room for expansion in antifreeze expansion tank. Never over fill the tank.
- Inspect heater fuel supply lines frequently.
   Never operate the system if fuel lines or fittings are leaking.
- Ensure all fuel soaked rags are stored in an appropriate fireproof container.
- Maintain at least 1 fully charged fire extinguisher on the vehicle at all times. If an extinguisher is used, have it serviced.





### 1.3 Electrical System Hazards

The electrical system on your vehicle is powered by a high amperage 12 volt DC electrical system. To avoid short circuits and circuit overloads that can damage the electrical system or cause a fire, the following precautions apply:

- Turn off the 12 volt master disconnect switch and circuit breakers when the vehicle is unattended or before servicing components.
- All circuit breakers and fuses for overload protection in electrical circuits must be kept in good condition.
- Disconnect the negative (-) battery cable first and when reconnecting, connect the negative (-) cable last.
- Do not grind, weld or have open flame near batteries. Sparks can cause explosion.
- Do not weld on truck without turning off the 12 volt master switch and disconnecting batteries.
- Do not short across battery terminals. Sparks can cause an explosion.

### 1.4 Hydraulic System Hazard

The hydraulic system that powers mixer motors and cylinders operates at extremely high pressure (up to 3000 PSI). Always use extreme caution when working around hydraulic systems. A high pressure fluid leak from a damaged hose or fitting can cause severe lacerations to a person's skin or inject hydraulic fluid into the blood stream, which can be fatal.

# The following precautions apply whenever the vehicle is operating:

- Hydraulic hoses and connections must be inspected frequently to ensure they are in good condition and that there are no signs of chaffing or deterioration.
- Make sure hoses are protected from contact with sharp objects or chaffing.
- Stretched or abused hose can fail prematurely and unexpectedly, which could cause injury to personnel. Hoses that have been exposed to excessive stretching, kinks or chaffing should be replaced.
- Always make sure all personnel maintain a safe distance from all hydraulic components and hoses whenever the unit is in operation.

 Always depressurize the hydraulic system before removing any hydraulic components, hoses or fittings. Failure to do so could result in serious injury or death.

### 

### WARNING



INJURIES FROM HIGH PRESSURE HYDRAULIC SYSTEM COMPONENT FAILURES ARE VERY SERIOUS AND CAN RESULT IN SEVERE INJURY OR A FATALITY. ALWAYS MAKE SURE ALL PERSONNEL ARE A SAFE DISTANCE FROM HYDRAULIC SYSTEM COMPONENTS AND HOSES WHENEVER THE VEHICLE IS OPERATING.

### 1.5 Fire Hazard

Fire is a potential hazard with all fuel powered equipment. Your machine is equipped with a fire extinguisher that must be inspected and serviced at intervals recommended by the fire extinguisher manufacturer.

### **Fire Suppression Equipment**

Manual and automatic fire suppression equipment operate differently. Operators should be properly trained in the use of all fire suppression equipment installed on your truck and be prepared to react quickly if a fire occurs.

## Fire suppression equipment requires regular inspections to ensure that:

- Seals & tamper indicators are not broken or missing.
- Pressure gauges or indicators read in the operable range.
- The suppression equipment is properly charged and ready for activation if needed.
- There is no obvious physical damage, corrosion, leakage or clogged nozzles.

### **Heater Exhaust System (Optional)**

The heater exhaust system is designed to be open to the atmosphere and requires unrestricted exhaust flow for proper operation. Never add exhaust pipe caps or automatic flapper valves to the heater exhaust pipe. These will restrict the flow of exhaust gases which will result in incomplete combustion and excessive temperatures in certain components.







### DANGER



RESTRICTED HEATER EXHAUST PIPES WILL CAUSE EXCESSIVE BURNER AND EXHAUST TEMPERATURES THAT COULD DAMAGE COMPONENTS OR RESULT IN A FIRE OR EXPLOSION AND INJURY TO PERSONNEL. NEVER INSTALL CAPS OR AUTOMATIC EXHAUST VALVES ON THE HEATER EXHAUST PIPE.

### 1.6 Fueling Fire Hazard

The oil heater burner produces an open flame that can ignite fuel fumes in high concentrations near the burners causing a fire or explosion. This is particularly dangerous while fueling. It is essential that the burner be turned off before entering a fuel station and while fueling the truck.



### **DANGER**



LEAVING THE BURNERS ACTIVATED WHILE FUELING CAN CAUSE A FIRE OR EXPLOSION RESULTING IN SEVER INJURY OR DEATH. ALWAYS TURN OFF THE BURNERS BEFORE ENTERING A FUEL STATION. THIS PROCEDURE SHOULD NEVER BE OVERLOOKED.

### 1.7 Fall Hazard

The deck and rear platform are high off the ground and personnel can be severely injured if they fall from deck or platform. To reduce the possibility for a fall, the following precautions apply:

- Always face the truck and use three points of contact when climbing a ladder.
- When working on the deck, always pay attention to your position and avoid standing near the edge.
- When working on the rear platform, avoid leaning out past the rail.
- Spilled paint creates a slip and fall hazard. If paint is spilled on the deck, mark the area of the spill and notify all personnel. Clean up spilled paint as soon as possible and before operating the truck.





### **Paint Hog Systems**



Paint Hog

### 2.1 Paint Hog System Introduction

The pavement marking system is mounted to the truck chassis. It is powered by the air compressor auxiliary engine mounted front of the deck.

The system includes a 12 volt DC electrical system, hydraulic system, paint tanks, glass bead tank, rear control deck and 2 spray gun carriages. It could also be equipped with an optional paint heating system and/or dual controls.

Most components are controlled by switches in the cab and rear control panels. A communication system allows the driver in the cab to communicate with the spray gun operator (switchman) at the rear control station.

The operation and maintenance requirements for the engine, drive train and chassis components are unique to the manufacturer and the selected options. Each truck chassis manufacturer provides owners information manuals with their product. It is important that you read the manuals carefully and become familiar with the proper care and operation of engine, drive system, chassis, safety equipment and all components of your truck chassis.





### 2.2 Truck Chassis

The paint system components are mounted on a heavy duty truck chassis. Other than the truck batteries supplying DC electrical power to 12 volt system, the system is completely isolated from truck.

### **Dual Truck Controls (Optional)**

Trucks can be equipped with dual steering and controls. A rocker switch in the dash is typically used to select either right or left side controls.

Refer to the truck operation manual for information on the dual control system.

### **Truck Engine Fuel Tank**

The truck fuel system supplies fuel to the truck engine and the auxiliary engine that powers the air compressor and hydraulic pump. It also provides fuel to the diesel fired heater for the paint heating system if your truck is equipped with this option.

Consequently, fuel consumption will increase when these systems are operating. The driver should be aware of this and monitor fuel consumption closely during striping operations.

#### **Pointer Arm**

A pointer arm/guide wheel assembly mounted to the front of the chassis assists the driver in maintaining truck position while spray operations are underway. It can be moved to either side of the truck if desired. When not being used, the pointer arm assembly is folded against the front bumper and secured with safety pins.

Once deployed, the arm and guide wheel is raised or lowered by a hydraulic cylinder controlled by the POINTER switch in the cab control panel. The pointer arm is designed to be used only for spray operations and must be folded against the bumper and secured with the safety pins before driving the truck on the road.

Refer to the Cab Control Switches & Panels and Operation sections for additional information and operating instructions for the pointer arm.



Pointer Arm Folded Against Front Bumper & Secured With Safety Pins







Paint Deck

### 2.3 Paint Deck

The paint deck is located between the cab and rear control station. The deck accommodates the paint tanks, bead tank, water tank, the auxiliary engine/air compressor and the paint heating system, if the truck is equipped with this option. Ladders on each side provide access to the deck.

Paint system and auxiliary engine main circuit breakers, diaphragm paint transfer pumps, paint filters, compressed air filters and other components are mounted to the chassis below the deck. The rear control station and canopy is mounted on the rear of the deck.



### WARNING



FALLING FROM THE DECK CAN RESULT IN SEVERE INJURY OR DEATH. PERSONNEL WORKING ON THE DECK SHOULD ALWAYS BE AWARE OF THEIR POSITION AND AVOID STANDING NEAR THE EDGE. MAKE SURE TO FACE THE DECK AND MAINTAIN THREE POINTS OF CONTACT WHEN USING THE LADDERS.



### WARNING



ANYONE ON THE DECK WHILE THE TRUCK IS MOVING CAN BE THROWN FROM THE DECK BY AN UNEXPECTED MANOEUVRE OR ROAD HAZARD. THIS COULD RESULT IN SEVERE INJURY OR DEATH.

NEVER ALLOW ANYONE ON THE DECK WHILE THE TRUCK IS MOVING. THE TRUCK DRIVER SHOULD ALWAYS CHECK WITH THE SWITCHMAN TO VERIFY THAT ALL PERSONNEL ARE OFF THE DECK AND SEATED IN THE CAB OR REAR CONTROL STATION WITH SEAT BELTS FASTENED BEFORE MOVING THE TRUCK.



### WARNING



PAINT SPILLED ON THE DECK CREATES A SLIP AND FALL HAZARD THAT CAN RESULT IN SEVERE INJURY TO PERSONNEL. IF PAINT IS SPILLED ON THE DECK, ALERT ALL PERSONNEL AND MARK OFF THE AREA. CLEAN UP THE SPILLED PAINT BEFORE OPERATING THE TRUCK.





# 2.4 Auxiliary Engine/Air Compressor General

The following is an overview of the features and operation of the auxiliary engine/air compressor for general information purposes. The manufacturer of the unit supplies an operation and maintenance manual. You should read this manual completely before operating the engine and air compressor.

The air compressor is powered by an onboard auxiliary diesel engine. A hydraulic pump connected to the engine provides hydraulic fluid pressure for the hydraulic system. An engine control panel on the side of the sound shield provides complete control of the engine. It also monitors critical engine systems and provides warnings and/or automatic shutdown to prevent costly engine repairs in the event a critical engine or compressor function fails.

The chassis fuel tank supplies fuel to the auxiliary engine. Consequently the driver should be aware the fuel consumption will increase when the auxiliary engine is running and monitor the fuel level closely during operations.

The auxiliary engine DC electrical system is powered by an onboard battery that is completely isolated from the truck electrical system. It is equipped with circuit protection and a charging system that recharges and maintains the battery.

The air compressor is directly driven by the auxiliary engine. A flexible coupler between the engine and compressor reduces vibration and reduces the possibility of engine damage from a catastrophic pump failure.

The engine should be started only when the truck is on the job site and ready to go to work or when compressed air is required for paint and bead tank filling operations.

Access to the engine is provided by removable panels in the sound shield. Always check fluid levels and all systems before starting the engine.



Auxiliary Engine/Air Compressor







Auxiliary Engine/Compressor Control Panel

- 1. Unloader Valve
- 2. Bypass Switch
- 3. OFF-ON-Run Switch

- 4. Emergency Stop Switch
- 5. Hydraulic Pressure

### **Engine/Compressor Controls**

The engine controls in the panel include the following:

- **1. Unloader Valve** Used to remove compressor from the engine during startup and shutdown.
- 2. Bypass Switch A momentary button that activates the engine preheat system during startup. Always press and hold this switch for several seconds before starting the engine. Continue holding the switch after the engine starts until the oil pressure stabilizes, then release the switch.
- **3. OFF-ON-RUN Switch** A three position switch that starts and stops the engine.
- **4. Emergency Stop switch** Shuts down the auxiliary engine and compressor in an emergency. This switch only shuts down the auxiliary engine and should never be used for routine shutdown.





NEVER USE THE EMERGENCY STOP SWITCH TO SHUTDOWN THE AIR COMPRESSOR ENGINE.

THE SWITCH GROUNDS THE CIRCUIT TO INTENTIONALLY BLOW THE FUSE. THAT FUSE MUST BE REPLACED IN ORDER TO RESTART THE AUXILIARY ENGINE.

CONTINUOUS USE OF THE EMERGENCY SWITCH WILL CAUSE PERMANENT DAMAGE TO THE AIR COMPRESSOR.

Refer to the operation section in this manual and the engine manufacturer's operation and maintenance manual for additional information on the operation of the engine and controls.

#### Air Compressor

The engine driven air compressor provides compressed air to the paint and bead delivery systems when the auxiliary engine is running. Maximum system pressure is set by a pressure relief valve on the compressor.



### Section 2 - Paint Hog Systems



Gauges in the panel and on the sound shield monitor critical engine systems, compressed air system pressure and hours of operation. Refer to the engine and compressor operation and maintenance manual for additional information on gauges and operating parameters for the compressor.

The compressor is an oil flooded, rotary screw type compressor. During operation, compressed air mixed with oil flows through a cooler, then to the compressed air tank/oil reservoir.

### **Compressed Air Tank/Oil Reservoir**

Compressor oil separates from the air and settles to the bottom of the compressed air tank. Compressed air is stored in the upper section of the tank and delivered to the paint system on demand.

The bottom section of the compressed air tank serves as a reservoir for the oil that lubricates the compressor. There is a fill fitting and sight gauge on the lower rear side of the tank and sound shield. The oil level should be maintained in the middle of the sight glass. Always make sure to shutdown the compressor and release tank air pressure before opening the fill cap to add oil.

An in-line filter cleans the oil as it is returned to the compressor. This filter should be changed at regular intervals as recommended by the compressor manufacturer.

The air compressor manufacturer operation manual provides operation and maintenance information for the air compressor. Refer to the Routine Maintenance chapter for more information on the pneumatic system.

# 2.5 Compressed Air Supply System Overview

Compressed air is routed from the compressor tank to a control manifold where it is separated into filtered and unfiltered air circuits. Pressure gauges on the main supply line, at each regulator valve in the rear control console and on each tank are used to monitor and control supply and component pressures.

Solenoid activated pneumatic valves controlled by switches on the gun control panels activate spray gun nozzles, broom nozzles, atomization nozzles, bead nozzles and the cylinders that raise



Compressor Oil Sight Gauge & Fill Fitting



Primary Moisture Separating Air Filters

and lower the carriages. The valves are located in a box mounted on the carriages.

### **Compressed Air Circuits**

There are two compressed air circuits. Unfiltered cooled and dried high volume air and filtered cooled and dried air that is treated by moisture separating filters.



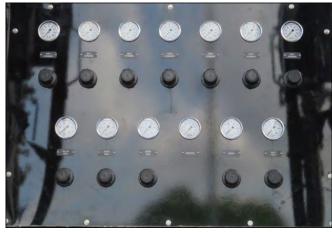


#### **Unfiltered Air**

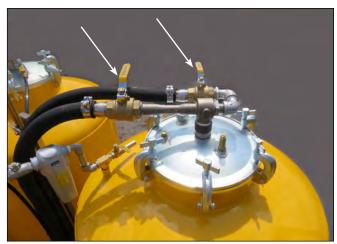
Dried and cooled, high volume air is delivered to the spray gun atomizing nozzles, the high volume broom nozzles that sweep the pavement in front of the guns, the bead tank vacuum venturi and paint transfer pumps.

Pressure regulator valves in the rear control console are used to set atomization pressure at the guns. Switches in the gun control panels control the pneumatic valves that turn the atomization nozzles ON or OFF.

Compressed air is delivered to broom nozzles, vacuum venturi and transfer pumps at system pressure. Manual valves at each transfer pump and near the venturi at the top of the bead tank turn air flow on or off to control the pumps and bead tank vacuum. System pressure is monitored by the MANIFOLD pressure gauge in the rear control panel.



Pressure Regulator Valves & Gauges On Rear Control Console



Bead Tank Vacuum Venturi Valves



Broom Nozzles



Transfer Pump Compressed Air Valves



### Section 2 - Paint Hog Systems



#### Filtered Air

Unfiltered dried and cooled air is treated again by three filter/driers mounted on the passenger side of the chassis below the rear deck. The filter bowls are equipped with drain valve that automatically drain accumulated water from the bowl. A petcock on the bottom of the large drier filter bowl must be checked daily to be certain that it is allowing accumulated moisture to drain.

Treated, filtered air is used to pressurize the bead and paint tanks and activate pneumatic valves used on the spray guns and carriages. A moisture separating filter at the bead tank provides additional filtering and drying for the air that pressurizes the bead tank.

Pressure regulator valves in the rear control console are used to set the pressure in the paint and bead tanks. Switches in the gun control panels control the pneumatic valves that turn the paint and bead spray nozzles on or off.

A service air chuck mounted in the rear control station provides a treated air connection for air tools or a pressurized air hose.

Beads absorb water and could clog the delivery system if they are exposed to moisture. Moisture will also damage solenoid activated control valves and pneumatic cylinders if it is not removed. So it is important to check the drier and filter automatic drains frequently to make sure they are operating properly to ensure no moisture gets into sensitive pneumatic components.

### Filtered Air Oiler

An oiler next to the filter driers below the rear control station injects oil into the filtered, dried air supplied to the lift cylinders for the carriages and pointer, carriage lock mechanism and gun nozzle solenoids and valves. This provides lubrication to these components and increases their service life.

The oiler is equipped with an oil reservoir that should be checked weekly and filled as required. A knob on top of the oiler allows operators to adjust the volume of oil injected if necessary.

A sight gauge on the side of the reservoir bowl provides a means to monitor the oil level. The bowl must be removed to add oil.



Typical Filter/Driers & Oiler Below Rear Control Station



Bead Tank Moisture Separating Filter



Typical Compressed Air Oiler





# 2.6 Hydraulic System Overview

The auxiliary engine that powers the air compressor also powers the hydraulic pump. The system includes a hydraulic manifold, reservoir tank and a low pressure filter.

An oil cooler with a constant on fan cools the hydraulic fluid during operation. Electric solenoid valves activated by switches in the control switch panels direct pressurized hydraulic fluid to the various components. Hydraulic fluid level is monitored by a sight gauge on the side of the reservoir. The fluid level should be maintained within the upper level of the sight glass to ensure adequate fluid for operation.

### **Hydraulic Circuit and Pumps**

When activated by the auxiliary engine, the hydraulic pump provides high pressure fluid to hydraulically powered components. The circuit is equipped with pressure relief valves that prevent excessive pressure in the system. The maximum operation pressure for the hydraulic system is 3000 psi (207 BAR).

#### Reservoir

A reservoir tank mounted on top of the air compressor provides hydraulic fluid for the system. The pump circulates fluid through the manifold, motors, cylinders and other components, then back to the tank. A low pressure filter in the return line cleans the fluid as it flows back into the tank.

Hydraulic fluid should be changed and the tank flushed on a regular schedule as recommended by Hog Technologies and hydraulic component manufacturers.

### **Hydraulic Filter**

Clean hydraulic fluid that has not been exposed to excessive temperature or become contaminated is essential to the performance of the system. As the pump, cylinders and components wear, they release tiny metal and rubber particles into the hydraulic fluid. These particles act as a grinding compound as they flow through the system. Ordinary dirt and water are common hydraulic fluid contaminants. Any one of these will contribute to premature failure of hydraulic components. The filter on the low pressure hydraulic circuit removes these contaminates and increases the life of the fluid and hydraulic components.



Hydraulic Reservoir, Sight Gauge & Filter

The low pressure filter is a cartridge type filter. All return fluid passes through the filter as it flows back into the tank. It is equipped with an indicator that alerts the operator when the filter is dirty and requires changing. The filter should be replaced at the same time the fluid is changed, if it begins to restrict fluid flow or at regular intervals as indicated by the Service Matrix in the Routine Maintenance chapter.

### **Hydraulic Manifold**

Sectional valves mounted on the manifold below the air compressor make up the hydraulic control manifold system. An electric solenoid in each valve, activated by switches in the control panels, direct hydraulic pressure to components. The solenoid valves are a cartridge type design that are easily replaced in the event of a failure.

### **Hydraulic Motors**

The paint tank mixers are powered by hydraulic motors. Internal components of the motors are lubricated and cooled by the hydraulic fluid. An adjustable needle valve next to each mixer motor is used to raise or lower mixer speed. The valve adjustment knobs have reference numbers to make adjustment easier. Mixer motors have maximum pressure ratings and RPM settings that should never be exceeded.



### Section 2 - Paint Hog Systems



Most hydraulic motors are designed to rotate in one direction. If a motor needs to be removed for any reason, always make sure to mark the hoses and ports so they will be installed in the correct position. If the hoses are installed in the wrong ports, the motor will rotate opposite of the designed rotation which will permanently damage the motor.

### **Hydraulic Actuators**

Hydraulic actuators are used to move the carriages in or out while steering. Another hydraulic cylinder raises and lowers the pointer arm.

All hydraulic circuits and actuators require special procedures for bleeding air from the system after servicing components or replacing hoses. Contact Hog Technologies if you need assistance in bleeding the air from the hydraulic system.

### **Hydraulic Hoses**

The hydraulic system operates at pressures of up to 3,000 psi (207 BAR). Therefore, it is critical that the operator and maintenance personnel inspect the hydraulic hoses, fittings and other components frequently. A visual inspection of the entire hydraulic system should be conducted each day before operating the unit. Any hose or component that is questionable or shows any sign of deterioration, wear or leakage should be replaced immediately and before operating the unit. A more thorough inspection of the pumps and other components should be conducted at each routine service interval. Remember that the hydraulic system can be severely damaged if it runs low on fluid.

Protect the hoses from contact with sharp objects or kinks. Never operate the hydraulic system with a damaged hose or a hose that is questionable.

### **Hydraulic Fluid Cooler**

A heat exchanger on the side of the paint deck cools hydraulic fluid during operation. It is equipped with a fan powered by the 12 volt system that runs constantly whenever the hydraulic system is activated.

The heat exchanger will loose efficiency if it becomes dirty. It is important to inspect cooling fins at least once a week and clean them as necessary. If the fins are not cleaned regularly, debris can buildup to the point where the cooler will become ineffective, causing the fluid and components to overheat. This can result in severe damage to hydraulic system components.



Mixer Motor Speed Control Valve



Pointer Lift Cylinder



Hydraulic Fluid Cooler





# 2.7 Paint Tanks & Delivery System Overview

Two paint tanks, white and yellow are standard equipment. A black tank is an available option. Each tank is pressurized with filtered and dried air by the filtered air system. Typical tank pressure is around 40 PSI (2.76 Bar).

Hydraulically powered mixers in each tank are run while filling with paint and for 10 minutes prior to starting work. All mixers should be turned off during operations to give full flow to the other hydraulic functions.

Paint is delivered under pressure to the spray guns through tubing and hoses. Two in-line filters for each delivery system remove contaminates in the paint that could clog spray nozzles.

The following is a description of paint tank components and their function.

- **1. Mixer Motor & Valve** Powers the mixer in the paint tank. Motor speed is controlled by the needle valve next to the motor.
- **2. Pressure Gauge -** Displays paint tank pressure. Tank pressure is set with regulator valves in the rear control console.
- **3. Pressure Supply Valve** Delivers treated pressurized air to paint tank. A regulator in the rear control console controls tank pressure.
- **4. Pressure Relief Valve -** An automatic valve that prevents excessive pressure in the tank. It should be checked periodically for proper operation.
- **5. Exhaust Valve -** Used to purge air pressure from the tank. Always turn the valve off when all pressure is relieved from the tank.
- **6. Exhaust Muffler -** Quiets exhaust air flow during purging to prevent excessive noise and hearing damage.
- 7. **Sight Cap** A threaded cap that can be removed to check the paint level before operations or to monitor the level while filling the tank. Tank pressure must be completely purged before removing this cap.



Paint Tanks



Paint Tank Valves & Components





### Î

### WARNING



NEVER ATTEMPT TO REMOVE THE SIGHT CAP WHILE THE PAINT TANK IS PRESSURIZED. PRESSURE IN THE TANK WILL MAKE THE CAP EXTREMELY HARD TO REMOVE AND WILL BLOW THE CAP FROM THE TANK UNEXPECTEDLY DURING REMOVAL. THIS COULD RESULT IN SERIOUS INJURY OR EVEN DEATH TO PERSONNEL AND DAMAGE THE TANK.

8. Paint Supply Valve - Located on the bottom of the tank, below the deck. This valve is normally open and closed only when servicing delivery system components.



Paint Tank Supply Valve

### **Paint Delivery System**

The paint delivery system includes tubing and flexible hoses that channel the pressurized paint to the spray guns. The rear filters near the carriages also serve as a manifold to distribute the paint flowing through the filter to multiple spray guns. Pneumatic valves at each gun turn the paint supply on or off. Another valve on each gun delivers pressurized air at the nozzle to atomize the paint as it exits the gun. The valves are controlled by switches in the gun control panels.

Each paint tank delivery system is equipped with a primary and final filter that removes contaminates from the paint. Isolator valves in the lines on each side of the filter allow the operator to isolate the filter and allow it to be disassembled and cleaned. Another valve provides pressurized water to flush out the filter housing and clean the strainer. Refer to the Routine Maintenance section of this manual for instructions to disassemble and clean the filters.



Primary Paint Filter

#### NOTICE:

ALWAYS MAKE SURE TO PURGE ALL PRESSURE FROM THE PAINT TANK AND CLOSE THE SUPPLY VALVE BEFORE SERVICING A FILTER.



There are two or three transfer pumps, one for each paint tank, depending on the options selected. The system includes hoses with quick connect, cam lock fittings to connect the transfer pump to a tote or drum filled with paint. There are also withdrawal tubes that connect to the hoses.



Final/Secondary Filters/Manifolds





The pneumatic pumps are powered by unfiltered compressed air at manifold pressure that is activated by a manual valve at the pump. Other valves near the pump inject and discharge freshwater to flush out the pump and lines when filling operations are completed. Refer to the Operation section for instructions on operating the pumps and filling the tanks.

### 2.9 Pressurized Flush Water System

The water tank is mounted on the deck near the paint tanks. The tank capacity is 30 gallons (113.5 liters) and is pressurized by the filtered air system.

A manifold, supply hose and red 3/8" lines deliver water under pressure to paint lines, filters, pumps and other components that require flushing. Manual or pneumatic valves at each injection point turn water flow on and off. Quick connect fittings with manual on/off valves on the sides of the deck and on the rear platform provide connections for a water hose.

The following is a description of water tank components and their function.

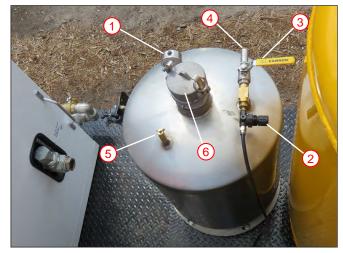
- **1. Pressure Gauge -** Displays water tank pressure. Tank pressure is set with a pressure regulator valve in the rear control console.
- 2. **Pressure Supply Valve** Delivers filtered pressurized air to the water tank. A regulator in the rear control console controls tank pressure.
- **3. Exhaust Valve -** Used to purge air pressure from the tank. Always turn the valve off when all pressure is relieved from the tank.
- **4. Exhaust Muffler -** Quiets exhaust air flow during purging to prevent excessive noise and hearing damage.
- **5. Pressure Relief Valve -** An automatic valve that prevents excessive pressure in the tank. It should checked periodically for proper operation.
- **6. Sight Cap -** This cap is secured with cam locks and can be removed to check the water level and fill the tank before operations. Tank pressure must be completely purged before removing this cap.



Typical Paint Transfer Pumps & Air Pressure Control Valves



Water Tank



Water Tank Valves & Components



### WARNING



NEVER ATTEMPT TO REMOVE THE SIGHT CAP WHILE THE WATER TANK IS PRESSURIZED. PRESSURE IN THE TANK WILL MAKE THE CAP DIFFICULT TO REMOVE AND WILL BLOW THE CAP FROM THE TANK UNEXPECTEDLY DURING REMOVAL. THIS COULD RESULT IN SERIOUS INJURY OR EVEN DEATH TO PERSONNEL AND DAMAGE THE TANK.











Typical Paint Heat Exchangers

# 2.10 Paint Heater System (Optional) Overview

A diesel fuel fired heater, heat exchangers and antifreeze circulation system heats the paint during cold weather operations. A circulation pump for each paint delivery system circulates hot antifreeze through a heat exchanger to heat the paint as it flows to the spray nozzles. Temperature sensors in each system display antifreeze temperature on LED displays in the rear control panel. Soft keys on each display allow the switchman to adjust the temperature.

Manual valves that control antifreeze flow are located below the heater and lower antifreeze tank. These valves are for troubleshooting or servicing components. They should always be open during normal operation.

The system requires special antifreeze that is compatible with all hoses, seals and components. Refer to the Maintenance Matrix in the Routine Maintenance section for information on the recommended antifreeze.

Electrical power is supplied to the diesel fuel fired burners and circulation pumps by the 12 volt electrical system.



Manual Antifreeze Valves



Antifreeze Circulation Pump





### **Antifreeze Expansion Tank**

The paint heating system antifreeze reservoir is equipped with an expansion tank mounted on the top of the air compressor. As antifreeze is heated, it expands. The expansion tank allows the expanded antifreeze to accumulate so it doesn't create excess pressure in the circulation system or overflow onto the deck. The tank also provides a high mounted secondary reservoir for reserve antifreeze to prevent air in hoses and lines when the antifreeze cools and contracts.

A pressurized fill cap on the top of the tank allows antifreeze to be added and provides pressure relief for the system. A sight tube on the side of the expansion tank monitors the fluid level.

An overflow hose is routed from the expansion tank pressure cap to a location below the chassis. If the system is overfilled or the antifreeze expands to the point that the tank overfills, it will flow from the tank to pavement through the overflow hose. It is very important to make sure this hose is connected and drains freely to prevent hot antifreeze from spraying on the deck if the system overflows.

#### **Fuel Oil Heater**

Antifreeze is heated by a 12 volt, fuel oil burner. It is activated by the BURNER ON switch in the rear control panel. Antifreeze temperature is controlled and monitored by control panels and LED displays in the rear control panel. Exhaust from the burner exits the heater through an exhaust pipe at the top of the unit.

The oil burner is totally self contained and includes a fuel pump, blower and oil igniter. An in-line filter provides clean fuel to the burner and a circuit breaker protects the system from an overload.

The burner control system is equipped with a safety lockout requiring a minimum of 10 PSI (6.9 BAR) pressure in the circulation system before the burner will start. Consequently, the reservoir CIRCULATION switch must be on before activating the burner. The lockout system prevents overheating and component damage due to low fluid circulation.



Antifreeze Expansion tank, Pressure Cap & Sight Gauge



Fuel Oil Burner & Fuel Filter

#### NOTICE:

THE BURNER WILL NOT START UNLESS THE RESERVOIR CIRCULATION PUMP IS ACTIVATED WITH ANTIFREEZE CIRCULATING AT 10 PSI (6.9 BAR) OR ABOVE.

Refer to the burner manual for additional information on the operation and maintenance of the burner system.





### 2.11 Bead Tank & Delivery System

The bead tank is mounted on the deck near the paint tanks. Dual bead tanks is an available option.

Each tank is pressurized by the filtered air system and equipped with three sight gauges to monitor bead level. A filter/drier next to the air pressure supply valve provides final filtering and moisture removal for the compressed air that pressurizes the tank. Tubing, hoses and a manifold system deliver the beads under pressure to the bead guns on the carriage.

The following is a description of the bead tank components and their function.

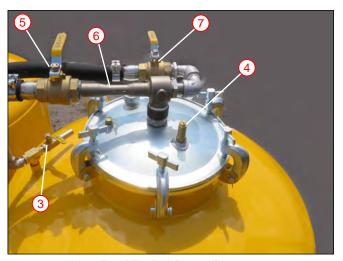
- 1. Air Filter/Drier Provides a final filter and additional drying for air entering the tank. The filter bowl is equipped with drain valve that automatically drains accumulated water from the bowl.
- 2. **Pressure Supply Valve** Delivers treated pressurized air to the bead tank. A regulator and pressure gauge in the rear control console controls tank pressure.
- **3. Exhaust Valve -** Used to purge air pressure from the tank. Always turn the valve off when all pressure is relieved from the tank.
- 4. Pressure Relief Valve An automatic valve that prevents excessive pressure in the tank. It should checked periodically for proper operation.
- **5. Venturi Exhaust Valve -** This valve is turned on when venturi air flow is activated to create vacuum in the tank to draw material from the tote. This valve must be completely turned off when filling operations are complete.
- **6. Venturi -** Accelerates high volume, untreated air to create a vacuum in the tank that draws beads from a tote into the tank.
- 7. **Venturi Air Supply Valve -** Activates and controls the flow of high volume, untreated air through the venturi to create vacuum while filling the tank. This valve must be completely off when filling operations are complete.



Bead Tank



Air Filter/Drier & Pressure Supply Valve



Upper Bead Tank Valves & Components







Bead Tank Fill Valve & Cap Note: Trucks with the dual bead tank option will have two bead fill valves.



THE BEAD TANK IS PRESSURIZED. PRESSURE IN THE TANK WILL BLOW THE CAP FROM THE VALVE UNEXPECTEDLY DURING REMOVAL AND BLOW BEADS FROM THE FITTING AT HIGH VELOCITY. THIS COULD RESULT IN SERIOUS INJURY OR EVEN DEATH TO PERSONNEL AND DAMAGE COMPONENTS.

- 9. Bead Fill Valve Located below the deck on the passenger side of the truck. Open this valve to vacuum beads into the tank. Close when the bead tank is full. Trucks equipped with the dual bead tanks option will have two bead tank fill valves.
- **10.Sight Glasses -** Used to monitor bead level in tank.
- **11.Bead Supply Valve -** Located below the deck at the bottom of the tank. Open this valve to supply beads to the delivery system. If your truck is equipped with the dual bead tanks option, there will be two separate supply valves.

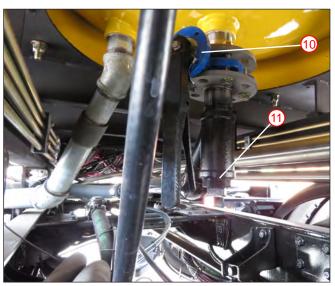
#### NOTICE:

THIS VALVE SHOULD ALWAYS BE TURNED OFF WHEN THE TRUCK IS SHUTDOWN OVERNIGHT OR FOR LONGER DURATIONS. THIS IS IMPORTANT TO REDUCE CONDENSATION IN THE TANK THAT CAN CAUSE THE BEADS TO CLOG IN THE DELIVERY SYSTEM.

**12.Clean Out Port -** Remove the cap to run a rod through the port and supply valve to breakup beads if they clog at the bottom of the tank.



Bead Tank Sight Glasses



Bead Supply Valve & Clean Out Port





### **Bead Delivery System**

The bead delivery system includes tubing, hoses, manifolds and valves that channel the beads from the tank to the bead guns. When the tank is pressurized and the supply valve is turned on, the beads will flow through the tubing and hoses to the manifolds.

Beads accumulate and remain in the manifolds until the valves at the guns are turned on by switches in the gun control panel. The beads then flow from the manifolds, through individual hoses to the gun nozzles.

Special valves on the side of the manifolds purge air locks from the bead hoses. Filters at the purge valves prevent the beads from flowing out the valves. These filters need to be removed and cleaned periodically to provide proper purging.

Each manifold has a clean out cap secured to the manifold with cam locks. The cap can be opened to remove clogs in the manifolds or hoses connected to the manifolds.



### WARNING



NEVER ATTEMPT TO REMOVE THE CLEAN OUT CAP WHILE THE BEAD TANK IS PRESSURIZED. PRESSURE IN THE TANK WILL MAKE THE CAP DIFFICULT TO REMOVE AND WILL BLOW THE CAP FROM THE MANIFOLD UNEXPECTEDLY DURING REMOVAL. THIS COULD RESULT IN SERIOUS INJURY OR EVEN DEATH TO PERSONNEL AND DAMAGE COMPONENTS.



Bead Manifold, Cap & Filter





### 2.12 Spray Gun Carriages

There is a spray gun carriage mounted below each side of the rear control station. Each carriage is equipped with paint spray guns, bead guns, and pneumatically activated nozzles. The carriages are always retracted and raised for travel and lowered only when applying paint.

Pneumatic cylinders activated by switches in the gun control panels raise and lower the carriages. Hydraulic cylinders controlled by the steering wheels on each side of the rear control station move them in or out. When the carriage is lowered to the ground, the cylinder goes into float mode to allow the carriage to ride on the gauge wheels and move freely up and down with the pavement.

Electric actuators, also activated by switches in the gun control panels, raise and lower the spray guns to set line width during operation. Compressed air nozzles (broom nozzles) clean the pavement in front of the spray guns and atomization nozzles provide additional paint atomization during application.

Refer to the operation section for additional information and operating instructions for the spray gun carriages.

#### NOTICE:

THE CARRIAGE AND SPRAY GUN COMPONENTS SHOWN IN THIS SECTION ARE FOR REFERENCE AND MAY BE DIFFERENT THAN THE COMPONENTS USED ON YOUR TRUCK, DEPENDING ON THE OPTIONS SELECTED.



### **WARNING**

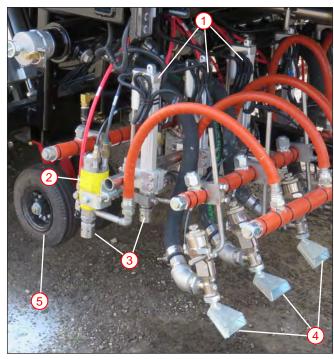


THE SPRAY GUN CARRIAGES AUTOMATICALLY LIFT WHEN THE TRUCK IS PLACED IN REVERSE. THIS COULD RESULT IN DAMAGE TO EQUIPMENT OR INJURY TO PERSONNEL IF THE CARRIAGES LIFT UNEXPECTEDLY.

ALWAYS MAKE SURE TO REMOVE ALL TOOLS OR EQUIPMENT FROM THE CARRIAGES AND WARN PERSONNEL NEAR THE TRUCK BEFORE SHIFTING THE TRANSMISSION TO REVERSE.



Typical Spray Gun Carriage

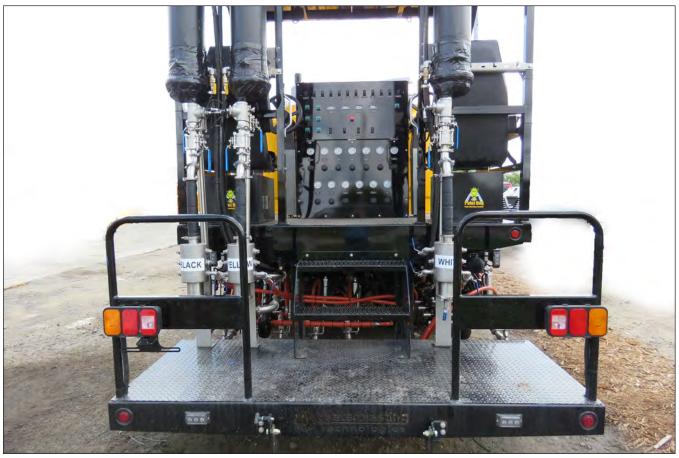


Typical Paint Spray Guns & Electric Actuators

- 1. Electric Actuators
- Spray Gun
- 3. Spray Gun Nozzles
- 4. Bead Gun Nozzles
- 5. Gauge Wheels







Rear Control Station With Optional Paint Heater System

### 2.13 Rear Control Station

The rear control station is located on the rear of the deck. It is equipped with a large control console with switches and pressure regulators that control most of the paint deck components. Quick connect fittings for air and water hoses are located on each side of the station. There are also right and left control stations for the spray guns and carriages. Refer to Rear Control Station Switches & Panels for additional information on the control systems.

A drop step platform and ladder provides access to the control station. The drop step includes a hinged step that folds down to provide easy access to the platform. This step should always be folded up on the platform when the truck is in travel mode. A ladder provides access from the platform to the control station.



Hinged Step





### Hand Gun & Hose Reel (Optional)

A hand gun and hose reel typically used for painting stencils is an available option. Two manual valves near the real are used to select either white or yellow pant to be delivered to the spray gun. Another valve supplies water to flush the gun when spraying operations are completed or when changing colors.

There are two hoses on the reel that are connected to the spray gun. The blue hose supplies the paint. The black hose supplies compressed air to help atomize the paint. Both are activated when the spray gun trigger is pulled.

The hose reel is spring loaded and automatically retracts when the reel lock is released. Pull the hose out slightly to release the lock and retract the hose.

It is important to open only one paint supply valve at a time to prevent color mixing. It is also important to flush the hose and gun with water when spraying is complete or when changing colors.

Refer to the Operation section for additional information on operating the spray gun and hose reel.



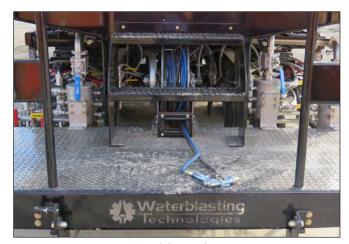
### CAUTION



OPENING THE WATER VALVE WHILE A PAINT VALVE IS OPEN WILL ALLOW PAINT TO FLOW INTO THE WATER LINES, CONTAMINATING THE WATER FLUSH SYSTEM. NEVER OPEN THE WATER VALVE AND A PAINT SUPPLY VALVE AT THE SAME TIME.



Hose Reel & Supply Valves



Hand Spray Gun

### **Arrow Board (Optional)**

An optional arrow board that mounts to the canopy is an available option. Electric actuators rotate the arrow board to the operating position. Switches in the arrow board controller mounted to the rear control panel or in the cab select the type of arrows displayed, brightness and raise or lower the board.



Arrow Board Deployed







Typical Rear Control Console Switch Panel With Optional Paint Heater System



Typical Cab Switch Panel

# 2.14 12 Volt Electrical System Overview

The truck 12 volt electrical system provides electrical power for the switches, solenoids and other electrical components in the paint system. An alternator recharges the batteries whenever the truck engine is operating.

The electrical system is equipped with heavy duty circuit breakers that protect the main electrical circuits and can function as disconnect switches to deactivate the respective circuit. A main battery switch located near the breakers on some models activates or deactivates the truck and paint deck electrical systems. All wires in the electrical systems are color coded or numbered to make identifying circuits easier.

Most paint system equipment is operated by switches in control panels in the cab or rear control station. Fuses in the cab and rear control station panels protect individual circuits activated by the switches in the panels.

A separate 12 volt DC electrical system and onboard battery provides electrical power for starting the auxiliary engine that powers the air compressor and hydraulic pump. This system also powers the compressed air heat exchanger cooling fan. An alternator on the auxiliary engine recharges the battery whenever it is operating. This electrical system is totally isolated from the truck and paint deck electrical systems.



Main Circuit Breakers On Chassis

### **Truck Main ON/OFF Switch**

The main battery switch, located on the passenger side chassis, just behind the cab, activates or deactivates the entire truck and paint deck electrical systems. The battery switch is a safety feature that must be turned ON before operating the truck and turned OFF when it is parked and unattended. To avoid damaging the charging system, make sure to wait a minimum of 30 seconds after the engine is shutdown before turning the battery switch OFF.

The switch can be locked to secure the vehicle or to meet tagout/lockout safety requirements. Always make sure the main switch is turned OFF whenever the truck is unattended.





#### **Main Circuit Breakers**

The heavy duty main circuit breakers are connected directly to battery through relays activated when the ignition switch and cab control panel POWER MASTER switch are ON. They supply electrical power directly to front and rear control panels. The main battery switch, truck ignition switch and panel POWER MASTER switch must be ON to supply power to the main breakers and paint system. Power to individual main circuits can be activated or deactivated by turning the main breaker for the circuit ON or OFF.

The main breakers are labeled A, B, C or D which indicates the circuits the breaker energizes and protects. They are equipped with a yellow indicator/reset lever that indicates the status of the breaker (ON or OFF/TRIPPED) and is used to reset the breaker if it trips or to turn the breaker and electrical circuit off.

These are heavy duty circuit breakers that typically trip only when there is a fault in the system. If a main breaker trips, you should find and correct the problem before resetting the breaker. The breaker is reset by moving the yellow lever to the ON position.

Each main breaker can be used as a disconnect switch by manually moving the yellow lever to the OFF or ON position. Move the lever to the ON position to activate the electrical circuit. Move the yellow lever to OFF position to deactivate the circuit.

## The following is a description of the main breakers and the circuits they protect:

#### Circuit Breaker A

A 70 amp breaker that protects and supplies 12 volt electrical power to the front control panel in the cab.

#### Circuit Breakers B & C

70 amp breakers that protect and supply 12 volt electrical power to the control console on the rear control station.

#### Circuit Breaker D (Optional)

A 70 amp breaker that also protects and supplies 12 volt electrical power to the paint heater and antifreeze circulation pumps.



Main Circuit Breakers Note: Breaker D is for the optional paint heater system and is not present on all trucks.



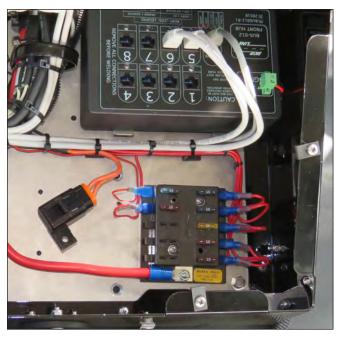
Main Breaker C Reset Lever In ON Position

#### NOTICE:

THE MAIN BATTERY SWITCH AND TRUCK IGNITION SWITCH MUST BE ON TO SUPPLY ELECTRICAL POWER TO THE MAIN CIRCUIT BREAKERS WITH THE POWER MASTER SWITCH. ALWAYS TURN THE MAIN BATTERY SWITCH AND ALL MAIN CIRCUIT BREAKERS OFF WHEN LEAVING THE TRUCK UNATTENDED.











Rear Control Console Switch Panel In-Line Fuses

## **Accessory Circuit Protection**

ATC blade type fuses in fuse panels or in-line fuse holders located inside the front and rear control panels protect most circuits activated by the switches. In-line fuses in circuits outside the panels protect other circuits.

#### NOTICE:

THE CIRCUITS PROTECTED BY IN-LINE FUSES WILL VARY. IN-LINE FUSE LOCATIONS WILL ALSO VARY, DEPENDING ON THE ACCESSORY CIRCUIT PROTECTED. THE MOST COMMON LOCATIONS FOR IN-LINE FUSES ARE INSIDE THE CONTROL PANELS OR NEAR THE COMPONENT THEY PROTECT.

Fuses are color coded with the AMP rating printed on the body. The fuse body is translucent plastic making the fuse element clearly visible and easy to identify a blown fuse.

When replacing fuses, never replace the blown fuse with a fuse of a different color or higher amperage in an attempt to correct a circuit that is causing the fuse to blow. Using a higher amperage



Typical Rear Control Console Fuse Panels

fuse can cause the circuit to overheat which can damage the circuit and components or cause an electrical fire.

Contact Hog Technologies Customer Service if you need assistance troubleshooting an electrical problem.







Cab Main Control Switch Panel

Note: The switch panel shown is typical of the panels used in most trucks. The panel in your truck may be different, depending on the options selected.

## 2.15 Cab Control Switches & Panels Cab Main Switch Panel

Power to all panels and forward work lights is activated by labeled rocker switches on the switch panel in the cab. An LED light in each switch illuminates when the circuit activated by the switch is ON. All main circuits and the panel POWER MASTER switch are energized by the truck ignition switch. The POWER MASTER switch must be ON for any other switches in the cab and rear panels to function.

The following is a description of the console panel switches and the functions they control.

#### **POWER MASTER**

 Energizes the circuits for all switches in the cab switch panel, digital gauges, strobe and work lights, and the cooling fan for the hydraulic system oil cooler. It also energizes the switches in the rear control station panels. A green LED light in the switch indicates that the power switch is ON and all panels are energized.

#### NOTICE:

THE COMPRESSOR AUXILIARY ENGINE MUST BE RUNNING TO ACTIVATE THE HYDRAULIC SYSTEM. THE POWER MASTER SWITCH MUST BE ON TO PROVIDE ELECTRICAL POWER TO ALL OTHER SWITCHES IN THE CAB AND REAR SWITCH PANELS.

#### POINTER ARM FLOAT/HOLD/LIFT

A three position switch that activates the hydraulic cylinder that raises and lowers pointer arm. The top (LIFT) position is momentary and raises the arm. The center (HOLD) position locks the arm in the current position. The switch automatically returns to the center position when the top of the switch is released. The bottom position is NOT momentary and lowers the arm at a preset rate and engages the FLOAT feature that enables the pointer arm to float freely over uneven road surfaces.

Press and hold the top of the switch to raise the arm. Release the switch to stop the arm in the



## Section 2 - Paint Hog Systems



desired position. When the top of the switch is released, it returns to the center (HOLD) position and locks the arm. Press and hold the bottom of the switch to lower the arm. The arm will lower to the pavement and FLOAT mode will be engaged. The switch will stay in the LOWER/FLOAT position until it is moved to HOLD or LIFT. Always make sure the switch is set to FLOAT whenever operations are underway or when the arm is stored for transit.

#### **AUXILIARY**

Reserved for additional accessories.

#### **AUXILIARY**

Reserved for additional accessories.

#### **AUXILIARY**

Reserved for additional accessories.

#### **WORK LIGHT**

An ON/OFF switch that activates the forward flood lights on the light bar.

#### **STROBE LIGHTS**

An ON/OFF switch that activates the strobe lights on the light bar as well as side and rear strobes.

#### **AUXILIARY**

Reserved for additional accessories.

#### **AUXILIARY**

Reserved for additional accessories.

#### **AUXILIARY**

Reserved for additional accessories.

#### **CARRIAGE IN/OUT Switches (Optional)**

Two momentary, three position switches that move the right or left carriage in and out.

#### **STEERING LOCK Switches (Optional)**

Releases the lock that prevents the right and left carriages from drifting out when the truck is in travel mode and activates the carriage steering system.

## Other Cab Switches and Controls Skip Line Controller

Monitors striping speed and controls line length and spacing during striping operations. It also monitors total applied line and skip footage. Refer to the Skip Line Controller manual for additional information and operating instructions.



Skip Line Controller



Headset Panel

#### **Cab Headset Panel**

The jacks for the cab headphones, volume controls and fuse protection are located in the headset panel. There is a separate volume control knob and jack for each headset. Rotate the knob clockwise to increase volume, rotate the knob counterclockwise to reduce volume. A fuse near the control dial protects the panel from an overload.





## **Dual Truck Controls (Optional)**

Trucks can be equipped with dual steering and controls. Refer to the truck operation manual for information on the dual control system.

## Right & Left Carriage/Spray Gun Control Panel (Optional)

A control box mounted in the truck cab that houses the toggle switches and Skip Line display that control and monitor the application of paint and beads to the pavement. 12 volt power to the panel is activated when the truck ignition and POWER MASTER switch in the cab switch panel are ON.

Toggle switches in the panel turn spray guns ON or OFF and control most functions available on the spray gun carriage. Only carriage IN/OUT (carriage steering) is controlled by steering rocker switches in the main switch panel.

A Skip Line Controller is built into each panel. This allows the operator to set up skip line patterns and monitor them during operations. The control panel is programmed to allow the operator to select to control the right or left carriage.

An operation manual for the control panel and Skip Line controller is included with your literature package. Refer to this manual for detailed instructions on operating or programing the Skip Line system. Basic instructions are also outlined in the Operation section of this manual.

## 2.16 Cameras & Video System (Optional)

The optional video system includes a monitor and 2 cameras that provide guidance assist during striping operations. The monitor is removable and secured to the windshield with a special vacuum cup. The monitor obstructs the driver's forward visibility, so it must be removed and properly stored when the truck is in travel mode.

The monitor vacuum cup is equipped with a manual pump that creates a strong suction to the windshield. To attach the monitor, make sure the vacuum cup and windshield are clean. Hold the monitor against the windshield and pump the plunger on the suction pump until the red line on the plunger remains hidden in the pump body, indicating the cup and monitor are secure and ready for use. If the red line is exposed, it indicates vacuum suction is weak and the monitor could release from the windshield.



Typical Cab Carriage/Spray Gun Control Panel



Monitor



## Section 2 - Paint Hog Systems



Check the plunger frequently to make sure the cup remains securely attached. If the red line begins to show, pump the plunger to increase vacuum. Remove the monitor and clean the suction cup and windshield if the red line becomes exposed frequently.

Cameras on each side of the chassis provide a full screen image of the center road surface or shoulder on the monitor. An adjustable cross hair displayed on the screen is used for guidance and alignment purposes. Typically the cross hair is aligned to the center line, a seam or the edge of the pavement to help maintain proper truck and stripe carriage alignment during spray operations.



### WARNING



THE VIDEO MONITOR OBSTRUCTS THE DRIVER'S FORWARD VISIBILITY AND COULD RELEASE FROM THE WINDSHIELD UNEXPECTEDLY WHILE TRAVELING DOWN THE HIGHWAY IN TRAVEL MODE. RESTRICTED VISIBILITY OR AN UNEXPECTED RELEASE OF THE MONITOR COULD RESULT IN AN ACCIDENT. ALWAYS REMOVE AND PROPERLY STORE THE MONITOR BEFORE SHIFTING THE TRUCK TO TRAVEL MODE AND DRIVING ON THE HIGHWAY.

The cameras are mounted to a gimbal inside a protective housing. The gimbal automatically compensates for chassis roll to keep the camera level.

The housing is mounted on a retractable arm with an electric actuator. Camera IN/OUT position is set using the CAMERA EXTEND/RETRACT switches in the cab switch panel. The camera arms are always fully retracted for travel and extended for spray operations.

Camera zoom and focus are manually set by removing the protective lens cover on the front of the camera housing. Once the cover is removed, rotate the controls on the lens to set zoom and focus. Use the monitor to verify settings. Refer to the Operation section and the camera operation manual for additional information on adjusting and using the cameras.



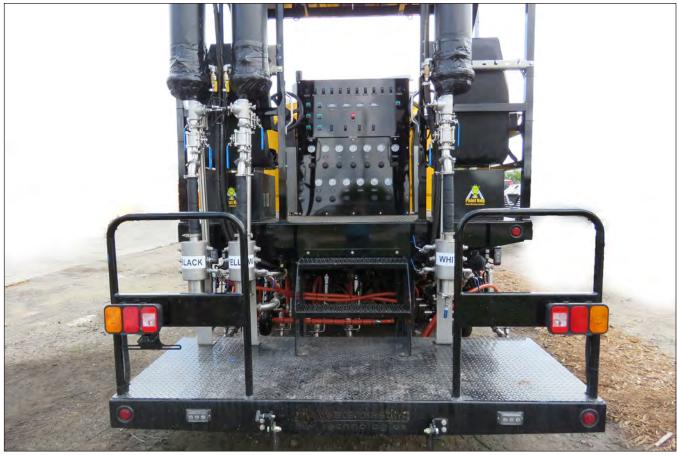
Monitor Vacuum Cup & Pump Plunger



Typical Camera







Rear Control Station

Note: Some components, switches and regulators shown are optional. Your truck may be different, depending on the options selected.

## 2.17 Rear Control Station Switches and Panels

#### **Rear Control Console**

Power to rear work lights and most features of the paint system are activated by labeled switches or control pads on the console. LED lights in each switch illuminate when the circuit activated by the switch is ON. Two doors on the front of the panel provide access to panel components.

All 12 volt main circuits and rear station control panels are energized by the truck ignition switch and the POWER MASTER switch in the cab switch panel. The POWER MASTER switch must be ON for any switches or features in the rear control panels to function.

#### **Upper Console Switches And Controls**

Most switches that control paint equipment are located in the upper section of the console. This section is hinged at the bottom and secured with

two bolts. It can be opened to access the fuses that protect the circuits controlled by the switches and to service other components. Refer to the 12 Volt Electrical System section for additional information on circuit protection and fuses.

#### NOTICE:

THE REAR CONTROL SWITCH PANELS SHOWN IN THIS SECTION ARE FOR REFERENCE PURPOSES. THE PANEL ON YOUR TRUCK MAY BE DIFFERENT, DEPENDING ON THE OPTIONS SELECTED.

#### **Console Switches**

The following is a description of the switches and the features they control:

### **LEFT STEERING**

Releases the lock that prevents the left carriage from drifting out when the truck is in travel mode and activates the carriage steering system.







Typical Rear Control Panel Switches With Optional Paint Heater System



Typical Rear Control Panel Switches Without Optional Paint Heater System

#### **CARRIAGE STROBE LEFT**

Activates the strobe lights on the driver side spray gun carriage.

#### **LIGHTS CARRIAGE LEFT**

Activates the lights that illuminate the driver side spray gun carriage.

#### **LIGHTS CANOPY REAR**

Activates the lights that illuminate the rear of the truck.

#### PAINT MIXER

Activates the hydraulic mixer motors in the paint tanks.

#### **AUXILIARY**

Reserved for additional accessories.

#### ΔΙΙΧΤΙ ΤΔΡΥ

Reserved for additional accessories.

#### **DECK LIGHTS**

Activates the lights that illuminate the paint deck.

#### **LIGHTS CARRIAGE RIGHT**

Activates the lights that illuminate the passenger side spray gun carriage.

#### **CARRIAGE STROBE RIGHT**

Activates the strobe lights on the passenger side spray gun carriage.

#### **RIGHT STEERING**

Releases the lock that prevents the right carriage from drifting out when the truck is in travel mode and activates the carriage steering system.

#### **LEFT GUN NOZZLE FLUSH SWITCHES**

There are six momentary switches on the left side of the panel that activate the clean water flush cycle for the left carriage spray gun paint nozzles. The switches are labeled for the gun nozzles they flush.

When a FLUSH switch is pushed, a preset flush cycle is started. Each cycle runs for approximately ten seconds. A green LED light in the switch indicates the flush cycle is active. The light turns off when the flush is complete.

Rheostats inside the control panel that set flush times are preset at the factory. They can be adjusted to provide shorter or longer flush times if required.

#### **RIGHT GUN NOZZLE FLUSH SWITCHES**

One momentary switch on the right side of the panel activates the clean water flush cycle for the right carriage spray gun paint nozzles. The switch is labeled for the gun nozzle it flushes.

When the FLUSH switch is pushed, a preset flush cycle is started. Each cycle runs for approximately ten seconds. A green LED light in the switch indicates the flush cycle is active. The light turns off when the flush is complete.





#### **E-STOP**

Shuts down the power to all paint system components and stops all paint system operations. Once pressed, this button remains in the STOP position until it is reset by the operator.

### Paint Heating System Switches (Optional)

The following switches will be in the panel if your truck is equipped with the paint heater option.

#### **BURNER ON**

Activates the paint heater burner. It is particularly important to turn OFF the burner while fueling the truck and spay operations stop.



LEAVING THE BURNERS ACTIVATED WHILE FUELING CAN CAUSE A FIRE OR EXPLOSION RESULTING IN SEVER INJURY OR DEATH. ALWAYS TURN OFF THE BURNERS BEFORE ENTERING A FUEL STATION. THIS PROCEDURE SHOULD NEVER BE OVERLOOKED.

#### **TEMPERATURE YELLOW PAINT**

Sets and monitors the temperature for the paint that flows through the yellow paint heat exchanger. The current temperature is shown on the display. Up and down soft keys allow the operator to raise or lower paint temperature.

**TEMPERATURE BLACK PAINT** Sets and monitors the temperature for the paint that flows through the black paint heat exchanger. The current temperature is shown on the display. Up and down soft keys allow the operator to raise or lower paint temperature.

#### **TEMPERATURE**

Sets and monitors the temperature for the hot antifreeze that circulates through the heater and antifreeze reservoir. The current temperature is shown on the display. Up and down soft keys allow the operator to raise or lower antifreeze temperature.

#### **TEMPERATURE WHITE PAINT**

Sets and monitors the temperature for the paint that flows through the white paint heat exchanger. The current temperature is shown on the display. Up and down soft keys allow the operator to raise or lower paint temperature.



E-Stop Switch In Rear Control Panel

#### **CIRCULATION YELLOW PAINT**

Activates the pump that circulates hot antifreeze through the yellow paint heat exchanger to warm the yellow paint.

### **CIRCULATION BLACK PAINT**

Activates the pump that circulates hot antifreeze through the black paint heat exchanger to warm the black paint.

#### **CIRCULATION**

Activates the pump that circulates hot antifreeze through the heater and antifreeze reservoir. The circulation switch must be on in order for the burner to function.

#### **CIRCULATION WHITE PAINT**

Activates the pump that circulates hot antifreeze through the white paint heat exchanger to warm the white paint.







Rear Panel Pressure Regulators & Pressure Gauges

### **Lower Panel Controls And Gauges**

Pressure regulators and gauges that control the operation of pneumatically activated components are located in the lower section of the control console. A Gauge that monitors the compressed air system pressure is also located in this panel.

The following is a description of the gauges and regulators in the lower panel:

#### NOTICE:

THE LOWER PANEL REGULATORS SHOWN IN THIS SECTION ARE FOR REFERENCE PURPOSES. THE REGULATORS IN THE PANEL ON YOUR TRUCK MAY BE DIFFERENT, DEPENDING ON THE OPTIONS SELECTED.

#### **GUN 1 ATOMIZER**

A pressure gauge and regulator that monitors and sets atomizer pressure for spray gun 1 on the left carriage.

#### **GUN 2 ATOMIZER**

A pressure gauge and regulator that monitors and sets atomizer pressure for spray gun 2 on the left carriage.

### **GUN 3 ATOMIZER**

A pressure gauge and regulator that monitors and sets atomizer pressure for spray gun 3 on the left carriage.

#### **GUN 4 ATOMIZER**

A pressure gauge and regulator that monitors and sets atomizer pressure for spray gun 4 on the left carriage.

#### **GUN 5 ATOMIZER**

A pressure gauge and regulator that monitors and sets atomizer pressure for spray gun 5 on the left carriage.

#### **GUN 6 ATOMIZER**

A pressure gauge and regulator that monitors and sets atomizer pressure for spray gun 6 on the left carriage.





#### **GUN 1 ATOMIZER**

A pressure gauge and regulator that monitors and sets atomizer pressure for spray gun 1 on the right carriage.

#### **YELLOW PAINT**

A pressure gauge and regulator that monitors and sets air pressure in the yellow paint tank.

#### **BLACK PAINT**

A pressure gauge and regulator that monitors and sets air pressure in the black paint tank.

#### **WATER TANK**

A pressure gauge and regulator that monitors and sets air pressure in the water tank.

#### **MANIFOLD**

This gauge monitors pressure in the compressed air system.

#### **BEADS**

A pressure gauge and regulator that monitors and sets air pressure in the bead tank.

#### WHITE PAINT

A pressure gauge and regulator that monitors and sets air pressure in the white paint tank.

#### NOTICE

ATOMIZING AIR PRESSURE SHOULD ALWAYS BE SET AT LEAST 10 PSI ( .7 BAR) ABOVE TO PREVENT SPLATTER AND DRIP.

## Rear Station Mounted Controls Headset Controller

The knob controls headset volume. Rotate the knob clockwise to increase volume, rotate the knob counterclockwise to reduce volume.

### ARROW BOARD CONTROLLER (Optional)

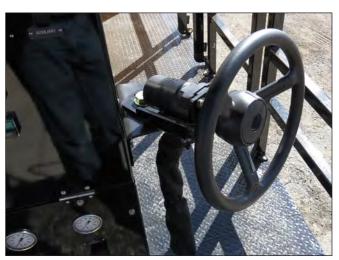
Located in the cab or on the rear console. Switches in the arrow board controller select the type of arrows displayed, brightness and raise or lower the board.

## **Carriage Steering Controls**

Steering wheel type controls mounted on each side of the main console that control the hydraulic cylinders that move the carriages in and out during spray operations. The wheels are activated by



Rear Headset Controller



Carriage Steering Wheel

turning the LEFT STEERING OR RIGHT STEERING switch on the rear control panel ON. Turn the wheel outboard to move the carriage out. Turn the wheel inboard to move the carriage in.

Each steering wheel must be activated by the LEFT or RIGHT STEERING switches in the rear station control panel before the wheel will move the selected carriage in or out. Each steering switch must be OFF to lock the carriage hydraulic system to prevent them from drifting out while in travel mode.





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## WARNING



IN SOME SITUATIONS, IT IS POSSIBLE FOR THE HYDRAULIC CYLINDERS THAT MOVE EACH CARRIAGE IN OR OUT TO GRADUALLY DRIFT OUT WHILE TRAVELING IF EACH STEERING SWITCH IS NOT TURNED OFF WHEN THE TRUCK IS IN TRAVEL MODE. THIS CAN RESULT IN DAMAGE TO THE CARRIAGE OR TO OTHER VEHICLES. ALWAYS MAKE SURE THE STEERING SWITCHES ARE OFF WHENEVER THE TRUCK IS SWITCHED TO TRAVEL MODE.

## Spray Gun Control Panels (2)

Weather proof boxes on each side of the rear control station house the toggle switches and Skip Line display that control and monitor the application of paint and beads to the pavement. 12 volt power to the panels is activated when the truck ignition and POWER MASTER switch in the cab switch panel are ON. The hinged panel cover is secured with two compression latches when it is closed.

The panels are mounted on swivel mounts that allow the operator to swing the panel up over the rail to create additional clearance at the carriage steering wheels. Threaded thumb screws secure each panel in the desired position.

Toggle switches in the panel turn spray guns ON or OFF and control most functions available on the spray gun carriage. Only carriage IN/OUT (carriage steering) is controlled by the steering wheel on each side of the control station console.

A Skip Line Controller is built into each panel. This allows the driver to set up skip line patterns and monitor them during operations. The controllers are programmed to work for either side. If one fails, contact the Hog Technologies technical support team and they will walk you through the process of switching the one from the other side in order to keep working without delay.

An operation manual for the control panel and Skip Line controller is included with your literature package. Refer to this manual for detailed instructions on operating or programing the Skip Line system. Basic instructions are also outlined in the Operation section of this manual.



Spray Gun Control Panel Hinged Cover & Latches



Spray Gun Controller Swung Up To Provide Walk Around Clearance



Spray Gun Control Panel Switches & Skip Line Controller





## 2.18 Access Panels, Ladders & Tool Boxes

#### Ladders

Ladders on each side of the deck provide access to the tanks, air compressor and other components located on the deck. Each ladder is hinged and has a spring loaded safety pin that locks the ladder in the stored position.

To use the ladder, release the safety pin and swing the ladder down to the deployed position. Return the ladder to the stored position and secure it with the safety pin when service or inspections are complete.

Ladder Deployed

### **Tool Boxes**

Heavy duty, lockable tool boxes are located on each side of the rear control station. The tool boxes are used for storing nozzles, extra parts and tools. Always make sure the tool box doors are closed, latched and locked before operating the truck.



## **CAUTION**



ALWAYS MAKE SURE THE LADDERS AND TOOL BOX DOORS ARE LATCHED IN THE STORED POSITION BEFORE OPERATING THE TRUCK. THE LADDER AND OPEN TOOL BOX DOORS STICK OUT FROM THE SIDE OF THE VEHICLE AND CAN CAUSE DAMAGE TO THE TRUCK OR OTHER VEHICLES IF THEY ARE NOT PROPERLY STORED OR CLOSED FOR TRANSPORT.



Ladder Stored & Locked With Safety Pin



Tool Box





## **NOTES**





## **Operation**



Typical Paint Hog In Operation

## 3.1 Start Up/Shutdown Introduction

Before operating the Paint Hog, check the fluid levels in the truck engine, transmission, air compressor and hydraulic system. A thorough understanding of the component systems and their operation is essential to the proper operation. Never allow inexperienced and untrained personnel to operate the Paint Hog.

This manual and the associated manufacturers' information is provided to enhance your knowledge of this equipment. Make sure you have read them carefully and understand the truck and all components and systems in theory and operation.

To make operation as safe and productive as possible, it is essential to conduct a thorough pre-start inspection before operating the machine. You should walk around the unit and visually inspect truck chassis and all paint system components for obvious signs of leaks, wear and deterioration. The inspection should be conducted in an orderly and consistent fashion to ensure all critical points are inspected each time. Do not operate the unit until all questionable components are repaired or replaced.

The startup and shutdown procedures described in this section are for a typical system. This information is provided as a general guide and overview of the process for educational purposes. The exact procedure for your truck may be different, depending on the chassis and the options selected.



### WARNING



THE SPRAY GUN CARRIAGES AUTOMATICALLY LIFT WHEN THE TRUCK IS PLACED IN REVERSE. THIS COULD RESULT IN DAMAGE TO EQUIPMENT OR INJURY TO PERSONNEL IF THE CARRIAGES LIFT UNEXPECTEDLY.

ALWAYS MAKE SURE TO REMOVE ALL TOOLS OR EQUIPMENT FROM THE CARRIAGES AND WARN PERSONNEL NEAR THE TRUCK BEFORE ENGAGING THE TRANSMISSION IN REVERSE.

#### NOTICE:

THE CARRIAGE STROBE LIGHTS CAN BE TEMPORARILY TURNED OFF TO IMPROVE DRIVER VISIBILITY WHILE BACKING THE TRUCK DURING NIGHT OPERATIONS.





## 3.2 Pre-Operation Inspection

The pre-operation Inspection in this section and the Pre-Op Check List in Appendix 4 is provided as a guideline. Additional items should be added to the checklist as determined by company policy, your operating environment, and other factors unique to your situation.

The following instructions provide a general overview and introduction to the pre-operation inspection. The Pre-Op Checklist provides an itemized checklist that should be used when performing a pre-operation inspection.

### **Pre-start Inspection Check List:**

- 1. Check tire condition and air pressure.
- 2. Check the fuel level and make sure you have enough for the shift.
- Check engine and all chassis fluid levels. Refer to the truck operating manual for all recommended pre-start procedures.
- 4. Check compressor engine oil and coolant level.
- 5. Check compressed air reservoir oil level, fill if necessary. Refer to air compressor operating manual for all recommended pre-start procedures.
- Check paint heater antifreeze level. Add antifreeze if necessary. (The paint heater is optional)
- 7. Check hydraulic fluid level. Add if necessary.
- 8. Inspect hydraulic cooler. Clean if necessary.
- 9. Turn on the truck master power switch.
- 10. Make sure all paint system circuit breakers
- 11. Fill the water tank with potable water.
- 12. Check paint level in tanks. Fill if necessary. Refer to filling paint tanks.

13. Check bead level in tank. Fill if necessary. Refer to filling the bead tank.

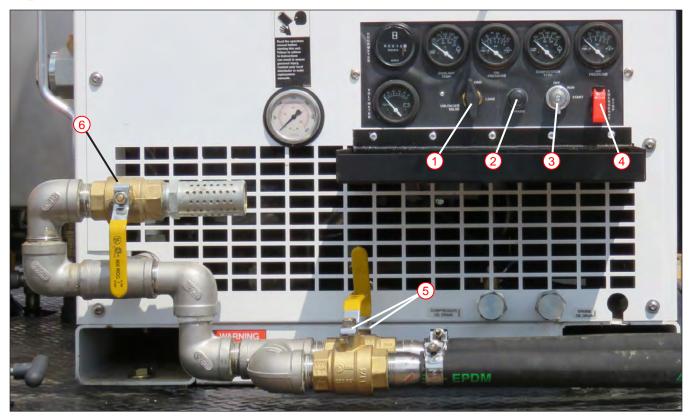
#### NOTICE:

IF YOU NEED TO FILL THE PAINT AND BEAD TANKS, FOLLOW COMPRESSOR STARTUP AND TANK FILLING PROCEDURES IN THIS SECTION OF THE MANUAL.

- 14. Inspect all hoses and fittings for signs of leaks or damage.
- 15. Secure fill hoses and all paint system equipment for transport.
- 16. Secure Ladders in the stored position with safety pins and close and lock tool box doors.
- 17. Swing the platform step onto the platform.
- 18. Visually inspect carriages and components for damage.
- 19. Spray gun nozzles and shrouds installed & clean.
- 20. Hand spray gun and hose reel in good condition and ready for operation.
- 21. Make sure carriages are up, retracted and locked.
- 22. Make sure all lubrication points on the carriage gauge wheels are greased with the specified lubricant.
- 23. Check all controls, switches and lights for proper operation.
- 24. Make sure all spare parts and tools are onboard.
- 25. Conduct a final walk around and visually check all components. Look for obvious problems that may have been overlooked. Start the truck engine and allow it to warm up.
- 26. When ready, drive to the job site.







Air Compressor Controls & Gauges

- 1. Unloader Valve
- 2. Bypass Switch
- 3. OFF-ON-Run Switch

- 4. Emergency Stop Switch
- 5. Compressed Air System Supply Valves
- 6. Exhaust Valve

# 3.3 Starting & Stopping the Air Compressor

#### Starting the Compressor

- Check engine and compressor oil and coolant levels.
- 2. Make sure the UNLOADER VALVE is set to Unload.
- 3. Press & hold the BYPASS button for several seconds.
- 4. While holding the BYPASS button, turn the ignition switch to Start.
- 5. Continue holding the BYPASS button until the engine starts and the gauges stabilize. Then release the button.
- 6. Move the UNLOADER VALVE to Load.
- 7. Close the compressed air system exhaust valve & open the air supply valves. Monitor pressure gauges closely until air pressure stabilizes.

#### **Stopping the compressor**

- 1. Set the UNLOADER valve to Unload.
- 2. Close the system air supply valve.
- 3. Open the system exhaust valve to bleed off system pressure.
- 4. Turn the ignition switch off. It may take a couple of minutes for the compressor engine to shutdown.

#### NOTICE:

NEVER USE THE EMERGENCY STOP SWITCH TO SHUTDOWN THE COMPRESSOR. THE EMERGENCY STOP GROUNDS OUT THE SYSTEM AND CAUSES A POWER SURGE THAT BLOWS THE COMPRESSOR MAIN FUSE.





## 3.4 Filling The Water Tank

- 1. Make sure the air compressor is running and system pressure has stabilized.
- 2. Close air supply valve on top of the water tank.
- 3. Open the exhaust valve to bleed off tank pressure.
- 4. Verify no pressure in the tank, then loosen the cam locks and remove the sight cap at top of tank.
- 5. Use a hose to fill the tank with potable water. Leave a 12" air space at the top.
- 6. Install the sight cap and secure the cam locks.
- 7. Close the exhaust valve at top of tank.
- 8. Slowly open air supply valve and verify proper pressure.



Use the following procedure to fill any of the three paint tanks.

- 1. Make sure the air compressor is running and system pressure has stabilized.
- 2. Close air supply valve on top of the paint tank.
- 3. Open the exhaust valve to bleed off tank pressure.
- 4. Place withdrawal tube in paint drum or tote and connect withdrawal hoses to the tube.
- 5. Connect withdrawal hoses to diaphragm pump and secure cam locks.
- 6. Verify no pressure in the tank, then remove the 4" sight cap at top of tank and have an assistant monitor paint level. Note the cap must be removed to vent the tank and avoid possibility of over pressurizing the tank when it is full.



## WARNING



A SIGHT CAP REMOVED WITH PRESSURE IN THE TANK CAN BE EJECTED WITH ENOUGH FORCE TO CAUSE SEVERE INJURY OR EVEN DEATH IF IT HITS SOMEONE. ALWAYS VERIFY 0 PRESSURE IN THE PAINT TANK BEFORE REMOVING THE CAP.

7. Open paint supply valve at pump and at the bottom of the tank. Make sure supply valve on bottom of tank is also open.



Water Tank



Water Tank Valves & Sight Cap

- 1. Air Supply Valve
- 3. Sight Cap
- 2. Exhaust Valve
- 4. Pressure Gauge
- 8. Close the paint delivery valve near the primary strainer.
- 9. Slowly turn on the air pressure valve at the pump to activate the pneumatic pump and begin filling the tank.





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## **CAUTION**



DO NOT OPEN THE AIR PRESSURE VALVE TOO MUCH. THE VALVE NEEDS TO BE OPEN ONLY ENOUGH FOR THE PUMP TO FUNCTION. BARELY OPEN WILL BE SUFFICIENT. IF IT IS OPENED TO FAR, EXCESSIVE AIR PRESSURE CAN QUICKLY DAMAGE THE PUMP.

10. When the tank is near full, make sure to allow room for 5 gallons of flush water to clean the pump and hoses.

### WARNING



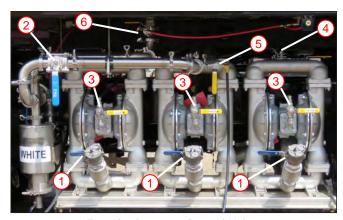
OVERFILLING A PAINT TANK CAN DAMAGE EQUIPMENT AND CREATE A SLIP AND FALL HAZARD ON THE DECK. ALWAYS HAVE SOMEONE MONITOR THE TANK AS IT FILLS TO ENSURE IT IS NOT OVERFILLED.

- 11. Shutdown the pump and place the withdrawal tube in a 5 gallon bucket of water. Then run pump until the bucket is empty. Flush water will clean the lines and go into the paint tank.
- 12. Continue running pump until water is purged from the pump.
- 13. With pump still running, close the tank fill valve at bottom of tank, then all other valves including the supply valve on the pump. Then shut down pump.
- 14. Preform a final pump and line flush as follows.
  - Close the pump inlet valve.
  - Open the drain/flush valve.
  - Open the flush water valve above the pump and flush the pump and lines until water runs clear.
  - Close the water valve.
  - Close the drain/flush valve.
  - Close the pump outlet to tank valve.
- 15. Install and tighten the sight cap.
- 16. Close the exhaust valve at top of tank.
- 17. Slowly open air supply valve and verify proper pressure.
- 18. Connect a water hose to the connector on the side of the paint deck and clean the fill hoses.
- 19. Store the hoses.
- 20. Run the mixers for 5-10 minutes after filling.



Paint Tank Valves & Sight Cap

- 1. Air Supply Valve
- 3. Sight Cap
- Exhaust Valve
- 4. Pressure Gauge



Transfer Pumps & Control Valves

- . Pump Intake Fitting & Valve
- 2. Paint Delivery Valve
- 3. Compressed Air Valves
- 4. Pump Inlet Valve
- 5. Drain/Flush Valve
- 6. Flush Water Valve



Typical Paint Supply Valve At Bottom Of Tank





## 3.6 Filling Bead tank

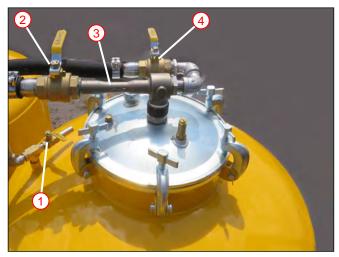
- 1. Make sure the air compressor is running and system pressure has stabilized.
- 2. Close air supply valve on top of tank.
- 3. Open the exhaust valve to bleed off tank pressure.
- 4. Bead fill hoses are stored on the paint deck. Connect hoses to the fill valve and place the other end in bead tote.
- 5. Close the bead supply valve on bottom of tank.
- 6. Open the fill valve and verify vacuum at suction hose. Begin vacuuming beads into the tank.
- 7. Open the compressed air supply and outlet valves at the venture to create vacuum.
- 8. Monitor beads in the tote closely while filling to ensure beads are clean. Paper from bead bags and other debris can clog the delivery system.
- 9. Fill until beads are visible in top site glass.
- 10. Close the fill valve
- 11. Close the venture inlet valve and outlet valves.
- 12. Slowly open tank air supply valve and verify proper pressure.
- 13. Open bead supply valve.



OVERFILLING THE BEAD TANKS WILL CAUSE FAILURE IN THE BEAD DELIVERY SYSTEM. NEVER OVERFILL THE BEAD TANKS.



Bead Tank Pressure Supply Valve



Bead Tank Control Valves

- 1. Exhaust Valve
- 3. Venturi
- 2. Venturi Outlet Valve
- 4. Venturi Compressed Air Valve



Bead Supply Valve At Bottom Of Tank



Bead Tank Fill Valve & Cap





## 3.7 Changing Spray Gun Paint Color

The capability to paint extra wide paint lines is an available option. The paint supply lines going to the guns for extra wide strips are designed to be switched to different color paint. The procedure to change the paint color to the carriage is as follows.

- 1. Close the ball valves on the manifold.
- 2. Bleed pressure from both paint tanks
- 3. Remove plug from the fitting on the manifold to be supplied.
- 4. Disconnect supply hose from the fitting on the manifold with desired color.
- 5. Place the plug on removed hose fitting
- 6. Attach supply hose to the other manifold and tighten fitting.
- 7. Pressurize paint tanks and check for leaks.

# 3.8 Starting & Shutting Down The Paint Heater

The optional heater should be activated 5 minutes before spraying operations begin. This will allow time for the system to warm up enough for the heat exchangers to be effective. The most convenient time is usually during the spray test.

#### Starting The Paint Heating System

- 1. Activate the reservoir circulation pump by turning the CIRCULATION switch on.
- 2. Activate the burner with the BURNER ON switch.

#### NOTICE:

THE RESERVOIR CIRCULATION PUMP MUST BE ON BEFORE THE BURNER AND HEAT EXCHANGER PUMPS WILL OPERATE.

- 3. Verify ignition, then activate heat exchanger circulation pumps for the color paint to be sprayed.
- 4. Set antifreeze temperature to 95-100 degrees for main tank.
- 5. Set paint temperature to 100 degrees for each paint heat exchanger.
- 6. Paint must be flowing for accurate paint temperature reading.



Paint Heater Reservoir & Burner



Paint Heat Exchangers





## **Shutting Down The Paint Heating System**

The paint system must be shutdown if spray operations stop for more than 10 minutes or immediately after spray operations stop for the current shift.



## **CAUTION**



DO NOT ALLOW HEATER SYSTEM TO OPERATE FOR MORE THAN 10 MINUTES AFTER PAINT OPERATIONS STOP. HEAT SYSTEM WILL OVERHEAT WITHOUT PAINT FLOWING. THIS WILL RESULT IN DAMAGE TO THE PAINT AND HEATING SYSTEMS.

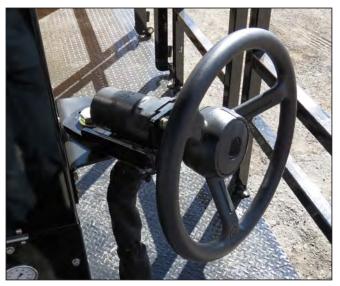
- 1. Turn the burner off.
- 2. Allow circulation pumps for several minutes to cool the heater and heat exchangers.
- 3. When the heater reservoir cools 20 degrees, the pumps can be shutdown.



Spray Gun Control Panel Switches & Skip Line Controller

## 3.9 Starting Paint Operations

- 1. Move the truck to the start of the job.
- 2. If necessary, install spray gun nozzle shrouds.
- 3. Make sure the air compressor is running and system pressure has stabilized.
- 4. Deploy the pointer and align the truck. If equipped with optional cameras, deploy the cameras.
- 5. Make sure paint, water and bead tank pressure is set to the desired level.
- 6. Set atomizer pressure at least 10 PSI (.7 BAR) above paint tank pressure.
- 7. If required, activate the paint heating system. Refer to Starting & Shutting Down The Paint Heater for the startup procedure.
- 8. When truck drive is on point, use the switches in the spray gun control panel move the carriage out.
- 9. Lower the carriage and align with the stripe marking line.
- 10. Set the skip pattern if necessary.
- 11. Perform a test spray and initial line width.
- 12. When ready, signal the driver to start moving the truck. Work mode speed is typically 5 to 10 MPH.



Carriage Steering Wheel

- 13. Engage the broom spray nozzles and begin spray operations if needed.
- 14. Tweak pressure and line width as required to achieve desire results.

#### NOTICE:

IF A SPRAY GUN STOPS FOR MORE THAN A COUPLE OF MINUTES, PRESS AND HOLD THE APPROPRIATE FLUSH BUTTON TO ACTIVATE THE FLUSH CYCLE.







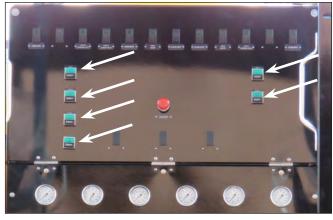
## **CAUTION**



DO NOT ALLOW HEATER SYSTEM TO OPERATE FOR MORE THAN 10 MINUTES AFTER PAINT OPERATIONS STOP. HEAT SYSTEM WILL OVERHEAT WITHOUT PAINT FLOWING. THIS WILL RESULT IN DAMAGE TO THE PAINT AND HEATING SYSTEMS.

## 3.10 Routine Paint System Shutdown

- 1. Shutdown all paint nozzles.
- 2. If activated, shutdown the paint heater burner and leave the circulation pumps running. Refer to Starting & Shutting Down The Paint Heater for the shutdown procedure.
- 3. Raise and retract the carriage.
- 4. Move to the side of the road or another safe location
- 5. Extend the carriage
- 6. Press the flush button for each gun used. Press and hold the button for 2 seconds to activate the 10 second flush cycle to flush nozzle.
- 7. Flush each nozzle with 3 flush cycles.
- 8. Close the paint and bead tanks air pressure supply valves and open the dump valves to exhaust tank pressure.
- 9. Close the exhaust valve to prevent moisture accumulation in tanks.
- 10. Make sure to leave water tank pressurized.
- 11. Dumping tank pressure prevents paint back flow into other tanks or the water system.
- 12. Remove spray gun nozzle shrouds and soak in simple green. Store in a covered container in the tool box.
- 13. Use the water system and hose to rinse paint residue from all components.
- 14. Raise and retract the carriages and engage carriage locks by turning LEFT and RIGHT STEERING switches off.



Typical Spry Gun Flush Buttons

- 15. Retract and store pointer. Secure with safety pins.
- 16. Raise and secure all ladders.
- 17. Swing the rear step onto the platform.
- 18. Do a final walk around. Verify that all equipment is secure and that ladders, step and pointer are stored and secure.
- 19. Shutdown air compressor engine and bleed off pressure. Refer to Starting & Stopping the Air Compressor for instructions to shutdown the compressor.
- 20. Shutdown the strobe lights.
- 21. Turn off the POWER MASTER switch in the cab switch panel to disable the paint electrical system.
- 22. Drive to yard. Then follow the truck manufacturer's instruction to shutdown the truck.





## 3.11 Hand Spray Gun Operation Deploying the hand spray gun:

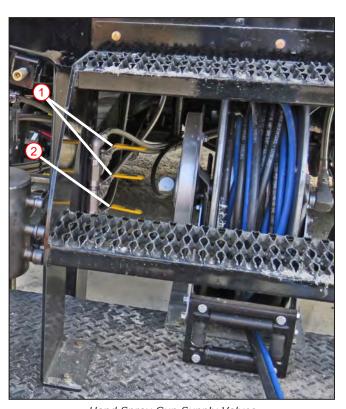
- Activate the paint system. Refer to section
   Starting Paint Operations.
- 2. If necessary, install the nozzle shroud on the spray gun.
- 3. Pull the spray gun and hoses out from the reel.
- 4. Make sure to allow enough extra hose to take the tension off the gun while spraying. Then allow the hose to slowly retract until the reel locks.
- 5. Set the hand gun atomizer pressure at least 10 PSI (.7 BAR) above paint tank pressure.
- 6. Make sure the water valve is OFF and open the white or yellow paint valve next to the reel.
- 7. Pull the trigger on the hand gun to begin spraying.

#### Cleaning and storing the hand spray gun:

- When done spraying, pull the hose out slightly to release the lock. Hold the spray gun so it does not drag on the ground and maintain tension on the hose so it lays neatly on the reel as it rewinds.
- 2. Retract the hose until the gun is 5 or 10 feet from the rear platform.
- 3. Make sure the water tank is pressurized.
- 4. Close the paint supply valve and open the water valve.
- 5. Pull the spray gun trigger and flush the hose until just clean water is coming from the gun.
- 6. Remove the spray gun nozzle shroud and soak in simple green. Store in a covered container in the tool box.
- 7. Use the water system and hose to rinse paint residue from all spray gun components and the hose
- 8. Fully retract the hose and gun. Make sure the gun is seated properly in the roller guide when it is fully retracted.
- 9. Close the water valve.



Hand Spray Gun



Hand Spray Gun Supply Valves

- 1. Paint Valves
- 2. Water Valve





## 3.12 Emergency Shutdown



## WARNING



IF AN EMERGENCY SITUATION INVOLVING THE POTENTIAL FOR PERSONAL INJURY AND/OR EQUIPMENT DAMAGE OCCURS, THE OPERATOR OR SWITCHMAN SHOULD ALWAYS SELECT THE EMERGENCY SHUTDOWN PROCEDURE. THIS PROVIDES IMMEDIATE SHUTDOWN OF THE PAINT SYSTEMS TO REDUCE THE POSSIBILITY OF INJURY AND DAMAGE TO EQUIPMENT.

## To stop all paint systems immediately use the following procedure:

#### IN THE REAR CONTROL STATION

- 1. PRESS THE EMERGENCY STOP BUTTON IN THE REAR CONSOLE SWITCH PANEL. THE STOP BUTTON SHUTS DOWN POWER TO ALL SWITCH PANELS AND PAINT SYSTEM COMPONENTS, WHICH STOPS ALL PAINT SYSTEM OPERATIONS. ONCE PRESSED, THIS BUTTON REMAINS IN THE STOP POSITION UNTIL IT IS RESET BY THE OPERATOR.
- 2. IMMEDIATELY NOTIFY THE DRIVER OF THE EMERGENCY SO HE CAN TAKE APPROPRIATE ACTION.
- 3. WHEN THE SITUATION PERMITS, RETURN SWITCHES IN ALL PANELS TO THE "OFF" POSITION FOR SYSTEM RESTART.



E-Stop Switch In Rear Control Panel



## WARNING



THE SPRAY GUN CARRIAGES WILL AUTOMATICALLY LIFT WHEN THE ESTOP BUTTON IS PRESSED. NEVER PRESS THE ESTOP BUTTON DURING SERVICE PROCEDURES OR WHEN SOMEONE IS NEAR THE CARRIAGES. YOU SHOULD ONLY USE THE ESTOP BUTTON IN AN EMERGENCY SITUATION.







## WARNING

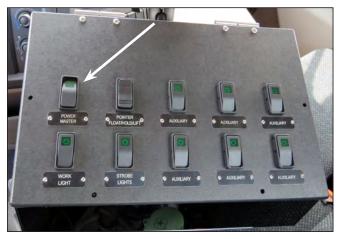


PRESSING THE EMERGENCY STOP BUTTON OR TURNING OFF THE POWER MASTER SWITCH ONLY SHUTS DOWN PAINT SYSTEM COMPONENTS. THIS ACTION DOES NOT SHUTDOWN THE AIR COMPRESSOR, HYDRAULIC PUMP OR THE TRUCK. CONSEQUENTLY IT IS CRITICAL THAT THE TRUCK DRIVER OR SWITCHMAN ARE IMMEDIATELY NOTIFIED OF THE EMERGENCY AS THE TRUCK WILL CONTINUE TO MOVE AND COMPRESSED AIR AND HYDRAULIC SYSTEMS WILL REMAIN PRESSURIZED.

FAILURE TO IMMEDIATELY COMMUNICATE THE EMERGENCY TO THE DRIVER OR SWITCH-MAN COULD RESULT IN MORE DAMAGE TO EQUIPMENT AND INCREASE THE POSSIBILITY OF INJURY TO PERSONNEL.

#### IN THE CAB OF THE TRUCK

- 1. TURN OFF THE POWER MASTER SWITCH IN THE SWITCH PANEL. THIS WILL SHUT DOWN POWER TO ALL SWITCH PANELS AND PAINT SYSTEM COMPONENTS WHICH STOPS ALL PAINT SYSTEM OPERATIONS.
- 2. IMMEDIATELY NOTIFY THE SWITCHMAN IN THE REAR CONTROL STATION OF THE EMERGENCY SO HE CAN TAKE APPROPRIATE ACTION.
- 3. WHEN THE SITUATION PERMITS, RETURN SWITCHES IN ALL CONTROL PANELS TO THE "OFF" POSITION FOR SYSTEM RESTART.



Power Master Switch In Cab Switch Panel





## **General Maintenance**

# 4.1 Lubrication & General Maintenance Introduction Lubrication Points

You should become familiar with the location of all components that require frequent lubrication and include them in the general maintenance schedule. Some of these lubrication points require specialized lubricants. The lubrication points shown in the photos and listed in the Lubrication Charts on the following pages in this section provide a guide to the location of the lubrication points on your machine.

#### NOTICE:

IT IS NOT POSSIBLE TO SHOW ALL VALVES, HINGES, LATCHES AND SAFETY PINS ON THE LUBRICATION CHARTS. RELATED ITEMS NOT SHOWN SHOULD ALSO BE INCLUDED IN YOUR MAINTENANCE ROUTINE.

Refer to the Maintenance Matrix chart in the Scheduled Maintenance section in this manual and component manufacturer's operating and/or maintenance manuals for lubricant specifications and maintenance schedules.

Some lubrication points require grease weekly. In extremely wet or dirty conditions the requirements could increase. The lubrication frequency outlined in this section should be considered the minimum requirement.

Before operating or performing any maintenance on the vehicle make sure the machine is properly shutdown and secured in the service position.

#### **Service Position**

Properly shutting down and securing the machine for service is critical to the safety of the operator and/or service personnel.

## Use the following procedure to place the machine in the service position:

- 1. Make sure all components lifted hydraulically are lowed to the ground or properly supported to remove the load from cylinders and hinges.
- 2. Park vehicle on a level area and block wheels.
- 3. Apply parking brake.
- 4. Shutdown the engine and disable the truck electrical system at the main battery switch and circuit breakers.
- Follow all Lockout/tagout and additional shutdown procedures established in your company safety guidelines to complete the service position.



## **WARNING**



SEVERE INJURY TO PERSONNEL OR DAMAGE TO EQUIPMENT CAN RESULT IF THE VEHICLE ROLLS OR IS STARTED UNEXPECTEDLY DURING SERVICE. ALWAYS FOLLOW THE RECOMMENDED PROCEDURES TO PLACE THE UNIT IN THE SERVICE POSITION AND APPLY LOCKOUT/ TAGOUT PROCEDURES BEFORE ALLOWING ANYONE TO SERVICE COMPONENTS.





## 4.2 Lubrication Grease Fittings





## **Lubrication Grease Chart 1**

ITEM#	COMPONENT DESCRIPTION	ITEM#	COMPONENT DESCRIPTION
1.	Carriage Gauge Wheel Spindle	4.	Pointer Wheel Axle
2.	Carriage Gauge Wheel Axle	5.	Pointer Arm Spindle
3.	Pointer Wheel Spindle		





## 4.3 General Maintenance

Paint and air filters or other components may require maintenance during a typical shift. The service procedures for these items are described in this section of the manual. The frequency for maintaining general maintenance items will vary, depending on the quality of the paint, the overall condition of equipment and proficiency of the operators.

## **Air Compressor And Auxiliary Engine**

Proper auxiliary engine and compressor maintenance is essential to the proper performance and reliability of the compressed air system. You should perform all recommended maintenance according to the manufacturer's recommendations. Maintenance schedules and procedures are outlined in the engine owner's manual. They should be followed exactly.

## **Daily Inspection and Maintenance**

- Check the crankcase oil level.
- Check the coolant level.
- Inspect the alternator/water pump belt. Make sure it is in good condition and adjusted properly.

## Access Door Hinges And Latches. Monthly/200 Hours:

- Lubricate and inspect all hinges.
- Inspect and lubricate latches. Replace damaged or worn out hinges or latches immediately.

## Safety Pins Weekly/50 Hours:

- Lubricate the retaining ball or sliding shaft on safety pins.
- Inspect and test for proper operation. Replace damaged, corroded or worn out pins immediately.

## **Ball Valves Monthly/200 Hours:**

- Open and close ball valves at least once each month to keep them free and operating properly.
- Lubricate and inspect valve shafts and handles.
   Replace if badly corroded.

## Optional Paint Heater Antifreeze Circulation Pumps And Hoses Weekly/50 Hours:

- Inspect pumps, hoses and fittings for leaks and signs of wear or deterioration. Any questionable or leaking component should be repaired or replaced before operating the system.
- Run the pump and listen for unusual noises and proper operation. Find and correct the cause of unusual noises or erratic operation.

## Carriages and Spray Guns Weekly/50 Hours:

- Pressure wash carriages and coat spray guns with WD40 to reduce corrosion and help keep them operating properly.
- Inspect all hoses and fittings for leaks and signs of wear or deterioration. Any questionable or leaking component should be repaired or replaced before operating the system.



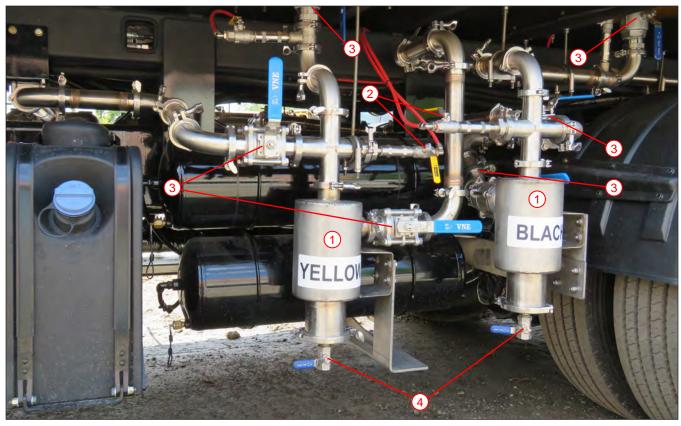
## CAUTION



THE GENERAL MAINTENANCE PROCEDURES OUTLINED IN THIS SECTION MUST BE FOLLOWED EXACTLY TO AVOID DAMAGING COMPONENTS AND/OR VOIDING THE WARRANTY.







Paint Filters, Supply Valves, Water Valves & Drain Valves

1. Paint Filters

2. Water Valves

3. Supply Valves

4. Drain Valves

### 4.4 Paint Filter Maintenance

The paint filters should be flushed anytime paint delivery begins to slow or becomes clogged. If flushing does not return paint flow to an acceptable level, the filter strainer will need to removed and cleaned.

#### **Flushing Filters**

- 1. Make sure the water tank is pressurized.
- 1. Close the supply valve on the inflow side of the filter. Then close the paint gun supply valve on the outflow side.
- 2. Place a bucket below the drain valve that is large enough to hold the volume of paint in the filter.
- 3. Open the drain valve and drain paint.
- 4. When the paint has drained, open the water supply valve at the filter and flush the strainer until water runs clear
- 5. Close the water valve.



Drain Valve Assembly & Clamp





- 6. Open both paint valves.
- 7. With the bucket below the drain, allow air to purge from strainer, then close the drain valve.

#### **Cleaning Paint Filter Strainer**

- 1. Follow the flushing procedure to completely flush paint from the filter housing and strainer.
- 2. Once water runs clear, turn off the water valve.
- 3. Loosen wing nut on the compression clamp and remove cap and drain valve assembly.
- 4. Slide the strainer out.
- 5. Use a hose connected to water system or open water valve at the filter and hold strainer basket below the filter housing.
- 6. Use a soft brush and flowing water to completely clean the strainer.
- 7. Close the water valve and insert the basket
- 8. Install cap and drain valve assembly and make certain the gasket is in place. Then tighten compression clamp.
- 9. With the bucket below the drain, allow air to purge from strainer, then close the drain valve.



Sliding Strainer From Filter Housing



Paint Strainer







Driver Side Primary & Secondary Filters A. Primary Filters / B. Secondary Filters

# 4.5 Clearing Paint Supply Lines Determining Clog Location

If a paint line becomes clogged, the primary and secondary filter drains are used to determine the approximate location of the clog. Use the following procedure to determine the location and clear the clog.

#### Step 1:

Check for paint flow a secondary filter.

- Place a bucket below the secondary paint filter near the carriage.
- Slowly open the drain valve and check for flow.
- If paint flow is good, the clog is between the secondary filter and the spray gun. Close the drain valve and proceed to step 2.
- If there is little or no flow, the clog is at the secondary filter or between the paint tank and secondary filter.
- Follow the Cleaning Paint Filters procedure to clean the secondary filter.

 Check the filter again for flow. If there is still little or no flow, the clog is between the paint tank and secondary filter. Close the drain valve and proceed to Step 3.

#### Step 2:

Clear the clog between secondary filter and spray guns.

- Close the inflow and outflow valves on the secondary filter.
- Remove the supply hoses between the spray guns and secondary filter.
- Clean out hoses and flush thoroughly with water.
- Clean out spray gun fitting and flush with water.
- Activate the nozzle flush system to clean out spray nozzle.
- Follow the Flushing Filters procedure to flush the secondary filter.
- Attach hoses, open all valves and purge the system.





#### Step 3:

Check paint flow at the primary filter.

- Place a bucket below the primary paint filter below the paint deck.
- Slowly open the drain valve and check for flow.
- If paint flow is good, the clog is between the primary and secondary filters. Close the drain valve and proceed to step 4.
- If there is little or no flow, the clog is at the tank valve or between the paint tank and primary filter or at the primary filter.
- Follow the Cleaning Paint Filters procedure to clean the primary filter.
- Check the filter again for flow. If there is still little or no flow, the clog is between the paint tank and primary filter. Close the drain valve and proceed to Step 5.

#### Step 4:

- Close the inflow and outflow valves on the primary filter.
- Starting at the primary filter outflow valve, begin removing tubing sections between the primary and secondary filters.
- Remove only one section of tubing at a time, clean it and flush it thoroughly with water and then reinstall it. Repeat this process until the clogged section is found.

#### NOTICE:

NEVER REMOVE MORE THAN ONE SECTION AT A TIME. THIS ENSURES THAT YOU GET EACH SECTION BACK INTO THE POSITION IT BELONGS IN. REMOVING MULTIPLE SECTIONS AT A TIME WILL CAUSE SIGNIFICANT AND UNNECESSARY DIFFICULTIES AND DELAYS DURING THE RE INSTALLATION PHASE.

- Follow the Flushing Filters procedure to flush both filters.
- Open all supply valves to purge the system and check for proper flow at the secondary filter.

#### Step 5:

- Close the inflow and outflow valves on the primary filter.
- Close the supply valve on the paint tank.
- Close the paint tank compressed air valve and open the exhaust valve to bleed pressure from the tank.
- Starting at the paint tank valve, begin removing tubing sections between the primary and secondary filters, one at time.
- When the first section is removed at the paint tank supply valve, slowly open the supply valve and verify proper flow from the tank. Clean out tank supply valve if necessary.
- If the flow is good from the supply valve, clean out each tubing section. Remove only one section of tubing at a time, clean it and flush it thoroughly with water and then reinstall it. Repeat this process until the clogged section is found.

#### NOTICE:

NEVER REMOVE MORE THAN ONE SECTION AT A TIME. THIS ENSURES THAT YOU GET EACH SECTION BACK INTO THE POSITION IT BELONGS IN. REMOVING MULTIPLE SECTIONS AT A TIME WILL CAUSE SIGNIFICANT AND UNNECESSARY DIFFICULTIES AND DELAYS DURING THE RE INSTALLATION PHASE.

- Follow the Flushing Filters procedure to flush both filters.
- Open all supply valves to purge the system and check for proper flow at the secondary filter and spray guns.





## 4.6 Clearing Bead Supply Line

If a bead delivery system becomes clogged, follow these procedures to find and clear the clog.

#### Step 1:

Check for bead flow at manifold.

- Close the bead tank air pressure supply valve and open the exhaust valve to bleed off tank pressure.
- Remove the manifold cap by releasing cam locks.



## WARNING



NEVER ATTEMPT TO REMOVE THE CLEAN OUT CAP WHILE THE BEAD TANK IS PRESSURIZED. PRESSURE IN THE TANK AND MANIFOLD WILL MAKE THE CAP DIFFICULT TO REMOVE AND WILL BLOW THE CAP FROM THE TANK UNEXPECTEDLY DURING REMOVAL. THIS COULD RESULT IN SERIOUS INJURY OR EVEN DEATH TO PERSONNEL AND DAMAGE COMPONENTS.

- If no beads flow, the clog is at the tank or in the supply line. Proceed to step 2.
- If manifold is full and beads flow out, the supply line is clear to manifold. Proceed to step 5.

#### Step 2:

No flow at the manifold. Attempt to remove the clog with tank pressure.

- Close tank air pressure valve and open exhaust valve to bleed off tank pressure.
- Remove the manifold cap.
- Close the bead tank supply valve.
- Pressurize the bead tank.
- Monitor the manifold and have an assistant slowly open supply valve to blow out clog.
- If the clog clears, close the valve and reinstall the manifold cap.
- Purge the system to fill the manifold.
- If the clog doesn't clear, proceed to step 3.



Bead System Manifold & Cap

#### Step 3:

If still no flow of beads during step 2, use the following procedure to remove clogs at tank supply valve.

- Close tank air pressure valve and open exhaust valve to bleed off tank pressure.
- Close bead supply valve.
- Remove clean out port cap in the fitting just below the tank supply valve at the bottom of the tank.
- Open supply valve and use a rod to clean out bottom of tank, supply valve and clean out port until beads flow.
- Close the supply valve.
- Install the clean out port cap
- Pressurize the bead tank and test.





#### Step 4:

If still no flow after step 3, the clog is in the supply tubing between the tank and manifold. Use the following procedure to clean out supply tubing.

- Starting at the tank supply valve, begin removing tubing sections, one at time.
- As each section is removed, clean out tubing until the clog is found.
- Once the clogged section is found and cleaned out, reinstall the removed sections.
- Close the supply valve and pressurize the bead tank
- Monitor the manifold and have an assistant slowly open supply valve.
- If beads flow, the clog is cleared.
- Close the supply valve and reinstall the manifold cap.

#### Step 5:

If beads are flowing to manifold. The clog is at the nozzle. Use the following procedure to remove a clog at a nozzle.

- Close the bead tank air pressure supply valve and open the exhaust valve to bleed off tank pressure.
- Close the bead tank supply valve.
- Remove the manifold cap by releasing cam locks.
- Remove hoses at nozzles.
- Clean out hoses and/or fittings to clear the clog.
- Reinstall hoses and install the manifold cap.
- Pressurize the bead tank and open the supply valve.
- Purge the system and test the bead guns.

#### NOTICE:

MANY TIMES CLOGGED BEAD NOZZLES ARE CAUSED BY PAPER OR OTHER DEBRIS FROM BEAD BAGS AND THE TOTE. ALWAYS PAY CLOSE ATTENTION WHEN FILLING THE BEAD TANK TO REDUCE THE POSSIBILITY OF SUCKING UP FOREIGN MATERIAL THAT CAN CLOG THE SYSTEM.





# 4.7 Water Heater & Burner Maintenance (Optional)

The water heater oil burner is powered by the 12 volt electrical system and supplied fuel from the truck fuel tank. It requires little routine maintenance except for daily inspections for fuel leaks, loose components and for proper operation. The fuel supply line is equipped with a fuel filter that should be changed whenever the auxiliary engine fuel filter is serviced.

You should perform all recommended maintenance according to the manufacturer's recommendations. Maintenance schedules and procedures are outlined in the oil burner manual. They should be followed exactly.

## **Daily Inspection and Maintenance**

- Check the antifreeze fluid level.
- Inspect water heater mounting bolts and mounting hardware. Tighten or replace as required.
- Check fuel oil supply lines and fittings to verify there are no leaks.
- Check water hoses and fittings for leaks, damage and chaffing.

#### Monthly Inspection and Maintenance

- Observe combustion air openings and vent system for integrity. Openings must be clean and free of obstructions.
- Check oil lines and fittings to verify there are no leaks.
- Observe burner ignition and performance to verify smooth operation.

#### NOTICE:

SHUT THE SYSTEM DOWN IF YOU OBSERVE ABNORMAL OR QUESTIONABLE OPERATION. CALL A QUALIFIED SERVICE AGENCY FOR PROFESSIONAL INSPECTION AND SERVICE.



Paint Heater Reservoir & Burner





## **Annual Maintenance**

Perform all daily and monthly maintenance along with the items outlined in this section.

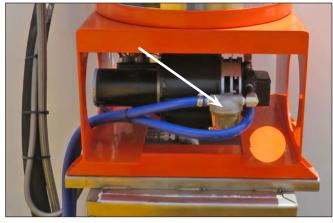
- Change the fuel oil filter.
- Have the burner inspected, tested and started by a qualified service technician.

## **Changing The Burner Fuel Filter**

The fuel filter should be changed at least annually or whenever the auxiliary engine filter is serviced. Use the following procedure to replace the filter.

## Replacing the oil burner fuel filter:

- 1. Make sure the paint heating system is shutdown with the truck in the service position.
- 2. To avoid contamination, always clean the area around the filter bowl.
- 3. Rotate the filter bowl counterclockwise to remove it and expose the filter element.
- 4. Pour the fuel in the bowl into a suitable container and clean the bowl.
- 5. Remove and discard the old filter.
- 6. Install the new filter and bowl. Hand tighten the bowl.
- 7. Activate the heating system and inspect the burner fuel system for leaks.



Burner Fuel Filter





## 4.8 Hydraulic System Maintenance

The hydraulic pump operates at very high pressure and has specific maintenance requirements. You should perform all recommended maintenance according to the pump manufacturers' specifications.

Hydraulic fluid should be changed and the tank flushed on a regular schedule in accordance with the hydraulic component manufacture's recommendations. Hog Technologies recommends changing the fluid at least once every 600 hours.

### **Daily Inspection and Maintenance**

- Check the hydraulic fluid level each day or immediately following the repair of a blown hose, leaking fitting or any hydraulic system service.
- Inspect all hoses, fittings, valves and seals for leaks and proper operation. Repair or replace leaking or malfunctioning components before operating the system.
- Monitor the cooling fan operation. Make sure
  it is running when the hydraulic system is
  operating, sounds normal and pulls a strong
  flow of air through the cooler.

Refer to the Maintenance Matrix in this section for fluid specifications.

## 200 Hour Inspection and Maintenance

- Change the low pressure filter in the return line. The filter removes any debris that may enter the system and should be changed every 200 hours or more frequently if necessary.
- Inspect the cooling fins for the oil cooler and clean as necessary. The cooler is critical in maintaining acceptable oil temperatures in the hydraulic system and must be kept clean to maintain efficiency.

## **600 Hour Inspection and Maintenance**

• Drain hydraulic fluid and flush hydraulic tank.



Hvdraulic Tank & Filter

## **Changing Hydraulic Fluid**

The reservoir tank must be drained and flushed at regular intervals. Only qualified service technicians should drain and flush the system or replace hydraulic fluid filters.



## WARNING



ALWAYS DEPRESSURIZE THE HYDRAULIC SYSTEM BEFORE REMOVING ANY HYDRAULIC COMPONENTS, HOSES OR FITTINGS. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.

#### NOTICE:

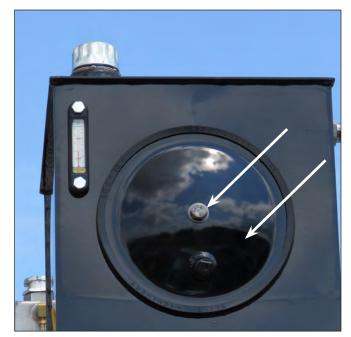
- BEFORE PERFORMING ANY MAINTENANCE PROCEDURE, MAKE SURE THE PAINT SYSTEM SYSTEM IS SHUTDOWN WITH THE TRUCK IN THE SERVICE POSITION AND ON LEVEL GROUND.
- MAKE SURE THE HYDRAULIC SYSTEM IS NOT PRESSURIZED AND THE FLUID IS COOL.
- MAKE SURE THE HYDRAULIC TANK, FILTERS AND ALL RELATED COMPONENTS ARE THOROUGHLY CLEANED BEFORE SERVICING TO PREVENT CONTAMINATION.
- MAKE SURE ALL PARTS ARE CLEAN BEFORE FINAL ASSEMBLY.





#### **Drain & Flush the hydraulic tank:**

- 1. Make sure the hydraulic system is not pressurized and the fluid is cool.
- 2. Drain the tank into a suitable container by removing drain plug at the bottom of the tank.
- 3. When the tank is drained, loosen the bolts securing the inspection plates and remove the plates. Use a bright light to inspect for sludge buildup and other contamination.
- 4. Remove sludge and contaminates, then flush the tank until it is clean using fresh hydraulic fluid.
- 5. Coat the seals with hydraulic fluid and install the plates. Tighten the bolts to secure the plate.
- 6. Install the drain plug.
- 7. Add fluid until the tank is full. Monitor the fluid level using the sight gauge.



Filter Inspection Plate & Bolt

## Replacing The Hydraulic Filter

Before performing any maintenance procedure, make sure the paint system is shutdown with the truck in the service position.

The filter is the spin on type filters located in the return line near the top of the hydraulic reservoir. A pressure gauge on the filter housing indicates when the filter requires changing.

### Changing the filter:

- Make sure the hydraulic system is not pressurized and the fluid is cool. Use a filter wrench and rotate the filter counterclockwise to remove it.
- Lubricate the seal on the new filter with hydraulic fluid.
- 3. Install the filter and hand tighten.
- 4. Inspect the filter for leaks when the hydraulic system is activated.



Hydraulic Filter & Pressure Gauge





## 4.9 Compressed Air System

Before performing any maintenance procedure on the vehicle make sure the machine is properly shutdown and secured in the service position.

Before performing routine maintenance on any component in the pneumatic system, open the air exhaust valves to ensure all pressure is bled from the system. Also make sure compressed air components are cool.

## Daily Maintenance & Inspection

- 1. Check the drain valve on the filter/dryers. Make sure they are working properly.
- 2. Open and close all manual ball valves and make sure they are operating properly.
- 3. Check all air hoses and connections for damage, loose connections and chaffing. Repair or replace any questionable components.

### Weekly Maintenance & Inspection

- 1. Perform all daily maintenance along with the items outlined in this section.
- 2. Disassemble inspect and fill oiler using the following procedure:
  - Drain all oil from the bowl.
  - Inspect bowl and seals. Replace if damaged or cracked.
  - Refill the bowl and coat the bowl seal with Marvel Mystery oil. Then install and tighten the bowl.
  - Pressurize the compressed air system and activate the air motors. Monitor the oiler sight glass for proper oil flow. Flow should be 1 drop every 3 seconds. Using the adjustment screw, adjust flow of oil until the proper flow rate is achieved.



Typical Air Filter/Driers & Oiler





#### **Annual Maintenance**

- 1. Perform all daily maintenance along with the items outlined in this section.
- 2. Clean or replace filters in the filter/dryers using the following procedure:
  - Remove the bowl by unscrewing the bowl or loosing the clamping ring. Turn the bowl upsidedown and tap on a hard surface to loosen contaminates.
  - Use an air gun to blow out residual dirt and moisture. Wipe the bowl clean.
  - Inspect bowl and seals. Replace if damaged or cracked.
  - Lubricate the bowl seal with oil and install the new filter. Tighten the bowl or retaining ring.
- 3. Disassemble inspect and clean oiler using the following procedure:
  - Contaminants from dirty oil can collect on bottom of bowl or on the siphon tube inlet filter.
  - Drain all oil from the bowl.
  - Remove the bowl by unscrewing the bowl or loosing the clamping ring. Turn the bowl upsidedown and tap on a hard surface to loosen contaminates.
  - Use an air gun to blow out residual dirt and contaminated oil. Wipe the bowl clean.
  - Inspect bowl and seals. Replace if damaged or cracked.
  - Make sure the oiler siphon tube is not clogged. Remove and clean if necessary.
  - Remove adjusting screw, clean the needle and seat in the body. Inspect and clean the passage from needle seat to the siphon tube adapter.



Air Filter Drier & Oiler

- Reassemble the flow control valve.
- Refill the bowl and coat the bowl seal with Marvel Mystery oil. Then install and tighten the bowl or retaining ring.
- Pressurize the compressed air system and activate the air motors. Monitor the oiler sight glass for proper oil flow. Flow should be 1 drop every 3 seconds. Using the adjustment screw, adjust flow of oil until the proper flow rate is achieved.
- Pressurize the compressed air system and check for leaks
- 5. Lubricate all manually activated ball valves with oil to keep them free.





## 4.10 Hand Gun, Reel & Hoses

Spring retracting hose reels require frequent cleaning, and inspections to keep them operating properly in harsh environments.

Maintenance requirements for different types of reels vary. Therefore, the maintenance instructions in this section are general and for reference purposes only. A hose reel operation and maintenance manual is included with the literature package. Refer to this manual for specific safety and maintenance instructions for the spring retracting reel installed on this truck.

### **Daily Maintenance and Inspection**

- Inspect the hoses, fittings and nozzles frequently. Any hose or component that is questionable or shows any sign of deterioration, damage or leakage should be replaced immediately and before operating the system.
- 2. Check reel mounting bolts, nuts and hardware. Tighten as required.
- 3. Pull the hoses out from the reel slightly and check the operation of the rachet lock assembly to ensure it is working properly. Repair the lock if it is not working properly before using the spray gun.
- 4. Verify reel spring preload. The preload should be adjusted to hold the gun firmly against the rollers on the reel assembly when it is fully retracted.

## 250 Hour Maintenance and Inspection

- 1. Perform all daily maintenance along with the items outlined in this section.
- 2. Completely extend the hoses. Check the reel and rachet lock for proper operation.
- 3. Inspect the hoses for deterioration, kinks, chaffing and damage. Replace any questionable hose.
- 4. Check the spray gun nozzle and trigger valves for damage and proper operation. Repair or replace if necessary.
- 5. Retract the gun and hoses. Verify proper spring tension and smooth operation. Adjust or repair components if necessary.
- 6. Open and close paint and water supply valves to ensure proper operation. Service if necessary.



Spray Gun

#### **Retire a hose from Service if:**

- A) Hose is damaged and/or reinforcing is exposed.
- B) Hose has cracks, blisters or bulges.
- C) Hose has been chaffed, crushed or kinked.
- D) Spray gun hose fitting shows evidence of damage or leakage.

#### Replace the spray gun if:

- A) Gun is damaged or shows signs of corrosion or deterioration.
- B) The shutoff valves are not working properly and cannot be repaired or replaced.

When replacing damaged or worn hoses, check the diameter and specifications of the hose to be replaced and use replacements of the same size and specifications.





## 4.11 Maintenance Matrix

EQUIPMENT	COMPONENT	INTERVALS	LUBRICANT SPECIFICATIONS
Truck Engine	Oil and Filter	Refer To Truck Operating Manual	Refer To Truck Operating Manual
Truck Transmission	Oil and Filter	Refer To Truck Operating Manual	Refer To Truck Operating Manual
Truck Differential	Differential Oil	Refer To Truck Operating Manual	Refer To Truck Operating Manual
Truck Drive Line	Drive Shafts	Refer To Truck Operating Manual	Refer To Truck Operating Manual
Air Compressor & Engine	Oil and Filter	Refer To Air Compressor Operating Manual	Refer To Air Compressor Operating Manual
Hydraulic System	Hydraulic Fluid Reservoir	Every 600 Hours or Once Per Year/Which Ever Comes 1st	Aw68
Spray Gun Carriage	Gauge Wheel Spindle & Axle	Weekly More Frequently If Required	Mobil PolyRex EM Grease
Unit General Lubrication Points	Door Hinges – Ball Valves – Latches – Safety Pins ETC.	Weekly More Frequently If Required	General Purpose Oil

This chart is a guide only. It should never be used to supersede equipment manufacturer's specifications. Please refer the manufacturer's operation and maintenance manuals for additional information.





## **NOTES**





# **Pre-Operation Check List**

PRE-OP CHECK LIST						
Tires			Grease Points			
	Tire Condition & Pressure - Front		Pointer Spindle & Axle			
Tire Condition & Pressure - Rear		Carriage Spindles & Axles				
	Lighting Systems		Paint Tank System			
	Brake Lights		Water Tank Full & Not Leaking			
	Turn Signals		Paint Tanks Full & Not Leaking			
	Parking Lights		Bead Tank Full			
	4-Way Lights		Check Paint Supply Lines & Valves Not Leaking			
	Strobe & Work Lights		Water Lines & Valves Not Leaking			
	Reverse Lights		Carriages, Spray Guns & Other Equipment			
	Headlight: High-Beams		Carriages & Components Not Damaged			
	Headlight: Low-Beams		Spray Gun Nozzles & Shrouds Installed & Clean			
	Electrical & Accessories		Carriages Raised, Retracted & Locked			
	Wipers		Ladders Up & Locked			
	Horn		Rear Step Up			
	Console Switches		Tool Boxes Closed & Locked			
	Back Up Beeper		Fill Hoses Onboard & Secure			
	Master Breakers ON		Hand Gun Reel, Hoses & Spray Gun In Good Condition			
	Gauges Operating	Operational Testing				
	Inspect Cab Panels		Truck Engine Operation			
	Inspect Rear Electrical Panels		Compressor Engine Operation			
	General		Compressor Operation			
	Filling Hose & Withdrawal Tubes Onboard		Hydraulic Pump Operation			
	Accident/Incident Decals		Hydraulic Motor Operation			
	All Wires, Brake Lines & Hydraulic Lines Secure		Hydraulic Cylinder Operation			
	All Components Are Neat & Organized		Hydraulic Cooler Fan Operating			
Mobile Spare Parts & Tool System			Paint Tank Mixer Motors Operating			
	Mobile Spare Parts System Complete		Pneumatic Lift Cylinders Operating			
	Mobile Tool System Complete		Spray Gun Operation			
	Fluid Levels		Spray Gun Height Actuator Operating			
	Truck Engine Oil		Bead Gun Operation			
	Automatic Transmission Oil		Carriage Steering Working Properly			
	Truck Radiator & Coolant Level		Skip Line Controller Working Properly			
	Air Compressor Engine Oil Level		Nozzle Water Flush System Operating			
	Air Compressor Engine Coolant		Carriage Locks Engaging Properly			
	Compressor Oil Level		Hose Reel Operating Properly			
	Hydraulic Fluid Level					
	Paint Heater Antifreeze Level					
	Truck Fuel Tank Level OK					





## **NOTES**





## **Hog Technologies Support**

## 24 / 7 CUSTOMER SERVICE

Hog Technologies Customer Service Department stands ready to answer your questions and provide technical assistance 24 hours a day, 7 days a week.

Customer Service can also assist you with part orders.

Always contact Hog Technologies Customer Service Department for assistance and cross reference specifications for parts you intend to purchase locally.

#### **PARTS**

All replacement parts are available directly through Hog Technologies.

Get the parts you need when you need them.

Next day delivery is available in most locations.

Same day delivery available in some areas for parts ordered before 10 AM Eastern Standard Time

## **CUSTOMER SERVICE HOT LINE - 772-214-1714**

www.hogtechnologies.com www.stripehogsupport.com

Hog Technologies will not be responsible for damages or loss caused by substituted parts purchased locally or from another vendor or manufacturer.





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