SXL-25029

Farm King

OPERATOR AND PARTS MANUAL

1200 High-Clearance Sprayer

03/2010

1200 High-Clearance Sprayer

Farm King Sprayers have been designed to provide many years of profitable and dependable service. To assure maximum performance of your sprayer, it is mandatory that you thoroughly study the operator's manual and follow its recommendations. Proper operation and maintenance are essential for safety, to maintain performance, and to maximize the life of the sprayer.

It is the owner's responsibility to:

- Operate and maintain this sprayer in a safe manner and in accordance with all applicable local, state, and federal codes and/or laws; and in compliance with labeling instructions furnished by the supplier of the chemical being used.
- Make sure each and every operator has read the operator's manual and thoroughly understands safe and correct operating procedures.
- Make sure unauthorized people do not operate or are not in the vicinity of the sprayer while it is in operation.
- Maintain the sprayer in accordance with the maintenance schedule in this manual. Furthermore, as additional technology becomes available, the owner is responsible for improving the safety and reliability of the system.
- Fulfill all warranty obligations so as not to void the warranties. Verify the unit is warranty registered prior to making any warranty claims. The warranty section at the back of this manual outlines the warranty policy of Farm King.

Abuse or modifications to the sprayer that change the performance other than original factory specifications void the warranty.

Farm King reserves the right to make product improvements to the equipment at any time. It shall not be obligated to make such changes to machines already in service.

*The owner, manager and/or operator is responsible for safe, accurate operation and maintenance of the Farm King Sprayer.

Table of Contents

Table of Contents

Safety Instruction
Section A

Safety First

Accidents can be prevented by recognizing the causes or hazards before an accident occurs..... and doing something about them.

Regardless of the care used in the design and construction of this equipment, there are some areas that cannot be completely safeguarded without interfering with the accessibility and efficiency of operation.

THIS MESSAGE ALERT SYMBOL IDENTIFIES IMPORTANT MESSAGES IN THIS MANUAL. WHEN YOU SEE THIS SYMBOL, BE ALERT TO THE POSSIBILITY OF PERSONAL INJURY AND CAREFULLY READ THE MESSAGE THAT FOLLOWS.

In this manual and on labels used on the machine the words "DANGER", "WARNING", and "CAUTION", are used to indicate the following:

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.

THIS MESSAGE ALERT SYMBOL IDENTIFIES INFORMATION THAT MUST BE HEEDED FOR PROPER OPERATION OF EQUIPMENT AND TO PREVENT DAMAGE OR DETERIORATION OF THE EQUIPMENT.

In this manual the words "IMPORTANT" and "NOTE" are used to indicate the following:

IMPORTANT: Highlights information that must be heeded.

NOTE: A reminder of other related information that needs to be considered.

Safety Instructions for Operation

1. DO NOT ALLOW ANYONE TO OPERATE THIS FARM KING SPRAYER UNTIL HE OR SHE HAS READ THIS MANUAL AND IS COMPLETELY FAMILIAR WITH ALL SAFETY AND OPERATION PROCEDURES.

 WARNING	Observe the IMPORTANT SAFETY INSTRUCTIONS listed below at all times! THE BEST KIND OF SAFETY IS A CAREFUL OPERATOR.
 CAUTION	Always wear protective clothing, goggles, respirator and gloves when handling chemicals. 
 DANGER	Always wear protective clothing, goggles, respirator and gloves when handling chemicals.  
 WARNING	Observe all Federal and State EPA regulations and all Local, State and Federal codes and / or laws regarding licensing, handling, storage, transportation, application and waste disposal of chemicals.

2. If any safety device on the sprayer itself is not functioning properly, DO NOT use the sprayer. Remove it from service until it has been properly repaired by a qualified service technician.

3. Do not allow the following people to operate or repair this equipment.

- Children
- Irresponsible persons
- People under the influence of alcohol, medications or other drugs that can cause drowsiness or impaired judgement.
- Persons unfamiliar with equipment or people who are careless or unfamiliar with safe operating procedures.

4. People who are allergic to any of the chemicals used must never be allowed in or near the sprayer.

5. Always park the sprayer on a level surface, and lock the tractor brakes, or block the tires, before making adjustments or repairs.

6. Before operating this equipment, thoroughly inspect the unit to ensure it is in good working order.

7. Do not operate this unit if any defect or malfunction exists. Pay particular attention to safety features such as safety chains.

8. Verify that the sprayer is securely hitched to the tractor and safety chains are in place.

9. Always position the spray boom in cradles prior to disconnecting the trailer hitch from the tractor.

WARNING

Never disconnect the sprayer from the tractor hitch while the spray boom wings are in the spray position. This action will cause this sprayer to tip backwards with a high probability of injury to the operator and damage to the unit.

10. Stopping distance increases as the square of the speed. For example: It will take twice as much distance to stop a unit traveling 15 mph as one going 10 mph; and four times the distance at 20 mph (more than eight times the distance at 25 mph)! Road surface will influence stopping distance. Dry pavement is usually considerably better than gravel road. Materials (such as ice, snow, water, oil or mud) on the surface can greatly increase stopping distance.

Road slope has a significant impact on stopping distance and can greatly magnify the other factors mentioned above. Under some downhill conditions stopping can be very difficult or impossible.

11. Do not replace components or parts with those other than genuine Farm King Factory Service Parts. To do so may reduce the effectiveness of safety features or decrease the accuracy of the unit.

12. Read the Operation Instructions section of this manual for further necessary information relating to the safe operation of the applicator.

WARNING

Certain chemicals can be very corrosive and may oxidize steel over a period of time. This weakens steel parts and can cause failure to perform as intended, resulting in possible safety hazards. Periodically check all safety shields and structural members for corrosion. Replace or repair anything that could cause a potential safety hazard.

Safety Decals on a Farm King Model 1200 High-Clearance Sprayer

1

SX002439

2

SX004302

3

SX004775

4

SX004772

5

SX004776

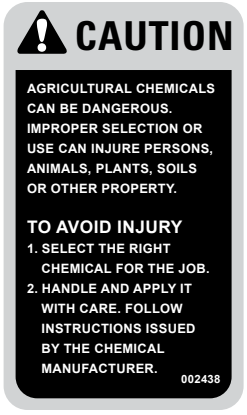
6

SX004774

7

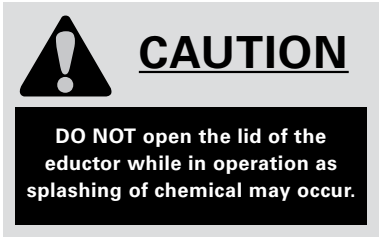
SX004773

8



SX002438

9

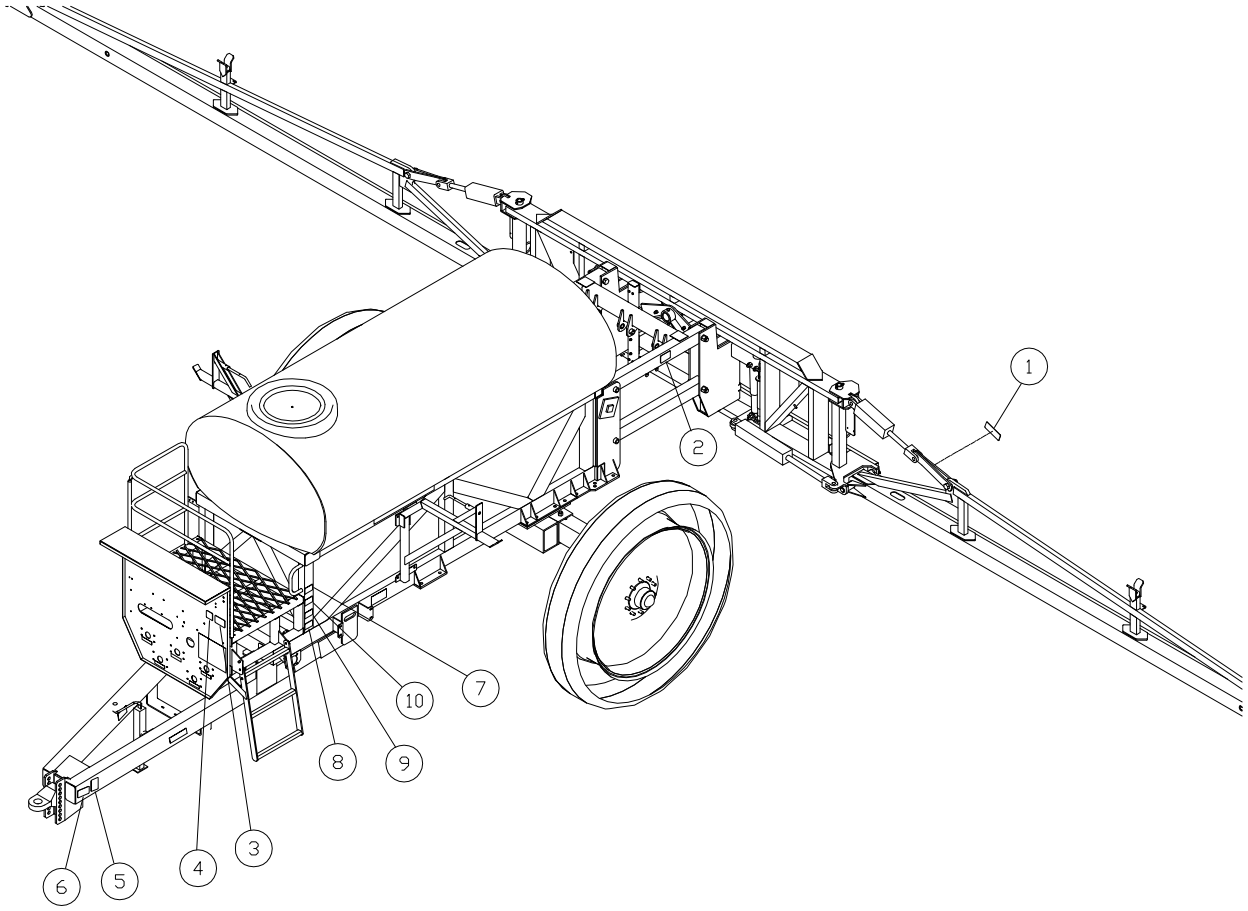


SX006963

10

SX008553

SAFETY DECAL PLACEMENT



NOTES:

Operation Instructions
Section B

Inspect Unit

IMPORTANT

Check machine thoroughly for screws, bolts, fittings, etc., which may have come loose during transport or operation.

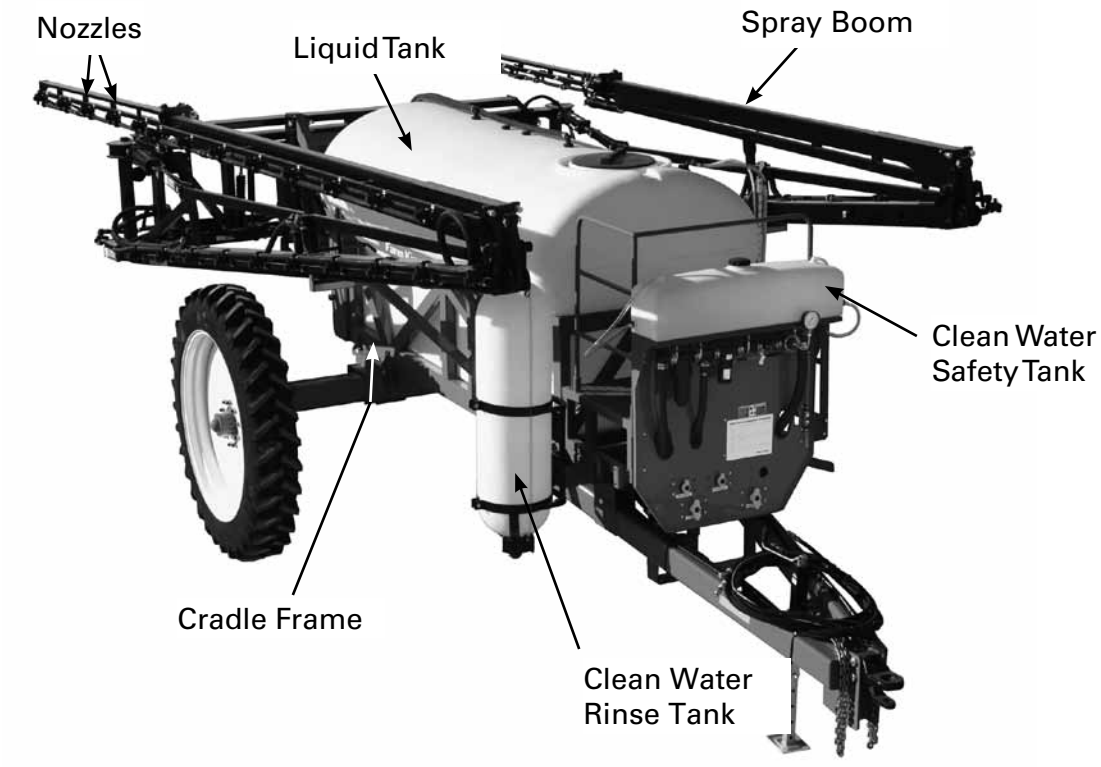
System Overview

CAUTION

Prior to loading with chemical, the operator needs to test the sprayer with water only to ensure the system is intact prior to putting chemical into the system. Test to verify application at the desired rate and all components work correctly.

The Farm King Model 1200 High-Clearance Sprayer consists of the following subsystems:

- Hitch
- Liquid Tanks & Cradle Frame
- Spray Boom and Nozzles
- Liquid Pumping & Plumbing
- Solution Spray Control System
- Hydraulics
  - Centrifugal Pump
  - Spray Boom Folding
- Light and Marking System
- Foam Marker (optional)



Hitch

Verify hitch is correctly attached to the tractor.
See Section C for connection procedures.

Pintle & Clevis Style Hitch

IMPORTANT

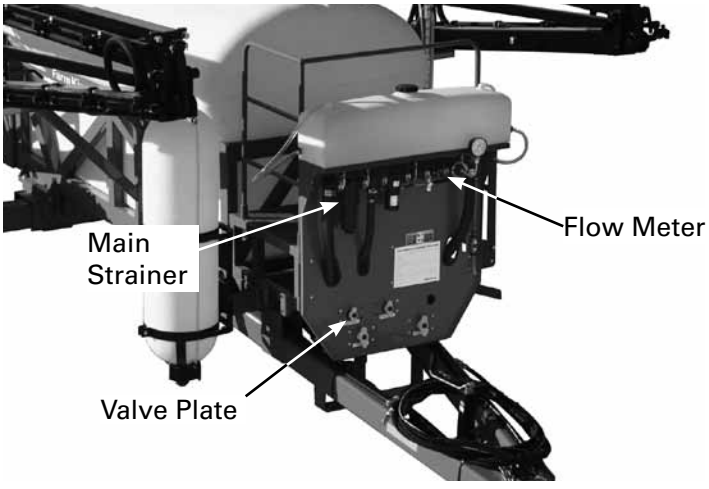
1. Towing tractor must weigh 12,000 pounds to ensure adequate stopping ability. Refer to your tractor manufacturer rating capabilities.
2. Do not tow sprayer over 20 MPH.

Liquid Tank & Cradle Frame
A polyethylene tank is supported by a structural steel cradle skid and frame weldment. The tank is lowered into the cradle frame, requiring no additional strapping to hold in place.

WARNING

Never allow the clean water safety tank to become contaminated with chemical. Use the clean water tank for skin and eye rinse in case of accidental chemical contact.

Spray Boom(s) and Nozzles
Spray boom sizes are 60' to 90' vertical fold. Hydraulic cylinders, powered via the tractor hydraulics fold the spray boom. The required size of the nozzles is dependent on the application rate and the tractor rate of travel (i.e. speed). The spacing of the nozzles is dependent on the type and size of nozzle utilized. See your Farm King Dealer for correct selection of nozzles and required spacing.

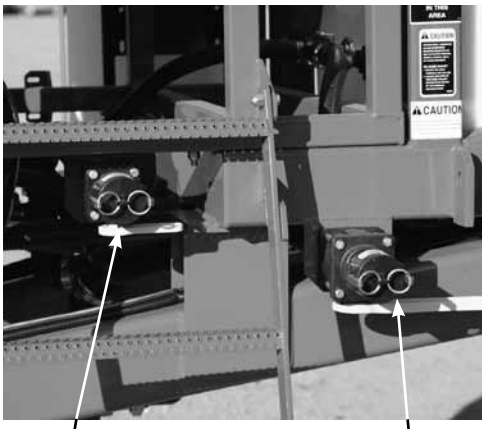


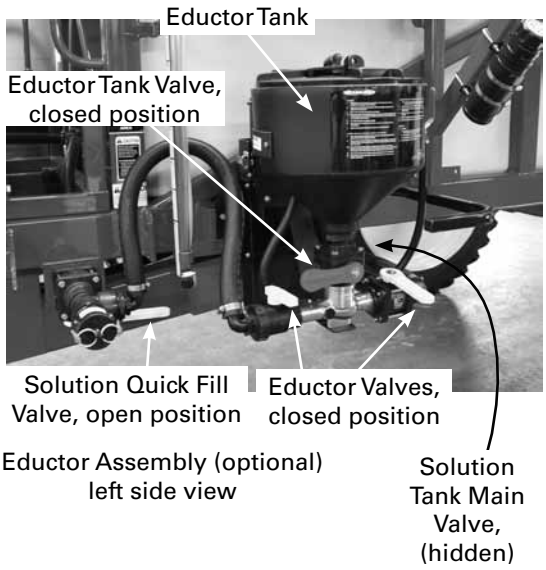
Liquid Pumping & Plumbing

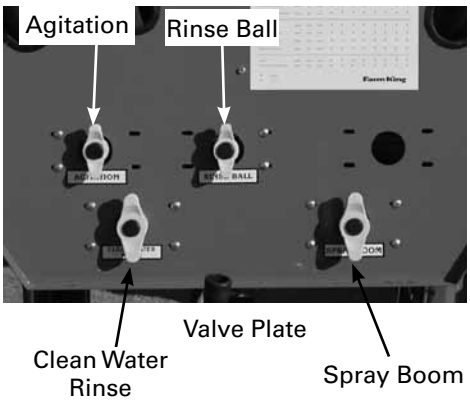
The liquid system begins with a suction line supplying a centrifugal pump. This pump is powered via tractor hydraulics and provides flow to the sprayer. The pump and plumbing have been configured to provide for the following functions:

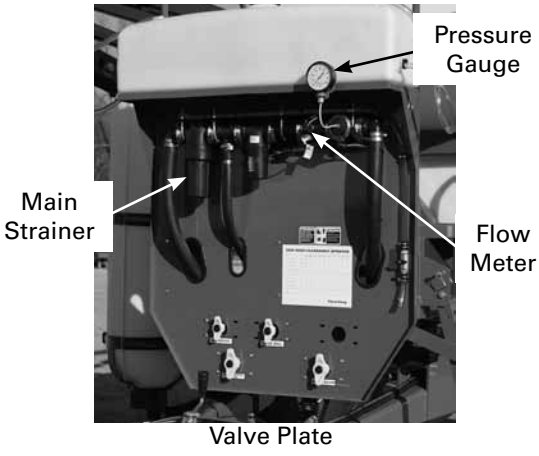
- Fill Solution Tank
- Fill Solution Tank, Utilizing Eductor (if equipped)
- Fill Solution Tank, With Tank Agitation
- Fill Clean Water Rinse Tank
- Rinse Agitation System
- Rinse Solution Tank
- Rinse Spray Boom Plumbing
- Spray
- Unload

Actual valve configuration will vary, depending on options purchased.









Centrifugal Pump

Pump operation is very important. The following must be followed when operating a centrifugal pump. Proper pump operation will make your system operate with minimal maintenance and down time. Failure to follow the manufacturer's pump operation instructions will void the pump warranty.

The pump must never be run in a non-flooded condition. Operating the pump in a non-flooded condition will cause extensive seal damage and possible pump damage. To verify the pump is flooded, visually check pump vent line for fluid. Fluid will appear in vent line when pump is flooded.

A "flooded" condition is when the centrifugal pump is completely full of fluid and no pockets of air are present in the pump. In order to get maximum pump efficiency the mounting and plumbing must meet the guidelines stated below.

1. The pump inlet must be mounted below the product tank(s) sump to allow gravity to naturally fill the pump with liquid. See Figures 1 - 3.
2. The suction line must have a continual rise from the pump inlet to the tank sump.
3. The pump must have the vent line plumbed to it.

Figure 1

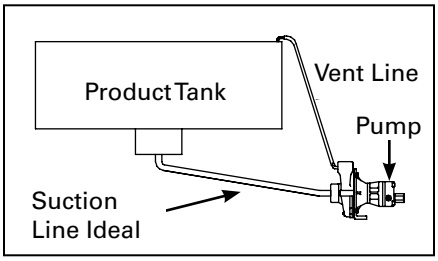


Figure 2

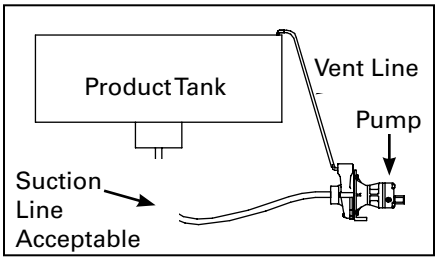
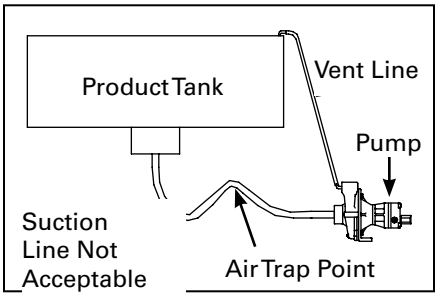


Figure 3



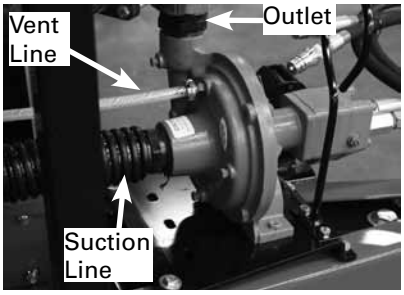
IMPORTANT

The vent line is designed to prevent air lock by bleeding off trapped air. This allows the pump to prime and keeps some fresh solution circulating by the seal.

IMPORTANT

For proper venting, the vent line must continually rise from the pump to the top of the tank. A small amount of solution will move through this line back to the solution tank indicating a primed pump.

Hydraulically Driven Centrifugal Pump: It is very important that the proper oil flow is supplied to the hydraulic motor which powers the pump. Excessive flow will over-speed the motor and cause motor damage. To regulate the correct oil flow to the pump motor see the pump manufacturer's manual.



Hydraulically Driven Centrifugal Pump

IMPORTANT

There are two basic rules to follow when operating a hydraulically driven centrifugal pump:
1. Never run the pump in a "non-flooded" condition.
2. Always have the correct oil flow to the pump motor. Always read and follow the pump manufacturer's operational instructions.

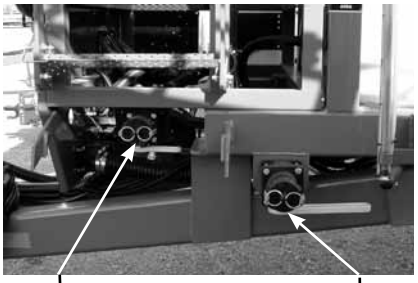
IMPORTANT

Turn off a hydraulically driven centrifugal pump using the "float" position of the tractor's hydraulic valve. This allows the motor to stop slowly helping to protect the motor and motor seals.

Fill Solution Tank

Load the solution tank without using the trailer sprayer pump via the following steps.

1. Close all valves.
2. Remove solution quick fill cap & connect load hose.
3. Open solution quick fill valve and solution tank main valve.
4. Open valve on loading reservoir (i.e. nurse tank).
5. Start the remote transfer pump.
6. Run remote transfer pump until the desired amount of solution is transferred into the trailer sprayer.
7. Close valves on loading reservoir.
8. Close solution quick fill valve on trailer sprayer.
9. Remove load line & replace cap on trailer quick fill.



Quick Fill Connections, left side view

Fresh water connection and valve in closed position

Solution connection and valve in closed position

CAUTION

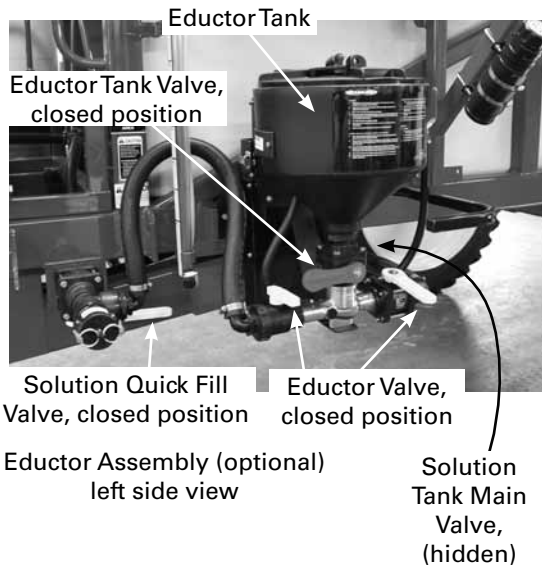
Small amounts of liquids will remain in the load hose. Splashing of this liquid can cause a safety hazard to you and to those in the vicinity of the trailer sprayer.

CAUTION

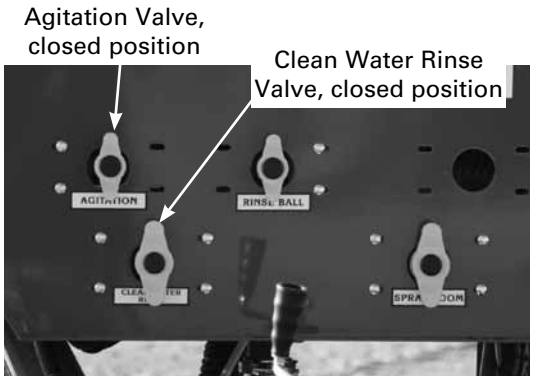
Overfilling may cause the tank lid to open causing splashing of solution from the tank lid, which may be hazardous to you and the environment.

Fill Solution Tank, Utilizing Optional Eductor
Load the solution tank using the optional eductor via the following steps:

1. Close all valves.
2. Remove solution quick fill cap & connect load hose.
3. Open solution quick fill valve and solution tank main valve.
4. Open valve on loading reservoir (i.e. nurse tank)
5. Fill eductor with desired amount of chemical to be pulled into the solution tank. CLOSE Eductor Lid.
6. Start the remote transfer pump.
7. Once there is a steady flow rate from the nurse tank to the solution tank, open the eductor valve and close the solution quick fill valve. Once there is a steady flow rate again, open the eductor tank valve for 15-30 seconds.
8. Close the eductor tank valve and verify the chemical has been completely removed from the eductor tank. Repeat steps 7 and 8 if chemical remains in the eductor tank.
9. Run remote transfer pump until the desired amount of solution is transferred into the sprayer.
10. Close valves on the loading reservoir.
11. Close solution quick fill valve and the eductor valve on the sprayer.
12. Remove load line & replace cap on sprayer quick fill.



Eductor Assembly (optional) left side view



Valve Plate

CAUTION

AGRICULTURAL CHEMICALS CAN BE DANGEROUS. IMPROPER SELECTION OR USE CAN INJURE PERSONS, ANIMALS, PLANTS, SOILS OR OTHER PROPERTY.

TO AVOID INJURY
1. SELECT THE RIGHT CHEMICAL FOR THE JOB.
2. HANDLE AND APPLY IT WITH CARE. FOLLOW INSTRUCTIONS ISSUED BY THE CHEMICAL MANUFACTURER.

002438

CAUTION

DO NOT open the lid of the eductor while in operation as splashing of chemical may occur.

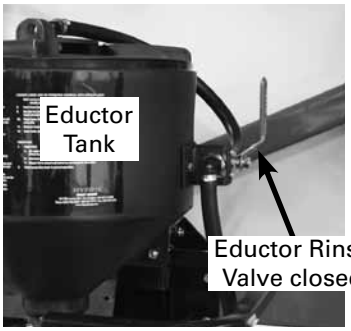
Rinse Eductor While Filling: Rinse the Eductor via the following:

IMPORTANT

Only you, the operator, can determine the length of time required to completely rinse all chemical residue from the sprayer tanks and plumbing systems.

1. Close all valves.
2. Open the clean water rinse valve.
3. Open the eductor rinse valve.
4. Engage the liquid pump of the sprayer.
5. Once clean water flow reaches the eductor,
6. Open the eductor tank valve for 15-30 seconds.
7. If residue remains, repeat step 5.
8. Disengage the liquid sprayer pump.

Eductor Assembly (optional), left side view



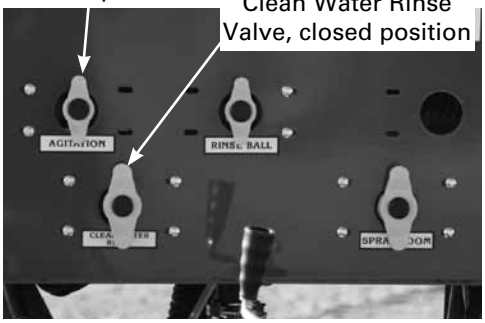
IMPORTANT

Turn off a hydraulically driven centrifugal pump using the "float" position of the tractor's hydraulic valve. This allows the motor to stop slowly helping to protect the motor and motor seals.

9. Close the clean water rinse, eductor rinse valve and the eductor tank valve.

Fill Solution Tank, With Tank Agitation: Load the solution tank using tank agitation via the following steps:

1. Close all valves.
2. Remove solution quick fill cap and connect load hose.
3. Open solution quick fill valve and the solution tank main valve.
4. Open valve on loading reservoir (i.e. nurse tank).
5. Start the remote transfer pump.
6. Open the agitation valve.
7. Engage the liquid pump of the trailer sprayer.
8. Disengage the liquid pump of the trailer sprayer when adequate agitation is achieved.



Valve Plate

IMPORTANT

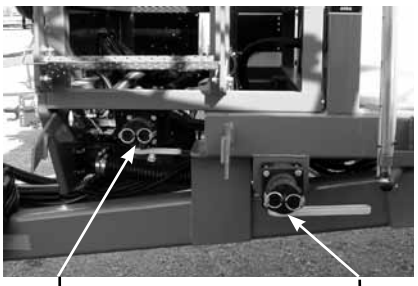
Turn off a hydraulically driven centrifugal pump using the "float" position of the tractor's hydraulic valve. This allows the motor to stop slowly helping to protect the motor and motor seals.

9. Run remote transfer pump until the desired amount of solution is transferred into the trailer sprayer.
10. Close the agitation valve.
11. Close valves on loading reservoir.
12. Close the solution quick fill and the solution tank main valves.
13. Remove load line and replace cap on sprayer quick fill.

Fill Clean Water Rinse Tank

Filling the clean water rinse tank is achieved via the following steps:

1. Close all valves.
2. Remove fresh water quick fill cap and connect load hose.
3. Open valve on clean water quick fill of trailer sprayer.
4. Open valve on loading reservoir (i.e. nurse tank).
5. Start the remote transfer pump.
6. Run remote transfer pump until the desired amount of clean water is transferred into the trailer sprayer.
7. Close valves on loading reservoir.
8. Close fresh water quick fill valve on trailer sprayer. Remove load line and replace cap on trailer quick fill.



Quick Fill Connections, left side view

Fresh water connection and valve in closed position

Solution connection and valve in closed position

Rinse Solution Tank

Using the clean water rinse tank system, rinse the solution tank with clean water is accomplished via the following steps:

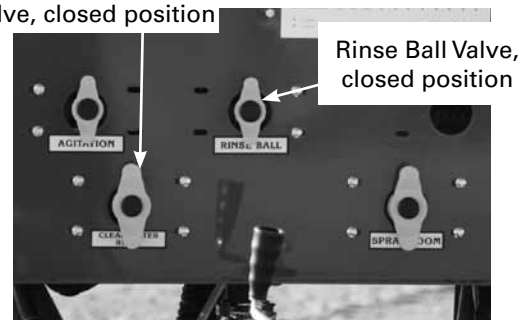
IMPORTANT

Only you, the operator, can determine the length of time required to completely rinse all chemical residue from the sprayer tanks and plumbing systems.

1. Close all valves.
2. Open the clean water rinse valve.
3. Open the rinse ball valve.
4. Engage the liquid pump of the sprayer.
5. Run for 15-30 seconds to thoroughly rinse the in sides of the solution tank. Repeat if needed.
6. Disengage the liquid pump of the trailer sprayer.

Clean Water Rinse Valve, closed position

Rinse Ball Valve, closed position

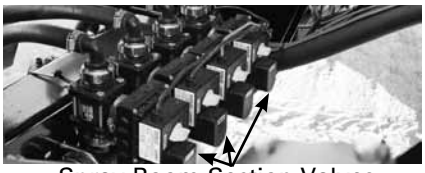


Valve Plate

IMPORTANT

Turn off a hydraulically driven centrifugal pump using the ”float” position of the tractor’s hydraulic valve. This allows the motor to stop slowly helping to protect the motor and motor seals.

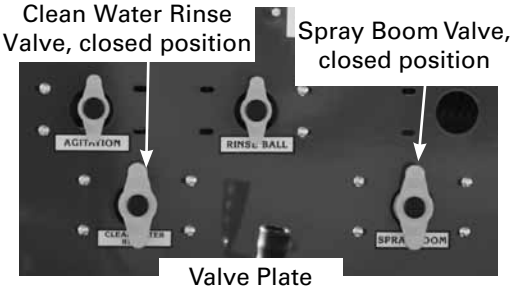
7. Close the clean water rinse valve.
8. Close the rinse ball valve.


Spray Boom Section Valves

Rinse Spray Boom Plumbing
Using the clean water rinse tank system, rinse the spray boom plumbing with clean water via the following steps:

IMPORTANT

Only you, the operator, can determine the length of time required to completely rinse all chemical residue from the sprayer tanks and plumbing systems.



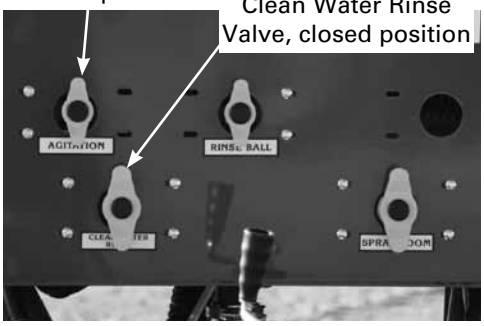
Valve Plate

1. Close all valves.
2. Open the clean water rinse valve.
3. Open the spray boom valve, the solution tank main valve.
4. Open all spray boom section valves with the spray controller.
5. Engage the liquid pump of the trailer sprayer.
6. Run for 15-30 seconds to thoroughly rinse. Repeat if needed.

IMPORTANT

Turn off a hydraulically driven centrifugal pump using the "float" position of the tractor's hydraulic valve. This allows the motor to stop slowly helping to protect the motor and motor seals.

7. Disengage the liquid pump of the trailer sprayer.
8. Close the clean water rinse valve.
9. Close the spray boom valve.
10. Close all spray boom section valves.



Valve Plate

Rinse Agitation System
Rinse the agitation plumbing via the following steps:
1. Close all valves.
2. Open the clean water rinse valve.
3. Engage the liquid pump of the trailer sprayer.
4. Open the agitation valve.
5. Run for 15-30 seconds to thoroughly rinse the insides of the agitation plumbing.
6. Disengage the liquid pump of the trailer sprayer.

IMPORTANT

Turn off a hydraulically driven centrifugal pump using the "float" position of the tractor's hydraulic valve. This allows the motor to stop slowly helping to protect the motor and motor seals.

7. Close the clean water rinse valve.
8. Close the agitation valve.

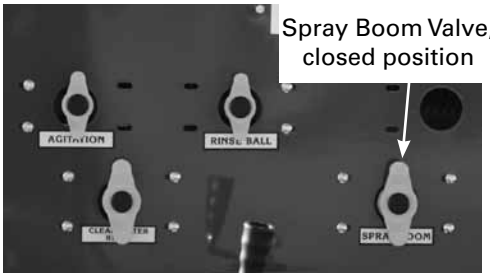
IMPORTANT

Only you, the operator, can determine the length of time required to completely rinse all chemical residue from the sprayer tanks and plumbing systems.

Spraying

Spraying is accomplished via the following steps:

1. Close all valves.
2. Open the solution tank main valve.
3. Setup control system. (Setup and operation of the control system is covered in the manual provided by the controller manufacturer.)
4. Open the spray boom valve.
5. Engage the liquid pump of the trailer sprayer.
6. Open desired spray boom section valves.
7. Perform spraying according to the control system provided.
8. To stop spraying, close all spray boom section valves.
9. Disengage the liquid pump of the trailer sprayer.



Valve Plate

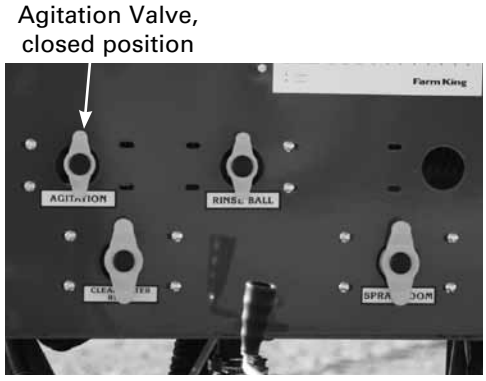
IMPORTANT

Turn off a hydraulically driven centrifugal pump using the "float" position of the tractor's hydraulic valve. This allows the motor to stop slowly helping to protect the motor and motor seals.

10. Close the spray boom valve.

Spraying with Agitation

Certain chemicals require continuous agitation. If agitation is required during spraying, open the agitation valve provided. If severe foaming of your chemical occurs, check the chemical label or your supplier to determine if agitation is required or reduce the opening of the agitation valve to limit the flow rate back to the solution tank. Reduce agitation if adequate spray pressure cannot be maintained.



Valve Plate

Unload

Two processes can be utilized for unloading of liquid remaining in the solution tank.

Option A: Spray remaining liquid out the spray boom plumbing.

Option B: Open the solution quick fill and the solution tank valves and let remaining liquid drain via gravity from the solution tank.

In-line Stainer

IMPORTANT

Always dispose of chemical or diluted chemical according to your local, state, and federal regulations.

Strainers

Check and clean the main and In-line strainers daily, more frequently if your solution is not free of debris.

Hydraulics

Hydraulic power for the trailer sprayer is supplied from the tractor hydraulic system. The hydraulically driven centrifugal pump and the spray boom fold operations are powered by the tractor hydraulics. A pressure and return line for the liquid pump, and a pressure and return line for the boom fold cylinders are located near the hitch of the sprayer. A minimum requirement of 25 absolute micron filtration should be incorporated into the tractor hydraulics to assure adequate filtration of the oil supplied to the trailer sprayer components.

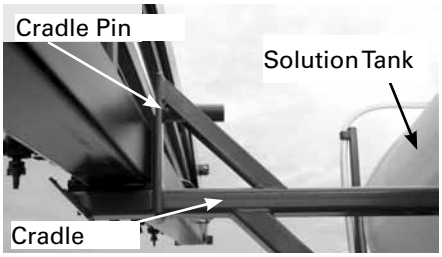
Main Strainer

IMPORTANT

Make certain to correctly connect the pressure and return lines between the sprayer and the tractor. See pump manufacturer's manual for the hydraulic system instructions.

IMPORTANT

Remove the cylinder lock prior to operation. Operating the boom with the cylinder lock in place may cause damage to the Henschen Suspension.



Vertical Fold Boom Cradle, left side view

Vertical Fold Spray Boom Folding Out - Operation

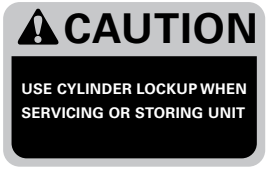
Folding the vertical fold spray boom into the spray position requires the following steps:

Engage the tractor hydraulic control valve connected to the Directional Stack. The hydraulic circuit for the Directional Stack is "live" at all times.

1. Remove the cradle pins.
2. Remove both parallel cylinder locks. These locks store underneath the upper parallel arm.
3. Raise the boom center section to the maximum height using the boom lift up/down switch.
4. Raise the left and right wings using the right and left wing tilt up/down switches.
5. Unfold the left and right wings using the primary wing fold switch. Note: Both right and left wings fold/unfold at the same time.
6. Unfold the outer wing sections using the secondary wing fold switch. Note: Both right and left wings fold/unfold at the same time.
7. Lower the spray boom to the desired spray height using the boom lift up/down switch.
8. Adjust the left and right wing tips for changes in terrain using the wing tip up/down switches.

Parallel Cylinder LockUp, left side view

Operate the boom with the wing tips slightly higher than the center section. Use the left and right wing up/down switches to raise the wing tips.



Boom Control Box

CAUTION

Disengage the hydraulic control valve connected to the Directional Stack when not spraying or when boom movement is not needed. Failure to disengage the hydraulics may allow the boom to move without activating the boom control switches (and/or hydraulic oil to overheat).

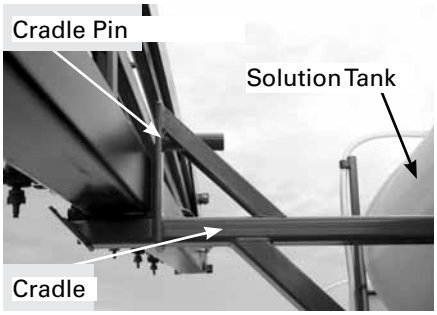
IMPORTANT

Verify that the 180° fold boom cylinders are retracted and the left and right wing are folded out so that they are resting on the adjustable stop bolts. Operation of the sprayer without the boom sections resting on the stop bolts may cause a failure of some boom sections.

Vertical Fold Spray Boom Folding In - Operation

Folding the boom into the cradle position requires the following steps:

1. Raise the boom center section to the maximum height using the boom lift up/down switch.
2. Fold the outer wing sections using the secondary fold switch. Note: Both right and left wings fold/unfold at the same time.
3. Raise the right and left hand wings to their maximum height using the wing tilt up/down switches.
4. Fold the right and left wings using the primary wing fold switch. Note: Both right and left wings fold/unfold at the same time.
5. Lower the left and right wings into the cradles using the left and right wing tilt up/down switches.
6. Replace the cradle pin to lock the wing into the cradle for transport.
7. Re-install the parallel cylinder locks.

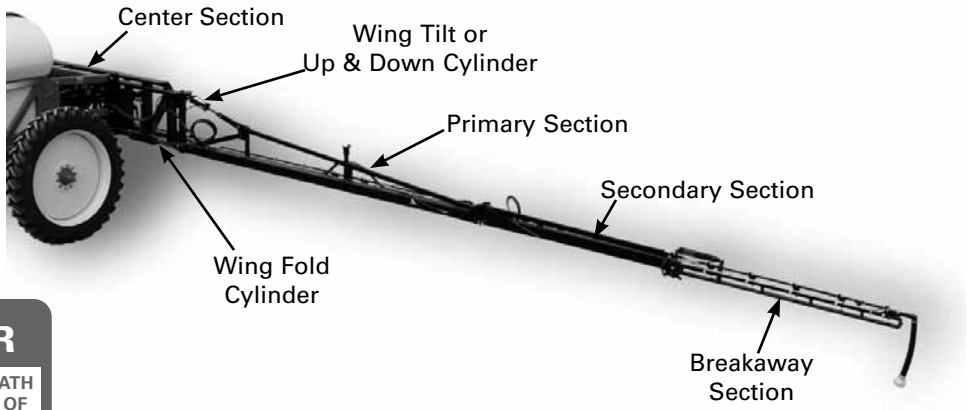


Vertical Fold Boom Cradle, left side view

Parallel Cylinder, left side view

CAUTION

Disengage the hydraulic control valve connected to the Directional Stack when not spraying or when boom movement is not needed. Failure to disengage the hydraulics may allow the boom to move without activating the boom control switches (and/or hydraulic oil to overheat).



LEFT WING

Boom Control Switches

Raven 450 SCS Controller

Solution Spray Control System (optional)
See the controller manufacturer's manual for operation instructions.

Lights and Rear Facing Reflective and Florescent Decals

Light and Marking System
The light system on the sprayer works with the tractor's light system. Amber lights flash in unison with the tractor's amber flashing lights. If a turn is not being signaled, both amber lights flash. When the operator signals a right turn with the tractor's turn signal switch, the left amber light stops flashing and remains on and the right amber flashes at the same flashing rate as the tractor's right amber turn light. If a left turn is signaled, the opposite takes place.

Red taillights also follow the tractor lights in their function. If road lights are on and the taillights of the tractor are lit, the red taillights will be lit on the implement. In a turn, the red, high intensity portion of the taillight will come on. As with the amber, in a right turn the left red, high intensity portion of the taillight will remain on and the right taillight flashes at the same rate as the tractor's red turn signal light. If a left turn signal is turned on, the opposite takes place. In a turn situation, this lighting system produces the effect of a vehicle braking and turning in the direction of the flashing light. The turn signal module, "The Black Box", produces the turn signal/stop effect with the red lights. See Section F for the location of this module.

The light and marking system also incorporates reflective decals front and rear of proper size and location for night travel and fluorescent decals of proper size and location for daylight travel.

Foam Marker (Field Installed Option)
Refer to Foam Marker manual (SXL-24121) for operational instructions.

NOTES:

Connection & Startup
Section C

Connection

Hitch
Farm King provides a pintle/clevis hitch.

Adjust pintle/clevis hitch so sprayer is level when connected to tractor drawbar.

Connect the sprayer to the tractor according to the tractor manufacturer's instructions. Once the hitch is connected to the tractor make certain that the safety chains on pintle and clevis hitches are securely fastened to the tractor. Using the hand crank, raise the hitch jack high enough to allow for pivoting of the assembly. Pull the pin and rotate until horizontal and the pin is re-engaged.

Pintle and Clevis Style Hitch

WARNING

For pintle and clevis style hitches, towing of the sprayer by any type of vehicle requires safety chains.

CAUTION

Prior to loading with chemical, the operator needs to test the sprayer with water only to ensure the system is intact prior to putting chemical into the system. Test to verify application at the desired rate and all components work correctly.

Visual Inspection
All steps of the inspection should be preformed with the tractor engine turned off and the brakes correctly set or the tires blocked. A visual inspection of the entire sprayer should be made. The visual inspection should include, but not be limited to, the review of the following (see the maintenance section of this manual for further instructions):

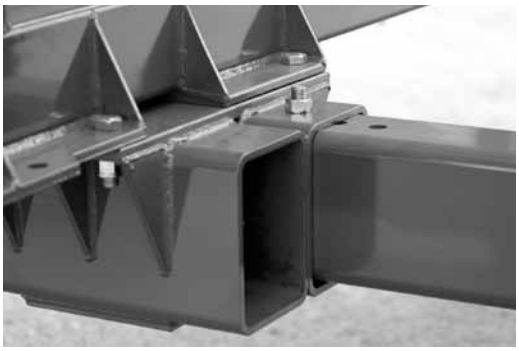
- Corrosion of all metal (parts & structure)
- Weld joints are sound (no cracking or tears)
- Plumbing connections are solid
- Plumbing hoses have no visual damage
- Poly tanks have no cuts or punctures
- Poly tanks are free of debris (may damage pump)
- Poly tanks lids are secure
- Spray boom structure is solid

IMPORTANT

Any damage identified by the operator should be repaired prior to connecting the sprayer to the tractor.

Axles

Adjustable Width Axles
The Farm King Model 1200 High-Clearance Sprayer has adjustable axles to accommodate different row spacing. The axle width adjustment procedure follows:


Axle Tube Weldment

1. Secure sprayer on level ground, attached to a tractor with the wheels chocked and the tractor in park. Ensure that NO forward or aft rolling of sprayer can occur when elevating a tire.
2. Using a jack, raise one tire off the ground.
3. Secure elevated side with jack stands, braces, or equivalent, ensuring that the sprayer cannot fall while the tire and spindle are moved. Damage to the sprayer and serious injury or death to personnel can occur if the sprayer falls.

DANGER

Never attempt to adjust the tire width unless the sprayer is secure, and on level ground. The liquid tank should be completely void of fluid. Always secure sprayer with jack stands, braces or equivalent when working under an elevated unit.

4. The spindle assembly/hub and wheel is very heavy and should be moved with the aid of a floor jack or equivalent lifting system. Loosen and remove the two bolts that hold the spindle/hub assembly to the axle sub-frame. Slide the assembly in or out to the desired row spacing. Replace the bolts and nuts with new bolts and locknuts.

IMPORTANT

Always replace the adjustment bolts with new bolts and locknuts.

5. Tighten all axle adjustment bolts to the torque specified in Section E. Replace any bolts or nuts that have signs of physical damage, especially noting damage due to corrosion.
6. Remove jack stands and braces and lower the unit to the ground.
7. Repeat for the other side making certain the same centerline distance is maintained.

Vertical Fold Spray Boom
Tire Weight Capacities - 20 MPH Transport Speed

NOTE

Use this chart as a guide to determine the maximum amount of various solutions your sprayer tires are rated for. 8 MPH is the service or field speed for this sprayer. 20 MPH is used here to demonstrate a speed used to transport the sprayer, NOT as a service or field speed. Only the operator can determine the maximum safe operating speed of the sprayer.

Maximum Solution Tank Capacity in Gallons at 20 MPH with 320 - 90R46 Tires

Solution Weight Per Gallon	1200 Gallon Tank
8.3 lb/gal (water)	1200
10.0 lb/gal	1200
12.0 lb/gal	1200
14.0 lb/gal	1200
16.0 lb/gal	1194

Static Load Boom Height ** Minimum 24", Maximum 65" Spindle and Hub Assembly: 10-Bolt

Vertical Fold Spray Boom
Tire Weight Capacities - 8 MPH Operating Speed

NOTE

Use this chart as a guide to determine the maximum amount of various solutions your sprayer tires are rated for.

Maximum Solution Tank Capacity in Gallons at 8 MPH with 320 - 90R46 Tires

Solution Weight Per Gallon	1200 Gallon Tank
8.3 lb/gal (water)	1200
10.0 lb/gal	1200
12.0 lb/gal	1200
14.0 lb/gal	1200
16.0 lb/gal	1200

Static Load Boom Height ** Minimum 24", Maximum 65" Spindle and Hub Assembly: 10-Bolt

** = Standard booms measured to bottom of boom frame.

Hydraulics

Tractor Hydraulic System Pressure
The hydraulic system on the Farm King Model 1200 High-Clearance Sprayer requires from the tractor's hydraulic system a pressure of at least 2200 PSI. A system pressure less than this may not provide the force necessary for boom functions or pump output. If you have difficulty running the pump and/or boom functions at the same time, check your tractor's hydraulic pressure. Recommended pressure is 2500 PSI.

Hydraulically Driven Centrifugal Pump
Refer to the manufacturer's recommendations to set the hydraulic oil flow from the tractor to the hydraulic motor driving the centrifugal pump. Make sure the hydraulic flow from your tractor does not exceed these specifications causing the pump to "over speed". Over speeding will decrease the motor seal life.

Connect the hydraulically driven pump to a tractor hydraulic circuit with a "float" position. Use the float position to turn off the hydraulic pump to protect the hydraulic seals.

For tractors with an open hydraulic system, connect the hydraulically driven pump to the priority circuit in the hydraulic system. The priority circuit prioritizes the oil to that circuit first and then to the others. The priority circuit allows the pump to maintain a more consistent output in the case you need to operate a boom function while operating the pump. If you do not have a priority hydraulic circuit, the pump output will decrease when you operate both the pump and a boom function.

Vertical fold spray boom Directional Stack Hydraulic Boom Function Controller

The Farm King vertical fold boom Directional Stack Hydraulic Controller utilizes "live" hydraulics. This eliminates the need to move the tractor's hydraulic controls in the direction desired to operate a boom function. Once the setup is complete, the operator will engage the tractor hydraulic controls connected to the Directional Stack in one direction and leave the circuit engaged. Movement of the toggle switch for a boom function will signal a valve in the directional stack to direct the hydraulic oil in the correct direction and operate the boom function selected.

Verify with your tractor manufacturer if you have an open or closed center hydraulic system in your tractor. The Directional Stack comes configured for the majority of closed center hydraulic systems. In this configuration, the manifold does not allow the hydraulic oil a path back to the return side of the manifold when no boom functions are needed. This configuration counts on the tractor's hydraulic system to turn off the flow of hydraulic oil to the manifold when no boom functions are needed.

Dump valve

Directional Stack Hydraulic Controller closed center hydraulic system set up, rear view

IMPORTANT

Not configuring the Directional Stack Hydraulic Controller correctly may cause tractor hydraulic system heating and may damage the tractor.

If your tractor is a closed center system, generally no further setup is needed. Certain closed center systems may not work well with this configuration. Verify with the tractor manufacturer the requirements of your closed center hydraulic system. It may be necessary to insert the "dump" valve to allow hydraulic oil a path from the tractor through the manifold to return back to the tractor when no boom functions are needed.

If your system is an open center system, or certain closed center systems, configure the Directional Stack to account for this by following these instructions:

IMPORTANT

Not configuring the Directional Stack Hydraulic Controller correctly may cause tractor hydraulic system heating and may damage the tractor.

1. Remove the solenoid from the "dump" cartridge valve located on the left end of the valve manifold. Refer to Section F, "Parts & Schematics" for further information.
2. Remove the cartridge from the manifold. This location is a storage location only. There are no hydraulic functions associated with this port.
3. Replace the "dump" valve port plug located on the right end of the valve manifold with the "dump" valve cartridge.
4. Install the solenoid on the cartridge valve and connect the solenoid to the harness. See the harness wiring schematic in Section F for information on which connection lead operates the "dump" valve.
5. Place the plug in the port in the left side of the manifold where you took out the "dump" cartridge.
6. Torque all fittings to the specifications given on the Directional Stack schematic in Section F.

Directional Stack Hydraulic Controller closed center hydraulic system set up, rear view

Directional Stack Control Box Mounting:

1. Mount the Directional Stack control box to the top of the solution spray controller (optional) with the brackets provided.
2. Connect the hydraulic hoses located near the sprayer hitch to the tractor.
3. Route the controller power cables to a 12 VDC power source in your tractor capable of at least 15 AMPs.
   - Black is negative (-)
   - Red is positive (+)

Raven 450 SCS Controller

IMPORTANT

DO NOT remove the fuse or fuse holder from this power source. These are for the protection of these components and removal will void the warranty.

4. Route the harness out of the cab down to the hitch area. Connect the harness from the control box to the harness on the sprayer.

Boom Control Box

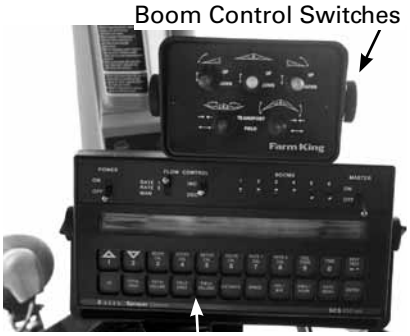
Spray Control System

Install the spray control console in the cab and route the wire harness to the back of the tractor per installation instructions provided by the control manufacturer.

Install the speed sensor or radar (if necessary) and connect them to the solution controller according to the speed sensor, radar and spray controller manufacturer's instructions. For tractors with radar systems built in, interface cables are available from your Farm King Dealer.

Correct connection of the radar, speed sensor, flow meter, control valve to the console should be made according to control manufacturer's instructions.

Calibration of the radar or speed sensor is necessary to ensure accurate readings. Calibrate the speed sensor or radar according to the manufacturer's instructions or the instructions provided with the spray controller. Even with a radar or speed sensor, calibration of the spray output is necessary to assure correct application. Follow the control manufacturer's guidelines for this calibration.



Raven 450 SCS Controller

✓	IMPORTANT	DO NOT remove the fuse or fuse holder from this power source. These are for the protection of these components and removal will void the warranty.

✓	IMPORTANT	Full testing of the sprayer including the controller, plumbing and electrical connections should be completed using water prior to loading with chemical.

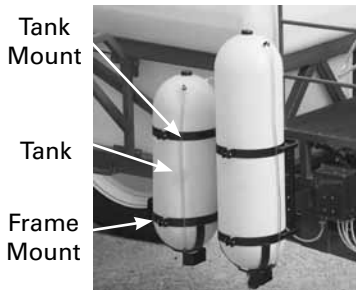
Light System

The light system provides the signal from the tractor to the sprayer. Connect the seven-pin male connector to the tractor's seven-pin female connector at the rear of the tractor. The connector for the sprayer is located near the hitch. If the tractor is not equipped with such a connector, see your tractor dealer.

Seven Pin Connector located near the hitch

Foam Marker (optional)

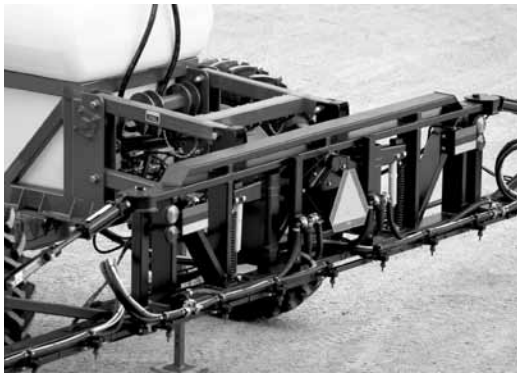
If not already done, attach the foam marker tank and compressor assembly to the frame of the sprayer. Refer to the Foam Marker Operations Manual (SXL-24121) for specific installation and setup instructions.



Foam Marker mounting position, right front view

Vertical Fold Boom Adjustment

Boom and Parallel Arm Lubrication
The boom will follow the movement of the frame more if the boom is not allowed to move independently. Refer to Section E of this manual for lubrication points on the boom and parallel arms. Lubricate these points to allow free movement of the boom.



NOTES:

Storage
Section D

When storing the sprayer for longer periods of time, the following procedures must be followed to lessen the chance of rust and corrosion on the unit. It may be easier to perform functions 1 - 5 while the unit is connected to the tractor. This will allow for pumping and spray flushing power.

CAUTION

Block and support the trailer sprayer when working on unit that has been removed from the tractor.

1. Make certain the inside of the tank is completely drained of chemical residue.
2. Thoroughly flush the inside of the poly tank with clean water.
3. Flush clean water through all areas of the plumbing, pumping valving and nozzle system.
4. If the sprayer will be exposed to possible freezing temperatures, the final flush of the system should be made with anti-freeze liquid.
5. Open all drain points and let as much liquid drain as possible.
6. Remove and clean the strainer(s).
7. Remove and clean nozzles. Store inside with other nozzles.
8. Check for loose hardware and fittings and tighten accordingly.
9. Replace all caps, tank lids and plug nozzle outlets prior to storage.
10. Poly tanks can become damaged when subjected to direct sunlight. For longer life of this system it is best to store it in a cool dry location or drape with a sun protective tarp.
11. Store sprayer with booms folded resting in the cradles. Coat all exposed cylinder shafts with a rust inhibitor to prevent corrosion. Verify with the manufacturers of the rust inhibitor and your tractor's hydraulic oil that the two are compatible before use.

DANGER

All chemical contaminated rinse material must be collected and disposed of according to product label instructions and in accordance with all Local, State, and Federal Laws.

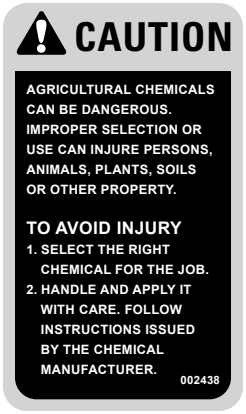
Maintenance, Service & Troubleshooting
Section E

IMPORTANT

Proper maintenance of the Sprayer and the tractor is critical for peak performance, reliability and accuracy of this system. The following is a guideline of the type of maintenance and servicing that should be performed on this unit. Your environment and uses may require additional maintenance and service beyond this list to assure a reliable and safe unit. The operator of this unit has ultimate responsibility to identify areas of concern and rectify them before they become a hazard or safety issue. There is no substitute for a trained, alert operator.

Liquid Tank, Frame, and Plumbing

1. Check tank visually for obvious cuts, cracks, punctures or leaks that could contribute to tank failure.
2. Check fittings for broken parts, cracks or wear marks and potential leaks.
3. Check gaskets of the bulk head fitting located on the sump for wear or weathering.
4. Inspect valves and pump for solid connections and correct mounting.
5. Inspect the tank lids for cracks and verify they tighten securely in place.
6. Remove any debris from inside the tanks as they may become lodged in the strainer or pass into the pump.
7. Clean strainer daily, more frequently if your liquid supply is not "free of debris".
8. Inspect all welds and structural components for tears, bends, cracks or damage. This unit operates in a corrosive environment. Make certain corrosion is quickly removed and painted. If corrosion is deep, replace component or add adequate plating with welding operation.



DANGER

If any of the above inspections, or others identified, are discovered **REPAIR IMMEDIATELY**.
Do not put this unit into operation with any questionably maintained parts. Poor performance or a hazard may occur.

Hydraulics

1. Inspect cylinder shafts for corrosion or damage. Repair or replace shaft to avoid hydraulic leaks or cylinder failure.
2. Inspect hydraulic hoses. Replace any hose that shows signs of wear or damage.
3. Removing hydraulic hoses for any reason requires that you plumb them back to their original position. Failure to do this may result in incorrect operation and may damage the sprayer. See Section F for the hydraulic plumbing schematic.

IMPORTANT

Failure to plumb the parallel cylinders correctly may cause damage to the Henschen Suspension.

Electrical & Control System

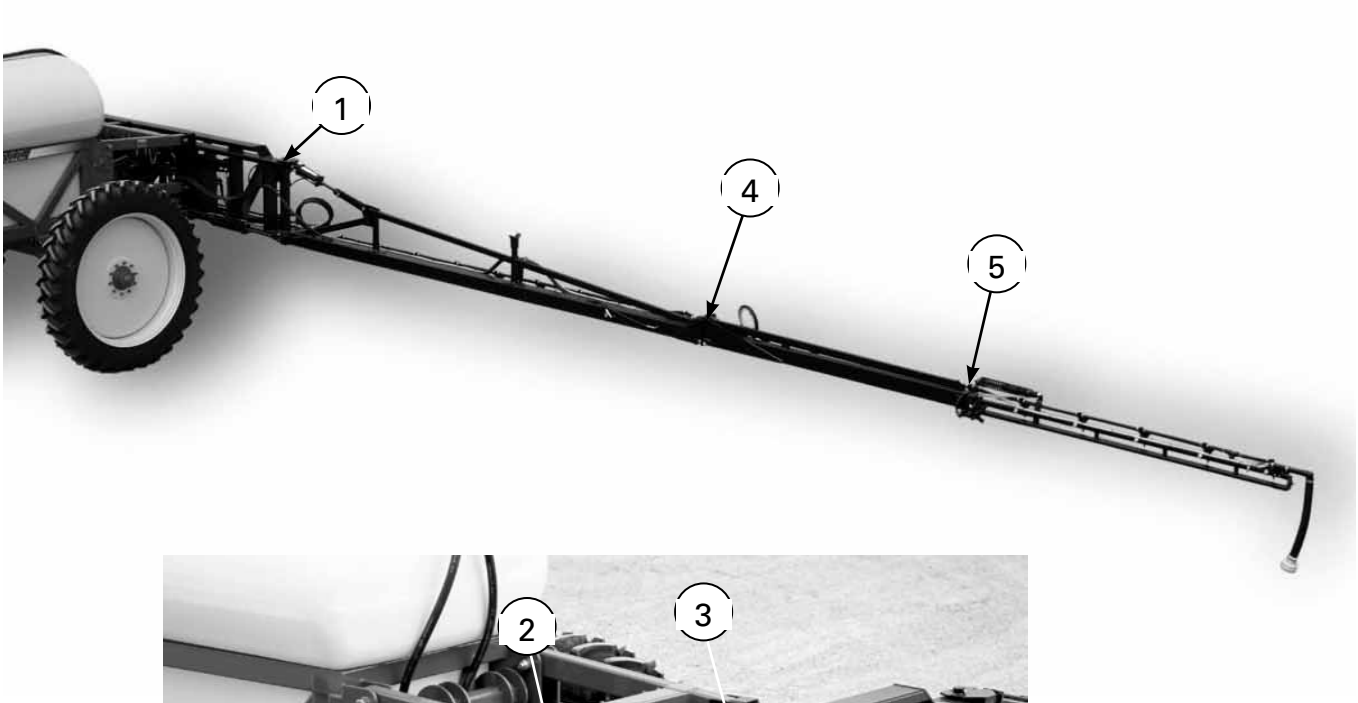
Use of dielectric grease is strongly urged for all electrical wire connections. All connections should be greased at the beginning of the season. Poor electrical connections due to corrosion is the leading cause of failure of sprayer equipment in this environment.

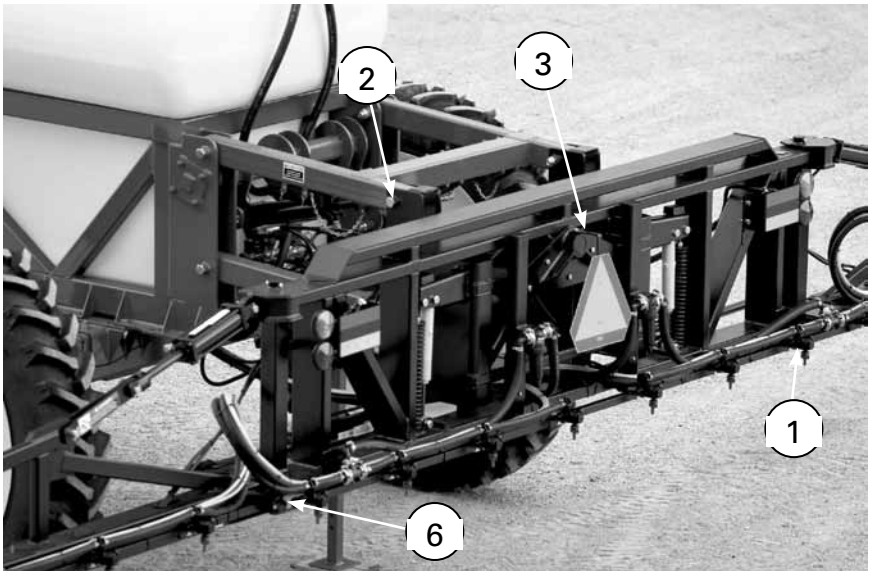
Packard style connections on certain options are designed to be weather resistant. This feature greatly reduces the corrosion associated with electric connectors. Use of dielectric grease is optional on these connections.

Vertical Fold Spray Boom Lubrication

Apply grease to all grease zerks daily when in use (more often if sprayer is utilized in severe conditions). Grease zerks are located at:

- At the wing attach point, 4 total (Item 1)
- Parallel linkage pins, 8 total (Item 2)
- Boom Pivots, 2 total (Item 3)
- Secondary boom section fold hinge, 2 total (Item 4)
- Breakaway section, pivot hinge, 2 total (Item 5)
- Primary section to boom pivots, 2 total (Item 6)





NOTE

Failure to check and maintain the proper lug nut torque could result in elongation of rim and/or broken lug-bolts. We recommend checking lug nut torque at regular maintenance intervals to ensure proper wheel tightness on your Farm King Sprayer.

Wheel Lug Nut Torque

When receiving your sprayer or replacing a tire, follow these steps for ensuring proper lug-nut torque:

NOTE DO NOT lubricate threads.

1. Tighten lug nuts to correct torque specifications using a crisscross pattern.

Size	Torque ft./lb
3/4"-16 UNF	250 - 265
5/8-18 Bolt	140 - 170

2. After tightening, pull the Farm King 1200 High-Clearance Sprayer approximately one (1) mile.
3. Retighten lug nuts to correct torque specs.
4. Use the sprayer, stopping after three (3) hours and again after ten (10) hours to retighten lug nuts to correct torque specifications.
5. At regular maintenance intervals recheck lug nut tightness.

Again, we recommend checking lug nut torque at regular maintenance intervals to ensure proper wheel tightness on you Farm King Sprayer.

NOTE

DO NOT use undersized tires. Use the right size tires for the job and properly match tires to wheels.

Bolt Torque Data

The chart provided contains information concerning standard hardware used on this machine. It is recommended that all fasteners be tightened to the torque values specified. The grade of the bolt is identified by the markings on the head of the bolt .

GENERAL BOLT TORQUE DATA IN FT./LB.

	SAE - Grade 5		SAE - Grade 8	
Bolt Size	Dry	Lub	Dry	Lub
1/4″-20	8	6	12	9
1/4″-28	9	7	13	10
5/16″-18	17	13	25	18
5/16″-24	19	14	25	20
3/8″-16	30	23	45	35
3/8″-24	35	25	50	40
7/16-14	50	35	70	50
7/16-20	55	40	80	60
1/2″-13	78	55	110	80
1/2″-20	90	65	120	90
9/16-12	110	80	150	110
9/16-18	120	90	170	130
5/8-11	150	110	220	170
5/8-18	170	130	240	180
3/4″-10	260	200	380	280
3/4″-16	300	220	420	320
7/8-9	430	320	600	460
7/8-14	470	350	660	500
1-8	640	480	900	680
1-14	700	530	1000	740

WARNING

Do Not use values in place of those specified in other sections of this manual or contained in information published by the manufacturer of the components in question.

WARNING

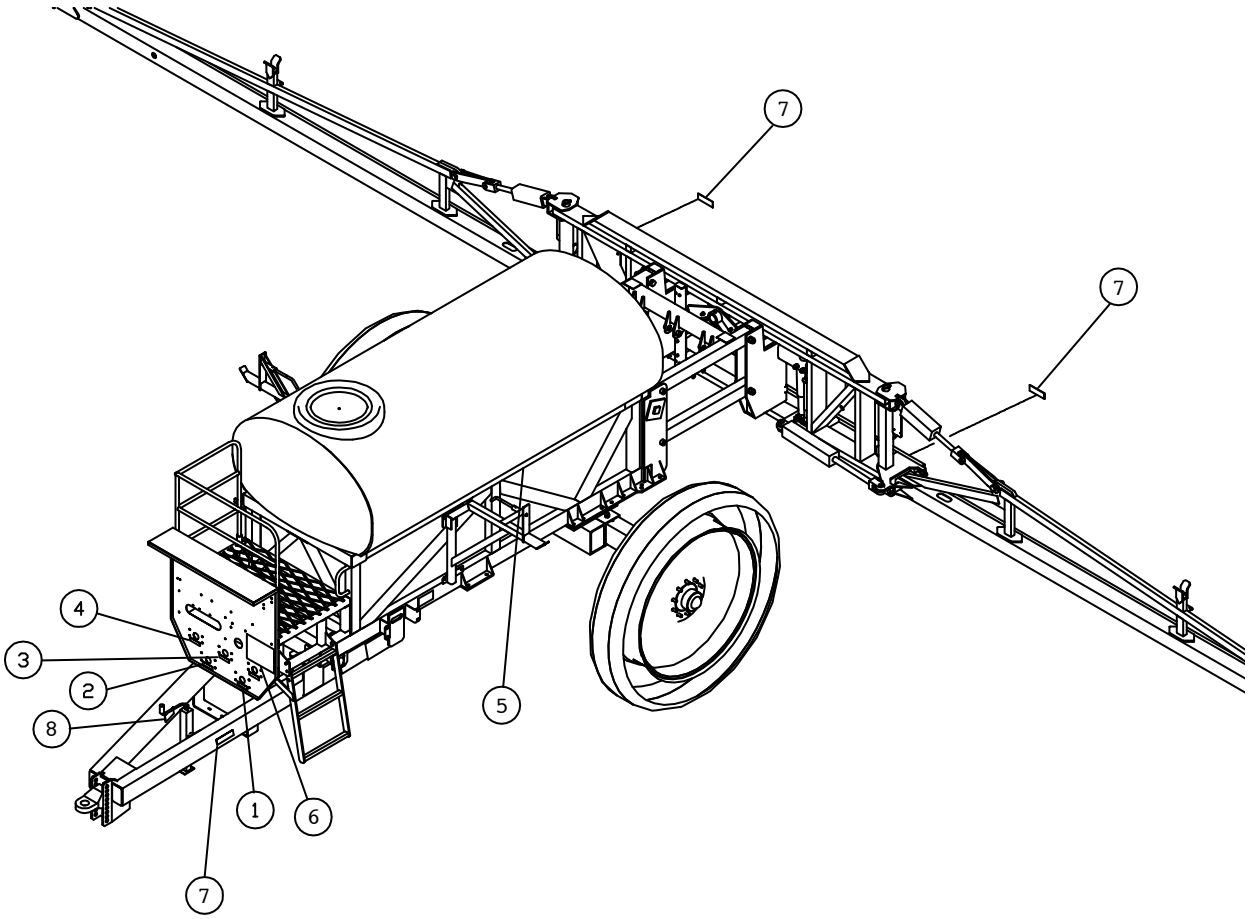
Mechanical fasteners must be torqued to recommended specifications during repair to prevent personal injury or equipment damage.

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Loss of hydraulic fluid due to leakage	Fittings and tubes leaking	Tighten loose fittings and replace worn hoses of cracked tubing.
	Leakage between flange and housing	Repair or replace
Low discharge of the hydraulic liquid pump	Pump not primed	Check vent line and clean if necessary to top of tank
	Air leaks in suction line	Check and reseal inlet fittings
	Blocked/clogged line strainer	Clean out and replace
	Impeller plugged or loose	Inspect and clear obstruction or tighten
	Bypass adjustment set improperly	Adjust bypass screw on side of hydraulic motor to manufacturer's specifications
Poor spray pattern, nozzles dribble	Nozzles too large Strainer clogged	See nozzle supplier Clean strainer
Spray atomizing and blowing around	Nozzle too small Tractor speed too fast	See nozzle supplier Reduce speed
Spray streaming (No uniform pattern)	Nozzle partially clogged	Remove and clean nozzles and strainer
Will not spray	Controller not setup Valves not in correct position Poor hydraulics or no hydraulic power Liquid supply blocked Suction line collapsed	See Control Manual See Section B Troubleshoot hydraulic system Clean strainer Inspect and replace

NOTES:

Parts & Schematics
Section F

Description: Decal Placement

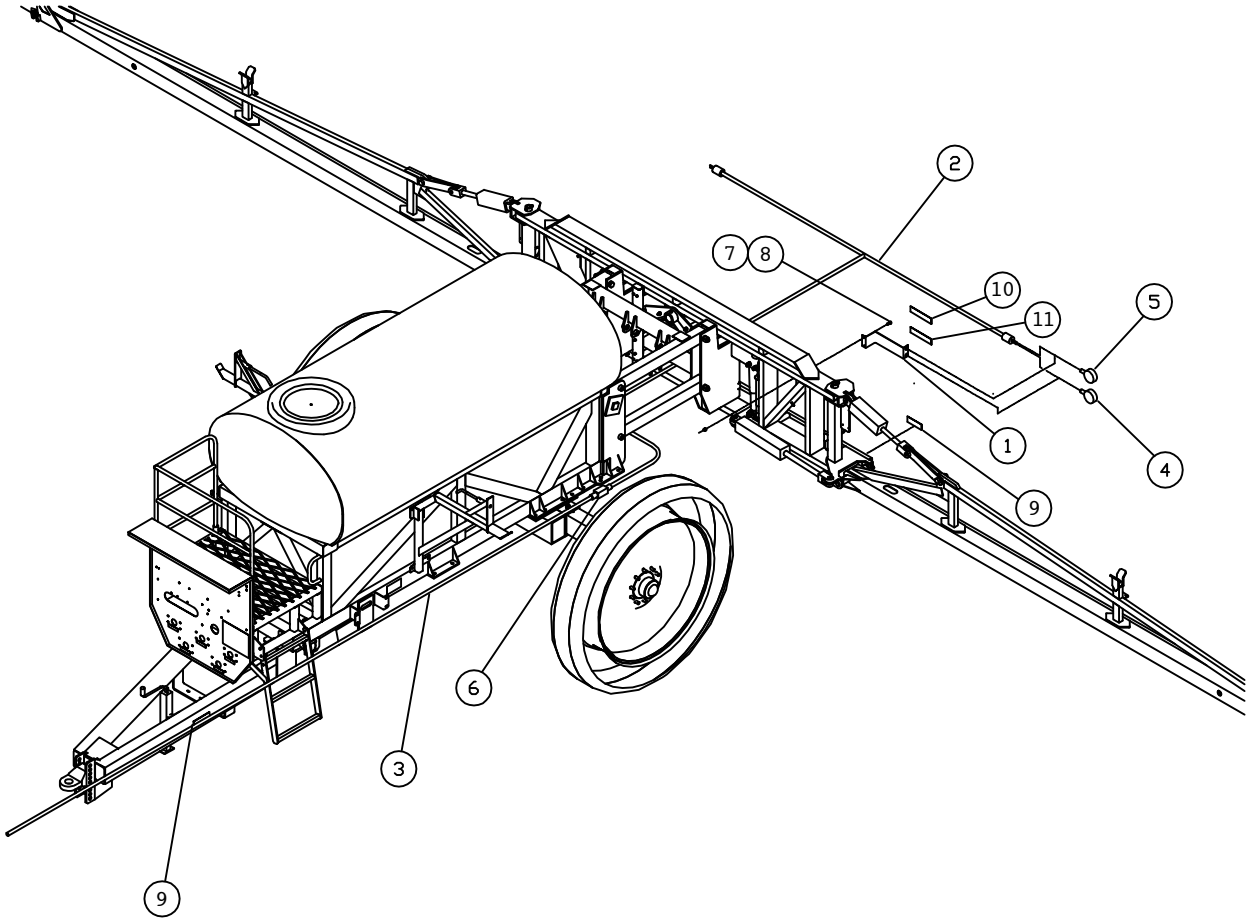


Description: Decal Placement

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX004764	Decal; 1″ x 4″ Clean Water Rinse	1
2	SX004765	Decal; 1″ x 4″ Spray Boom	1
3	SX004766	Decal; 1″ x 4″ Agitation	1
4	SX004767	Decal; 1″ x 4″ Rinse Ball	1
5	910563	Decal; Farm King LHS	1
	910564	Decal; Farm King RHS	1
	910566	Decal; 1200G Sight Gauge Cream	
	910567	Decal; 1200G Sight Gauge Yellow	
6	910565	Decal; 8.5″ x 11″ Valve Operations	1
7	SX17-5910	Decal; Amber Reflective	4
*	SX17-5915	Decal; Red Reflective	
*	SX006963	Decal; Eductor Lid	1
	SX006339	Decal; No. ″0″	
	SX006345	Decal; No. ″6″ & ″9″	
	SX006335	Decal; No. ″8″	
	SX006359	Decal; ″FT″	
8	SX115793	Serial Plate	1

*Not Shown

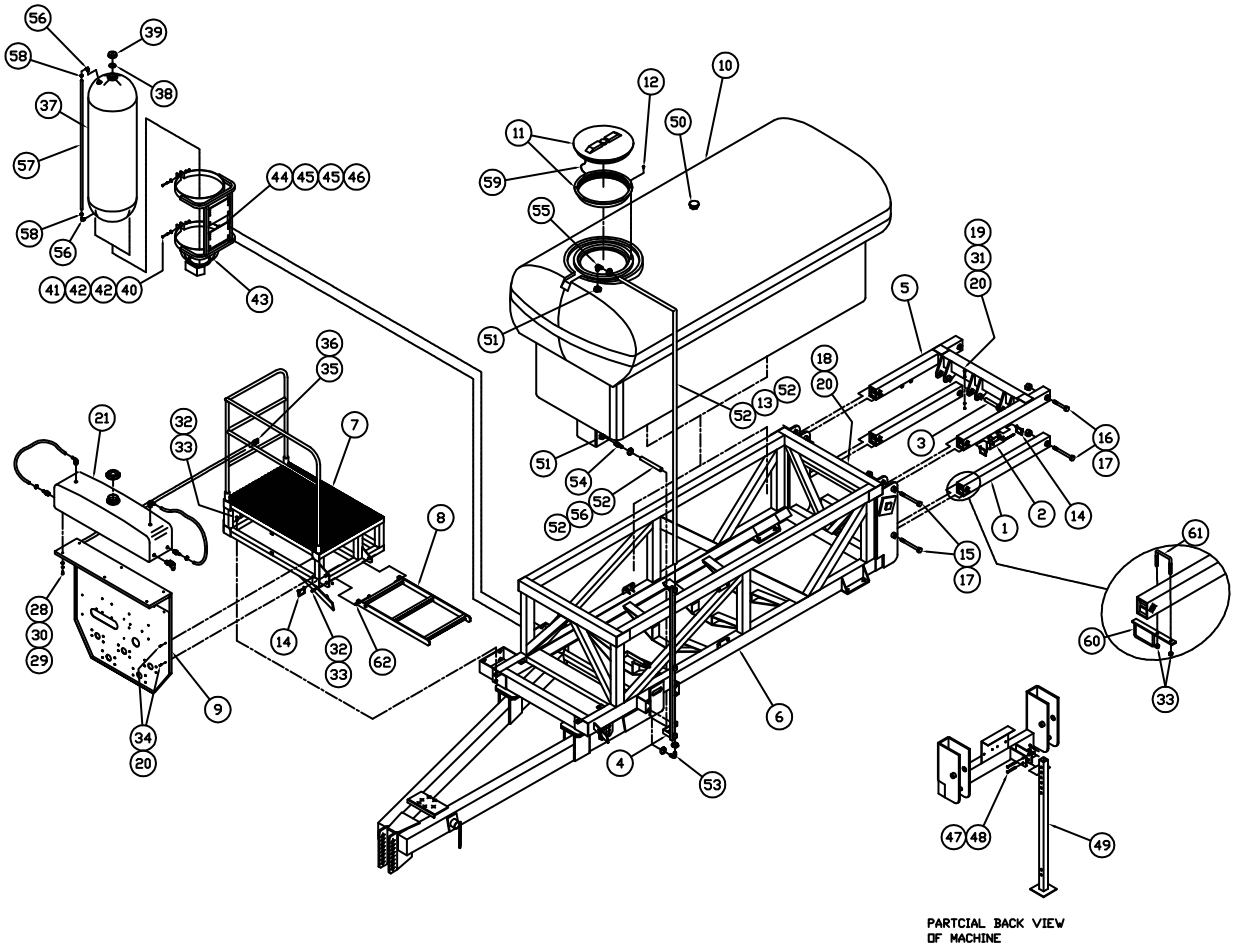
Description: Trailer Sprayer Light Kit Assembly



Description: Trailer Sprayer Light Kit Assembly

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX001186	Bracket; Light Mounting	2
2	SX007183	Harness; Light (Trailer Units)	1
3	SX007179	Harness; 20' Tractor/Implement	1
4	SX004560	Light; Red Lamp	2
5	SX004561	Light; Amber Lamp	2
6	SX006978	Turn Signal Module II	1
7	SXBH-050-125-2	Bolt, 1/2" x 1-1/4" Hex. Gr. 2	4
8	SXLN-050-NI	Locknut, 1/2" Nylon Insert	4
9	SX17-5910	Reflector, 2" x 9" Amber, Night	4
10	SX17-5915	Reflector, 2" x 9" Red, Night	2
11	SX17-5920	Reflector, 2" x 9" Orange, Day	2

Description: Frame Assembly



Description: Frame Assembly

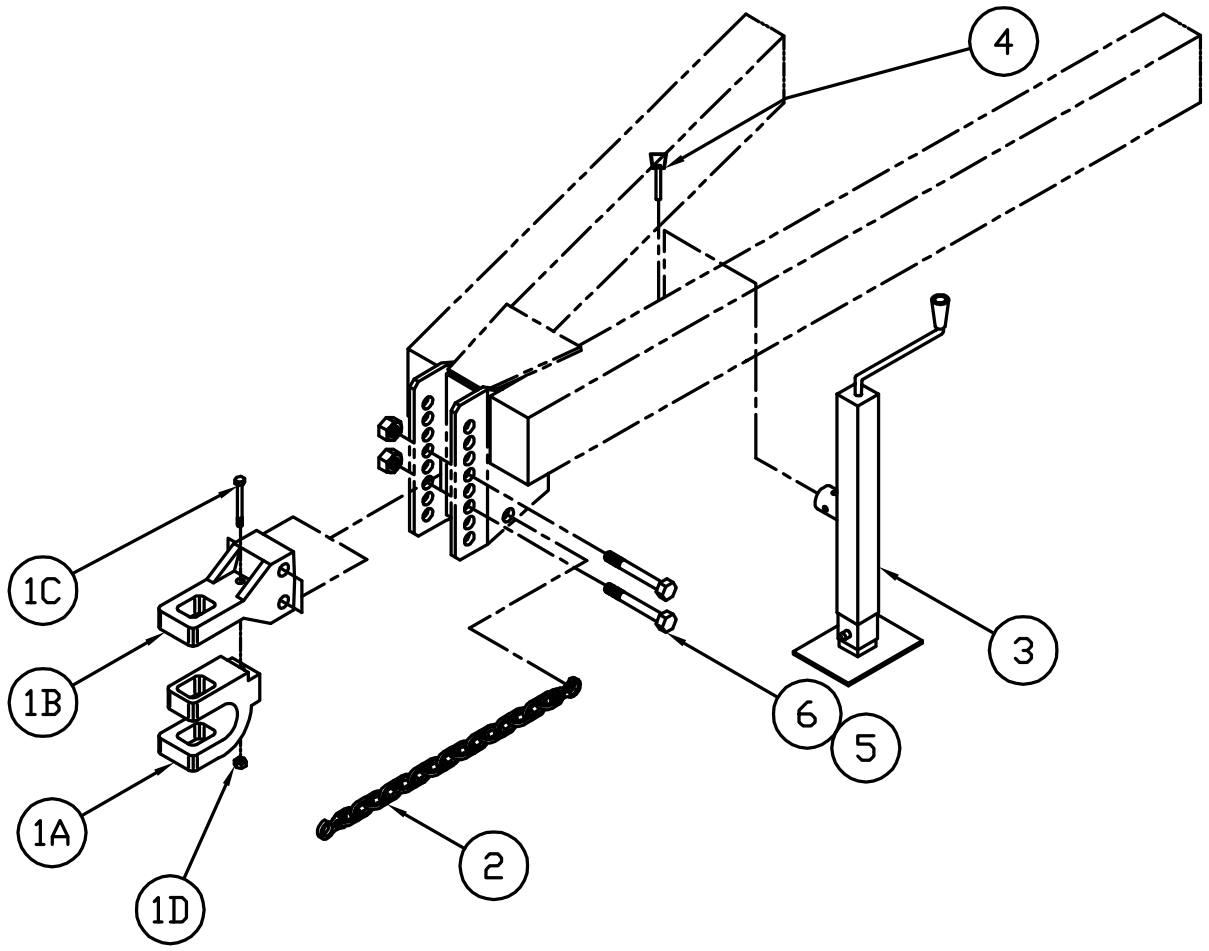
ITEM #	PART #	DESCRIPTION	QUANTITY
1**	SX004435	Wldmt, Parallel Tube	2
2**	SX013062	Cylinder Stop Assembly	2
3**	SX004540	Weldment, 6" Pin	2
4**	SX006216	Weldment, Sight Gauge	1
5**	SX007467	Weldment, 850 Gal. Frame	1
6**	SX006584	Weldment, 850 Gal. Frame	1
	SX006511	Weldment, 1200 Gal. Frame	
7**	SX006544	Weldment, Front Deck	1
8**	SX006555	Weldment, Ladder 1	1
9	SX013626**	Weldment, Valve Panel	1
10	SX0850**	Tank, 850 Gal. Loaf	1
	SX1200**	Tank, 1200 Gal. Loaf	1
11	SX3522160-1	16" Closed Lid w/Rim	1
12	SX171-C	Screw; TEK 410HSS Cad Plated	8
13	SXSIGHT-34	Hose; 3/4" Clear Sight Hose	
14	SXPLI-031-250	Pin; Linch Pin, 5/16" x 2-1/2"	3
15	SXBH-100-850-8	Bolt, 1" x 8-1/2" Hex. Gr. 8	4
16	SXBH-100-650-5	Bolt, 1" x 6-1/2" Hex. Gr.	4
17	SXLN-100-N	Lock Nut, 1" Nylon Insert	8
18	SXBH-025-200-2	Bolt, 1/4" x 2" Hex. Gr. 2	1
19	SXBH-025-250-5	Bolt, 1/4" x 2-1/2" Hex. Gr. 5	1
20	SXLN-025-NI	Locknut, 1/4" Nylon Insert	8
21	SX014675**	Assembly; 15 Gal. Safety Tank	1
28	SXBH-031-075-2	Bolt, 5/16" x 3/4" Hex. Gr. 2	6
29	SXFW-031	Flatwasher, 5/16"	6
30	SXLW-031	Lockwasher, 5/16" 6	6
31	SXFW-025	Flatwasher, 1/4"	1
32	SXBH-050-150-5	Bolt, 1/2" x 1-1/2" Hex. Gr. 5	6
33	SXLN-050-NI	Locknut, 1/2" Nylon Insert	6
34	SXBH-025-075-2	Bolt, 1/4" x 3/4" Hex. Gr. 2	6
35	SXLN-031-NI	Locknut, 5/16" Nylon Insert	4
36	SXBU031-100-175-2	U-Bolt, 5/16" x 1" x 1-3/4" Gr. 2	2

**Specify color when needed

Description: Frame Assembly

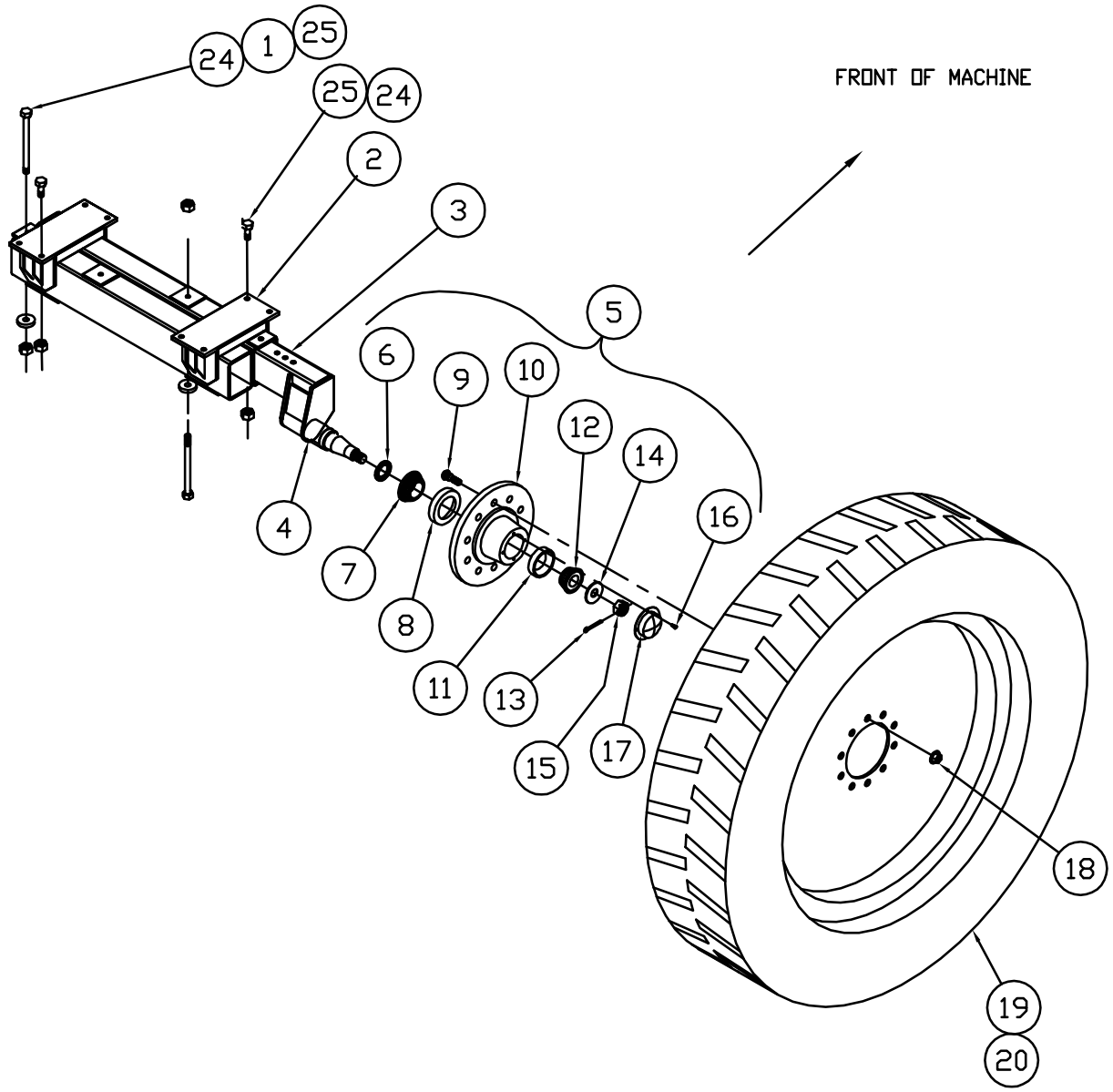
ITEM #	PART #	DESCRIPTION	QUANTITY
37	SX003721C	Tank, Fresh Water (Cream)	1
	SX003721Y	Tank, Fresh Water (Yellow)	
38	SX20G	Gasket - FDA White EPDM	1
39	SX003784	Cap; 2" Threaded	1
40	SXLN-031-NI	Locknut; 5/16" Nylon Insert	2
41	SXBH-031-250-2	Bolt; 5/16" x 2-1/2" Hex. Gr. 2	2
42	SXFW-031	Flatwasher, 5/16" Flat	4
43	SX002964	Tank Mount; Cylindrical Weld	1
44	SXBH-038-150-5	Bolt; 3/8" x 1-1/2" Hex. Gr. 5	4
45	SXFW-038	Flatwasher; 3/8" Flat	8
46	SXLN-038-NI	Locknut; 3/8" Nylon Insert	4
47	SXPCL-050-350	Linch Pin, 5/16" x 3-1/2"	2
48	SXHPC-210	Pin Clip, 2-3/16 x 7/8", Leg Stand	2
49**	SX004245	Weld, Safety Stand (Rear)	1
50	SX504-203	Vent; 670 & 680 Tanks	1
51	SXNW60401	Bulkhead Fitting 3/4"	2
52	SX#12J	Clamp; 3/4" Metal Hose Clamp	4
53	SX3EL34HB	Hose Barb Ell; 3/4" HB x HB	1
54	SXHB-075	Hose Barb; 3/4" MPT x HB	1
55	SXHB-075-90	Hose Barb Ell; 3/4" MPT x HB	1
56	SX3EL1438G	Hose Barb Ell; 1/4" MPT x 3/8" HB	2
57	SXSIGHT-38	Hose; 3/8" x 1/16" Clear Sight	
58	SX#6JM	Clamp; 1/4" x 5/16" Stainless	2
59	SX0254-1035	Rope; 1/8" Poly	1
60	SX013141	Weldment; Hose Support	2
61	SXBU050-300-450-2	U-Bolt; 1/2" x 3" x 4 1/2" Gr. 2	2
62	SX013802	Washer; Fiber, 1.0625" x .094" x .65"	2

Description: Drawbar Hitch Assembly



ITEM #	PART #	DESCRIPTION	QUANTITY
1A	SXPPI-208VR	Pintle Clevis Option	1
1B	SXPPI-331VH	Hitch; Pintle	1
1C	SXWB85	Bolt; Clevis Option	1
1D	SXWB91	Nut; Clevis Option	1
2	SX006933	Safety Chain	2
3	SX013692	Jackstand; Top Wined	1
4	SX004753	Pin Cotterless; 1/2"; x 3-1/2"	1
5	SXBH-100-650-5	Bolt; 1" x 6-1/2" Gr. 5	2
6	SXLN-100-NI	Locknut; 1" Nylon Insert	2

Description: 10-Bolt Adjustable Axle Assembly

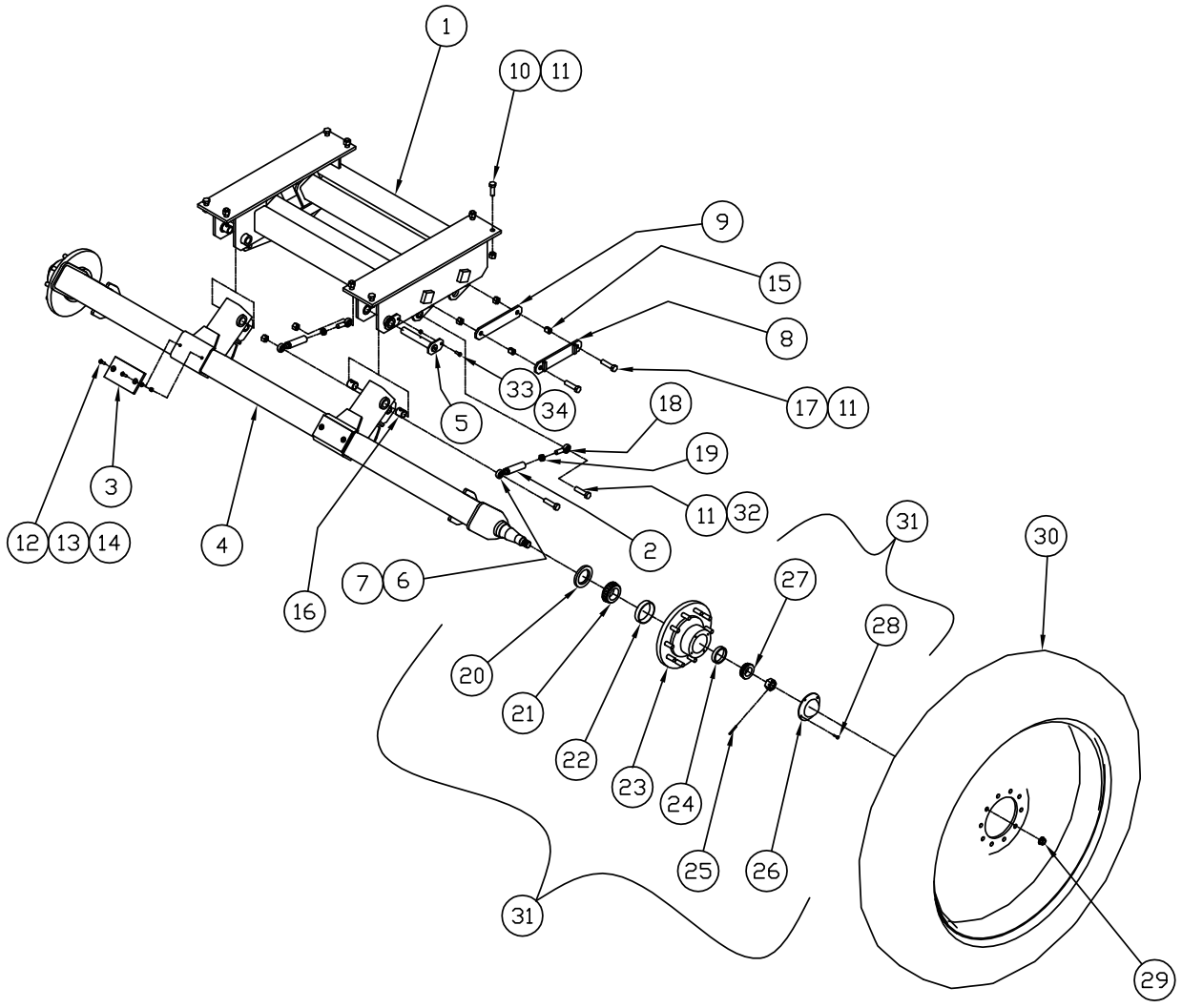


Description: 10-Bolt Adjustable Axle Assembly

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX011821	Plate; Axle Washer Reinforced	2
2*	SX012484	Weldment; Adjustable Axle Tube Mount	1
3*	SX011868	Assembly; 75-120 Lower Axle	1
4	SX2813180L16	Spindle 680 10-Bolt	1
5*	SX2891300	Complete Hub Assembly	1
6	SX906497	Grease Seal	1
7	SX910333	Inner Cone	1
8	SX910331	Inner Cup	1
9	SX913564	Stud Bolt 3/4" - 16 UNC (Single)	10
10		Hub, 10-Bolt	1
11	SX910332	Outer Cone	1
12	SX910334	Outer Cup	1
13	SX905944	Cotter Pin, Spindle	1
14	SX913632	Flat Washer, Spindle	1
15	SX912969	Nut, Spindle, 1-1/4" - 12	1
16	SX905205	Bolt, Dust Cap	4
17	SX909983	Dust Cap	1
18	SX913571	Wheel Nut 3/4" - 16 UNC Flanged	10
19	SX017690	380-90R46-YR - Right side, yellow	1
20	SX017688C	380-90R46-CR - Right side, cream	1
21**	SX017689	380-90R46-YL - Left side, yellow	1
22**	SX017687C	380-90R46-CL - Left side, cream	1
23	SXBH-075-250-5	Bolt; 3/4" x 2-1/2" Gr. 5	4
24	SXBH-075-900-8	Bolt; 3/4" x 9" Gr. 8	2
25	SXLN-075-CL	Locknut; 3/4" Centerlock Nut	4
26	SXLN-075-NI	Locknut; 3/4" Nylon Insert	4

*Specify color
**Not shown

Description: Henschen Axle

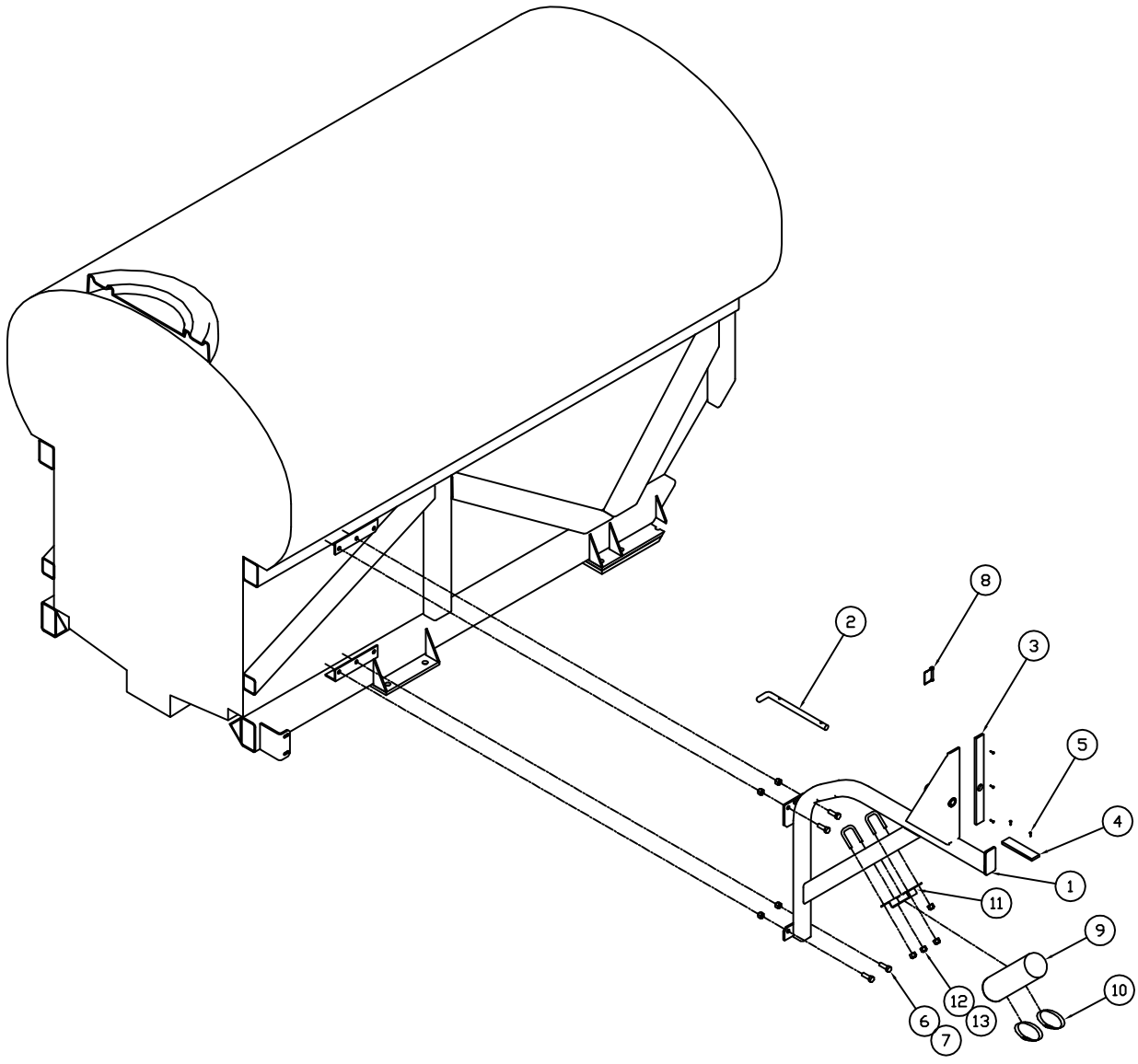


Description: Henschen Axle

ITEM #	PART #	DESCRIPTION	QUANTITY
1*	SX013349	Weldment; Axle Mount	1
2	SX013325	Tube; Machined Link	4
3	SX013337	Bumper; Axle	2
4*	SX013346	Weldment; 120" Henschen Axle (Shown)	1
	SX015171	Weldment; 88" Henschen Axle	1
	SX015654	Weldment; 110" Henschen Axle	1
5	SX013348	Weldment; Pivot Pin	2
6	SXAB-12	Rod End; 3/4" LH High capacity	4
7	SXNUT-075-JFL	Nut; 3/4"-16 Jam Nut Fine; Left	4
8	SX013331	Weldment; Long Link	2
9	SX013329B	Plate; Long Link Pntd	2
10	SXBH-075-225-5	Bolt, Hex, 3/4" x 2-1/4" Gr. 5	8
11	SXLN-075-CL	Locknut, 3/4" Centerlock	16
12	SXBF-038-150-C	Bolt, 3/8" x 1-1/2" Flathead C.S.	4
13	SXFW-038	Flatwasher, 3/8"	4
14	SXNUT-038	Nut, 3/8"	4
15	SX013310	Bushing, Spr Stl, 1" OD x 3/4" ID x 1" Lg	4
16	SX013311	Bushing, Stl, 1-1/2" OD x 1-1/4" ID x 1.5" Lg	4
17	SXBH-075-300-5	Bolt, Hex, 3/4" x 3" Gr. 5	4
18	SXAM-12	Rod End; 3/4" RH High Capacity	4
19	SXNUT-075-JF	Nut, 3/4", JAM, Fine	4
20	SX906497	Grease Seal	2
21	SX910333	Inner Cone	2
22	SX910331	Inner Cup	2
23		Hub, 10-Bolt	2
24	SX910334	Outer Cup	2
25	SX905944	Cotter Pin, Spindle	2
26	SX909983	Dust Cap	2
27	SX910332	Outer Cone	2
28	SX905205	Bolt, Dust Cap	8
29	SX913571	Nut, Spindle, 1-1/4"-12	20
30	SX017688C	380-90R46-CR - Right side, cream	1
	SX017690	380-90R46-YR - Right side, yellow	
	SX017687C	380-90R46-CL - Left side, cream	
	SX017689	380-90R46-YL - Left side, yellow	
31	SX2891300	Assembly; 10 Bolt Hub	2
32	SXBH-075-400-5	Bolt; 3/4" x 4" Gr. 5	4
33	SXBH-038-100-5	Bolt; 3/8" x 1" Gr. 5	2
34	SXLN-038-CL	Locknut, 3/8" Centerlock	2

*Specify color

Description: Cradle Assembly

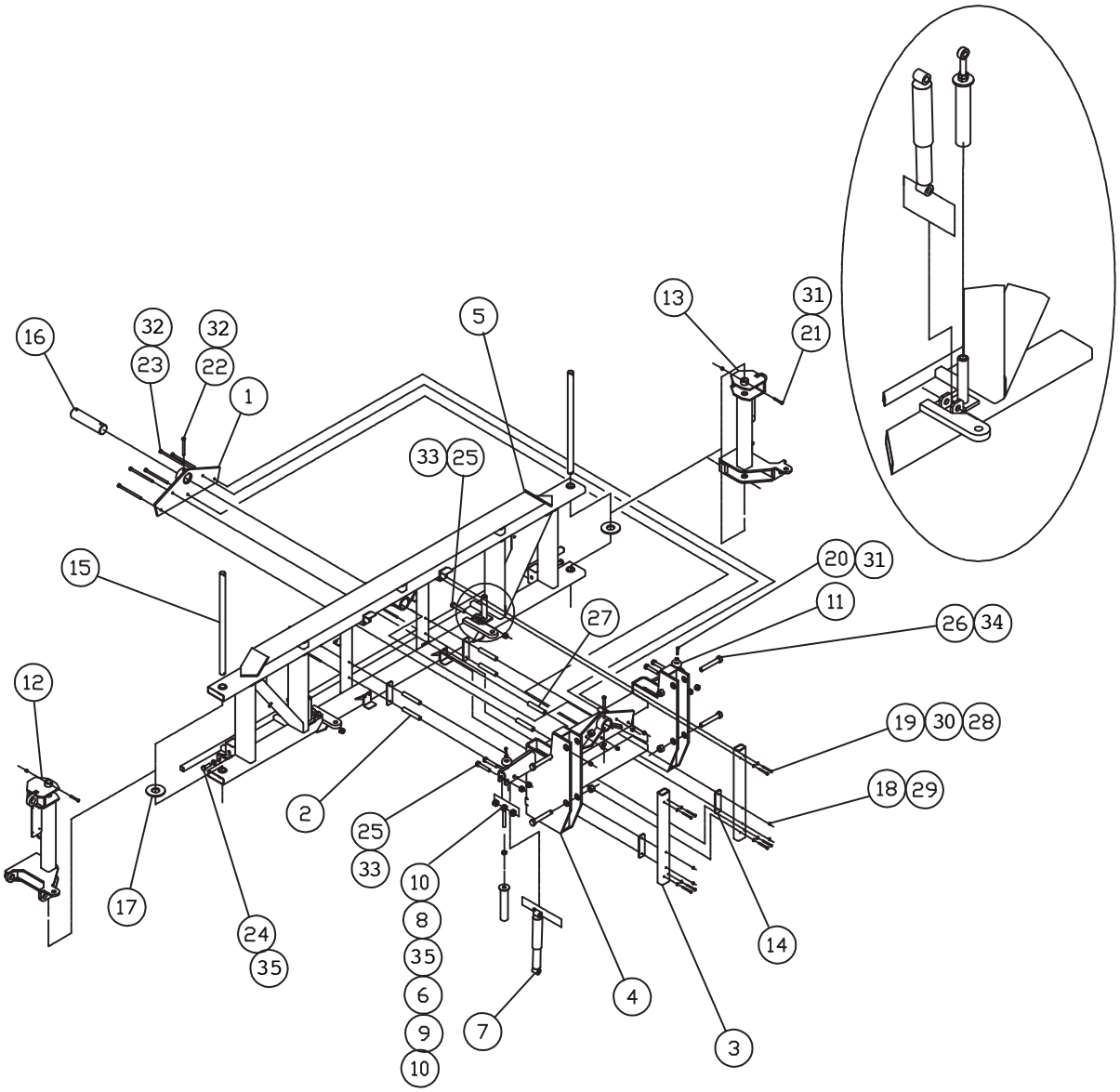


Description: Cradle Assembly

ITEM #	PART #	DESCRIPTION	QUANTITY
1*	SX012646	Cradle; 1200 Front Fold Boom	1
2	SX013402	Rod; Wing Cradle Slide	1
3	SX012119	Black Plastic For 1200	1
4	SX012120	Black Plastic For 1200	1
5	SX171-C	Screw; TEC 410HSS Cad Plated	5
6	SXBH-050-150-5	Bolt; 1/2" x 1-1/2" Grade 5	4
7	SXLN-050-NI	Locknut; 1/2" Nylon Insert	4
8	SXPLI-031-250	Pin; Linch Pin; 5/16" x 2-1/2"	1
9**	SX013049	Tube; Manual Storage	1
10**	SX#64J	Clamp; 4" x 1/2" Stainless	2
11**	SX014159	Manual Bracket, Bent with Holes	1
12**	SXBU031-150-350-2	U-Bolt; 5/16" x 1-1/2" x 3-1/2" Gr. 2	2
13**	SXLN-031-NI	Locknut; 5/16" Nylon Insert	4

*Specify color
**Used on one side only. Quantities listed are per side

Description: Vertical Fold Boom Center Section Assembly

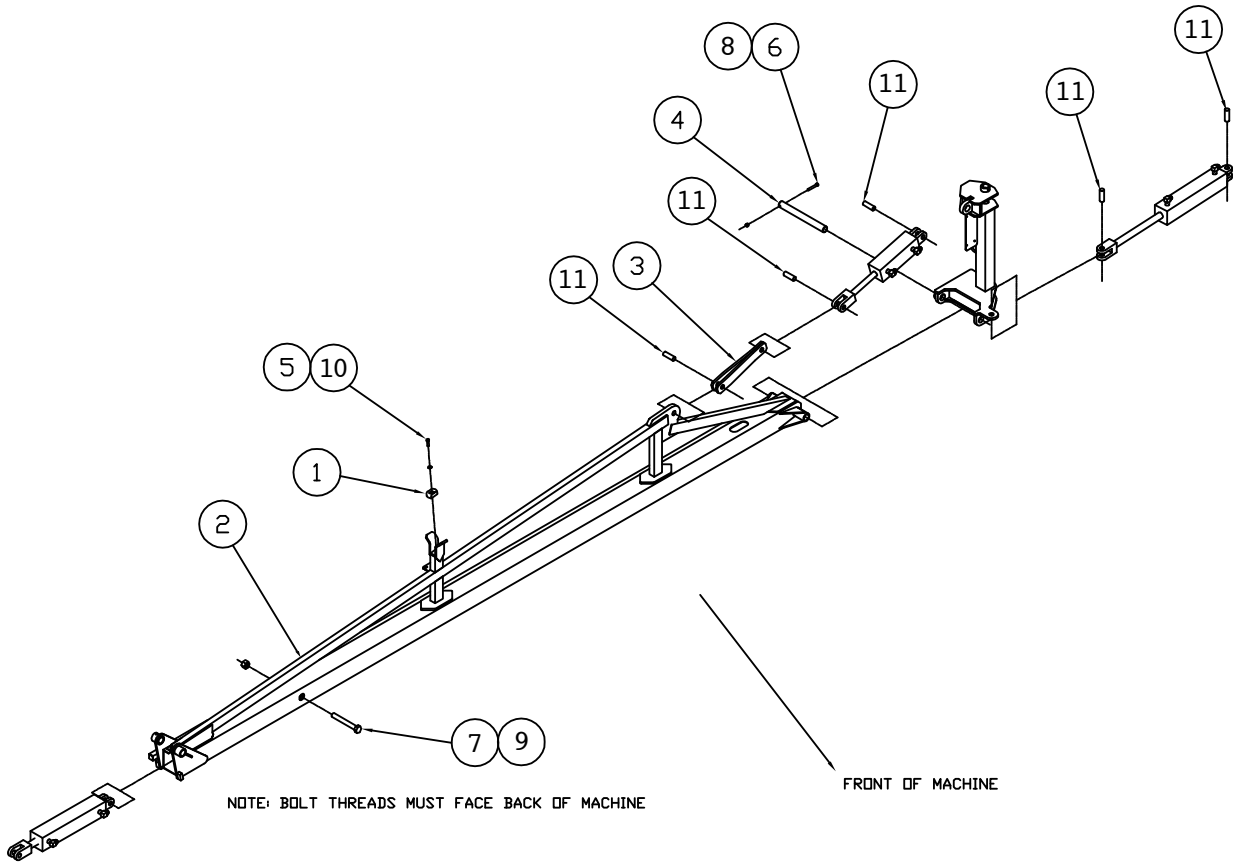


Description: Vertical Fold Boom Center Section Assembly

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX011910B	Weld; Pivot Pin Plate, Painted	1
2	SX011917	Tube; Bushing, Boom	4
3	SX011939	Weld; Free Half Center	2
4	SX011953	Weldment; Boom Center #1	1
5	SX011954	Weld; Boom Center #2	1
6**	SX011960	Spring; Compression, 2.75" x 17" x 3/8" W	2
7	SX66502	Shock Absorber	2
8	SX013136	Rod End	2
9	SX011974	Weldment; Spring Retain Long	2
10	SX013137	Spacer	4
11	SX012118	Bumper Pad Rework	2
12	SX012015	Weld; Boom Pivot, RH	1
13	SX012016	Weld; Boom Pivot, LH	1
14	SX012045	Wear Pad; 1200 Booms	4
15	SX012097	Pin; Main Boom Pivot	2
16	SX012096	Pin; Main boom Pivot	1
17	SX012099	Wear Pad; x Booms	2
18	SXBH-031-1150-5	Bolt; 5/16" x 11-1/2" Grade 5	4
19	SXBH-031-300-5	Bolt; 5/16" x 3" Grade 5	8
20	SXBH-038-150-5	Bolt; 3/8" x 1-1/2" Grade 5	2
21	SXBH-038-300-5	Bolt; 3/8" x 3" Grade 5	2
22	SXBH-050-450-5	Bolt; 1/2" x 4-1/2" Grade 5	2
23	SXBH-050-800-5	Bolt; 1/2" x 8" Grade 5	5
24	SXBT-075-300-5	Bolt; Tap 3/4" x 3" Grade 5	2
25	SXBH-075-350-5	Bolt; 3/4" x 3-1/2" Grade 5	6
26	SXBH100-650-5	Bolt; 1" x 6-1/2" Grade 5	4
27	SX011907	Tube; Center Pivot Bolt	5
28	SXFW-031	Flatwasher; 5/16"	8
29	SXLN-031-C	Locknut; 5/16" Centerlock Steel	4
30	SXLN-031-NI	Locknut; 5/16", Nylon Insert	8
31	SXLN-038-NI	Locknut; 3/8" Nylon Insert	4
32	SXLN-050-NI	Locknut; 1/2" Nylon Insert	7
33	SXLN-075-CL	Locknut; 3/4" Center Locknut	6
34	SXLN-100-CL	Locknut; 1" Center Locknut	4
35	SXNUT-075-J	Nut; 3/4" Jam Nut	8

**Not shown

Description: Vertical Fold Boom, Primary Section Assembly

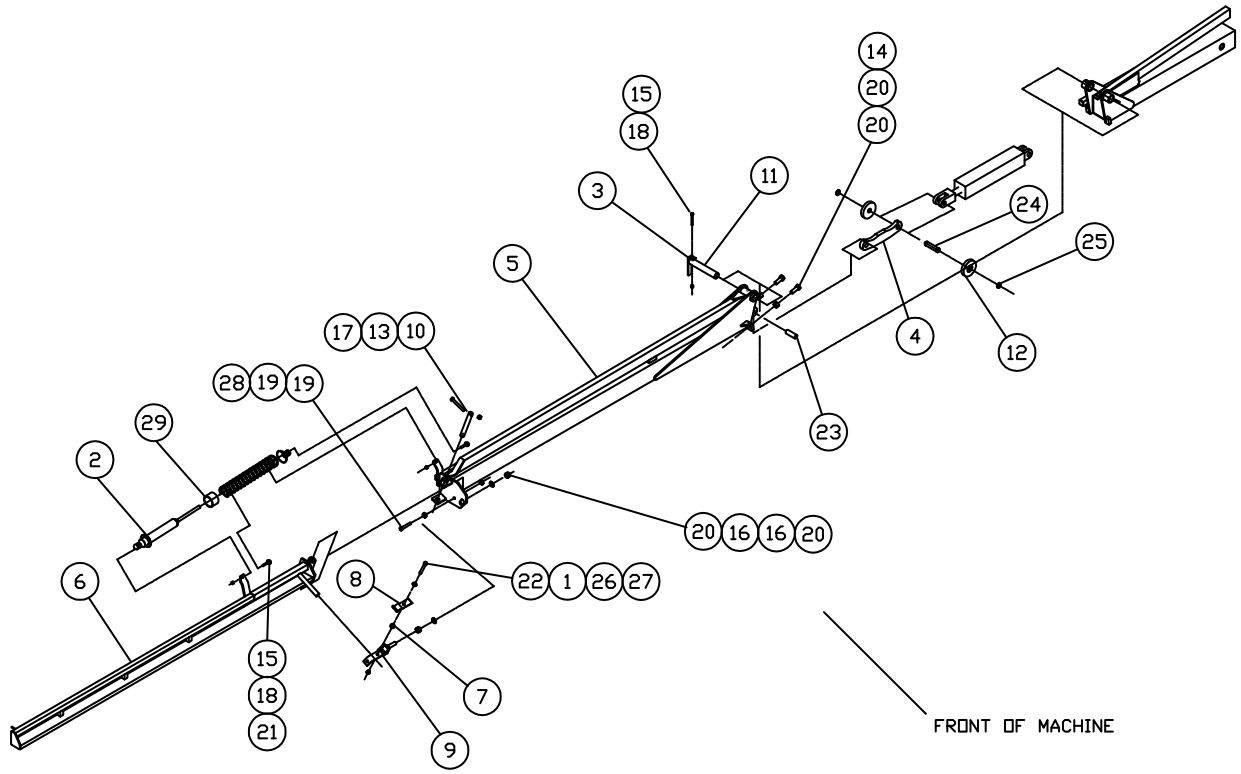


Description: Vertical Fold Boom, Primary Section Assembly

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX011982	Bumper Pad Rework	1
2	SX012043	Weld; Boom Primary RH	1
	SX012044	Weld; Boom Primary LH	1
3	SX012058	Plate; Cylinder Wing Lift	2
4	SX012095	Pin; Primary Mount	1
5	SXBH-038-150-5	Bolt; 3/8" x 1-1/2" Hex, Grade 5	1
6	SXBH-038-275-5	Bolt; 3/8" x 2-3/4" Grade 5	1
7	SXBH-100-600-8	Bolt; 1" x 6" Grade 8	1
8	SXLN-038-NI	Locknut; 3/8" Nylon Insert	1
9	SXLN-100-CL	Locknut; 1" Center Locknut	1
10	SXLW-038	Locknut; 1" Center Locknut	1
11	SXPCL-100-300	1" x 3" Clevis Pin	5

**Not shown

Description: Vertical Fold Boom, Secondary Breakaway Assembly

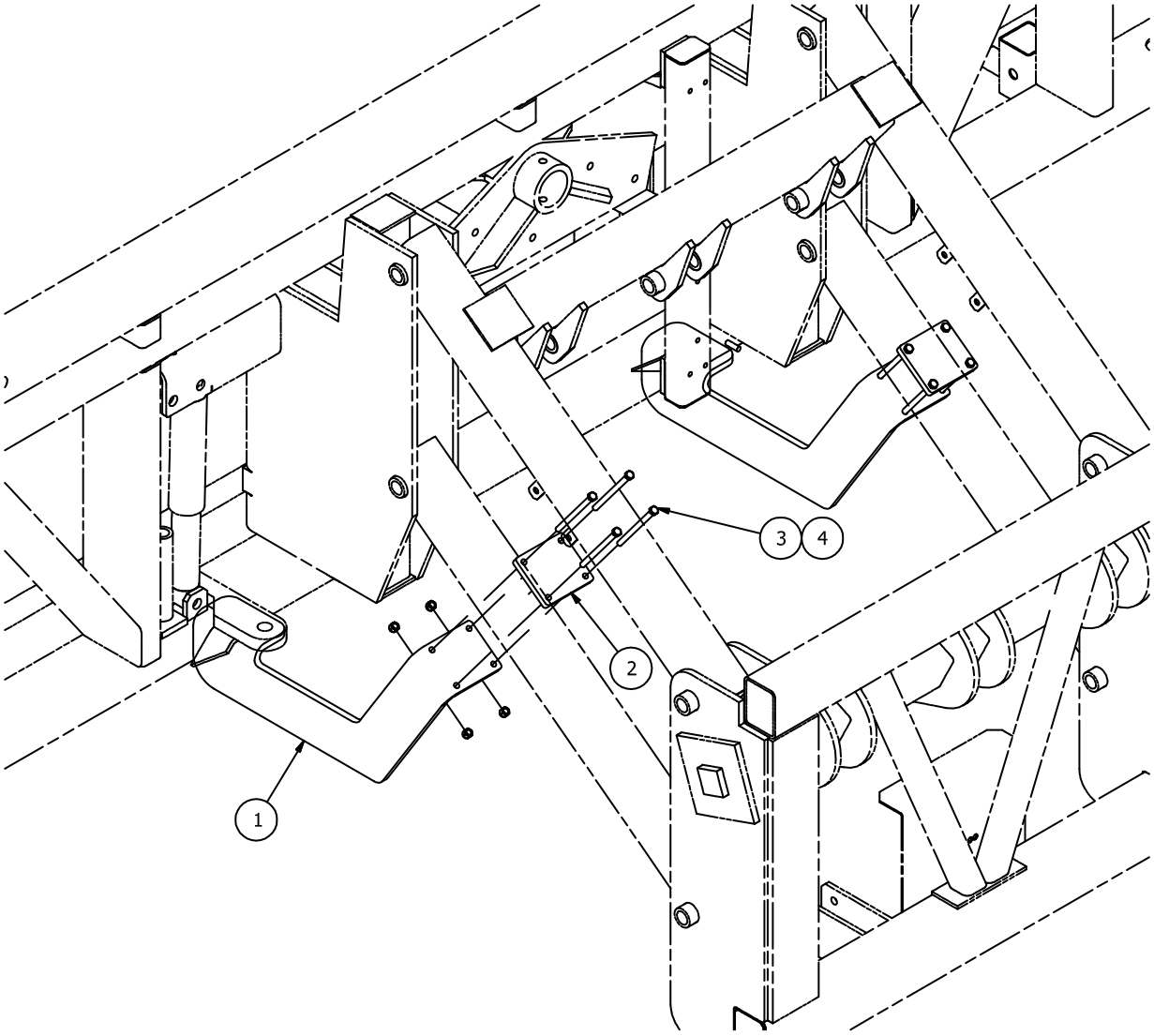


Description: Vertical Fold Boom, Secondary Breakaway Assembly

ITEM #	PART #	DESCRIPTION	QUANTITY
1*	SX011961	Spring; Breakaway Release 1" OD x 3" x 3/1	1
2	SX011962	Shock Absorber	1
3	SX012059	Plate; Hose Rub Guard	1
4	SX012690	Plate; Boom Fold Over	1
5	See Chart, Pg. 71	Weld; Boom Secondary, RH	1
	See Chart, Pg. 71	Weld; Boom Secondary, LH	1
6	See Chart, Pg. 71	Weld Boom Secondary Breakaway, RH	1
	See Chart, Pg. 71	Weld Boom Secondary Breakaway, LH	1
7	SX013095	Bushing; Breakaway Lock	1
8	SX012086	Plate; Breakaway Lock Top	1
9	SX013098	Weld; Breakaway Lock Bottom	1
10	SX007985	Pin; Weld Breakaway	1
11	SX012094	Pin; Secondary Mount	1
12	SX012098B	Roller; Boom Fold Over Top	2
13	SXBH-031-200-5	Bolt; 5/16" x 2" Gr. 5	1
14	SXBT-075-300-5	Bolt; 3/4" x 3" Grade 5	2
15	SXBH-038-300-5	Bolt; 3/8" x 3" Gr. 5 Hex	3
16	SXFW-075	Flatwasher; 3/4" - 9.5" Per #	2
17	SXLN-031-NI	Locknut; 5/16" Nylon Insert	1
18	SXLN-038-NI	Locknut; 3/8" Nylon Insert	3
19	SXNUT-050-J	Nut; 1/2" Jam Nut	2
20	SXNUT-075-J	Nut; 3/4" Jam Nut	4
21	SXFW-038	Flatwasher; 3/8"	2
22	SXBH-050-450-5	Bolt; 1/2" x 4-1/2" Gr. 5	1
23	SXPCL-100-300	Pin; 1" x 3" Clevis	1
24	SX012130	Pin; Primary to Secondary (w/ Link)	1
25	SX68019	Retaining; Snap Ring (Ext. 1" Shft.)	2
26	SXLN-050-NI	Locknut; 1/2" Nylon Insert	1
27	SXFW-050	Flatwasher; 1/2"	1
28	SXBH-050-350-5	Bolt; 1/2" x 3-1/2" Gr. 5	1
29	SX013133	R. Tube; Spacer	1

Note: Quantities are per side.
*Not shown

Description: Boom Levelers



ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX013763	Boom Leveler	2
2	SX013764	Plate, Boom Leveler	2
3	SXBH-038-550-5	Bolt; 3/8" x 5.50" Grade 5	8
4	SXLN-038-NI	Locknut; 3/8" Nylon Insert	8

Description: Vertical Fold Boom Sections

Shown if looking at from back of sprayer

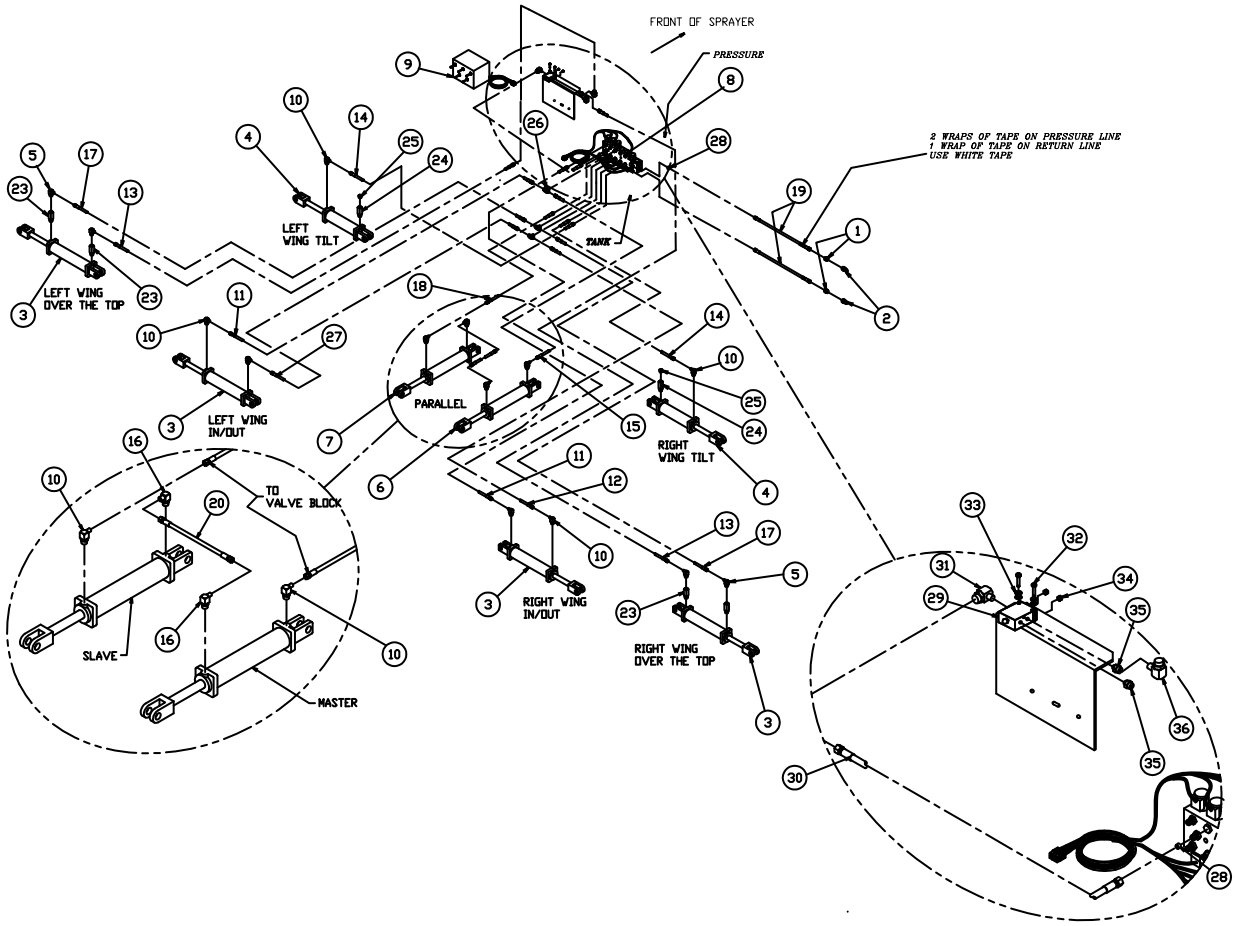
2006 Model Year & Prior

Tank Size	Boom Assembly #				
1200	SX01965 60' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX012110 Secondary R.S. 1' 9" SX012111 Secondary L.S. 1' 9"	SX012115 BKWY. R.S. 5' 6" SX012116 BKWY. L.S. 5' 6"
1200	SX011970 66' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX012110 Secondary R.S. 1' 9" SX012111 Secondary L.S. 1' 9"	SX012083 BKWY. R.S. 8' 6" SX012084 BKWY. L.S. 8' 6"
1200	SX011980 80' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX012070 Secondary R.S. 8' 9" SX012071 Secondary L.S. 8' 9"	SX012083 BKWY. R.S. 8' 6" SX012084 BKWY. L.S. 8' 6"
1200	SX011990 44'-88' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX011997 Secondary R.S. 13' 9" SX011998 Secondary L.S. 13' 9"	SX012083 BKWY. R.S. 8' 6" SX012084 BKWY. L.S. 8' 6"
1200	SX012000 45'-90' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX011997 Secondary R.S. 13' 9" SX011998 Secondary L.S. 13' 9"	SX012083 BKWY. R.S. 8' 6" SX012084 BKWY. L.S. 8' 6"

2007 Model Year to Current

Tank Size	Boom Assembly #				
1200	SX01965 60' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX015759 Secondary R.S. 1' 9" SX015760 Secondary L.S. 1' 9"	SX012115 BKWY. R.S. 5' 6" SX012116 BKWY. L.S. 5' 6"
1200	SX011970 66' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX015759 Secondary R.S. 1' 9" SX015760 Secondary L.S. 1' 9"	SX012083 BKWY. R.S. 8' 6" SX012084 BKWY. L.S. 8' 6"
1200	SX011980 80' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX015761 Secondary R.S. 8' 9" SX015762 Secondary L.S. 8' 9"	SX012083 BKWY. R.S. 8' 6" SX012084 BKWY. L.S. 8' 6"
1200	SX011990 44'-88' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX015763 Secondary R.S. 13' 9" SX015764 Secondary L.S. 13' 9"	SX012083 BKWY. R.S. 8' 6" SX012084 BKWY. L.S. 8' 6"
1200	SX012000 45'-90' Vertical Fold	Center Section 11' 11" SX011953/SX011954	SX012043 Primary R.S. 16' 6" SX012044 Primary L.S. 16' 6"	SX015763 Secondary R.S. 13' 9" SX015764 Secondary L.S. 13' 9"	SX012083 BKWY. R.S. 8' 6" SX012084 BKWY. L.S. 8' 6"

Description: Sprayer Hydraulic Routing

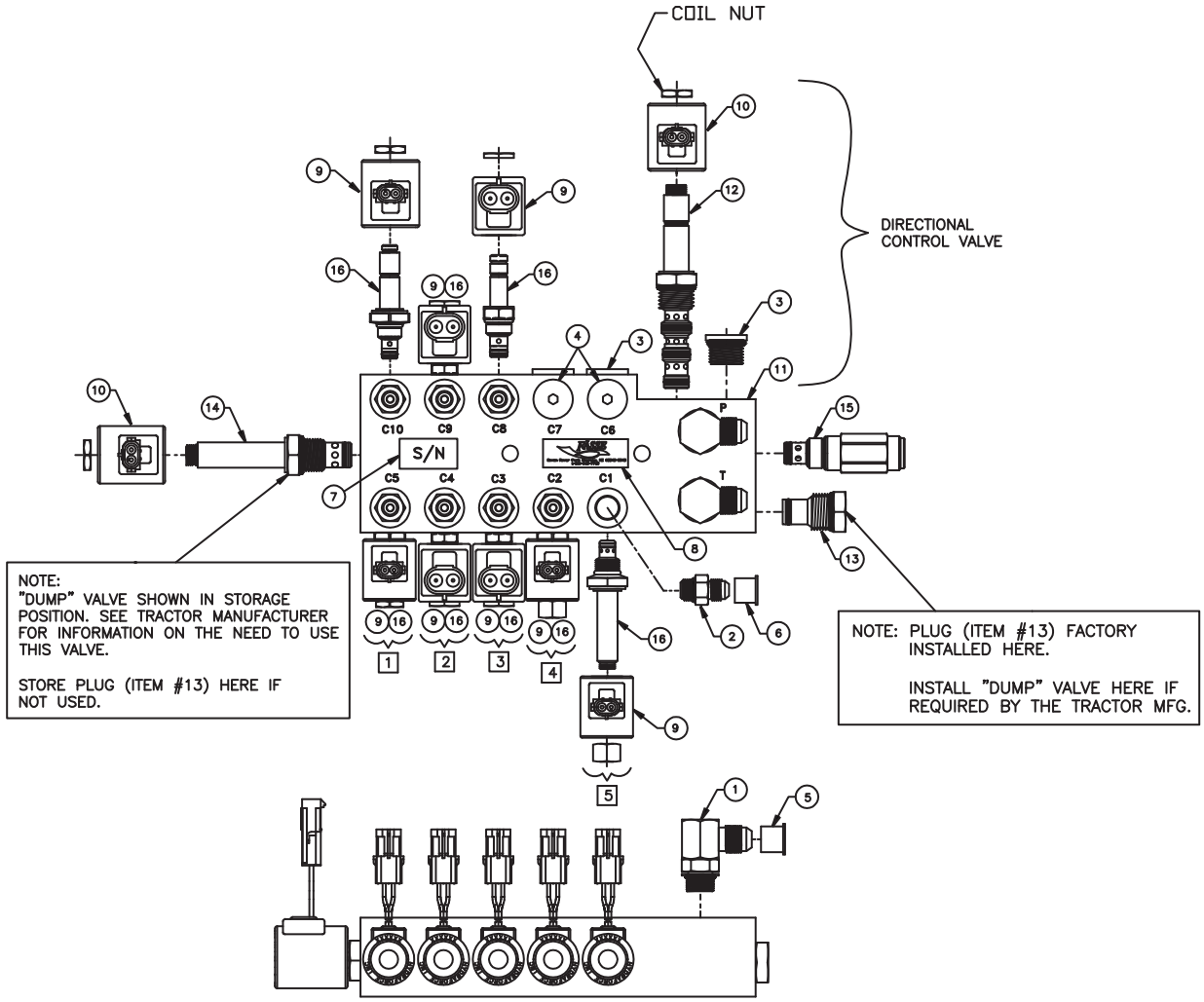


Description: Sprayer Hydraulic Routing

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX6400-6-8	Hyd. Adapter, 3/8"JIC & 3/4"ORB Male	2
2	SX8010-15P	Hyd. Quick Coupler, Univ. Poppet	2
3	SX011958	Cylinder; Hyd. 3" x 16"	4
4	SX011957	Cylinder; Hyd. 3" x 8"	2
5	SX6500-6	Hyd Ell; 90D-6JICSX-HMJIC	4
6	SX645214	3" x 12" Rephasing	1
7	SX645213	2-3/4" x 12" Rephasing	1
8	SX700-0805-4107	Hydraulic Valve, Switchbox, and Wire Harness	1
	SX319-028	Cable	
9	SX312-001	Switch Box; Live Directional	1
10	SX6801-6-8R.06	Hydraulic Restrictor Elbow	6
11	SX004051	77" Hyd. Hose	1
12	SX9030-99	99" Hyd. Hose	1
13	SX004657	300" Hyd. Hose	2
14	SX004053	140" Hyd. Hose	2
15	SX004060	34" Hyd. Hose	1
16	SX6801-8-8R.06	Hydraulic Restrictor Elbow	2
17	SX004057	320" Hyd. Hose	2
18	SX004050	34" Hyd. Hose	1
19	SX007609	360" Hyd. Hose	2
20	SX007475	34" Hyd. Hose, 1/2" Female JIC Swivel	1
21*	SX210-127	Plug; -6 Outlet Plug	2
22*	SX210-038	Plug; -8 Cartridge Port	2
23	SX6400-6-8R.06	Hyd ADPT Rest; -8MORB/ -6MJIC,06	4
24	SX6405-8-8	Hyd. Fitting: -8MORB/ -8FPT	2
25	SX640370	Plug; Vent, 1/2" NPT	2
26	SX6602-6	Hyd Tee; Run w/Female Switch	3
27	SX9030-84	84" Hyd. Hose	1
28	SX013384	Orifice, Drop-In, -04 .050" Hole	1
29	SX013644	Flow Divider	1
30	SX013645	Hyd Hose; 3/8" x 16' JICX-FEM	1
31	SX6801-6	Hyd Fitting; 9/16" ORB x 3/8" JIC	1
32	SXBH-025-200-2	1/4" x 2.00" Bolt	2
33	SXFW-025	1/4" Washer	4
34	SXLN-025-NI	1/4" Locknut	2
35	SX6400-6	Adapter, Striptill	2
36	SX6500-6	Hyd Ell; 9 OD-6 JIC x .-6 JIC	1

*Not Shown

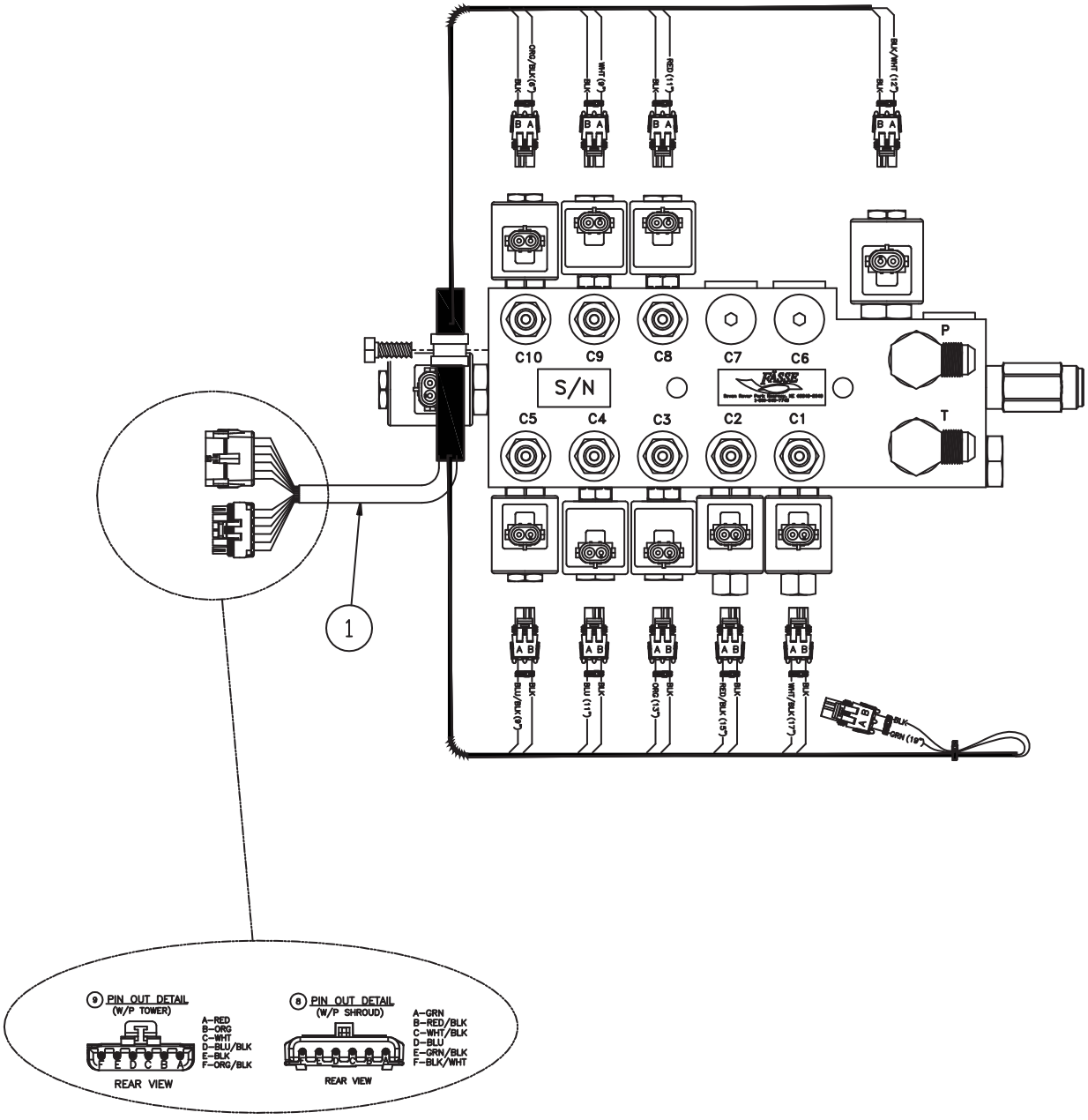
Description: Vertical Fold Boom, Hydraulic Valve Breakdown



Description: Vertical Fold Boom, Hydraulic Valve Breakdown

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX210-016	FTG 6801-6-8/E-MJ-MO	2
2	SX210-023	FTG 6400-6-6/S-MJ-MO	8
3	SX210-038	FTG 6408-HHP-8/HOLL Hex Plug MO	3
4	SX210-127	FTG 6408-HHP-6/HOLL Hex Plug MO	2
5	SX211-223	FTG CAP-8/MJ Red	2
6	SX211-234	FTG CAP-6/MJ Red	8
7	SX232-050	Decal S/N (Silver)	2
8	SX232-059	Decal Gold/Black 1.5" x .5"	1
9	SX253-022	Coil H/F 6309412 W/PS 12V 1.22A	4
10	SX253-028	Coil H/F 6369412 W/PS 12V 1.67A	6
11	SX270-093	Mani S14153-4 5Cir AL RV	1
12	SX273-008	Cart SV10-40-0-N-00	1
13	SX273-012	Cart CP10-20	1
14	SX273-017	Cart SV10-21-0-N-00	1
15	SX273-078	Cart H/F RV10-22H-0-N-35/30 RFL Diff Area Pop 3000 PSI	2
16	SX273-500	Cart H/F SV08-28-0-N-00 2P ROP NC BI-DIPI	1

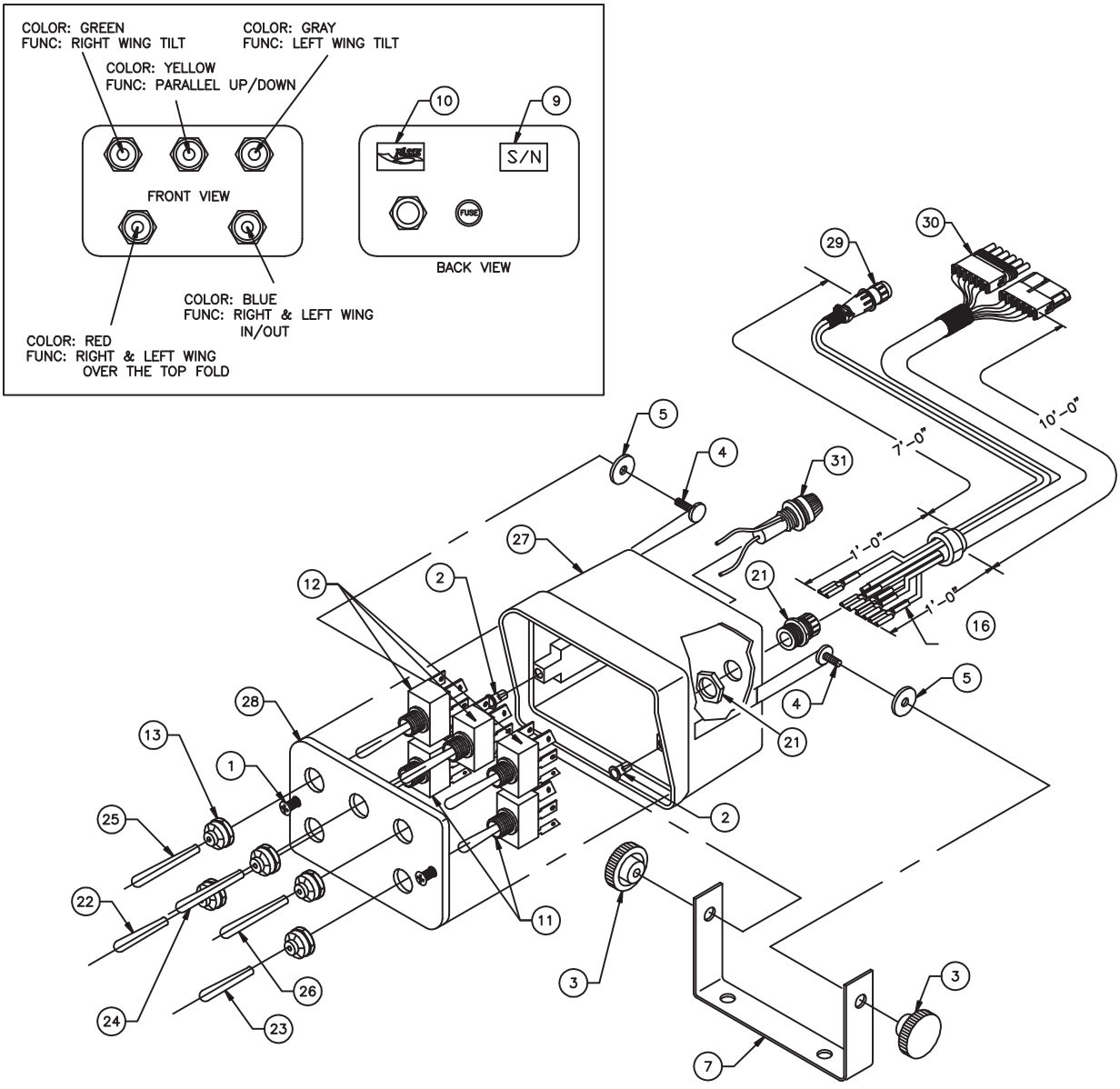
Description: Vertical Fold Boom, 5 Bank Hydraulic Valve Bank Wiring Diagram



ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX319-028	Fasse Control Block Wiring Harness	1

THIS PAGE INTENTIONALLY LEFT OPEN

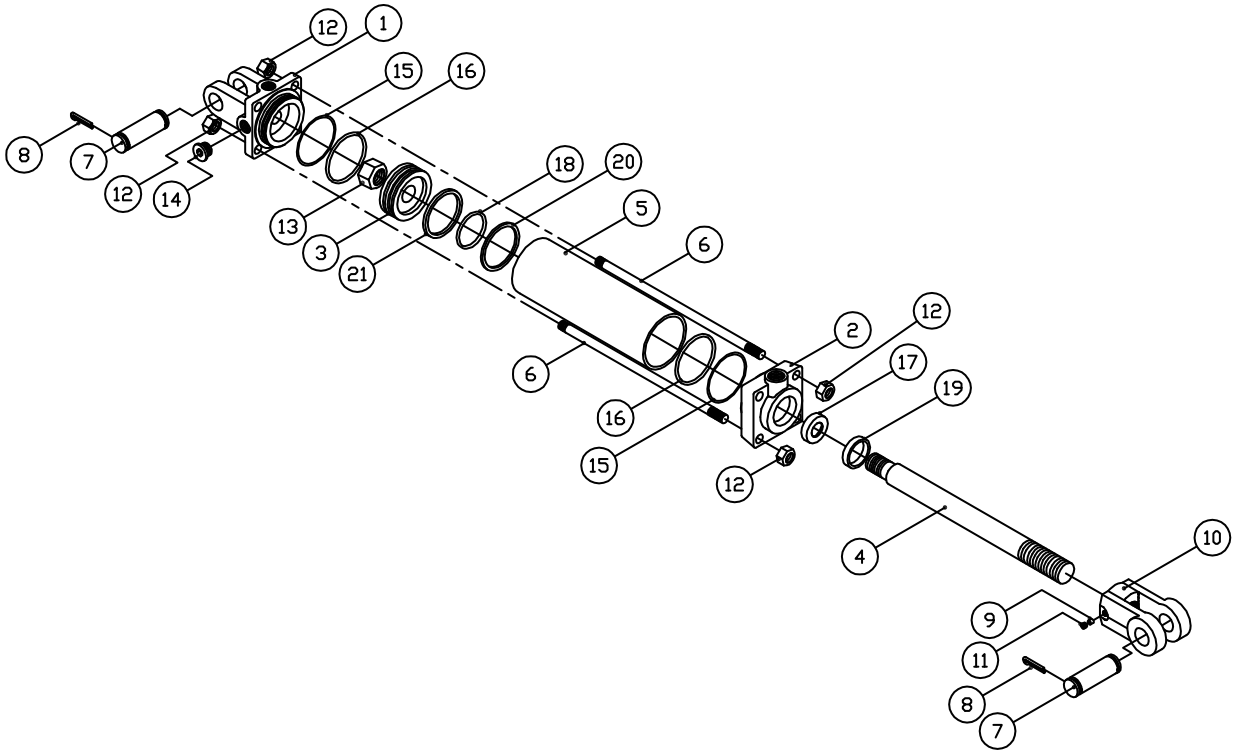
Description: Vertical Fold Boom, 5 Bank Hydraulic Switch Box Breakdown



Description: Vertical Fold Boom, 5 Bank Hydraulic Switch Box Breakdown

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX212-184	Screw 6/32" x 3/8" Oval Hd Blk	2
2	SX212-202	Insert 6-32" x 3/8" Brass	2
3	SX212-215	Knob 1/4"-20 Female	2
4	SX212-231	Screw Welded 1/4"-20 x .500"	2
5	SX213-335	Washer Nylon .257" x .875" x .060"	2
7	SX219-300	Bracket Housing Monitor	1
9	SX232-050	Decal S/N (Silver)	2
10	SX232-059	Decal Gold/Black 1.5" x 5"	1
11	SX250-007	SW Tog DPDT 3P MOM Short	2
12	SX250-013	SW Tog DPDT 3P MOM Long	3
13	SX250-023	SW TOG Boot Open Gray	5
16	SX255-006	TRM PO E NON INS 20/18GA	7
21	SX255-710	STR RLF Heyco .45"-.705" ID Hole Dia. 1.115"	1
22	SX259-005	SW TOG Grip Vinyl Red .187	1
23	SX259-015	SW TOG Grip Vinyl Blue .187	1
24	SX259-022	SW TOG Grip Vinyl Yel .187	1
25	SX259-023	SW TOG Grip Vinyl Grn .187	1
26	SX259-027	SW TOG Grip Vinyl Gry .187	1
27	SX304-358	Encl DRL MNTR- 1 "x 5/8" G1 x FUSEHOLDER	1
28	SX312-002	Encl Drill FP MNTR SW5 C00332	1
29	SX314-217	Harness R/B Wire Series 3/8"	1
30	SX319-031	HRN 12CON 18GA w/PS & W/PT 6P(6) 11"	1
31	SX319-769	Fuse Holder PM Assembly 10A /.5"	1

Description: Spray Boom Cylinder Assembly

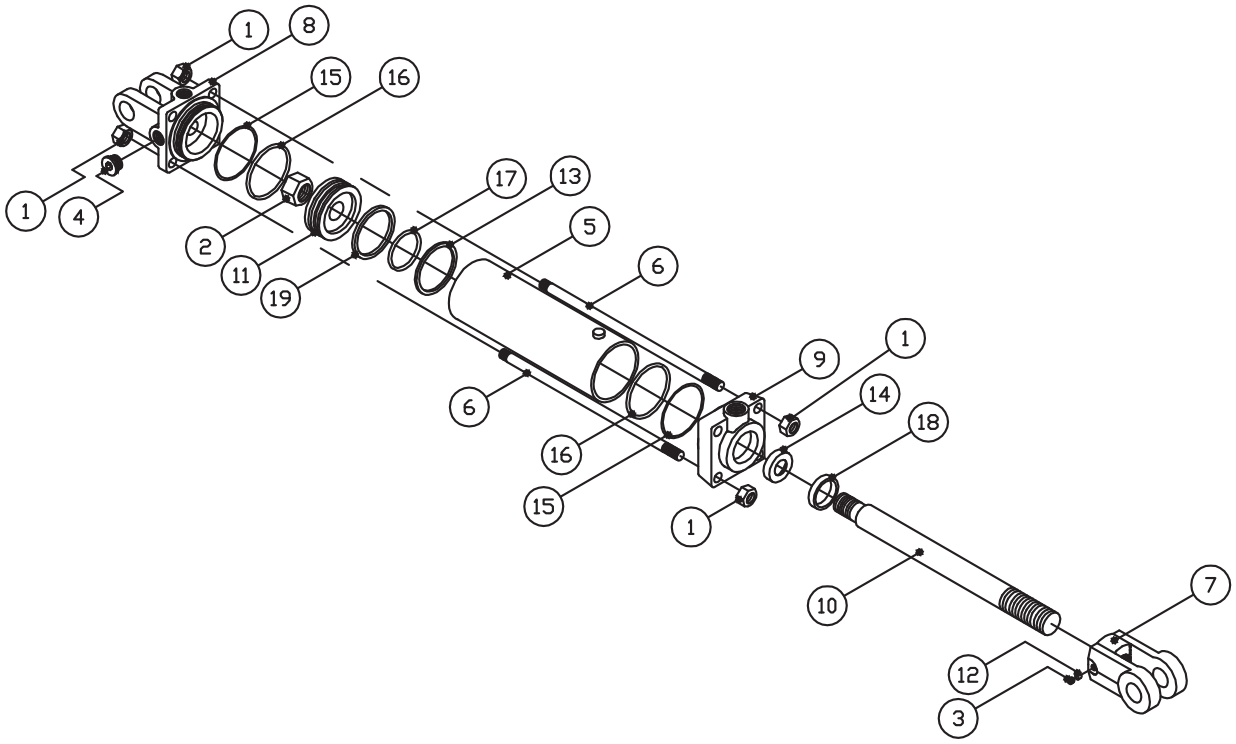


Description: Spray Boom Cylinder Assembly

ITEM #	P/N SX011957 Wing Tilt 3″ x 8″	P/N SX011958 Wing Over the Top & In/ Out 180° Fold 3″ x 16″	DESCRIPTION	QUANTITY
1	SX492675	SX492675	Clevis Cap	1
2	SX492670	SX592728	Rod Cap	1
3	SX494719	SX494719	Piston	1
4	SX492021	SX493597	Cylinder Rod	1
5	SX491738	SX491746	Cylinder Tube	1
6	SX492278	SX492286	Tie Rod	4
7	SX134953	SX134953	Cylinder Pin	2
8	SX135995	SX135995	Pin	4
9	SX498006	SX498006	Thread Lock-Nylon	1
10	SX492652	SX492652	Rod Clevis	1
11	SX148390	SX148390	SC Sckt Set 3/8″ UNC	1
12	SX128250	SX128250	Nut, Hex (Tie Rod)	8
13	SX130560	SX130560	Nut, Hex (Cyl. Rod)	1
14	SX186562	SX186562	Plug 3/4″-16, SOC HD	1
15-21	SX639558	SX639559	Seal Repair Kit	1
15*			Seal	2
16*			O-Ring	2
17*			Seal Hallite	1
18*			O-Ring	1
19*			Seal NOK	1
20*			Seal PTFF Piston Ring	1
21*			Wear Ring	1

*Not sold separately, only available as a seal repair kit

Description: Boom Rephasing Cylinder Assembly

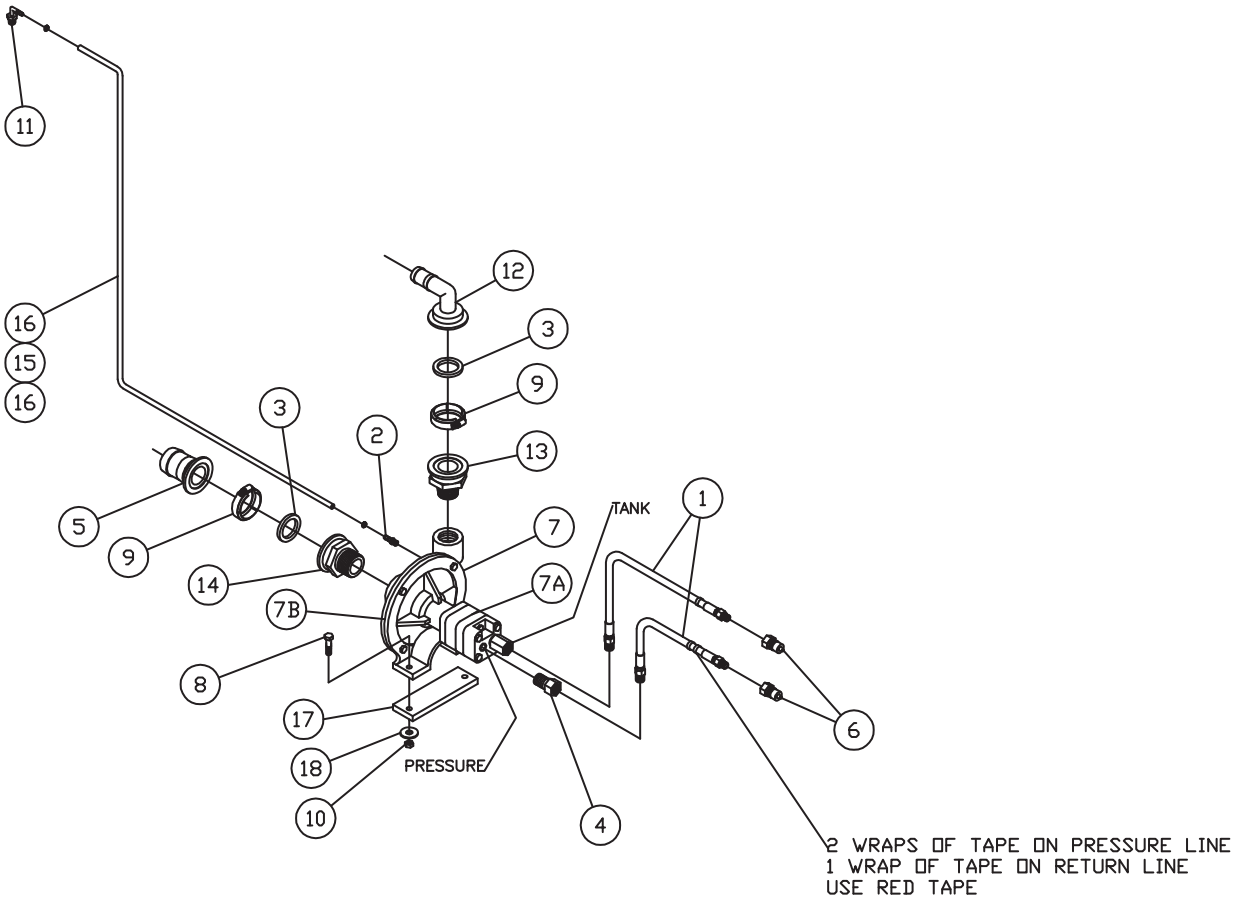


Description: Boom Rephasing Cylinder Assembly

ITEM #	P/N SX645213 Slave Parallel 2 3/4" x 12	P/N SX645214 Master Parallel 3 x 12	DESCRIPTION	QUANTITY
1	SXNUT-050	SXNUT-050	Nut, Hex (Tie Rod)	8
2	SX130556	SX130560	Nut, Hex (Cyl. Rod)	1
3	SX148390	SX148390	SC Sckt Set 3/8" UNC	1
4	SX186562	SX186562	Plug 3/4"-16, SOC HD	1
5	SX464416	SX464418	Cylinder Tube, Weld	1
6	SX492282	SX492282	Tie Rod	4
7	SX492650	SX492652	Rod Clevis	1
8	SX492660	SX492675	Clevis Cap	1
9	SX492661	SX492670	Rod Cap	1
10	SX493272	SX493580	Cylinder Rod	1
11	SX494727	SX494719	Piston	1
12	SX498066	SX498006	Thrd Lock-Nylon	1
13-19	SX639557	SX639558	Seal Repair Kit	1
13*			Seal PTFF Piston Ring	1
14*			Seal Hallite	1
15*			Seal	2
16*			O-Ring	2
17*			O-Ring	1
18*			Seal NOK	1
19*			Wear Ring	1

*Not sold separately, only available as a seal repair kit

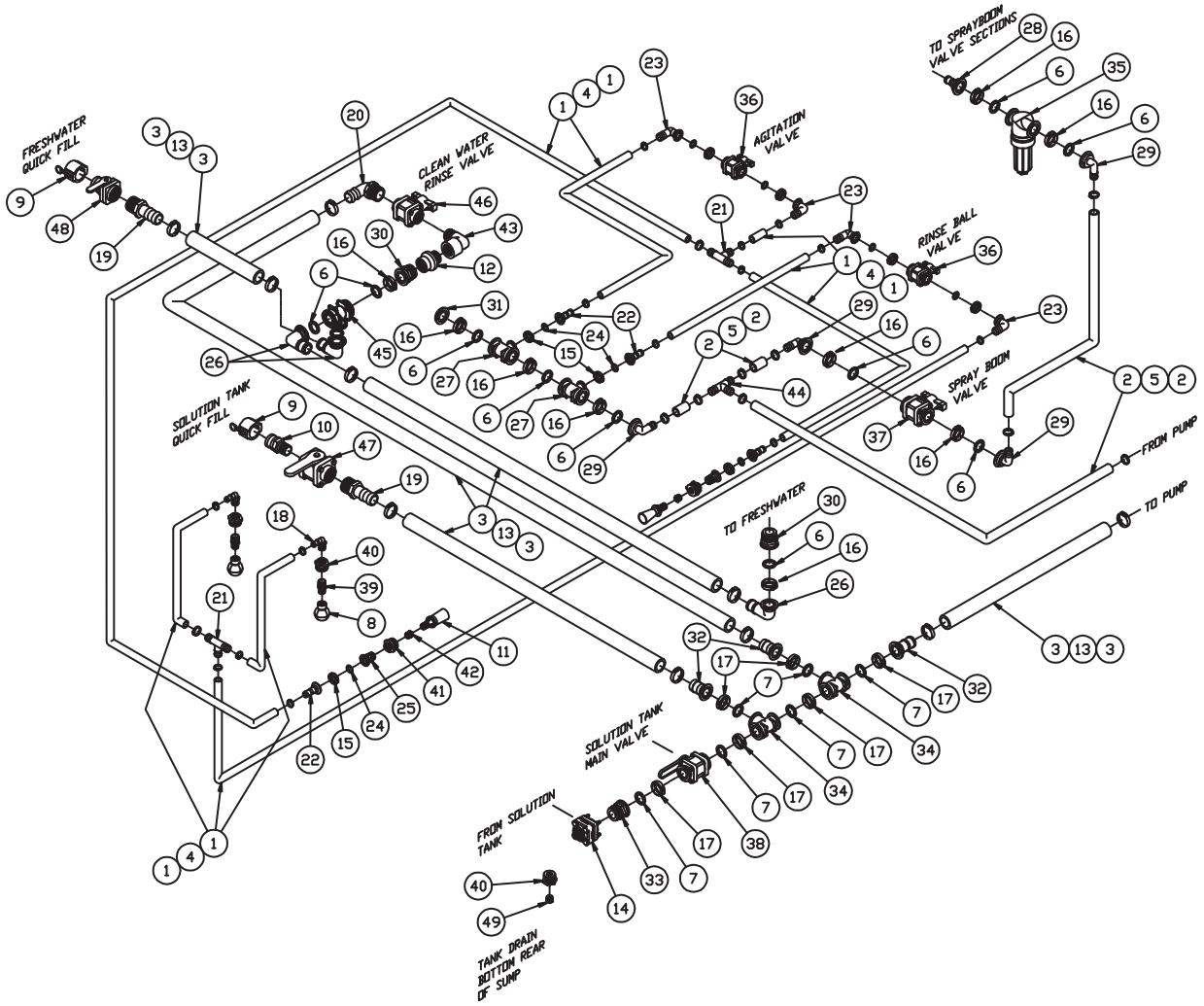
Description: Ace Hydraulic Pump Kit



Description: Ace Hydraulic Pump Kit

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX004627	Hyd. Hose, 68-1/2" MORB x 1/2" MPT	2
2	SX3A1814	Hose Fitting, 1/8"MPT x 1/4"HB Poly	1
3	SX150G	Gasket, For 2" Flanged Valve	2
4	SX5405-6-8	Hyd. Adapter; 3/8" MPT x 1/2" FPT	1
5	SXM200BRB	Hose Barb; 2" Flanged Straight	1
6	SX8010-15P	Hyd. Quick Coupler, Univ. Poppet	2
7	SXFMCSC200HYD304	Pump, Silicone Seal, Ace	1
7A	SXRK-BAC-75-HYD-304	Repair Kit, 304 Motor	
7B	SXRK-FMCSC	Repair Kit For FMC Series	
8	SXBH-038-250-2	Bolt, 3/8" x 2-1/2" Gr. 5 2	2
9	SXFC200BJ	Clamp, 2" Flanged Valve 2	9
10	SXLN-038-NI	Locknut, 3/8" Nylon Insert	2
11	SXHB-025-90	Hose Barb Ell., 1/4" MPT x 1/4" HB 90°	1
12	SXM200/150BRB90	Hose Barb, 2" x 1-1/2" Elbow 90°	1
13	SXM200150MPT	Manifold, 2" x 1-1/2" Male Thread	1
14	SXM200MPT	Manifold 2" x 2" Male Thread	1
15	SXK3150-025	Hose 1/4" Vinyl Reinforced Clear	
16	SX#4 J	Clamp, #4 J Stainless	2
17	SX010870	Plate; Pump Spacer, Single	1
18	SXFW-038	Flatwasher; 3/8"	

Description: Frame Plumbing

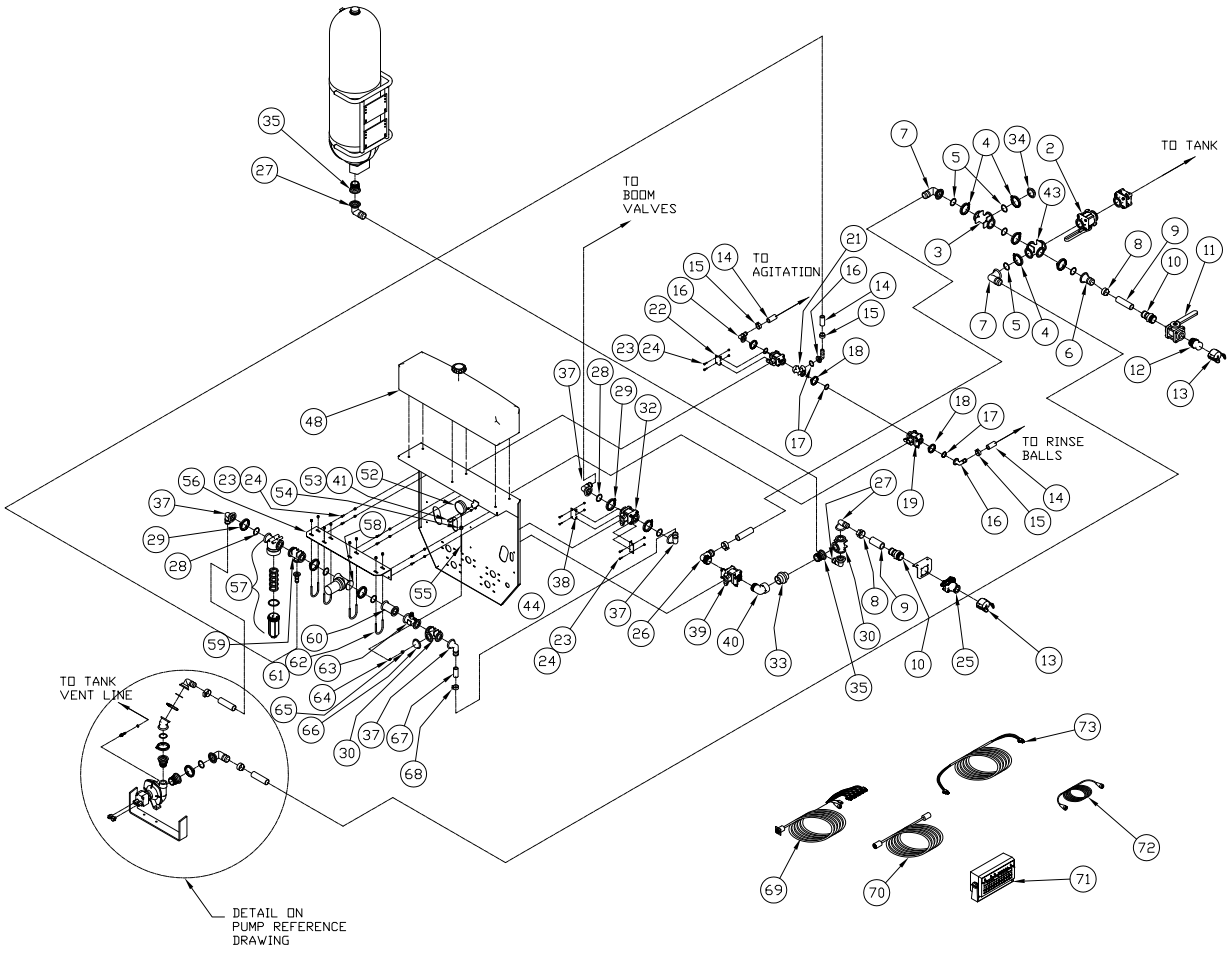


ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX#16J	Clamp; 1" Stainless	16
2	SX#20J	Clamp; 1-1/4" Metal Hose Clamp	8
3	SX#36J	Clamp; 2 Inch Clamp	10
4	SX011612	Hose; 1" 150# Black Rubber	
5	SX012012	Hose; 1-1/4" 150# Black Rubber	
6	SX150-G	Gasket; For 2" Flanged Valve	9
7	SX200G	Gasket; 2" Coupling EPDM	6
8	SX2000-6	Rinse Nozzle; Tank Rinse Ball	2
9	SX200CAP	Coupling; 2" Female CAM Lever	2
10	SX200F	Coupling; 2" Male ADPT/MPT	1
11	SX3371-0028	Jet Agitator; High Capacity	2
12	SX504-019	Check Valve, 2"	1

Description: Frame Plumbing

ITEM #	PART #	DESCRIPTION	QUANTITY
13	SX600333	Hose, 2" EPDM, 150PSI, Ag Hose	
	SX600325	Hose; 2" EPDM Suction & DISC	
14	SXMBF220	Flange; 2" FP Blind Hole Bolted	1
15	SXFC100BJ	Clamp; 1" Flanged	8
16	SXFC200BJ	Clamp; 2" Flanged	9
17	SXFC220	Clamp; 2" FP Flanged	6
18	SXHB-075-100-90	Hose Barb Ell; 3/4" MPT x 1" HB Poly	2
19	SXHB-200	Hose Barb; 2" MPT x HB Poly	4
20	SXHB-200-90	Hose Barb Ell; 2" MPT x HB Poly	1
21	SXHBT100	Hose Barb Tee; 1" HB x HB x HB	2
22	SXM100BRB	Hose Barb; 1" Flanged Straight	4
23	SXM100BRB90	Hose Barb; 1" w/90° Elbow	4
24	SXM100G	Gasket; for 1" Flanged Valve	8
25	SXM100MPT	Manifold; 1" x 1" Male Thread	2
26	SXM200BRB90	Flanged 2" x 2" HB 90° Ell	1
27	SXM200/100TEE	Tee; 2" x 1" Tee	2
28	SXM200/125BRB	Hose Barb; 2" x 1-1/4" Straight	1
29	SXM200/125BRB90	Hose Barb; 2" x 1-1/4" Elbow 90°	4
30	SXM200MPT	Manifold; 2" x 2" Male Thread	3
31	SXM200PLG	Plug; Banjo Flange 2"	1
32	SXM220BRB	Hose Barb; 2" w/Full Port Flng	3
33	SXM220MPT	Manifold; 2" Full Port Thread	1
34	SXM220TEE	Tee; 2" Full Port Manifold Tee	2
35	SXMLST150-HB	Strainer; 2" Tee, Flanged	1
	SXLST1550	Screen; 50 Mesh, 1-1/4" & 1-1/2"	
36	SXMVT100CF	Valve; 1" Viton Flanged Valve	2
37	SXMVT200CF	Valve; 2" Flanged, Viton	1
38	SXMV220CF	Valve; 2" Flanged, FP Viton	1
39	SXMM3410	Reducer Nipple, 1" x 3/4"	2
40	SXNW60401	Bulkhead Fitting 3/4"	3
41	SXNW60427	Bulkhead Fitting 1"	2
42	SXRB100-075	Reducer Bushing; 1" x 3/4" Poly	2
43	SXSL200-90	St Ell; 2" MPT x 2" FPT	1
44	SX3T114	Tee; 1-1/4" Hose Barb Tee	1
45	SXM200TEE	Tee; Poly, 2" Female	1
46	SXVT-200	Valve; 2" Bolted Ball Valve	1
47	SXV-204FP	Valve; 2" - 4 Bolted Ball Valve	1
48	SXVSF-200	Valve; Stub, 2"M ADPT x 2" FPT	1
48	SXPLUG 075	Plug; 3/4" MPT, Poly	1

Description: Raven® Control Plumbing



Description: Raven® Control Plumbing

Item #	Part #	Description	Quantity
1	SX354010	Lid, Vented, 6″	1
2	SX6000-01Y	Tank, 100 Gal. Rinse	1
3	SXM200MPT	Nipple; 1″ x Short, MPT, Poly	1
4	SXM200BRB	Manifold, 2″ MPT, 2″ FLG	1
5	SXM200TEE	Tee, 2″ FLG	2
6	SXHB-200	Hose Barb; 2″ MPT x HB Poly	2
7	SXV-204FP	Valve; 2″ - 4 Bolted Ball Valve	1
8	SX200F	Valve; 2″ - 4 Bolted Ball Valve	1
9	SX200CAP	Cap; 2″ Female Cam Lever	2
10	SXVSF200	Valve; Stub, 2″ M ADPT x 2″ FPT	1
11	SX004555B	Mount; Valve 3-1/2″ Black	4
12	SX012412	Hose; 1-1/2″ 150# EPDM	
13	SX#24J	Clamp; 1-1/2″ x 1/2″ Stainless	5
14	SXMVT200CF	Valve; 2″ FLG, T Handle	2
15	SXM200150BRB90	Hose Barb, 2″ FLG x 1-1/2″ HB, Elbow	6
16	SX013439	Cable; Valve Extension	*
17	SX006367	Cable Assembly; 12′ Valve	1
18	SXM200BRB90	Elbow; Flange 2″ x 2″ HB 90°	2
19	SXBC-025-075-2	Bolt; 1/4″ x 3/4″ Carriage	16
20	SXNTF-025	Nut, 1/4″-20 Serrated Flange	16
21	SXM100BRB90	Hose Barb, 1″ FLG x 1″ HB, Elbow	2
22	SXMVT100CF	Valve, 1″ FLG, T Handle	2
23	SXM100CPG	Coupler, 1″ FLG x 1″ FLG	2
24	SXM100BRB	Hose Barb, 1″ FLG x 1″ HB	2
25	SX004557	Mount, Valve, 2″	4
26	SX100G	Gasket; 1″ Coupling EPDM	8
27	SXFC100BJ	Clamp; 1″	8
28	SX011612	Hose, 1″ Black 150#	
29	SX#16J	Clamp; 1″ x 1/2″ Stainless	4
30	SXLN-025-NI	Locknut, 1/4″ Nylon Insert	2
31	SXBU025-075-125	Bolt, U, Round, 1/4″ x 3/4″ x 1-1/4″	1
32	SXASG1604-RED	Gauge, 4″ 0-160 PSI	1
33	SX4030-0016	Hose Barb; 1/4″ FB3	1

Description: Raven® Control Plumbing

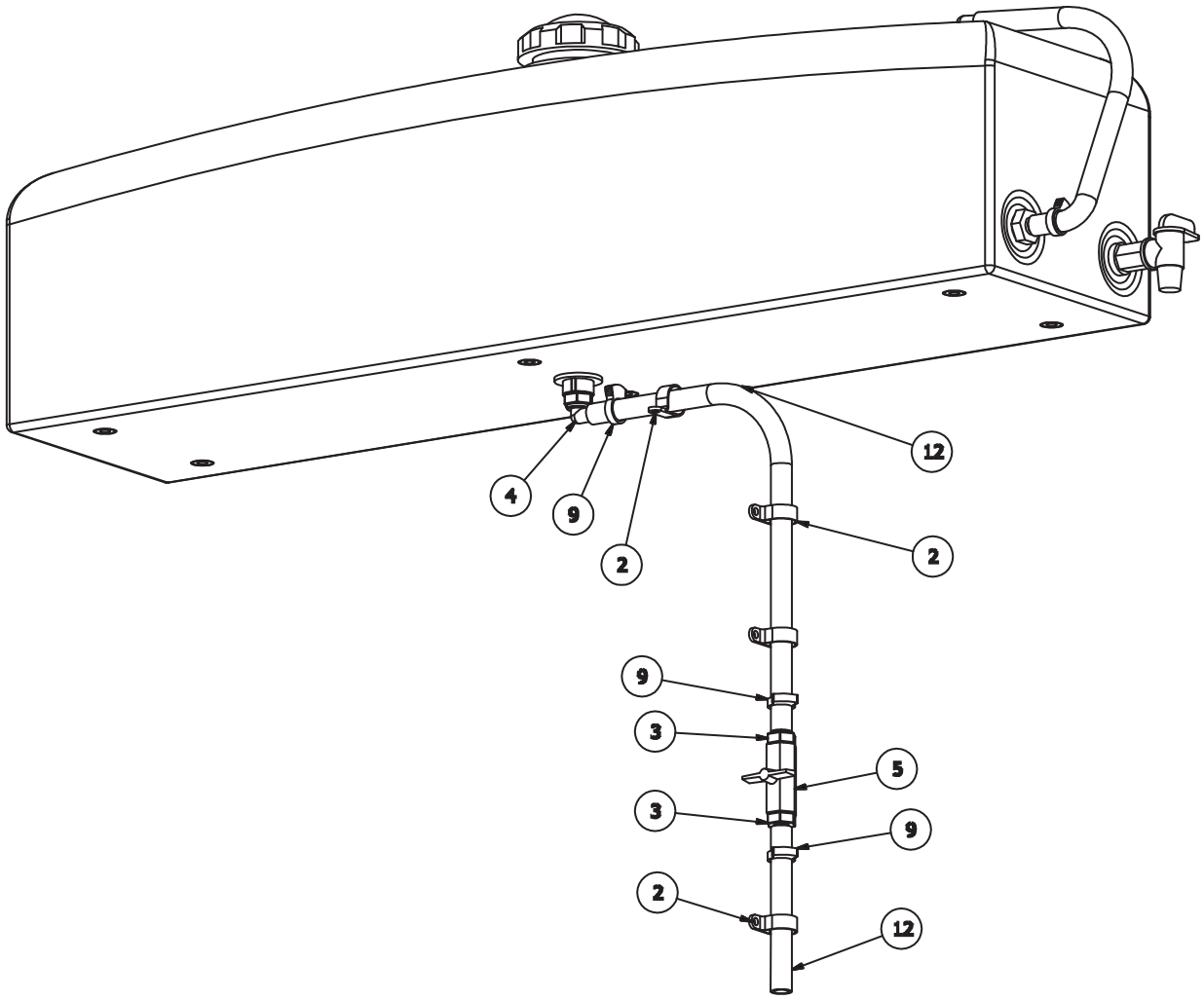
Item #	Part #	Description	Quantity
34	SX4030-0018	Tubing; 3/16 x .124" ID Yellow	4
35	SXM200100TEE	Tee; 2" x 1" Tee	1
36	SX150G	Gasket, 2" FLG	9
37	SXFC200BJ	Clamp; 2" FLG	9
38	BU038-250-450-5	Bolt, U, 3/8" x 2-1/2" x 4 Gr. 5	6
39	SXLN-038-NI	Locknut, 3/8" Nylon Insert	12
40	SXRB1418-SS	Reducer, 1/4"-1/8", SS	1
41	SX4030-0017	Hose Barb, 1/8" B3	1
42	SX063-0171-793	Flowmeter, Raven, 60-P	1
43	SXM200CPG	Coupler, 2" FLG	1
44	SX063-0171-894	Valve, 2" Regulating	1
45**	SXLST150-B	Strainer, Bowl, 2"	1
46**	SXLST150-G	Strainer, Gasket, 2"	1
47**	SXLST1550	Strainer, Screen, 50-Mesh	1
48**	SXLST150-H	Strainer, Head, 2"	1
49	SX013461	Plate; Control Plumb Mnt	1
50	SXLN-031-NI	Locknut, 5/16" Nylon Insert	8
51	SXBH-031-062-5	Bolt, Hex, 5/16" x 5/8" Gr. 5	6
52	SXLW-031	Washer, Lock, 5/16"	6
53	SXFW-031	Washer, Flat, 5/16"	6
54	SX6000-02Y	Tank, 9 Gallon Rinse	1
55	SX200972	Cover, 3-1/2"	1
56	SX063-0171-220	Console; SCS450	1
57	SX115-0159-017	Cable; 12' Flowmeter	1
58	SX115-0159-492	Cable; Raven 450 Control Cable	2
59	SXBH-031-075-2	Bolt; 5/16" x 3/4" Hex	6
60	SXM200PLG018	Plug; Flange 2" W/3/16 Port	1

* Depends on Quantity of Boom Valves

** Complete Assembly Part # is MLST150-50

NOTES:

Description: 15 Gallon Safety Tank Kit

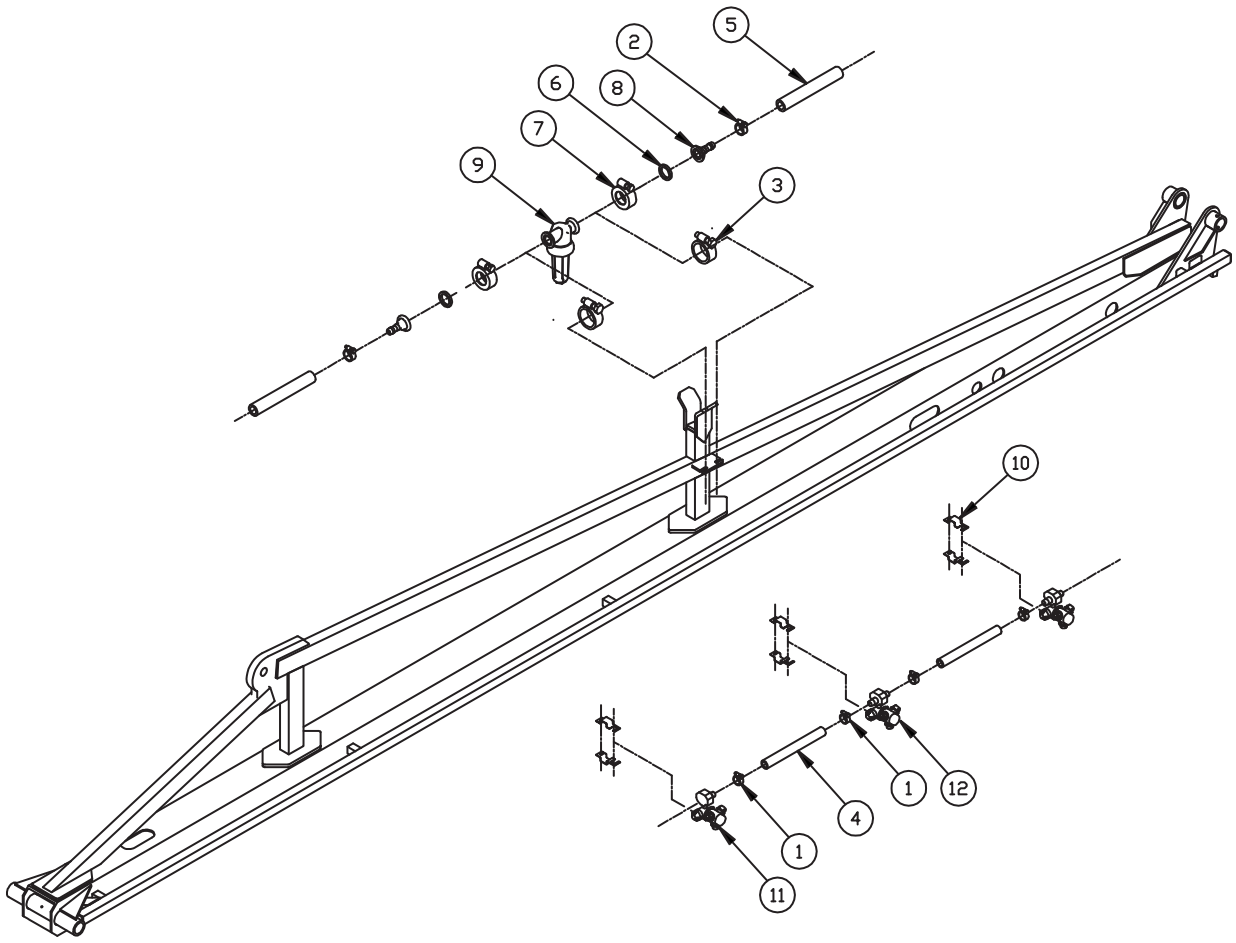


Description: 15 Gallon Safety Tank Kit

ITEM #	PART #	DESCRIPTION	QUANTITY
1*	SX014442	15 Gallon Safety Tank; Fittings Added	1
2	SX25612	Clamp 1/2" SS Cable Clamp	4
3	SX3A12	Hose Fitting; 1/2" MPT x 1/2" HB	2
4	SX3EL1412G	Hose Barb Ell; 1/4" MPY x 1/2" Poly	1
5	SX90FFB12	Valve; 1/2" FNPT x 1/2" FNPT	1
6+	SXBH-025-075-2	Bolt; 1/4" x 3/4" Gr. 2	4
7+	SXBH-031-075-2	Bolt; 5/16" x 3/4" Hex	6
8+	SXFE-031-1.5	Washer; Fender, 5/16", W/1.5 OD	6
9	SXH	Clamp; Speedy, Fits 1/2"' Hose	3
10+	SXLN-025-NI	Locknut; 1/4" Nylon Insert	4
11+	SXLW-031	Lockwasher; 5/16" Lockwasher	6
12	SXSIGHT-12	Hose; 1/2" ID x 1/8" x 3.5' Sight	

*Specify Color
+Not Shown

Description: Vertical Fold Boom Plumbing Kit

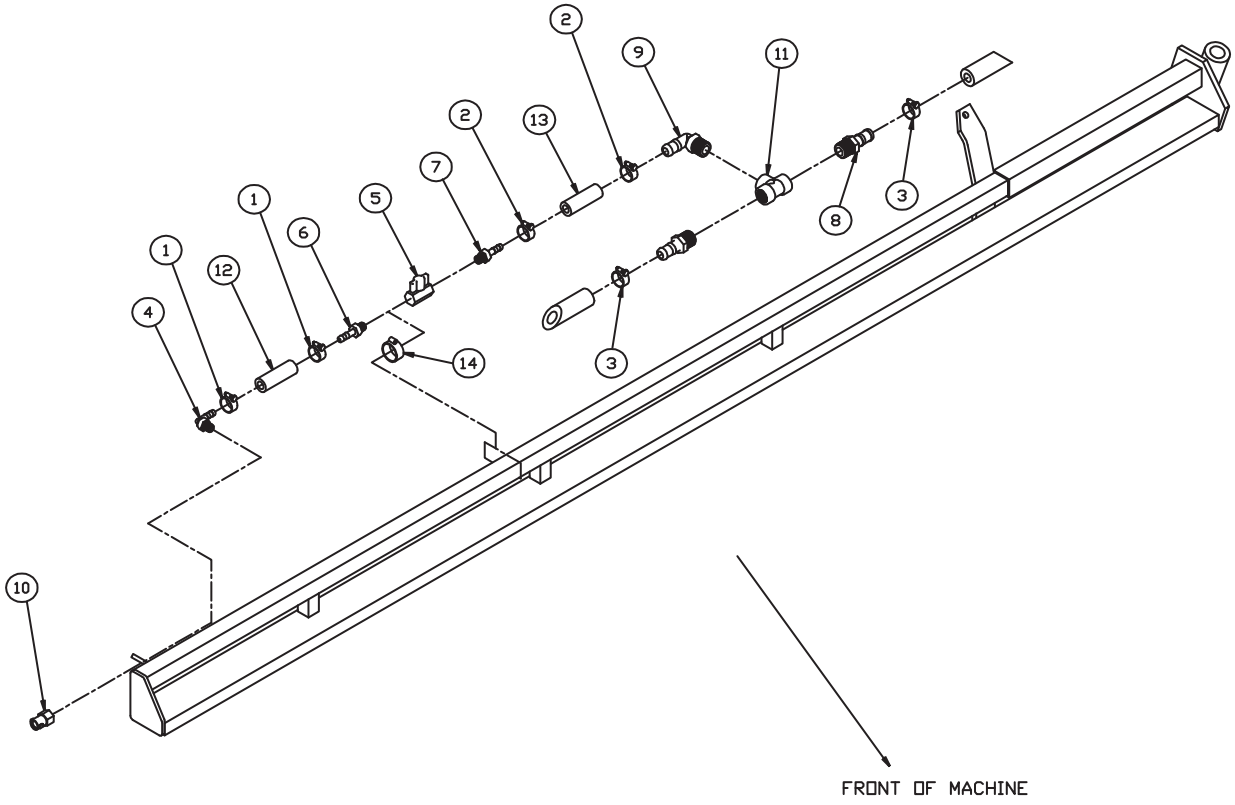


Description: Vertical Fold Boom Plumbing Kit

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX#12J	Clamp, 3/4" Stainless	*
2	SX#16J	Clamp, 1" Stainless	*
3	SX#32J	Clamp, 2" Stainless	*
4	SX001212	Hose; 3/4" 150# EPDM	*
5	SX011612	Hose; 1" 150# Black Rubber	*
6	SXM100G	Gasket; 1" Manifold Valve	*
7	SXFC100BJ	Clamp, 1"	*
8	SXM100BRB	Hose Barb; 1" Flange Straight	*
9	SXMLST100-50	Strainer; T-Line Flanged	*
10	SXQJ111SQ-1-1/4"	Clamp; 1-1/4" Quick Clamp, SQ	*
11	SXQJ363-750-1-NYB	Turret; 3-Outlet, 3/4" Elbow	*
12	SXQJ363-750-2-NYB	Turret; 3-Outlet w/3/4" Tee	*

*Quantities vary depending on boom length and nozzle spacing.

Description: Manual Fence Row Plumbing

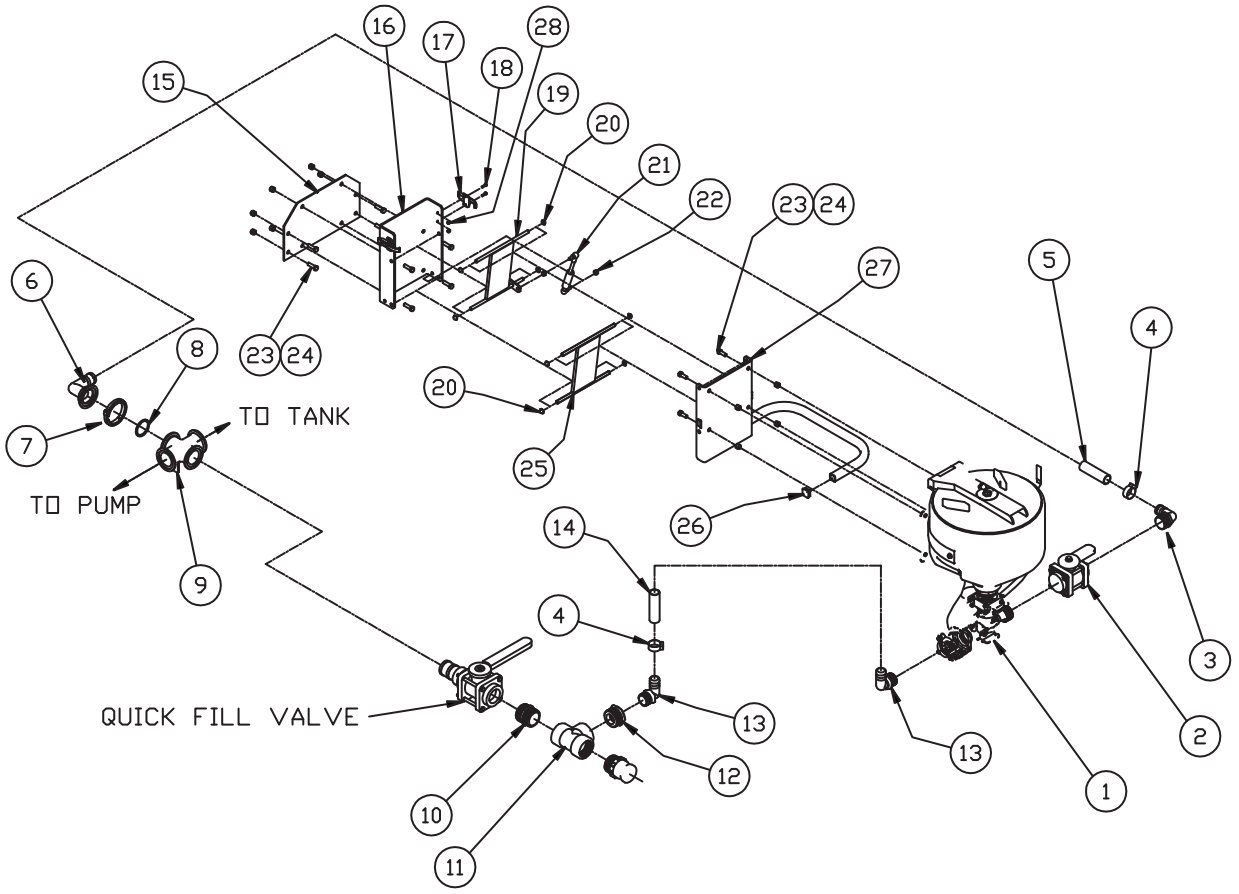


Description: Manual Fence Row Plumbing

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX#4JM	Clamp; 1/4" x 5/16" Stainless	2
2	SX#6JM	Clamp; 3/8" x 5/16" Stainless	2
3	SX#12JM	Clamp; 3/4" Stainless	2
4	SX3EL1438	Elbow; 1/4" FPT x 3/8" EL HB	1
5	SX90FFB38	Valve; 3/8" Female NPT, Brass	1
6	SXHB-038	Hose Barb; 3/8" MPT x 3/8" HB	1
7	SXHB-038-050	Hose Barb; 3/8" MPT x 1/2" HB	1
8	SXHB-075	Hose Barb; 3/4" MPT x 1/2"HB Poly	2
9	SXHB-075-050-90	Hose Barb Ell; 3/4"MPT x 1/2" HBEL	1
10	SXQJ1/4"T-NYB	QJ-1/4"T QuickJet Body	1
11	SXTEE 075	Tee: Poly, 3/4" Female	1
12	SX000612	Hose; 3/8" 150# EPDM	1.8'
13	SX000812	Hose; 1/2" 150# EPDM	1.8'
14	SX#24J	Clamp; 1-1/2" x 1/2" Stainless	1

Note: Quantities listed are per side

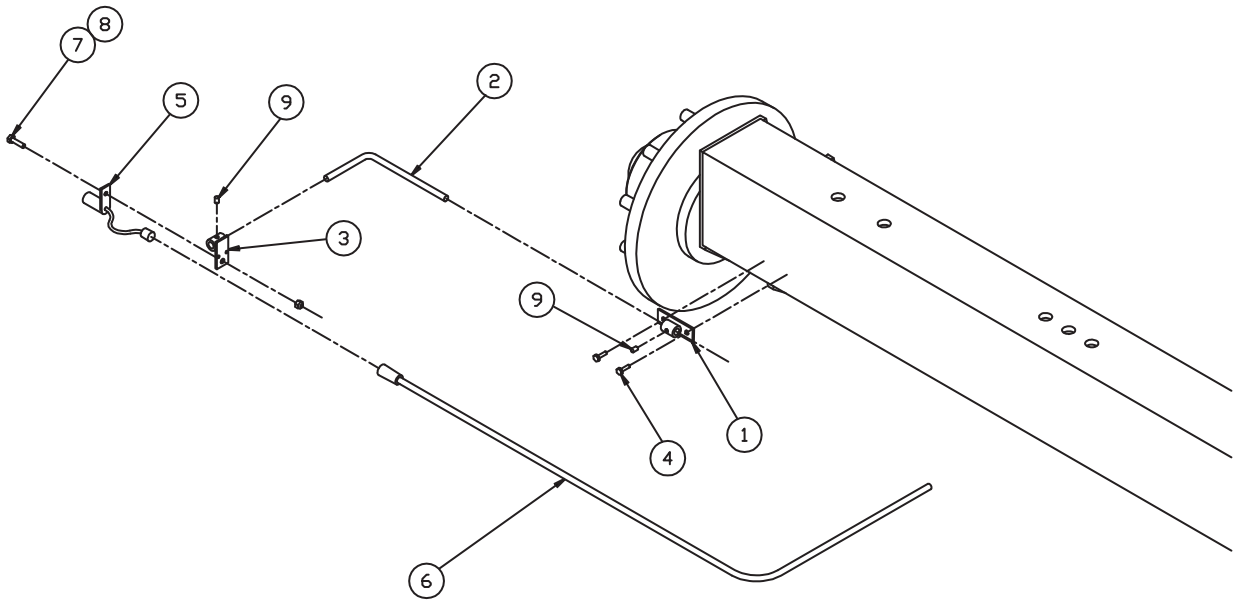
Description: Eductor Assembly



Description: Eductor Assembly (optional)

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX013487	Eductor, Hypro Clean Load	1
2	SXV-150	Valve, 1-1/2" Bolt, FNPT	1
3	SXHB-150-90	Hose Barb, 1-1/2" MNPT, 1-1/2" HB, EL	1
4	SX#28J	Clamp; 1-1/2" Hose	4
5	SX012412	Hose, 1-1/2" 150# EPDM	6
6	SXM220150BRB90	Hose Barb, 2" FP Flg, 1-1/2" HB, EL	1
	SXM200150BRB90	Hose Barb, 2" Flg, 1-1/2" HB, EL	2
7	SXFC220	Clamp, 2" FP Flg	1
	SXFC200BJ	Clamp, 2" Flg	1
8	SX200G	Gasket, 2" FP Flg	1
	SX150G	Gasket, 2" Flg	1
9	SXM220CR	Cross, 2" FP Flg	1
10	SXNIP200-SH	Nipple, 2" Short	1
11	SXTEE 200	Tee, 2" FPT	1
12	SXRB200-125	Reducer Bushing; Poly 2" x 1-1/4"	1
13	SXHB-125-90	Hose Barb, 1-1/4" MPT, 1-1/4" HB, EL	2
14	SX012012	Hose; 1-1/4" 150# EPDM	3
15	SX013142	Plate; Hypro Eductor Mount	1
16	SX013488	Plate; Frame Side Parallel	1
17	SXSBSE068	Latch, Overcenter	2
18	SXBM-10/24-075-2	Bolt; Mach. 10-24 x 3/4" Hex	4
19	SX013489	Weldment; Parallel w/Lug	1
20	SX013492	Nut, Push, Closed End, 3/8" Shaft	8
21	SX013493	Spring, Gas, 2.36" Stroke, 80 Lb. Force	1
22	SXNTF-031	Nut, 5/16" Flange	2
23	SXBH-038-100-2	Bolt, Hex, 3/8" x 1" Gr. 2	12
24	SXLN-038-NI	Locknut, 3/8" Nylon Insert	12
25	SX013494	Weldment; Parallel	1
26	SX9000-0031	Caplug, 1" x 11 Ga.	1
27	SX013495	Weldment; Outer Parallel	1
28	SXNUT-10/24	Nut; 10/24	4

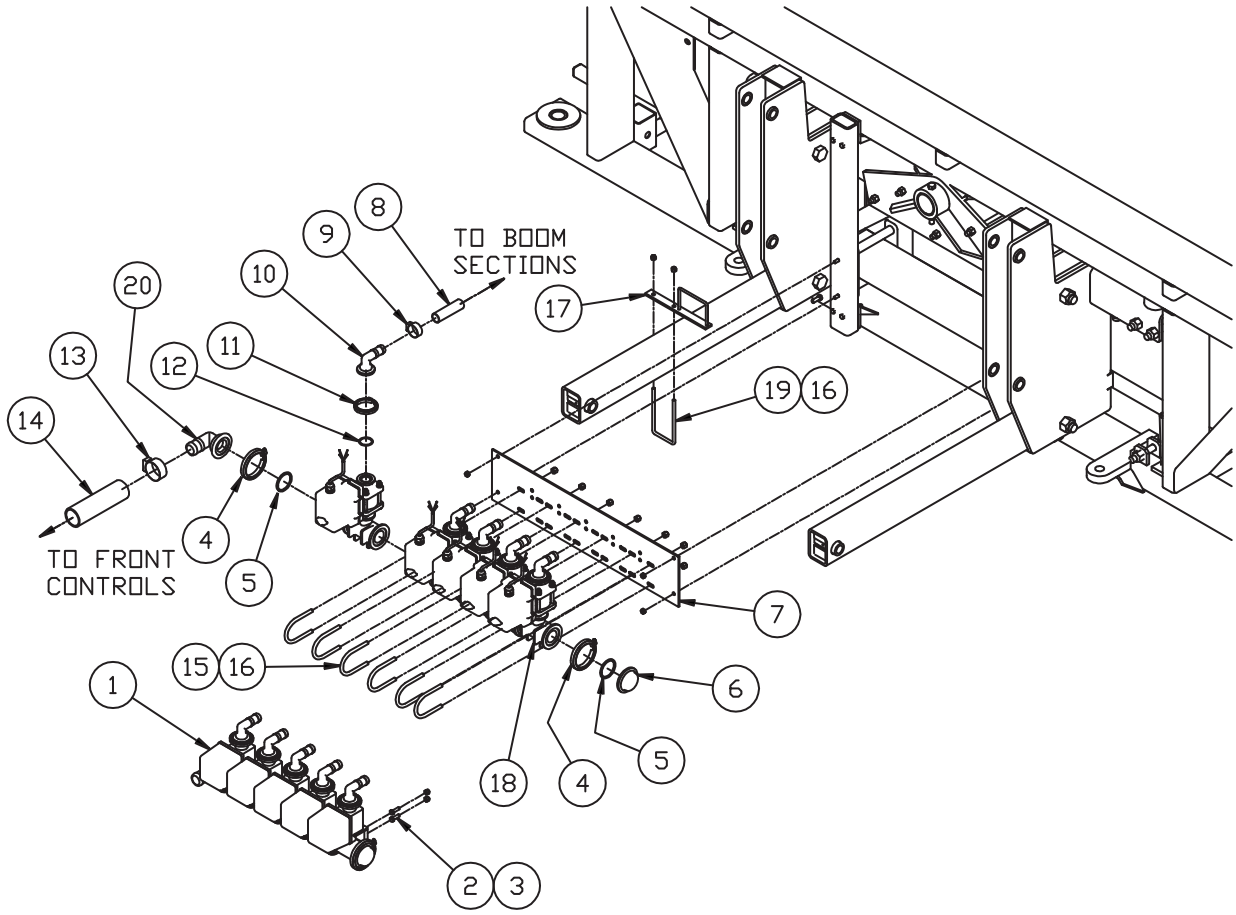
Description: Raven Proximity Speed Sensor



Description: Raven Proximity Speed Sensor

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX010439	Weldment; Axle Mount	1
2	SX010442	Rod; Adjustment	1
3	SX010443	Weldment; Sensor Mount	1
4	SX171-C	Screw; TEK 410HSS Cad Plated	2
5	SX063-0159-982	Sensor; Gear Tooth Speed	1
6	SX115-0159-018	Cable; Speed Sensor 24′ Ext. Cable	1
7	SXBH-025-075-2	Bolt; 1/4″ x 3/4″ Gr. 2	1
8	SXLN-025-NI	Locknut; 1/4″ Nylon Insert	1
9	SXSTS-025-038	Set Screw; 1/4″ x 3/8″ Allen Hd	2

Description: Valve Mounting



Description: Valve Mounting

ITEM #	PART #	DESCRIPTION	QUANTITY
1	SX2123683	1" Banjo Electric Ball Valve	*
2	SXBH-031-125-5	Bolt, Hex, 5/16" x 1-1/4" Gr. 5	*
3	SXLN-031-NI	Locknut, 5/16" Nylon Insert	*
4	SXFC200BJ	Clamp; 2" Flanged	*
5	SX150G	Gasket; 2" Flanged Valve	*
6	SXM200PLG	Plug, 2" Flange	1
7	SX013138	Flat; Liquid Valve Mounting	1
8	SX011612	Hose; 1" 150# Black Rubber	*
9	SX16J	Clamp; 1" Hose	*
10	SXM100BRB90	Hose Barb, Flange, Elbow, 1"	*
11	SXFC100BJ	Clamp, 1" Flanged	*
12	SX100G	Gasket; 1" Flanged Valve	*
13	SXTBC225	Clamp; T-Bolt	1
14	SX012412	Hose; 1-1/2" 150# Black Rubber	-
15	SXBUR038-250-400	U-Bolt; 3/8" x 2 1/2" x 4 Round Zinc	*
16	SXLN-038-NI	Locknut, 3/8" Nylon Insert	*
17	SX013141	Weldment; Hose Support	1
18	SX013470	Valve, Boom, Banjo w/conn.	*
19	SXBU050-300-450-2	Bolt, U, 1/2" x 3" x 4-1/2" Gr. 2	1
20	SXM200150BRB90	Hose Barb, 2" Flg, 1-1/2" HB, EL	1

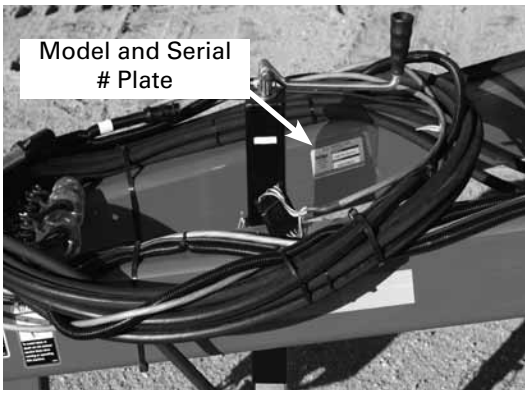
*Quantity depends on boom size

NOTES

Warranty
Section G

105

Serial and Model # Location



Hitch/Drawbar Tubes (Front of Sprayer)

The following page contains a space for you to record the information about your sprayer found on this plate. Please record this information here for future reference.

SERIAL NUMBER INFORMATION

Farm King Model #:_____

Farm King Serial #:_____

Component Serial #s:

Manufacturer	Part #	Serial No.	Notes:

IMPORTANT

The binder containing this manual is sub-component of the sprayer and should go with the sprayer in the event of a future sale. This information contained within this binder is specific to this specific sprayer and cannot easily be replaced.

Warranty Policy

Farm King Pull-Type Sprayer Limited Warranty

This document limits your warranty rights.

Base Limited Warranty

Farm King provides this warranty only to original retail purchasers of its sprayers. Farm King warrants to such purchasers that all Farm King-manufactured parts and components used and serviced as provided for in the Operator's Manual shall be free from defects in materials and workmanship for a period following delivery to the original retail purchaser of one (1) year. This limited warranty applies only to those parts and components manufactured by Farm King. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Farm King will not be responsible for repairs or replacements that are necessitated, in whole or part, by the use of parts not manufactured by or obtained from Farm King. Under no circumstances are component parts warranted against normal wear and tear. There is no warranty on product pump seals, product pump bearings, rubber product hoses, pressure gauges, or other components that require replacement as part of normal maintenance.

Repair Parts Limited Warranty

Farm King warrants genuine Farm King replacement parts purchased after the expiration of the Farm King Limited Warranty, and used and serviced as provided for in the Operator's Manual, to be free from defects in materials or workmanship for a period of thirty (30) days from the invoice date for the parts. Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Such parts must be shipped to the Farm King factory at the purchaser's expense.

What is Not Covered

Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Farm King; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Farm King.

Continued on next page

Authorized Dealer and Labor Costs
Repairs eligible for labor under this limited warranty must be made by Farm King or an authorized Farm King dealer. Farm King retains the exclusive discretion to determine whether it will pay labor costs for warranty repairs or replacements, and the amount of such costs that it will pay and the time in which the repairs will be made. If Farm King determines that it will pay labor costs for warranty work, it will do so by issuing a credit to the dealer's or distributor's account. Farm King will not approve or pay invoices sent for repairs that Farm King has not previously approved. Warranty service does not extend the original term of this limited warranty.

Warranty Requirements
To be covered by warranty, each new sprayer must be registered with Farm King within thirty (30) days of delivery to original retail purchaser. If the customer decides to purchase replacement components before the warranty disposition of such components is determined, Farm King will bill the customer for such components and then credit the replacement invoice for those components later determined to be covered by this limited warranty. Any such replacement components that are determined not be covered by this limited warranty will be subject to the terms of the invoice and shall be paid for by the purchaser.

Exclusive Effect of Warranty and Limitation of Liability

TO THE EXTENT PERMITTED BY LAW, FARM KING DISCLAIMS ANY WARRANTIES, REPRESENTATIONS, OR PROMISES, EXPRESS OR IMPLIED, AS TO THE QUALITY, PERFORMANCE, OR FREEDOM FROM DEFECT OF THE COMPONENTS AND PARTS COVERED BY THIS WARRANTY AND NOT SPECIFICALLY PROVIDED FOR HEREIN.

TO THE EXTENT PERMITTED BY LAW, FARM KING DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ON ITS PRODUCTS COVERED HEREIN, AND DISCLAIMS ANY RELIANCE BY THE PURCHASER ON FARM KING'S SKILL OR JUDGMENT TO SELECT OR FURNISH GOODS FOR ANY PARTICULAR PURPOSE. THE PURCHASER'S ONLY AND EXCLUSIVE REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON FARM KING'S SPRAYERS ARE THOSE SET FORTH HEREIN. IN NO EVENT SHALL FARM KING BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BY WAY OF EXAMPLE ONLY AND NOT LIMITATION, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCOVENIENCE, OR COST OF REPLACEMENT OF RENTAL EQUIPMENT). IN NO EVENT SHALL FARM KING'S CONTRACT OR WARRANTY LIABILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT. (Note that some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusion may not apply to you.) This warranty gives you specific legal rights and you may also have other rights, which vary from state to sate.

Farm King neither assumes nor authorizes any person or entity, including its selling representatives, to assume any other obligations or liability in connections with the sale of covered equipment, or to make any other warranties, representations, or promises, express or implied, as to the quality, performance, or freedom from defect of the components and parts covered herein. No one is authorized to alter, modify, or enlarge this limited warranty, or its exclusions, limitations and reservations.

Continued on next page.

Corrections of defects and improper workmanship in the manner, and for the applicable time periods, provided for herein shall constitute fulfillment of all responsibilities of Farm King to the purchaser, and Farm King shall not be liable in negligence, contract, or on any other basis with respect to the subject equipment.

This limited warranty is subject to any existing conditions of supply which may directly affect Farm King's ability to obtain materials or manufacturer replacement parts.

Buhler Industries Inc. reserves the right to make improvements in design or changes in specifications to its products at anytime, without incurring any obligation to owners of units previously sold.

www.farm-king.com

Farm King

1330 43rd Street NW
Fargo, ND USA 58102
Ph.: 701.282.7014 | Fax: 701.282.5865
E-mail: info@buhler.com
www.farm-king.com

bühler | *a division of Buhler Industries Inc.*