

## **Fertilizer Application**

1tRIPr Model 4T  
4-Ton Dry Fertilizer Caddy

**Beginning with Serial Number A73800100**

Part No. 48824

### Foreword

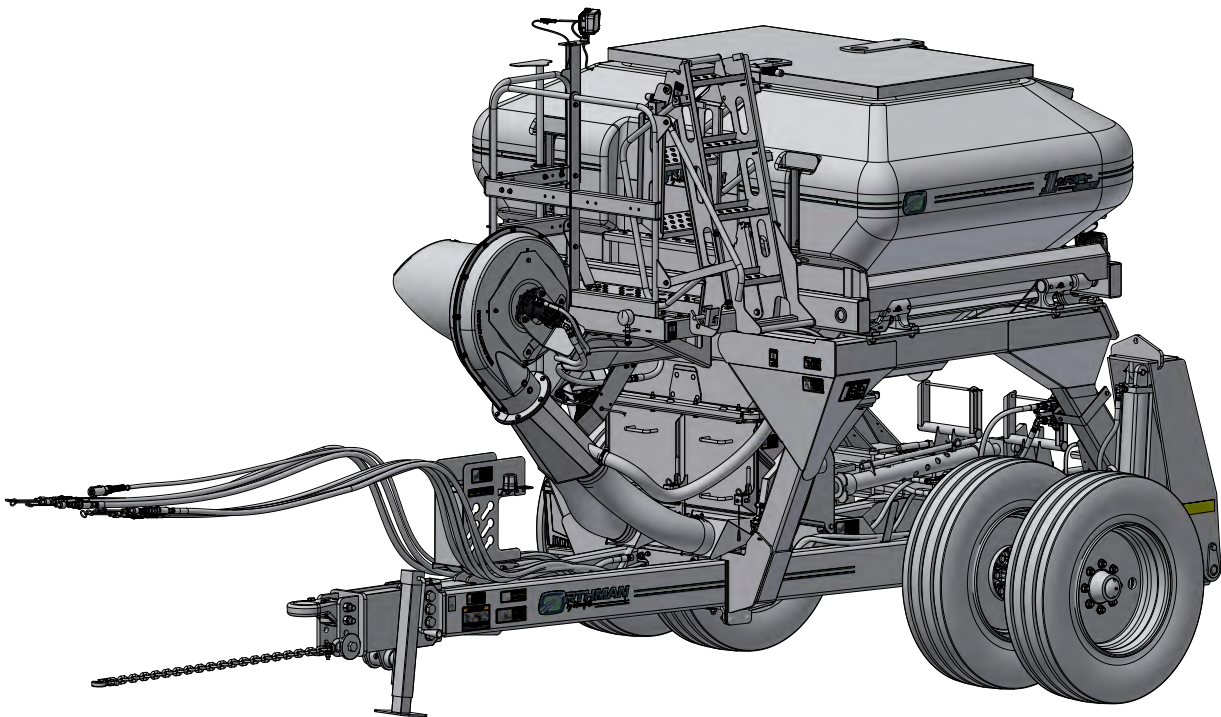


This symbol identifies important safety messages. When you see it, read the message that follows and be alert to the possibility of personal injury.

Remember, safety instructions stated in this manual are for your protection. Read them carefully and follow them closely when working around or using this machine.

Read and study this manual completely before attempting to operate this implement. Take this manual to the field for handy reference when operating, adjusting, or servicing your machine.

When referenced, “Right-Hand” (RH) and “Left-Hand” (LH) side of the machine are determined by standing behind the machine and facing in the direction of travel.



### Pre-Operation Checklist

- Wheel bolts tightened (recheck after initial use)
- Tire pressures checked
- Hardware tightened
- Machine lubricated
- Safety and operating procedures reviewed
- Field adjustment information reviewed
- Warranty information reviewed
- Hydraulic hoses properly routed/fittings tight

## Product Information

### IMPORTANT

The information, specifications, and illustrations in the manual are based on information available at the time it was written. Due to continuing improvements in the design and manufacture of Unverferth products, all specifications and information contained herein are subject to change without notice.

Please fill out and retain this portion for your records. All products manufactured by Unverferth Mfg. Co., Inc. are warranted to be free from material and workmanship defects for one full year from time of consumer delivery. Your local dealer will gladly assist you with any warranty questions.

The serial number plate is located as shown below.

Product \_\_\_\_\_

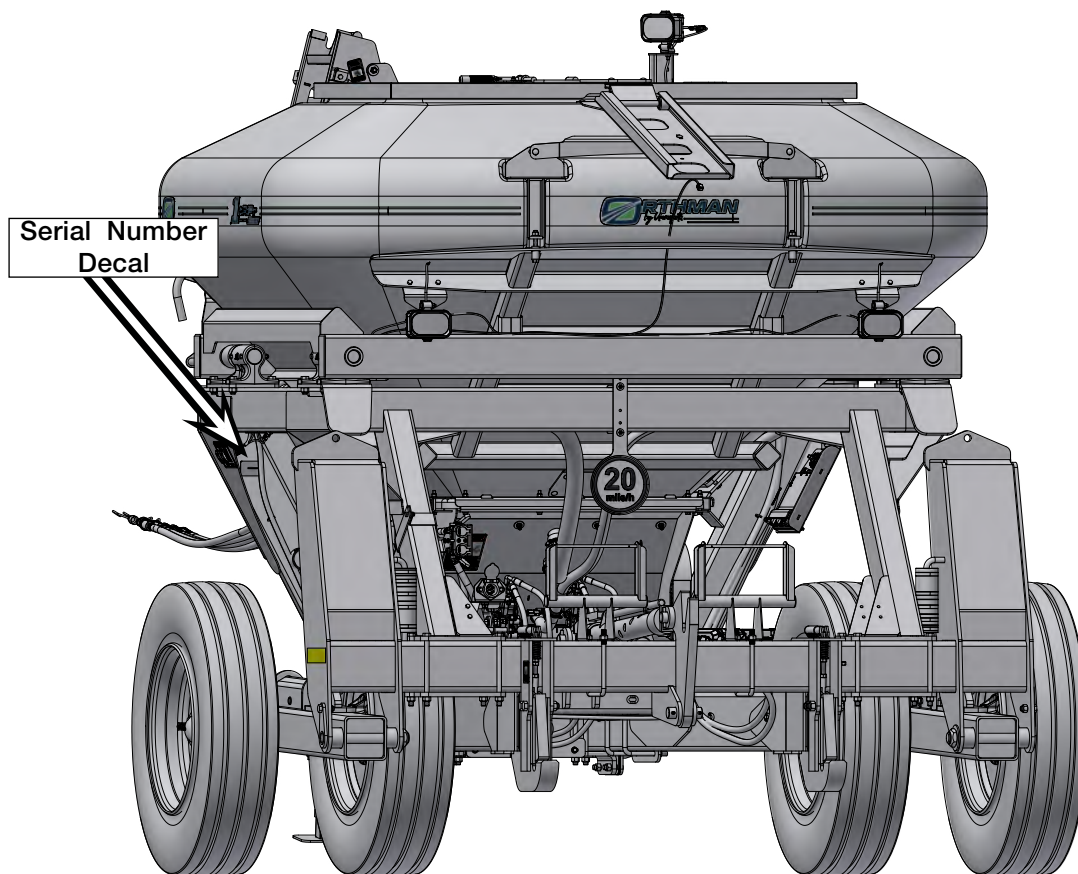
Serial Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Dealer \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please supply this information when you have questions or when ordering repair or replacement parts. Your dealer needs this information to give you prompt, efficient service.



# SECTION I

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# **SECTION I**

# **Safety**

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## General Hazard Information

No accident-prevention program can be successful without the wholehearted cooperation of the person who is directly responsible for the operation of the equipment.

A large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the field, or in the industrial plant, can be safer than the person who is at the controls. If accidents are to be prevented--and they can be prevented--it will be done by the operators who accept the full measure of their responsibility.

It is true that the designer, the manufacturer, and the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that, "the best kind of a safety device is a careful operator." We, at Unverferth Mfg. Co., Inc. ask that you be that kind of operator.



**REMEMBER:**  
**THINK SAFETY**  
A CAREFUL OPERATOR IS THE  
BEST INSURANCE AGAINST AN  
ACCIDENT!

### SIGNAL WORDS



INDICATES AN EXTREMELY HAZARDOUS SITUATION OR ACTION THAT WILL RESULT IN SERIOUS INJURY OR DEATH.



INDICATES A HAZARDOUS SITUATION OR ACTION THAT COULD RESULT IN SERIOUS INJURY OR DEATH.



INDICATES AN UNSAFE SITUATION OR ACTION THAT MAY RESULT IN PERSONAL INJURY.



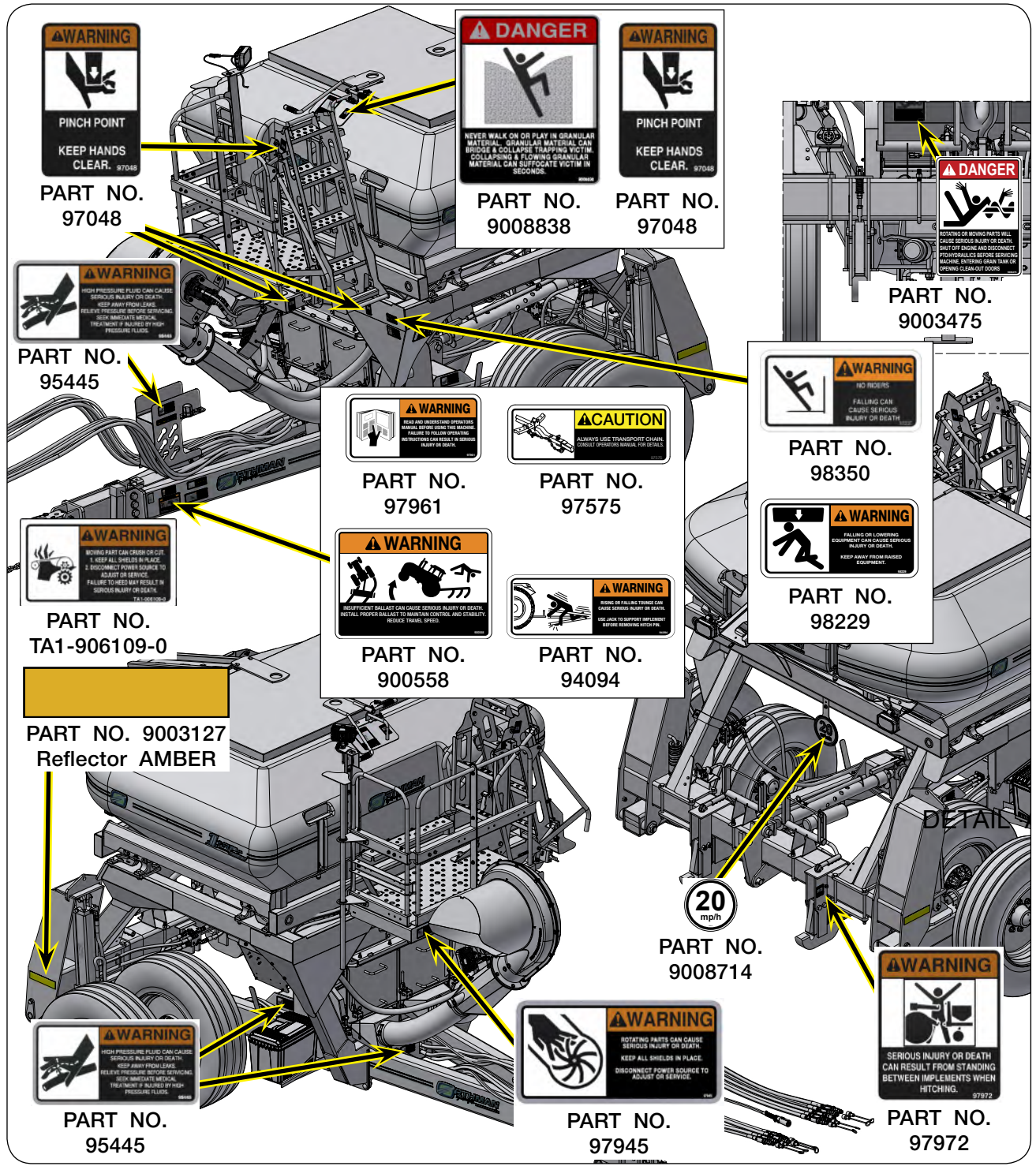
*Is used for instruction on operating, adjusting, or servicing a machine.*

# 4-TON DRY FERTILIZER CART — Safety

## Safety Decals




### **⚠ WARNING**

- REPLACE LOST, DAMAGED, PAINTED, OR UNREADABLE DECALS IMMEDIATELY. IF PARTS THAT HAVE DECALS ARE REPLACED, ALSO MAKE SURE TO INSTALL NEW DECALS. THESE DECALS INFORM AND REMIND THE OPERATOR WITH OPERATIONAL INFORMATION AND SAFETY MESSAGES.




## 4-TON DRY FERTILIZER CART — Safety

### Following Safety Instructions

- Read and understand this operator's manual before operating. 
- All machinery should be operated only by trained and authorized personnel.
- To prevent machine damage, use only attachments and service parts approved by the manufacturer.
- Always shut tractor engine off and remove key before servicing. 
- Avoid personal attire such as loose fitting clothing, shoestrings, drawstrings, pants cuffs, long hair, etc., that may become entangled in moving parts.
- Do not allow anyone to ride on the implement. Make sure everyone is clear before operating machine or towing vehicle. 
- When working around sweeps and points, be careful not to be cut by sharp edges.
- Never walk on or play in granular material. Granular material can bridge and collapse trapping victim. Collapsing and flowing granular material can suffocate victim in seconds.
- Never attempt to operate implement unless you are in driver's seat.

### Before Servicing or Operating

- Avoid working under an implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked. 
- Ensure that all applicable safety decals are installed and legible.
- When working around the implement, be careful not to be cut by sharp edges.
- To prevent personal injury or death, always ensure that there are people who remain outside the tank to assist the person working inside, and that all safe workplace practices are followed. There is restricted mobility and limited exit paths when working inside the implement.
- Explosive separation of a tire and rim can cause serious injury or death. Only properly trained personnel should attempt to service a tire and wheel assembly.
- Add sufficient ballast to tractor to maintain steering and braking control at all times. Do not exceed tractor's lift capacity or ballast capacity.

## 4-TON DRY FERTILIZER CART — Safety

### Before Servicing or Operating (continued)

- Do not stand between towing vehicle and implement during hitching.

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- Verify that all safety shields are in place and properly secured.

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- Always make certain everyone and everything is clear of the machine before beginning operation.

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- Secure drawbar pin with safety latch and lock tractor drawbar in fixed position.

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- Hot parts can cause severe burns. Use caution when working around power system/ground engaging components. Allow parts to cool before servicing.

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- Ensure that the towing vehicle drawbar has sufficient strength to support the draft and vertical tongue load of a fully-loaded dry spreader.

### During Operation

- Comply with all laws and product label directions governing safe product application.

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- Regulate speed to field conditions. Maintain complete control at all times.

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- Never service or lubricate equipment when in operation.

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- Keep away from overhead power lines. Electrical shock can cause serious injury or death.

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- Use extreme care when operating close to ditches, fences, or on hillsides.

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- Do not leave towing vehicle unattended with the engine running.

### Before Transporting

- Check for proper function of all available transport lights. Make sure that all reflectors are clean and in place on machine. Make sure that the SMV emblem and SIS decal are visible to approaching traffic.


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- Follow all federal, state and local regulations governing highway safety and transporting chemicals.

## 4-TON DRY FERTILIZER CART — Safety

### During Transport

- Comply with all laws governing highway safety when moving machinery.
- Use transport lights as required by all laws to adequately warn operators of other vehicles.
- Use good judgement when transporting equipment on highways. Regulate speed to road conditions and maintain complete control.
- Maximum transport speed of this implement should never exceed 20 mph as indicated on the machine. Maximum transport speed of any combination of implements must not exceed the lowest specified speed of the implements in combination. Do not exceed 10 mph during off-highway travel.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.
- It is probable that this implement is taller, wider and longer than the towing vehicle. Become aware of and avoid all obstacles and hazards in the travel path of the equipment, such as power lines, ditches, etc.

### Pressurized Oil

- Relieve the hydraulic system of all pressure before adjusting or servicing. See hydraulic power unit manual for procedure to relieve pressure.
- High-pressure fluids can penetrate the skin and cause serious injury or death. Use cardboard or wood to detect leaks in the hydraulic system. Seek medical treatment immediately if injured by high-pressure fluids. 
- Hydraulic system must be purged of air before operating to prevent serious injury or death.
- Do not bend or strike high-pressure lines. Do not install bent or damaged tubes or hoses.
- Repair all oil leaks. Leaks can cause fires, personal injury, and environmental damage.
- Route hoses and lines carefully to prevent premature failure due to kinking and rubbing against other parts. Make sure that all clamps, guards and shields are installed correctly.
- Check hydraulic hoses and tubes carefully. Replace components as necessary if any of the following conditions are found:
  - o End fittings damaged, displaced, or leaking.
  - o Outer covering chafed/cut or wire reinforcing exposed.
  - o Outer covering ballooning locally.
  - o Evidence of kinking or crushing of the flexible part of a hose.

# 4-TON DRY FERTILIZER CART — Safety

## Fertilizer and Chemical Hazards

- Always wear personal protective equipment when working with or near fertilizers and/or chemicals. This equipment includes, but is not limited to: protective eye wear, gloves, shoes, socks, long-sleeved shirt, and long pants. Additional protection may be required for many types of fertilizers and/or chemicals.
- Seek and receive fertilizer and/or chemical product training prior to using agricultural fertilizers and/or chemicals.
- Read and understand the entire label of every fertilizer and/or chemical being applied with this dry spreader.
- Wash hands before eating, drinking, chewing gum, or using the toilet.
- Remove clothing immediately if fertilizers and/or chemicals penetrate clothing and contact skin. Wash thoroughly and put on clean clothing.
- Dispose of unused fertilizer and/or chemical in accordance with fertilizer and/or chemical label directions and local/national regulations.

## Preparing for Emergencies

- Keep a first aid kit and properly rated fire extinguisher nearby.



- Keep emergency numbers for fire, rescue, and poison control personnel near the phone.



## Wearing Protective Equipment

- Wear clothing and personal protective equipment appropriate for the job.



- Wear steel-toed shoes when operating.



- Wear hearing protection when exposed to loud noises.



- Do not wear additional hearing impairing devices such as radio headphones, etc.



**Notes**

## **SECTION II**

# **Set Up**

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## 4-TON DRY FERTILIZER CADDY — Set Up

### Pre-Delivery Checklist

- Power wash any road salt off this unit to help prevent corrosion.
- Torque wheel nuts and check tire pressure as specified in MAINTENANCE section.
- All grease fittings have been lubricated.
- Verify all safety decals are correctly located and legible. Replace if damaged.
- Verify all reflective decals are correctly located.
- Verify transport lights are working properly.
- Check hydraulic components for leaks.
- Check all plumbing components for leaks.
- Paint all parts scratched during shipment and dealer set up.

### General Set Up Information

For your safety, and the safety of others, use proper tools and equipment and always use safe working procedures. Refer to these instructions before starting any work on your machine.

#### **WARNING**

- **READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN THIS MANUAL IF NECESSARY.**
- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE THE MACHINE IS SECURELY BLOCKED.**
- **MOVING PARTS CAN CRUSH AND CUT. KEEP AWAY FROM MOVING PARTS.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 8,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.**

# 4-TON DRY FERTILIZER CADDY — Set Up

## Basic Set Up

Due to shipping requirements and various dealer-installed options, some initial implement set up will be required after it arrives from the factory. Use the following procedures as needed for initial implement set up.

## Hydraulic System

Check all hoses and cylinders for signs of leakage. Hoses should not be kinked, twisted or rubbing against sharp edges. Re-route or repair hoses as necessary. Refer to SAFETY section for additional information on safe repair and inspection of hydraulic components.

## Wheel/Tire Set Up

### Tire Pressure

Tire pressure must be verified before first use and adjusted as necessary. Refer to MAINTENANCE section of this manual for information on tire pressure.

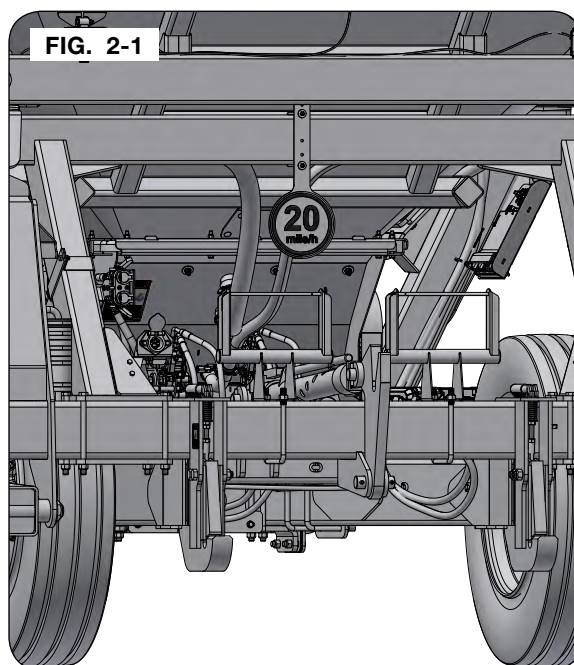
### Wheel Nuts

## **CAUTION**

- IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGE IN THE "MAINTENANCE" SECTION FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.

## SIS Decal

Ensure the SIS decal is clean and visible.



# 4-TON DRY FERTILIZER CADDY — Set Up

## Basic Set Up (continued)

### Transport Lighting and Markings

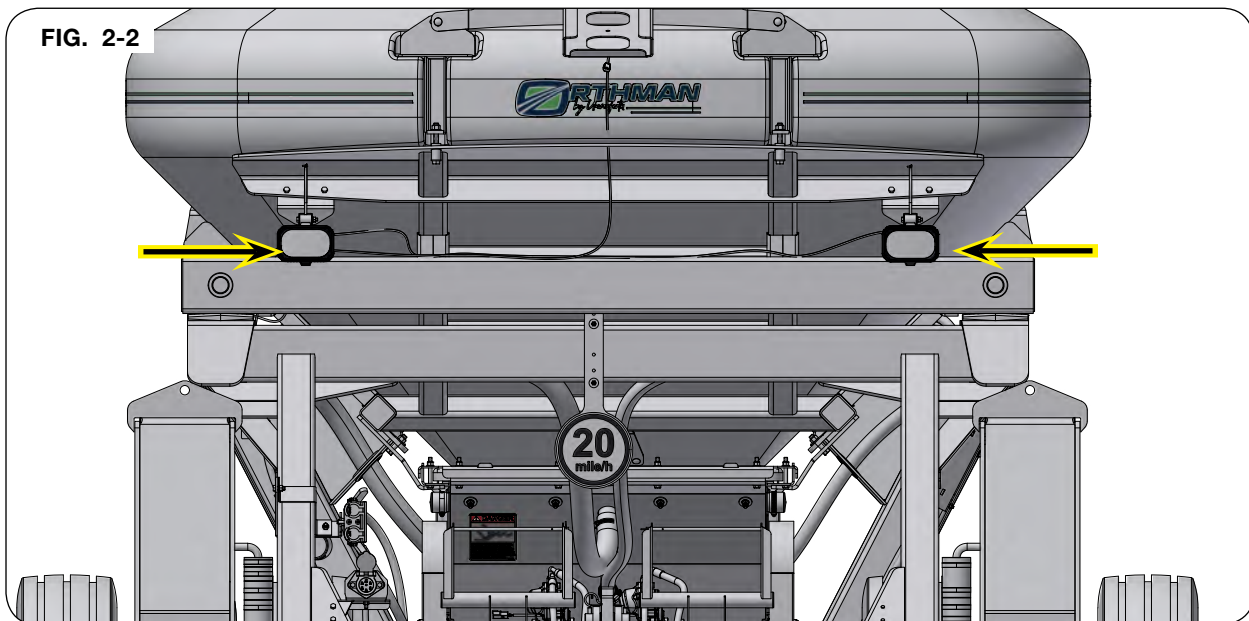
Compliance with all lighting and marking laws is the responsibility of the operator at the time of travel.

See federal regulation 49 CFR 562; available at [www.govinfo.gov](http://www.govinfo.gov) for US federal law requirements.

See your Unverferth dealer for additional brackets, reflectors, or lights to meet your requirements.

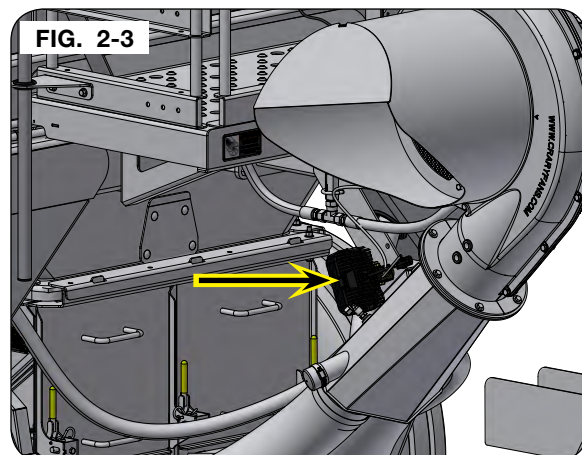
### Rear Working Lights Set Up

Reposition the light assemblies (9500801) accordingly.



### Meter Housing Working Lights Set Up

Reposition the light assemblies (9500801) accordingly.



# 4-TON DRY FERTILIZER CADDY — Set Up

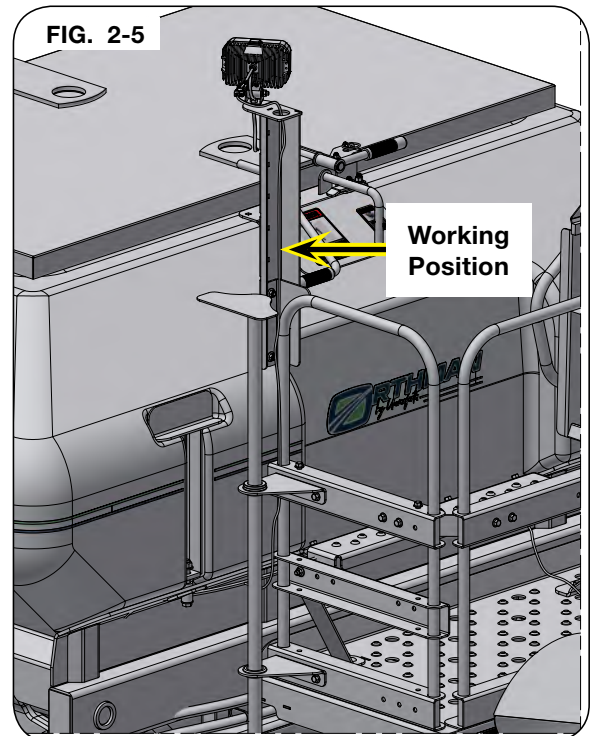
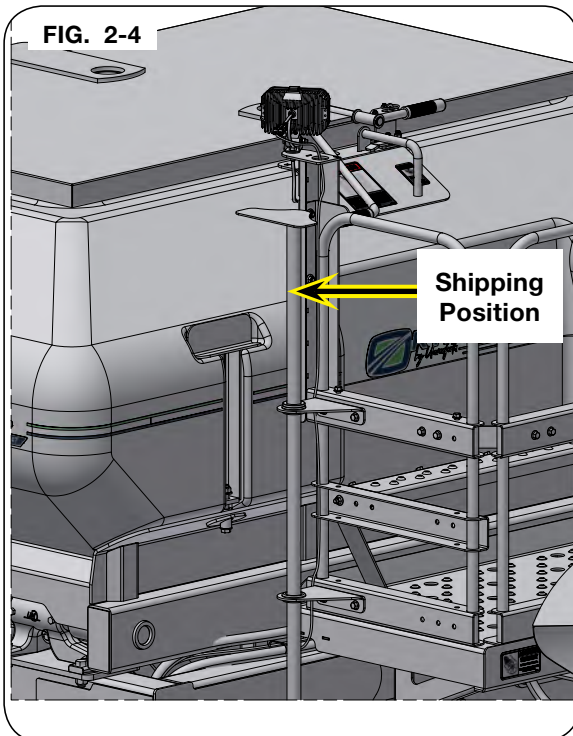
## Basic Set Up (continued)

### Platform Working Lights Set Up

**NOTE:** Ensure ladder and steps are free from snow/debris before changing ladder positions and climbing.

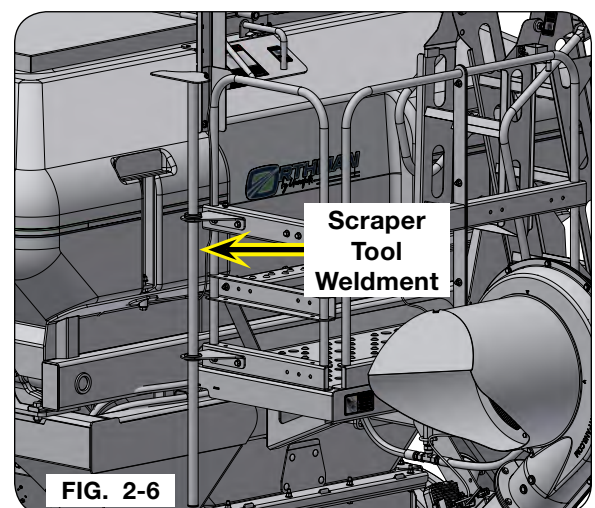
**NOTE:** To change ladder assembly positions, refer to “Ladder Operation” in the OPERATION section.

Reposition the light bracket weldment (44978G or 44978R) higher using the 3/8”-16UNC x 1” carriage bolts (9388-051) and 3/8”-16UNC large flange nuts (91263).



### Tank Scraper Weldment

Locate the tank scraper weldment (45928) and place it in the scraper mounting bracket.



# 4-TON DRY FERTILIZER CADDY — Set Up

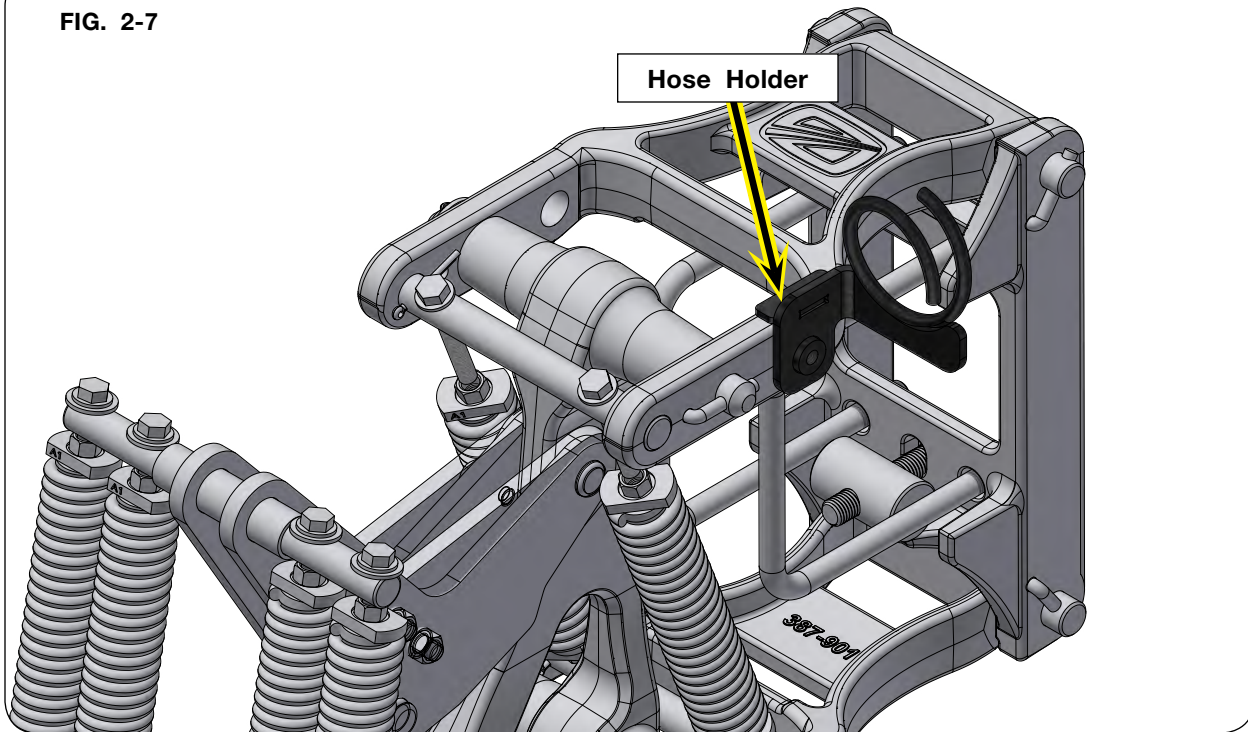
## Basic Set Up (continued)

### Attach Row Unit Hose Holders

**NOTE:** Row unit hose holders are shipped cable tied to the shanks.

1. Secure the hose holders to the row units with 1/2"-13UNC x 1" capscrews (9390-099), 1/2" USS flat washers (9405-088), and 1/2" lock washers (9404-025). (FIG. 2-7)

FIG. 2-7



2. Route fertilizer hoses through the fertilizer hose support weldments. (FIG. 2-8)

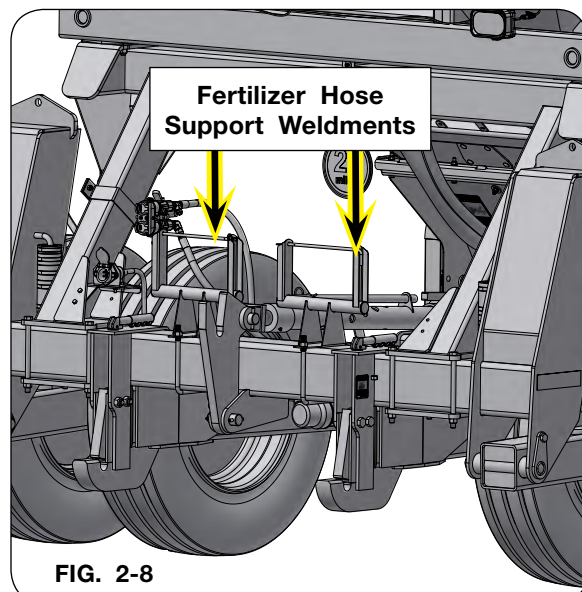


FIG. 2-8

# 4-TON DRY FERTILIZER CADDY — Set Up

## RCM Set Up

Whenever the RCM is reset, the following steps will need to be completed for the RCM to function properly.

**NOTE:** Before programming the RCM, ensure the RCM monitor is connected to the battery.

1. On the initial start-up screen, begin by entering the profile name for your strip till toolbar.
2. Select “Generic” as the desired machine type from the drop down menu.
3. Enter the application width of your strip till toolbar.

**NOTE:** Value = Row Spacing x Number of Rows

4. Press the Next Page icon.
5. Default for ECU box is 1. Touch Number of Products box and enter 1.
6. Press the Next Page icon.

**FIG. 2-9 Name Profile**

Profile Name  
\* Orthman 4 Ton

Machine Type  
\* Generic

Application Width \* 20.000 (ft)

Software Version Number 21.2.1.1

Hardware Serial Number 2668

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**FIG. 2-10 Setup System**

ECU S/N ECU # Number of Products

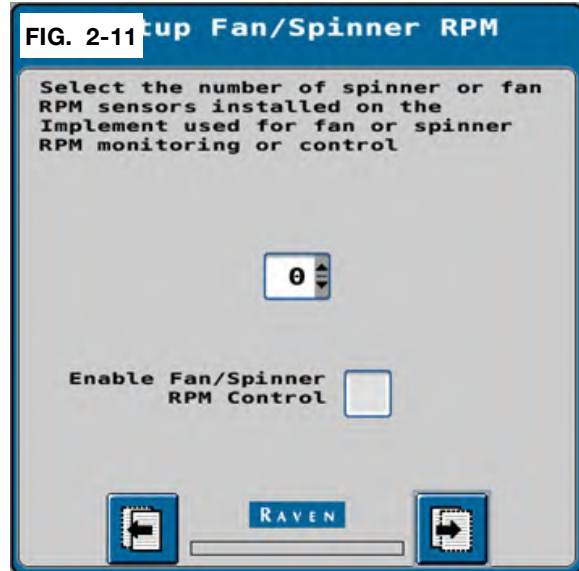
RCM-2668 1 1 ?

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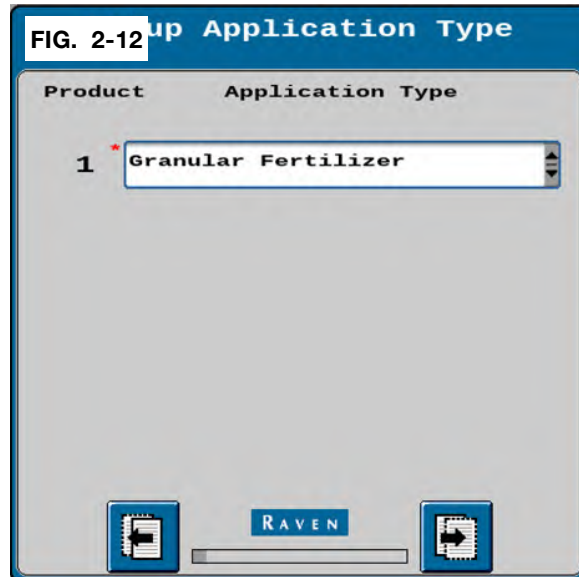
# 4-TON DRY FERTILIZER CADDY — Set Up

## RCM Set Up (continued)

7. Ensure “0” is selected for number of spinner or fan RPM sensors.
8. Press the Next Page icon.



9. Select “Granular Fertilizer” as the Application Type for Product 1.
10. Press the Next Page icon.

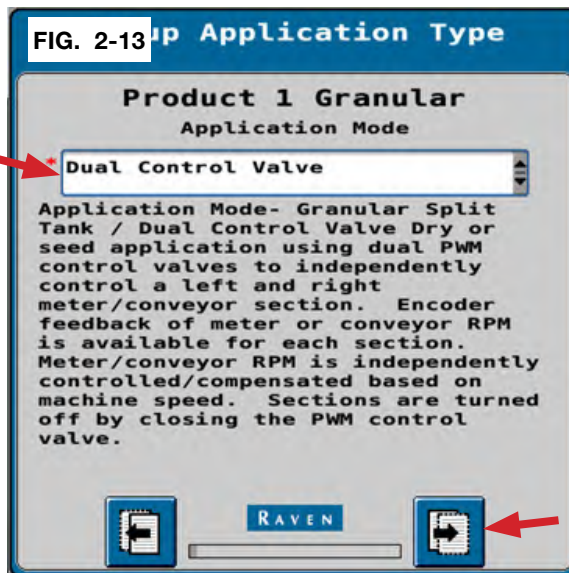


# 4-TON DRY FERTILIZER CADDY — Set Up

## RCM Set Up (continued)

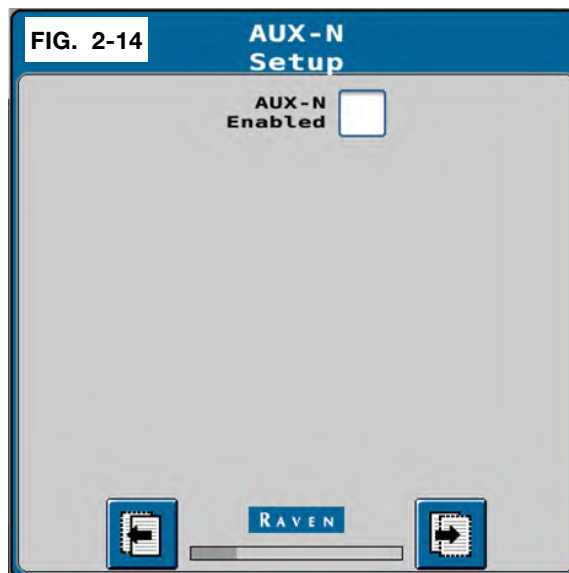
11. Select “Dual Control Valve” from the drop down menu for Product 1 Granular Application Mode.

12. Press the Next Page icon.



13. Ensure “AUX-N Setup” is unchecked.

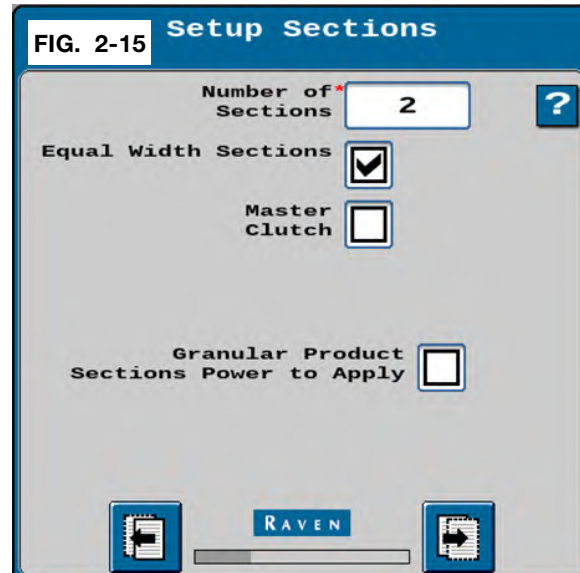
14. Press the Next Page icon.



## RCM Set Up (continued)

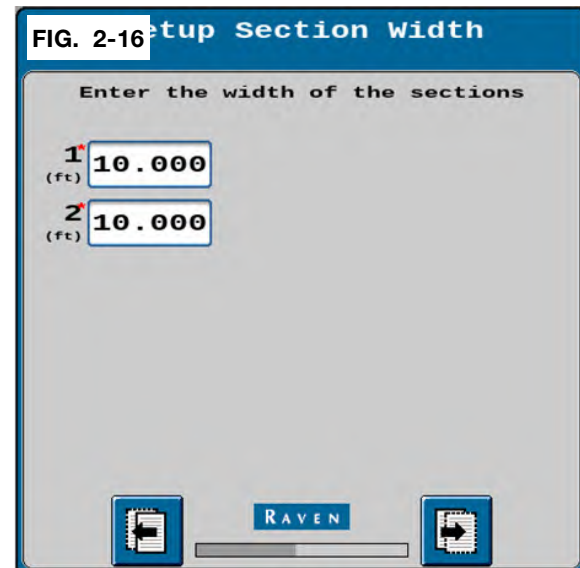
15. Select “2” for Number of Section Groups. Ensure Master Clutch and Granular Product Sections Power to Apply are both unchecked.

16. Press the Next Page icon.



17. Verify the correct widths of each section.

18. Press the Next Page icon.

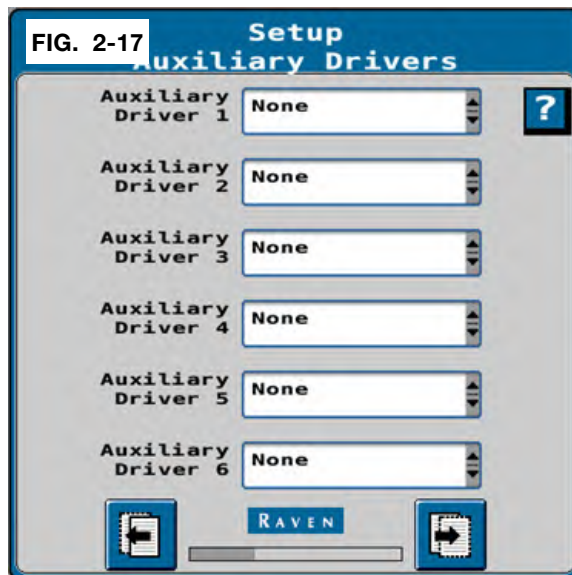


# 4-TON DRY FERTILIZER CADDY — Set Up

## RCM Set Up (continued)

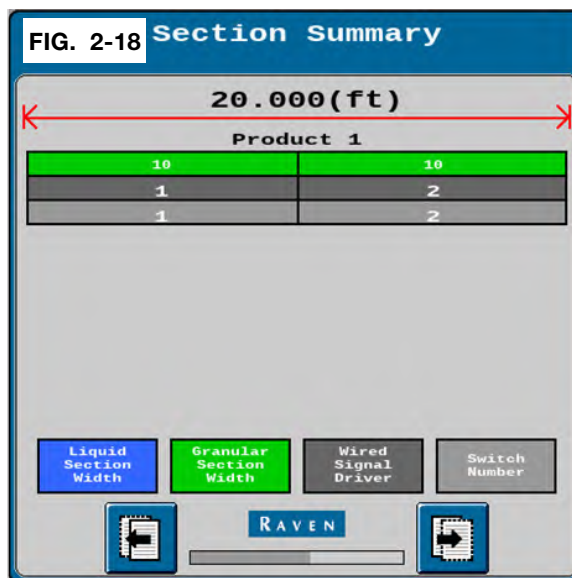
19. Ensure each box says “None”.

20. Press the Next Page icon.



21. Verify Section setup is correct.

22. Press the Next Page icon.



# 4-TON DRY FERTILIZER CADDY — Set Up

## RCM Set Up (continued)

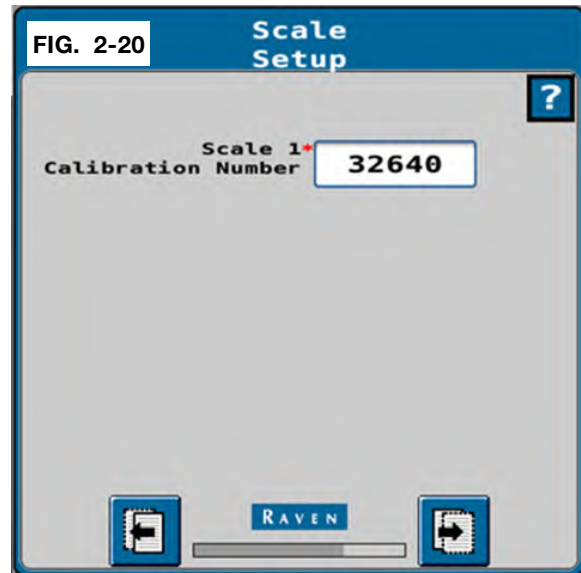
23. Select “Product Scale” and check each box next to Product Scale 1.

24. Press the Next Page icon.



25. Enter 32640 for the scale calibration number for “Scale 1 Calibration Number”.

26. Press the Next Page icon.

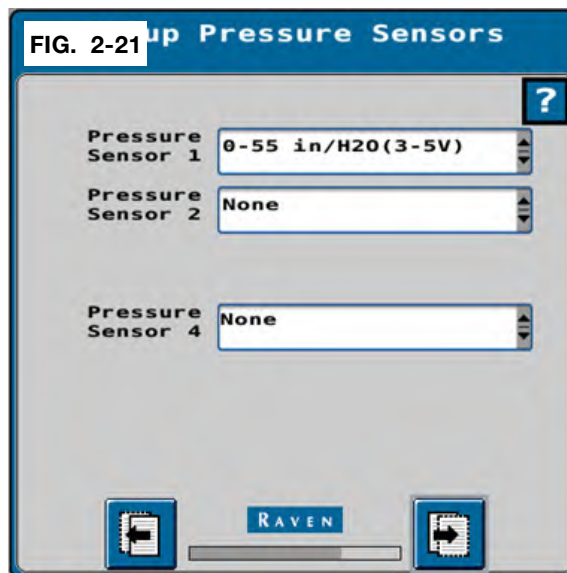


# 4-TON DRY FERTILIZER CADDY — Set Up

## RCM Set Up (continued)

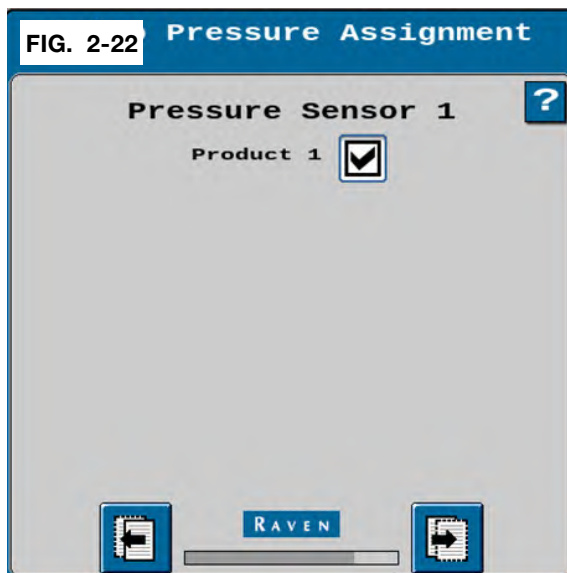
27. Select “0-55 in/H2O (3-5V)” for Pressure Sensor 1 from the drop down list

28. Press the Next Page icon.



29. Ensure “Product 1” is checked under “Pressure Sensor 1”.

30. Press the Next Page icon.



# 4-TON DRY FERTILIZER CADDY — Set Up

## RCM Set Up (continued)

31. For setting the pressure alarm, set the min to “10” and the max to “40”. These numbers can be adjusted later once normal operating pressure is determined.

32. Press the Next Page icon.

33. Set Height Switch.

FIG. 2-23 up Pressure Alarms

|                            | Min | Max | Alarm?                              |   |
|----------------------------|-----|-----|-------------------------------------|---|
| Pressure 1<br>(in. of H2O) | 10  | 40  | <input checked="" type="checkbox"/> | ? |
| Pressure 2<br>(PSI)        | 0   | 0   | <input type="checkbox"/>            |   |
| Pressure 3<br>(PSI)        | 0   | 0   | <input type="checkbox"/>            |   |
| Pressure 4<br>(PSI)        | 0   | 0   | <input type="checkbox"/>            |   |
| Pressure 5<br>(PSI)        | 0   | 0   | <input type="checkbox"/>            |   |
| Pressure 6<br>(PSI)        | 0   | 0   | <input type="checkbox"/>            |   |

Navigation icons: Previous Page, RAVEN, Next Page

FIG. 2-24 Auxiliary Functions

Height Switch: None

Navigation icons: Previous Page, RAVEN, Next Page

## RCM Set Up (continued)

34. For Product 1 Granular, select PWM Close for the control valve type.

35. Enter the desired Valve Response Rate and Control Deadband. Ensure Valve Delay is “0.0”. Make sure Enable PWM Smart Control is unchecked.

**NOTE:** Valve Response Rate - Has a range of 1 to 100 and the setting determines how aggressively the target rate is controlled to. Increasing this value will cause the system to respond more quickly. Decreasing it will cause a slower response. If the flow is slow to reach the target value consider increasing it.

**NOTE:** Control Deadband - Enter the percent of target rate the control value will control to. For example if 2% is entered the rate controller will attempt to adjust the flow rate until the actual rate is within 2% of the target rate.

**NOTE:** The pictured values are generic starting numbers. You can fine tune these values to best fit your application. The white question mark outlines what happens when adjusting each value setting.

36. Press the Next Page icon.

37. Enter “65” for coil frequency, “100” for PWM High Limit, “20” for PWM Low Limit, and “0” for PWM Startup.

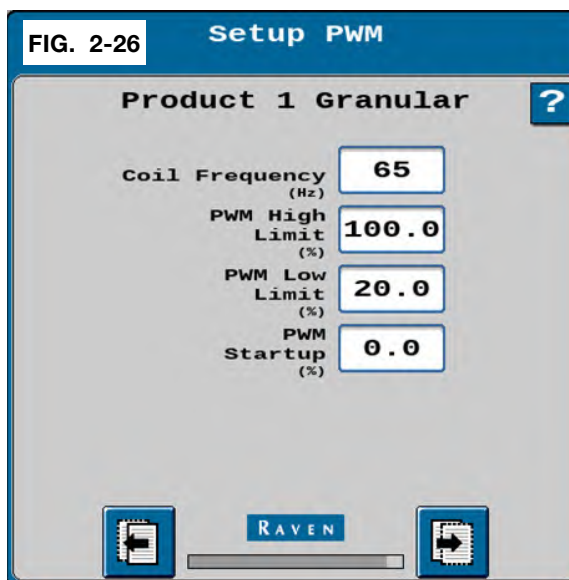
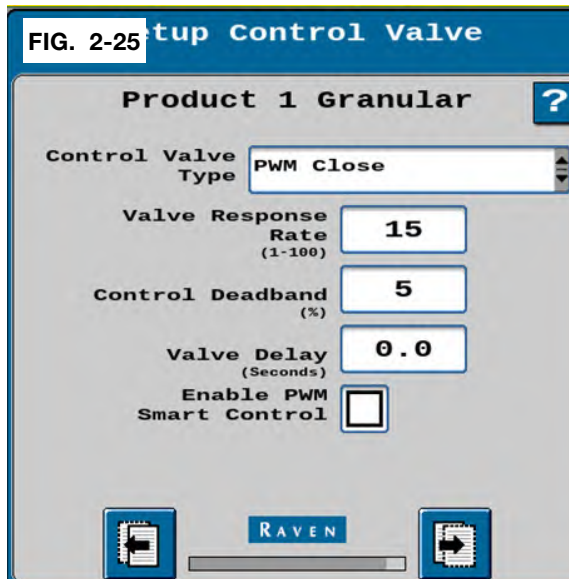
**NOTE:** Coil Frequency - This value sets the frequency of the pulses which are sent to the PWM valve. Refer to the valve manufacturer for appropriate settings.

**NOTE:** PWM High Limit - This value is the maximum PWM percent that the product controller will allow the system to go to when the product is turned on.

**NOTE:** PWM Low Limit - This value is the minimum PWM percent that the product controller will allow the system to go to when the product is turned on.

**NOTE:** PWM Startup - For PWM closed type valves this is the duty cycle that the PWM valve will be commanded to when the product is activated.

38. Press the Next Page icon.



## 4-TON DRY FERTILIZER CADDY — Set Up

### RCM Set Up (continued)

39. Determine the product density (lb/ft<sup>3</sup>) of the material to be applied. Enter this value for Product Density. For quick set-up purposes, you can use “66”.

The Calibration weight is the lb/Revolution applied for all the meters together. So we are solving the following:

Product Density (lb/ft<sup>3</sup>) x Meter Wheel Constant (ft<sup>3</sup>/Rev) x Number of Meter Wheels  
= Calibration Weight (lb/Rev)

lb/ft<sup>3</sup> x 0.01667 ft<sup>3</sup>/Rev x Number of Wheels = lb/Rev

A 6 Row machine would have three meter wheels. An 8 row machine will have four. Assuming a product density of 66 lb/ft<sup>3</sup>, our calculation will look like the following:

6 Row: 66 lb/ft<sup>3</sup> x 0.01667 ft<sup>3</sup>/Rev x 3 = 3.30 lb/Rev

8 Row: 66 lb/ft<sup>3</sup> x 0.01667 ft<sup>3</sup>/Rev x 4 = 4.40 lb/Rev

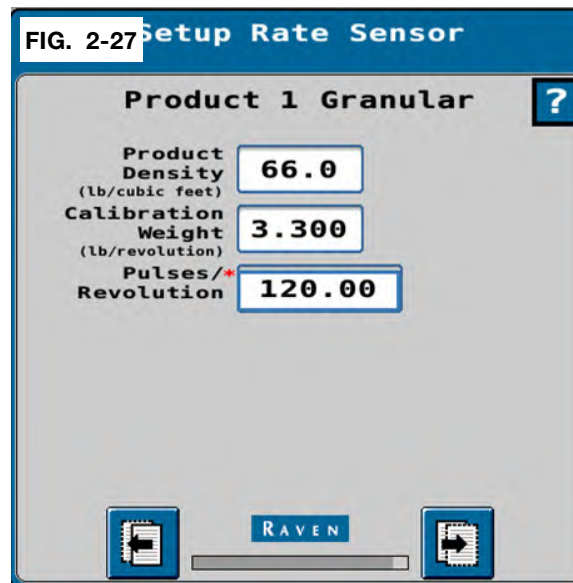
**NOTE:** Once the initial setup wizard is complete the RCM will remember the Cubic foot per rev of the meter wheel and automatically adjust the calibration weight per rev when changing the product density. Catch test will also affect this number.

**NOTE:** Reference the density number from the fertilizer supplier.

40. Enter “3.300” (6 Row) or “4.400” (8 Row) for Calibration Weight. Enter “120” for Pulses/Revolution.

**NOTE:** Calibration weights are initial suggestions, subject to change upon catch tests. The 120 pulses/revolution is a constant factor.

41. Press the Next Page Icon.



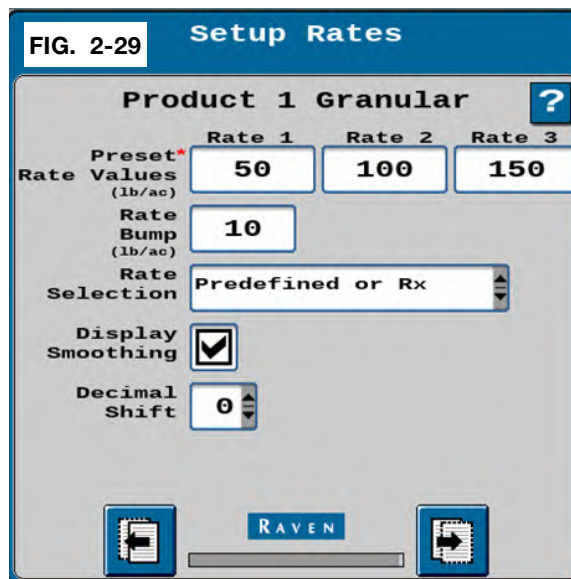
# 4-TON DRY FERTILIZER CADDY — Set Up

## RCM Set Up (continued)

42. Tank Capacity depends on product density. For testing purposes, “8000” is recommended.
43. Low Tank Level is the value an alarm is set off for a low bin level. Recommended setting is “500” and ensure the Alarm box is checked.
44. Ensure the Low Bin Level Sensor box is unchecked.
45. Press the Next Page Icon.



46. “Setup Rates” page controls the application rates for speed and determines how much product is being applied for Product 1. Enter three Preset Rate Values, as desired, which can be clicked between on the home screen. On the home screen, target rates can be changed as well.
47. Enter Rate Bump value in an increment as desired.
48. For Rate Selection, select “Predefined or Rx”. This enables selection of rate from the preset value choices or from a prescription map that is imported from a Universal Terminal.
49. Check Display Smoothing and select “0” for Decimal Shift.
50. Press the Next Page icon.



# 4-TON DRY FERTILIZER CADDY — Set Up

## RCM Set Up (continued)

51. Enter 20 for Off Rate Alarm and check Alarm? box. Make sure the Alarm? box for Split Belt/Dual Encoder Alarm is unchecked.



**NOTE:** Alarm prompts when over 20% off target rate.

52. Press the Next Page icon.

**FIG. 2-30 Setup Alarms**

**Product 1 Granular** ?

|                                       |                                 |  |
|---------------------------------------|---------------------------------|--|
| Off Rate Alarm<br>(% off target rate) | <input type="text" value="20"/> | Alarm? <input checked="" type="checkbox"/> |
| Split Belt/Dual<br>Encoder Alarm      | <input type="text" value="10"/> | <input type="checkbox"/>                   |

 **RAVEN** 

53. No action required on this screen. Shows the setup summary. Make sure all the values are correct.



54. Press the Next Page icon to finish the RCM set-up

**FIG. 2-31 Setup Summary**

Profile Name Raptor 4-Ton Cart  
Machine Type Air Cart

Number of Products 1  
Number of Sections 2  
Implement Width(ft) 20.000  
Switchbox Present No  
Master Clutch No

Granular Product Sections Power to Apply No

 **RAVEN** 

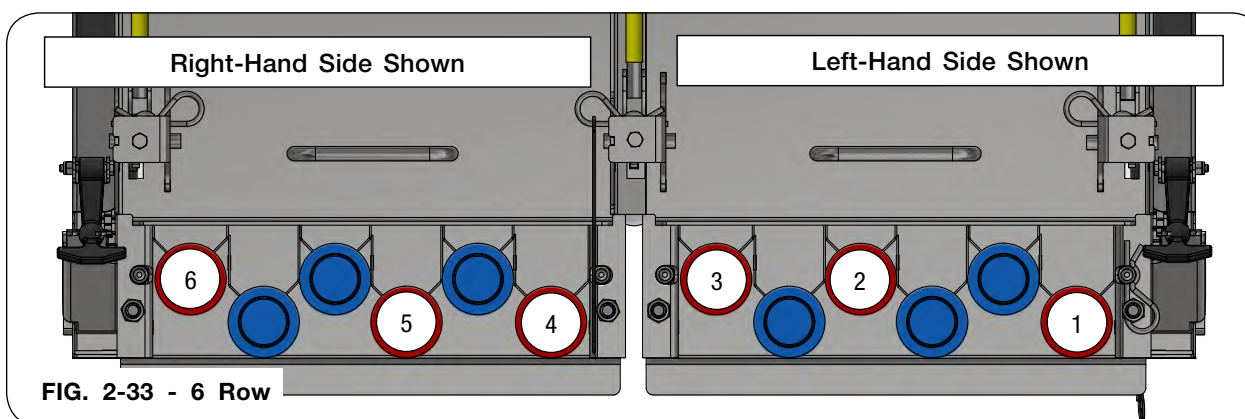
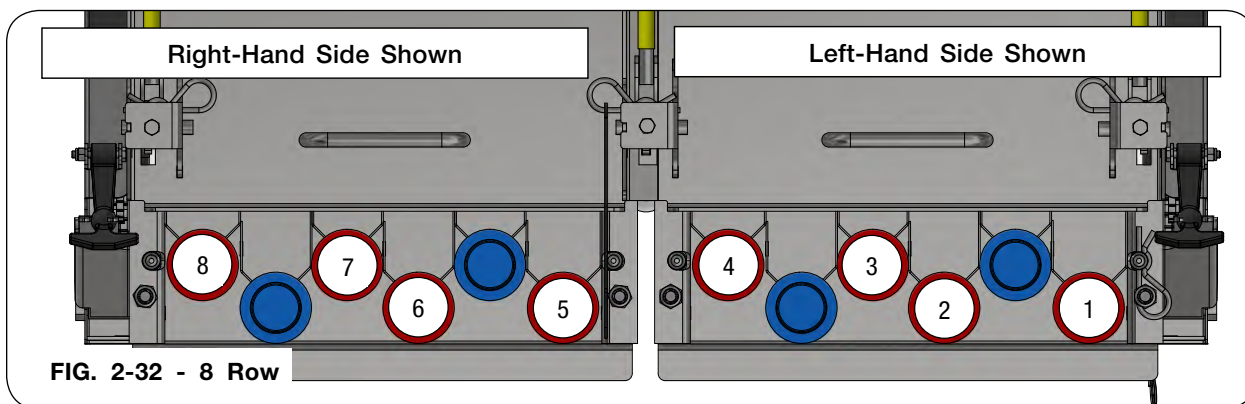
# 4-TON DRY FERTILIZER CADDY — Set Up

## Fertilizer Hoses — 2.5" ID Delivery Hose

Make sure all fertilizer hoses are connected to the rows, and routed so they will not get pinched when folding or lifting the toolbar.

It is important for the hoses to be connected in the correct arrangement at the front of the caddy. This will ensure proper air flow to each of the rows.

1. Attach the 2 1/2" dia. suction hose to the rear of the distribution box. Hose rows are shown below. (8 Row FIG. 2-32; 6 Row FIG. 2-33)



**NOTE:** Excessive 2 1/2" dia suction hose length may need to be trimmed for proper fitting.

## 4-TON DRY FERTILIZER CADDY — Set Up

### Notes

## **SECTION III**

# **Operation**

|  |      |
|--|------|
| General Operation Information .....    | 3-2  |
| Preparing Tractor.....                 | 3-2  |
| Preparing Raptor Strip-Till Tool ..... | 3-3  |
| Hardware .....                         | 3-3  |
| Pins.....                              | 3-3  |
| Hydraulics .....                       | 3-3  |
| Lubrication .....                      | 3-3  |
| Tire Pressure .....                    | 3-3  |
| Attaching To Tractor.....              | 3-4  |
| Electrical Hook-Up .....               | 3-4  |
| Hydraulic Hook-Up.....                 | 3-4  |
| Transporting.....                      | 3-5  |
| Ladder Operation.....                  | 3-6  |
| Working Position .....                 | 3-6  |
| Transport Position .....               | 3-8  |
| Dry Fertilizer Caddy Operation .....   | 3-9  |
| Lid Operation.....                     | 3-8  |
| Filling Tank .....                     | 3-11 |
| Fan Speed .....                        | 3-11 |
| Lights.....                            | 3-11 |
| Meter Housing Flow .....               | 3-12 |
| Applying Fertilizer .....              | 3-13 |
| Scraping Tank Material.....            | 3-14 |
| Scale Calibration Procedure.....       | 3-15 |
| Catch Test Procedure.....              | 3-17 |

### General Operation Information

#### **WARNING**

- **READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN THIS MANUAL IF NECESSARY.**

Read this operation section thoroughly. Acquaint yourself with the adjustments required to obtain efficient and trouble-free operations.

### Preparing Tractor

Before operating implement refer to tractor operator's manual for information concerning safe methods of operation, hydraulics, hitch adjustment, tire inflation, wheel adjustments, and tractor weights.

Check tractor brakes and transport lights. Make sure they are in proper working order.

Check tractor hydraulic oil reservoir and add oil if needed.

Be sure tractor drawbar has sufficient capacity to operate the implement.

### Preparing Raptor Strip-Till Tool

Perform the service checks as outlined below. Repair or replace any damaged or worn parts before operating.

#### Hardware

Before going to the field, check all hardware for tightness. Recheck all bolts for tightness, after the unit has been operated for several hours.

#### CAUTION

- **IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGULARLY. SEE TORQUE PAGE IN THE "MAINTENANCE" SECTION FOR PROPER WHEEL NUT/BOLT SPECIFICATIONS. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.**

#### Pins

Before going to the field, check that all pins are in place and are in good condition. Replace any worn, damaged, or missing pins.

Check that locking hardware for pins are in place and tight.

#### Hydraulics

Check routing of all hydraulic hoses. Hoses should not be kinked, twisted, or rubbing against sharp edges. Hoses should be secure with tie straps.

Check hoses and fittings for hydraulic leaks. Tighten or replace as required.

#### Lubrication

Lubricate unit as outlined in MAINTENANCE section.

#### Tire Pressure

Check tire pressure, see MAINTENANCE section for recommended air pressure. Be sure tire pressure is equal in all tires.

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty. Tire manufacturers' phone numbers and web sites are listed in the MAINTENANCE section of this manual for your convenience.

## Attaching To Tractor

### Electrical Hook-Up

**NOTE:** Unverferth Manufacturing has designed the transport lighting and marking kit to meet United States federal law and ASABE standards at the time of manufacture. Machine modifications, including additional features or changes to the intended configurations, may require updates to the lighting and marking as well.

Compliance with all lighting and marking laws is the responsibility of the operator at the time of travel.

See federal regulation 49 CFR 562; available at [www.govinfo.gov](http://www.govinfo.gov) for US federal law requirements.

See your Unverferth dealer for additional brackets, reflectors, or lights to meet your requirements.

Connect the main, light harness to the tractor.

Fertilizer caddy requires ISO connection to tractor. Connect ISO harness, and route foot switch harness into tractor cab.

### Hydraulic Hook-Up

#### **WARNING**

- **ALWAYS RELIEVE HYDRAULIC SYSTEM PRESSURE BEFORE DISCONNECTING HOSES FROM TRACTOR OR SERVICING HYDRAULIC SYSTEM. SEE TRACTOR OPERATOR'S MANUAL FOR PROPER PROCEDURES.**

**NOTE:** Refer to MAINTENANCE section when checking hydraulic circuit operation.

Check tractor operator's manual for correct hydraulic connection to tractor. Fan connection requires continuous flow of approximately 20 gpm. Meter motor connection requires continuous flow of approximately 15 gpm.

#### **IMPORTANT**

- *Case drain is required. Failure to properly connect case drain will result in damage to fan and meter motors.*

## 4-TON DRY FERTILIZER CADDY — Operation

### Transporting

#### DANGER

- ELECTROCUTION WILL CAUSE SERIOUS INJURY OR DEATH. THE IMPLEMENT IS NOT INSULATED. KEEP AWAY FROM ALL ELECTRICAL LINES AND DEVICES. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT.

#### WARNING

- USE TRANSPORT LIGHTS AS REQUIRED BY ALL LAWS TO ADEQUATELY WARN OPERATORS OF OTHER VEHICLES.
- ALWAYS TRAVEL AT A SPEED WHICH PERMITS COMPLETE CONTROL OF TRACTOR AND IMPLEMENT.

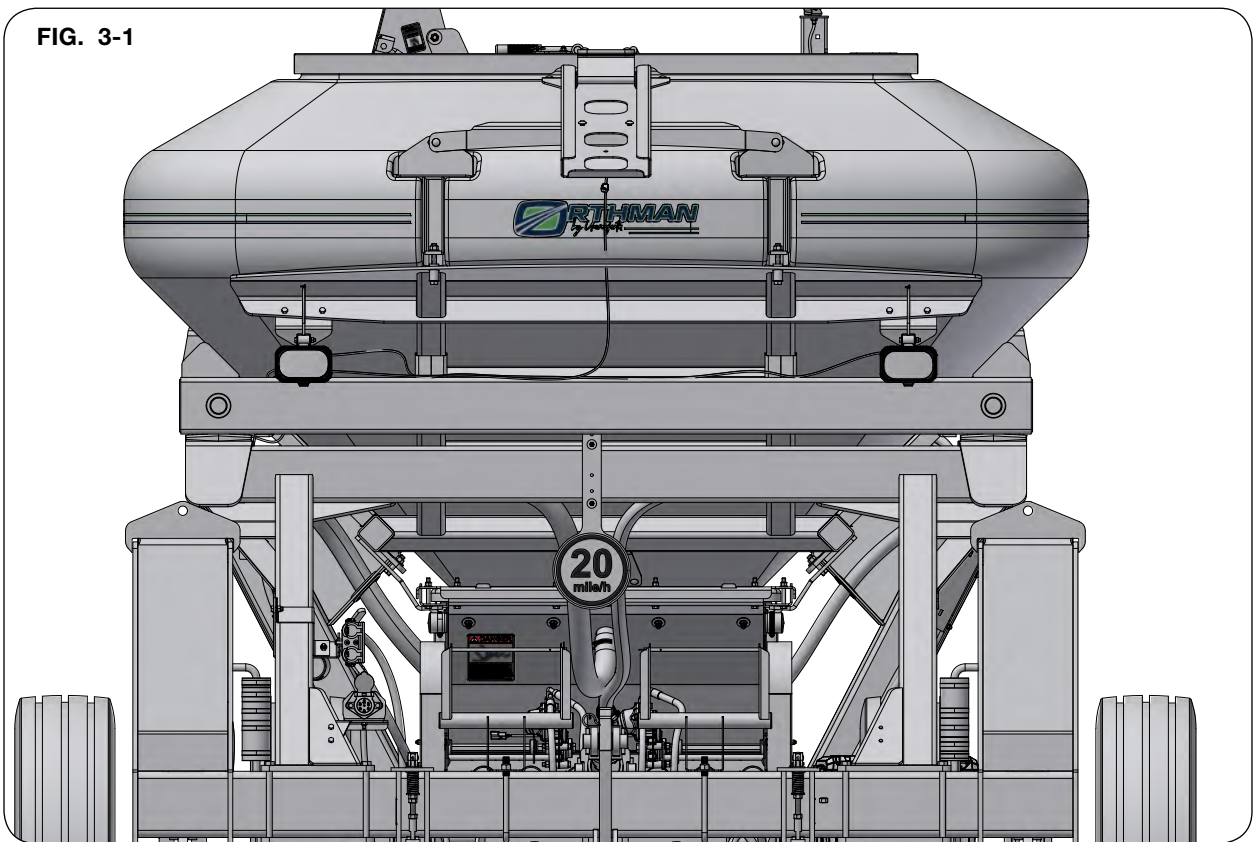
Before unit is transported, be sure the jackstand is in the “Transport Position” in this section.

For safe transporting of this implement, the transport speed should never exceed 10 m.p.h. in the field or over rough terrain. Reduce transport speed to maintain full control of the implement and tractor at all times. Do not exceed 20 m.p.h. when transporting the implement on the highway.

Comply with all laws governing highway safety and regulation when moving machinery on public roads.

Be sure lights and reflectors are in place and clearly visible to approaching traffic.

FIG. 3-1



## Ladder Operation

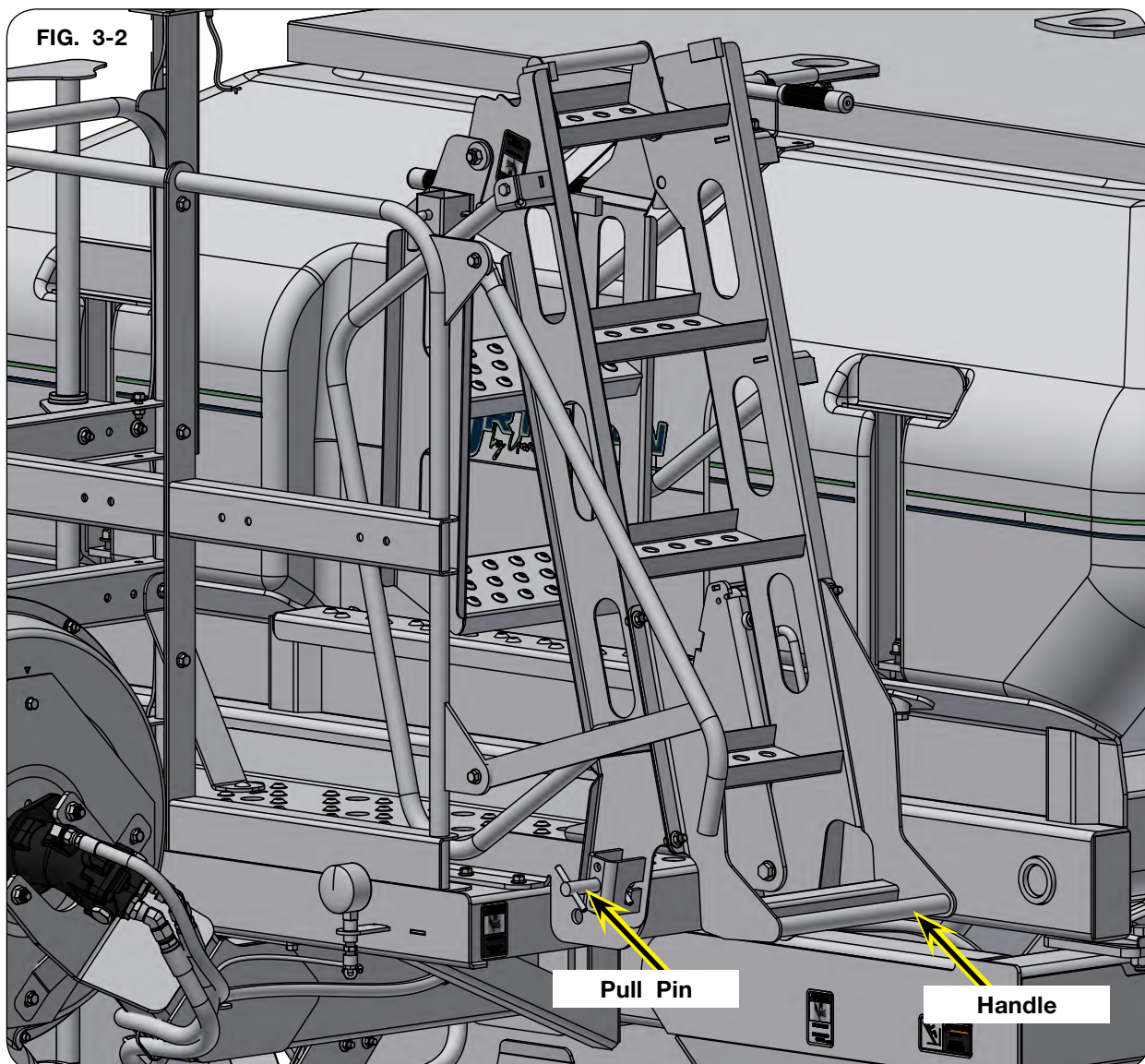
### **⚠ WARNING**

- **FALLING OR LOWERING EQUIPMENT CAN CAUSE SERIOUS INJURY OR DEATH. KEEP EVERYONE AWAY FROM EQUIPMENT WHEN SUSPENDED, RAISING, OR LOWERING.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **DO NOT ALLOW ANYONE TO RIDE ON THE LADDER. MAKE SURE EVERYONE IS CLEAR BEFORE OPERATING MACHINE OR TOWING VEHICLE.**

**NOTE:** Ensure ladder and steps are free from snow/debris before changing ladder positions and climbing.

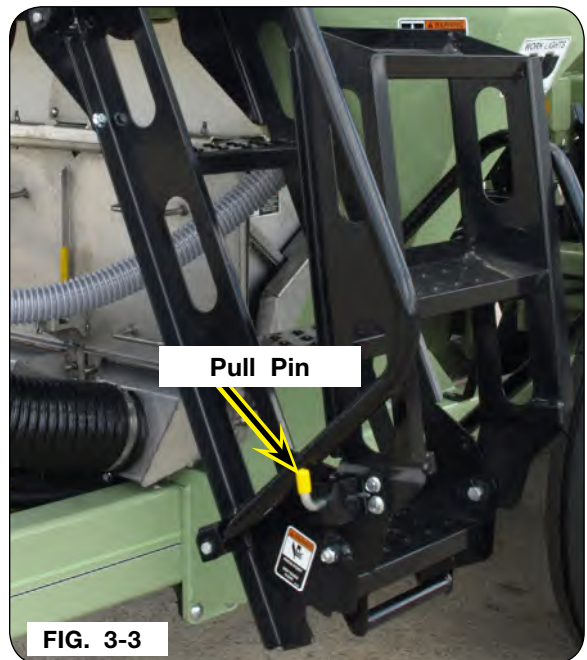
## Working Position

Pull pin and turn to unlock the ladder (FIG. 3-6). Lower the main section of the ladder using the handle. (FIG. 3-2)



## Ladder Operation (continued)

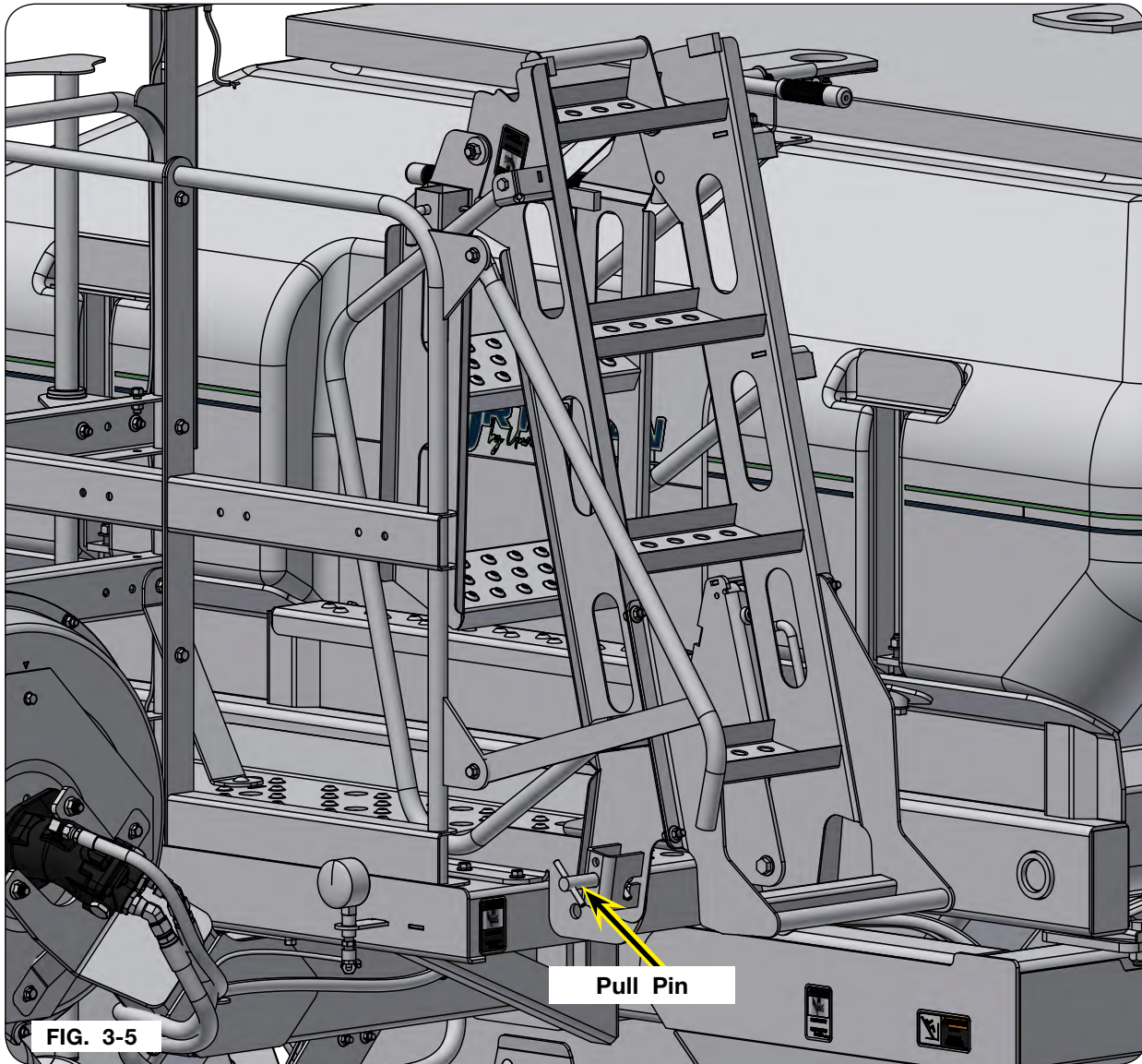
Pull lower pin and lower the bottom section of the ladder into working position. (FIG. 3-3 & FIG. 3-4)



## Ladder Operation (continued)

### Transport Position

To place the ladder in the transport position, lift the bottom section of the ladder. Pull and turn the top pin. Raise the lower and middle section of the ladder into transport position.



## Dry Fertilizer Caddy Operation

### DANGER

- NEVER WALK ON OR PLAY IN GRANULAR MATERIAL. GRANULAR MATERIAL CAN BRIDGE AND COLLAPSE TRAPPING VICTIM. COLLAPSING AND FLOWING GRANULAR MATERIAL CAN SUFFOCATE VICTIM IN SECONDS.

### WARNING

- KEEP HANDS CLEAR OF PINCH POINT AREAS.
- NEVER ENTER TANK WITH TRACTOR RUNNING. SERIOUS OR FATAL INJURY CAN OCCUR DUE TO ENTANGLEMENT WITH ROTATING COMPONENTS. ALWAYS STOP ENGINE AND REMOVE KEY BEFORE ENTERING TANK.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.
- TO PREVENT PERSONAL INJURY OR DEATH, ALWAYS ENSURE THAT THERE ARE PEOPLE WHO REMAIN OUTSIDE THE TANK TO ASSIST THE PERSON WORKING INSIDE, AND THAT ALL SAFE WORKPLACE PRACTICES ARE FOLLOWED. THERE IS RESTRICTED MOBILITY AND LIMITED EXIT PATHS WHEN WORKING INSIDE THE IMPLEMENT.

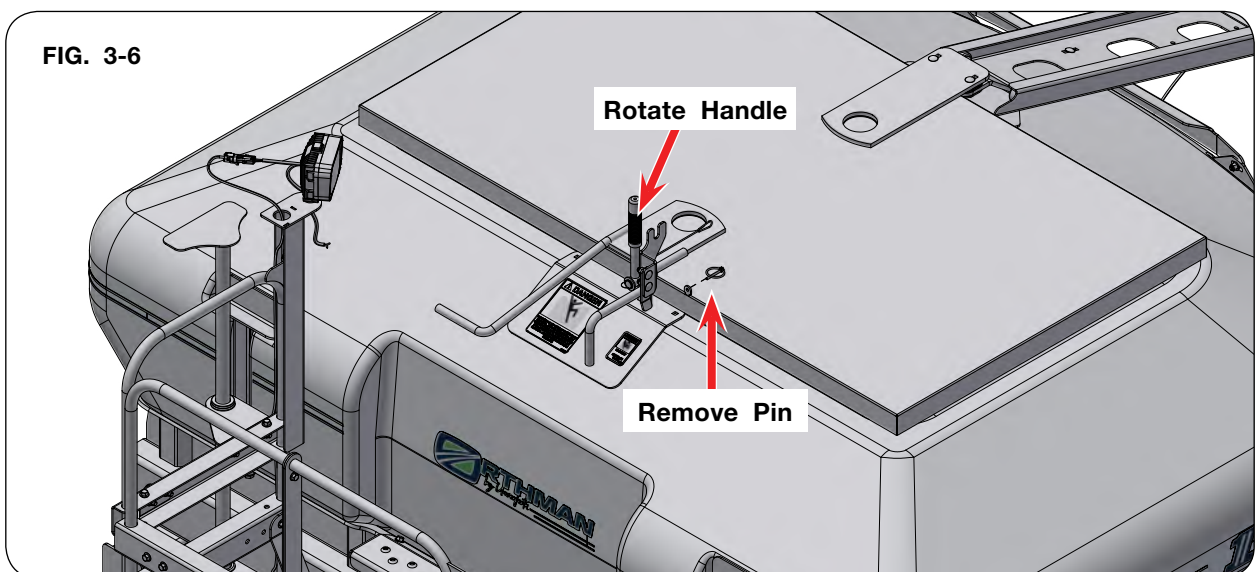
**NOTE:** Park the unit on a firm level surface. Block the tires on the unit to prevent it from moving. Set the tractor parking brake.

## Lid Operation

**NOTE:** Open lid only when the fan is not running.

1. Remove the klik pin.
2. Rotate the latch handle.

FIG. 3-6



## Dry Fertilizer Caddy Operation (continued)

3. Lift and push the lid open for tank access.

FIG. 3-7

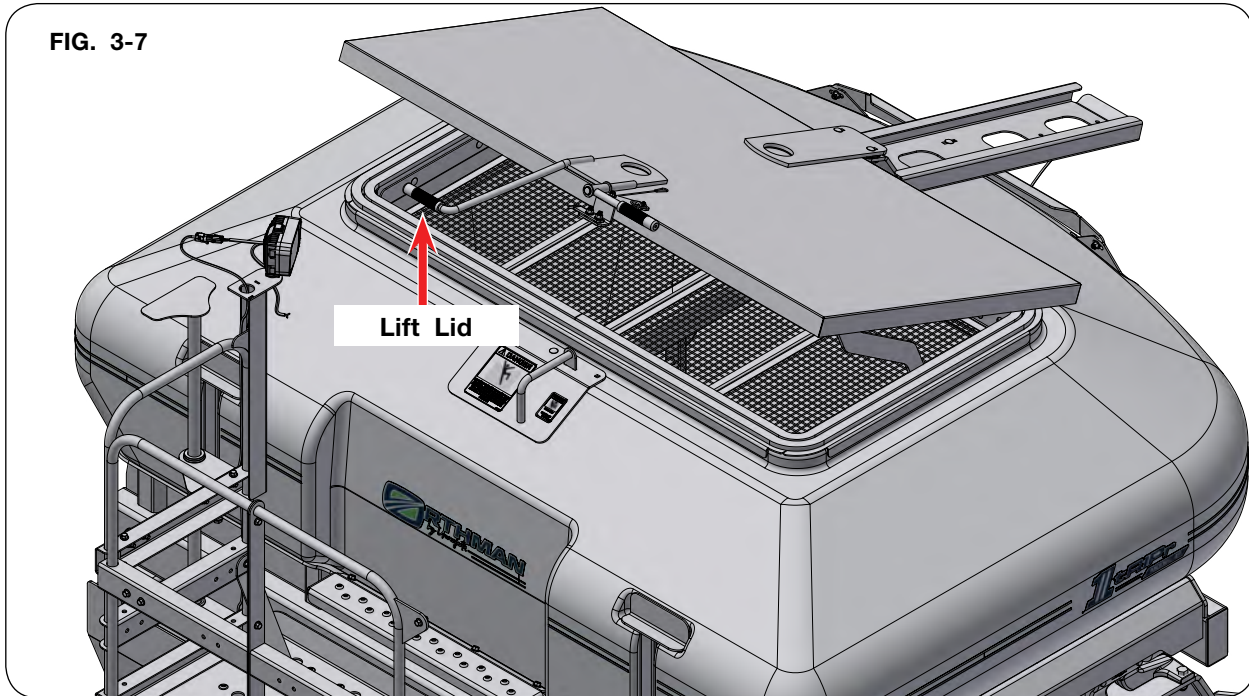
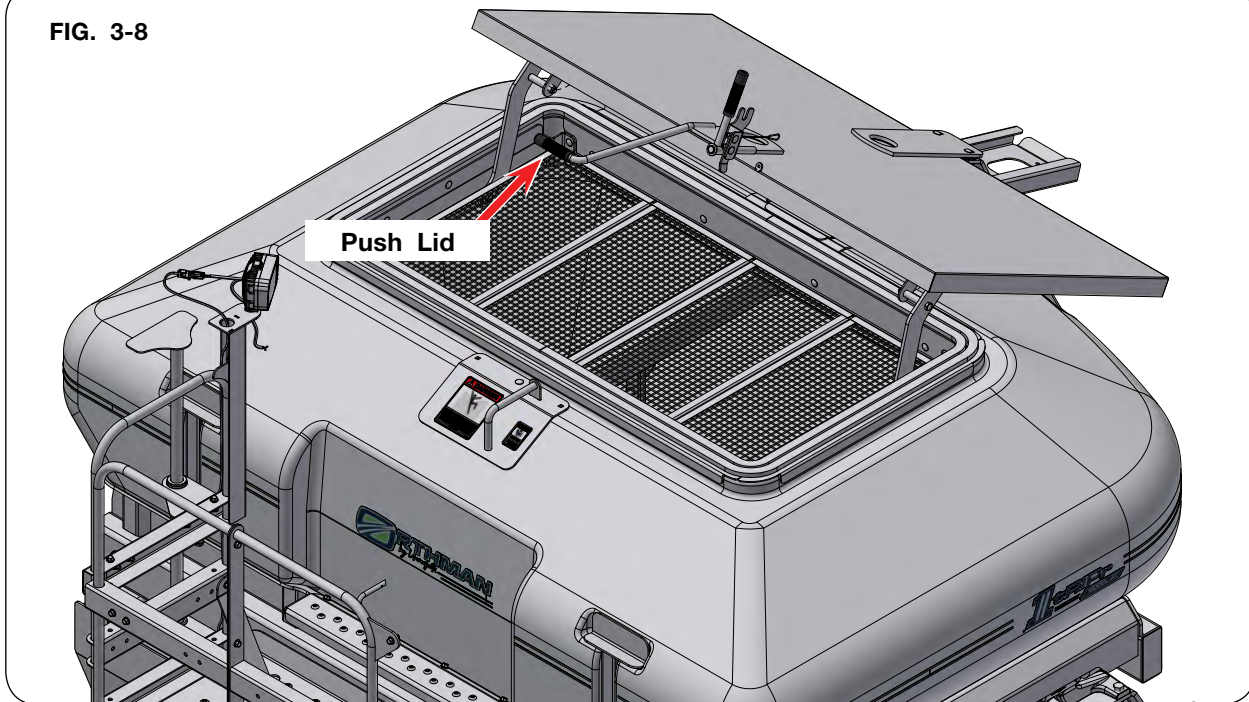


FIG. 3-8



4. Close the lid, latch the handle, and reinstall the klik pin.

**NOTE:** The user can ensure the lids are sealed by engaging the fan hydraulics and feeling around the closed lids for air leaks.

## 4-TON DRY FERTILIZER CADDY — Operation

### Dry Fertilizer Caddy Operation (continued)

#### Filling Tank

1. Make sure fan and meters are turned off prior to opening lids.
2. Remove click pin, turn latch handle, lift lid.

#### IMPORTANT

- *Verify that all safety shields are in place and properly secured.*
3. Must keep screens in place to prevent larger debris (stones, clumps, etc.) from getting into tank that could damage or plug meter wheels and air hoses.
  4. Fertilizer must be dry! Every attempt needs to be made to prevent any wet clumps or sticky fertilizer from getting inside tank.
  5. Tender trucks should be positioned to fill the tank evenly. Care must be taken not to damage lids or tank edges while positioning the tender trucks in place.
  6. Fill tank with only the amount of fertilizer needed for that day. Empty tank daily. Fertilizer left in tank can attract moisture which leads to caking/compaction of fertilizer and poor flow from the tank.
  7. After filling, tank lids must be closed and latched in place before operating.

#### Fan Speed

**NOTE:** There is one gauge in front of the tank, the other one is a pressure transducer that shows the pressure on the tractor screen and is located on the air manifold connected to the fan.

1. Set fan speed as close to 30 inches of water as possible using the SCV on the tractor.

#### IMPORTANT

- *Do not exceed 20 GPM on the tractor for the fan.*
2. While the fan does have the ability to spin down to a stop. It is recommend that the hydraulics be shut down into float.

#### Lights

There are switches on the back, left-hand side of the caddy. They are for the platform lights and the fan light on the rear of the caddy.

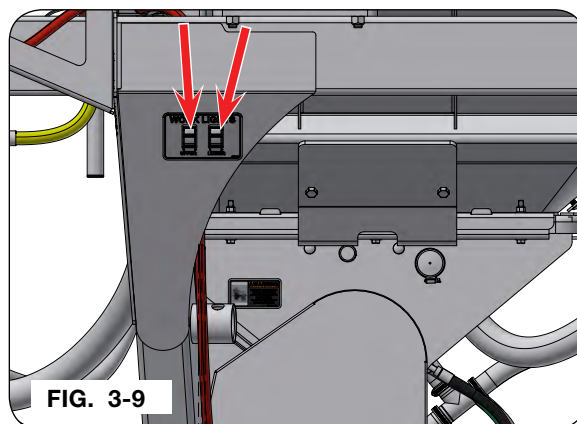


FIG. 3-9

# 4-TON DRY FERTILIZER CADDY — Operation

## Dry Fertilizer Caddy Operation (continued)

### Meter Housing Flow

1. Park the unit on a firm level surface. Block the tires on the unit to prevent it from moving. Set the tractor parking brake.
2. Remove the cotter pin, and rotate the lever out. Repeat process for all of the levers retaining the cover assembly doors.

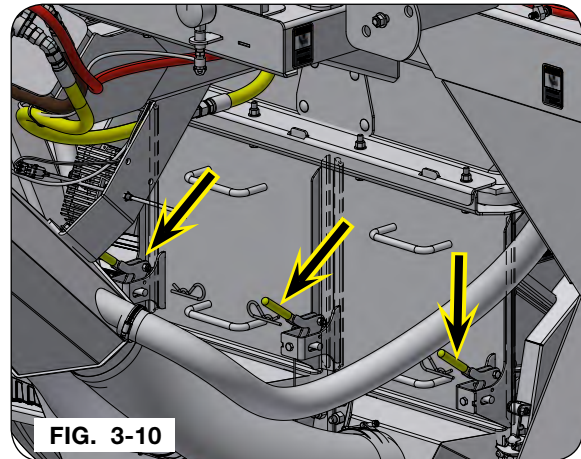
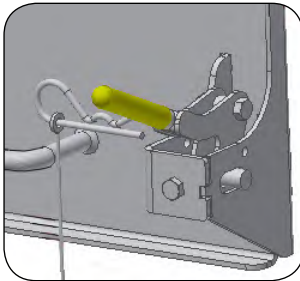


FIG. 3-10

3. Remove and save the cover assembly doors.
4. Make sure the only meter doors that are open are the ones with the meter wheels.

### IMPORTANT

- Opening the meter doors without a meter wheel will result in loss of material.

5. Reinstall the cover assembly doors and secure with all the levers and secure with cotter pins.

### IMPORTANT

- If cover assembly doors are not properly shut, granular material will leak when operated.

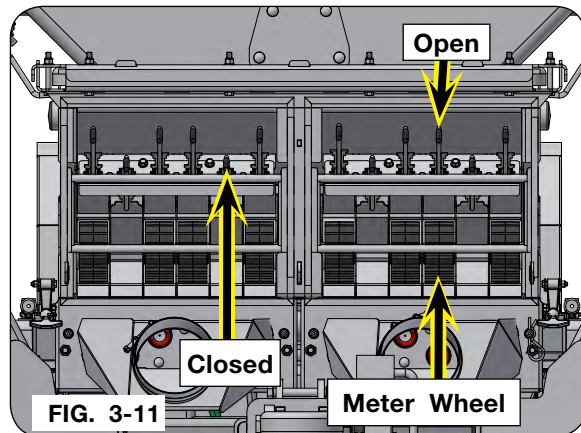


FIG. 3-11

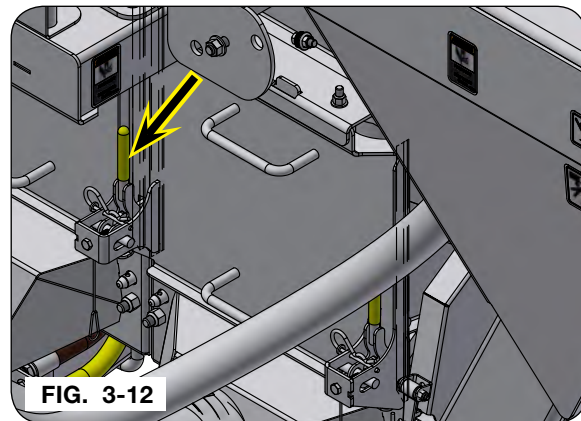


FIG. 3-12

### Dry Fertilizer Caddy Operation (continued)

#### Applying Fertilizer

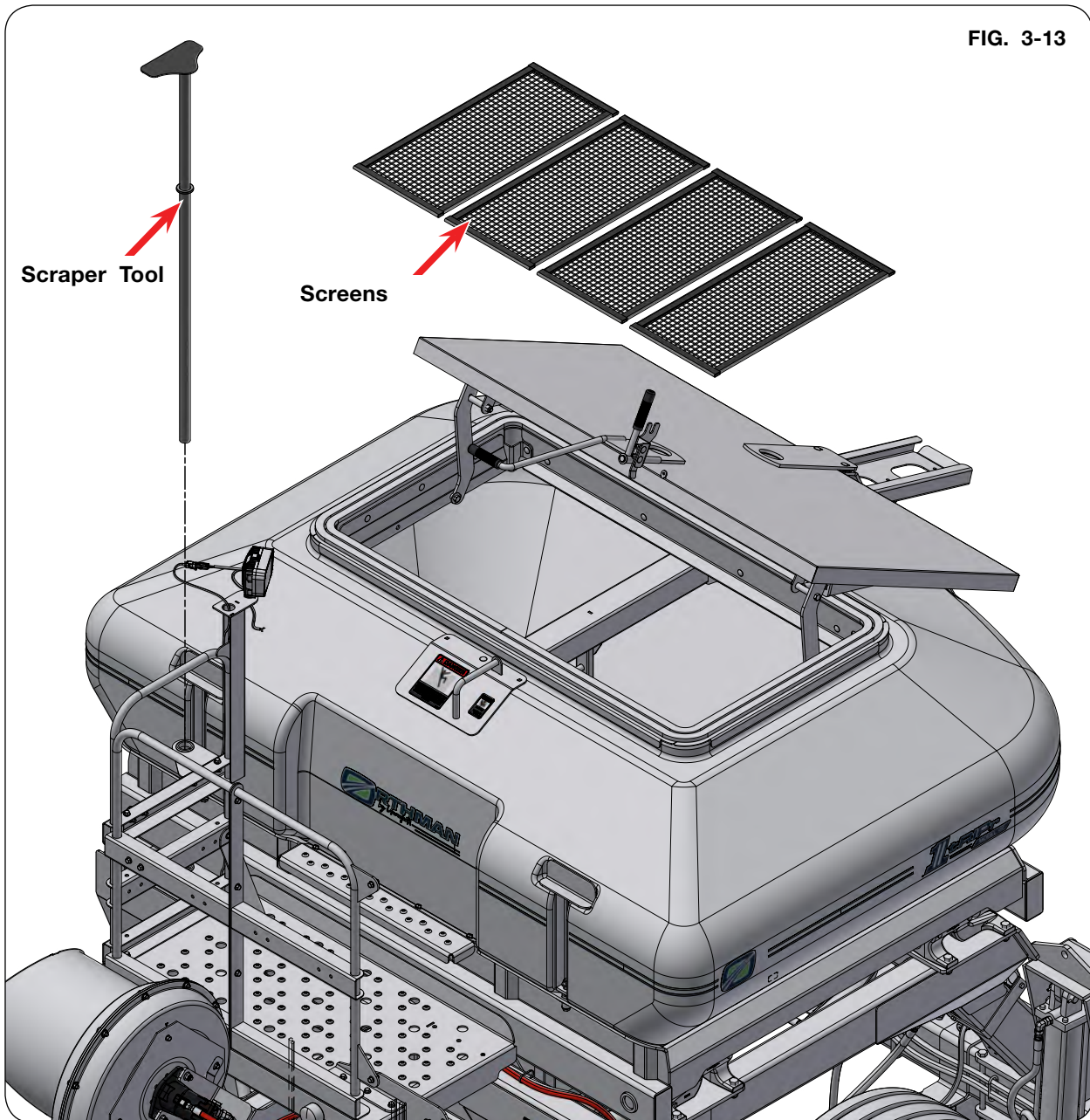
1. For best results, use fertilizers of uniform granule size, and minimal fine dust. Avoid fertilizers that contain a high percentage of fine dust, as these materials can plug meter rollers and coat the inside of the air system, resulting in more frequent cleaning.
2. Be aware of weather conditions, especially high humidity and/or fog. Fertilizers attract moisture quickly. This can result in poor fertilizer flow from the tank, and caking of material in the meters/hoses.
3. Set tractor SCV for fan to generate approximately 30" H<sub>2</sub>O pressure as read on the pressure gauge on the front of the unit.
4. Fan should be started and ran for approximately 10 minutes at the start of the day prior to starting meters. Thereafter, any time the fan is shut down, it should be started and ran 3-5 minutes before starting meters. This will pressurize the tank, and clear out the lines.
5. Set the application rates.
6. At the beginning of each day, and after each fill, do a self-test to verify that fertilizer is flowing from the tank to each row unit.

## Dry Fertilizer Caddy Operation (continued)

### Scraping Tank Material

**NOTE:** The scraper tool is used to unplugged bridged fertilizer in addition to leveling off the product during the filling process.

1. Remove and save the screens from the tank.
2. Use the scraper tool mounted on the platform handrail to remove the material from the walls of the tank.



3. Replace screens and scraper tool.

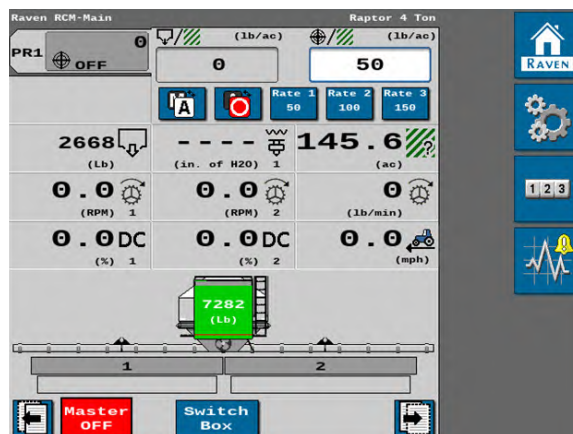
# 4-TON DRY FERTILIZER CADDY — Operation

## Scale Calibration Procedure

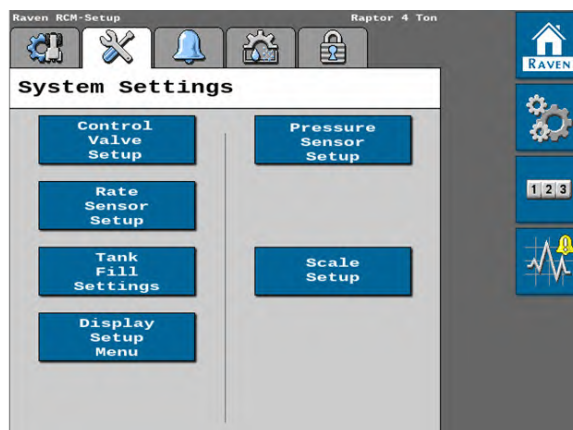
**NOTE:** It is highly beneficial to have the tank level when calibrating. Lower the implement to hold the product bin as level as possible for the duration of the procedure.

This calibration procedure needs to be completed for each product bin after a new machine profile is created. This scale calibration procedure can also be used if the scale weight reading is inaccurate to the actual product weight.

1. Press the settings page icon.

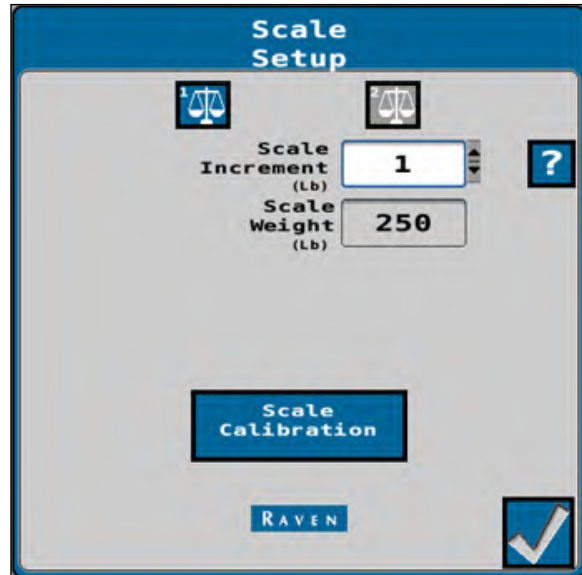


2. Press the System Settings page icon.
3. Press the Scale Setup icon.

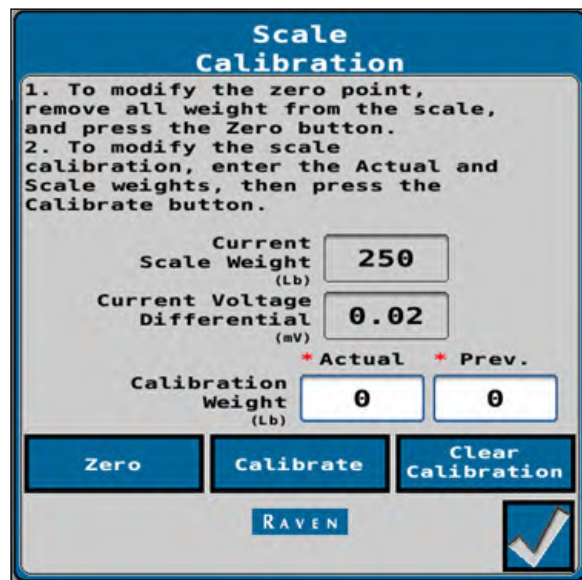


## Scale Calibration Procedure (continued)

4. Press the Scale Calibration icon.
5. Enter the certified weight into the Actual weight selection box.



6. Enter the Current Scale Weight into the previous weight selection box.
7. Select Calibrate and accept the changed calibration number.



# 4-TON DRY FERTILIZER CADDY — Operation

## Catch Test Procedure

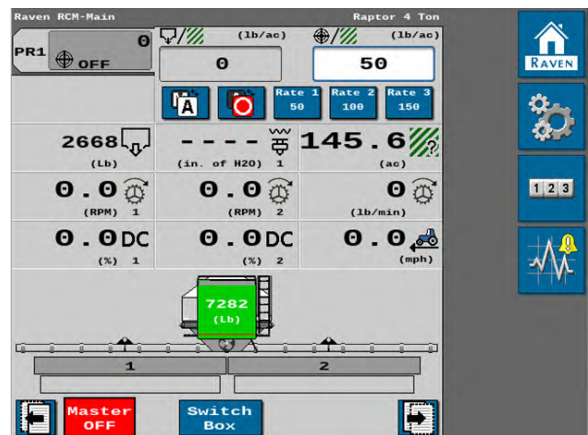
### **WARNING**

- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.

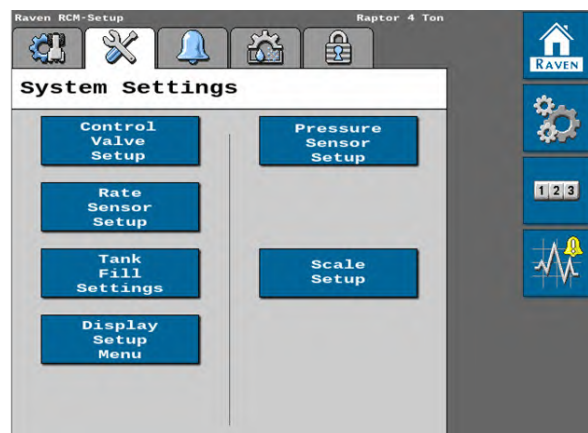
**NOTE:** A catch test should be completed for product bin.

**NOTE:** It is highly beneficial to have the tank level when calibrating. Lower the implement to hold the product bin as level as possible for the duration of the procedure.

1. Prime product meter by running the meters in self-test.
2. Place catch containers under each row unit fertilizer discharge pipe.
3. Press the settings page icon.



4. Press the System Settings page icon.
5. Press the Rate Sensor Setup icon.



## Catch Test Procedure (continued)

6. Select the Product to be calibrated on the top of the page.
7. Press the Catch Test Calibration icon.

**NOTE:** If the Catch Test Calibration icon does not appear in blue, make sure your master switch is off and the test speed is 0.

**Setup Rate Sensor**

PR1

Pulses/Revolution 120.00 ?

Product Density (lb/cubic feet) 66.0

Calibration Weight (lb/revolution) 3.300

Catch Test Calibration Applied Product Calibration

RAVEN

8. A warning note will pop up saying that movement of the machine will occur. Press the green checkmark to acknowledge.

**WARNING**

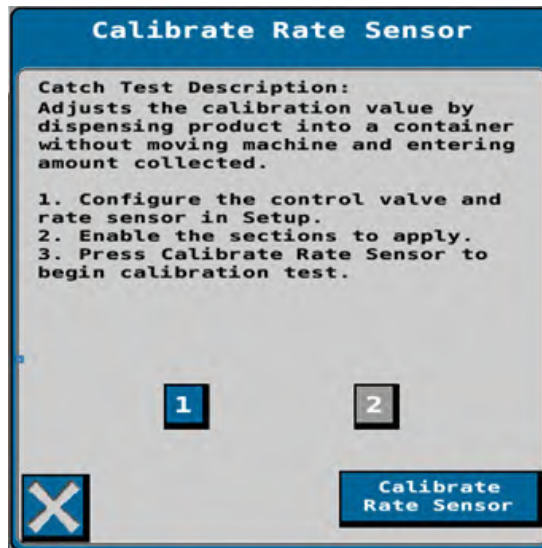
Running this test will cause implement movement. Product may be ejected from the implement.

To avoid injury ensure that no bystanders are in the vicinity and keep clear from moving machinery.

If necessary use the master switch to stop operation.

## Catch Test Procedure (continued)

9. Select the sections that have catch containers place under the rows and press Calibrate Rate Sensor. You can do either half of the machine, or the whole



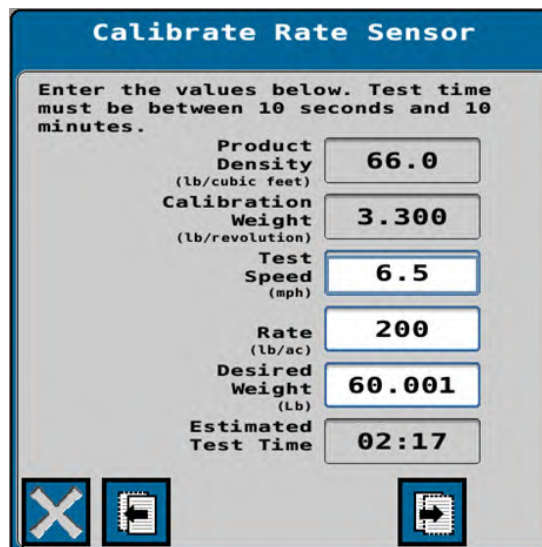
10. Enter a test speed that is similar to what will be ran during in field operation.

11. Enter the application rate that will be used during in field operation.

12. Enter the desired amount of material to be caught.

**NOTE:** The amount of weight collected must be less than the size of your catch containers. It is recommended to catch at least 40 lbs. although a larger amount of material collected will lead to a more accurate calibration.

13. Select the Next Page icon.



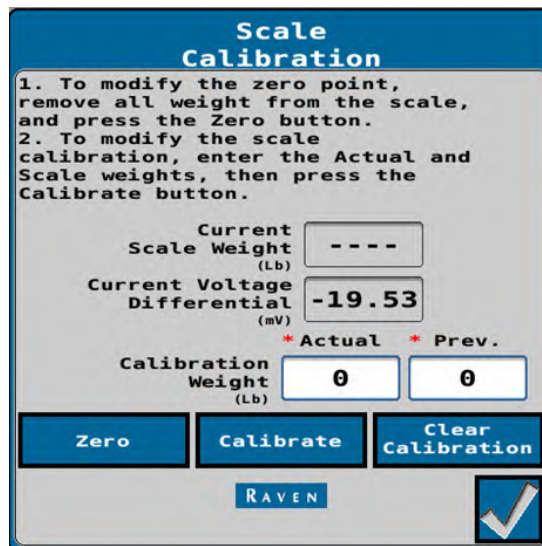
14. Turn the master switch on and select Start.

**NOTE:** Make sure hydraulic flow is turned on for the meters and the fan.

15. After the test is complete. Collect the material from each catch container and weigh the total dispensed weight.

16. Enter this weight into the RCM and select the blue check mark to complete the catch test calibration.

17. Repeat Steps 7-16 to verify accuracy.



**Notes**

## **SECTION IV**

# **Maintenance**

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## 4-TON DRY FERTILIZER CADDY — Maintenance

### Lubrication

To keep your implement in top operating condition and to assure its proper performance and reliability for a long period of time, periodic inspection and lubrication is a must.

Use EP-2 lubricant. All exposed cylinder rods should be coated with grease before seasonal storage to prevent rusting. After seasonal storage, check wing latch for freedom of movement.

### Hub/Wheel Bearings

The wheel bearings should be cleaned, repacked and adjusted once per season. Use a number 2 wheel bearing grease to repack the bearings and adjust the bearing to a free-rolling fit with no end play.

### Adjustable Link

Grease the link every 50 hours during use and at the end of each season. Turn adjustable link two full turns in each direction to ensure threads do not seize.

### Hydraulic System

Refer to parts section for hydraulic component detail listing.

When properly assembled and maintained, the hydraulic system of the CADDY requires little maintenance.

Replacing Hoses/Fittings/Cylinders:

1. Use replacement hoses, fittings, and cylinders from your Unverferth Manufacturing dealer which are rated for 3000 psi.
2. Do not use hoses, fittings and cylinders that have pipe threads.
3. Do not use teflon tape or thread sealant on JIC or O-ring fittings. Tighten fittings per Torque Chart in MAINTENANCE section.
4. When replacing hoses, always allow sufficient slack to permit hoses to move through the full range of motion of the cylinders.
5. Always purge the hydraulic system after servicing. See SET UP section for details.

### **WARNING**

- **RELIEVE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.**
- **HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.**
- **HIGH-PRESSURE FLUIDS CAN PENETRATE THE SKIN AND CAUSE SERIOUS INJURY OR DEATH. LEAKS OF HIGH-PRESSURE FLUIDS MAY NOT BE VISIBLE. USE CARDBOARD OR WOOD TO DETECT LEAKS IN THE HYDRAULIC SYSTEM. SEEK MEDICAL TREATMENT IMMEDIATELY IF INJURED BY HIGH-PRESSURE FLUIDS.**

## How To Clean Out Meter Housing Assembly

1. Park the unit on a firm level surface. Block the tires on the unit to prevent it from moving. Set the vehicle parking brake, shut off the engine, and remove the ignition key.
2. Remove the cotter pin, and rotate the lever out. Repeat process for all of the levers retaining the cover assembly doors.
3. Remove and save the cover assembly doors. (FIG. 4-1)

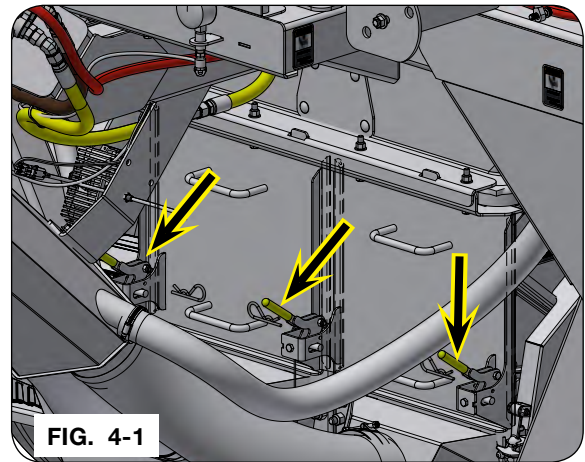
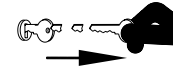


FIG. 4-1

4. Close **ALL** the meter doors. (FIG. 4-2)

### IMPORTANT

- Failure to close **ALL** the meter doors will result in loss of material.

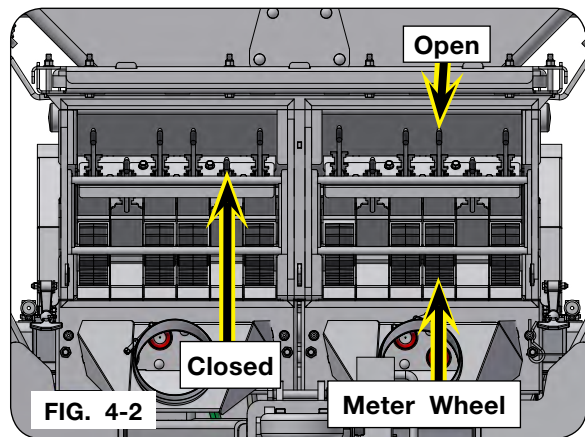


FIG. 4-2

5. Unlatch the left-hand and right-hand shield weldment panels and rotate them out of the way. (FIG. 4-3)

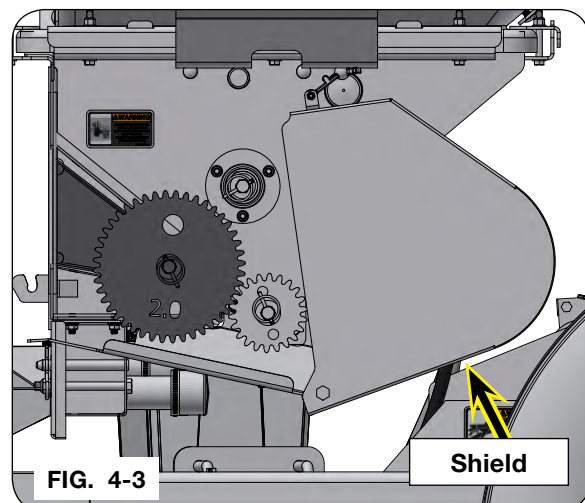
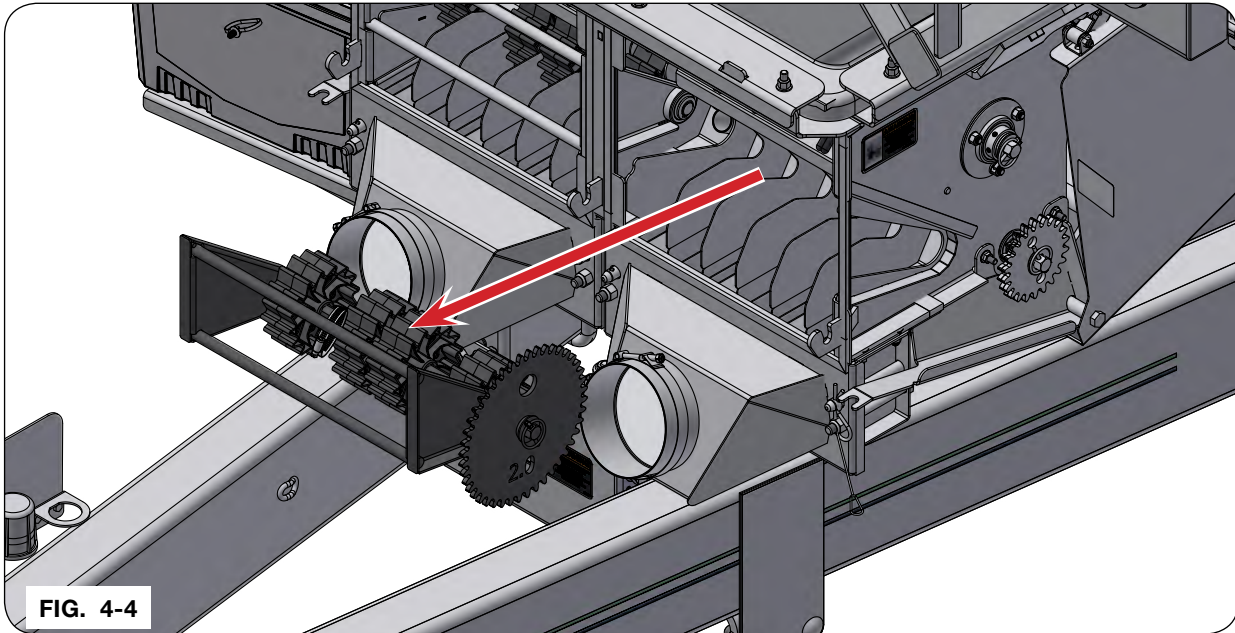


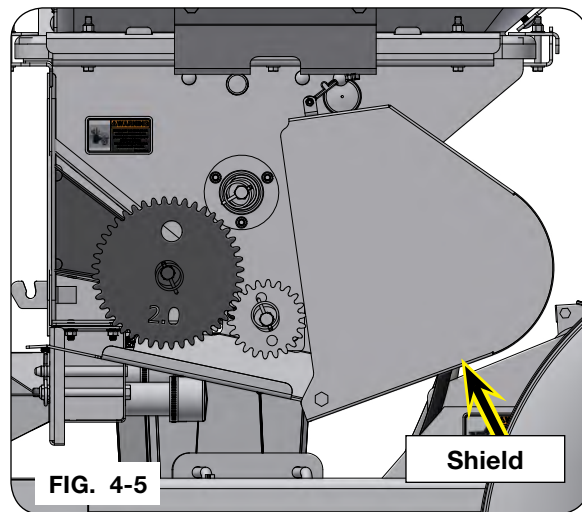
FIG. 4-3

## How To Clean Out Meter Housing Assembly (continued)

6. Remove the meter wheel housing section. (FIG. 4-4)

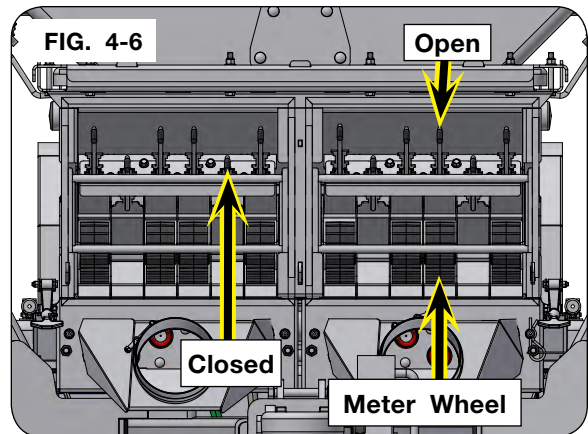


7. Clean out the meter housing assembly.
8. Replace the meter wheel housing section and making sure the sprockets align. (FIG 4-4)
9. Rotate the left-hand and right-hand shield weldment panels back into place and secure the latches. (FIG. 4-5)

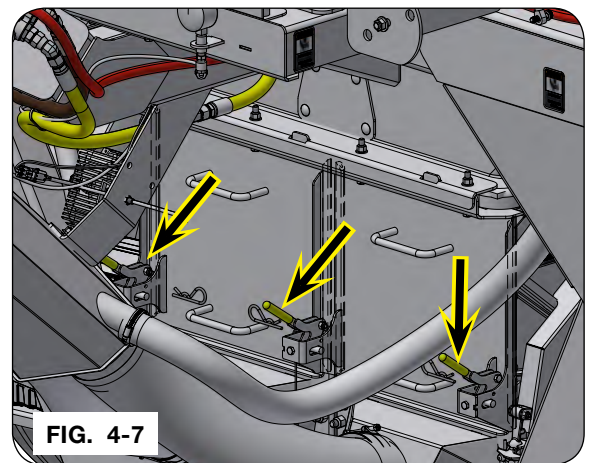


### How To Clean Out Meter Housing Assembly (continued)

10. Open the meter doors with metering wheels only. (FIG. 4-6)



11. Rotate the lever out and reinstall the cotter pin. Repeat process for all of the levers retaining the cover assembly doors. (FIG. 4-7)



### How To Empty The Tank

There are two ways to empty the tank.

1st Way - Empty the tank by running it in the field until all the product is used.

2nd Way - Place a large enough container below the caddy to catch the material in the tank. Remove the cover assembly doors, remove the meter wheel housing section, and open the meter doors.

**NOTE:** Refer to “How To Clean Out Meter Housing Assembly” on how to open and close the meter doors.

### Wheel, Hub & Spindle Disassembly and Assembly

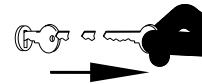
#### **WARNING**

- TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE MACHINE IS SECURELY BLOCKED.
- FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 12,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.
- KEEP HANDS CLEAR OF PINCH POINT AREAS.

#### **CAUTION**

- IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. TORQUE WHEEL NUTS/BOLTS TO VALUES IN TABLE. CHECK TORQUE BEFORE USE, AFTER ONE HOUR OF UNLOADED USE OR AFTER FIRST LOAD, AND EACH LOAD UNTIL WHEEL NUTS/BOLTS MAINTAIN TORQUE VALUE. CHECK TORQUE EVERY 10 HOURS OF USE THERE-AFTER. AFTER EACH WHEEL REMOVAL START TORQUE PROCESS FROM BEGINNING. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.

1. Hitch unit to tractor. Park the empty unit on a firm, level surface. Block the tires to keep the machine from moving. Set the tractor's parking brake, shut off engine and remove key from tractor.



2. Use a safe lifting device rated at 12,000 lbs. to support the weight of your empty, dry applicator caddy. Place the safe lifting device under the axle closest to the tire.
3. Use a minimum of 1,500 lbs. safe lifting device to support the wheel and tire during removal.
4. If only changing wheel and tire, skip to Step 8; otherwise continue with Step 4.

Remove the hubcap, cotter pin, slotted nut, and washer. Remove hub with bearings from old spindle using a 200 lbs. lifting device.

5. Inspect the spindle and replace if necessary. If spindle does not need to be replaced, skip to Step 6; otherwise continue with Step 5.

**NOTE:** Remove the capscrew and locknut that retain the spindle to the axle. Using a safe lifting device rated for 150 lbs., replace the old spindle with a new spindle. Coat axle contact length of spindle shaft with anti-seize lubricant prior to installation. Reuse bolt and lock nut to retain spindle to axle. Tighten as outlined in MAINTENANCE section.

### Wheel, Hub & Spindle Disassembly and Assembly (continued)

6. Remove seal and inspect bearings, washer, slotted nut and cotter pin. Replace if necessary.
7. Pack bearings with EP2 bearing grease.
8. Assemble inner bearing and grease seal. DO NOT damage seal.
9. Using a 100 lb rated lifting device, install hub and outer bearing onto the spindle. Rotate hub while installing hub so that seal lip does not fold under as the lip goes on the seal face of the spindle.
10. Fill cavity between inner and outer bearings approximately 75% with EP2 bearing grease.
11. Be sure the outer cone slides on the spindle and into the cup.

### **IMPORTANT**

- *Do not use an impact wrench!*

12. Assemble washer and nut onto spindle and tighten nut to 30-40 Ft.-Lbs. while rotating hub to seat bearings. DO NOT move hub after this step is completed.
13. Back off nut until it becomes loose.
14. Finger tighten nut by hand without rotating hub.
15. Tighten nut to align next slot with hole in spindle and install cotter pin. DO NOT bend cotter pin.
16. Check for looseness in hub. Hub should not wiggle. If it does, remove cotter pin, tighten nut one more slot, insert cotter pin, repeat step 15.
17. Check for drag while rotating hub. Hub should rotate with slight resistance. If it drags excessively, repeat procedure starting with step 9.
18. Bend legs of cotter pin over sides of nut. DO NOT bend over the end of the spindle.
19. Fill hub cap with EP2 bearing grease. Install the hub cap.
20. Attach the wheel(s) and tire(s) to the hub using the same rated safe lifting device for removal. Tighten wheel nuts to appropriate requirements and recheck as outlined in the Wheel and Tire section of this manual.
21. Raise dry applicator caddy, remove lifting device and lower unit to the ground.

### Daily Service

#### Beginning of Day

**NOTE:** Before initial use, ensure all lubrication points have been greased.

Check all U-bolts and bolts for tightness. This is especially important during the first days of operation. See “Torque Chart” in this section.

#### **IMPORTANT**

- *Inspect mast pins for any wear or damage. Replace any worn or damaged pins.*

Perform any daily lubrication outlined in “Lubrication” in this section.

Check stabilizer tire air pressure and inflate to correct pressure, if necessary.

#### **IMPORTANT**

- *To assure level penetration of shanks, both tires must be inflated to the same pressure.*

#### End of Day

Clean off dirt and residue which may have accumulated on implement during operation.

Check implement for damage which could have occurred during operation, and repair.

### Annual Service

#### Beginning of Season

#### **WARNING**

- **READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW "SAFETY" SECTION IN THIS MANUAL IF NECESSARY.**

Check all bolts, U-bolts, and wheel bolts for tightness. Refer to “Torque Chart” in this section.

Lubricate implement (see “Lubrication” in this section).

Check air pressure in tires and inflate to correct pressure if necessary (see “Daily Service” in this section).

#### End of Season

Your implement is an important investment. Spend a little time to protect it from destructive rust and corrosion. You will be repaid in longer service life and better performance.

Perform the following before placing the implement in storage:

1. Remove dirt and residue which could cause rusting.
2. Repaint any chipped or scraped areas.
3. Lubricate implement (see “Lubrication” in this section).
4. Coat all earth moving surfaces with grease or suitable rust preventatives.
5. Inspect for damaged parts. Replace before next season.
6. Store implement inside, away from livestock.
7. Use support stands to keep implement tires and points up off bare ground.
8. Replace all worn, torn or faded decals and reflectors.

### Storage

Your implement is an important investment. Spend a little time to protect it from destructive rust and corrosion. You will be repaid in longer service life and better performance.

Perform the following before placing the implement in storage:

1. Run unit till tank is empty.
2. Open access panels to meters and air system. Using air (do not use water), blow all remaining fertilizer particles and dust from inside tank, down through meters and air system. Ensure all seals are in good condition, and close all access panels.
3. Exterior of tank and meters can be cleaned with water. When this is complete, operate fan for sufficient time to dry out any water that may get into meters and air system.
4. Remove dirt and trash which could cause rusting.
5. Repaint any chipped or scraped areas.
6. Coat all unpainted surfaces with grease or suitable rust preventative.
7. Inspect for damage or worn parts. Replace before next season.
8. Store implement inside, away from livestock.
9. Use blocking to keep implement tires off from bare ground.
10. Replace any reflectors or decals that have become worn, torn, or faded.

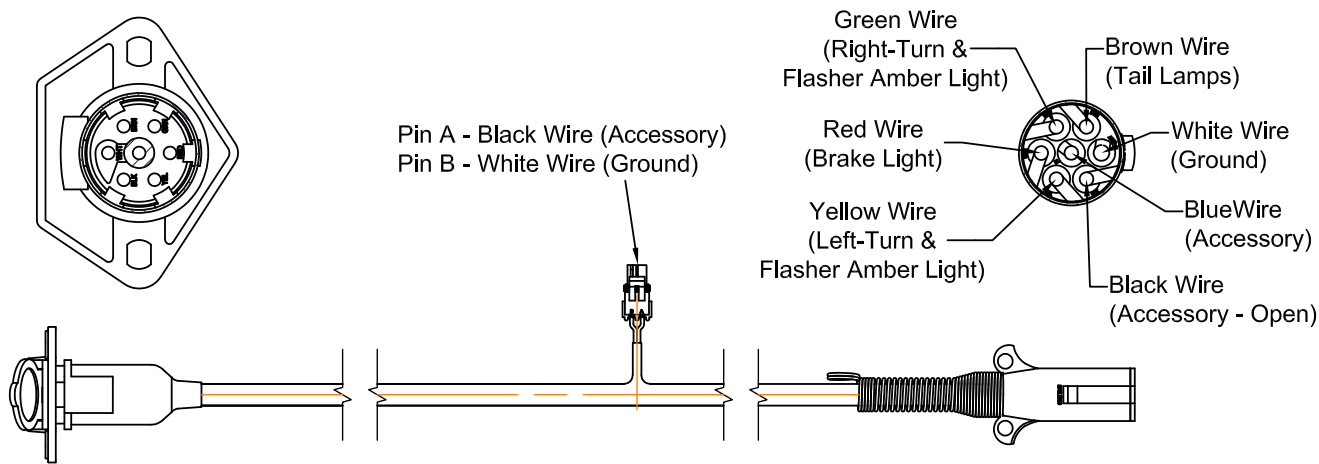
## 4-TON DRY FERTILIZER CADDY — Maintenance

### Troubleshooting

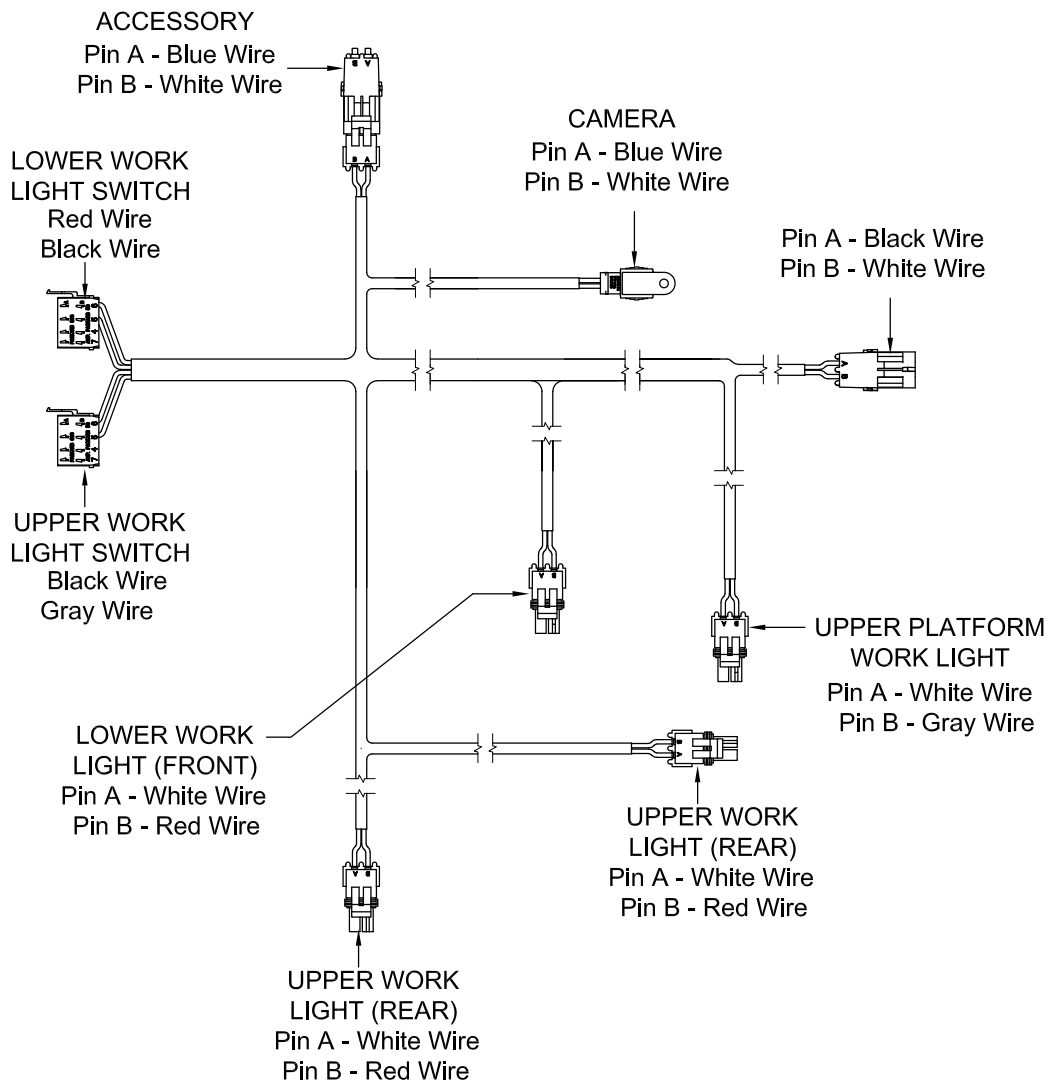
| PROBABLE CAUSE   | CORRECTION  |
|--|---|
| <b>Product Being Applied Lower Than Expected</b>                                       |   |
| Density of product changed   | Recalibrate applicator.   |
| Sprocket(s) slipping/damaged bearings  | Realign sprockets and shafts by moving spacer washers from one side of sprocket to the other so sprockets engage completely'. Replace damaged bearings. |
| Product caking up / hot or humid weather / water in housing/tank                       | Clean out meter housing   |
| Air seeder hoses not delivering product  | Unplug hoses. Replace torn hoses.   |
| Meter housing assembly leaking air   | Tighten cover assembly threaded knobs. Check fan pressure.  |
| Meters not rolling.  | Check for jammed fertilizer in the meter wheels or a bad bearing.   |
| Product bridging inside tank   | Checking lid for air leaks  |
| <b>Implement Running Crooked In The Field</b>  |   |
| Depth cylinder stroke control spacer missing   | See OPERATIONS section "Working Depth" and "Leveling Hitch" in OPERATIONS section   |
| Tires not equally inflated   | Find the cause and correct  |
| <b>Hydraulics Not Functioning Properly</b>   |   |
| Incorrect hose hook-up to tractor control levers                                       | Refer to tractor operator's manual for valve and control lever arrangement  |
| Insufficient tractor hydraulic pressure  | A. Check hydraulic reservoir oil level<br>B. Refer to tractor operator's manual for hydraulic system recommendations                                    |
| Hydraulic components leaking oil   | Find cause and correct, see OPERATIONS section "Hydraulics"   |
| Hydraulic hoses kinked or twisted  | Find cause and correct. Repair or replace cylinders.  |
| Malfunction of hydraulic cylinders   | See PARTS section for cylinder or seal kit part numbers   |
| Implement will not raise or lower evenly due to hydraulics not being completely cycled | Raise implement completely until implement is level   |
| Implement lowers unevenly  | Be sure hoses are properly routed from valve to cylinders   |
| Implement raises unevenly  | Tractor hydraulic flow should be set between 15-18 GPM. Settings that are too high or too low can adversely affect flow divider valve function.         |

## Schematics - Electrical

### Electrical Harness - Main 275" (9504181)



### Electrical Harness - Working Light (9505156)





# 4-TON DRY FERTILIZER CADDY — Maintenance

## Schematics - Electrical

### Dry Fertilizer Product Cable (Single Product) (9505022)

| CONNECTOR |             |
|-----------|-------------|
| PIN       | COLOR       |
| 1         | Black       |
| 2         | Black       |
| 3         | Black       |
| 4         | Black       |
| 5         | NONE        |
| 6         | NONE        |
| 7         | Violet      |
| 8         | NONE        |
| 9         | NONE        |
| 10        | White/Brown |
| 11        | Brown/White |
| 12        | Blue        |
| 13        | Blue/White  |
| 14        | NONE        |
| 15        | NONE        |
| 16        | NONE        |
| 17        | NONE        |
| 18        | NONE        |
| 19        | NONE        |
| 20        | NONE        |
| 21        | NONE        |
| 22        | Orange      |
| 23        | Green       |
| 24        | Yellow      |

| CONNECTOR |           |
|-----------|-----------|
| PIN       | COLOR     |
| 25        | NONE      |
| 26        | NONE      |
| 27        | NONE      |
| 28        | NONE      |
| 29        | NONE      |
| 30        | NONE      |
| 31        | Gray      |
| 32        | Red       |
| 33        | Red/White |
| 34        | Black     |
| 35        | NONE      |
| 36        | NONE      |
| 37        | NONE      |
| 38        | NONE      |
| 39        | NONE      |
| 40        | NONE      |
| 41        | NONE      |
| 42        | NONE      |
| 43        | NONE      |
| 44        | NONE      |
| 45        | NONE      |
| 46        | NONE      |
| 47        | NONE      |

| CONNECTOR<br>PR1 RH ENCODER |            |
|-----------------------------|------------|
| PIN                         | COLOR      |
| 1                           | Black      |
| 2                           | Blue/White |
| 3                           | Red        |

| CONNECTOR<br>PR1 LH ENCODER |       |
|-----------------------------|-------|
| PIN                         | COLOR |
| 1                           | Black |
| 2                           | Blue  |
| 3                           | Red   |

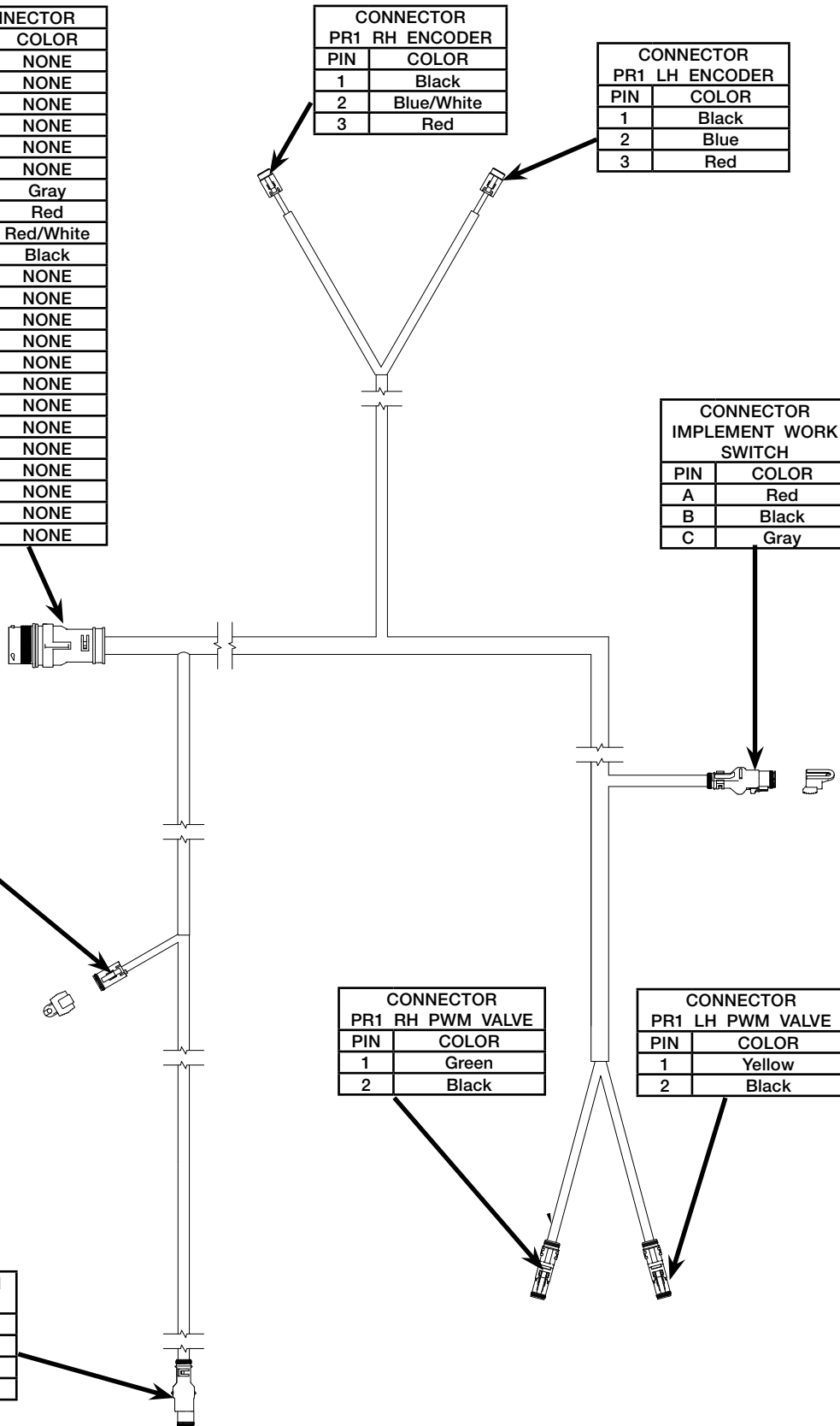
| CONNECTOR<br>IMPLEMENT WORK<br>SWITCH |       |
|---------------------------------------|-------|
| PIN                                   | COLOR |
| A                                     | Red   |
| B                                     | Black |
| C                                     | Gray  |

| CONNECTOR<br>PR1 SCALE |             |
|------------------------|-------------|
| PIN                    | COLOR       |
| 1                      | Orange      |
| 2                      | Black       |
| 3                      | Brown/White |
| 4                      | White/Brown |
| 5                      | Black       |
| 6                      | None        |

| CONNECTOR<br>PR1 RH PWM VALVE |       |
|-------------------------------|-------|
| PIN                           | COLOR |
| 1                             | Green |
| 2                             | Black |

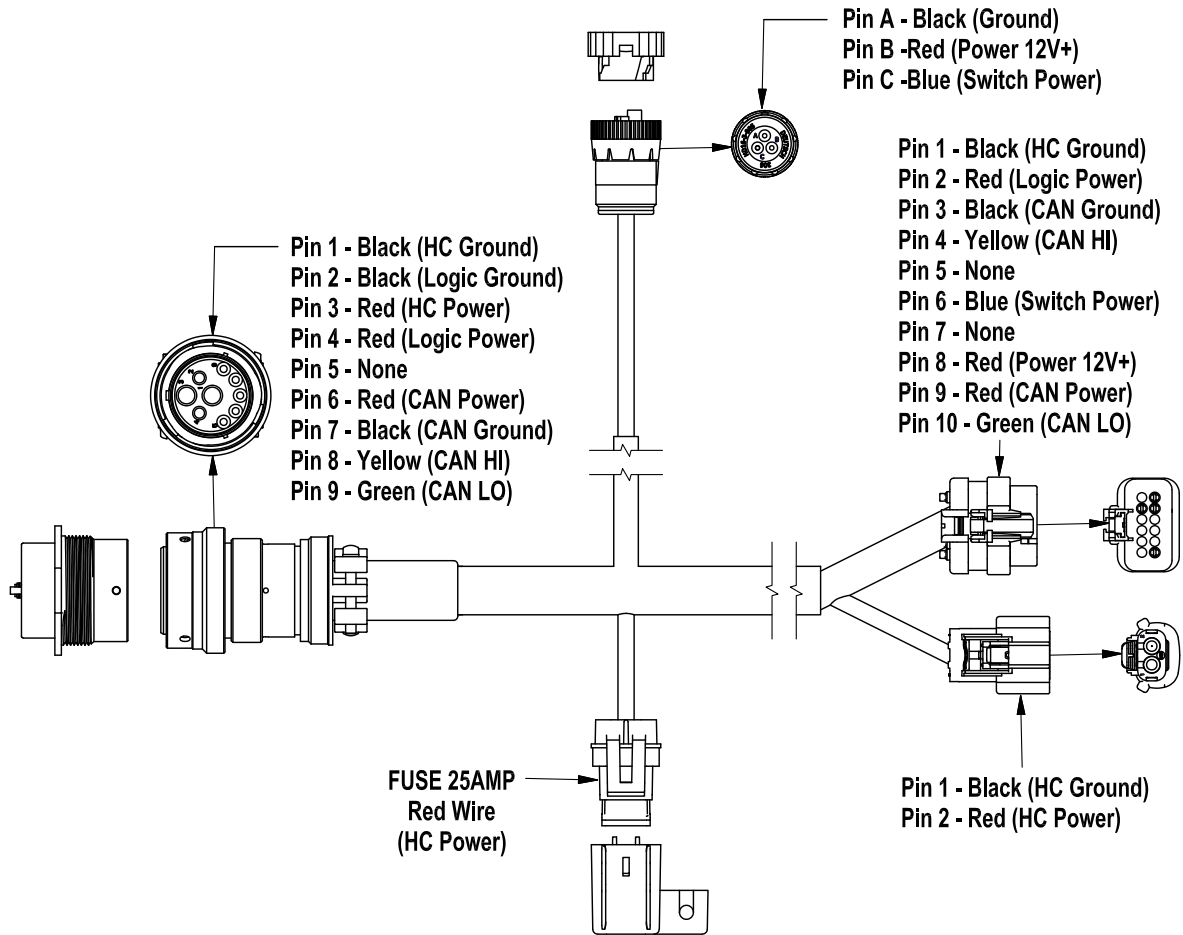
| CONNECTOR<br>PR1 LH PWM VALVE |        |
|-------------------------------|--------|
| PIN                           | COLOR  |
| 1                             | Yellow |
| 2                             | Black  |

| CONNECTOR FAN<br>PSI |           |
|----------------------|-----------|
| PIN                  | COLOR     |
| A                    | Red/White |
| B                    | Black     |
| C                    | Violet    |

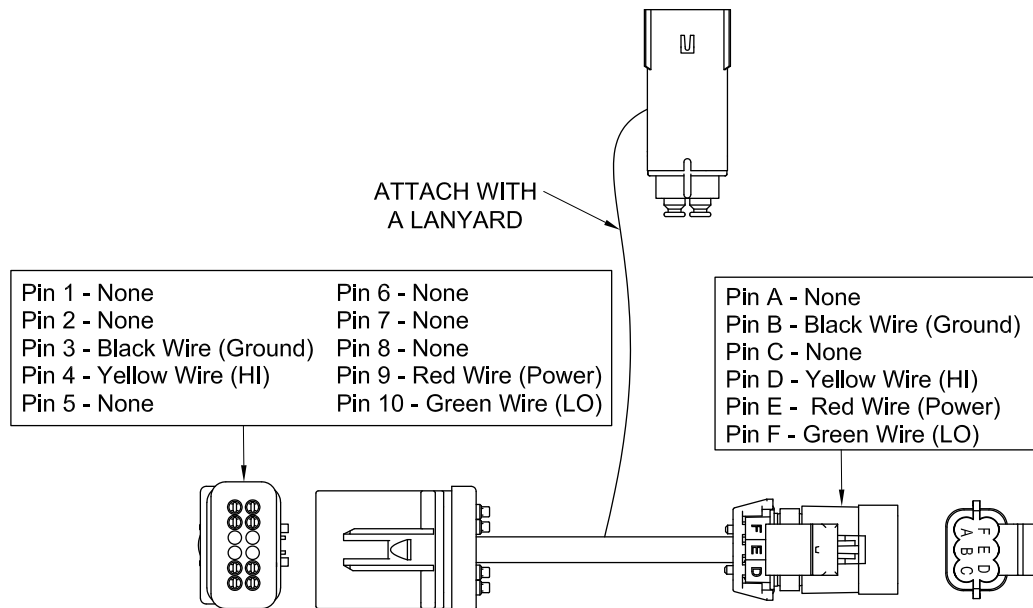


## Schematics - Electrical (continued)

### Cable Adapter, JD ISO to Terminator (9008096)



### Cable Adapter, JD ISO to Terminator (9008096)

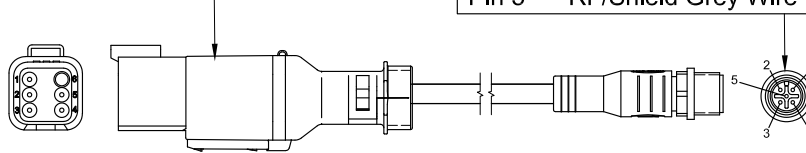


## Schematics - Electrical (continued)

### Cable Adapter, JD ISO to Terminator (9008827)

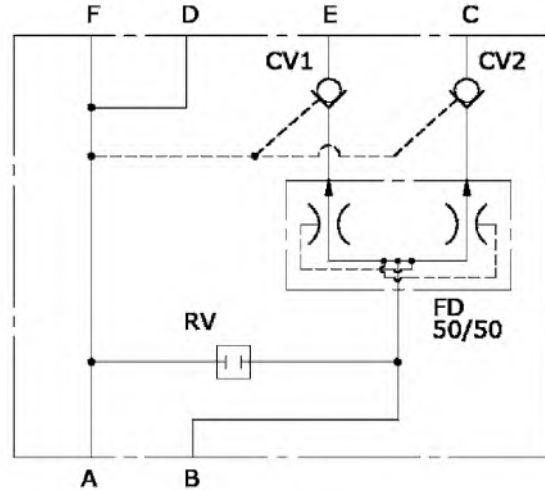
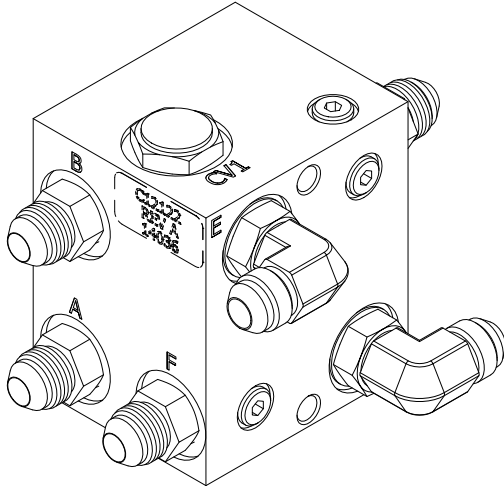
- Pin 1 - +Ex Brown Wire
- Pin 2 - + Signal White Wire
- Pin 3 - - Signal Blue Wire
- Pin 4 - -Ex Black Wire
- Pin 5 - RF/Shield Grey Wire
- Pin 6 - None

- Pin 1 - +Ex Brown Wire
- Pin 2 - + Signal White Wire
- Pin 3 - - Signal Blue Wire
- Pin 4 - -Ex Black Wire
- Pin 5 - RF/Shield Grey Wire

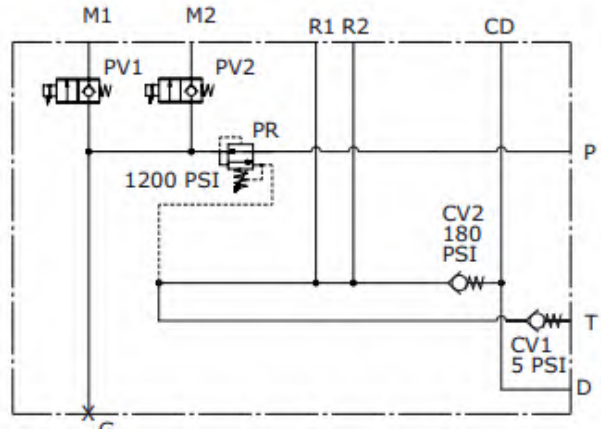
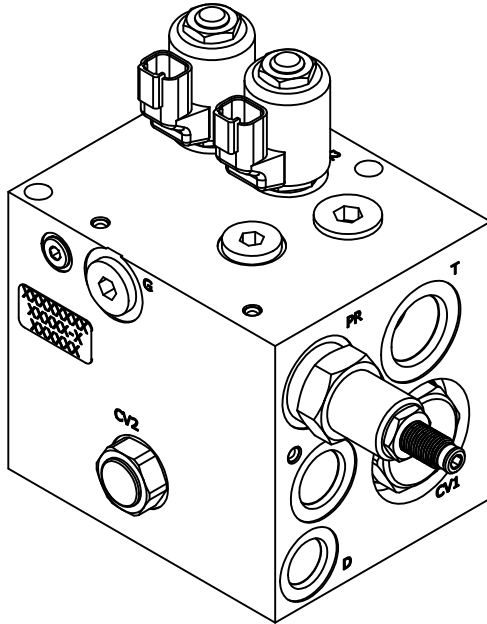


## Schematics - Hydraulic

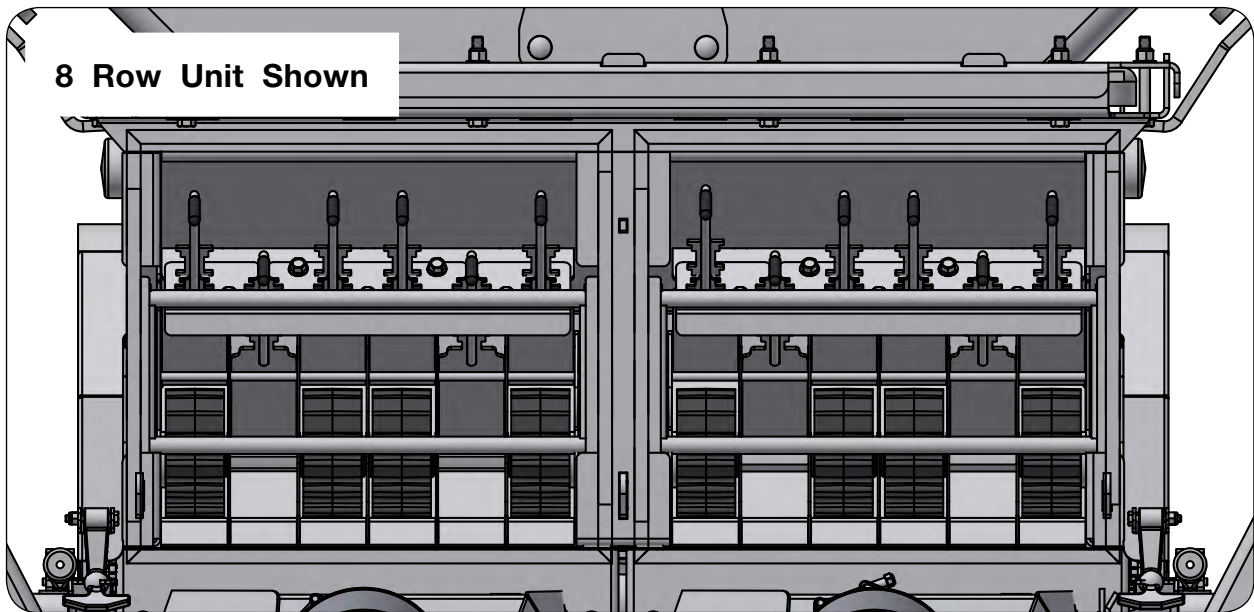
### Valve Block Assembly (74692)



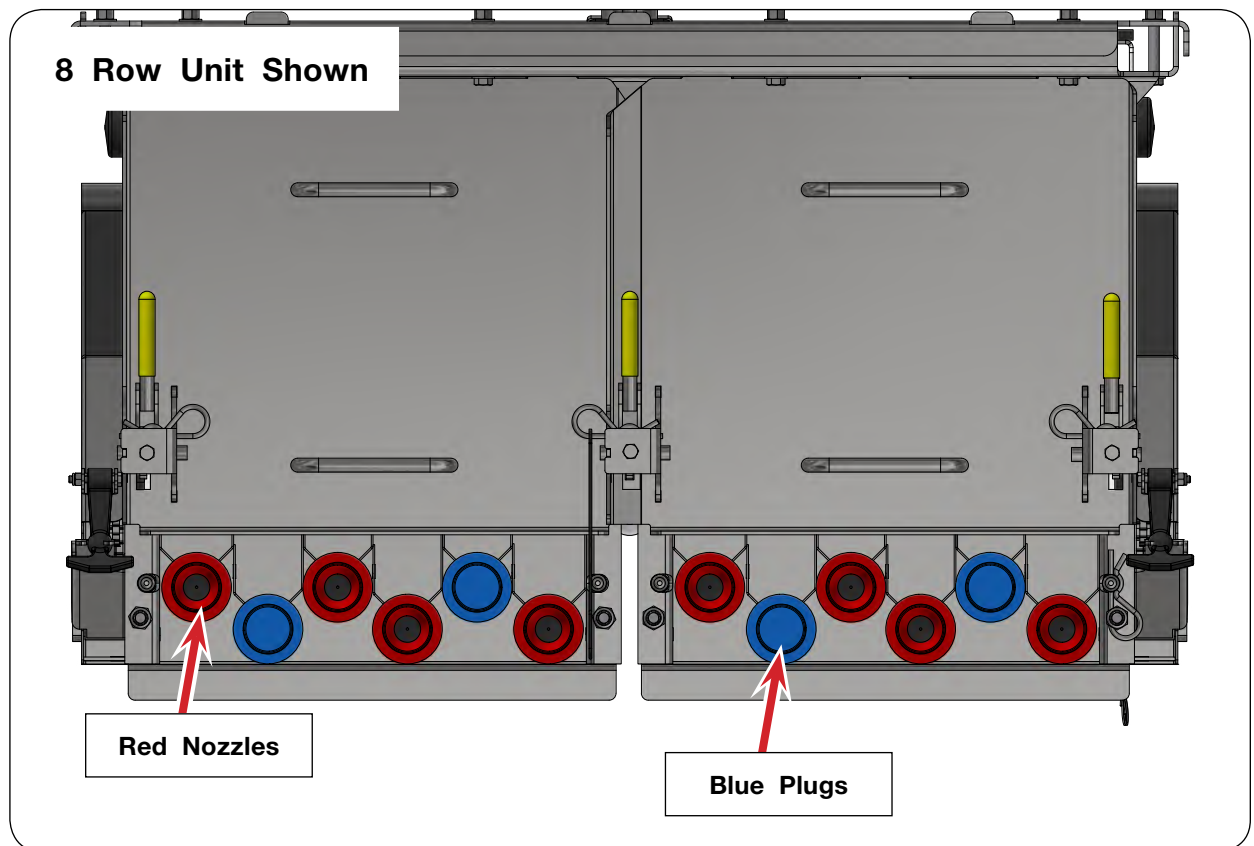
### Valve Block Assembly (9505304)



**Meter Wheel Location Layouts**



**Manifold Nozzle Location Layouts**



## Wheels and Tires

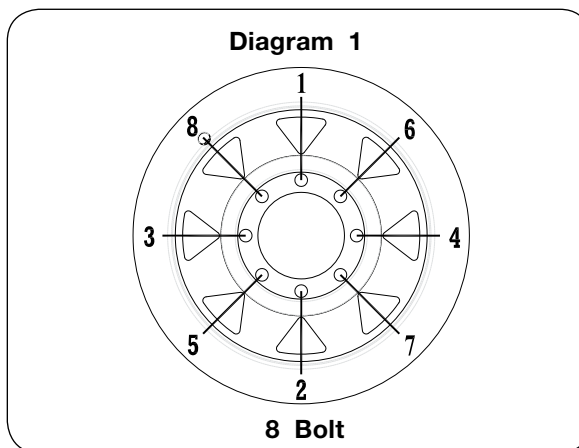
### Wheel Nut Torque

#### **⚠ CAUTION**

- IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. TORQUE WHEEL NUTS/BOLTS TO VALUES IN TABLE. CHECK TORQUE BEFORE USE, AFTER ONE HOUR OF USE, AND EACH HOUR UNTIL WHEEL NUTS/BOLTS MAINTAIN TORQUE VALUE. CHECK TORQUE EVERY 10 HOURS OF USE THERE-AFTER. AFTER EACH WHEEL REMOVAL START TORQUE PROCESS FROM BEGINNING. WARRANTY DOES NOT COVER FAILURES CAUSED BY IMPROPERLY TORQUED WHEEL NUTS/BOLTS.

Failure to check torque before first use may damage wheel nut/bolt seats. Once seats are damaged, it will become impossible to keep nuts/bolts tight. Tighten nuts/bolts to applicable torque value shown in table. Start all nuts/bolts by hand to prevent cross threading. Torque nuts/bolts in the recommended sequence as shown in Diagram 1.

| WHEEL HARDWARE |              |
|----------------|--------------|
| SIZE           | FOOT-POUNDS  |
| 3/4"-16 (UNF)  | 365 Ft.-Lbs. |



### Tire Pressure

- The following is to be used as a general guide for tire inflation and figures can vary depending on specific brand of tire used. It is important that tires are inspected after unit is loaded. Start with minimum pressure indicated. The tire should stand up with no side-wall buckling or distress as tire rolls. Record the pressure needed to support the full load and maintain this pressure to achieve proper tire life. Do not exceed maximum recommended tire pressure.

| TIRE                    | INFLATION   |
|-------------------------|-------------|
| 295/75R22.5F - 151D I-1 | max. 64 PSI |

(All tire pressures in psi)

## Wheels and Tires

### Tire Warranty

For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty. Following are phone numbers and Websites for your convenience:

Firestone                      [www.firestoneag.com](http://www.firestoneag.com)  
Phone 800-847-3364

Continental/Mitas            [www.mitas-tires.com](http://www.mitas-tires.com)  
Phone 704-542-3422  
Fax 704-542-3474

Titan  
or  
Goodyear                      [www.titan-intl.com](http://www.titan-intl.com)  
Phone 800-USA-BEAR  
Fax 515-265-9301

Carlisle/Ironman            [www.carlisletire.com](http://www.carlisletire.com)  
Phone 800-260-7959  
Fax 800-352-0075

Greenball                      [www.greenball.com](http://www.greenball.com)  
Phone nearest location:  
California 800-937-5204  
Georgia 800-283-4569  
Florida 800-935-0200  
Indiana 800-426-4068  
Tennessee 800-946-9412  
Ohio 800-840-7295  
Pennsylvania 800-869-6787

## Complete Torque Chart

### Capscrews - Grade 5

**NOTE:**

- Grade 5 capscrews can be identified by three radial dashes on the head.
- For wheel torque requirements, refer to Wheels and Tires.
- Tighten U-bolts evenly and equally to have the same number of threads exposed on each end.



| SIZE     | FOOT POUNDS | NEWTON METERS |
|----------|-------------|---------------|
| 1/4-20   | 8-10        | 11-13         |
| 1/4-28   | 9-11        | 12-15         |
| 5/16-18  | 15-17       | 20-23         |
| 5/16-24  | 17-19       | 23-26         |
| 3/8-16   | 25-28       | 34-38         |
| 3/8-24   | 28-31       | 38-42         |
| 7/16-14  | 40-45       | 54-61         |
| 7/16-20  | 45-50       | 61-68         |
| 1/2-13   | 62-68       | 84-92         |
| 1/2-20   | 68-75       | 92-102        |
| 9/16-12  | 90-98       | 122-133       |
| 9/16-18  | 100-110     | 134-148       |
| 5/8-11   | 120-135     | 162-183       |
| 5/8-18   | 124-137     | 168-186       |
| 3/4-10   | 200-220     | 270-300       |
| 3/4-16   | 210-230     | 285-310       |
| 7/8-9    | 330-350     | 425-475       |
| 7/8-14   | 360-380     | 460-515       |
| 1-8      | 500-525     | 675-710       |
| 1-14     | 540-560     | 730-760       |
| 1 1/8-7  | 600-635     | 815-860       |
| 1 1/8-12 | 665-700     | 920-950       |
| 1 1/4-7  | 850-895     | 1150-1215     |
| 1 1/4-12 | 940-990     | 1275-1340     |
| 1 3/8-6  | 1125-1175   | 1525-1590     |
| 1 3/8-12 | 1280-1335   | 1735-1810     |
| 1 1/2-6  | 1500-1560   | 2035-2115     |
| 1 1/2-12 | 1685-1755   | 2285-2380     |

### IMPORTANT

- Follow these torque recommendations except when specified in text.

## Complete Torque Chart

### Capscrews - Grade 8

**NOTE:**

- Grade 8 capscrews can be identified by six radial dashes on the head.
- For wheel torque requirements, refer to Wheels and Tires.
- Tighten U-bolts evenly and equally to have the same number of threads exposed on each end.



| SIZE     | FOOT POUNDS | NEWTON METERS |
|----------|-------------|---------------|
| 5/16-18  | 20-22       | 27-30         |
| 5/16-24  | 21-23       | 28-31         |
| 3/8-16   | 35-39       | 47-53         |
| 3/8-24   | 36-41       | 49-55         |
| 7/16-14  | 54-58       | 73-78         |
| 7/16-20  | 55-60       | 75-80         |
| 1/2-13   | 82-88       | 110-120       |
| 1/2-20   | 94-99       | 125-135       |
| 9/16-12  | 127-134     | 170-180       |
| 9/16-18  | 147-155     | 199-210       |
| 5/8-11   | 160-170     | 215-230       |
| 5/8-18   | 165-175     | 225-235       |
| 3/4-10   | 280-295     | 380-400       |
| 3/4-16   | 330-365     | 445-495       |
| 7/8-9    | 410-430     | 555-580       |
| 7/8-14   | 420-440     | 570-595       |
| 1-8      | 630-650     | 850-880       |
| 1-14     | 680-700     | 920-950       |
| 1 1/8-7  | 900-930     | 1220-1260     |
| 1 1/8-12 | 930-950     | 1260-1290     |
| 1 1/4-7  | 1250-1300   | 1695-1760     |
| 1 1/4-12 | 1280-1320   | 1735-1790     |

### IMPORTANT

- Follow these torque recommendations except when specified in text.

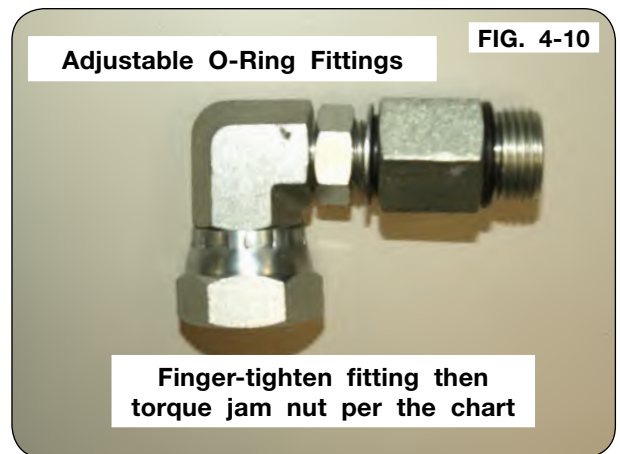
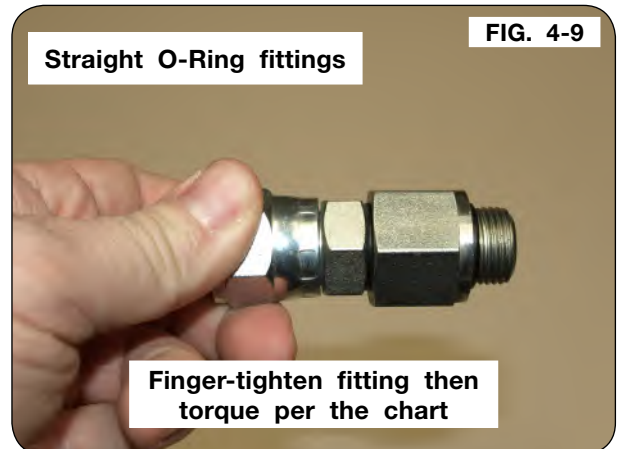
## Hydraulic Fittings - Torque and Installation

### Tightening O-Ring Fittings

1. Inspect components for damage or contamination. Do not connect any other type of fitting to an O-ring fitting.
2. For adjustable fittings, insure the jam nut and washer are fully backed up.
3. Lubricate the O-ring and threads on the fitting.
4. Turn the fitting into the port until it is finger tight.
5. For adjustable fittings, set in the desired position.
6. Using a wrench, torque the fitting to the value in the below table. For adjustable fittings the jam nut will be tightened.

**NOTE:** Never use a power tool to install a fitting.

| Dash Size | Thread Size | Straight Stud Torque (Ft-Lbs) | Adjustable Stud Torque (Ft-Lbs) |
|-----------|-------------|-------------------------------|---------------------------------|
| -5        | 1/2-20      | 14-19                         | 10-14                           |
| -6        | 9/16-18     | 18-24                         | 12-16                           |
| -8        | 3/4-16      | 27-43                         | 20-30                           |
| -10       | 7/8-14      | 36-48                         | 30-36                           |
| -12       | 1-1/16-12   | 65-75                         | 44-54                           |
| -14       | 1-3/16-12   | 75-99                         | 53-70                           |
| -16       | 1-5/16-12   | 85-123                        | 59-80                           |
| -20       | 1-5/8"-12   | 115-161                       | 75-100                          |
| -24       | 1-7/8"-12   | 125-170                       | 105-125                         |

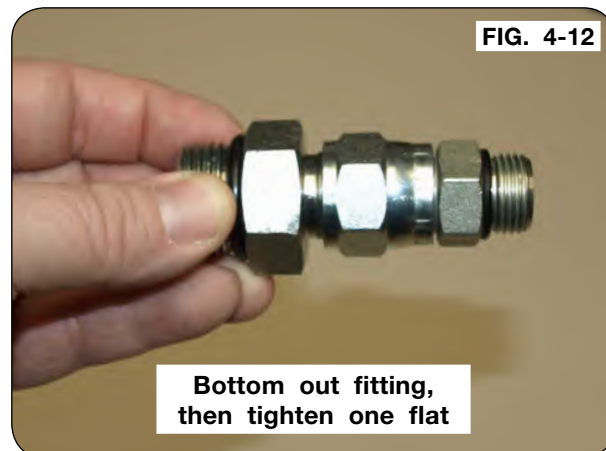
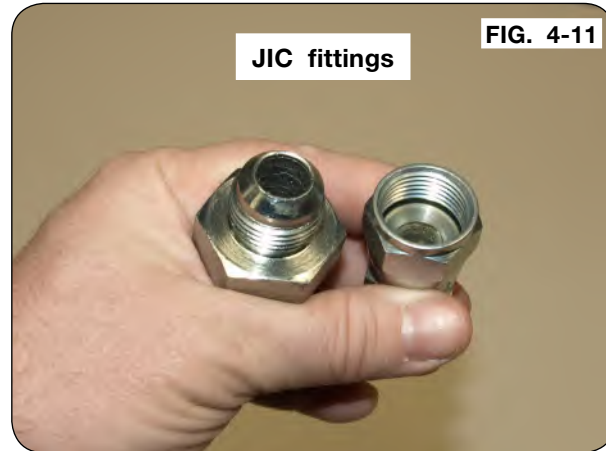


### Hydraulic Fittings - Torque and Installation (continued)

#### Tightening JIC Fittings

1. Inspect all components for damage or contamination. Do not connect any other type of fitting to a JIC fitting.
2. Lubricate the threads.
3. Turn the fitting into the port until it bottoms out.
4. Use one wrench on the fixed hex on the hose to prevent twisting and a second on the swivel. Tighten the fitting another 60 degrees (or one flat)

**NOTE:** Never use a power tool to install a fitting.



## **SECTION V**

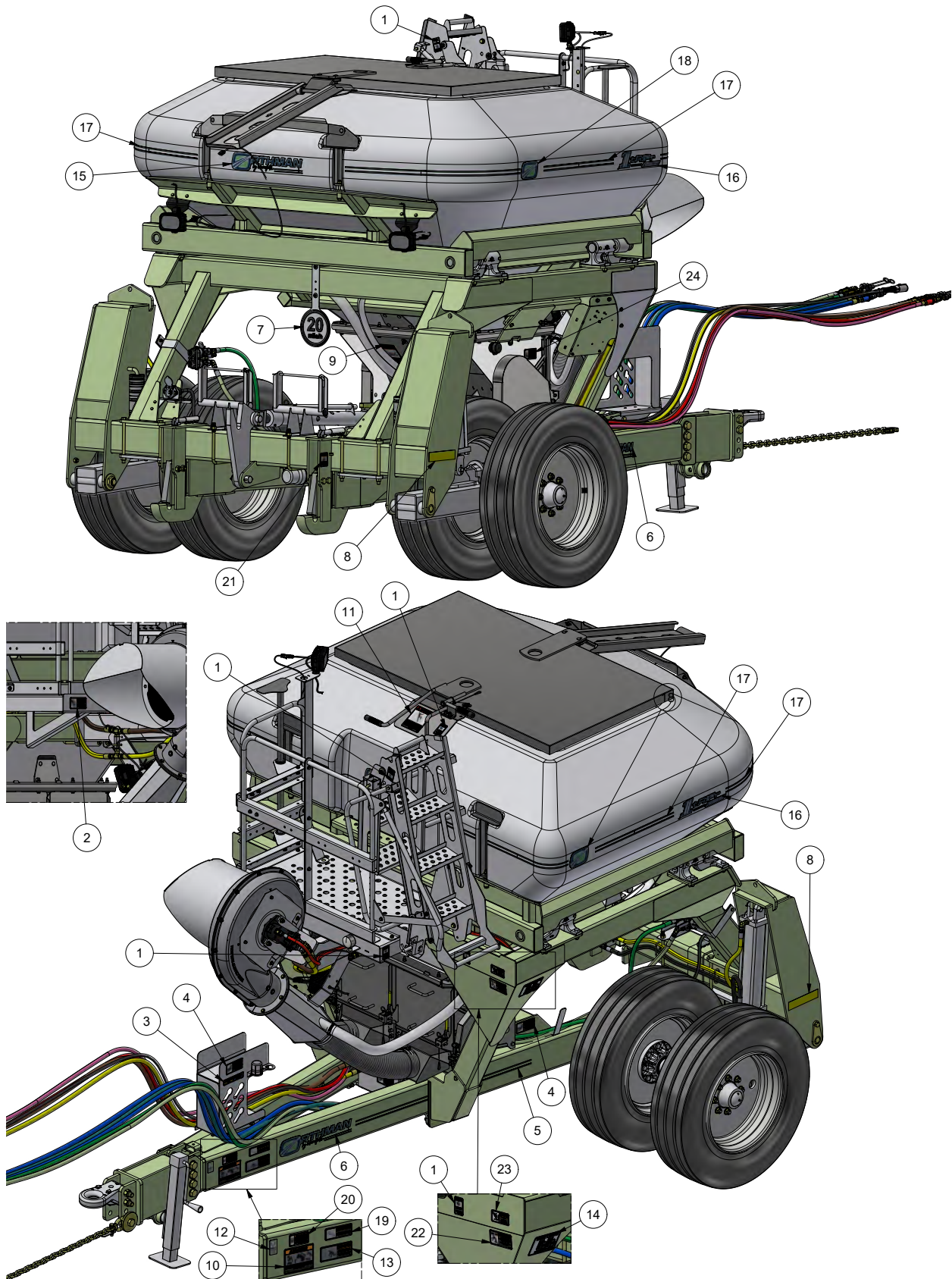
# **Parts**

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# 4-TON DRY FERTILIZER CADDY — Parts

## Decals

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Decals

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.     | DESCRIPTION   | QTY | NOTES |
|------|--------------|---|-----|-------|
| 1    | 97048        | Decal, WARNING "Pinch Point"                        | 5   |       |
| 2    | 97945        | Decal, WARNING "Rotor/Impeller"                     | 1   |       |
| 3    | 9505365      | Decal, Hose Legend                                  | 1   |       |
| 4    | 95445        | Decal, WARNING "High-Pressure Fluid"                | 4   |       |
| 5    | 9505561      | Decal, Orthman Stripe, 1.06" x 48"                  | 2   |       |
| 6    | 9505603      | Decal, Orthman by Unverferth, 3.98" x 19.62"        | 2   |       |
| 7    | 79342B       | Plate with 20MPH Decal                              | 1   |       |
| 8    | 9003127      | Reflector, AMBER                                    | 2   |       |
| 9    | 9003475      | Decal, DANGER "Rotating or Moving Parts"            | 1   |       |
| 10   | 900558       | Decal, WARNING "Insufficient Ballast"               | 1   |       |
| 11   | 9008838      | Decal, DANGER "Flowing Material"                    | 1   |       |
| 12   | 91605        | Decal, FEMA   | 1   |       |
| 13   | 94094        | Decal, WARNING "Tongue"                             | 1   |       |
| 14   | 9504173      | Decal, Light Switches                               | 1   |       |
| 15   | 9505560      | Decal, Orthman by Unverferth, 3.98" x 19.62" (Tank) | 2   |       |
| 16   | 9505562      | Decal, Orthman 1tRIPr, Model 4T                     | 2   |       |
| 17   | 9505599      | Decal, Orthman Stripe, 1.06" x 48" (Tank)           | 6   |       |
| 18   | 9505600      | Decal, Orthman "O"                                  | 2   |       |
| 19   | 97575        | Decal, CAUTION "Transport Chains"                   | 1   |       |
| 20   | 97961        | Decal, WARNING "Read and Understand Manual"         | 1   |       |
| 21   | 97972        | Decal, WARNING "Hitching"                           | 2   |       |
| 22   | 98229        | Decal, WARNING "Falling or Lowering Equipment"      | 1   |       |
| 23   | 98350        | Decal, WARNING "No Riders"                          | 1   |       |
| 24   | TA1-906109-0 | Decal, WARNING "Moving Parts"                       | 2   |       |

### Touch-Up Paint

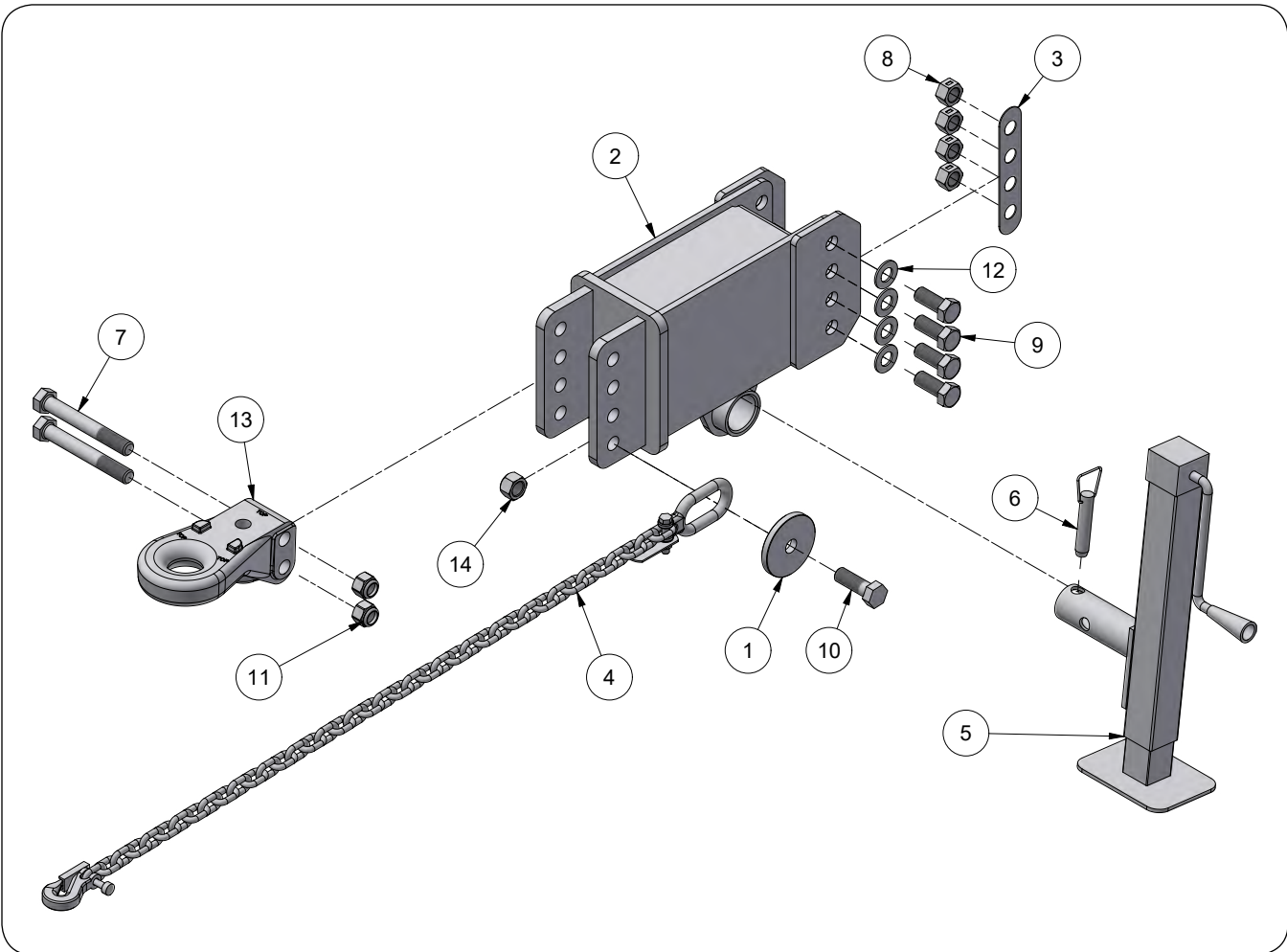
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO. | DESCRIPTION                  | QTY | NOTES |
|------|----------|------------------------------|-----|-------|
| 1    | 97013    | Paint, Spray =Black=         | -   |       |
| 2    | 9505643  | Paint, Spray =Orthman Green= | -   |       |
| 3    | 97010    | Paint, Spray =Bianca White=  | -   |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Hitch Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Hitch Components

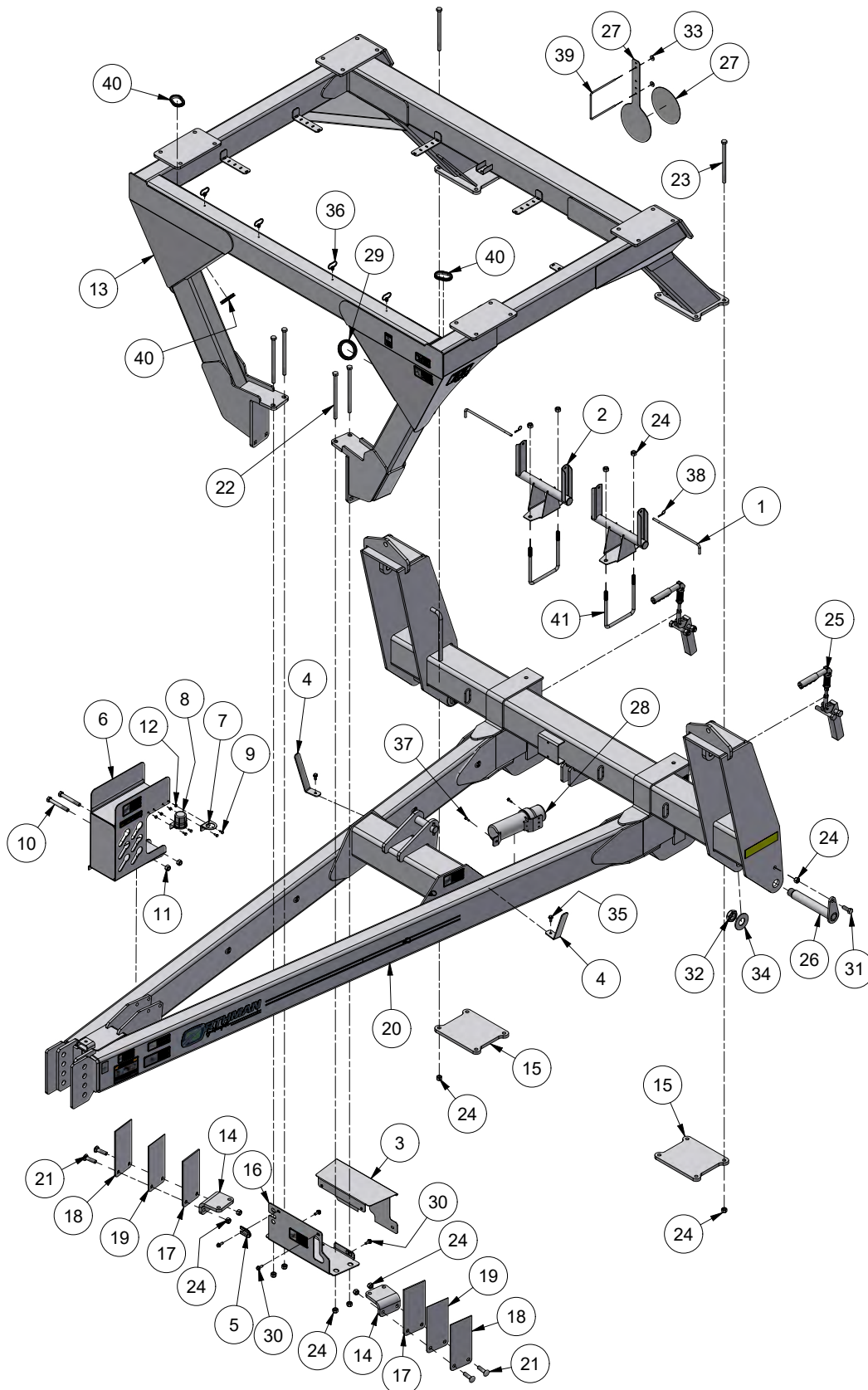
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.  | DESCRIPTION                              | QTY. | NOTES            |
|------|-----------|--|------|------------------|
| 1    | 106941    | Washer, 4 1/2" OD                        | 1    |                  |
| 2    | 48042PG   | Hitch Extension Weldment =Orthman Green= | 1    |                  |
| 3    | 48046B    | Shim/Plate, 2" x 10" =Black=             | 2    |                  |
| 4    | 9003278   | Transport Chain, 20,200 Lbs.             | 1    |                  |
| 5    | 9004156   | Jack, Sidewind with Pin                  | 1    | Includes Item #6 |
| 6    | 9004171   | Pin, Jack                                | 1    |                  |
| 7    | 91299-198 | Capscrew, 1"-8UNC x 7 1/2" G8            | 2    |                  |
| 8    | 92199     | Locknut/Center, 1"-8UNC                  | 8    |                  |
| 9    | 9390-185  | Capscrew, 1"-8UNC x 2 1/2" G5            | 8    |                  |
| 10   | 9390-187  | Capscrew, 1"-8UNC x 3" G5                | 1    |                  |
| 11   | 9398-026  | Elastic Locknut, 1"-8UNC                 | 2    |                  |
| 12   | 9405-116  | Flat Washer, 1" SAE                      | 16   |                  |
| 13   | 9504987   | Ring Hitch, CAT 4                        | 1    |                  |
| 14   | 9663      | Locknut/Top, 1"-8UNC                     | 1    |                  |

# 4-TON DRY FERTILIZER CADDY — Parts

## Frame Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



# 4-TON DRY FERTILIZER CADDY — Parts

## Frame Components

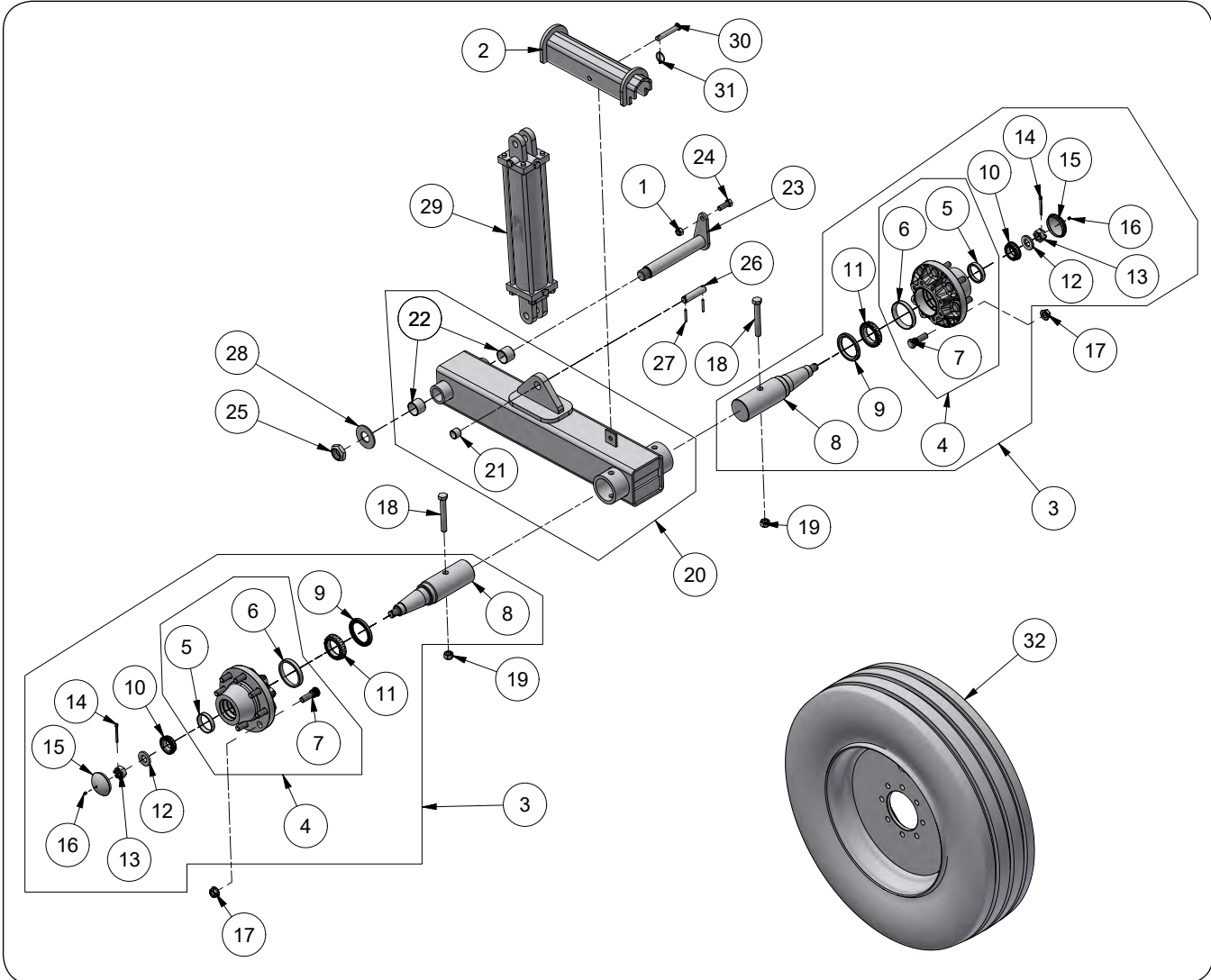
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO. | DESCRIPTION   | QTY | NOTES                            |
|------|----------|---|-----|----------------------------------|
| 1    | 45044    | Pin, 3/8" Dia.                                      | 2   |                                  |
| 2    | 45958B   | Fertilizer Hose Support Weldment =Black=            | 2   |                                  |
| 3    | N/A      | Valve Cover Weldment                                | 1   |                                  |
| 4    | 46473B   | Hose Strap =Black=                                  | 2   |                                  |
| 5    | N/A      | Trim Lock, 4"                                       | 1   |                                  |
| 6    | 48404B   | Hydraulic Hose Holder Assembly w/Decals =Black=     | 1   |                                  |
| 7    | 281837B  | Hose Holder Assembly =Black=                        | 1   |                                  |
| 8    | 9001968  | Connector Holder                                    | 1   |                                  |
| 9    | 9390-002 | Capscrew, 1/4"-20UNC x 5/8" G5                      | 4   |                                  |
| 10   | 9390-134 | Capscrew, 5/8"-11UNC x 5" G5                        | 2   |                                  |
| 11   | 9801     | Locknut/Top, 5/8"-11UNC                             | 2   |                                  |
| 12   | 9936     | Locknut/Top, 1/4"-20UNC                             | 4   |                                  |
| 13   | 46200PG  | Tank Frame Weldment =Orthman Green=                 | 1   |                                  |
| 14   | 46223B   | Tank Mount Clamp Plate, 5" x 6 15/16" =Black=       | 2   |                                  |
| 15   | 46224B   | Tank Mount Plate, 9 1/2" x 12" =Black=              | 2   |                                  |
| 16   | 46467B   | Valve Bracket Weldment =Black=                      | 1   |                                  |
| 17   | 48652PG  | Shim Plate, 1/4" x 5 1/4" x 11 1/8" =Orthman Green= | 2   |                                  |
| 18   | 48653PG  | Shim Plate, 7GA x 5 1/4" x 11 1/8" =Orthman Green=  | 2   |                                  |
| 19   | 48654PG  | Shim Plate, 12GA x 5 1/4" x 11 1/8" =Orthman Green= | 2   |                                  |
| 20   |          | A-Frame w/Decals =Orthman Green=                    | 1   |                                  |
| 21   | 9388-137 | Carriage Bolt, 5/8"-11UNC x 2 1/2" G5               | 4   |                                  |
| 22   | 9390-444 | Capscrew, 5/8"-11UNC x 10 1/2" G5                   | 4   |                                  |
| 23   | 9390-700 | Capscrew, 5/8"-11UNC x 9 1/2" G5                    | 8   |                                  |
| 24   | 9801     | Locknut/Top, 5/8"-11UNC                             | 16  |                                  |
| 25   | 69661    | Latch Kit Replacement                               | -   | See Latch and Linkage Components |
| 26   | 66766    | Pin Weldment, 1 3/4" Dia. x 12 3/16"                | 2   |                                  |
| 27   | 79342B   | Plate with SIS Decal                                | 1   |                                  |
|      | 9008714  | Decal, Rear SIS 20 MPH                              |     |                                  |
| 28   | 900552   | Manual Holder                                       | 1   |                                  |
| 29   | 9006780  | Grommet, 3" ID                                      | 1   |                                  |
| 30   | 91262    | Flange Screw, 3/8"-16UNC x 1"                       | 16  |                                  |
| 31   | 9390-123 | Capscrew, 5/8"-11UNC x 1 3/4" G5                    | 2   |                                  |
| 32   | 9397-022 | Elastic Jam Nut, 1 1/2"-12UNF                       | 2   |                                  |
| 33   | 9405-066 | Flat Washer, 1/4"                                   | 2   |                                  |
| 34   | 9405-142 | Flat Washer, 1 1/2" USS                             | 2   |                                  |
| 35   | 9500832  | Self Drilling Screw, 3/8"-12 x 1"                   | 2   |                                  |
| 36   | 9503951  | Fir Tree Mount Cable Tie                            | 11  |                                  |
| 37   | 9512     | Self Drilling Screw, 1/4"-14 x 1"                   | 2   |                                  |
| 38   | 9514     | Hairpin Cotter, 0.092" Dia. x 1 7/8"                | 2   |                                  |
| 39   | 97898    | U-Bolt, 1/4"-20UNC x 6 5/8", 6 1/4" C/C             | 1   |                                  |
| 40   | 98500    | Grommet, 1/4"W x 2 3/4"D                            | 3   |                                  |
| 41   | JBP3306  | U-Bolt, 5/8"-11UNC x 8 1/2", 7 11/16" C/C           | 2   |                                  |

# 4-TON DRY FERTILIZER CADDY — Parts

## Axle Leg, Spindle & Hub Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



# 4-TON DRY FERTILIZER CADDY — Parts

## Axle Arm, Spindle & Hub Components

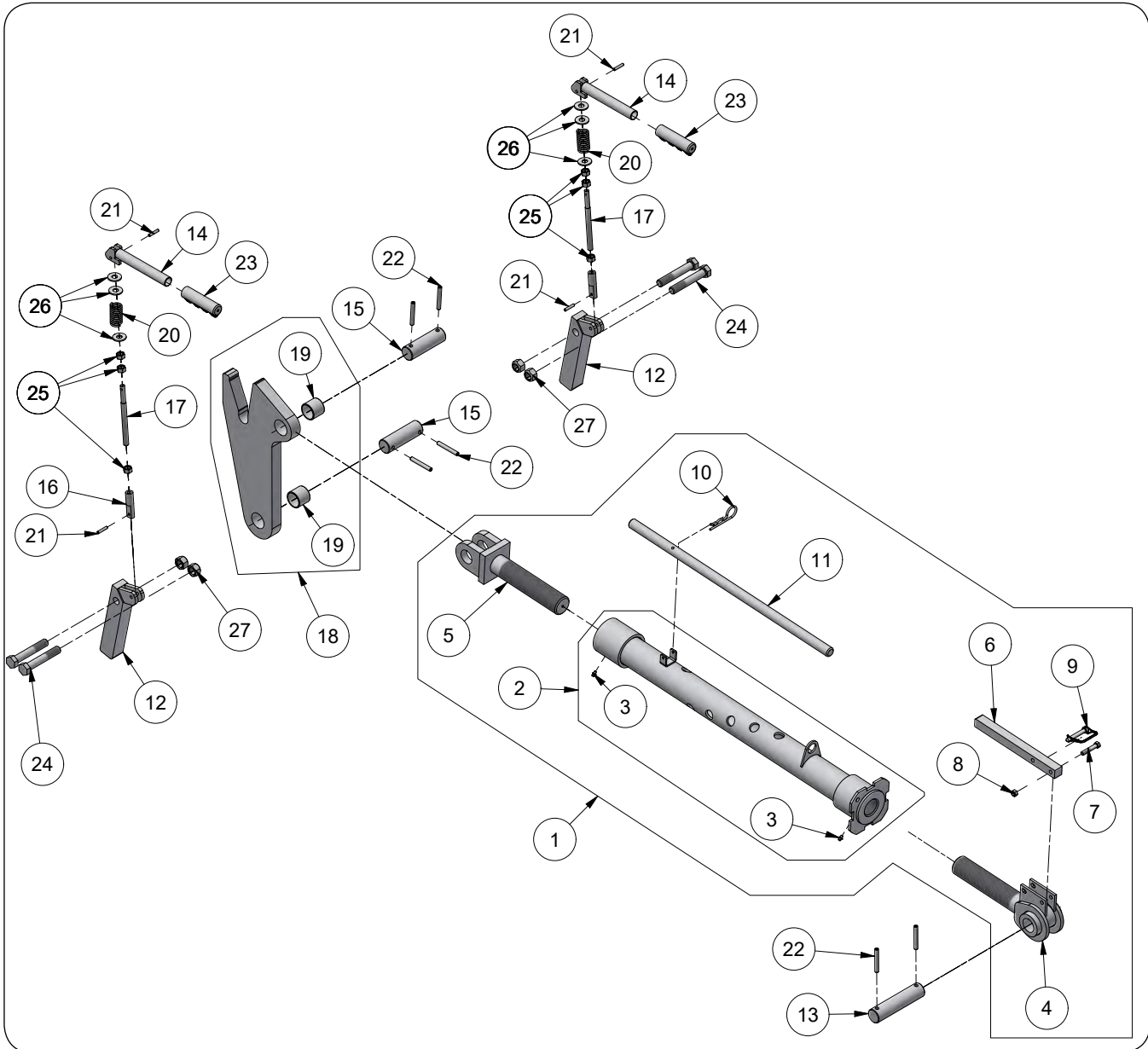
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.  | DESCRIPTION   | QTY | NOTES                  |
|------|-----------|---|-----|------------------------|
| 1    | 9801      | Locknut, 5/8"-11UNC                                 | 2   |                        |
| 2    | 48075B    | Cylinder Stop                                       | 2   |                        |
| 3    | 604762B   | Spindle & Hub Assembly                              | 2   | Includes Items 4-16    |
| 4    | 300296B   | Hub 8-Bolt Assembly with Bearing Cups and Studs     | 2   | Includes Items 5-7     |
| 5    | 9349      | Bearing Cup, 2.891" Dia. x 9/16" (LM501310)         | 1   |                        |
| 6    | TA39412   | Bearing Cup, 4.125" Dia. x 5/8" (39412)             | 1   |                        |
| 7    | 9004943   | Stud Bolt, 3/4"-16UNF x 2.75" (Drive-In/Wheel Bolt) | 1   |                        |
| 8    | 604763    | Spindle, 3 3/8" Dia. x 14 27/32"                    | 1   |                        |
| 9    | 9004501   | Seal, 4.125" OD x 3.125" ID                         | 1   |                        |
| 10   | 9247      | Bearing Cone, 1.625" Bore (LM501349)                | 1   |                        |
| 11   | TA37827   | Bearing Cone, 2.500" Bore (39412)                   | 1   |                        |
| 12   | 9448      | Flat Washer, 1"                                     | 1   |                        |
| 13   | 9393-020  | Slotted Nut, 1"-14UNS                               | 1   |                        |
| 14   | 9391-061  | Cotter Pin, 1/4" Dia. x 2 1/2"                      | 1   |                        |
| 15   | 34014     | Hub Cap w/Grease Zerk                               | 1   | Includes Item #16      |
| 16   | 9504720   | Grease Zerk, 3/16"                                  | 1   |                        |
| 17   | 92458     | Wheel Nut, 3/4"-16UNF                               | 16  |                        |
| 18   | 9390-156  | Capscrew, 3/4"-10UNC x 5 1/2" G5                    | 2   |                        |
| 19   | 9802      | Locknut, 3/4"-10UNC                                 | 2   |                        |
| 20   | 66761B    | Axle Leg Weldment =Black=                           | 2   | Includes Items 21 & 22 |
| 21   | 95892     | Bushing, 1.25" OD x 1" ID x 1"                      | 1   |                        |
| 22   | 902098    | Bushing, 2" OD x 1.78" ID x 1.5"                    | 2   |                        |
| 23   | 66766     | Pin Weldment, 1 3/4" Dia. x 13 3/16"                | 2   |                        |
| 24   | 9390-123  | Capscrew, 5/8"-11UNC x 1 3/4" G5                    | 2   |                        |
| 25   | 9397-022  | Elastic Jam Nut, 1 1/2"-12UNF                       | 2   |                        |
| 26   | 85631     | Pin, 1" Dia. x 4"                                   | 4   |                        |
| 27   | 91144-165 | Spiral Pin, 1/4" Dia. x 1 7/8"                      | 8   |                        |
| 28   | 9405-142  | Flat Washer, 1 1/2" USS                             | 2   |                        |
| 29   | 96762     | Cylinder 4" x 18"                                   | 2   |                        |
|      | 95407     | Seal Kit for Cylinder 4" x 18"                      | -   |                        |
| 30   | 91523     | Clevis Pin, 5/8" Dia. x 4" w/Grip                   | 2   |                        |
| 31   | 9093      | Lynch/Klik Pin, 3/16" Dia. x 1 9/16"                | 2   |                        |
| 32   | 110841W   | Wheel and Tire Assembly (TLVF295/75R22.5) 8-Bolt    | 4   |                        |
|      | 9502305W  | 8.25 x 22.5 Implement Wheel =Bianca White=          |     |                        |
|      | 9817      | Valve Stem  |     |                        |

# 4-TON DRY FERTILIZER CADDY — Parts

## Latch and Linkage Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



# 4-TON DRY FERTILIZER CADDY — Parts

## Latch and Linkage Components

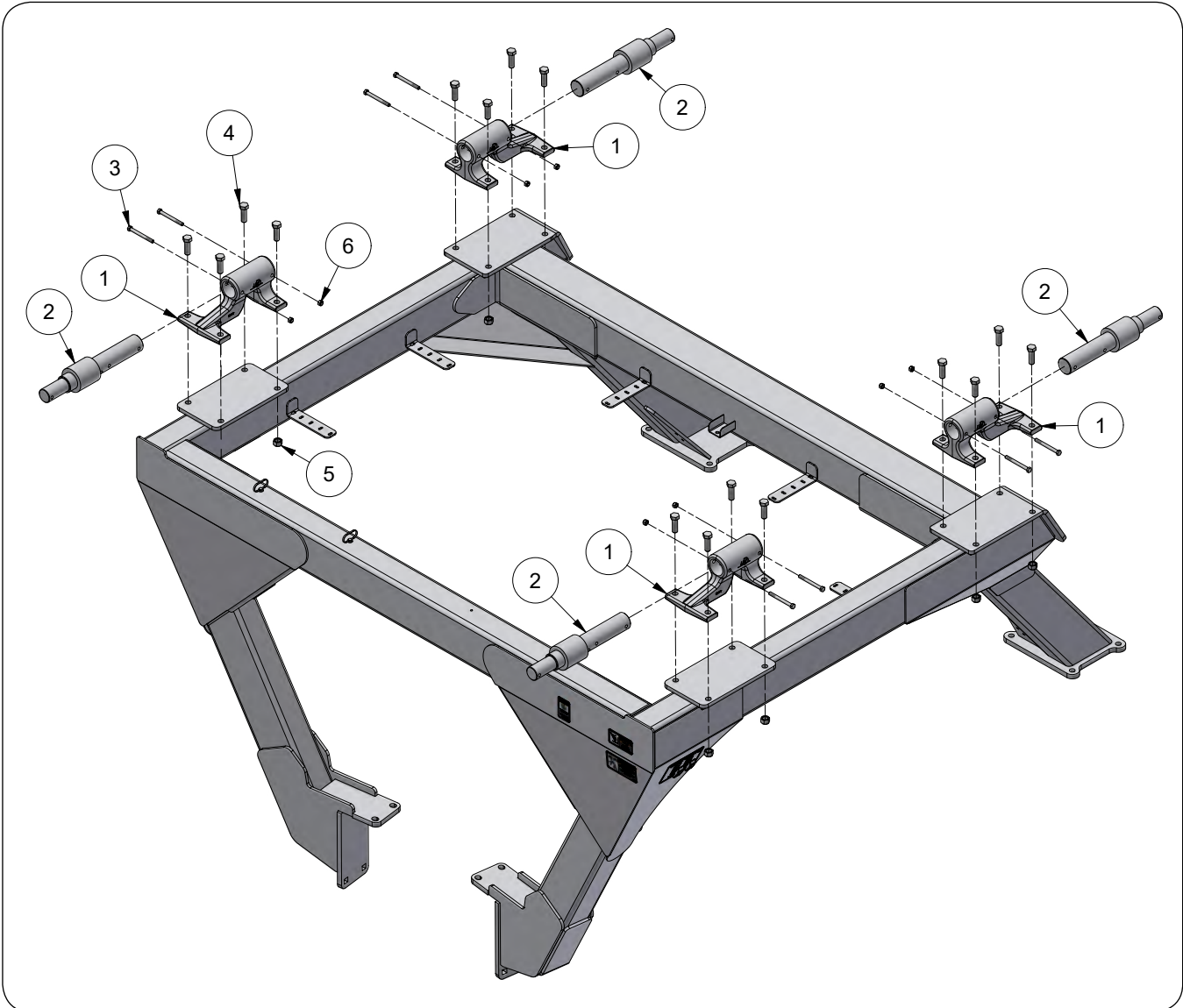
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.  | DESCRIPTION  | QTY                                  | NOTES                     |                 |
|------|-----------|--|--------------------------------------|---------------------------|-----------------|
| 1    | 46310B    | Adjustment Link Assembly =Black=                               | 1                                    | Includes Items 2-11       |                 |
|      | 2         | 46312B   | Tube Weldment =Black=                | 1                         | Includes item 3 |
|      | 3         | 91160  | Grease Zerk                          | 2                         |                 |
|      | 4         | 66327  | Link RH Adjusting Weldment           | 1                         |                 |
|      | 5         | 66329  | Link LH Adjusting Weldment           | 1                         |                 |
|      | 6         | 63191  | Lock Bar                             | 1                         |                 |
|      | 7         | 9390-059   | Capscrew, 3/8"-16UNC x 2" G5         | 1                         |                 |
|      | 8         | 9928   | Locknut/Top, 3/8"-16UNC              | 1                         |                 |
|      | 9         | 9000938  | Lynch Pin, 3/8" Dia. x 2 1/4"        | 1                         |                 |
|      | 10        | 94148  | Hair Pin Cotter, .178" Dia. x 3 3/4" | 1                         |                 |
|      | 11        | 46313B   | Round Rod                            | 1                         |                 |
| 12   | 603237B   | Latch Weldment   | 2                                    |                           |                 |
| 13   | 62646     | Pin, 1 1/2" Dia. x 6 1/2"                                      | 1                                    |                           |                 |
| 14   | 65103     | Handle Weldment/Latch CAM                                      | 2                                    |                           |                 |
| 15   | 65126     | Pin, 1 1/2" Dia. x 4 3/4"                                      | 2                                    |                           |                 |
| 16   | 69602     | Latch Link (Female)  | 2                                    |                           |                 |
|      | 69603     | Latch Link (Male)  | 2                                    |                           |                 |
| 17   | 69661     | Latch Kit Replacement  | -                                    | Includes Items 16, 21, 25 |                 |
| 18   | 73398B    | Upper Hook with Bushing  | 1                                    | Includes Item 19          |                 |
|      | 19        | 98796  | Bushing                              | 2                         |                 |
| 20   | 9001812B  | Compression Spring, 1.207" OD x 4"                             | 2                                    |                           |                 |
| 21   | 91144-160 | Spiral Pin, 1/4" Dia. x 1 1/4"                                 | 4                                    |                           |                 |
| 22   | 91144-210 | Spiral Pin, 3/8" Dia. x 2 3/4"                                 | 6                                    |                           |                 |
| 23   | 93475     | Handle Grip, 1" Dia. x 4 9/16"                                 | 2                                    |                           |                 |
| 24   | 9390-154  | Capscrew, 3/4"-10UNC x 4 1/2" G5                               | 4                                    |                           |                 |
| 25   | 9394-010  | Hex Nut, 1/2"-13UNC  | 6                                    |                           |                 |
| 26   | 9405-088  | Flat Washer, 1/2" USS  | 6                                    |                           |                 |
| 27   | 9802      | Locknut/Top, 3/4"-10UNC  | 4                                    |                           |                 |
|      | 68965B    | Upper Hook Kit Option - CAT 4 Narrow,<br>1 3/4" Dia. Upper Pin | -                                    |                           |                 |

# 4-TON DRY FERTILIZER CADDY — Parts

## Scale Indicator Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

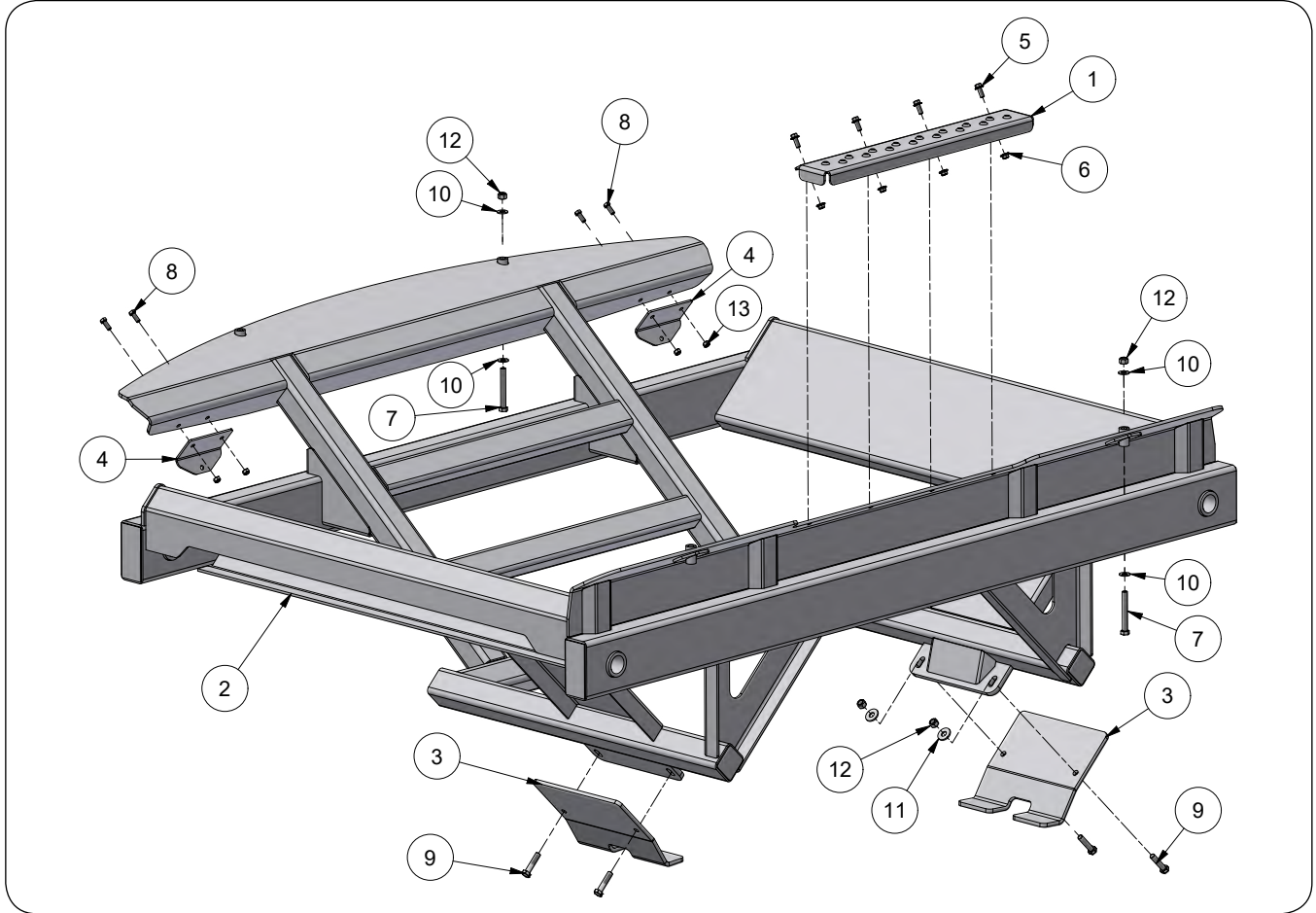


| ITEM | PART NO. | DESCRIPTION                                  | QTY | NOTES |
|------|----------|--|-----|-------|
| 1    | 29477B   | Scale Bracket =Black=                        | 4   |       |
| 2    | 901173   | Weigh Bar, 2 1/8" Dia. x 15 5/8" w/21' Cable | 4   |       |
| 3    | 9390-066 | Capscrew, 3/8"-16UNC x 3 3/4" G5             | 8   |       |
| 4    | 9390-124 | Capscrew, 5/8"-11UNC x 2" G5                 | 16  |       |
| 5    | 9801     | Locknut/Top, 5/8"-11UNC                      | 16  |       |
| 6    | 9928     | Locknut/Top, 3/8"-16UNC                      | 8   |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Tank Cradle Support Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

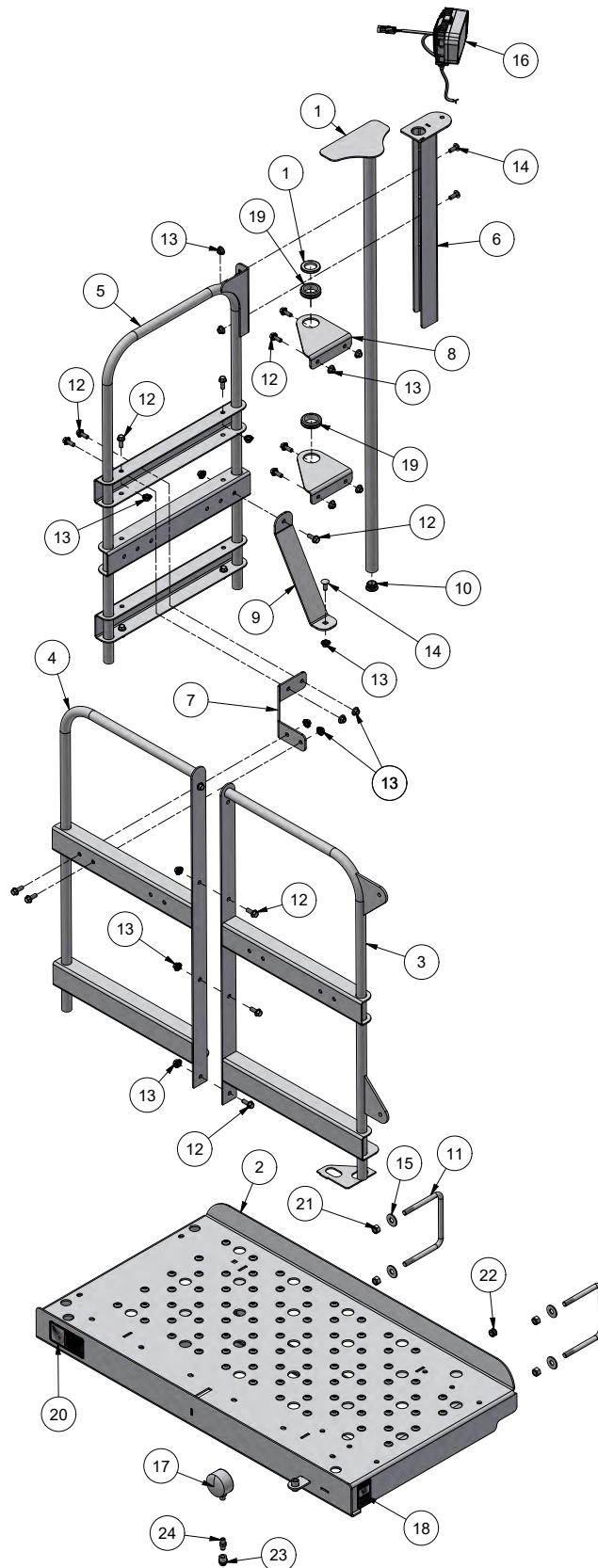


| ITEM | PART NO. | DESCRIPTION                                  | QTY | NOTES |
|------|----------|--|-----|-------|
| 1    | 43390PG  | Step with Dimples =Orthman Green=            | 1   |       |
| 2    | 45294PG  | Tank Cradle Weldment =Orthman Green=         | 1   |       |
| 3    | 45476PG  | Plate =Orthman Green=                        | 2   |       |
| 4    | 48051B   | Light Mounting Plate =Black=                 | 2   |       |
| 5    | 91262    | Flange Screw, 3/8"-16UNC x 1" G5             | 16  |       |
| 6    | 91263    | Nut/Large Flange, 3/8"-16UNC                 | 14  |       |
| 7    | 91552    | Capscrew, 1/2"-13UNC x 4" G5 (Full Threaded) | 4   |       |
| 8    | 9390-055 | Capscrew, 3/8"-16UNC x 1" G5                 | 6   |       |
| 9    | 9390-104 | Capscrew, 1/2"-13UNC x 2 1/4" G5             | 4   |       |
| 10   | 9405-086 | Flat Washer, 1/2" SAE                        | 8   |       |
| 11   | 9405-088 | Flat Washer, 1/2" USS                        | 10  |       |
| 12   | 9800     | Locknut/Top, 1/2"-13UNC                      | 12  |       |
| 13   | 9928     | Locknut/Top, 3/8"-16UNC                      | 14  |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Platform Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Platform Components

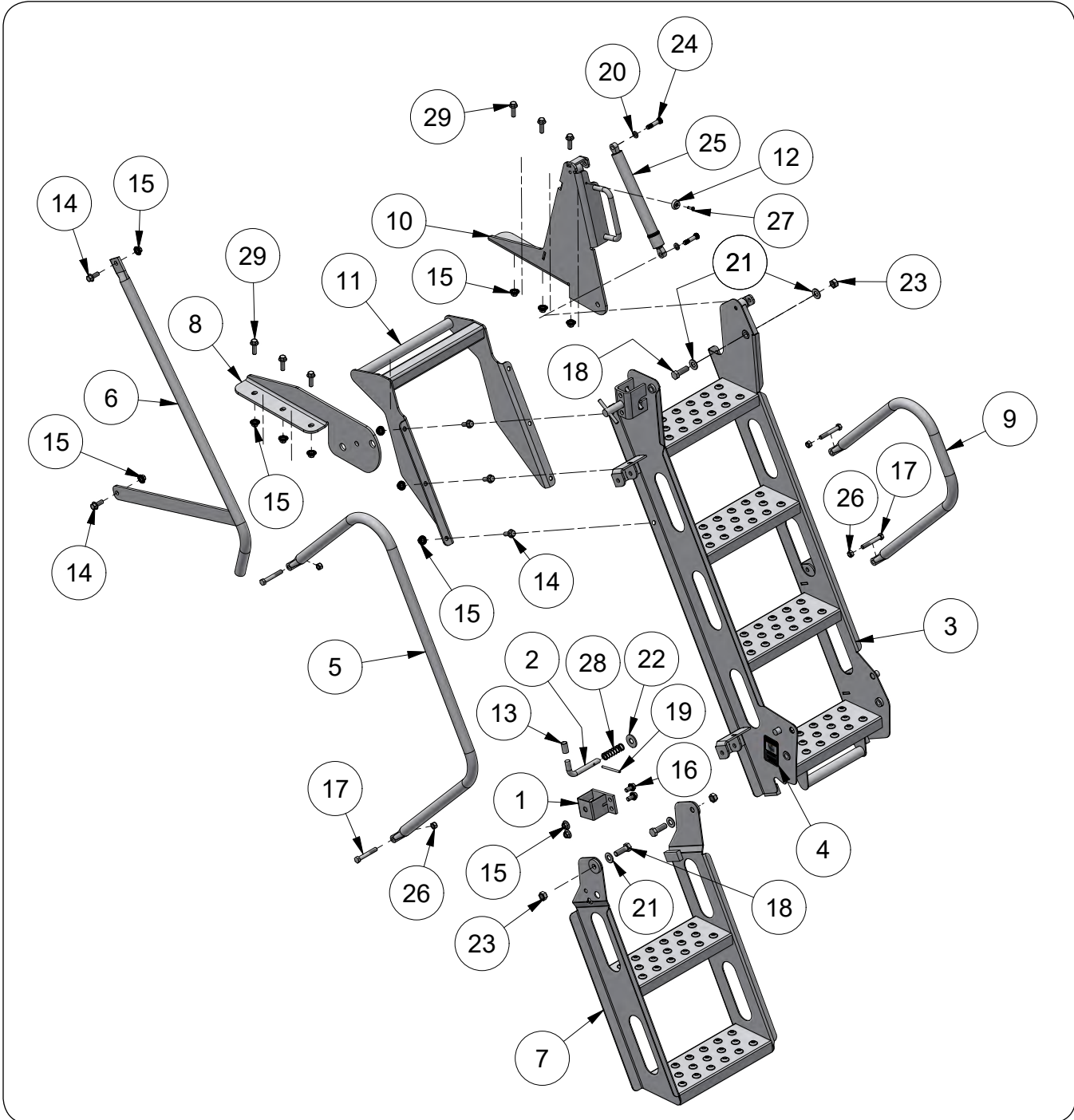
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO. | DESCRIPTION  | QTY | NOTES |
|------|----------|--|-----|-------|
| 1    | 45928    | Scraper Weldment (Stainless Steel)                           | 1   |       |
| 2    | 46341B   | Platform Weldment =Black=                                    | 1   |       |
| 3    | 46414B   | Handrail Weldment =Black=                                    | 1   |       |
| 4    | 46419B   | Handrail Weldment =Black=                                    | 1   |       |
| 5    | 46422B   | Rail Weldment =Black=  | 1   |       |
| 6    | 46426B   | Light Bracket Weldment =Black=                               | 1   |       |
| 7    | 46431B   | Handrail Tie Plate =Black=                                   | 1   |       |
| 8    | 48079B   | Plate =Black=  | 2   |       |
| 9    | 603051B  | Plate =Black=  | 1   |       |
| 10   | 901508   | Plug, 1 1/4"   | 1   |       |
| 11   | 902438   | U-Bolt, 1/2"-13UNC x 5 1/8", 6 9/16" C/C                     | 2   |       |
| 12   | 91262    | Flange Screw, 3/8"-16UNC x 1" G5                             | 29  |       |
| 13   | 91263    | Nut/Large Flange, 3/8"-16UNC                                 | 40  |       |
| 14   | 9388-051 | Carriage Bolt, 3/8"-16UNC x 1" G5                            | 3   |       |
| 15   | 9405-088 | Flat Washer, 1/2" USS  | 6   |       |
| 16   | 9500801  | Work Light, LED 3" x 5 1/4"                                  | 1   |       |
| 17   | 9502437  | Pressure Gauge 0-60" Water Range                             | 1   |       |
| 18   | 97048    | Decal, WARNING "Pinch Point"                                 | 1   |       |
| 19   | 97421    | Grommet, 1 1/2" ID   | 2   |       |
| 20   | 97945    | Decal, WARNING "Rotor/Impeller"                              | 1   |       |
| 21   | 9800     | Locknut/Top, 1/2"-13UNC                                      | 4   |       |
| 22   | 98136    | Grommet, 1/4" W x 1/2" Dia.                                  | 1   |       |
| 23   | TA720812 | 90° Elbow, 1/4-18 Female NPT x 1/4" Dia. Compression Fitting | 1   |       |
| 24   | TA809325 | Hex Pipe Nipple, 1/4"  | 1   |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Ladder Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



# 4-TON DRY FERTILIZER CADDY — Parts

## Ladder Components

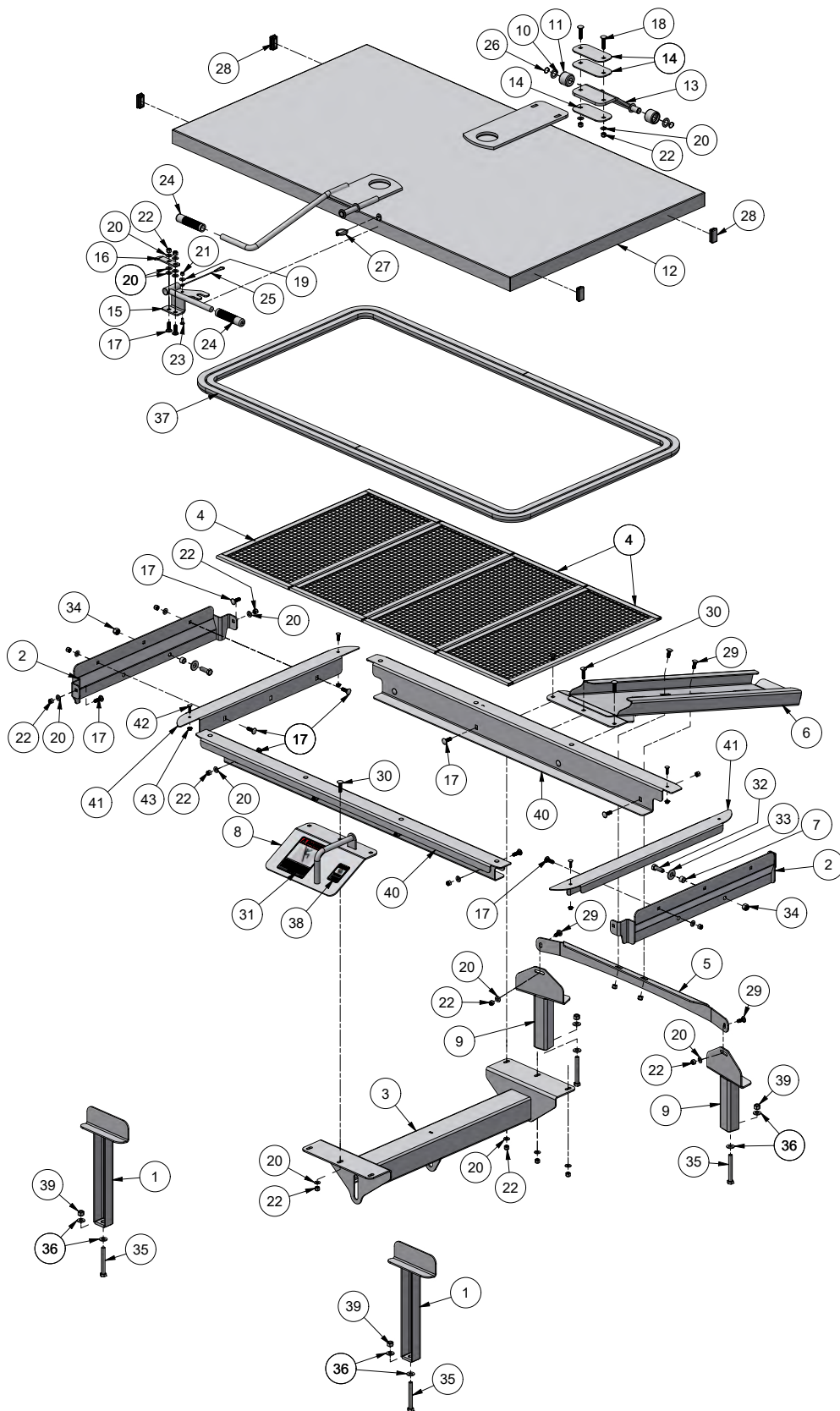
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.     | DESCRIPTION                                       | QTY | NOTES |
|------|--------------|---|-----|-------|
| 1    | 401879B      | Latch Pin Weldment =Black=                        | 1   |       |
| 2    | 401880       | Pin, 1/2" Dia. x 5 3/8"                           | 1   |       |
| 3    | 46399B       | Ladder Weldment =Black=                           | 1   |       |
| 4    | 97048        | Decal, WARNING "Pinch Point"                      | 2   |       |
| 5    | 46439B       | Lower Handrail Weldment =Black=                   | 1   |       |
| 6    | 46445B       | Handrail Weldment =Black=                         | 1   |       |
| 7    | 46502B       | Ladder Weldment =Black=                           | 1   |       |
| 8    | 46514B       | Ladder Mount Plate =Black=                        | 1   |       |
| 9    | 46516B       | Lower Handrail Weldment =Black=                   | 1   |       |
| 10   | 46540B       | Ladder Mount Weldment =Black=                     | 1   |       |
| 11   | 46543B       | Ladder Stop Tube Weldment =Black=                 | 1   |       |
| 12   | 9003850      | Bumper, 31/32" Dia.                               | 1   |       |
| 13   | 9003870      | Grip, 1/2" x 1" (Yellow)                          | 1   |       |
| 14   | 91262        | Flange Screw, 3/8"-16UNC x 1" G5                  | 8   |       |
| 15   | 91263        | Nut/Large Flange, 3/8"-16UNC                      | 16  |       |
| 16   | 93649        | Flange Screw, 3/8"-16UNC x 3/4" G5                | 8   |       |
| 17   | 9390-061     | Capscrew, 3/8"-16UNC x 2 1/2" G5                  | 4   |       |
| 18   | 9390-101     | Capscrew, 1/2"-13UNC x 1 1/2" G5                  | 4   |       |
| 19   | 9392-107     | Roll Pin, 3/16" Dia. x 2 1/2"                     | 1   |       |
| 20   | 9404-021     | Lock Washer, 3/8"                                 | 2   |       |
| 21   | 9405-086     | Flat Washer, 1/2" SAE                             | 10  |       |
| 22   | 9405-088     | Flat Washer, 1/2" USS                             | 1   |       |
| 23   | 94981        | Locknut/Center, 1/2"-13UNC                        | 4   |       |
| 24   | 9504169      | Shoulder Screw, 3/8"-16UNC x 1" (Stainless Steel) | 2   |       |
| 25   | 98075        | Gas Spring Assembly w/Clevis                      | 1   |       |
| 26   | 9928         | Locknut/Top, 3/8"-16UNC                           | 4   |       |
| 27   | TA0-908386-0 | Pop Rivet, 3/16" (Stainless Steel)                | 1   |       |
| 28   | TA510035     | Spring, 23/32" OD x 2 1/2"                        | 1   |       |
| 29   | 9003259      | Flange Screw, 3/8"-16UNC x 1 1/4" G5              | 6   |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Tank Lid, Screens, and Hold Down Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Tank Lid, Screens, and Hold Down Components

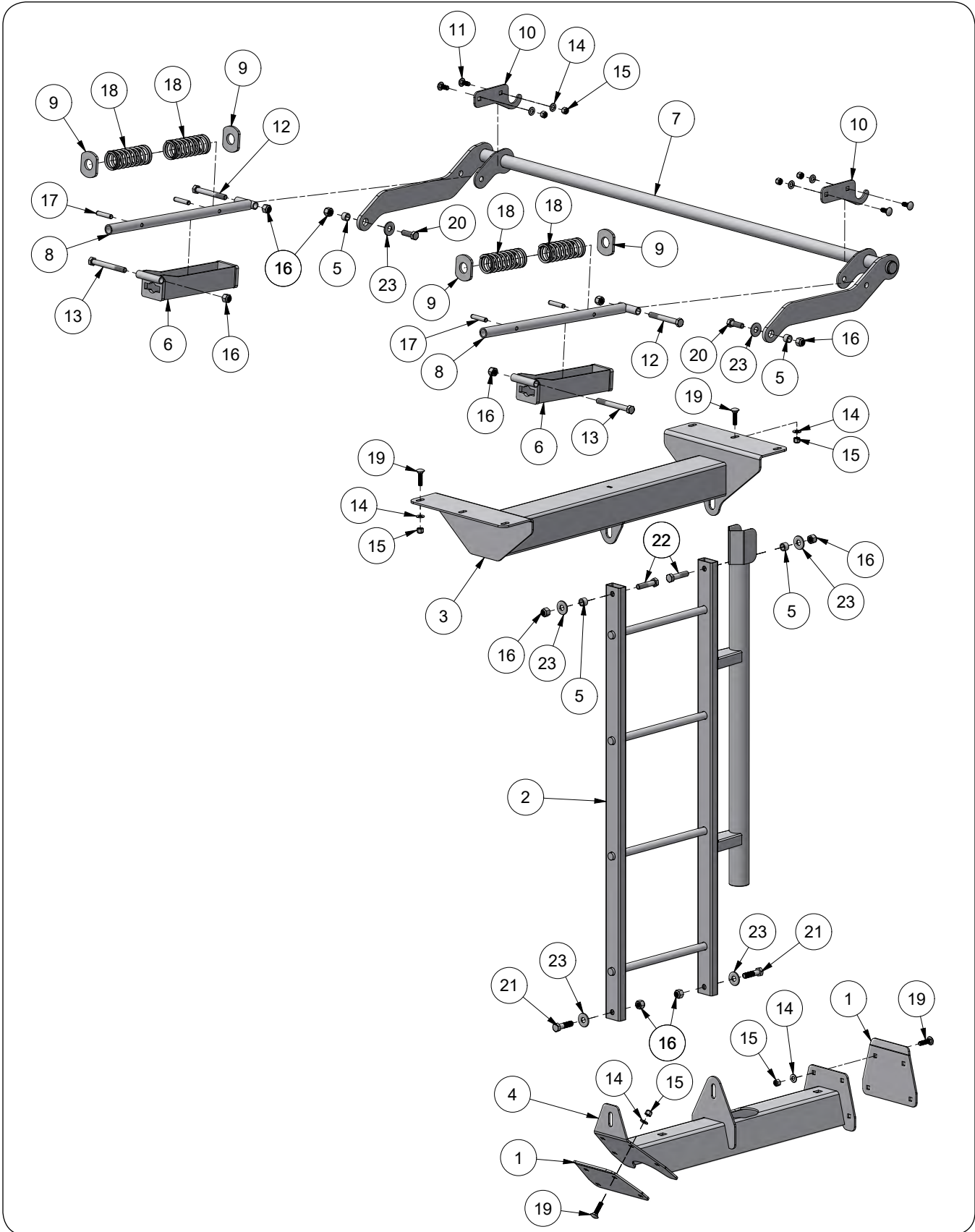
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.    | DESCRIPTION   | QTY | NOTES |
|------|-------------|---|-----|-------|
| 1    | 43077       | Tank Hold Down Weldment (Stainless Steel)             | 2   |       |
| 2    | 45412       | Lid Weldment Bracket (Stainless Steel)                | 2   |       |
| 3    | 45418       | Tank Cross Brace Weldment (Stainless Steel)           | 1   |       |
| 4    | 45422       | Grate Wire Mesh, 14" x 30" (Stainless Steel)          | 4   |       |
| 5    | 45429       | Plate/Bracket (Stainless Steel)                       | 1   |       |
| 6    | 45430       | Tank Weldment (Stainless Steel)                       | 1   |       |
| 7    | 45446       | Round Tube, 3/4" Dia. x 1/2" (Stainless Steel)        | 4   |       |
| 8    | 45450       | Latch Weldment w/Handle (Stainless Steel)             | 1   |       |
| 9    | 46264       | Tank Hold Down Weldment (Stainless Steel)             | 2   |       |
| 10   | 44686       | Plate/Washer, 1 1/4" OD x 25/32" ID (Stainless Steel) | 3   |       |
| 11   | 45351       | UHMW Roller, 1 3/4" Dia. x 1 3/8"                     | 2   |       |
| 12   | 45395       | Lid Weldment (Stainless Steel)                        | 1   |       |
| 13   | 45434       | Tank Weldment (Stainless Steel)                       | 1   |       |
| 14   | 45445       | Plate, 2 3/4" x 5 1/4"                                | 3   |       |
| 15   | 45455       | Latch Weldment (Stainless Steel)                      | 1   |       |
| 16   | 45456       | Plate/Strap, 1" (Stainless Steel)                     | 1   |       |
| 17   | 9007908-052 | Carriage Bolt, 3/8"-16UNC x 1 1/4" (Stainless Steel)  | 2   |       |
| 18   | 9007908-054 | Carriage Bolt, 3/8"-16UNC x 1 3/4" (Stainless Steel)  | 2   |       |
| 19   | 900902-032  | Flat Washer, 1/4" USS (Stainless Steel)               | 1   |       |
| 20   | 900902-037  | Flat Washer, 3/8" SAE (Stainless Steel)               | 12  |       |
| 21   | 900905-007  | Elastic Stop Nut, 1/4"-20UNC (Stainless Steel)        | 1   |       |
| 22   | 900905-012  | Elastic Stop Nut, 3/8"-16UNC (Stainless Steel)        | 8   |       |
| 23   | 902947      | Carriage Bolt, 1/4"-20UNC x 3/4" (Stainless Steel)    | 1   |       |
| 24   | 92928       | Grip/Handle 3/4" Dia. x 4 13/16"                      | 2   |       |
| 26   | 9502661     | Nylon Lanyard, 8"                                     | 1   |       |
| 26   | 9503560     | Retaining Ring, 3/4" NOM (Stainless Steel)            | 3   |       |
| 27   | 9503802     | Klik Pin, 3/16" Dia. x 1 3/4" (Stainless Steel)       | 1   |       |
| 28   | 98337       | Plug, 1" x 2"   | 4   |       |
| 29   | 9007908-051 | Carriage Bolt, 3/8"-16UNC x 1" (Stainless Steel)      | 12  |       |
| 30   | 9007908-053 | Carriage Bolt, 3/8"-16UNC x 1 1/2" (Stainless Steel)  | 14  |       |
| 31   | 9008838     | Decal, DANGER "Flowing Material"                      | 1   |       |
| 32   | 900900-101  | Capscrew 1/2"-13UNC x 1 1/2" (Stainless Steel)        | 2   |       |
| 33   | 900902-044  | Flat Washer, 1/2" USS (Stainless Steel)               | 6   |       |
| 34   | 900905-016  | Elastic Stop Nut, 1/2"-13UNC (Stainless Steel)        | 6   |       |
| 35   | 91552       | Capscrew, 1/2"-13UNC x 4" G5 (Full Threaded)          | 4   |       |
| 36   | 9405-086    | Flat Washer, 1/2" SAE                                 | 8   |       |
| 37   | 9503782     | Rubber Seal, 1" x 1" x 12"                            | A/R |       |
| 38   | 97048       | Decal, WARNING "Pinch Point"                          | 2   |       |
| 39   | 9800        | Locknut/Top, 1/2"-13UNC                               | 12  |       |
| 40   | 48377       | Channel, 59 5/8" (Stainless Steel)                    | 2   |       |
| 41   | 48378       | Channel, 35 7/32" (Stainless Steel)                   | 2   |       |
| 42   | 9007908-003 | Carriage Bolt, 3/8"-16UNC x 1" (Stainless Steel)      | 12  |       |
| 43   | 9004720     | Flange Nut, 1/4"-20UNC (Stainless Steel)              | 12  |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Tank Lid Mechanism and Internal Ladder Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Tank Lid Mechanism and Internal Ladder Components

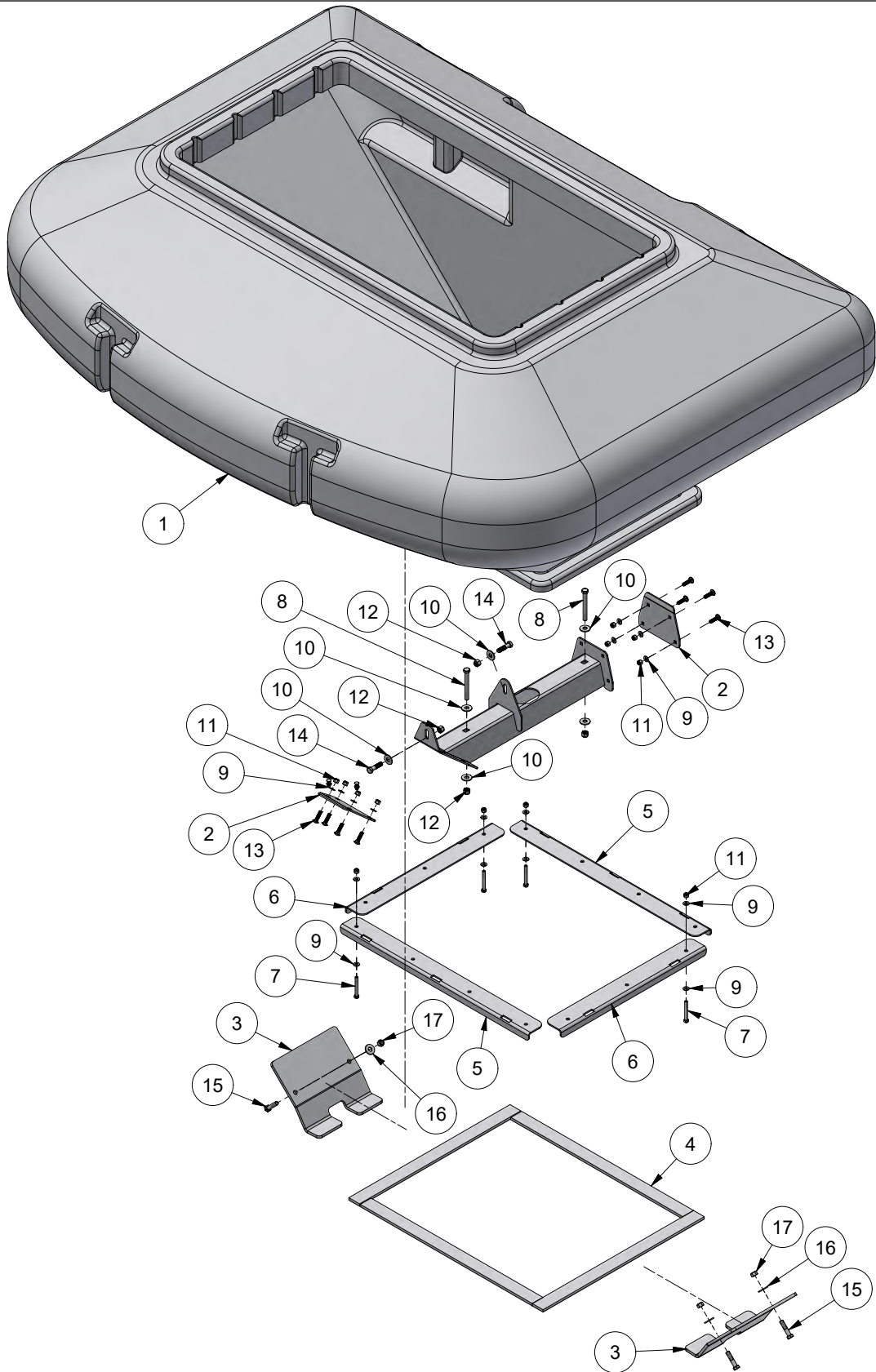
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.    | DESCRIPTION  | QTY | NOTES |
|------|-------------|--|-----|-------|
| 1    | 43176       | Mounting Plate (Stainless Steel)                     | 2   |       |
| 2    | 43227       | Ladder Weldment (Stainless Steel)                    | 1   |       |
| 3    | 45418       | Tank Cross Brace Weldment (Stainless Steel)          | 1   |       |
| 4    | 45425       | Channel Weldment (Stainless Steel)                   | 1   |       |
| 5    | 45446       | Round Tube/Bushing (Stainless Steel)                 | 4   |       |
| 6    | 45360       | Spring Case Weldment (Stainless Steel)               | 2   |       |
| 7    | 45401       | Pivot Weldment (Stainless Steel)                     | 1   |       |
| 8    | 45404       | Tube Weldment (Stainless Steel)                      | 2   |       |
| 9    | 45407       | Plate/Spring Washer (Stainless Steel)                | 4   |       |
| 10   | 45413       | Plate/Hook (Stainless Steel)                         | 2   |       |
| 11   | 9007908-051 | Carriage Bolt, 3/8"-16UNC x 1" (Stainless Steel)     | 12  |       |
| 12   | 900900-111  | Capscrew 1/2"-13UNC x 4" (Stainless Steel)           | 2   |       |
| 13   | 900900-112  | Capscrew, 1/2"-13UNC x 4 1/2" (Stainless Steel)      | 4   |       |
| 14   | 900902-037  | Flat Washer, 3/8" SAE (Stainless Steel)              | 58  |       |
| 15   | 900905-012  | Elastic Stop Nut, 3/8"-16UNC (Stainless Steel)       | 51  |       |
| 16   | 900905-016  | Elastic Stop Nut, 1/2"-13UNC (Stainless Steel)       | 12  |       |
| 17   | 900910-207  | Spiral Pin, 3/8" Dia. x 2" (Stainless Steel)         | 4   |       |
| 18   | 9503762     | Compression Spring                                   | 4   |       |
| 19   | 9007908-053 | Carriage Bolt, 3/8"-16UNC x 1 1/2" (Stainless Steel) | 14  |       |
| 20   | 900900-101  | Capscrew, 1/2"-13UNC x 1 1/2" (Stainless Steel)      | 2   |       |
| 21   | 900900-103  | Capscrew, 1/2"-13UNC x 2" (Stainless Steel)          | 2   |       |
| 22   | 900900-104  | Capscrew 1/2"-13UNC x 2 1/4" (Stainless Steel)       | 2   |       |
| 23   | 900902-044  | Flat Washer, 1/2" USS (Stainless Steel)              | 10  |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Tank and Lower Mounting Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Tank and Lower Mounting Components

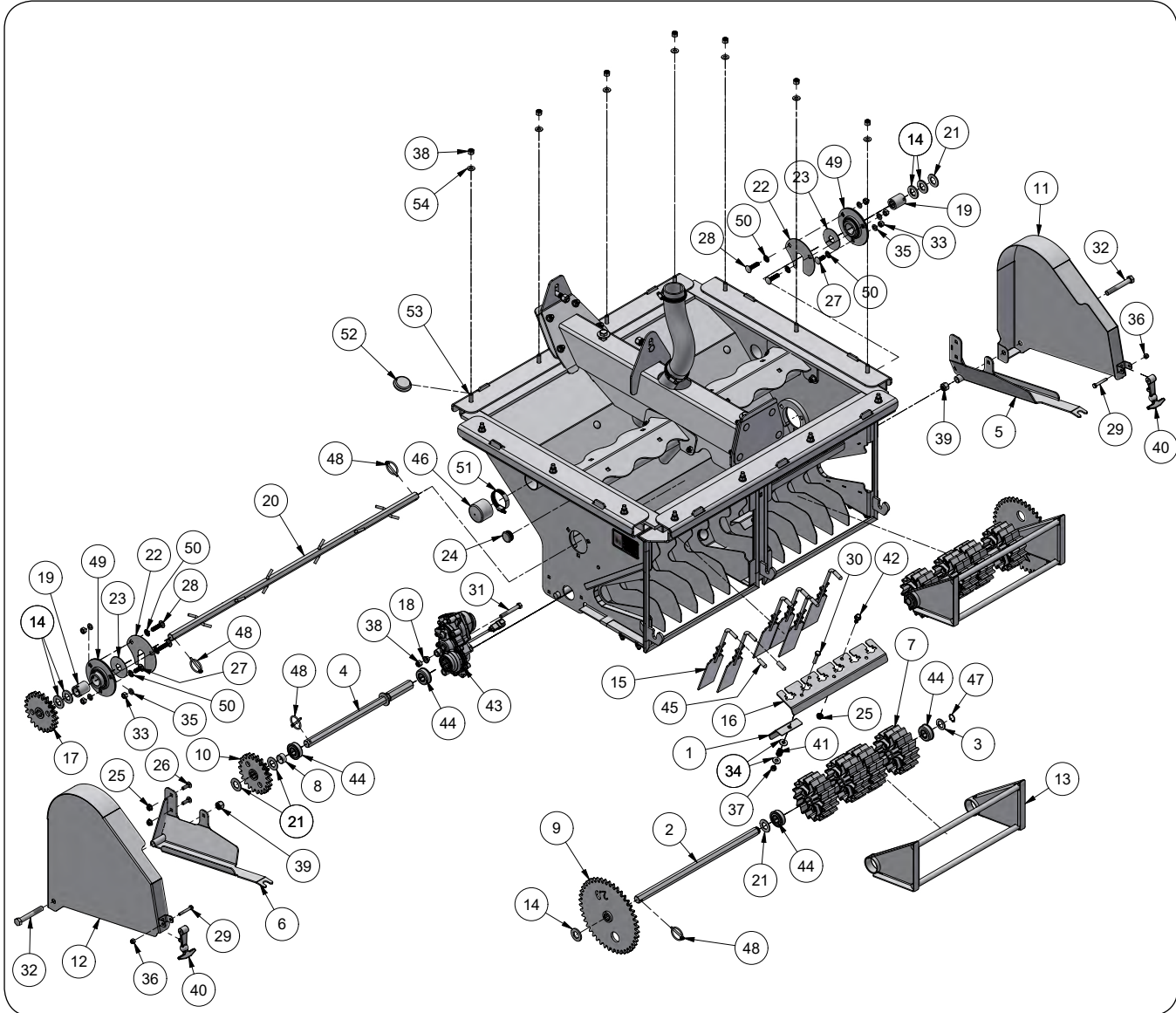
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.    | DESCRIPTION  | QTY | NOTES |
|------|-------------|--|-----|-------|
| 1    | 42836W      | Plastic Tank 135 CU. FT. =White=                     | 1   |       |
| 2    | 43176       | Mounting Plate (Stainless Steel)                     | 2   |       |
| 3    | 45476PG     | Mounting Plate =Orthman Green=                       | 2   |       |
| 4    | 44967       | Foam Tape, 3/8" x 2" x 32"                           | 2   |       |
| 5    | 45514       | Angle, 35" Long (Stainless Steel)                    | 2   |       |
| 6    | 45519       | Angle, 27" Long (Stainless Steel)                    | 2   |       |
| 7    | 900900-063  | Capscrew, 3/8"-16UNC x 3" (Stainless Steel)          | 4   |       |
| 8    | 900900-112  | Capscrew, 1/2"-13UNC x 4 1/2" (Stainless Steel)      | 2   |       |
| 9    | 900902-037  | Flat Washer, 3/8" SAE (Stainless Steel)              | 8   |       |
| 10   | 900902-044  | Flat Washer, 1/2" USS (Stainless Steel)              | 8   |       |
| 11   | 900905-012  | Elastic Stop Nut, 3/8"-16UNC (Stainless Steel)       | 4   |       |
| 12   | 900905-016  | Elastic Stop Nut, 1/2"-13UNC (Stainless Steel)       | 6   |       |
| 13   | 9007908-053 | Carriage Bolt, 3/8"-16UNC x 1 1/2" (Stainless Steel) | 13  |       |
| 14   | 900900-103  | Capscrew, 1/2"-13UNC x 2" (Stainless Steel)          | 2   |       |
| 15   | 9390-104    | Capscrew, 1/2"-13UNC x 2 1/4" G5                     | 4   |       |
| 16   | 9405-088    | Flat Washer, 1/2" USS                                | 10  |       |
| 17   | 9800        | Locknut/Top, 1/2"-13UNC                              | 12  |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Meter Housing Assembly Components (Part 1)

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



| ITEM | PART NO. | DESCRIPTION   | QTY | NOTES |
|------|----------|---|-----|-------|
| 1    | 44539    | Plate/Agitator Door Tab (Stainless Steel)                 | 6   |       |
| 2    | 44541    | Hex Bar Shaft, 18 11/16" (Stainless Steel)                | 2   |       |
| 3    | 44686    | Plate/Washer, 1 1/4" OD x 25/32" ID (Stainless Steel)     | 2   |       |
| 4    | 44753    | Hex Bar Shaft, 16 1/8" (Stainless Steel)                  | 2   |       |
| 5    | 44831    | Shield Weldment, Bottom Right-Hand Side (Stainless Steel) | 1   |       |
| 6    | 44832    | Shield Weldment, Bottom Left-Hand Side (Stainless Steel)  | 1   |       |
| 7    | 45048    | Meter Wheel =DARK GREY=                                   | 6   |       |
| 8    | 45112    | Tube/Spacer 1" OD x .902" ID x .50" (Stainless Steel)     | 2   |       |
| 9    | 45253    | Spur Gear 44 Tooth Weldment (Stainless Steel)             | 2   |       |
| 10   | 45254    | Spur Gear 22 Tooth Weldment (Stainless Steel)             | 3   |       |
| 11   | 45269    | Shield Weldment, Right-Hand Side (Stainless Steel)        | 1   |       |
| 12   | 45270    | Shield Weldment, Left-Hand Side (Stainless Steel)         | 1   |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Meter Housing Assembly Components (Part 1)

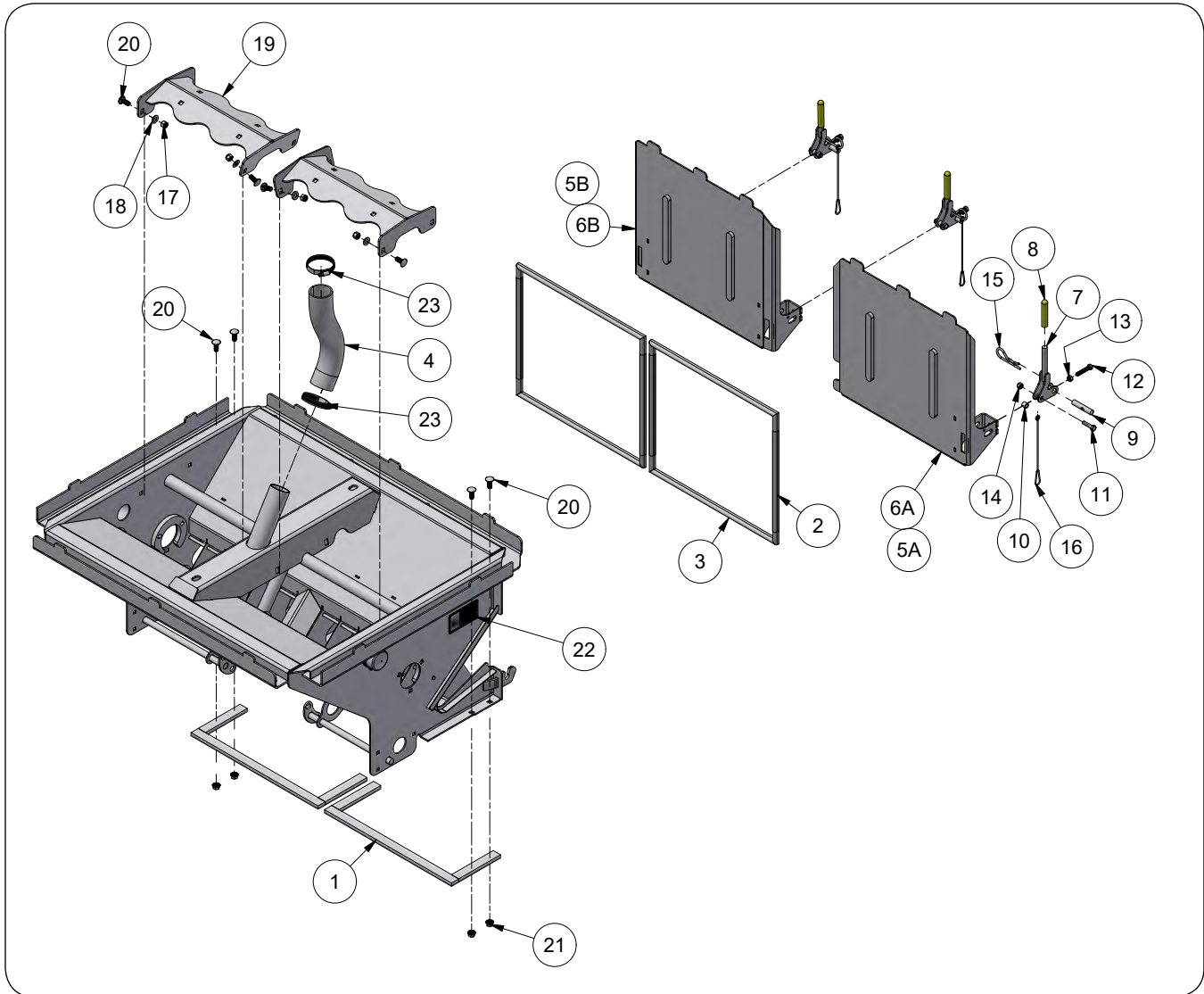
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.    | DESCRIPTION  | QTY | NOTES |
|------|-------------|--|-----|-------|
| 13   | 45494       | Meter Wheel Housing Weldment (Stainless Steel)         | 2   |       |
| 14   | 45525       | Hex Washer, 1 1/2" OD                                  | 6   |       |
| 15   | 47264       | Agitator Door Weldment (Stainless Steel)               | 12  |       |
| 16   | 47265       | Plate/Agitator Door Bracket, 14 3/8" (Stainless Steel) | 2   |       |
| 17   | 47570       | Spur Gear Weldment 22 Tooth (Stainless Steel)          | 1   |       |
| 18   | 47601       | Bushing, 3/4" Dia. x .4" (Stainless Steel)             | 4   |       |
| 19   | 47697       | Bar, 1 1/4" Dia. x 1.5" Hub w/Hex ID (Stainless Steel) | 1   |       |
| 20   | 47702       | Agitator Weldment (Stainless Steel)                    | 1   |       |
| 21   | 47926       | Cover Washer (Stainless Steel)                         | 6   |       |
| 22   | 48022       | Plate w/Square Holes (Stainless Steel)                 | 2   |       |
| 23   | 48023       | Plate w/Hex Hole (Stainless Steel)                     | 2   |       |
| 24   | 9005089     | Plug, 1 1/4"   | 2   |       |
| 25   | 9005639     | Flange Nut, 5/16"-18UNC (Stainless Steel)              | 10  |       |
| 26   | 9007908-025 | Carriage Bolt, 5/16"-18UNC x 1" (Stainless Steel)      | 6   |       |
| 27   | 9007908-051 | Carriage Bolt, 3/8"-16UNC x 1" (Stainless Steel)       | 10  |       |
| 28   | 9007908-053 | Carriage Bolt, 3/8"-16UNC x 1 1/2" (Stainless Steel)   | 4   |       |
| 29   | 900900-008  | Capscrew, 1/4"-20UNC x 1 3/4" (Stainless Steel)        | 2   |       |
| 30   | 900900-032  | Capscrew, 5/16"-18UNC x 1 1/2" (Stainless Steel)       | 6   |       |
| 31   | 900900-062  | Capscrew, 3/8"-16UNC x 2 3/4" (Stainless Steel)        | 4   |       |
| 32   | 900900-109  | Capscrew 1/2"-13UNC x 3 1/2" (Stainless Steel)         | 2   |       |
| 33   | 900901-006  | Hex Nut, 3/8"-16UNC (Stainless Steel)                  | 6   |       |
| 34   | 900902-035  | Flat Washer, 5/16" USS (Stainless Steel)               | 12  |       |
| 35   | 900903-021  | Lock Washer, 3/8" (Stainless Steel)                    | 6   |       |
| 36   | 900905-007  | Elastic Stop Nut, 1/4"-20UNC (Stainless Steel)         | 2   |       |
| 37   | 900905-010  | Elastic Stop Nut, 5/16"-18UNC (Stainless Steel)        | 6   |       |
| 38   | 900905-012  | Elastic Stop Nut, 3/8"-16UNC (Stainless Steel)         | 14  |       |
| 39   | 900905-016  | Elastic Stop Nut, 1/2"-13UNC (Stainless Steel)         | 2   |       |
| 40   | 9501820     | Rubber Latch, 3 13/32" L x 7/8" W                      | 2   |       |
| 41   | 9501825     | Compression Spring, 3/4" (Stainless Steel)             | 6   |       |
| 42   | 9501948-028 | Flange Screw, 5/16"-18UNC x 3/4" (Stainless Steel)     | 4   |       |
| 43   | 9502764     | Omnirow Motor, 2.01 CU IN/Rev 1500 PSI                 | 2   |       |
|      | 9503783     | Seal Kit for Hydraulic Motor                           | -   |       |
| 44   | 9503237     | Bearing, Polymer Flanged Ball Hex Bore 3/4"            | 8   |       |
| 45   | 9503494     | Hand Grip, 5/16" Dia. X 1"                             | 12  |       |
| 46   | 9503526     | Round Vinyl Cap  | 2   |       |
| 47   | 9503560     | Retaining Ring, 3/4" NOM (Stainless Steel)             | 2   |       |
| 48   | 9503802     | Klik Pin, 3/16" Dia. x 1 3/4" (Stainless Steel)        | 6   |       |
| 49   | 9504976     | Bearing Assembly w/Triple Lip Seals                    | 2   |       |
| 50   | 9505143     | Push Nut, 3/8" (Stainless Steel)                       | 6   |       |
| 51   | TA800920    | Hose Clamp, SC-32 (Stainless Steel)                    | 2   |       |
| 52   | 97422       | Plug/Rubber, 1 1/2" Dia.                               | 1   |       |
| 53   | 900900-063  | Capscrew, 3/8"-16UNC x 3" (Stainless Steel)            | 14  |       |
| 54   | 900902-037  | Flat Washer, 3/8" SAE (Stainless Steel)                | 28  |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Meter Housing Assembly Components (Part 2)

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



# 4-TON DRY FERTILIZER CADDY — Parts

## Meter Housing Assembly Components (Part 2)

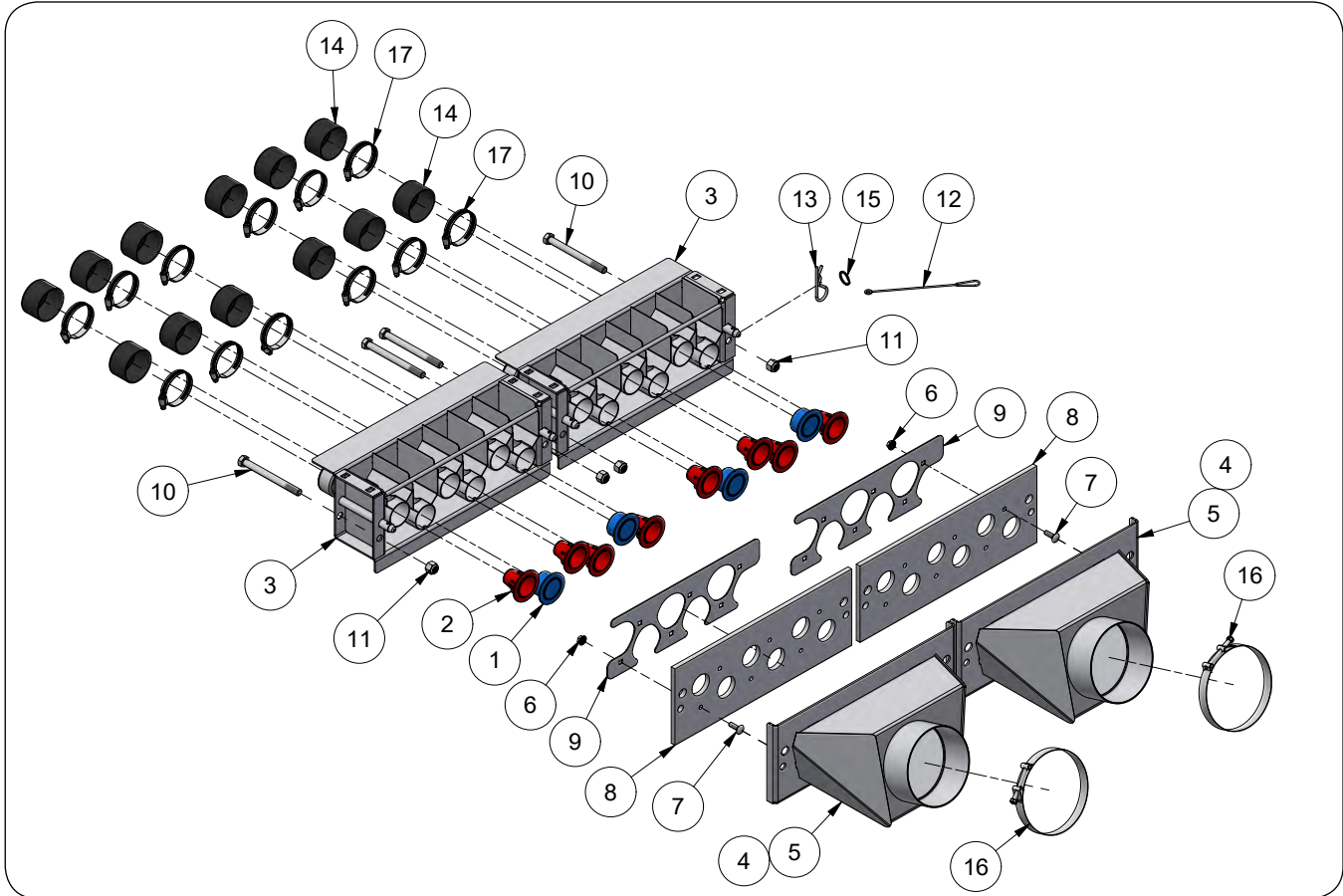
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.     | DESCRIPTION  | QTY              | NOTES                  |
|------|--------------|--|------------------|------------------------|
| 1    | 44963        | Foam Tape, 1" x 3/8" x 17 1/2" (Black)                         | 2                |                        |
| 2    | 45628        | Rubber Seal, 1/2" x 1/2" x 15 5/8" EPDM                        | 4                |                        |
| 3    | 45629        | Rubber Seal, 1/2" x 1/2" x 17 1/2" EPDM                        | 4                |                        |
| 4    | 46474        | Air Seeder Hose, 2.32" OD x 2.0" ID x 12"                      | 1                |                        |
| 5A   | 46535        | Cover Assembly Left-Hand (Stainless Steel)                     | 1                | Includes Items 6A - 16 |
| 5B   | 46536        | Cover Assembly Right-Hand (Stainless Steel)                    | 1                | Includes Items 6B - 16 |
| 6A   | 46533        | Cover Left-Hand Weldment (Stainless Steel)                     | 1                |                        |
| 6B   | 46534        | Cover Right-Hand Weldment (Stainless Steel)                    | 1                |                        |
| 7    | 46522        | Latch Weldment   | LH - 1<br>RH - 2 |                        |
| 8    | 902603       | Hand Grip, 0.581" Dia. x 3" (Yellow)                           | LH - 1<br>RH - 2 |                        |
| 9    | 46528        | Pin, 1/2" Dia. x 2 1/2" (Stainless Steel)                      | LH - 1<br>RH - 2 |                        |
| 10   | 46527        | Bushing, 1/2" OD x 0.35" ID x .44" (Stainless Steel)           | LH - 1<br>RH - 2 |                        |
| 11   | 900900-031   | Capscrew, 5/16"-18UNC x 1 1/4" (Stainless Steel)               | LH - 1<br>RH - 2 |                        |
| 12   | 9504171      | Capscrew, 5/16"-18UNC x 1 3/4" (Stainless Steel) Full Threaded | LH - 1<br>RH - 2 |                        |
| 13   | 900901-004   | Hex Nut, 5/16"-18UNC (Stainless Steel)                         | LH - 1<br>RH - 2 |                        |
| 14   | 900905-010   | Elastic Stop Nut, 5/16"-18UNC (Stainless Steel)                | LH - 1<br>RH - 2 |                        |
| 15   | 9504172      | Hairpin Cotter, 0.177" Dia. x 3 1/4" (Stainless Steel)         | LH - 1<br>RH - 2 |                        |
| 16   | 9502661      | Lanyard, 8"  | LH - 1<br>RH - 2 |                        |
| 17   | 900905-012   | Elastic Stop Nut, 3/8"-16UNC (Stainless Steel)                 | 12               |                        |
| 18   | 900902-037   | Flat Washer, 3/8" SAE (Stainless Steel)                        | 8                |                        |
| 19   | 45558        | Tent Weldment (Stainless Steel)                                | 2                |                        |
| 20   | 9007908-051  | Carriage Bolt, 3/8"-16UNC x 1" (Stainless Steel)               | 10               |                        |
| 21   | 9005640      | Flange Nut, 3/8"-16UNC (Stainless Steel)                       | 10               |                        |
| 22   | TA1-906109-0 | Decal, WARNING "Moving Parts Can Crush or Cut"                 | 2                |                        |
| 23   | TA800922     | Worm Drive Hose Clamp, 3/4" to 2 5/8" (Stainless Steel)        | 14               |                        |

# 4-TON DRY FERTILIZER CADDY — Parts

## Primary Distribution Box Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Primary Distribution Box Components

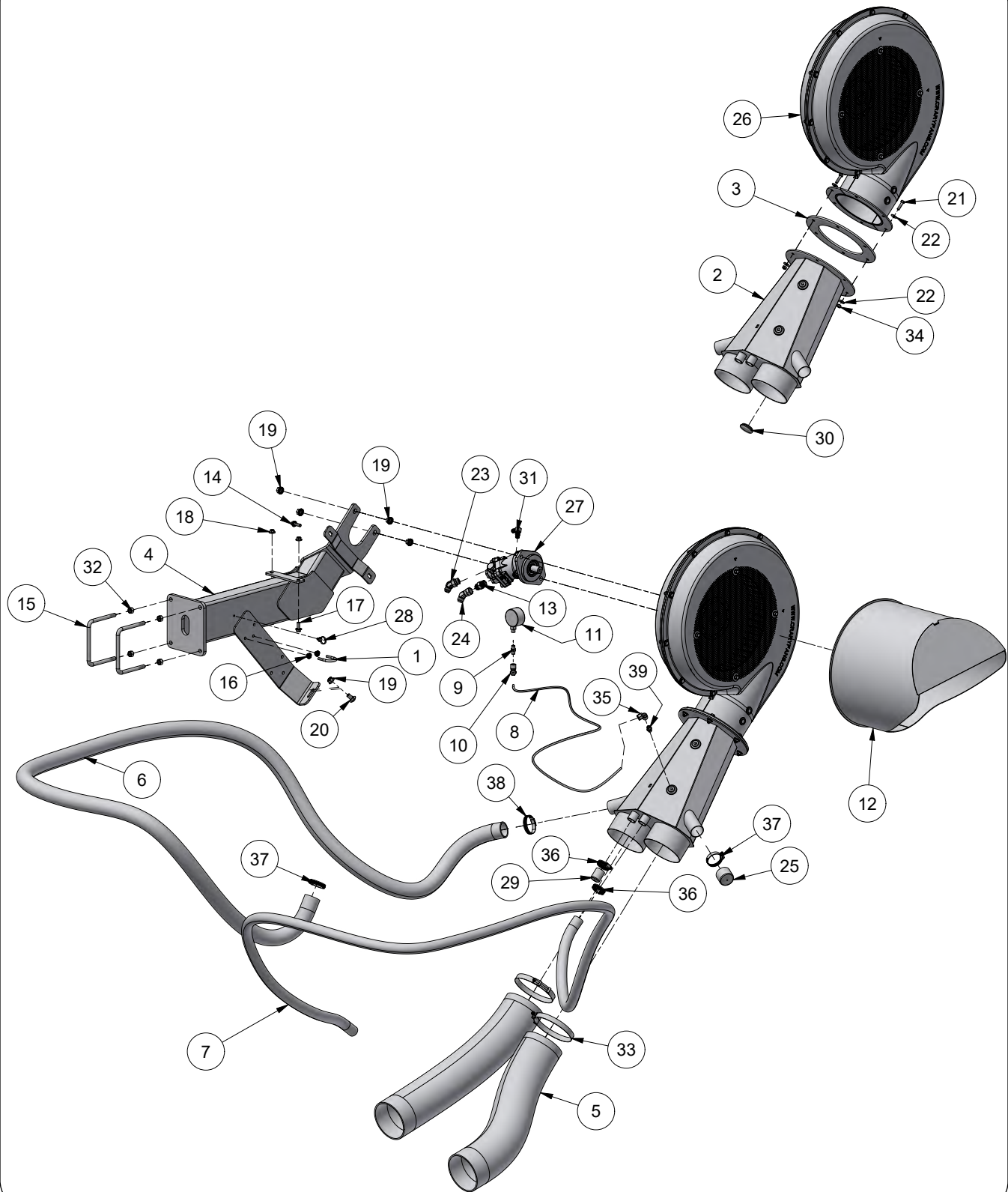
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO.    | DESCRIPTION   | QTY | NOTES              |
|------|-------------|---|-----|--------------------|
| 1    | 45226       | Plastic Plug, 1.84" Dia. x 1.16" =BLUE=                 | 12  |                    |
| 2    | 45353       | Primary Nozzle, 1.75" Dia. x 1.87" =RED=                | 8   |                    |
| 3    | 46360       | Distribution Box Weldment, 6-Port (Stainless Steel)     | 2   |                    |
| 4    | 46380       | Air Intake Assembly (Stainless Steel)                   | 2   | Includes Items 5-9 |
| 5    | 46382       | Intake Cover Weldment (Stainless Steel)                 | 2   |                    |
| 6    | 9005639     | Flange Nut, 5/16"-18UNC (Stainless Steel)               | 8   |                    |
| 7    | 9007908-025 | Carriage Bolt, 5/16"-18UNC x 1" (Stainless Steel)       | 6   |                    |
| 8    | 48026       | Foam Gasket, 3/8" x 6 3/4" x 17 3/4"                    | 1   |                    |
| 9    | 48027       | Plate, 5 1/8" x 15 1/4" (Stainless Steel)               | 1   |                    |
| 10   | 900900-114  | Capscrew, 1/2"-13UNC x 5 1/2" (Stainless Steel)         | 4   |                    |
| 11   | 900905-016  | Elastic Stop Nut, 1/2"-13UNC (Stainless Steel)          | 6   |                    |
| 12   | 9502661     | Lanyard, 8"   | 1   |                    |
| 13   | 9504172     | Hairpin Cotter, 0.177" Dia. x 3 1/4"                    | 1   |                    |
| 14   | 9504975     | Vinyl Cap, 2.65" OD x 2.50" ID x 1 1/2" (Black)         | 12  |                    |
| 15   | 97489       | Split Ring  | 1   |                    |
| 16   | 98060       | Clamp/T-Bolt, 6.5" Dia. NOM (Stainless Steel)           | 2   |                    |
| 17   | TA800922    | Worm Drive Hose Clamp, 3/4" to 2 5/8" (Stainless Steel) | 14  |                    |

# 4-TON DRY FERTILIZER CADDY — Parts

## Fan, Air Manifold, and Hoses Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Fan, Air Manifold, and Hoses Components

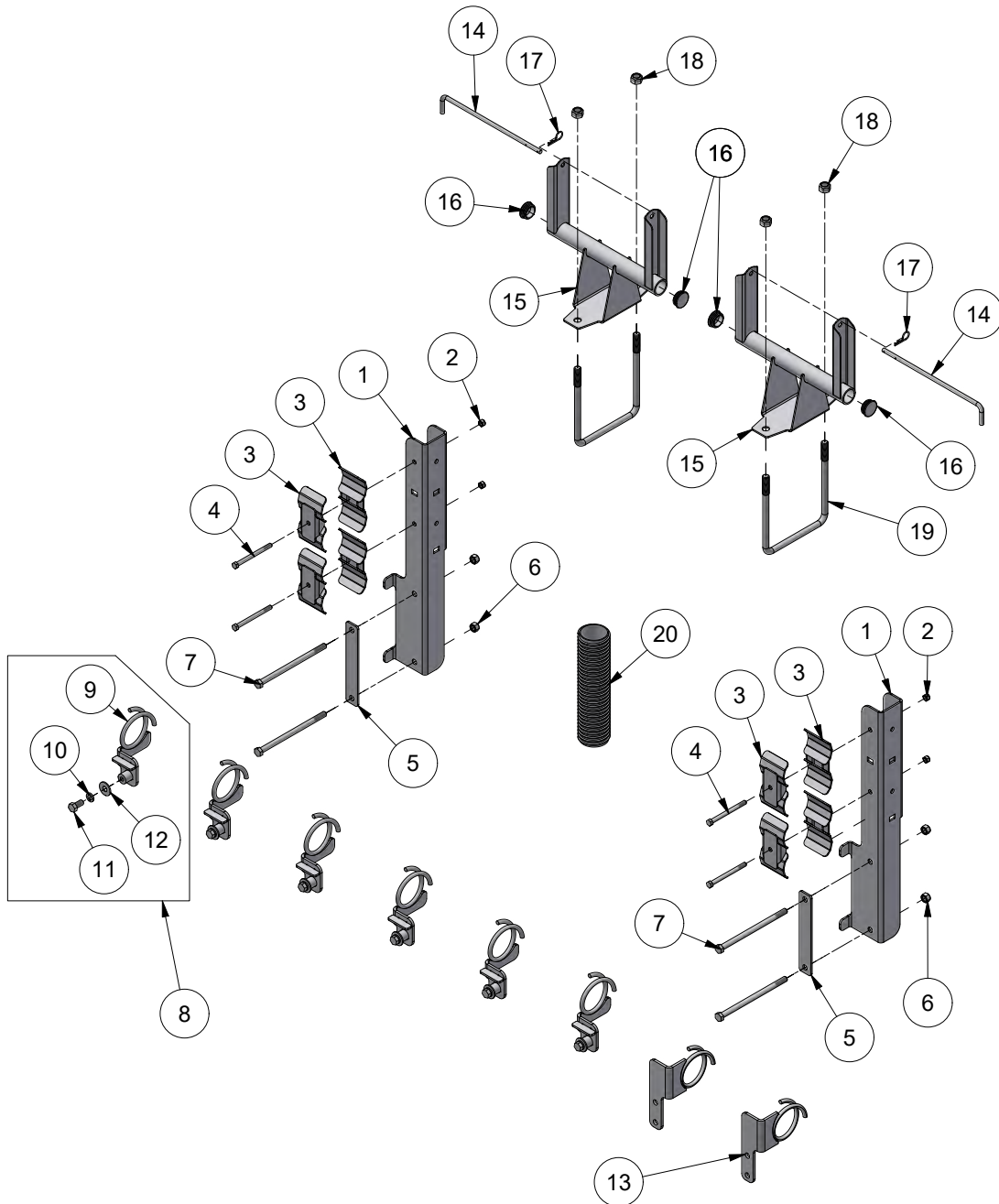
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO. | DESCRIPTION   | QTY | NOTES            |
|------|----------|---|-----|------------------|
| 1    | 100965   | U-Bolt, 5/16"-18UNC x 2 3/16", 1 11/16" C/C                   | 1   |                  |
| 2    | 45540B   | Air Manifold =BLACK=  | 1   |                  |
| 3    | 45544    | Neoprene Gasket, 1/4" x 11 1/2" OD x 7 1/2" ID                | 1   |                  |
| 4    | 46272B   | Fan Mount Weldment =Black=                                    | 1   |                  |
| 5    | 46278    | Air Seeder Hose, 6" ID x 27 3/4" (Black)                      | 2   |                  |
| 6    | 46279    | Air Seeder Hose, 2" ID x 165 1/2"                             | 1   |                  |
| 7    | 46289    | Suction Hose, 1 1/4" ID x 166 1/4"                            | 1   |                  |
| 8    | 46317    | Air Gauge Tubing 1/4" Dia. x 55"                              | 1   |                  |
| 9    | TA809325 | 1/4" Hex Pipe Nipple  | 1   |                  |
| 10   | TA720812 | 90° Elbow, 1/4"-18 Female NPT x 1/4" Dia. Compression Fitting | 1   |                  |
| 11   | 9502437  | Pressure Gauge, 0-60" Water                                   | 1   |                  |
| 12   | 46592B   | Fan Hood Weldment =BLACK=                                     | 1   |                  |
| 13   | 9002443  | Adapter, 7/8"-14 JIC Male x 7/8"-14 O-Ring Male               | 6   |                  |
| 14   | 9003259  | Flange Screw, 3/8"-16UNC x 1 1/4" G5                          | 2   |                  |
| 15   | 902438   | U-Bolt, 1/2"-13UNC x 5 1/8", 6 9/16" C/C                      | 2   |                  |
| 16   | 91257    | Hex Nut/Large Flange, 5/16"-18UNC                             | 2   |                  |
| 17   | 91262    | Flange Screw, 3/8"-16UNC x 1" G5                              | 16  |                  |
| 18   | 91263    | Nut/Large Flange, 3/8"-16UNC                                  | 14  |                  |
| 19   | 91267    | Flange Nut, 1/2"-13UNC  | 3   |                  |
| 20   | 9388-102 | Carriage Bolt, 1/2"-13UNC x 1" G5                             | 1   |                  |
| 21   | 9390-031 | Capscrew, 5/16"-18UNC x 1 1/4" G5                             | 8   |                  |
| 22   | 9405-070 | Flat Washer, 5/16" USS  | 16  |                  |
| 23   | 9502614  | 45° Elbow, 7/8"-14 JIC Male x 7/8"-14 O-Ring Male             | 1   |                  |
| 24   | 9503042  | 45° Elbow, 7/8"-14 JIC Male x 7/8"-14 JIC Female              | 1   |                  |
| 25   | 9503526  | Vinyl Cap, 2.14" OD x 2.00" ID x 1 1/2" (Black)               | 1   |                  |
| 26   | 9503800  | Aluminum Fan 8", Flange Outlet With Motor                     | 1   | Includes Item 27 |
| 27   | 9503799  | Motor/Hydraulic, 18CC Bent Axis Piston                        | 1   |                  |
|      | 9502586  | Motor Seal Kit  | -   |                  |
| 28   | 9503951  | Fir Tree Cable Tie, 7 15/16"                                  | 11  |                  |
| 29   | 9504123  | Vinyl Cap, 1.39"OD x 1.25" ID x 1 1/2" (Black)                | 1   |                  |
| 30   | 97422    | Plug/Rubber, 1 1/2" Dia.                                      | 1   |                  |
| 31   | 97445    | 90° Elbow, 9/16"-18 JIC Male x 9/16"-18 O-Ring Male           | 1   |                  |
| 32   | 9800     | Locknut/Top, 1/2"-13UNC                                       | 12  |                  |
| 33   | 98060    | Clamp/T-Bolt, 6.5" Dia. NOM (Stainless Steel)                 | 2   |                  |
| 34   | 9807     | Locknut/Top, 5/16"-18UNC                                      | 14  |                  |
| 35   | TA720812 | 90° Elbow, 1/4" FPT x 1/4" Tube                               | 1   |                  |
| 36   | TA800916 | Hose Clamp, SC-24 (Stainless Steel)                           | 2   |                  |
| 37   | TA800920 | Hose Clamp, SC-32 (Stainless Steel)                           | 2   |                  |
| 38   | TA800922 | Worm Drive Hose Clamp, 3/4" to 2 5/8" (Stainless Steel)       | 1   |                  |
| 39   | TA809325 | Hex Pipe Nipple, 1/4"   | 1   |                  |

# 4-TON DRY FERTILIZER CADDY — Parts

## Fertilizer Hose Support Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Fertilizer Hose Support Components

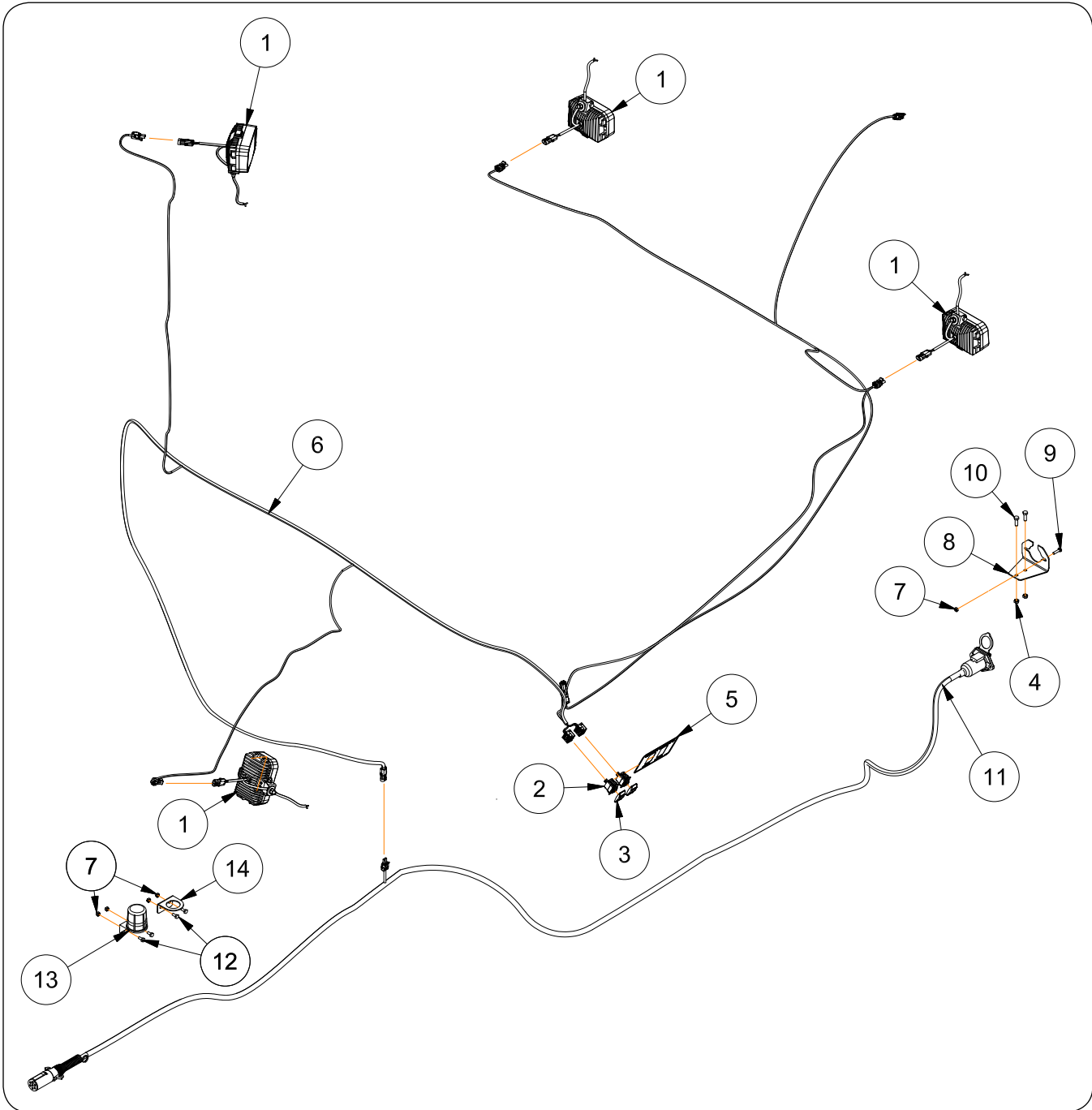
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO. | DESCRIPTION                                | QTY                                       | NOTES                  |  |
|------|----------|--|---|------------------------|--|
| 1    | 48480B   | Hose Holder Bracket =Black=                | 2   |                        |  |
| 2    | 9928     | Locknut/Top, 3/8"-16UNC                    | 4   |                        |  |
| 3    | 47851B   | Clamp Half Weldment 2.5" =Black=           | 8   |                        |  |
| 4    | 9390-068 | Capscrew, 3/8"-16UNC x 4 1/2" G5           | 4   |                        |  |
| 5    | 48485B   | Plate, 1 1/2" x 9" =Black=                 | 2   |                        |  |
| 6    | 9800     | Locknut/Top, 1/2"-13UNC                    | 4   |                        |  |
| 7    | 9390-434 | Capscrew, 1/2"-13UNC x 8 1/2" G5           | 4   |                        |  |
| 8    | L388-758 | Hose Route Loop Assembly                   | 6   | Includes Items 9-12    |  |
|      | 9        | L388-757                                   | Hose Route Loop Weldment                  | 1                      |  |
|      | 10       | 9404-025                                   | Lock Washer, 1/2"                         | 1                      |  |
|      | 11       | 9390-099                                   | Capscrew, 1/2"-13UNC x 1" G5              | 1                      |  |
|      | 12       | 9405-088                                   | Flat Washer, 1/2" USS                     | 1                      |  |
| 13   | L388-753 | Hose Route Loop Weldment                   | 2   |                        |  |
| 14   | 45044    | Bent Pin, 3/8" Dia. x 14 15/32" (13" Long) | 2   |                        |  |
| 15   | 45958B   | Fertilizer Hose Support Weldment =Black=   | 2   | Includes Items 16-19   |  |
|      | 16       | 9007071                                    | Plug, 1 5/8" Dia.                         | 2                      |  |
|      | 17       | 9514                                       | Hairpin Cotter, .092" Dia. x 1 7/8"       | 2                      |  |
|      | 18       | 9801                                       | Locknut/Top, 5/8"-11UNC                   | 4                      |  |
|      | 19       | JBP3306                                    | U-Bolt, 5/8"-11UNC x 8 1/2", 7 11/16" C/C | 2                      |  |
| 20   | 9504780  | Air Seeder Hose 2 1/2" ID                  | AR  | Specify Length in Feet |  |

# 4-TON DRY FERTILIZER CADDY — Parts

## Electrical Components

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Electrical Components

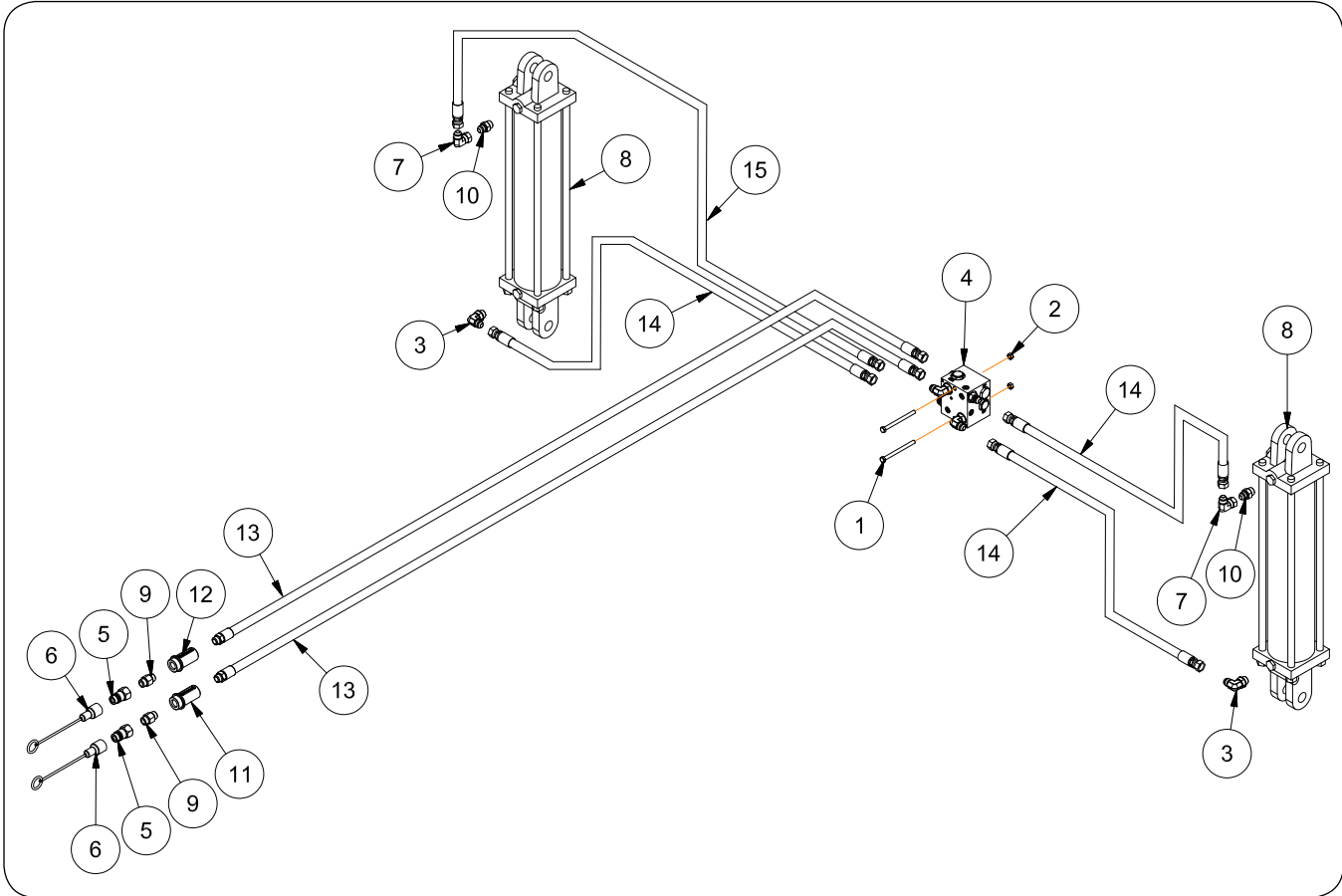
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NO. | DESCRIPTION                          | QTY | NOTES |
|------|----------|--------------------------------------|-----|-------|
| 1    | 9500801  | Work Light, LED                      | 4   |       |
| 2    | 9500977  | Rocker Switch Body (Contura III)     | 2   |       |
| 3    | 9500978  | Rocker Switch Actuator (Contura III) | 2   |       |
| 4    | 9807     | Locknut/Top, 5/16"-18UNC             | 4   |       |
| 5    | 9504173  | Decal, Light Switches                | 1   |       |
| 6    | 9505156  | Work Light Wire Harness, 147"        | 1   |       |
| 7    | 9936     | Locknut/Top, 1/4"-20UNC              | 6   |       |
| 8    | 66724    | Electrical Coupler Mount Plate       | 1   |       |
| 9    | 9390-005 | Capscrew, 1/4"-20UNC x 1" G5         | 2   |       |
| 10   | 9390-030 | Capscrew, 5/16"-18UNC x 1" G5        | 4   |       |
| 11   | 9504181  | Main Wire Harness, 275"              | 1   |       |
| 12   | 9390-002 | Capscrew, 1/4"-20UNC x 5/8" G5       | 4   |       |
| 13   | 9001968  | Connector Holder                     | 1   |       |
| 14   | 281837B  | Plate Holder =Black=                 | 1   |       |

# 4-TON DRY FERTILIZER CADDY — Parts

## Hydraulic Components — Caddy Axles

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

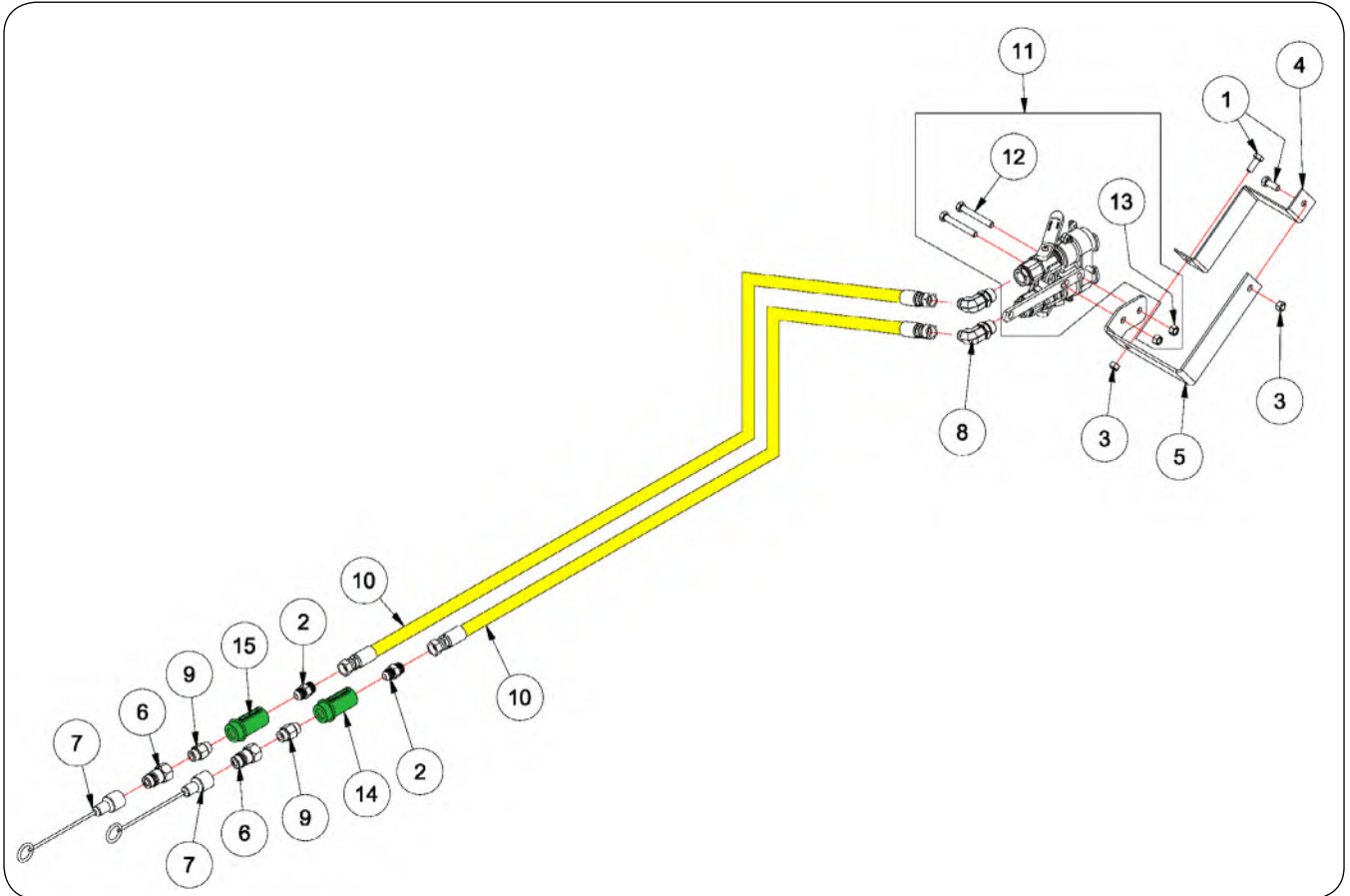


| ITEM | PART NUMBER | DESCRIPTION  | QTY |
|------|-------------|--|-----|
| 1    | 9390-042    | Capscrew, 5/16"-18UNC x 4" G5  | 2   |
| 2    | 9807        | Locknut/Top, 5/16"-18UNC   | 2   |
| 3    | 9863        | 90° Elbow, 3/4"-16 JIC Male x 3/4"-16 O-Ring Male                    | 2   |
| 4    | 74692       | Valve Assembly   | 1   |
| 5    | 91383       | Male Tip Coupling, 3/4"-16 O-Ring Female                             | 2   |
| 6    | 91511       | Dust Cap   | 2   |
| 7    | 93683       | 90° Elbow, 3/4"-16 JIC Male x 3/4"-16 JIC Female                     | 2   |
| 8    | 96762       | Hydraulic Cylinder, 4" x 18"   | 2   |
| 9    | 98508       | Adapter, 3/4"-16 O-Ring Male x 3/4"-16 O-Ring Male                   | 2   |
| 10   | 902116      | Adapter, 3/4"-16 JIC Male x 3/4"-16 O-Ring Male w/ 0.125" Restrictor | 2   |
| 11   | 9009754     | Hose Grip "+" RED  | 1   |
| 12   | 9009755     | Hose Grip "-" RED  | 1   |
| 13   | 9505230     | Hose, 1/2" x 253" (3/4"-16 JIC Female x 3/4"-16 O-Ring Male)         | 2   |
| 14   | 93685       | Hose, 1/2" x 60" (3/4"-16 JIC Female x 3/4"-16 JIC Female)           | 3   |
| 15   | 9504083     | Hose, 1/2" x 48" (3/4"-16 JIC Female x 3/4"-16 JIC Female)           | 1   |

# 4-TON DRY FERTILIZER CADDY — Parts

## Hydraulic Components — Quick Coupler

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

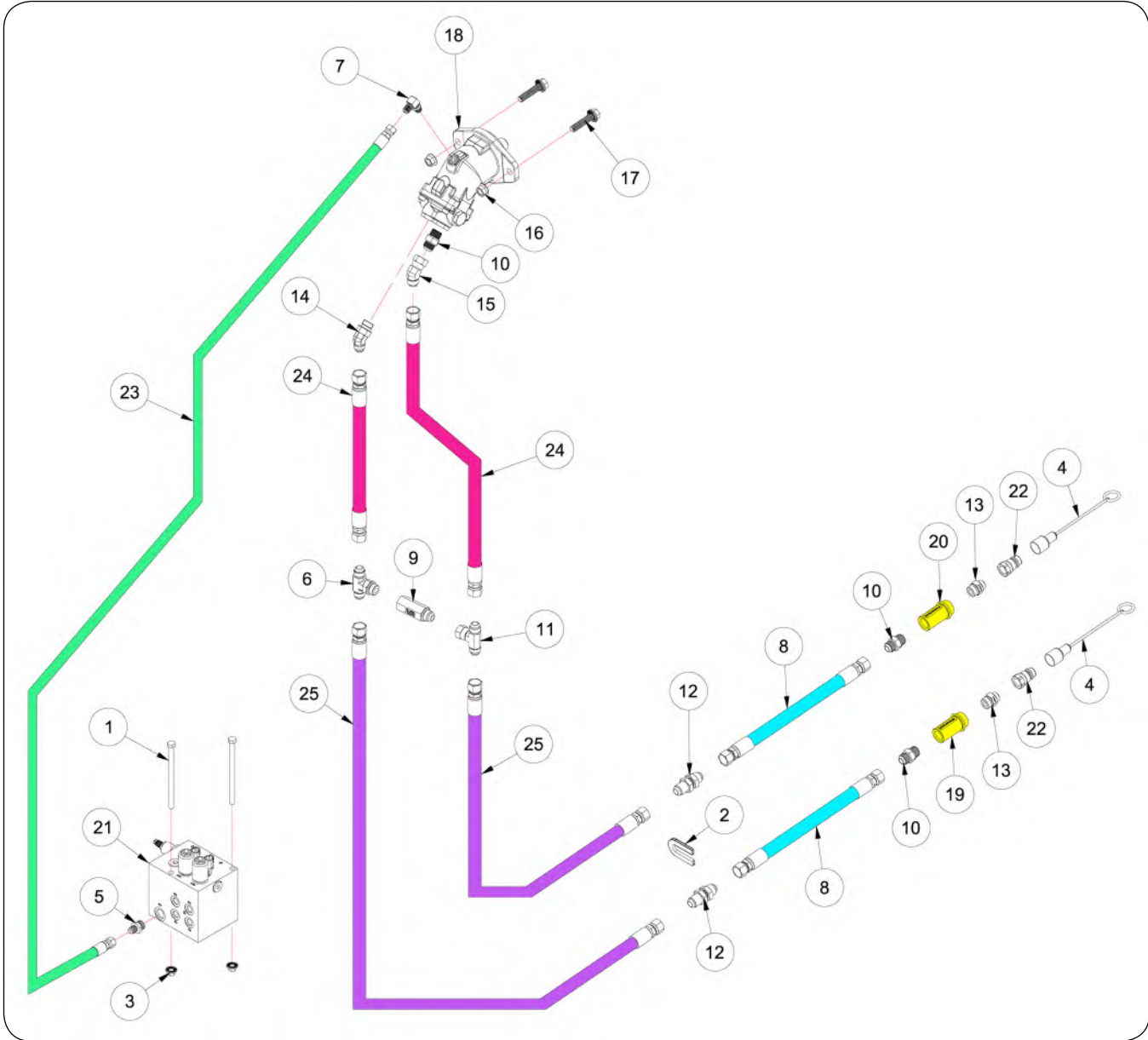


| ITEM | PART NUMBER | DESCRIPTION   | QTY | NOTES                  |
|------|-------------|---|-----|------------------------|
| 1    | 9390-055    | Capscrew, 3/8"-16UNC x 1" G5                                | 2   |                        |
| 2    | 9864        | Adapter, 3/4"-16 JIC Male x 3/4"-16 O-Ring Male             | 2   |                        |
| 3    | 9928        | Locknut/Top, 3/8"-16UNC                                     | 2   |                        |
| 4    | 48059B      | Strap, 12 7/8" =Black=                                      | 1   |                        |
| 5    | 48060B      | Strap, 17 23/32" =Black=                                    | 1   |                        |
| 6    | 91383       | Male Tip Coupling, 3/4"-16 O-Ring Female                    | 2   |                        |
| 7    | 91511       | Dust Cap  | 2   |                        |
| 8    | 93599       | 90° Elbow, 3/4"-16 JIC Male x 7/8"-14 O-Ring Male           | 2   |                        |
| 9    | 98508       | Adapter, 3/4"-16 O-Ring Male x 3/4"-16 O-Ring Male          | 2   |                        |
| 10   | 9505231     | Hose, 1/2" x 293" (3/4"-16 JIC Female x 3/4"-16 JIC Female) | 2   |                        |
| 11   | 902286      | Hydraulic Break Away Coupler Kit, 7/8"-14 O-Ring Female     | 1   | Includes Items 12 & 13 |
| 12   | 9390-062    | Capscrew, 3/8"-16UNC x 2 3/4" G5                            | 2   |                        |
| 13   | 9394-006    | Hex Nut, 3/8"-16UNC   | 2   |                        |
| 14   | 9009751     | Hose Grip "+" GREEN   | 1   |                        |
| 15   | 9009752     | Hose Grip "-" GREEN   | 1   |                        |

# 4-TON DRY FERTILIZER CADDY — Parts

## Hydraulic Components — Fan

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



## 4-TON DRY FERTILIZER CADDY — Parts

### Hydraulic Components — Fan

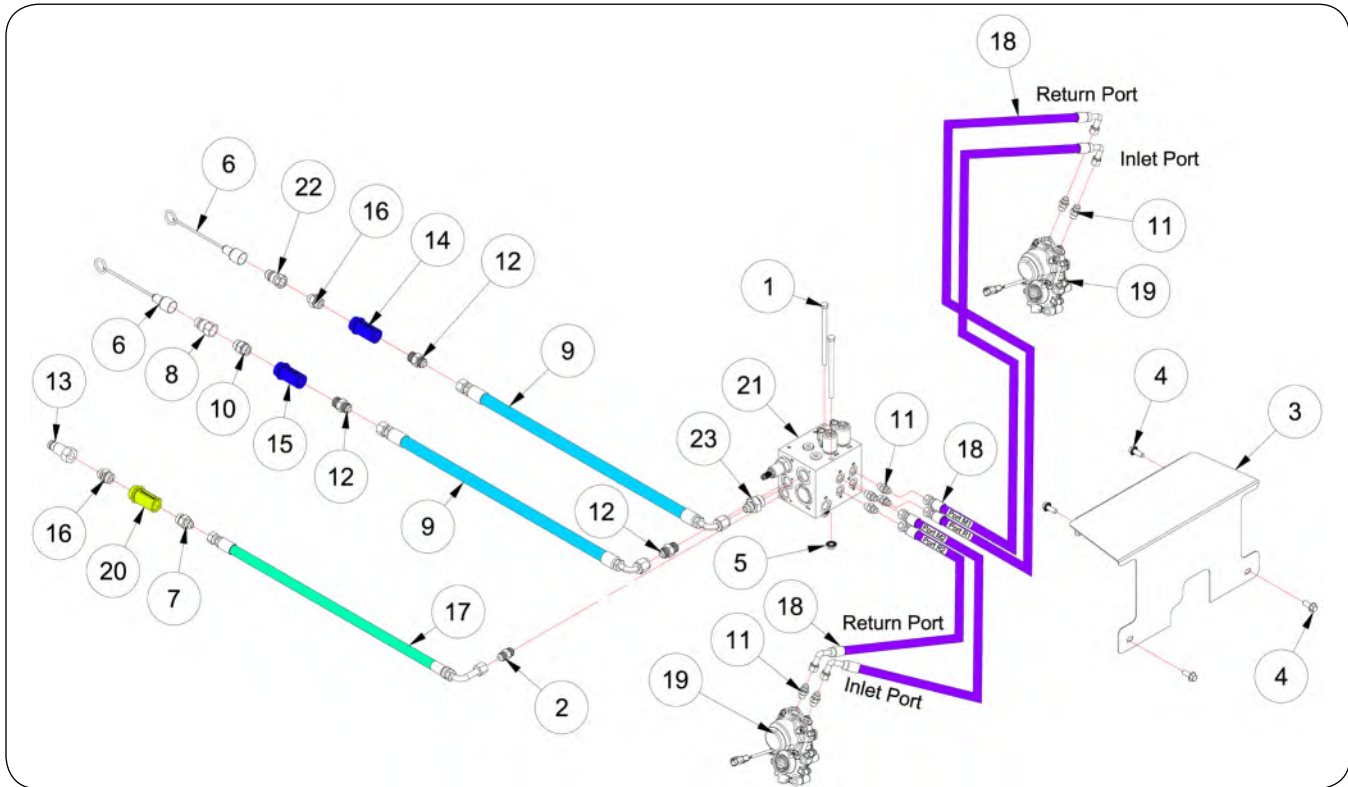
Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

| ITEM | PART NUMBER | DESCRIPTION  | QTY |
|------|-------------|--|-----|
| 1    | 9390-071    | Capscrew, 3/8"-16UNC x 6" G5                                       | 2   |
| 2    | 48295       | Trim Edge, 4" Vinyl  | 1   |
| 3    | 91263       | Nut/Large Flange, 3/8"-16UNC                                       | 2   |
| 4    | 91511       | Dust Cap   | 2   |
| 5    | 92927       | Adapter, 9/16"-18 JIC Male x 3/4"-16 O-Ring Male                   | 1   |
| 6    | 95541       | Tee, 7/8"-14 JIC Male x 7/8"-14 JIC Male x 7/8"-14 O-Ring Male     | 1   |
| 7    | 97445       | 90° Elbow, 9/16"-18 JIC Male x 9/16"-18 O-Ring Male                | 1   |
| 8    | 9504179     | Hose, 5/8" x 149" (7/8"-14 JIC Female x 7/8"-14 JIC Female)        | 2   |
| 9    | 902729      | Check Valve, 7/8"-14 UNF-2B Female/Male Ends                       | 1   |
| 10   | 9002443     | Adapter, 7/8"-14 JIC Male x 7/8"-14 O-Ring Male                    | 2   |
| 11   | 9002465     | Tee, 7/8"-14 JIC Male x 7/8"-14 JIC Male x 7/8"-14 JIC Female      | 1   |
| 12   | 9005789     | Bulkhead Union, 7/8"-14 JIC Male x 7/8"-14 JIC Male Threaded w/Nut | 2   |
| 13   | 9500402     | Adapter, 7/8"-14 O-Ring Male x 3/4"-16 O-Ring Male                 | 2   |
| 14   | 9502614     | 45° Elbow, 7/8"-14 JIC Male x 7/8"-14 O-Ring Male                  | 1   |
| 15   | 9503042     | 45° Elbow, 7/8"-14 JIC Male x 7/8"-14 JIC Female                   | 1   |
| 16   | 91267       | Flange Nut, 1/2"-13UNC   | 2   |
| 17   | 9503549     | Hex Head Flange Bolt, 1/2"-13UNC x 2 1/4"                          | 2   |
| 18   | 9503799     | Hydraulic Motor, 18CC Bent Axis Piston                             | 1   |
|      | 9502586     | Seal Kit for Hydraulic Motor                                       | -   |
| 19   | 9504982     | Hose Grip "+" YELLOW   | 1   |
| 20   | 9504983     | Hose Grip "-" YELLOW   | 1   |
| 21   | 9505304     | Valve Assembly, Dry Fertilizer Meter Drive                         | 1   |
| 22   | PF1202-8434 | Quick Connect, 3/4"-16 O-Ring Male, Return                         | 2   |
| 23   | 9501708     | Hose, 3/8" x 156" (9/16"-18 JIC Female x 9/16"-18 JIC Female)      | 1   |
| 24   | 9504130     | Hose, 5/8" x 32" (7/8"-14 JIC Female x 7/8"-14 JIC Female)         | 2   |
| 25   | 901243      | Hose, 5/8" x 125" (7/8"-14 JIC Female x 7/8"-14 JIC Female)        | 2   |

# 4-TON DRY FERTILIZER CADDY — Parts

## Hydraulic Components — Meter Housing

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

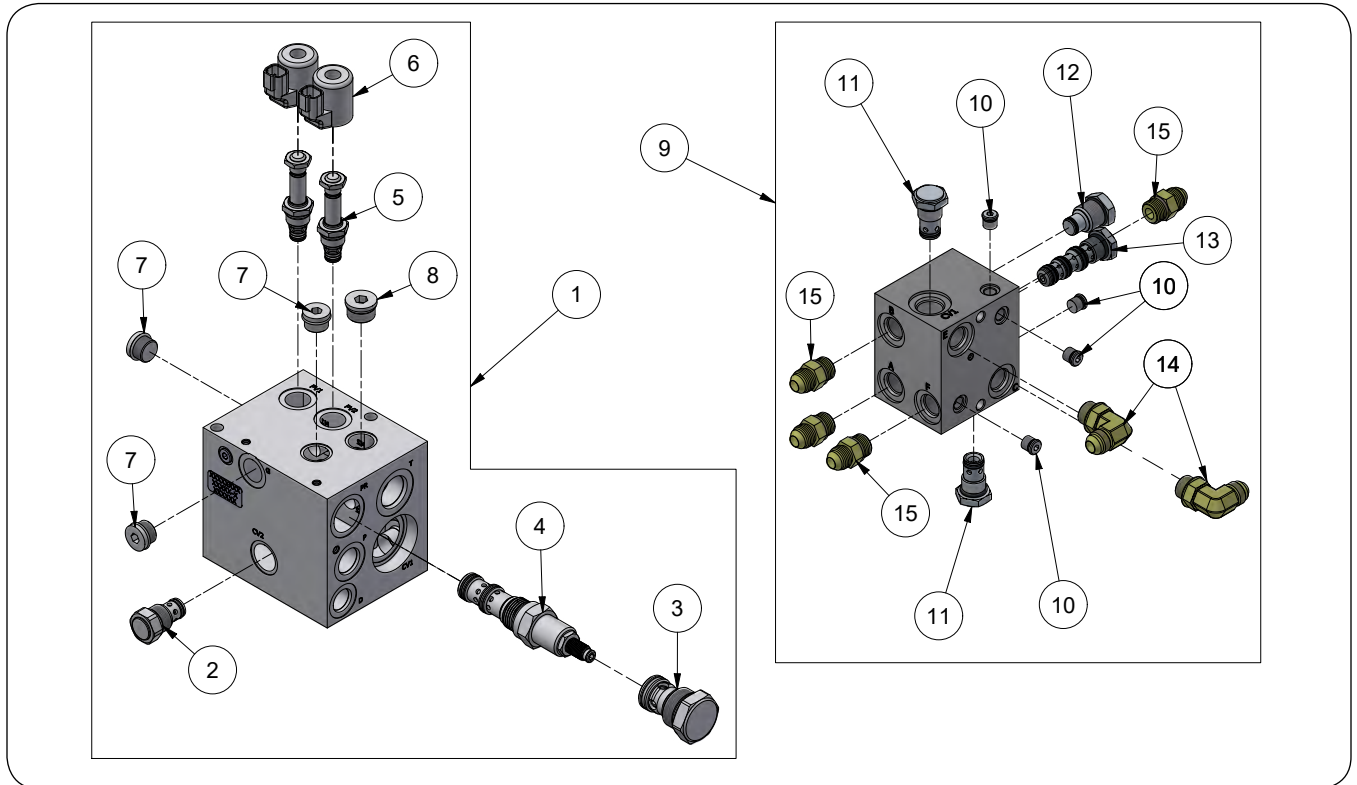


| ITEM | PART NUMBER | DESCRIPTION  | QTY |
|------|-------------|--|-----|
| 1    | 9390-071    | Capscrew, 3/8"-16UNC x 6" G5   | 2   |
| 2    | 9864        | Adapter, 3/4"-16 JIC Male x 3/4"-16 O-Ring Male                              | 1   |
| 3    | 46466       | Valve Cover Weldment   | 1   |
| 4    | 91262       | Flange Screw, 3/8"-16UNC x 1" G5   | 4   |
| 5    | 91263       | Nut/Large Flange, 3/8"-16UNC   | 2   |
| 6    | 91511       | Dust Cap   | 2   |
| 7    | 93607       | Adapter, 3/4"-16 JIC Male x 7/8"-14 O-Ring Male                              | 1   |
| 8    | 95477       | Pioneer Male Tip 7/8"-14 Female O-Ring                                       | 1   |
| 9    | 9504178     | Hose, 5/8" x 154" (7/8"-14 JIC Female x 7/8"-14 JIC Female 90° Short Drop)   | 2   |
| 10   | 99955       | Adapter, 7/8"-14 O-Ring Male x 7/8"-14 O-Ring Male                           | 1   |
| 11   | 9001495     | Adapter, 9/16"-18 JIC Male x 9/16"-18 O-Ring Male                            | 6   |
| 12   | 9002443     | Adapter, 7/8"-14 JIC Male x 7/8"-14 O-Ring Male                              | 2   |
| 13   | 9006048     | Male Coupler Tip   | 1   |
| 14   | 9010049     | Hose Grip "+" BLUE   | 1   |
| 15   | 9010050     | Hose Grip "-" BLUE   | 1   |
| 16   | 9500402     | Adapter, 7/8"-14 O-Ring Male x 3/4"-16 O-Ring Male                           | 1   |
| 17   | 9504180     | Hose, 1/2" x 153" (3/4"-16 JIC Female x 3/4"-16 JIC Female 90° Long Drop)    | 1   |
| 18   | 9504158     | Hose, 3/8" x 41" (9/16"-18 JIC Female x 9/16"-18 JIC Female 90° Medium Drop) | 4   |
| 19   | 9502764     | Omnirow Motor, 2.01 CU IN/Rev 1500 PSI                                       | 2   |
|      | 9503783     | Seal Kit for Hydraulic Motor   | -   |
| 20   | 9504983     | Hose Grip "-" YELLOW   | 1   |
| 21   | 9505304     | Valve Assembly, Dry Fertilizer Meter Drive                                   | 1   |
| 22   | PF1202-8434 | Quick Connect, 3/4"-16 O-Ring Male, Return                                   | 1   |
| 23   | TAWC99407   | Adapter, 7/8"-14 JIC Male x 1 1/16"-12 O-Ring Male                           | 1   |

# 4-TON DRY FERTILIZER CADDY — Parts

## Hydraulic Components - Valve Assemblies

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.

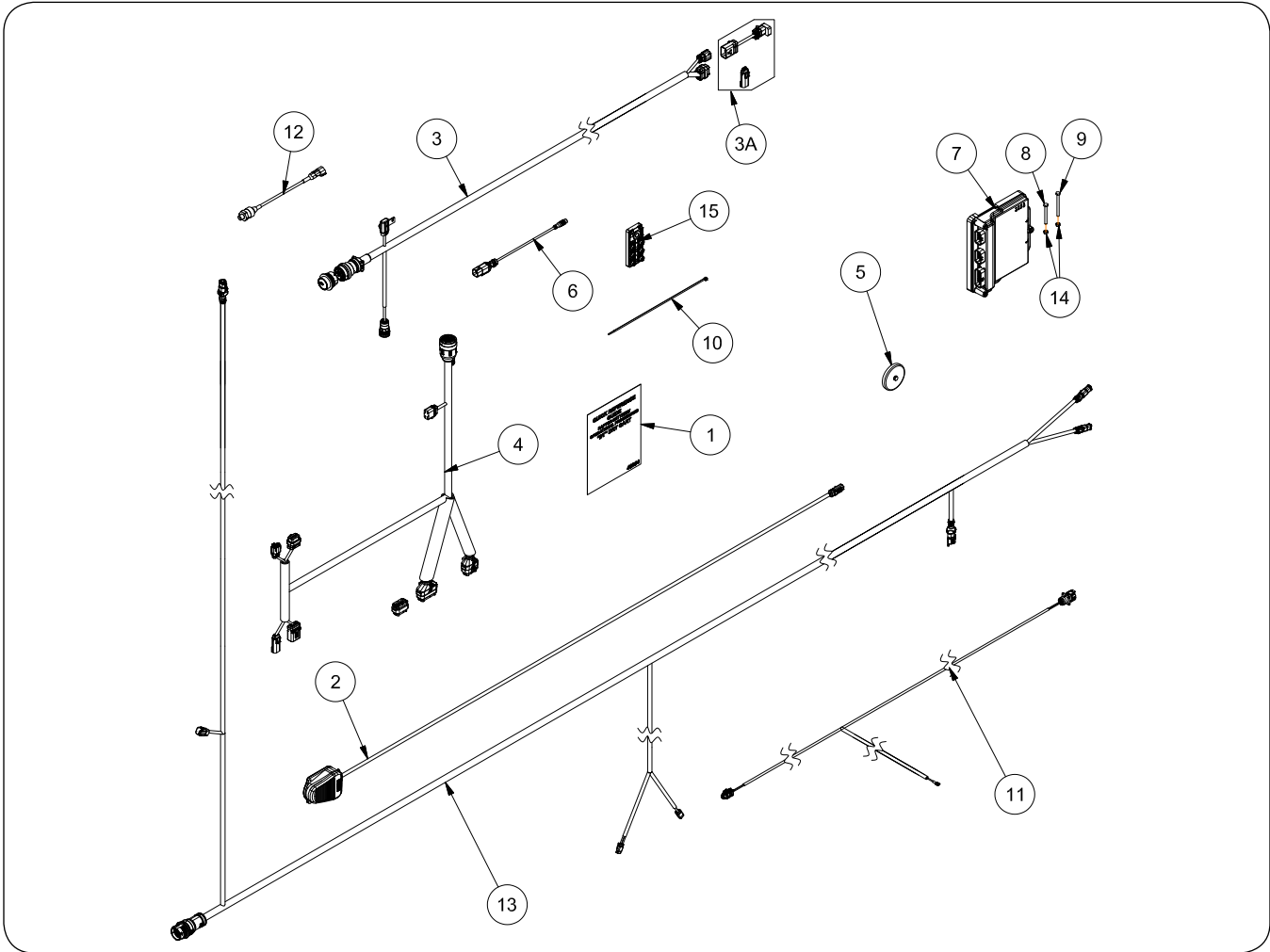


| ITEM | PART NUMBER | DESCRIPTION  | QTY |
|------|-------------|--|-----|
| 1    | 9505304     | Valve Assembly, Dry Fertilizer Meter Drive             | 1   |
| 2    | 9007812     | Check Valve, 15 GPM Flow, 5000 PSI                     | 1   |
| 3    | 9503814     | Cartridge Valve - Check Poppet                         | 1   |
|      | 9503812     | Seal Kit For Cartridge Valve                           | -   |
| 4    | 9504722     | Cartridge Valve - Pressure Reducer Relief              | 1   |
| 5    | 9504723     | Cartridge Valve - Proportional Poppet, Normally Closed | 2   |
| 6    | 9504724     | Coil - Solenoid 12V                                    | 2   |
| 7    | 98048       | Plug, 3/4"-16 O-Ring Male w/Hollow Hex Socket          | 3   |
| 8    | 99878       | Plug, 7/8"-14 O-Ring Male w/Hollow Hex Socket          | 1   |
| 9    | 74692       | Valve Assembly   | 1   |
| 10   | 902818      | Plug, SAE-4  | 4   |
| 11   | 903074      | Check Valve, 3/4"-16                                   | 2   |
|      | 903097      | Seal Kit For Check Valve                               | -   |
| 12   | 903136      | Hex Head Plug, SAE-10                                  | 1   |
|      | 903166      | Seal Kit For Hex Head Plug                             | -   |
| 13   | 9500467     | Cartridge Flow Divider, 3/4"-16                        | 1   |
|      | 903099      | Seal Kit For Cartridge Flow Divider                    | -   |
| 14   | 9863        | 90° Elbow, 3/4"-16 JIC Male x 3/4"-16 O-Ring Male      | 2   |
| 15   | 9864        | Adapter, 3/4"-16 JIC Male x 3/4"-16 O-Ring Male        | 4   |

# 4-TON DRY FERTILIZER CADDY — Parts

## Raven Controller ISO Kit

Please visit [www.unverferth.com/parts/](http://www.unverferth.com/parts/) for the most current parts listing.



| ITEM | PART NO. | DESCRIPTION                                      | QTY | NOTES               |
|------|----------|--|-----|---------------------|
|      | 47937    | Raven Controller ISO Kit                         | -   | Includes Items 1-14 |
| 1    | 46324    | Quick Reference Guide                            | 1   |                     |
| 2    | 9005916  | ISO Node w/Foot Switch Harness                   | 1   |                     |
| 3    | 9008094  | Wire Harness, Gen 1 ISO to IBIC Hitch, 17'       | 1   | Includes Item 3A    |
| 3A   | 9008096  | Cable Adapter, JD ISO to Terminator              | 1   |                     |
| 4    | 9008095  | Wire Harness, RCM ECU 47-Pin Rate                | 1   |                     |
| 5    | 9008618  | Module Magnet Kit                                | 1   |                     |
| 6    | 9008827  | Adapter Cable, 6-Pin to M12 For ISO Scale Option | 2   |                     |
| 7    | 9009812  | Rate Control Module - Level 2                    | 1   |                     |
| 8    | 9390-011 | Capscrew, 1/4"-20UNC x 2 1/2" G5                 | 1   |                     |
| 9    | 9390-013 | Capscrew, 1/4"-20UNC x 3" G5                     | 2   |                     |
| 10   | 94037    | Cable Tie, 15 1/2"                               | 20  |                     |
| 11   | 9503390  | Foot Switch Wire Harness, 23'                    | 1   |                     |
| 12   | 9504004  | Pressure Transducer                              | 1   |                     |
| 13   | 9505022  | Dry Fertilizer Product Cable (Single Product)    | 1   |                     |
| 14   | 9936     | Locknut/Top, 1/4"-20UNC                          | 3   |                     |
| 15   | 9004925  | J-Block, EZ Mate                                 | 2   |                     |

## 4-TON DRY FERTILIZER CADDY — Parts

### Notes

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