




BRENT Grain Handling

CORNER-AUGER GRAIN CART
MODEL V1100

Serial Number B36110100 - B42910099

Part Number 290909

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.



Product Information

When ordering parts or when requesting further information or assistance, always give the following information:

- Machine name
- Model
- Serial Number

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.

Please fill out and retain this portion for your records. The serial number plate is located on the frame as shown below.

Purchase Date _____ Model _____ Serial Number _____

Dealer _____ City _____

Dealer Contact _____ Phone _____



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.*

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FOR SCALE, TRACK, UHARVEST, HYDRAULIC DRIVE, ELECTRIC TARP, AND VIDEO SYSTEM
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FOR SCALE, TRACK, UHARVEST, HYDRAULIC DRIVE, ELECTRIC TARP, AND VIDEO SYSTEM OPTIONS, PLEASE REFER TO THE SPECIFIC MANUAL.

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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.

Safety Decals

95008 **CAUTION**
SLIPPERY SURFACE CAN CAUSE INJURY TO FEET AND/OR CLOTHING.

9003474 **DANGER**
ELECTRIC SHOCK CAN CAUSE SERIOUS INJURY OR DEATH.
STAY CLEAR OF ALL UTILITY LINES.

95839 **WARNING**
PINCH POINT.
KEEP HANDS CLEAR.

95445 **WARNING**
HIGH PRESSURE FLUIDS CAN CAUSE SERIOUS INJURY OR DEATH.
KEEP AWAY FROM LINES.
RELIEVE PRESSURE BEFORE SERVICING.
SEE WARNING MANUAL.
TRENCHES MAY BE FORMED BY HIGH PRESSURE FLUIDS.

9003476 **WARNING**
NO RIDERS
FALLING CAN CAUSE SERIOUS INJURY OR DEATH.

9008721 **30 km/h**

9008715 **20 mile/h**

TA1-906109-0 **WARNING**
MOVING PARTS CAN CAUSE OR BE CAUSED BY:
1. KEEP ALL SHIELDS IN PLACE.
2. DISCONNECT POWER SOURCE TO ADJUST OR SERVICE.
FALLING TO REEPLY MAY RESULT IN SERIOUS INJURY OR DEATH.
TA1-906109-0

9003475 **DANGER**
ROTATING OR MOVING PARTS WILL CAUSE SERIOUS INJURY OR DEATH.
SHUT OFF ENGINE AND DISCONNECT PTO/HYDRAULICS BEFORE SERVICING MACHINE. ENTANGLED CLOTHING OR OPENING CLEAN OUT DOORS.

9008447 **IMPORTANT**
GREASE U-JOINT WEEKLY UNTIL SEALS PURGE WITH A LITHIUM BASE GREASE THAT DOES NOT CONTAIN A MOLY DISULFIDE ADDITIVE.

9008151 **IMPORTANT**
BEFORE GRAIN CART OPERATION, SET PTO CONTROL ENGAGEMENT SETTING TO A POSITION TO AVOID DAMAGE TO THE GRAIN CART DRIVELINE. ADJUST PTO ENGAGEMENT ON DAMAGE GRAIN CART DRIVELINE COMPONENTS.
CONSULT TRACTOR OPERATOR'S MANUAL FOR SETTING INFORMATION.

9003477 **IMPORTANT**
1. Close flow gate before filling unit.
2. Engage empty auger at low engine RPM.
3. Increase PTO RPM to 1000, and gradually open flow gate to reach desired output.
4. Empty auger before engaging PTO. EXCESSIVE PTO ENGAGEMENT MAY CAUSE PTO OVERHEATING OR FAILURE.
NEVER PLAY IN OR ON THE GRAIN FLOWING. GRAIN TRAPS AND SUFFOCATES VICTIM IN SECONDS.

9003475 **DANGER**
ROTATING OR MOVING PARTS WILL CAUSE SERIOUS INJURY OR DEATH.
SHUT OFF ENGINE AND DISCONNECT PTO/HYDRAULICS BEFORE SERVICING MACHINE. ENTANGLED CLOTHING OR OPENING CLEAN OUT DOORS.

97961 **WARNING**
READ AND UNDERSTAND OPERATOR'S MANUAL BEFORE USING THIS MACHINE. FAILURE TO FOLLOW OPERATING INSTRUCTIONS CAN RESULT IN SERIOUS INJURY OR DEATH.

9003478 **DANGER**
NEVER PLAY IN OR ON THE GRAIN FLOWING. GRAIN TRAPS AND SUFFOCATES VICTIM IN SECONDS.

95046 **DANGER**
ENTANGLEMENT IN ROTATING DRIVELINE CAN CAUSE SERIOUS INJURY OR DEATH.
KEEP ALL SAFETY SHIELDS IN PLACE. AVOID CONTACT WITH ROTATING PARTS.

9003574 - Prior To Serial Number B38140100 **IMPORTANT**
Use only OEM replacement shear bolts and torque properly to maintain proper PTO operation. Consult operator's manual for additional information.

94094 **WARNING**
RISING OR FALLING TONGUE CAN CAUSE SERIOUS INJURY OR DEATH.
USE JACK TO SUPPORT IMPLEMENT BEFORE REMOVING HITCH PIN.

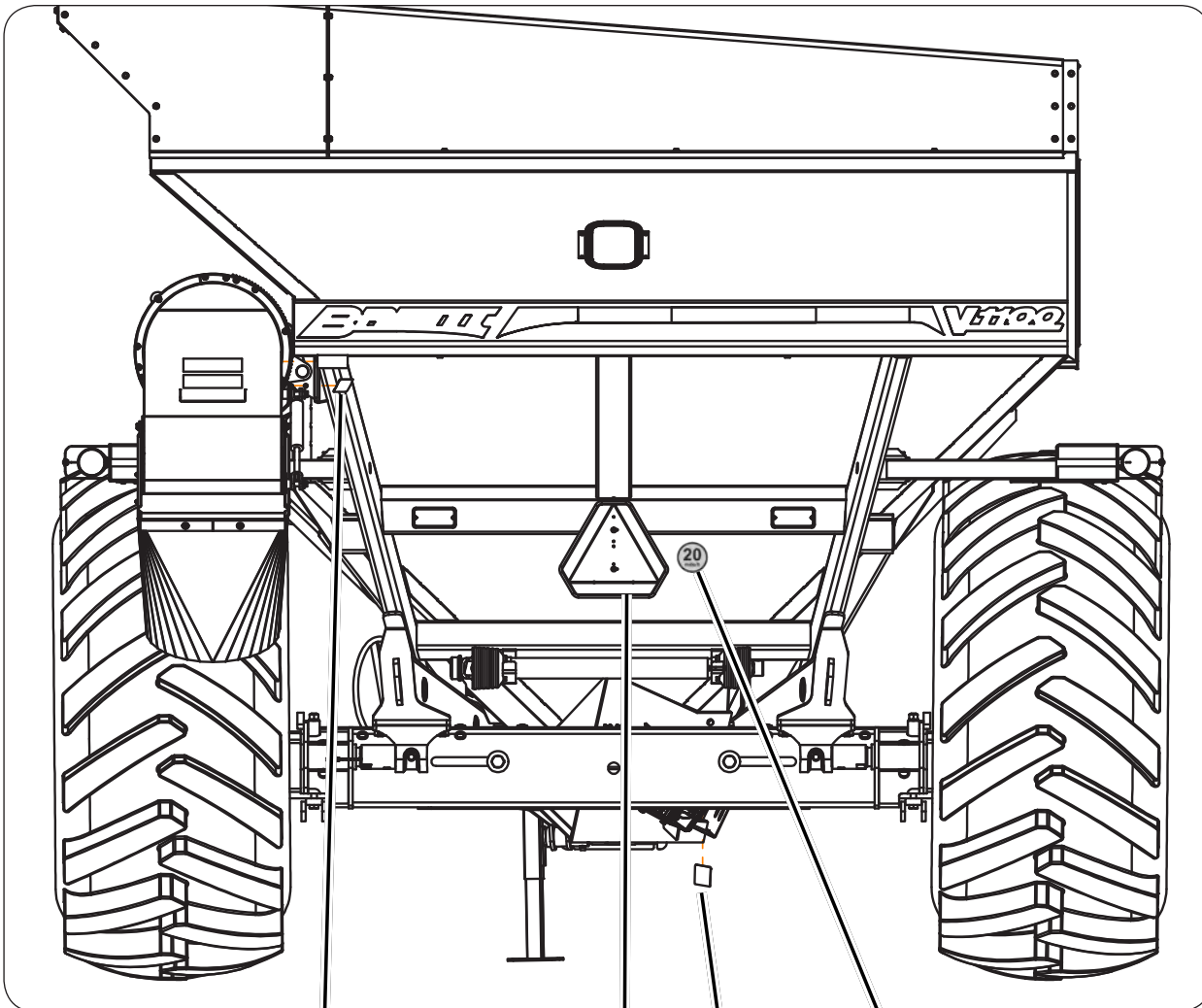
97575 **CAUTION**
ALWAYS USE TRANSPORT CHAIN. CONSULT OPERATOR'S MANUAL FOR DETAILS.

9009470 **HYDRAULIC BLOCK MANUAL OVERRIDE OPERATION**
MANUAL OPERATIONS DEFBEAT OTHER CAUTIONS TO DISABLED FUNCTIONS.
PRESS & HOLD THE POWER CAUTIONS FOR FUNCTIONS.
RELEASE POWER AND REMOVE CAUTIONS TO CENTER. VERIFY WHEN FUNCTIONS ARE COMPLETE.
CAUTIONS MAY BE IN CONTROL. VERIFY TO POSITIVELY GUARANTEED MOTION BEFORE RESUMING OPERATION.
UPPER POSITION
LOWER POSITION
POWER
UPPER POSITION
LOWER POSITION
POWER

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Always consult your operator's manual for correct tire pressure and wheel hardware torque specifications.

Safety Decals (continued)



TA1-906109-0

- REFLECTORS**
 9003125 (Fluorescent)
 9003126 (Red)
 9003127 (Amber)

TA510514



9008714



9008720



95046

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.



- Never attempt to operate implement unless you are in the driver's seat.

- Never enter a cart containing grain. Flowing grain traps and suffocates victims in seconds.



Before Operating

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



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

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




- Ensure that all applicable safety decals are installed and legible.

- When working around the implement, be careful not to be cut by sharp edges.

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

Before Servicing

- 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 cart to assist the person working inside, and that all safe workplace practices are followed. There are restricted mobility and limited exit paths when working inside the implement.

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

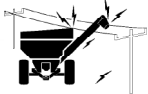
- Explosive separation of a tire and rim can cause serious injury or death. Only properly trained personnel should attempt to service a tire and wheel assembly.

- Add sufficient ballast to tractor to maintain steering and braking control at all times. Do not exceed tractor's lift capacity or ballast capacity.

During Operation

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

- Never service or lubricate equipment when in operation.

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

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

- Do not leave towing vehicle unattended with engine running.


Before Transporting

- Secure transport chains to towing vehicle before transporting. **DO NOT** transport without chains.
- Check for proper function of all available transport lights. Make sure that all reflectors are clean and in place on machine. Make sure the SMV emblem and SIS decals are visible to approaching traffic.
- This implement may not be equipped with brakes. Ensure that the towing vehicle has adequate weight and braking capacity to tow this unit.

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.
- Regulate speed to road conditions and maintain complete control.
- Maximum transport speed of this implement should never exceed 20 m.p.h. 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 m.p.h. during off-highway travel.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.
- Do not transport grain cart on roads while loaded.
- 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.

Driveline Safety

- Do not allow children near equipment that is running or engaged.

- Do not exceed 1000 rpm PTO speed.
- Disengage the PTO, stop the tractor engine, and remove key from ignition before making inspections, or performing maintenance and repairs.
- Inspect the driveline, quick disconnect, overload shear-bolt limiter or clutch, and shielding often. Repair immediately. Use replacement parts and attaching hardware equivalent to the original equipment. Only alterations described in this manual for overall length adjustment are allowed. Any other alteration is prohibited.
- Avoid excessively long hardware or exposed and protruding parts which can snag and cause entanglement.
- Lubricate the driveline as recommended in the MAINTENANCE section.
- Keep hoses, wiring, ropes, etc. from dangling too close to the driveline.
- Install driveline and shields according to recommended lengths and attaching methods with recommended hardware. The driveline shield should rotate independently a full rotation and telescope freely. The retaining chain must be secured to the implement safety shield.
- Adjust drawbar to height and length recommended in OPERATION section.
- Use caution when turning to avoid contact between tractor tires and driveline.
- Check the length of the telescoping members to insure the driveline will not bottom out or separate when turning and/or going over rough terrain.
- Proper extended and collapsed lengths of the telescoping PTO shaft must be verified before first operation with each and every tractor. If the extended length of the PTO shaft is insufficient, it may become uncoupled or bottom out when turning and/or going over rough terrain which will cause serious injury or death from contact with uncontrolled flailing of PTO shaft assembly components.

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:
 - End fittings damaged, displaced, or leaking.
 - Outer covering chafed/cut or wire reinforcing exposed.
 - Outer covering ballooning locally.
 - Evidence of kinking or crushing of the flexible part of a hose.

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.



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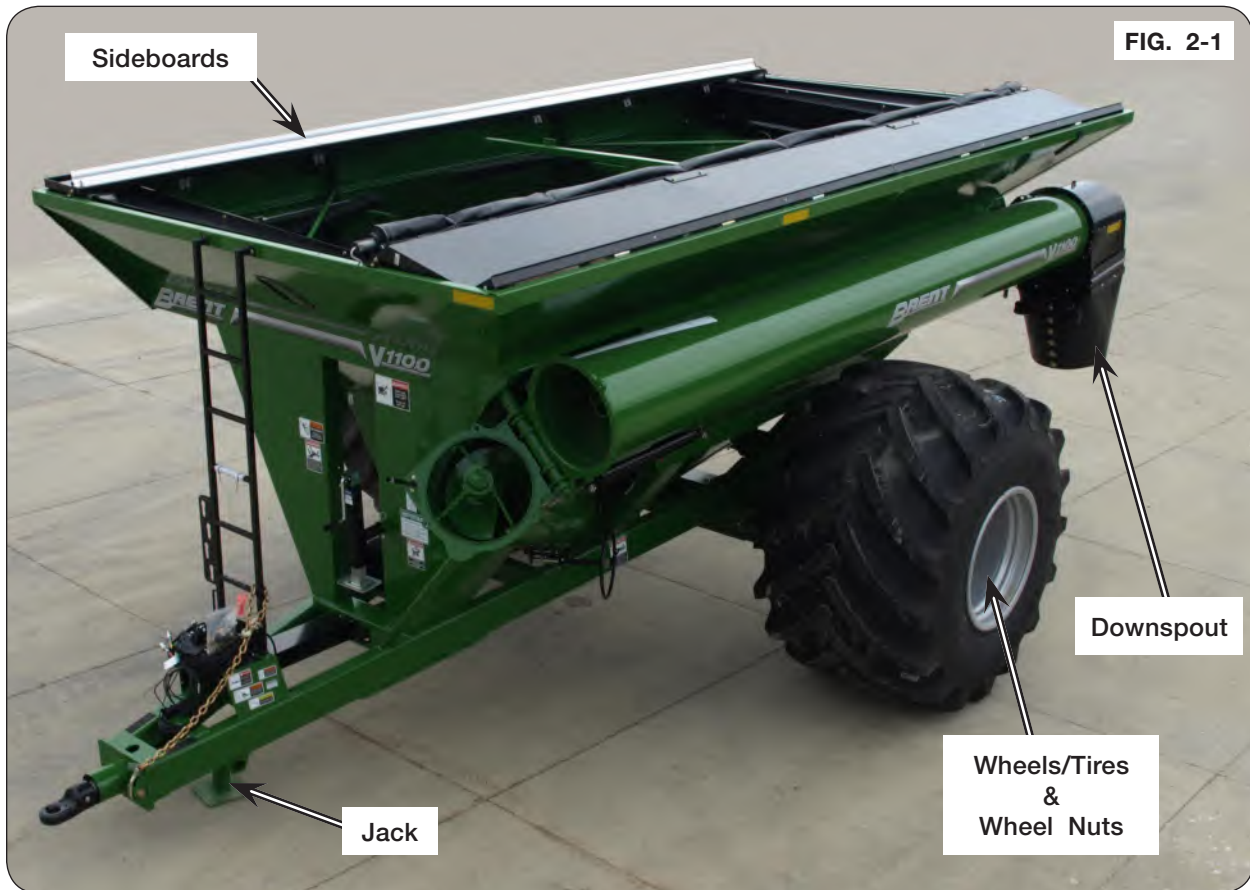
FOR SCALE, TRACK, UHARVEST, HYDRAULIC DRIVE, ELECTRIC TARP, AND VIDEO SYSTEM
OPTIONS, PLEASE REFER TO THE SPECIFIC MANUAL.

Set Up Checklist

After the cart has been completely assembled, use the following checklist and inspect the cart. Check off each item as it is found satisfactory or after proper adjustment is made.

- Wash the unit and remove road salt tag #255000 from ladder.
- Complete sideboard and tarp set up. Remove tarp/sideboard shipping brackets.
- Set or Calibrate tractor PTO control engagement to MINIMUM setting. Refer to tractor operator's manual for setting information.
- Remove auger rest retainer.
- Adjust axle from shipping position to desired operating position. (If applicable) Refer to "Adjusting Axle (Optional)".
- Torque wheel nuts as specified in MAINTENANCE section.
- Inflate tires to specified air pressure. (if applicable)
- Ensure optional hydraulic brakes are bled and function properly. (If applicable)
- Verify Track has been aligned and is properly conditioned. (If applicable)
- Lubricate all grease fittings and check gearbox oil level.
- Inspect cleanout door assembly for play or movement, refer to "Adjusting Cleanout Door" in the MAINTENANCE section.
- Verify all safety decals are correctly located and legible. Replace if damaged.
- Verify all reflective decals are correctly located.
- Check SMV decal and SIS decals are in place, clean and visible.
- Verify transport lights are working properly.
- Check Driveline Assembly phasing. See "Auger Driveline Replacement" in MAINTENANCE section.
- Verify PTO length, see "Verify Telescoping PTO Shaft Length" in MAINTENANCE section.
- Ensure safety screens over auger are in place and properly secured.
- Paint all parts scratched in shipment.
- Test run the augers. See "Auger Operation" in OPERATION section.

Set Up



Due to shipping requirements and various dealer-installed options, some initial cart set up will be required after it arrives from the factory. Use the following procedures as needed for initial cart set up. (FIG 2-1)

⚠ WARNING

- TO PREVENT PERSONAL INJURY OR DEATH, ALWAYS ENSURE THAT THERE ARE PEOPLE WHO REMAIN OUTSIDE THE CART TO ASSIST THE PERSON WORKING INSIDE, AND THAT ALL SAFE WORKPLACE PRACTICES ARE FOLLOWED. THERE ARE RESTRICTED MOBILITY AND LIMITED EXIT PATHS WHEN WORKING INSIDE THE IMPLEMENT.
- 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 18,000 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.

Set Up (continued)

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.

Optional Hydraulic Brake System

Any cart with optional hydraulic brakes must have the brake system bled before operation. See “Bleeding Procedure For Braking System” in the MAINTENANCE section.

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

WARNING

- **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 18,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **TIPPING OR MOVEMENT OF THE MACHINE CAN CAUSE SERIOUS INJURY OR DEATH. BE SURE MACHINE IS SECURELY BLOCKED.**

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.**

IMPORTANT

- *Installing wheels without the proper inset/offset could result in hub or spindle failure. This will cause substantial damage to cart and is not covered by warranty. Inset/offset will vary depending on tire size. Consult dealer for proper inset/offset.*

Set Up (continued)

Auger Rest Retainer Removal

Remove the retainer located on the upper auger rest at the back of the cart, before folding out the upper auger tube, Figures 2-2 and 2-3.

IMPORTANT

- *Upper auger retainer must be removed before operating upper auger tube. Failure to remove retainer will result in damage to the upper auger tube.*



FIG. 2-2



FIG. 2-3

Driveline Storage

Storage brackets are located on the rear of the frame rail. Secure the PTO shaft to these brackets for extended transporting or seasonal storage. Figure 2-4.

IMPORTANT

- *Remove and store the complete PTO before towing grain cart behind a delivery truck. Interference could occur when turning resulting in damage to PTO and cart.*



Video System (Optional)

The video system includes its own installation instruction sheet. Reference the provided instruction sheet.

Set Up (continued)

Jack

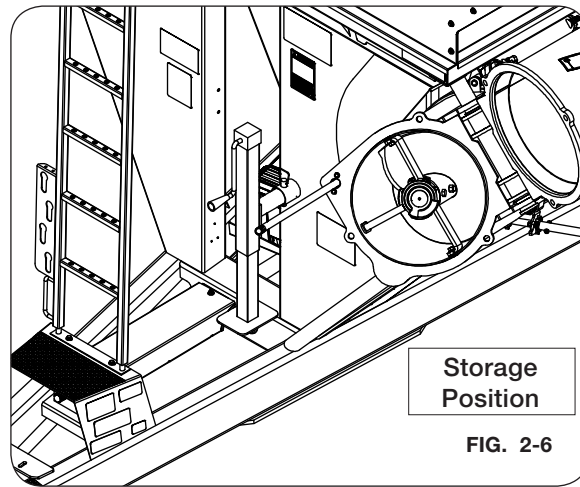
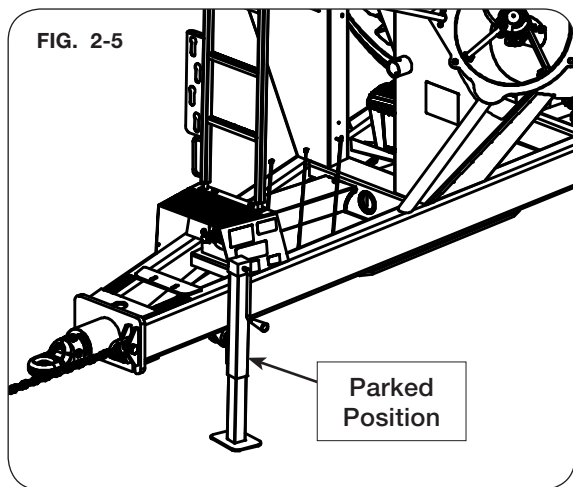
WARNING

- **UNHITCHING A LOADED CART CAN CAUSE SERIOUS INJURY OR DEATH DUE TO THE TONGUE RISING OR FALLING. ALWAYS HAVE A LOADED CART ATTACHED TO A TRACTOR. THE JACK IS INTENDED TO SUPPORT AN EMPTY CART ONLY.**

Attach jack to left-outside frame using pin. Mount jack in storage position once cart is hitched to tractor. (FIG. 2-5 and 2-6)

IMPORTANT

- *Failure to store the jack in transport position could result in damage to the jack, cart, or tractor tire.*



Set Up (continued)

Driveline Set Up

Clean and grease the driveline splined shaft. Refer to “Auger Driveline Replacement” in MAINTENANCE for installing and removing of driveline.

DANGER

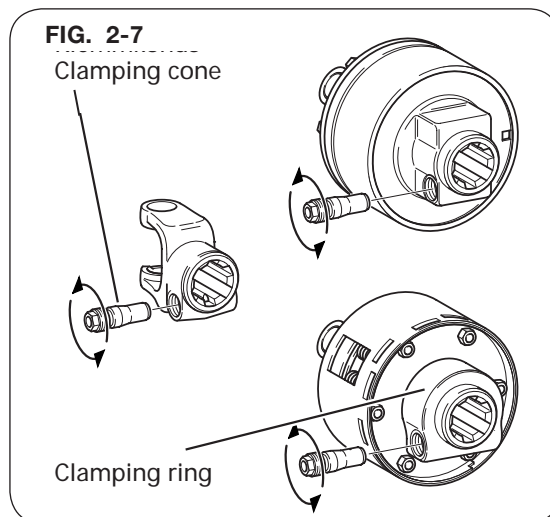
- ENTANGLEMENT WITH THE DRIVELINE WILL CAUSE SERIOUS INJURY OR DEATH. KEEP ALL GUARDS AND SHIELDS IN GOOD CONDITION AND PROPERLY INSTALLED AT ALL TIMES. AVOID PERSONAL ATTIRE SUCH AS LOOSE FITTING CLOTHING, SHOE STRINGS, DRAWSTRINGS, PANTS CUFFS, LONG HAIR, ETC. THAT CAN BECOME ENTANGLED IN A ROTATING DRIVELINE.

Coupling The Cut-Out Clutch

Engage PTO drive shaft onto implement PTO shaft until retaining groove of implement PTO shaft aligns with clamping cone hole. Insert clamping cone into threaded hole, hand tighten. Torque cone to 75 ft.-lb. (Fig. 2-7)

NOTE: See MAINTENANCE section - PTO Quick Disconnect - for disassembly instructions.

NOTE: See MAINTENANCE section - Verify Telescoping PTO Shaft Length.



Set Up (continued)

Lamp Set Up

Pivot lamp extension arms into position at sides of cart. The lamp bracket width is adjustable. Ensure brackets are adjusted such that the reflectors are no more than 16" from outer edge of the tires. Ensure amber reflector is facing the front of the cart (some lights on certain cart models will be flipped down for shipping). Figures 2-8 and 2-9

This unit is equipped with Side Marker lights for enhanced visibility. These lights will have different functionality depending upon the tractor lighting selection.

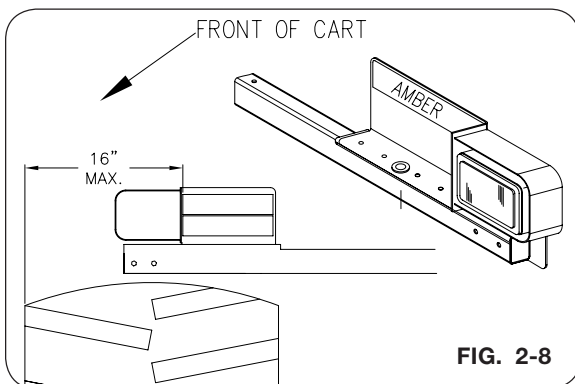
If the tractor field lights switch is on; the Side Marker lights and the amber turn signal lights are on solid and will not flash. Refer to tractor operator manual for details.

If the flashers and/or turn signal is on; the Side Marker lights flash in unison with their respective side's amber turn lamp.

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 for US federal law requirements.

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



SMV Emblem & SIS Decal

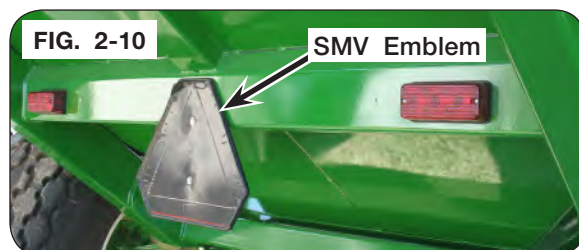
The reflective surface of the SMV must face rearward. This may require removal of film protecting the reflective surface or removing and reinstallation of the SMV.

When reinstalling the SMV make sure that it is mounted with the wide part of the SMV at the bottom, FIG. 2-10.

Ensure the SIS decals (one on the front and one on the rear of the cart) are clean and visible. (Fig. 2-11)

For front and rear 20 M.P.H. SIS decals, order 9008715 & 9008714.

For front and rear 30 K.P.H. SIS decals, order 9008721 & 9008720.




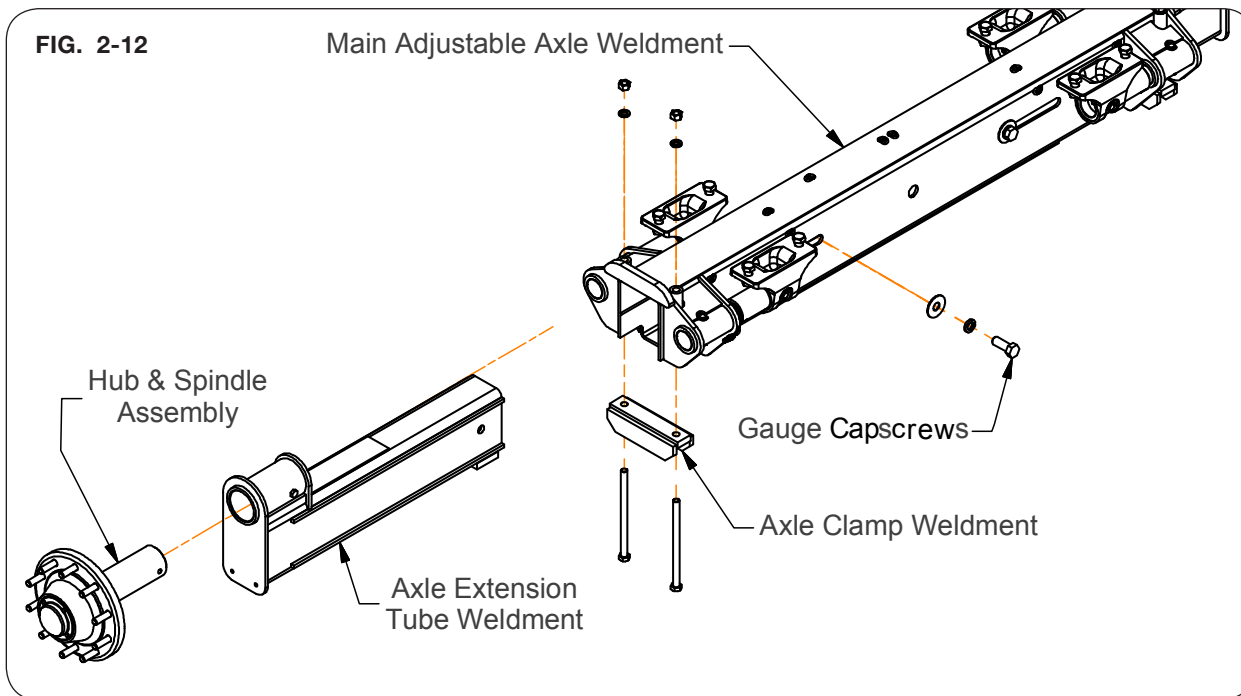
Set Up (continued)

Wheel Axle Spacing

Tire Size	Slide Out Distance (From end of the main axle tube to inside of the extension weldment end cap plate.)	Distance Hub Flange to Hub Flange	Rim Offset
900/65R32	11 3/4"	132"	143"
900/70R32	12 3/4"	134"	145"
1050/50R32	13 3/4"	138"	149"
1100/45R46	20 3/4"	148"	159"
1250/50R32	20 3/4"	148"	159"

Adjustable Axle (Optional)

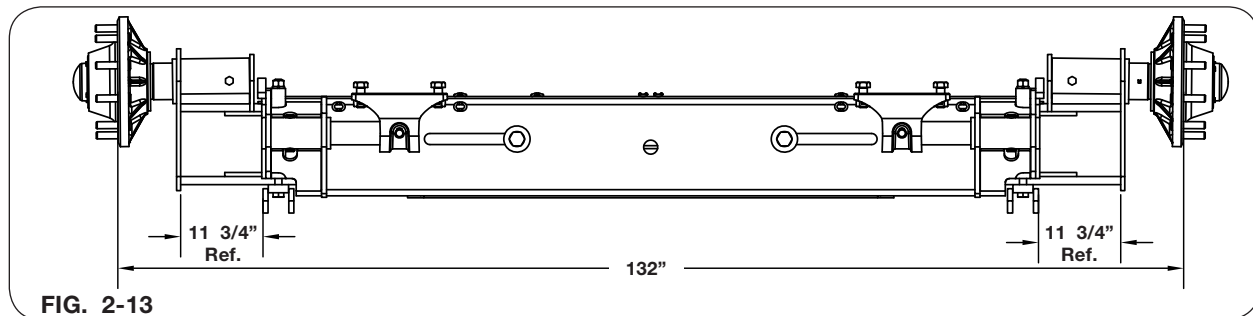
1. Hitch cart to tractor. Park the empty unit on a firm, level surface. Set the tractor's parking brake, shut-off engine and remove the ignition key. 
2. Using a safe lifting device rated for a minimum of 18,000 lbs. and supports rated at 9,000 lbs. minimum, raise the cart and place supports to each side under the axle near the axle clamps.
3. Loosen axle extension clamp and axle gauge capscrews. Do not remove. Figure 2-12.



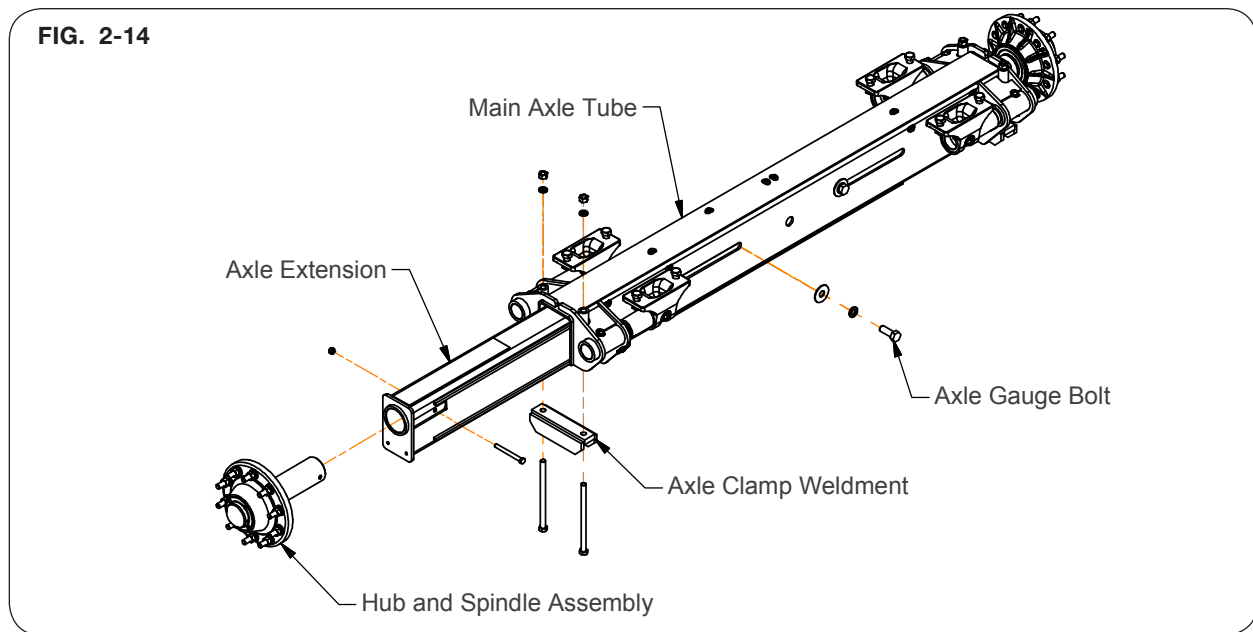
Set Up (continued)

Adjustable Axle (Optional)

- Slide extensions to desired tire gauge spacing. Axle extensions should be extended equally. Refer to chart below and Figure 2-13.



- Tighten axle gauge bolts followed by axle clamp bolts, refer to MAINTENANCE section for proper torque specifications. Figure 2-14.



- Remove supports and lower cart to ground.
- If tires are positioned at a wider tread width, make sure lights are also moved out to within 16" of the outside of tires. Refer to page 2-8 for details.

Set Up (continued)

Sideboards and End Caps

1. Park the empty grain cart on a firm, level surface. Block the tires/tracks on the machine to keep it from moving. Set the tractor's parking brake, shut-off the engine, remove the ignition key and disconnect the PTO shaft.
2. Remove the crank handle, crank handle holder, shipping bundle which includes front and rear end caps, and small front and rear sideboards from inside the cart.
3. Remove and discard shipping bracket for right-hand sideboard, Figures 2-15 & 2-16.

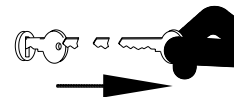


FIG. 2-15

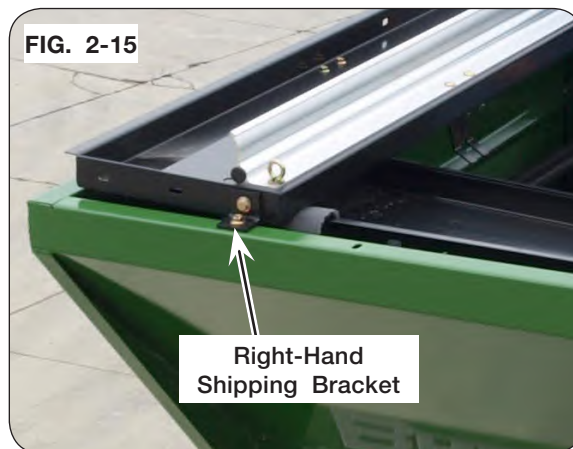
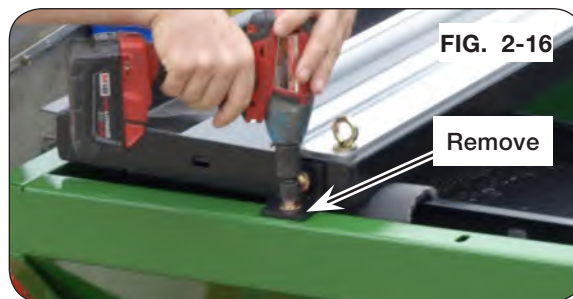


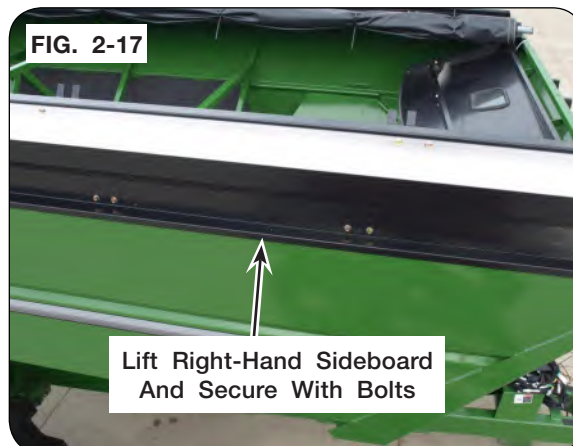
FIG. 2-16



4. Lift the right-hand sideboard into position and loosely secure sideboard into place using 3/8" flange screws and flange nuts along sideboard bottom edge. See Figure 2-17.

NOTE: Hinge brackets WILL support the sideboard. (Fig. 2-17)

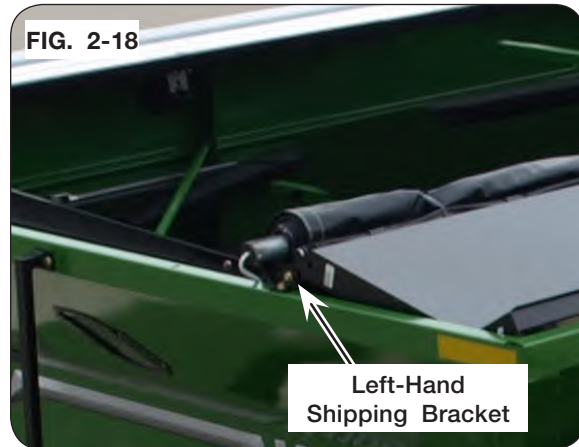
FIG. 2-17



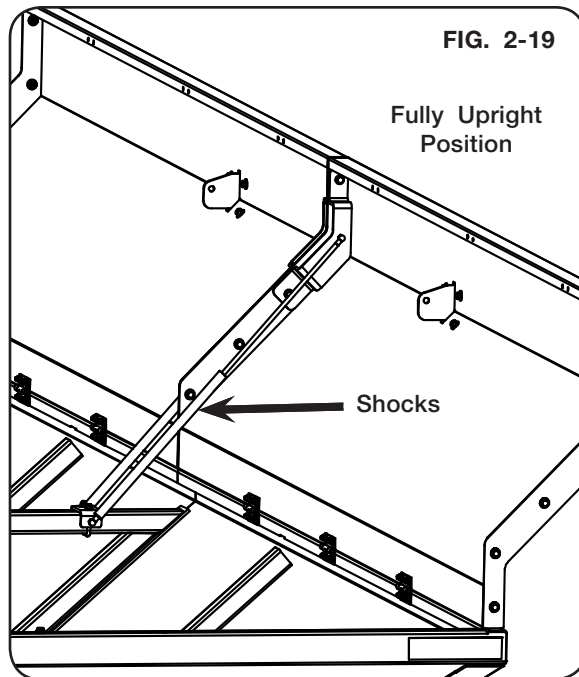
Set Up (continued)

5. Remove and discard shipping bracket for left-hand sideboard, Figure 2-18.
6. Lift the left-hand sideboard into position.

NOTE: Hinge brackets WILL support the sideboard and tarp.



NOTE: Shocks are attached to the left-hand sideboard, Figure 2-19.



7. Loosely secure left-hand sideboard with 3/8" flange screws and flange nuts along the bottom. See Figure 2-20.

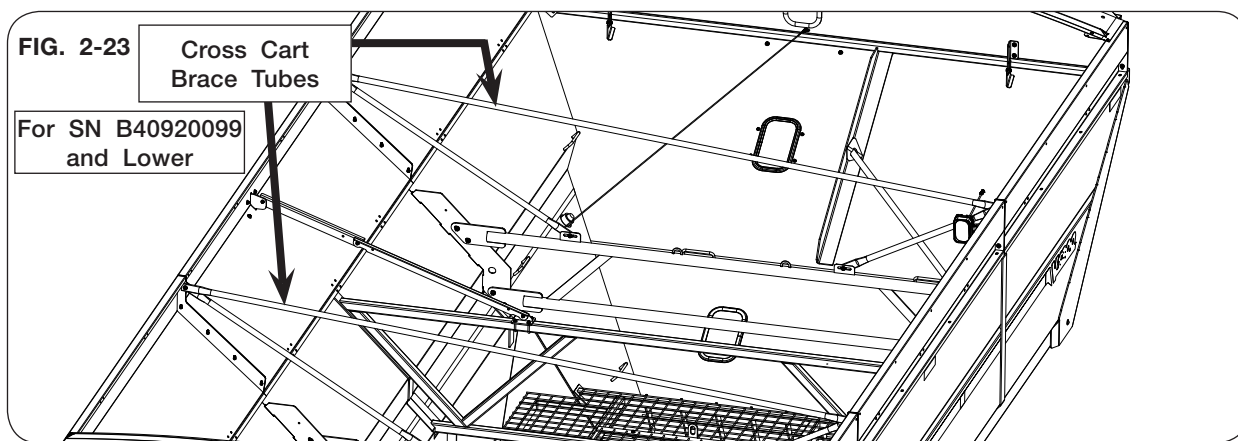
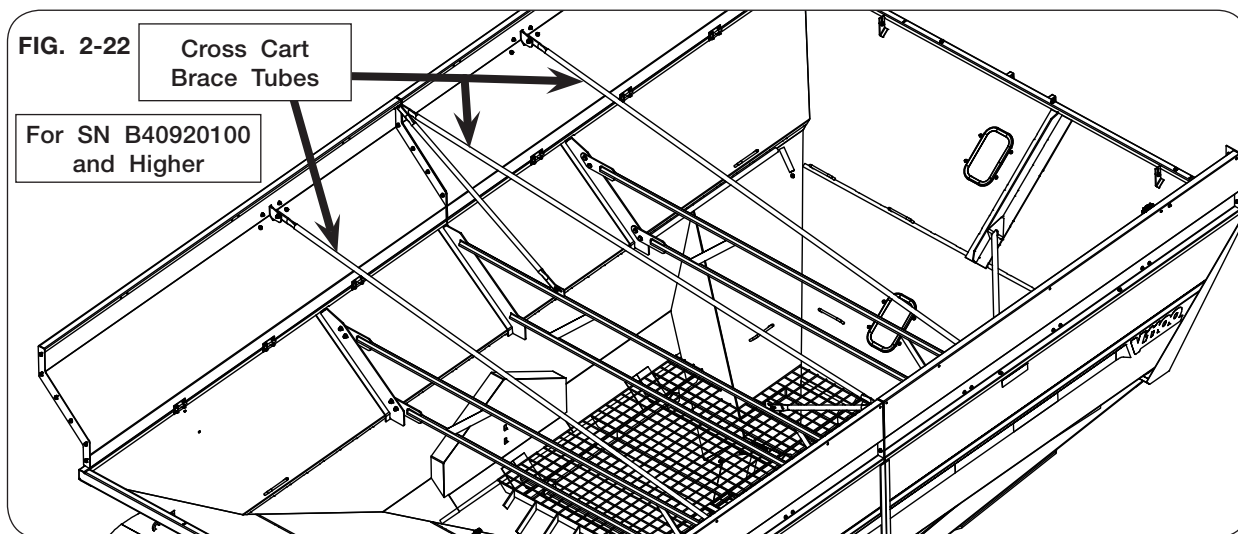
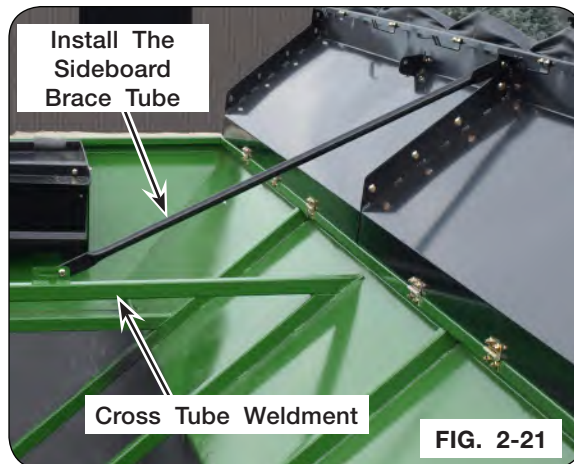


Set Up (continued)

8. **ONE PIECE BRACE TUBES:**
Install sideboard brace tubes on each cross tube weldment. The center cross tube weldment will have one left-hand (287524B) and one right-hand sideboard brace tube (220032B). (Fig. 2-21)
9. With the left-hand and right-hand sideboards straight, tighten 3/8" flange hardware to center cross tubes. See Figure 2-21.

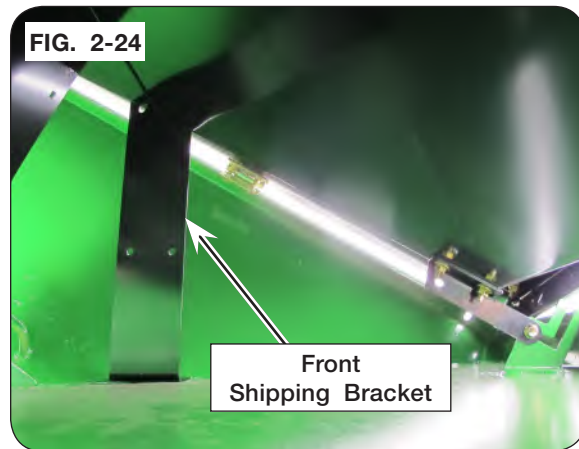
NOTE: For carts with SN B40920100 & higher, install three brace tubes (289981B), and carts with SN B40920099 & lower, install two brace tubes (287586B). See Figures 2-22, 2-23 and 2-25.

10. **CROSS CART BRACE TUBES:**
Install cross-cart, full-width brace tubes. Loosely affix with 3/8" flange hardware.

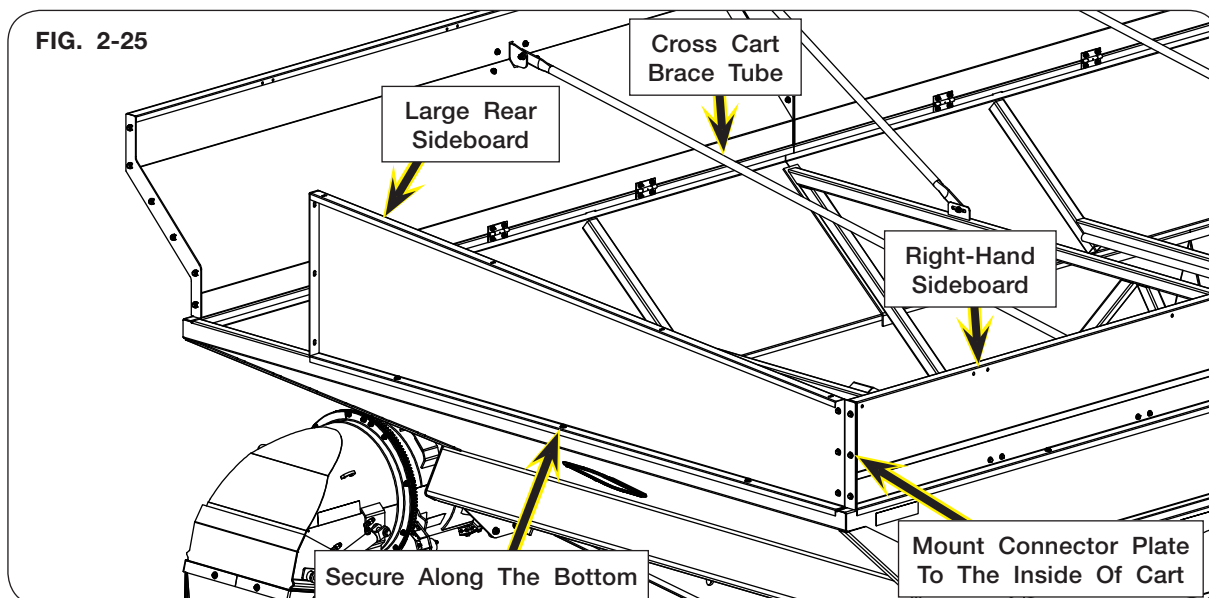


Set Up (continued)

11. If included, remove and discard the shocks and associated brackets from the left-hand sideboard.
12. Remove and discard the shipping brackets from the rear and front sideboards. Front sideboard shown, Figure 2-24.



13. Lift the large rear sideboard up into position and loosely secure with 3/8" flange screws and flange nuts along the bottom. See Figure 2-25.
14. Connect large rear sideboard to the right-hand sideboard using the connector plate (291329B). Loosely secure using 3/8" hardware. See Figure 2-25.



Set Up (continued)

15. Loosely connect the the small rear sideboard to large rear sideboard using 3/8" hardware. See Figure 2-26.
16. Loosely attach small rear sideboard to left-hand sideboard using 3/8" hardware. See Figure 2-26.

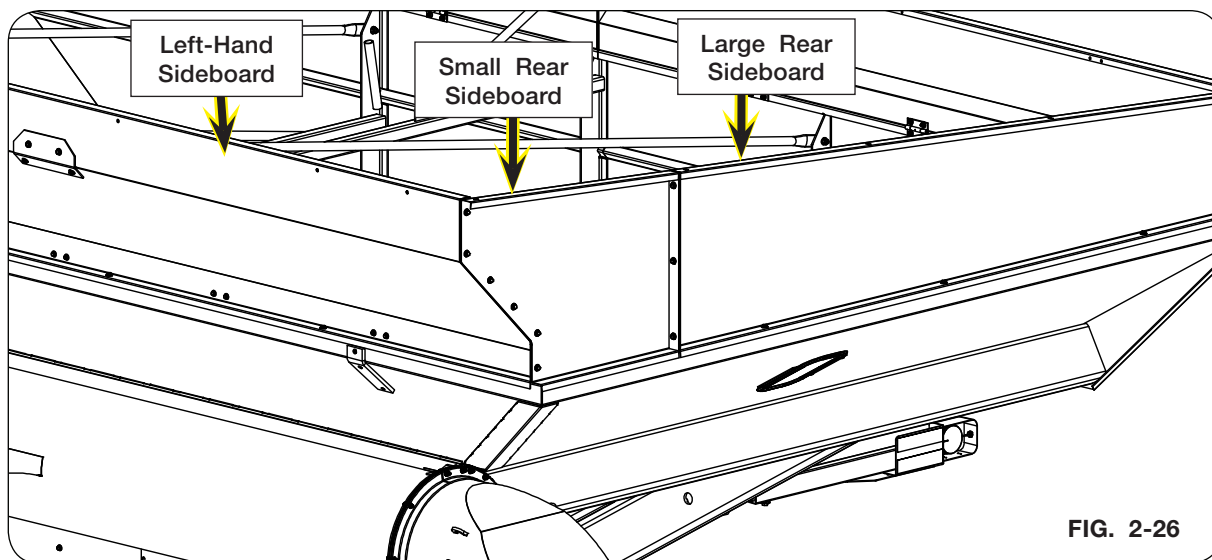
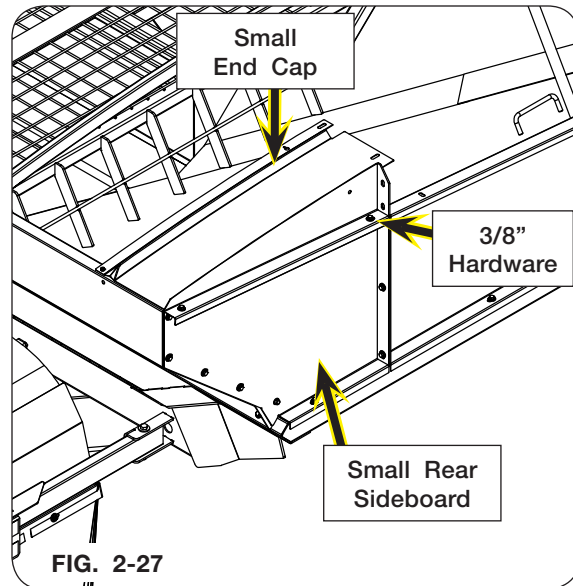


FIG. 2-26

Set Up (continued)

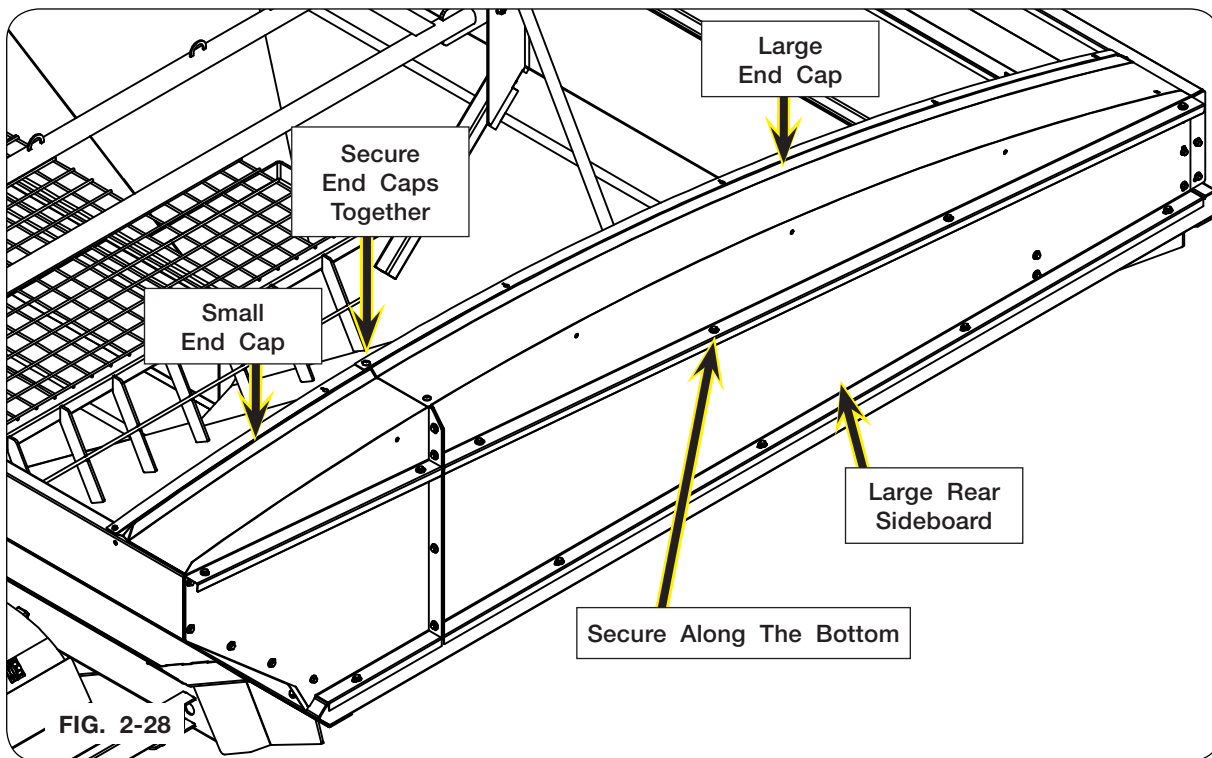
17. Attach small rear end cap on top of rear sideboards. Loosely secure using 3/8" hardware. See Figure 2-27.

NOTE: The small end cap tab will fit underneath the large end cap.



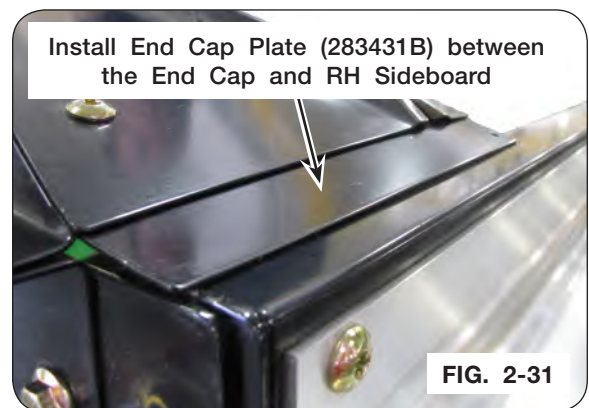
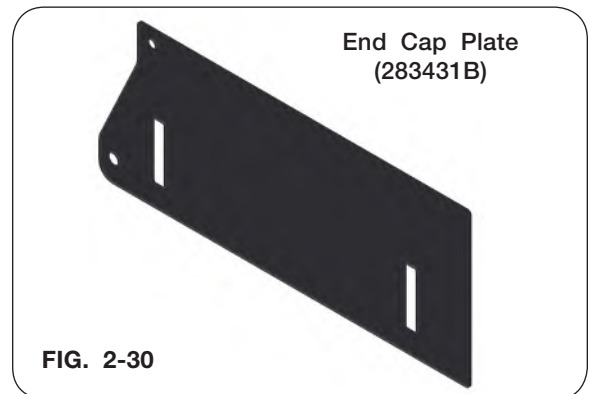
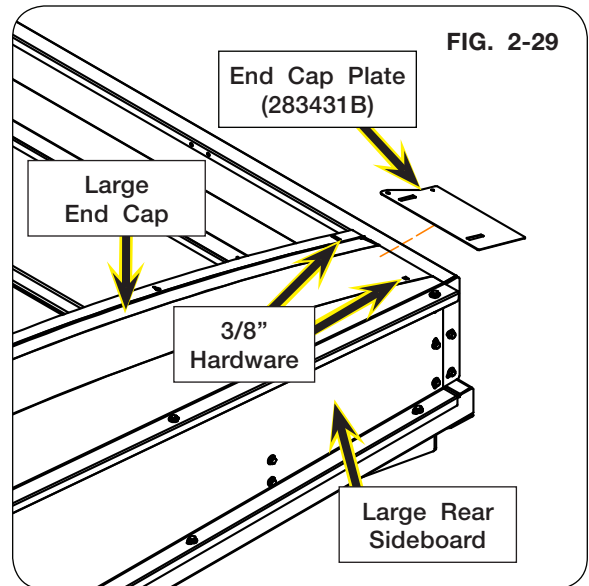
18. Attach larger end cap on top of rear sideboards using 3/8" hardware. See Figure 2-28.

NOTE: Tabs on smaller end cap go UNDER the larger end cap.



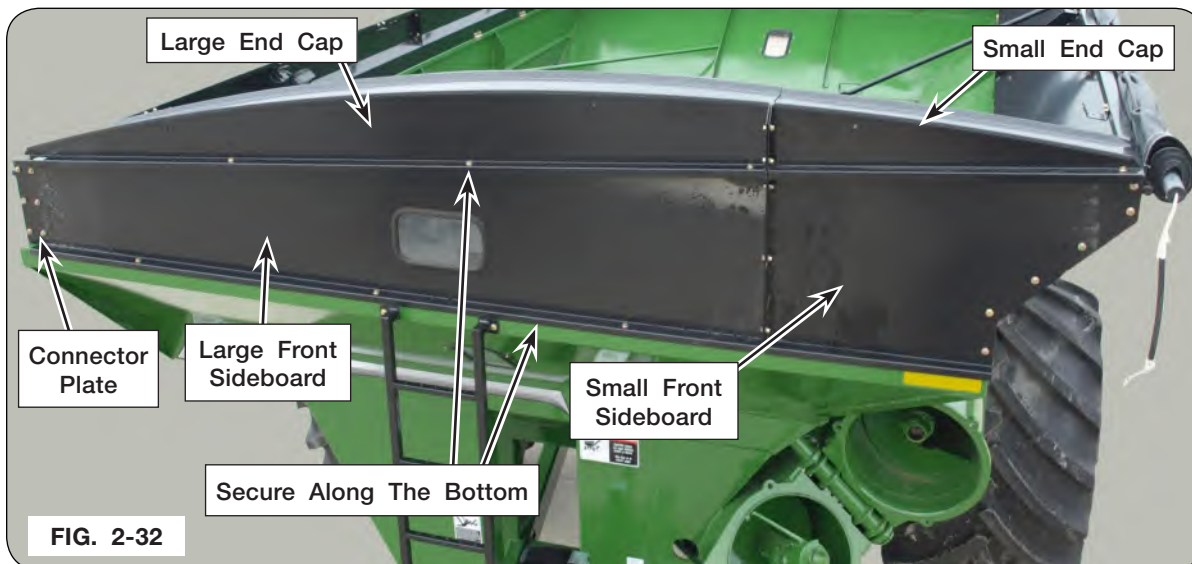
Set Up (continued)

19. Install end cap plate (283431B) between the end cap and right-hand sideboard. See Figures 2-29 through 2-31.
20. Retain by using two 3/8"-16 x 1" carriage bolts (9388-051), two 3/8"-16 flange nuts (91263). See Figures 2-29 through 2-31.



Set Up (continued)

21. Lift large front sideboard into position and loosely secure with 3/8" flange screws and flange nuts along the bottom. See Figure 2-32.



22. Connect large front sideboard to the right-hand sideboard using the connector plate. Loosely secure using 3/8" hardware. See Figure 2-32.
23. Loosely connect the small front sideboard to large front sideboard and left-hand sideboard using 3/8" hardware. Loosely secure using 3/8" hardware. See Figure 2-32.
24. Attach smaller end cap on top of front sideboards with 3/8" hardware. See Figure 2-32.
NOTE: The small end cap tab will fit underneath the large end cap.

Set Up (continued)

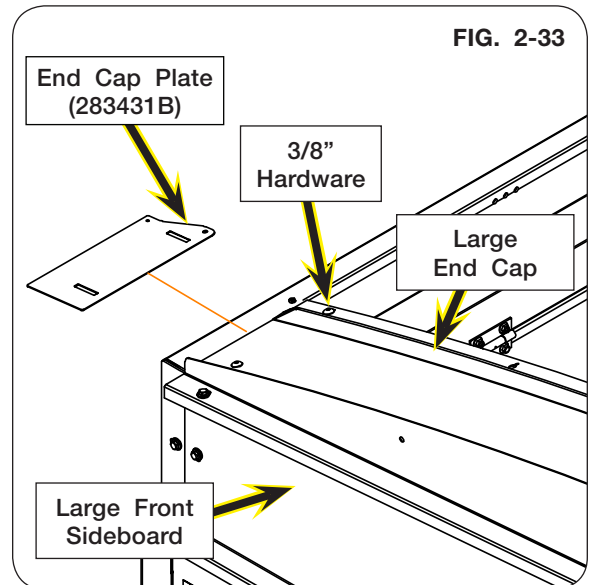
25. Attach large front end cap on top of front sideboards using 3/8" hardware. (Fig. 2-33)

NOTE: Tab on small end cap go UNDER the large end cap.

26. Install end cap plate between the end cap and right-hand sideboard. See Figures 2-33 and 2-34.

27. Loosely retain end cap plate by using two 3/8"-16 x 1" carriage bolts (9388-051), two 3/8"-16 flange nuts (91263). See Figures 2-33 and 2-34.

NOTE: DO NOT tighten hardware at this time. Wait until tarp bows are in place before torquing hardware.



Set Up (continued)

Tarp Installation

NOTE: For carts SN B40920099 & lower, skip to step 4 on next page.

NOTE: Ensure RH and LH doublers are inside the sideboard lip. See Figure 2-36.

1. For carts SN B40920100 & higher, attach RH doubler (289986B) and LH doubler (281936B) to inside sideboard lip using 3/8" flange nut (91263) and 3/8" truss screw (9005312).
2. Attach bracket (283425B) to doubler using 5/16" flange screw (91256) and 5/16" flange nut (91257).
3. Install six long tarp bows (287400B) across top of the cart using 3/8" capscrew (902703-046) and 3/8" flange nut (91263). (Figs. 2-35 and 2-36)

FIG. 2-35

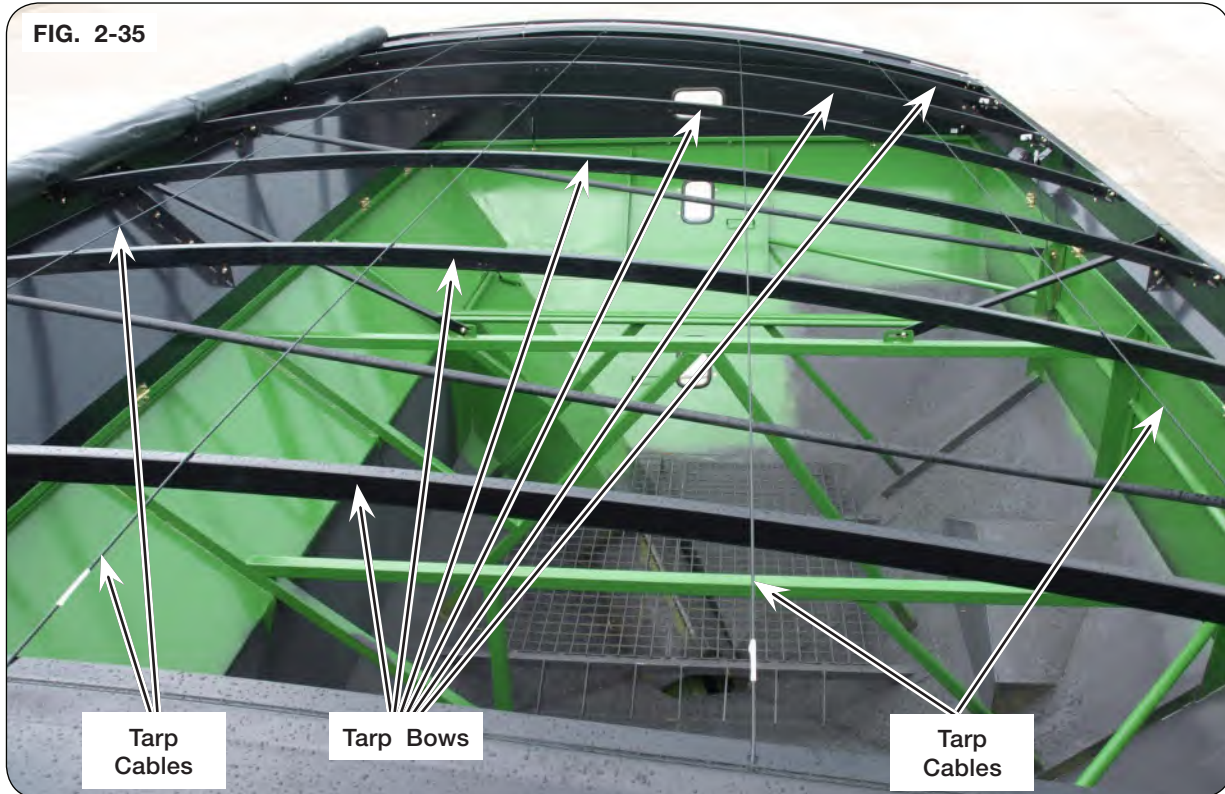
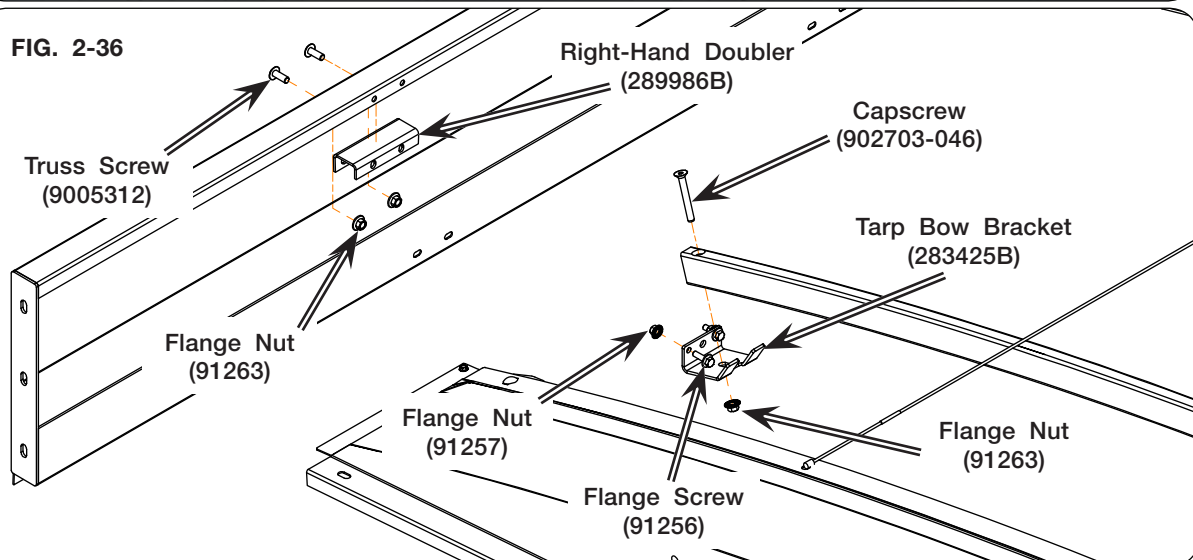


FIG. 2-36



Set Up (continued)

4. Attach bracket (283425B) to sideboards using 5/16" flange screw (91256) and 5/16" flange nut (91257). See Figures 2-37 and 2-38.
5. Install six long tarp bows (287400B) across top of the cart using 3/8" capscrew (902703-046) and 3/8" flange nut (91263). See Figures 2-37 and 2-38.

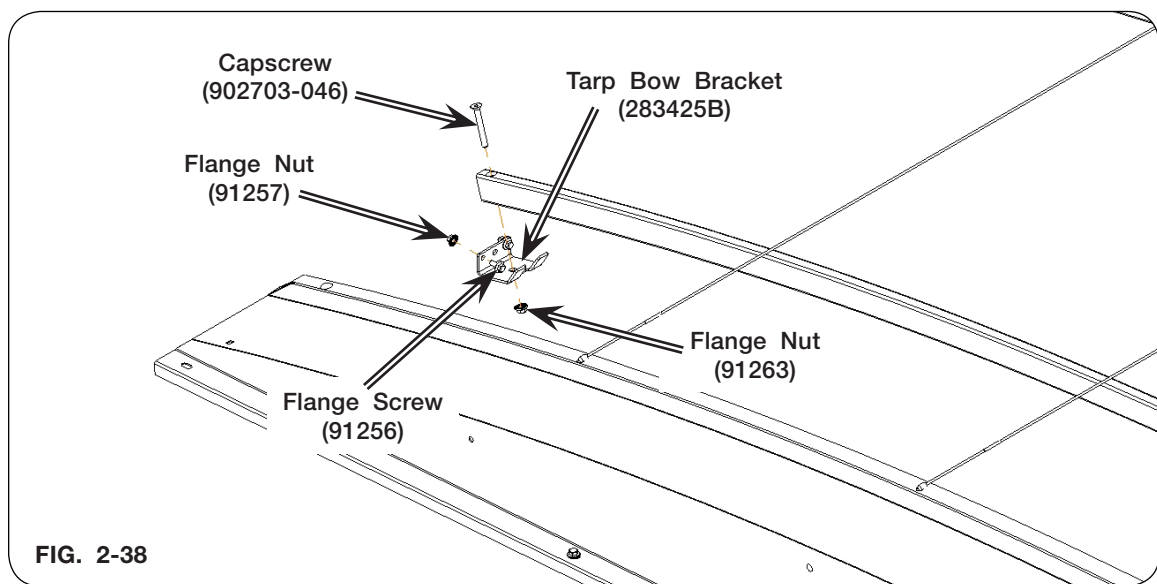
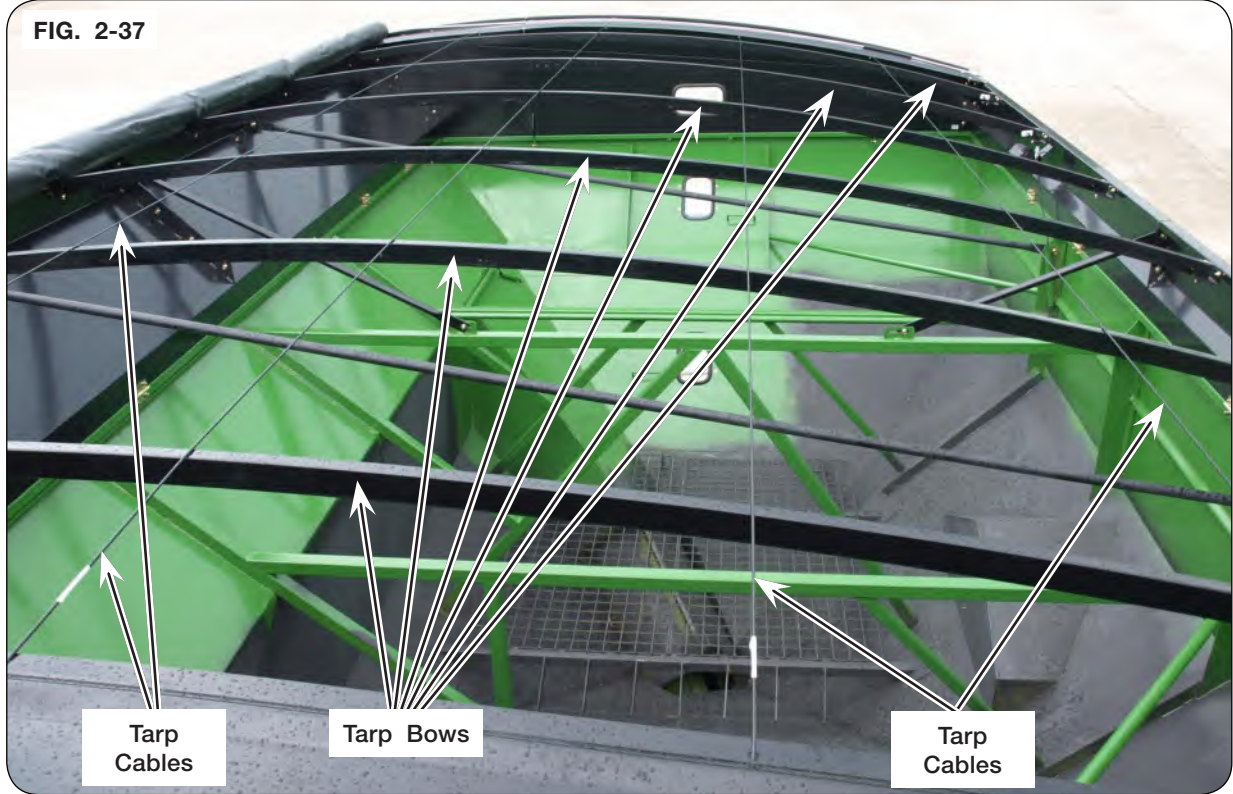
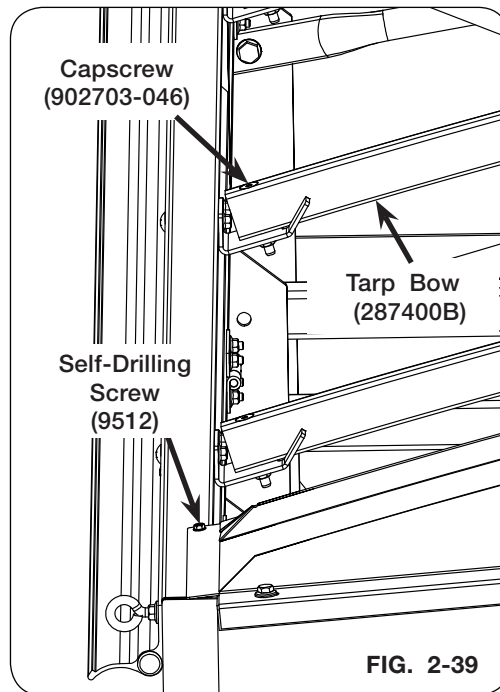


FIG. 2-38

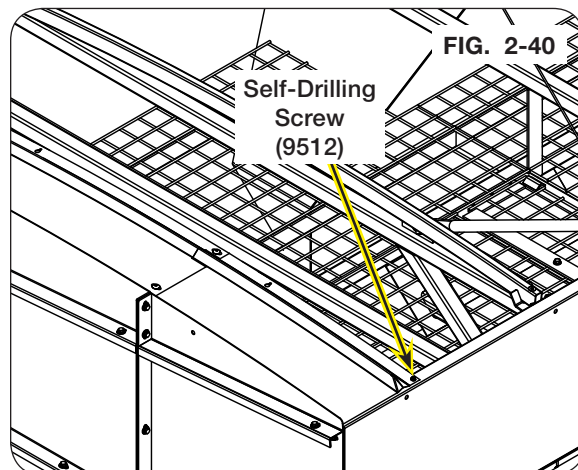
Set Up (continued)

NOTE: Ensure capscrew head (902703-046) is flush with the top of bow weldment (287400B). See Figure 2-39.

6. Use a 3/8" impact wrench to insert capscrew (902703-046) into the bow weldment (287400B). (Fig. 2-39)
7. Tighten all hardware on sideboards, end caps, cross-cart brace tubes, cross-cart brackets, and tarp bows.
8. Retain end cap plates to right-hand sideboards by using one 1/4"-14 x 1" self-drilling screw (9512) for the front and rear of the cart. See Figure 2-39

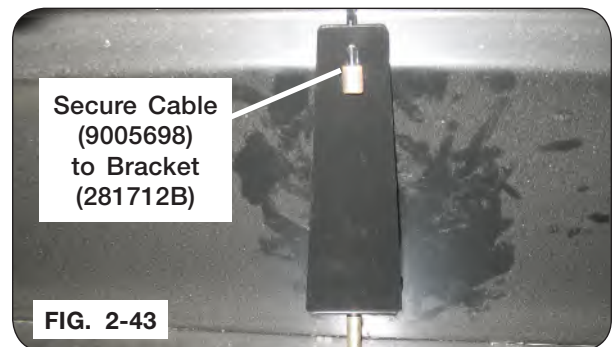
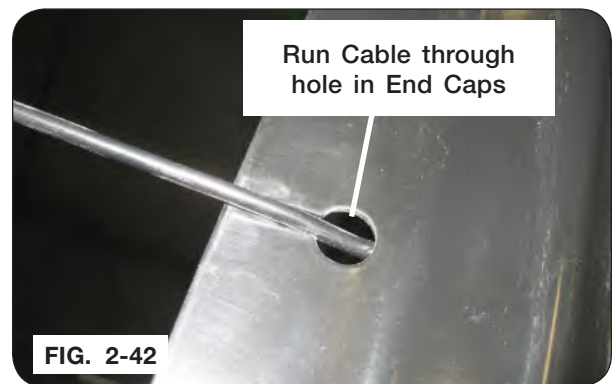
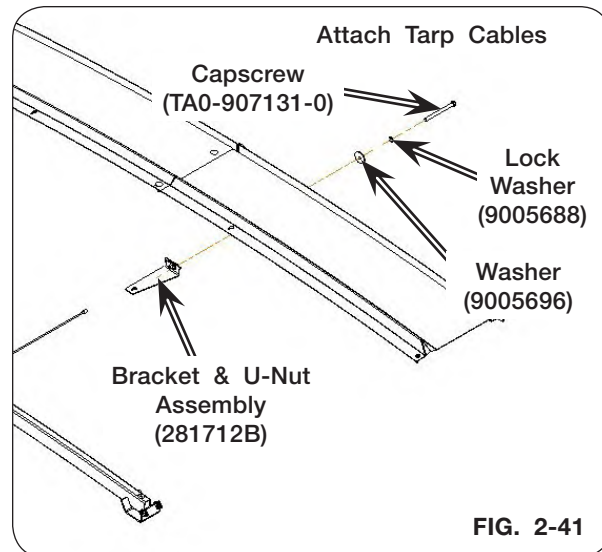


9. Retain small end caps to left-hand sideboards by using one 1/4"-14 x 1" self-drilling screw (9512) for the front and rear of the cart. See Figure 2-40



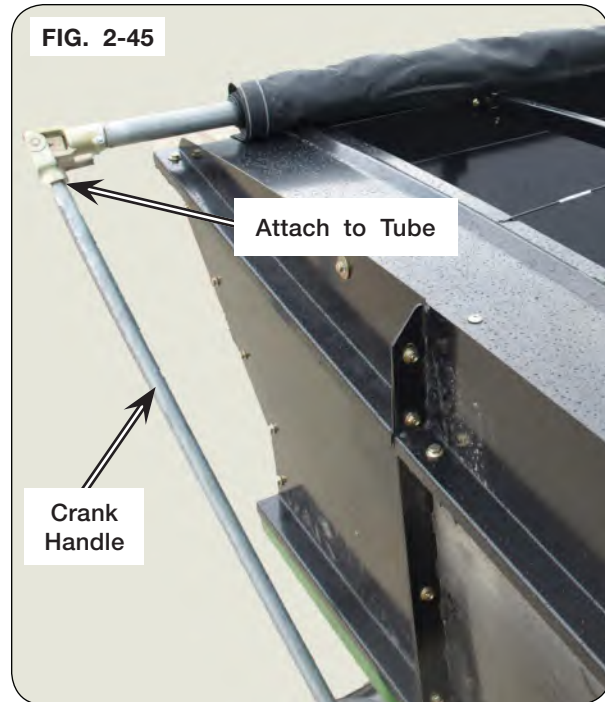
Set Up (continued)

10. Install four tarp cables across the top using 3/8"-16UNC x 4 1/2" capscrew (TA0-907131-0), 3/8" lock washer (9005688), 3/8" fender washer (9005696) and bracket & U-nut assembly (281712B). See Figures 2-41 through 2-44.
11. Assemble nylon coated cable through keyhole slot in front end cap and route over tarp bows. Assemble through keyhole slot in rear end cap and attach to adjusting bracket under end cap. See Figures 2-42 and 2-44.
12. Tighten cables until snug, without pulling front and rear board inward. Do not over-tighten.



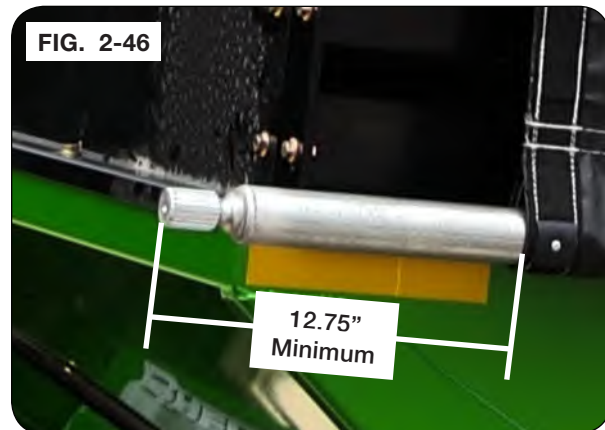
Set Up (continued)

13. Attach the crank handle to the tarp roll tube, Figure 2-45. Once secure, roll tarp across the cart to the closed position.



14. Remove crank handle from roll tube.

15. Confirm that the roll tube protrudes at a minimum of 12.75 inches from the edge of tarp, Figure 2-46.



Set Up (continued)

16. Attach U-clamps (9004949) to secure tarp to tube using #10-16 x 3/4" self-drilling screws (9005197). Check that U-clamps are located on reinforcement straps, Figures 2-47 and 2-48.

17. With the tarp in the closed position and the roll tube hanging over the right-hand side of the cart, re-attach tarp handle to the roll tube with the handle hanging straight up and down.

18. If not already affixed, attach the crank handle to brackets underneath on the rear of the cart.

19. Turn the crank handle clockwise with tarp rolled up under latch plate, thread the bungee cord end through the top of the eye bolt. Leave 2-3 inches of slack and knot off. Cut off excess 2-3 inches past knot. Sear end with lighter to keep from fraying, Figure 2-49.

20. Test tarp for proper working motion. (Figure 2-50)

FIG. 2-47

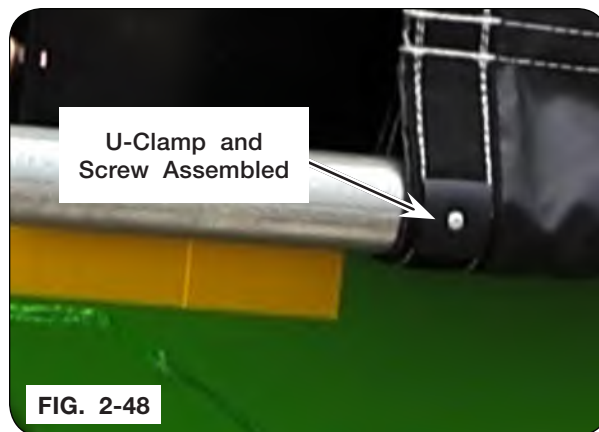
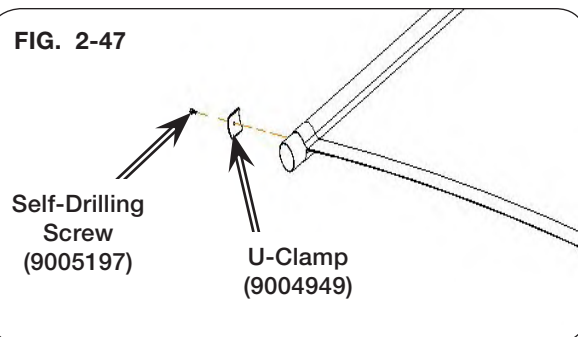


FIG. 2-49

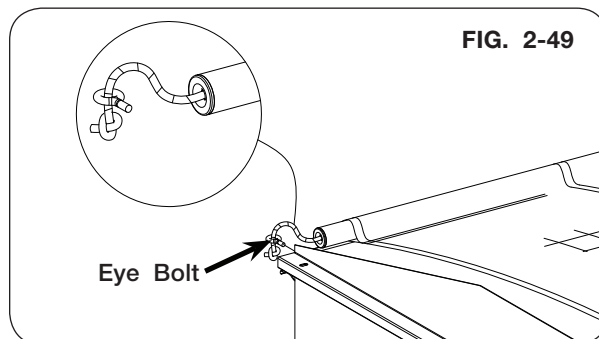


FIG. 2-50



Operational Check

⚠ WARNING

- **MOVING OR ROTATING COMPONENTS CAN CAUSE SERIOUS INJURY OR DEATH. ENSURE SERVICE COVERS, CHAIN/BELT COVERS AND CLEAN-OUT DOOR ARE IN PLACE AND SECURELY FASTENED BEFORE OPERATING UNIT.**

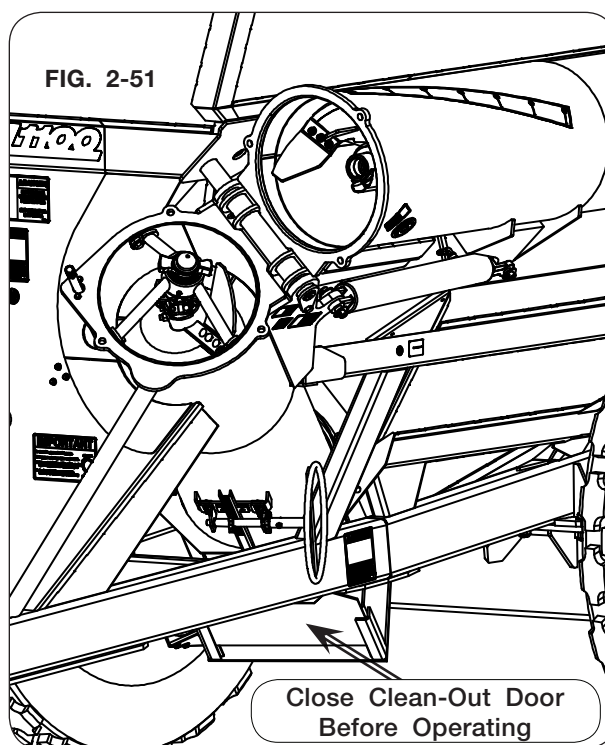
IMPORTANT

- *Before running the auger, inspect and verify all grain dust and filings are removed from inside the lower auger to prevent machine damage and the cleanout door is completely closed.*

NOTE: For cleanout door assembly adjustment, refer to “Adjusting Cleanout Door” in the MAINTENANCE section.

Once set-up has been completed, run the cart to check for operation and functionality:

1. Lights - Work, Turn, Brake
2. Hydraulic Drive (if applicable)
3. Flow Door
4. Flow Door Indicator
5. Open & Close Cleanout Door
6. Auger Fold
7. Spout Rotate & Pivot (if applicable)
8. Auger Startup & Shut-down
9. Brakes (if applicable)
10. Tarp
11. Video System Camera (if applicable)



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FOR SCALE, TRACK, UHARVEST, HYDRAULIC DRIVE, ELECTRIC TARP, AND VIDEO SYSTEM
OPTIONS, PLEASE REFER TO THE SPECIFIC MANUAL.

Operating Checklist

- Read and understand all safety precautions before operating cart.
- Test operation and functionality of flow door indicator, setting flow door stop valve, auger fold, and spout rotate and tilt.
- Verify transport lights are working properly. Check and follow all regulations before towing on a road or highway.
- Verify hitch height and length as outlined in OPERATION section.
- Install transport chain and torque hardware to specification. See “Transport Chain Connection” in OPERATION section.
- Test run the augers. See “Auger Operation” in OPERATION section.

Preparing Tractor

Before operating cart, read the tractor Operator's Manual and gain an understanding of its safe methods of operation.

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

Check the tractor hydraulic oil reservoir and add oil if needed.

Set or Calibrate tractor PTO control engagement modulation to MINIMUM setting. Refer to tractor operator's manual for setting information or contact your local dealer for tractor capabilities and recommended setting for grain cart operation.

Verify that the tractor is adequately ballasted for drawbar operation at the anticipated draft load. See tractor manual for ballasting instructions.

If possible, adjust the tractor drawbar vertically so the topside of the drawbar is approximately 17-22 inches from the ground. Ensure that the drawbar is locked in the center position.

Check that the drawbar is in the required 20" position from end of PTO shaft to center of drawbar hole, and will adequately support loads.

On tractors equipped with a 3-point hitch, raise and secure the linkage to prevent interference with the cart tongue, hydraulic hoses and the hydraulic drive option during turning. It may be necessary to remove tractor 3-point quick attach to avoid damage during turning.

Preparing Cart

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

Hardware

Check for loose bolts and nuts, and tighten as needed. Check again after the first half-day of operation.

Pivot Pins

Check that all pins are in place and in good condition. Replace any worn, damaged or missing pins.

Hitch

Check hitch wear plates for damage and wear. Be aware of the size of hitch adapter bushing that is being used. Select correct size for the hitch pin/draw bar you are using.

Auger

Inspect auger for damage and wear.

Auger Driveline Assembly

Inspect auger driveline for damage and wear. Check for correct driveline phasing. Refer to MAINTENANCE section for additional information on safe driveline phasing, replacement and assembly.

Preparing Cart (continued)

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.

Optional Hydraulic Brake System

On carts equipped with optional hydraulic brake system, ensure hose is properly connected to the tractor's hydraulic trailer brake coupler. Consult your tractor's Operator's Manual or your tractor dealer for more information.

Tires/Wheels

Check tire pressures and maintain at recommended values listed in the MAINTENANCE section of this manual.

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.**

IMPORTANT

- *Installing wheels without the proper inset/offset could result in hub or spindle failure. This will cause substantial damage to cart and is not covered by warranty. Inset/offset will vary depending on tire size. Consult dealer for proper inset/offset.*

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.

Lubrication

Lubricate the cart as outlined in the MAINTENANCE section of this manual.

Video System (Optional)

IMPORTANT

- *Do not operate video system below 15°F. Damage to video system can occur.*

Please reference the video system's (265770) operation instruction sheet for more information.

Hitching to Tractor

Drawbar Connection

This cart is intended to be hitched to a tractor drawbar. Do not attempt to hitch to any location on the tractor other than the drawbar.

The cart comes with a CAT 4 hitch for use with a 2" pin and designed for a clevis-type tractor drawbar. If a 1 1/2" or 1 1/4" diameter hitch pin is used, a corresponding bushing must be inserted into the hitch tang and held in place with o-rings. (Figure 3-1)

NOTE: Use of the proper hitch pin/bushing will prevent excessive wear and tear on both the cart and tractor.

NOTE: Bushings and o-rings are stored in the toolbox on the right-hand side of the cart.

Lock tractor drawbar in center position.

Set tractor drawbar length to 20" from the end of the tractor PTO shaft to center of drawbar pinhole.

WARNING

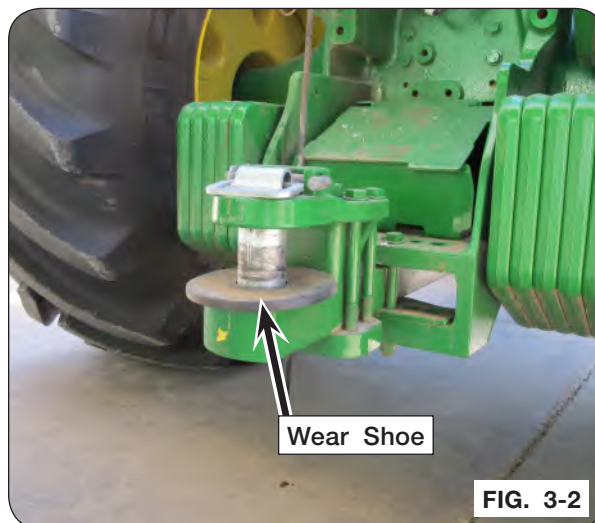
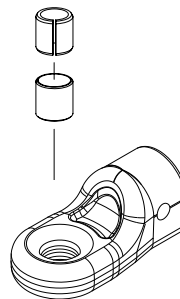
- **CRUSHING CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT STAND BETWEEN CART AND TRACTOR WHEN HITCHING. ALWAYS ENGAGE PARKING BRAKE AND STOP ENGINE BEFORE INSERTING HITCH PIN.**

Place wear shoe (281663-CAT 3; 281898-CAT 4) between tractor hitch and grain cart hitch (FIG. 3-2).

After inserting drawbar pin, secure drawbar pin with a locking device to help prevent uncoupling during use.

NOTE: Hitch tang can be flipped providing a drawbar connection height difference of 2 7/8" (Figure 3-3). Position the hitch tang to help assure a level cart when loaded, or the rear of the hopper slightly higher than the front, to maintain rear slope cleanout. Whenever the hitch tang is flipped, the driveline clearances need to be reviewed.

FIG. 3-1



2 7/8" Higher Than
The Standard Position

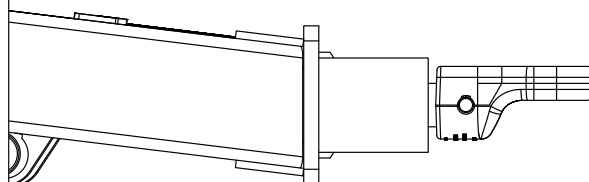


FIG. 3-3

Hitching to Tractor (continued)

Jack Usage

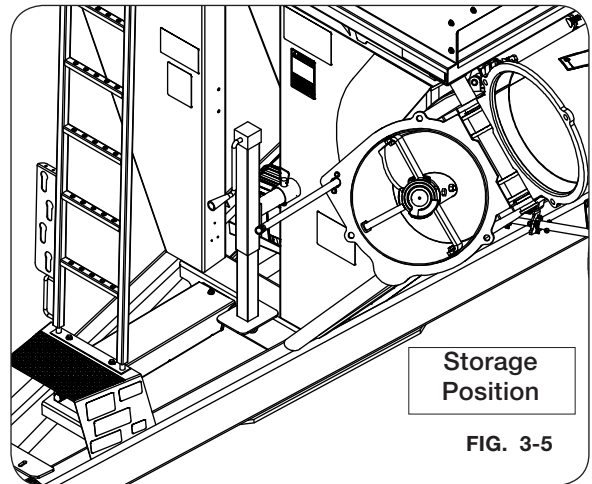
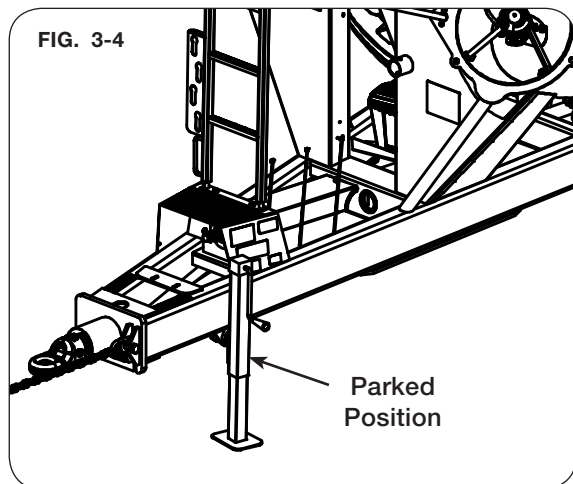
WARNING

- **UNHITCHING A LOADED CART CAN CAUSE SERIOUS INJURY OR DEATH DUE TO THE TONGUE RISING OR FALLING. ALWAYS HAVE A LOADED CART ATTACHED TO A TRACTOR. THE JACK IS INTENDED TO SUPPORT AN EMPTY CART ONLY.**

Use jack to support an empty grain cart, never a loaded grain cart. Always have a loaded grain cart hooked to tractor. Attach jack to left outside frame using pin and hair pin. Mount jack in storage position once cart is hitched to tractor. (FIG. 3-4 and 3-5)

IMPORTANT

- *Failure to store the jack in storage position could result in damage to the jack, cart, or tractor tire.*



Hitching to Tractor (continued)

Transport Chain Connection



CAUTION

- ALWAYS USE TRANSPORT CHAIN WHEN TRANSPORTING IMPLEMENTS. FAILURE TO USE A TRANSPORT CHAIN COULD CAUSE PERSONAL INJURY IF CART BECOMES DISENGAGED.
- REPLACE TRANSPORT CHAIN IF ANY LINK OR END FITTING IS BROKEN, STRETCHED OR DAMAGED. DO NOT WELD TRANSPORT CHAIN.

Always use intermediate chain support when connecting cart directly to a tractor. DO NOT use the intermediate chain support as the chain attaching point. Figure 3-6 shows how the transport chain must be installed between cart and tractor.

The transport chain is rated for towing the grain cart empty on public roads. Use only ASABE approved chains. Allow no more slack in chain than necessary to permit turning.



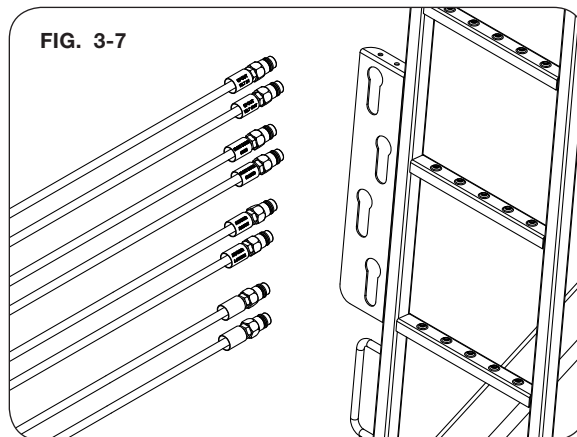
FIG. 3-6

Hitching to Tractor (continued)

Hydraulic Connections

IMPORTANT

- *When coupling hydraulic hoses to ports on the tractor, be sure that the coupler ends are clean of dust, dirt and debris. Failure to do so could contaminate hydraulic system resulting in excessive wear and possible failure. (FIG. 3-7)*



Clean hydraulic hose couplers before connecting to the tractor. For convenience, it is recommended to connect the flow door circuit hoses to tractor implement coupler #1, auger spout circuit hoses to couplers #2 and #3, and attach auger fold circuit to coupler #4.

This unit is equipped with color bands attached to the hydraulic hoses. This will help in identifying the hose function and correct hook up.

Color	Hose Function
Red	Flow Door Open / Close
Yellow	Spout Rotate Rear / Front
White	Spout Tilt In / Out
Green	Auger Fold / Unfold
Blue	Brakes (Optional)
Opt. Red	Hydraulic Pressure / Return

After initial set-up or replacement of any hydraulic component on the cart, air must be removed from the cart's hydraulic system. Reference "Hydraulic System - Purge Hydraulic System" section in the MAINTENANCE section.

Route hoses away from areas that may cause abrasion or kinking of hoses during operation.

Before disconnecting hoses from tractor, place tractor in Park and shut PTO off, operate auger fold to the lowest positions. Where possible, remove hydraulic pressure and avoid potential pressure buildup in the lines from long storage periods such as upper auger not in rest position. See tractor operator's manual for proper procedure to relieve pressure from the lines. After SCV pressures have been relieved and tractor engine is off, disconnect hoses from tractor. Install couplers into storage slots provided.

Hitching to Tractor (continued)

Hydraulic Connections for Hydraulic Drive

It is possible that the tractor utilizes more than one pump to achieve higher hydraulic flow rates. To maximize hydraulic flow to auger hydraulic drive motor, refer to tractor's Operator's Manual to determine which couplers should be used to achieve maximum flow. A flow test by your dealer's tractor technician can be performed and is recommended to assure maximum flow without exceeding motor limits.

A case drain hose is supplied with the 55 and 100 gpm kits and must be used.

IMPORTANT

- *The case drain line is to be connected to the tractor's low pressure return line ONLY! DO NOT connect to the hydraulic couplers! DO NOT plumb both case drain and hydraulic drive return lines to low pressure return. Pressure in return lines will back flow into case drain and shorten motor life.*

To avoid thermal shock, maintain a temperature difference less than 50 degrees between the tractor's hydraulic fluid and the motor's hydraulic fluid. With the flow door closed, run the motor in very short intervals (bursts with 15 second pauses) or low hydraulic flow rate at startup, in order for hydraulic oil to slowly exchange colder oil in the motor with warmer oil from the tractor. Particularly advised on cold days and/or first loads of the day.

Hitching to Tractor (continued)

Electrical Connections

This cart is equipped with a seven-pin SAE connector plug which will connect with the receptacle found on most newer tractors. If your tractor does not have this type of receptacle, an SAE J-560 seven-point socket can be purchased from your Unverferth dealer (Part number 92824). (FIG. 3-8)

NOTE: 7-pin connector must be plugged into the tractor in order for the EOH system to operate.

The wiring Diagram for this cart, shown in the MAINTENANCE section, complies with ASABE Standards. Always verify correct electrical function before using this cart.

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 for US federal law requirements.

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

Optional Implement Brake Connection

Connector should comply with ISO:5676 standards. Brake hydraulic hose is designated with blue color band. See tractor's operators manual for connection location.

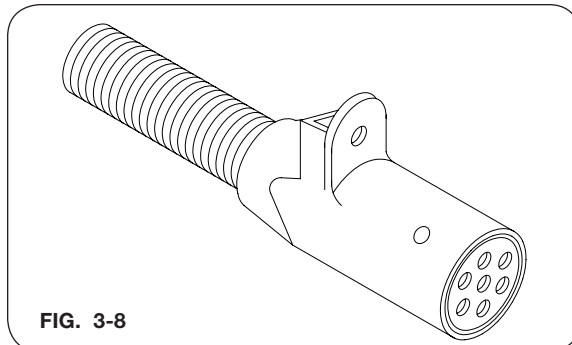


FIG. 3-8

Towing

Even if the cart is equipped with brakes, ensure that the towing vehicle has adequate weight and braking capacity to tow this implement. See towing vehicle manual for towing capacity. Never tow a loaded grain cart over public roads.

IMPORTANT

- *To prevent damage to the cart brake system, manually release pressure from the cart hydraulic brakes if towing without a hydraulic brake equipped vehicle. See “Brake Pressure Manual Release” in MAINTENANCE section.*

Maximum speed of cart should never exceed 20 m.p.h. Do not exceed 10 m.p.h. during off-highway travel. Do not exceed 8 m.p.h. when cart is fully loaded.

Secure drawbar pin with a locking device and lock tractor drawbar in centered position.

The PTO drive shaft needs to be placed in the storage position on the rear of the frame rail or properly attached to the tractor. See “Coupling The Cut-Out Clutch” in SET UP section and “PTO Shaft and Clutch” in MAINTENANCE section before connecting the PTO drive shaft to the tractor.

Place transport chain through intermediate support and attach chain to tractor before towing.



CAUTION

- **THE STANDARD TRANSPORT CHAIN PROVIDED IS FOR THE BASIC CART WHEN TOWED EMPTY FOR ROAD TRAVEL.**

Rotate the directional spout to the narrowest transport width position.

Regulate speed to road conditions and maintain complete control.

It is probable that this cart is taller, wider and longer than the towing tractor. Become aware of and avoid all obstacles and hazards in the travel path of the equipment, such as power lines, ditches, etc.

Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.

For carts equipped with optional hydraulic brakes: verify proper tractor connection and brake function/release before towing.

Always fold auger into storage position when auger is not in use.

To prevent damage during turning when using non-PTO equipped towing vehicles, store the PTO drive shaft in the brackets provided on the rear of the frame rail.

Electric Over Hydraulic Operation (Optional)

Before operating cart, familiarize yourself with the functions associated with the joystick controller by operating with an empty cart.

The joystick comes with a mounting pin allowing storage inside the tractor cab when not in use.

1. Connect the red wire from power harness (9008402) to a key switched +12VDC power supply. (FIG. 3-9)
2. Connect the white wire from power harness (9008402) to ground. (FIG. 3-9)

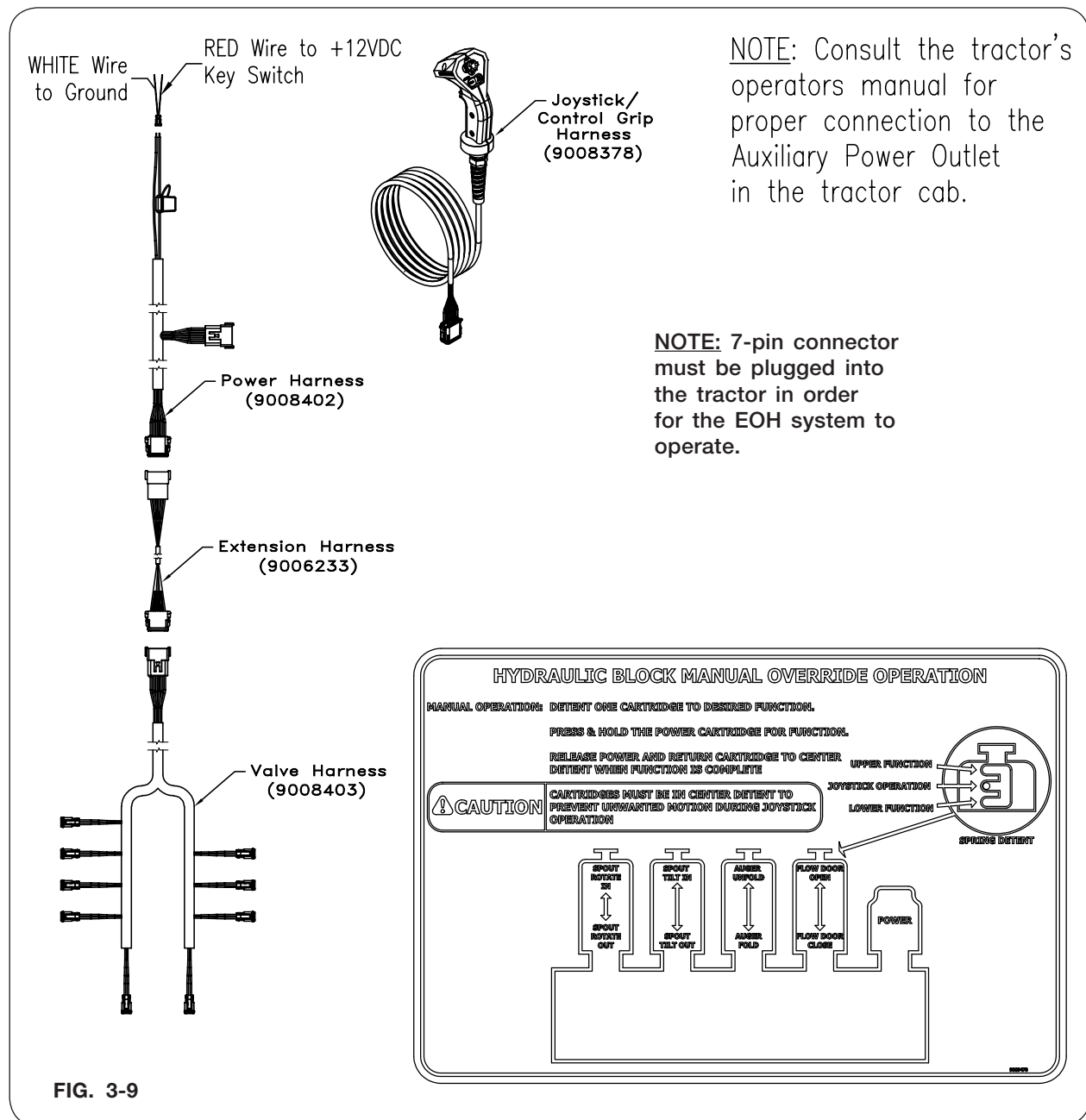


FIG. 3-9

Electric Over Hydraulic Operation (Optional) (continued)

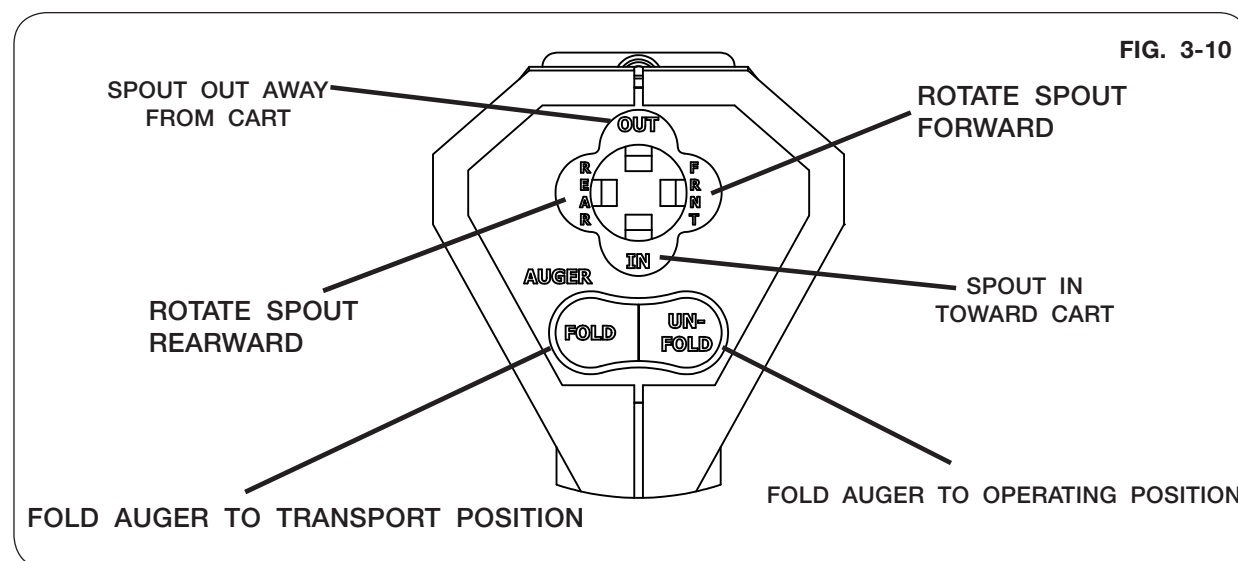
3. Connect the Hydraulic Pressure and Return hoses to the tractor SCV remote so that the Pressure line is able to be put in continuous detent.
4. Place the remote in continuous detent so that the Hydraulic Pressure hose is pressurized and set the hydraulic flow to a maximum of 6 gal/min. to minimum 4 gal/min.
5. To fold auger out from transport to operating position, push down the auger unfold button on joystick face until the upper and lower auger are engaged. See FIG. 3-10.

NOTE: Joystick has a double tap feature, which allows the operator to quickly double tap a function in order to operate it for a set time. If the auger fold or auger unfold buttons are double tapped, the function will stay on for 60 seconds to complete the full cycle without holding the buttons down. Pressing either of those buttons during these timed cycles will CANCEL the cycle. This double tap feature only applies to auger fold and unfold functions.

6. To tilt spout OUT away from cart, push hat switch toward OUT. Hold the switch until desired position is achieved. See in FIG. 3-10.
7. To tilt spout IN toward cart, push hat switch toward IN. Hold the switch until desired position is achieved. See in FIG. 3-10.
8. To rotate spout FORWARD, push hat switch FRNT. Hold the switch until desired position is achieved. See FIG. 3-10.
9. To rotate spout REARWARD, push hat switch REAR. Hold the switch until desired position is achieved. See FIG. 3-10.

NOTE: Refer to “Troubleshooting” for EOH, auger and/or rotating spout issues in the OPERATION section.

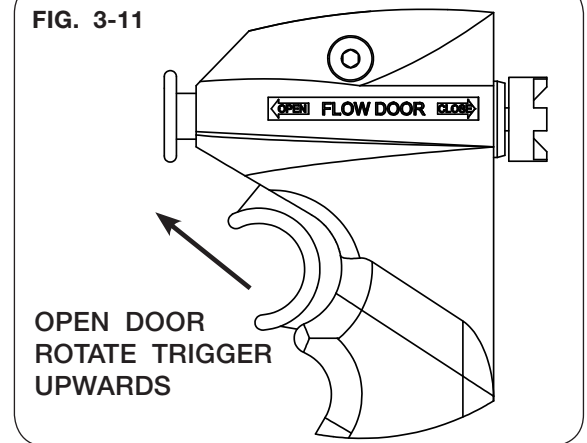
10. To fold auger from operating position to transport position, press auger FOLD button on joystick. See FIG. 3-10



Electric Over Hydraulic Operation (Optional) (continued)

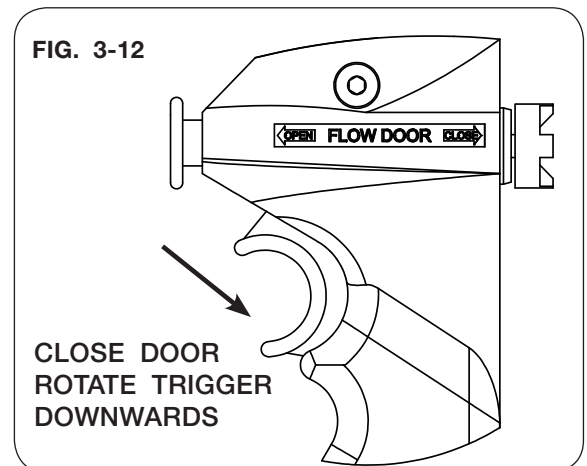
11. To open flow door, rotate the switch upwards. Observe flow door indicator to determine when to release trigger and stop flow door movement. See FIG 3-11.

FIG. 3-11



12. To close flow door, rotate the switch downwards. Observe the flow door indicator and release trigger when door is closed to desired position. See FIG. 3-12.

FIG. 3-12



13. Once unloading is complete, stop hydraulic flow. **ALWAYS** stop continuous detent when auger functions are not required or active.

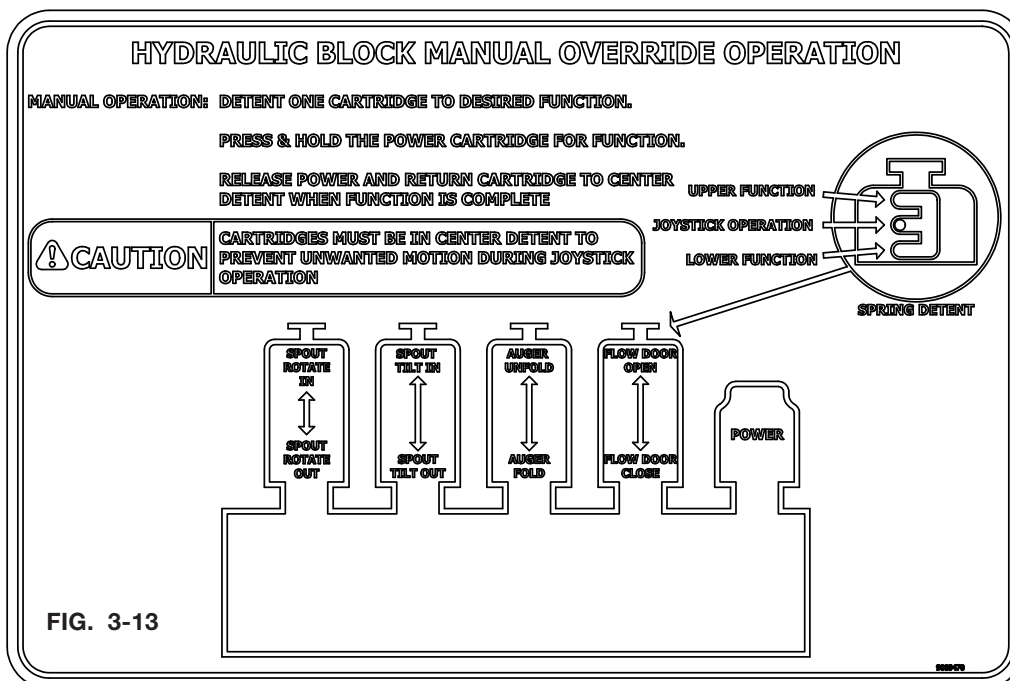
Manual Override for Optional Electric Over Hydraulic System

⚠ WARNING

- MOVING OR ROTATING AUGER COMPONENTS CAN CAUSE SERIOUS INJURY OR MACHINE DAMAGE. BEFORE OPERATING MANUAL OVERRIDE(S), ENSURE EVERYONE IS AWAY FROM THE SPOUT AND THAT THE SPOUT WILL NOT CONTACT ANY OTHER PARTS OF THE GRAIN CART.
- MOVING OR ROTATING PTO COMPONENTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT OPERATE PTO WHILE UTILIZING MANUAL OVERRIDE(S).
- ALL SAFETY SWITCHES ARE DEACTIVATED WHILE UTILIZING MANUAL OVERRIDE(S).

NOTE: 7-pin connector must be plugged into the tractor in order for the EOH system to operate.

NOTE: Manual override operation is intended for emergency use **ONLY** and is not intended for continuous operation.



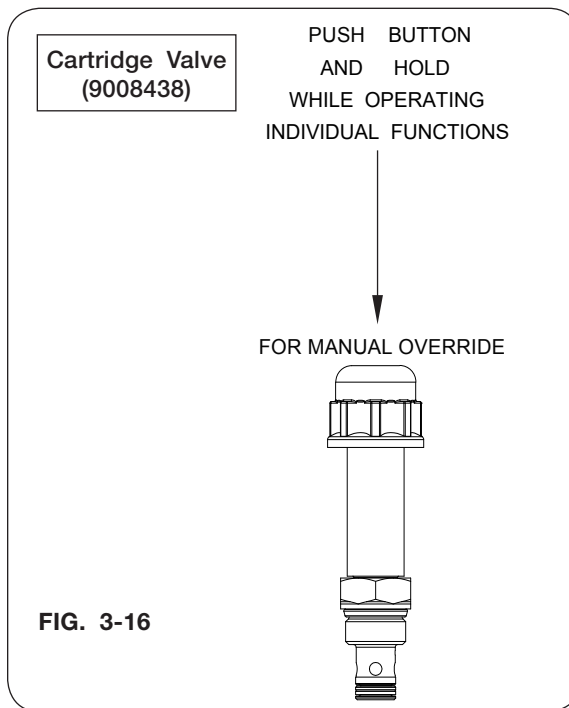
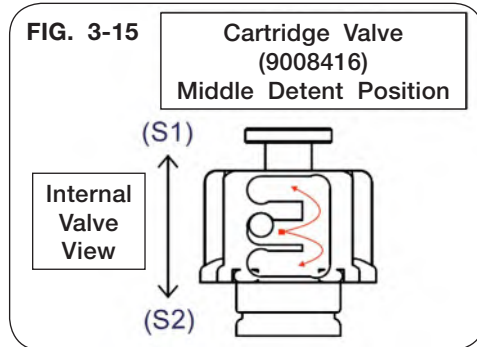
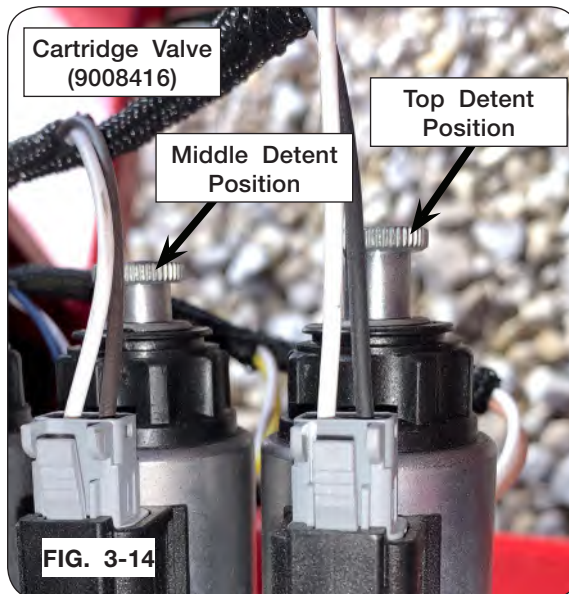
1. Park the empty grain cart on a firm and level surface. Block the tires/tracks on the machine to keep it from moving. Set the tractor's parking brake.
2. Connect the Hydraulic Pressure and Return hoses to the tractor SCV remote so that the Pressure line is able to be put in continuous detent.
3. To operate the manual override functions, place the tractor SCV remote in continuous detent so that the Hydraulic Pressure hose is pressurized.

Manual Override for Optional Electric Over Hydraulic System
(continued)

NOTE: Only one cartridge valve (9008416) may be in the top or bottom detent position at a time to function properly. All other valves must be in the middle detent position. (FIG 3-14 & 3-15)

4. Locate desired function on valve (9008416) and move cartridge to top/bottom detent, as desired, and lock in position. (FIG. 3-13)
5. Push and hold the power cartridge on valve (9008438). (FIG. 3-16)
6. Once the desired position is reached, release manual override button on valve (9008438).
7. Return cartridge to center and lock valve (9008416) in position. (FIG. 3-14 & 3-15)
8. Turn off hydraulic circuit when done. Correct electric/hydraulic system before continued use. Consult your dealer for service and parts.

NOTE: Refer to “Troubleshooting” for EOH, auger and/or rotating spout issues in the OPERATION section.



Auger Operation

PTO Driven Auger

⚠ DANGER



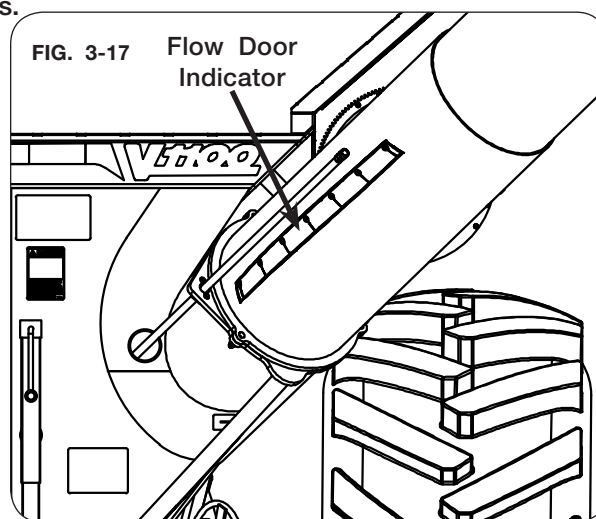
- **ELECTROCUTION WILL CAUSE SERIOUS INJURY OR DEATH. ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT. KEEP AWAY FROM ALL ELECTRICAL LINES AND DEVICES.**
- **ENTANGLEMENT WITH THE DRIVELINE WILL CAUSE SERIOUS INJURY OR DEATH. KEEP ALL GUARDS AND SHIELDS IN GOOD CONDITION AND PROPERLY INSTALLED AT ALL TIMES. AVOID PERSONAL ATTIRE SUCH AS LOOSE FITTING CLOTHING, SHOE STRINGS, DRAWSTRINGS, PANTS CUFFS, LONG HAIR, ETC. THAT CAN BECOME ENTANGLED IN A ROTATING DRIVELINE.**

NOTE: Set PTO engagement modulation to minimum. See tractor operator manual for procedure.

1. Before loading cart or operating auger, verify the flow control door is closed.
2. Choose an area free from obstructions and unfold auger into unloading position. Allow sufficient time for the cylinder to fully engage the two augers.
3. Engage tractor PTO at low engine RPM, then increase engine RPM until 1,000 PTO RPM is reached.
4. Open flow control door to desired unloading rate. Numbers on the auger tube provide a point of reference for operator convenience. (FIG. 3-20)

IMPORTANT

- *Extensive operation while the clutch is slipping may damage drive components.*



NOTE: If an overload occurs, (Shear-bolt failure, excessive heat/smoke or a ratcheting or “clicking” noise from the cut-out clutch, limited torque during slipping for friction clutch) shut off PTO immediately. Close flow control door and relieve auger grain pressure by opening cleanout door to remove some grain from auger before resuming. When resuming operation, allow clutch to cool, then engage tractor PTO at low engine RPM, and increase engine RPM until 1,000 PTO RPM is reached.

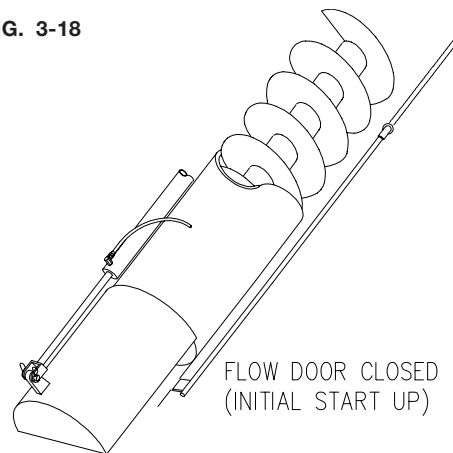
Auger Operation (continued)

5. To slow or stop grain flow, close flow door, DO NOT reduce tractor/PTO RPM as a means to control grain flow. Close flow door fully when unloading is complete. (FIG. 3-18)

NOTE: It is not recommended to disengage auger with flow control door open. Auger system will require substantially more torque to start, placing extra stress on both cart and tractor driveline.

6. When auger is empty, reduce tractor RPM to idle, then stop PTO.
7. After the PTO has come to a complete stop, fold auger to the transport position.

FIG. 3-18



Auger Operation (continued)

Increasing Maximum Flow Door Opening

The floor door has been set with a stop to prevent the maximum opening while operating the cart at lower PTO rpm. The factory stop position provides full auger fill in most crops and conditions. For extra-difficult flowing crops, more auger opening may be required.

NOTE: Opening the auger flow door past the factory setting will increase power consumption, auger wear, and shorten driveline life. (FIG. 3-19)

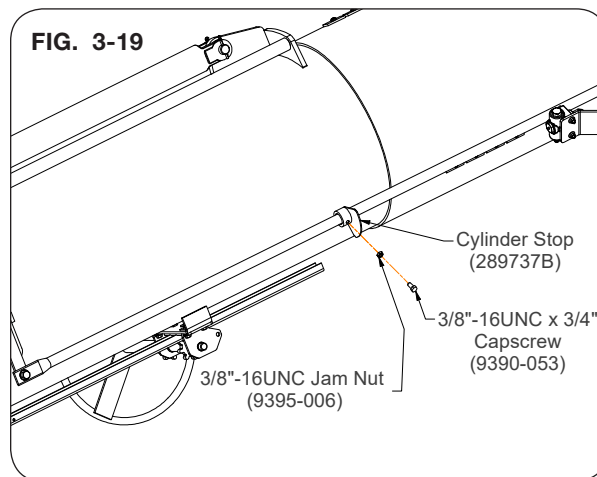
NOTE: In order to increase grain flow to the maximum bushels per minute, cylinder stop (289737B) can be adjusted further down on flow door indicator rod. (FIG. 3-19)

1. Locate the cylinder stop on the flow door indicator rod. (FIG. 3-19)
2. Loosen the capscrew and jam nut retaining the cylinder stop.

NOTE: Ensure the cylinder stop is centered on the flow control valve plunger and will not contact hoses during movement of the flow door.

3. Move the cylinder stop along the indicator rod to desired flow door opening setting, and tighten retaining capscrew and jam nut.

NOTE: PTO MUST always be run at 1,000 RPM when flow door is at maximum opening.



Troubleshooting

Problem	Possible Cause	Corrective Action
No Electric Over Hydraulic (EOH) Functions work	7 Pin connector not supplying good ground to cart.	Check the connections to the main power harness in the tractor cab, and check the 5 AMP fuse in the fuse holder of the main power harness. Replace fuse if necessary.
	Not getting good connection at Deutch connectors in the harnesses	Unplug the Deutsch connectors at the hitch point and in the extension harness (if used). Clean up the connectors with electrical contact cleaner. Make sure the connectors are aligned correctly and re-connect them.
	Not pressurizing the correct hydraulic hose	Make sure the quick couplers are properly connected to the tractor SCV and the Hydraulic Pressure line is being pressurized when engaging the tractor SCV.
One single function will not work	Defective coil on the EOH valve for that function	Loosen the cap for the coils associated with that function on the EOH valve. Depress the button on the remote, and determine if the coils are getting magnetized. Inspect the wiring connectors to these coils, and replace the coil if necessary.
	Defective valve on the EOH valve for that function	Remove the coil and the cartridge valve on the EOH valve block for that function. Replace the valve if it doesn't operate when the coil is magnetized.
	Debris in the EOH block at the base of the vertical auger	Remove the coil and the cartridge valve on the EOH valve block. Remove any debris and reinstall cartridge and coil.
Functions continue to operate after the button on the remote is released	Tractor hydraulic flow is set too high	Turn tractor hydraulic flow down so that flow doesn't exceed 6 gallons per minute.
	Defective valve on the EOH valve for that function	Remove the coil and the cartridge valve on the EOH valve block for that function, and replace the cartridge.

Optional Equipment

Hydraulic Drive

The optional hydraulically-driven auger permits cart operation using tractors that are not equipped with a PTO. However, due to the power requirements of a grain cart, it should be expected that a hydraulically-driven grain cart will not unload as quickly as a PTO driven cart. (FIG. 3-20)

IMPORTANT

- Depending on the option chosen, the motor is rated for either 55 or 100 gpm hydraulic flow at 3000 psi. Sustained flow and pressure above these amounts will dramatically reduce motor life. Be aware of maximum tractor hydraulic flow and pressure before operating auger.

NOTE: A motor containing two pressure and two return lines is a 55 GPM motor. A motor containing three pressure and three return lines is a 100 GPM motor. If unsure of motor size, contact your dealer providing your cart's serial number.

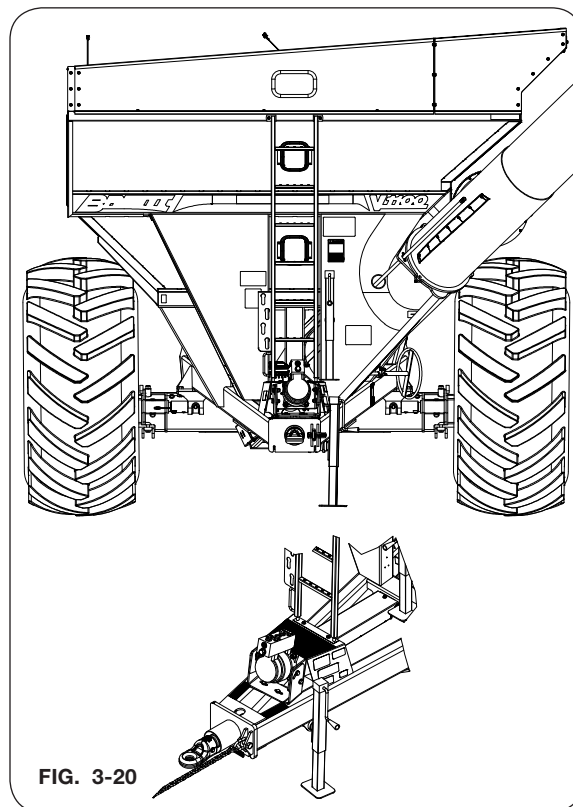


FIG. 3-20

Optional Equipment (continued)

Hydraulic Drive (continued)

NOTE: For complete assembly and operation details for the Hydraulic Drive, please refer to the Hydraulic Drive manual (282894).

1. Before loading cart or operating auger, verify that the flow control door is closed.
2. Choose an area free from obstructions and fully unfold auger to the unloading position.
3. Connect hydraulic hoses to tractor hydraulic circuits. Attach pump pressure hoses to RETRACT ports on tractor.

Multiple connections help utilize the tractor's fully hydraulic power and flow. Use the tractor's flow controls to regulate total output. See hydraulic connections for hydraulic drive in previous OPERATION sections.

NOTE: The dual connections help utilize full tractor hydraulic power at the cart's hydraulic motor. For tractors that have more than 55 GPM available pump output, use tractor flow controls to regulate total output to a maximum of 55 GPM.

4. Engage hydraulic drive circuits at low engine RPM one at a time, then increase engine to full throttle. See hydraulic connections for hydraulic drive in previous OPERATION sections for cold starts.
5. While watching hydraulic pressure gauge, begin slowly opening flow control door. Stop opening flow control door when pressure (on hydraulic gauge by pump) climbs to within 200 psi of the maximum tractor hydraulic pressure. Ideally, maintaining maximum PTO RPM will optimize unloading performance.

IMPORTANT

- *If auger stalls during unloading, **immediately** place tractor hydraulic controls for motor functions in **FLOAT** to stop auger. Close flow control door, then move all hydraulic controls to **HOLD**. Relieve auger grain pressure by opening auger cleanout door to remove some grain before attempting to restart auger.*
6. To slow or stop grain flow, close flow door rather than reducing tractor RPM. Close flow door fully when unloading is complete.
 7. Stop auger by placing both auger hydraulic circuits in FLOAT. This reduces strain on driveline components and prolongs hydraulic motor life. Move controls to HOLD after auger has come to a complete stop.
 8. Choose an area free from obstructions and fully fold auger to the transport position.

Weather Guard Tarp

WARNING

- **TO PREVENT PERSONAL INJURY OR DEATH, DO NOT ALLOW ANYONE ON A CLOSED TARP. TARP SYSTEM IS NOT DESIGNED TO SUPPORT A PERSON.**

- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. REMOVE ACCUMULATED WATER/SNOW/ICE OR ANY OTHER OBJECTS FROM TARP BEFORE OPENING TARP.**

IMPORTANT

- *Do not open or close tarp while moving or in high wind conditions. Damage to the tarp may occur.*
- *Tarp should not be used if it is torn or the bungee cords are frayed or show damage. If water pools on the tarp, adjust tension of tarp cables and/or arm springs as required.*

Always use adequate caution when operating tarp.

Make sure tarp is open before unloading or loading.

Make sure nobody is near the tarp system before and during operating.

Do not operate tarp with cart hoisted in an elevated position.

If tarp is covered with snow, it is important to remove snow before operating.

End caps must be free from grain that may be piled on them. Grain should not be heaped higher than the end caps or tarp bows.

Tarp may be fully opened or completely closed while in transit. However, the closed position is recommended.

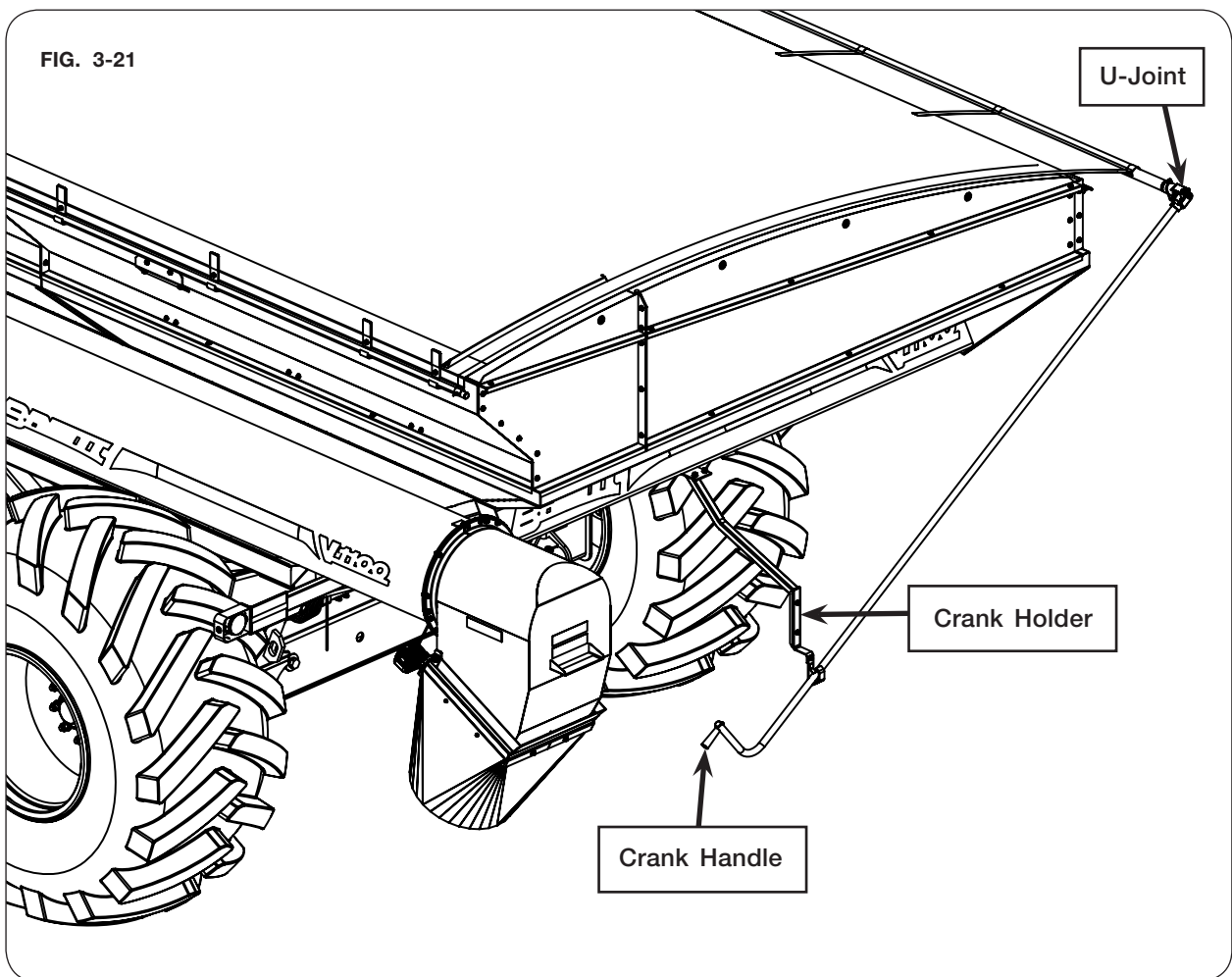
Ensure everyone who operates this tarp is familiar with the correct procedures outlined in this manual.

Weather Guard Tarp (continued)

1. Using both hands, carefully remove crank handle from holder. (FIG. 3-21)
2. Roll tarp to the desired location, choosing either a fully open or fully closed position.
3. To close the tarp, roll the main tarp tube clockwise up under the latch plate. Next, bring the crank handle down perpendicular to the ground. Continue by lifting it up into the crank retainer. (FIG. 3-21)

NOTE: Crank handle U-joint may need to be re-indexed on tarp tube to achieve correct tension.

4. Place crank handle in holder.
5. To open tarp, turn the main tarp tube counter clockwise until the tarp is fully open. Place crank handle in holder. (FIG. 3-21)



Notes

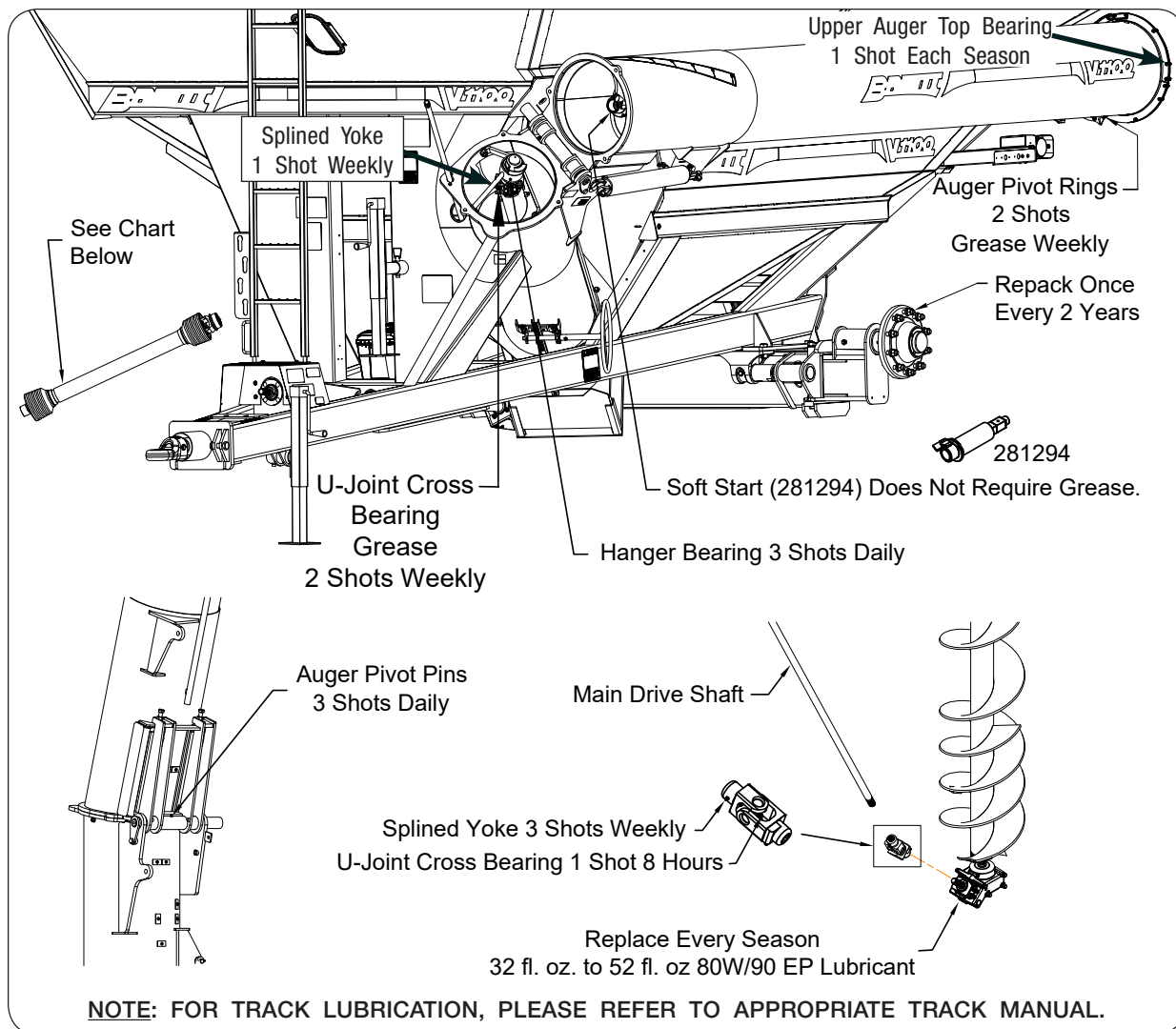
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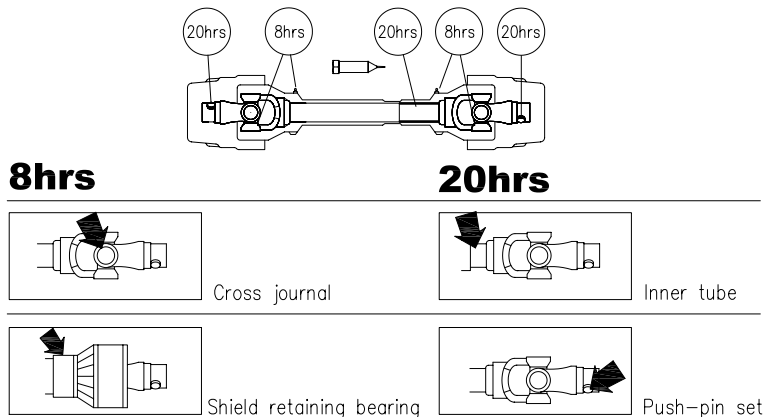
FOR SCALE, TRACK, UHARVEST, HYDRAULIC DRIVE, ELECTRIC TARP, AND VIDEO SYSTEM
OPTIONS, PLEASE REFER TO THE SPECIFIC MANUAL.

Lubrication

To keep your grain cart 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.



LUBRICATION INSTRUCTIONS FOR DRIVE LINE



COAT INNER AND OUTER PROFILES AT BEGINNING AND END OF EACH SEASON

Lubrication (continued)

To keep your grain cart 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.

Unverferth Mfg. recommends use of NLGI #2 Extreme Pressure grease.

The lubrication locations and recommended schedule are as follows:

DESCRIPTION	POINT	LUBRICANT	QTY.	HOURS
PTO Driveshaft	7	EP-2	1 Shot	See Previous Page
Gearbox -- Remove Cover - Check oil level every 2 weeks. Replace oil every season. Refer to Gearbox in MAINTENANCE section for instructions.	1	EP80W90	32-52oz	Once Every Season
U-Joint Cross Bearing - Driveline	1	EP-2	1 Shots	8 Hours
Splined Yoke - Driveline U-Joint	1	EP-2	3 Shots	Weekly
Hanger Bearing - Lower Auger *See note below.	1	EP-2	3 Shots*	Daily
U-Joint Cross Bearing - Lower Auger	1	EP-2 Lithium Base W/O Moly	2 Shots	Weekly
Splined Yoke - Lower Auger	1	EP-2	1 Shot	Weekly
Upper Auger Top Bearing	1	EP-2	1 Shot	Each Season
Upper Auger Pivot Rings	4	EP-2	2 Shots	Weekly
Lower Auger Pivot Pins	1	EP-2	3 Shots	Daily
Hubs	2	EP-2	Repack	2 Years

***NOTE:** Hanger bearing contains hydraulic shut-off grease zerk (9005240) with pressure relief to prevent over-greasing that could push bearing seals out. If grease is coming out of the relief on the zerk this is normal and the bearing contains enough grease.

Hydraulic System

Refer to parts section for hydraulic component detail listing.

When properly assembled and maintained, the hydraulic system of the grain cart 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 according to “Torque Chart - Hydraulic Fittings” in this 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.

Purge Hydraulic System - Standard Spout

WARNING

- **HYDRAULIC SYSTEM MUST BE PURGED OF AIR BEFORE OPERATING TO PREVENT SERIOUS INJURY OR DEATH.**
- **RELIEVE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR’S MANUAL FOR PROPER PROCEDURES.**
- **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.**
- **KEEP CLEAR OF PINCH POINT AREAS.**



Purge air from system as follows:

- A. Disconnect the rod end of all cylinders in a circuit and block up cylinders so the rod can completely extend and retract without contacting any other component.
- B. Pressurize the system and maintain system at full pressure for at least 5 seconds after cylinder rods stop moving. Check that all cylinders have fully extended or retracted.
- C. Check oil reservoir in hydraulic power source and refill as needed.
- D. Pressurize system again to reverse the motion of step B. Maintain pressure on system for at least 5 seconds after cylinder rods stop moving. Check that cylinders have fully extended or retracted.
- E. Check for hydraulic leaks using cardboard or wood. Tighten connections according to directions in Torque Chart.
- F. Repeat steps B, C, D, and E 3-4 times.
- G. Depressurize hydraulic system and connect cylinder rod clevises to their mating lugs.

IMPORTANT

- *Machine damage will occur if the cylinder is incorrectly installed.*

Check for and correct any leaks. Make sure hoses are not kinked, stretched, or twisted. Secure hoses to prevent cuts or chafing during operation.

Hydraulic System (continued)

Relieving Hydraulic Pressure

To relieve hydraulic pressure in the system, consult tractor operators manual for procedure to relieve pressure.

Purging Procedure For EOH System

WARNING

- RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.
- 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.
- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.

NOTE: Make sure hoses are not kinked, stretched, or twisted. Secure hoses to prevent cuts or chafing during operation.

1. Open flow door and hold SCV for 5 seconds. Close flow door and hold SCV for 5 seconds. Repeat at least 3 times until movement is smooth and even.
2. Rotate spout all the way forward and hold SCV for 5 seconds. Rotate spout all the way rearward and hold SCV for 5 seconds. Repeat at least 3 times until movement is smooth and even.
3. Tilt spout all the way out and hold SCV for 5 seconds. Tilt spout all the way in and hold SCV for 5 seconds. Repeat at least 3 times until movement is smooth and even.
4. Fold auger to transport position and hold SCV for 5 seconds. Unfold auger all the way and hold SCV for 5 seconds. Repeat at least 3 times until movement is smooth and even.

Bleeding Procedure For Braking System (Optional)

⚠ WARNING

- EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.
- RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.
- 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.
- PLACE TRACTOR IN PARK. TRACTOR MUST IN PARK DURING ENTIRE PROCEDURE.

NOTE: System is intended for tractors with hydraulic trailer brakes. If your tractor does not have hydraulic trailer brakes, contact your dealer for support.

NOTE: This procedure is a two-person process. With responsible operator behind controls, one person operates the brake pedal while the second person loosens the bleeder screw on the brake caliper.

1. Block tires to prevent movement. Set tractor parking brake, but leave tractor engine on throughout procedure. Attach hydraulic brake coupler on the cart to implement brake port at rear of the tractor.
2. Apply and hold pressure to brake pedal.
3. Attach 1/4" hose to bleeder screw. Put hose in an approved container. Loosen the bleeder screw, at the top of the brake caliper, on caliper of the closest wheel located in the hydraulic circuit. If necessary, pump the brake pedal to extract all air from the system. Once air bubbles are no longer present, tighten the bleeder screw. (Fig. 4-1)
4. Repeat steps 2 and 3 to the next brake caliper in the brake circuit. Repeat until all brakes are bled.
5. Do a final tightness check of all caliper bleed screws before beginning cart operation. Check that both brakes actuate and release properly with tractor brake pedal.



Bleeding Procedure For Braking System (Optional) (continued)

Brake Pressure Manual Release

NOTE: System is intended for tractors with hydraulic trailer brakes. If your tractor does not have hydraulic trailer brakes, contact your dealer for support.

1. Set tractor parking brake. Block tires to prevent cart from moving. Shut off tractor and remove ignition key.
2. Attach 1/4" hose to bleeder screw fitting. Put hose in an approved container. Loosen the bleeder screw to relieve pressure and drain oil. Once pressure is relieved, close bleeder screw. (Fig. 4-1)
3. Repeat step 2 for the remaining brake calipers. Repeat until all brakes are relieved of pressure.
4. Perform a final tightness check of all caliper bleed screws.

Gearbox Lubrication

IMPORTANT

- For 45° gearbox (9009053), the fill plug is inaccessible. Add oil at the vent plug on the left-hand side of the housing.

For 45° gearbox with 20 spline input shaft, (9009053), the fill plug is located on the left-hand front side of the housing for reference.

To check oil fluid level, place cart on a level surface with the tongue elevated to hitch height. Oil level should be visible in the sight glass. Fill with oil to the sight glass only. (FIG. 4-2)

Maximum gearbox life for (9009053):

Check oil level every 2 weeks.

Replace oil every season starting with 32 fl. oz. to 55 fl. oz. of 80W90 EP gear lubricant.

For 45° gearbox with 6 spline input shaft (9002812), the check/fill plug is located on the right-hand front side of the housing.

To check oil fluid level, place cart on a level surface with the tongue elevated to hitch height and remove the plug. Oil level should be at the bottom thread or approximately 5/8" below the outside gearbox surface. (FIG. 4-3)

Maximum gearbox life for (9002812):

Check oil level every 2 weeks.

Replace oil every season starting with 32 fl. oz. to 52 fl. oz. of 80W90 EP gear lubricant.

FIG. 4-2

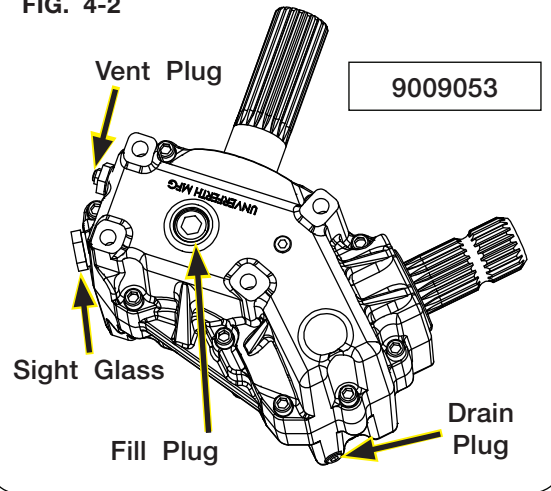
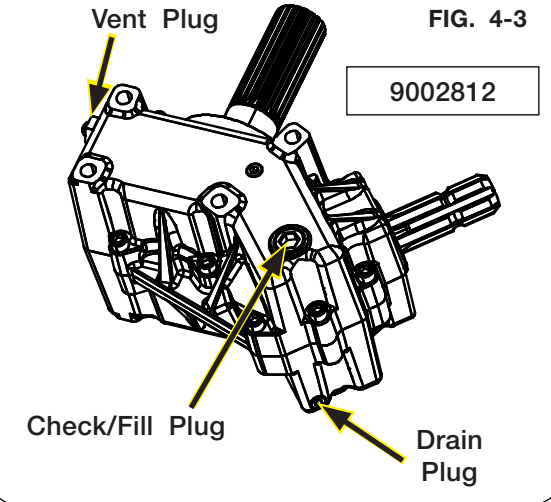


FIG. 4-3

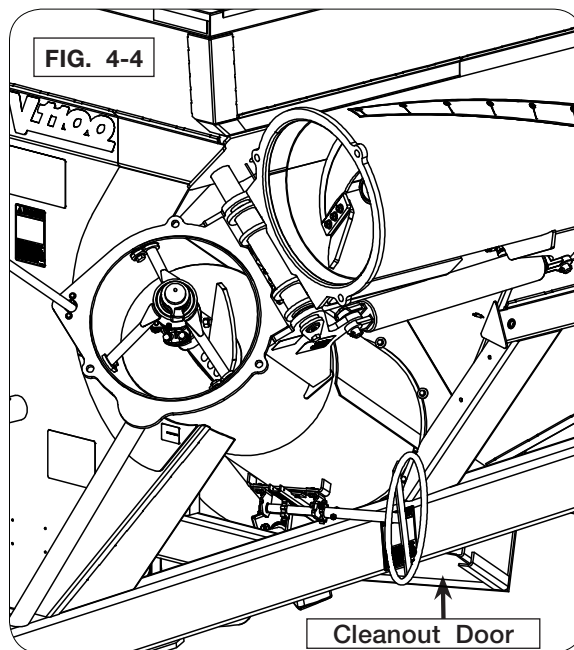


Seasonal Storage

Your cart 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.

Do the following before placing the cart in storage:

1. Wash machine inside and out before storing to remove dirt and debris that can draw and collect moisture. When using pressure washers, maintain an adequate distance so not to force water into bearings..
2. Store PTO on the rest brackets at the rear of the cart.
3. Repaint all areas where paint has been removed to keep rust from developing. Rust will affect grain flow.
4. Coat exposed cylinder piston rods with rust preventative material if applicable.
5. Lubricate machine at all points outlined.
6. Inspect machine for parts that may need to be replaced so they may be ordered in the offseason.
7. If unit is equipped with a scale indicator or electric hydraulic controls, store these indoors in a dry location.
8. Fully open flow door and auger cleanout door to remove any remaining grain and to allow moisture to dry.
9. Close the tarp to keep debris out of the hopper, if equipped.



Auger System

WARNING

- TO PREVENT PERSONAL INJURY OR DEATH, ALWAYS ENSURE THAT THERE ARE PEOPLE WHO REMAIN OUTSIDE THE CART TO ASSIST THE PERSON WORKING INSIDE, AND THAT ALL SAFE WORKPLACE PRACTICES ARE FOLLOWED. THERE ARE RESTRICTED MOBILITY AND LIMITED EXIT PATHS WHEN WORKING INSIDE THE IMPLEMENT.

- NEVER ENTER CART WITH AUGER OR TRACTOR RUNNING. SERIOUS OR FATAL INJURY CAN OCCUR DUE TO ENTANGLEMENT WITH ROTATING COMPONENTS. ALWAYS STOP ENGINE AND REMOVE KEY BEFORE ENTERING CART.

- KEEP HANDS CLEAR OF PINCH POINT AREAS.

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

- 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 2,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.

- MOVING OR ROTATING COMPONENTS CAN CAUSE SERIOUS INJURY OR DEATH. ALWAYS DISCONNECT POWER SOURCE BEFORE SERVICING. ENSURE SERVICE COVERS, CHAIN/BELT COVERS AND CLEAN-OUT DOOR(S) ARE IN PLACE AND SECURELY FASTENED BEFORE OPERATING MACHINE.

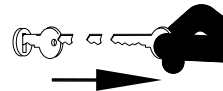
- WHEN WORKING AROUND THE IMPLEMENT, BE CAREFUL NOT TO BE CUT BY SHARP EDGES.



Auger System (continued)

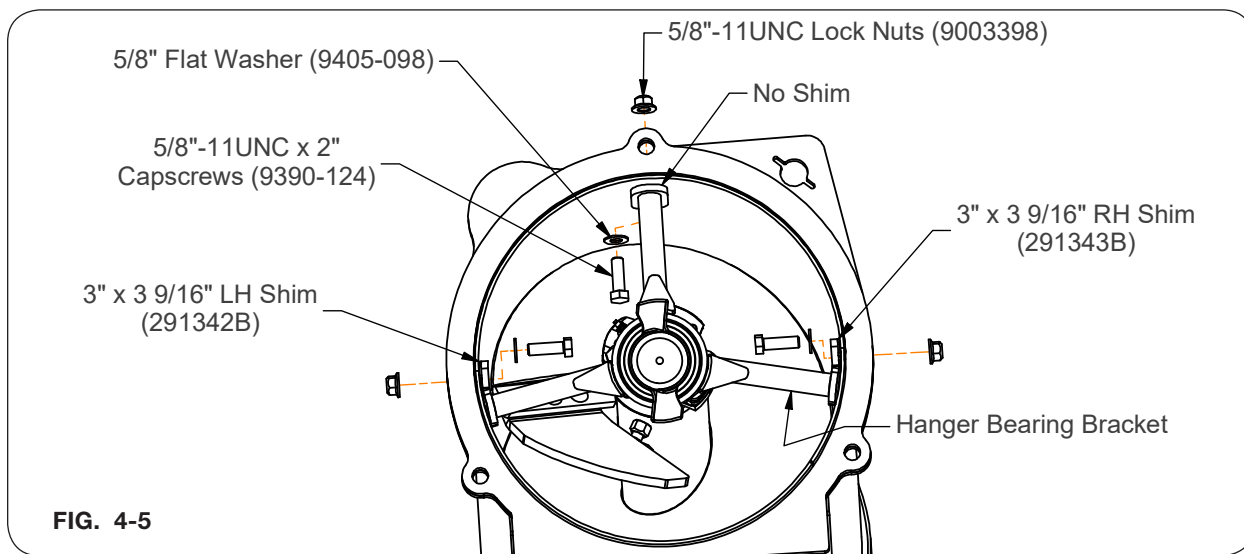
Lower Auger Removal

1. Hitch cart to tractor, connect hoses for flow door and upper auger hydraulic cylinders and fully open flow door. Keep upper auger in the folded position. Park the empty grain cart on a firm, level surface. Set the tractor's parking brake, shut-off the engine, remove the ignition key, and disconnect PTO shaft. Block the tires on the machine to keep it from moving.



2. Remove the three 5/8"-11UNC x 2" capscrews (9390-124), 5/8" flat washers (9405-098), 5/8"-11UNC lock nuts (9003398) and shims that secure the hanger bearing bracket to the auger tube. (FIG. 4-5)

NOTE: When replacing any hanger bearing hardware, replace any 1/2" hardware with 5/8"-11UNC x 2" capscrews (9390-124), 5/8" flat washers (9405-098) and 5/8"-11UNC lock nuts (9003398). Drill as necessary.



3. Using a safe lifting device rated at a minimum of 1,000 lbs., support the lower auger. Remove the hanger bearing assembly. Then remove the lower auger through the auger hinge opening.

Auger System (continued)

Lower Auger Removal

4. The replacement auger is factory balanced. Remove entire auger from shipping crate and secure from rolling. The lower auger assembly is pictured in FIG. 4-6 for reference.

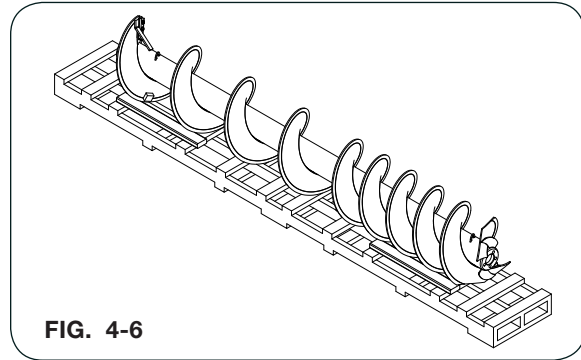


FIG. 4-6

5. Remove the u-joint assembly from the old lower auger.

NOTE: If reusing flighting extension, replace with new hardware. Do not reuse old flighting extension hardware.

6. Attach the u-joint assembly to the new lower auger flighting by placing 5/8"-11UNC x 6" capscrews (9390-136) and 5/8"-11UNC lock nuts (9801) into the auger from opposite directions as shown in FIG. 4-7.

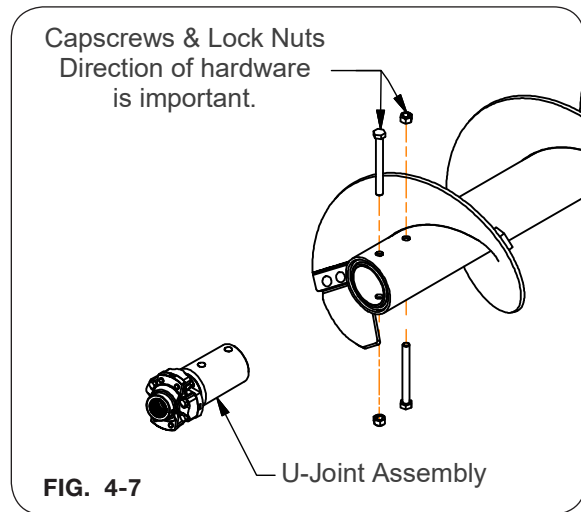


FIG. 4-7

7. Open cleanout door.
8. Using a safe lifting device rated at a minimum of 1,000 lbs., lift the auger and assembly. Slowly lower the auger down through the auger plate opening to intersect with the drive bushing.
9. Align auger end with the five pin drive bushing and securely engage together, see FIG. 4-8.

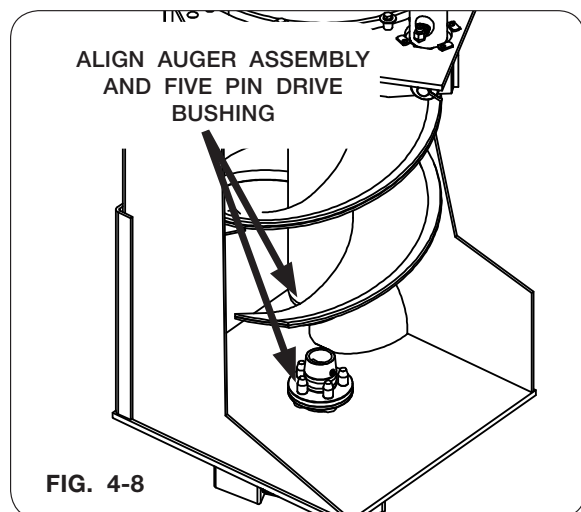
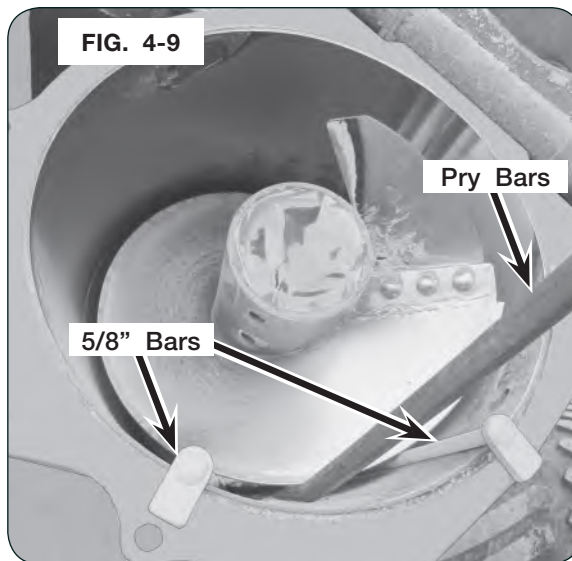


FIG. 4-8

Auger System (continued)

Hanger Bearing Centering

10. Once the lower auger is inserted into the auger tube, center the lower auger in the tube and support with two 5/8" thick bars wedged near the auger hinge plate. (FIG. 4-9)

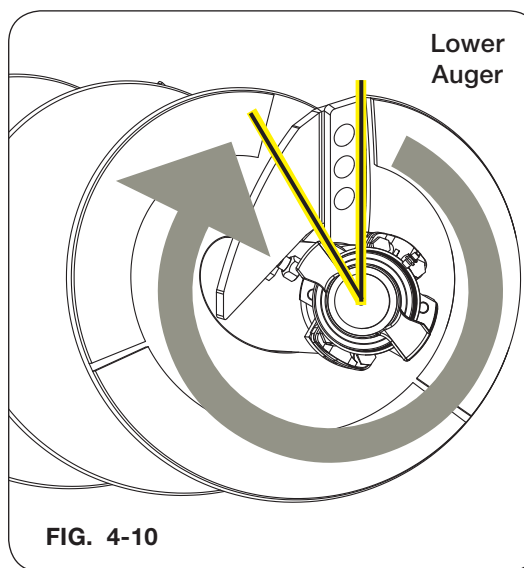


Lower Auger Timing

11. Apply anti-seize to the splines before sliding the drive dog into the u-joint. Time the drive dog (as in Fig. 4-10) with the finished edge of the flighting at 12 o'clock reference. Position the drive dog so the driving edge is at 11 o'clock position.

NOTE: When looking down at the lower flighting (FIG. 4-10) the auger rotation will be clockwise.

NOTE: For additional auger timing assistance, refer to your dealer for an auger timing fixture (288932Y).



Auger System (continued)

- Loosely secure the hanger bearing using two 3 3/8" x 3 11/16" shims (288679B), three 5/8"-11UNC x 2" capscrews (9390-124), three 5/8" flat washers (9405-098), and three 5/8"-11UNC lock nuts (9003398) as shown in FIG. 4-11.

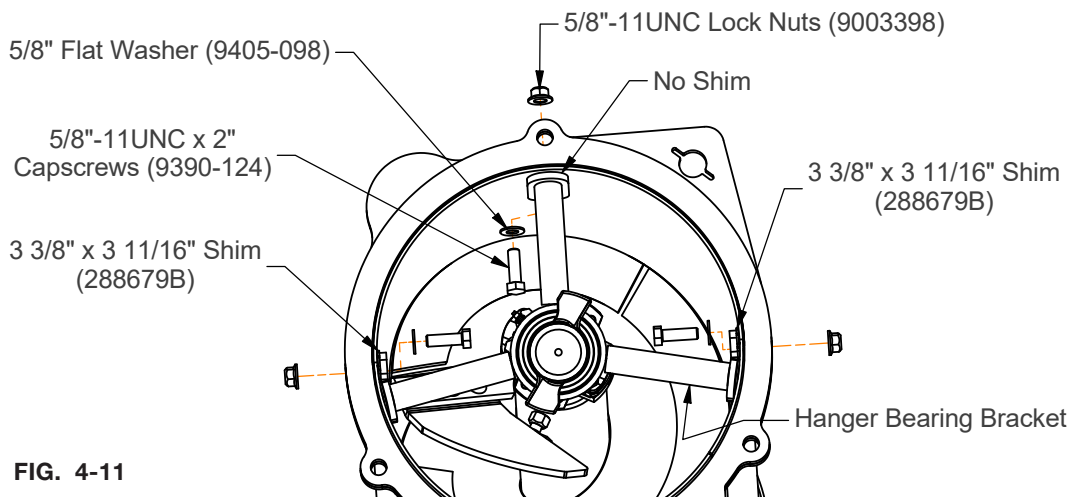


FIG. 4-11

U-Joint Spline Gap

- Verify spline gap before tightening hanger bearing hardware. Spline gap should be a minimum of 3/16". Using a safe lifting device rated for 250 lbs., raise the hanger bearing in the holes so the proper minimum spline gap is achieved. (FIG. 4-12)

NOTE: When auger components have been replaced or serviced, proper spline gap **MUST** be verified. It may be necessary to loosen the hanger bearing hardware and use the safe lifting device to achieve the proper spline gap.

- Tighten the retaining hardware to the appropriate torque values listed in the MAINTENANCE section.
- Grease the spline grease zerk. (FIG. 4-12)
- Test run the auger. Verify smooth auger operation and re-verify spline gap.

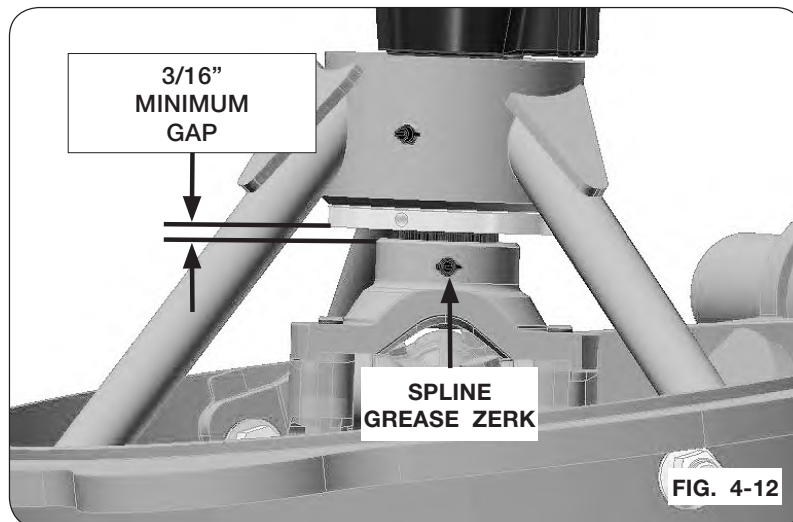
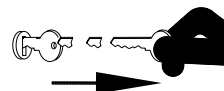


FIG. 4-12

Auger System (continued)

Upper Auger

1. Hitch cart to tractor. Keep upper auger in the folded position. Park the empty grain cart on a firm, level surface. Set the tractor's parking brake, shut-off the engine and remove the ignition key. Block the tires on the machine to keep it from moving.



Upper Auger Removal

2. Loosen the two bearing set screws. Remove and save the 5/16"-18UNC x 2 3/4" capscrew (9390-037), four 5/16" SAE flat washers (9405-068) 5/16"-18UNC lock nut (901527) and 2" flat washers (93974). (FIG. 4-13)

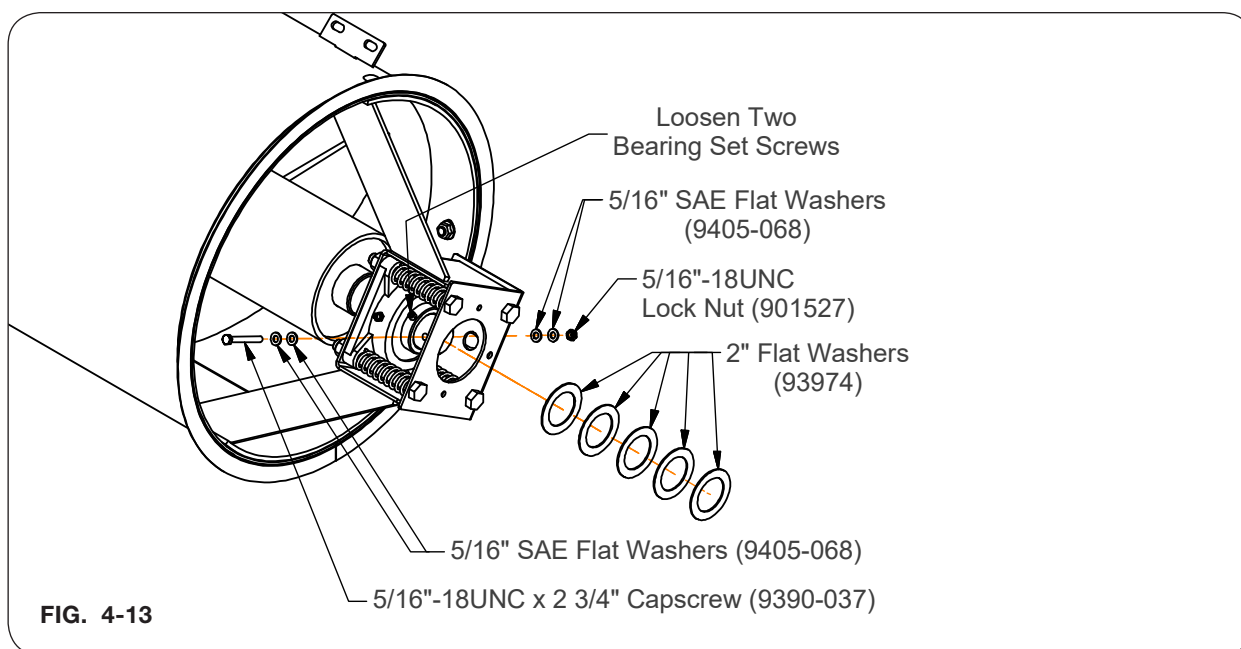


FIG. 4-13

Auger System (continued)

Soft Start Replacement

- Use a safe lifting device rated at a minimum of 2,000 lbs. to support the upper auger, remove auger from tube.
- Remove the 1/2"-13UNC x 7" capscrew (9390-117), 1/2"-13UNC lock nut (9800), soft start assembly, thrust washer (9004878), and bushing (9004877). Discard capscrew only. (FIG. 4-14)

NOTE: If reusing flighting extension, replace with new hardware. Do not reuse old flighting extension hardware.

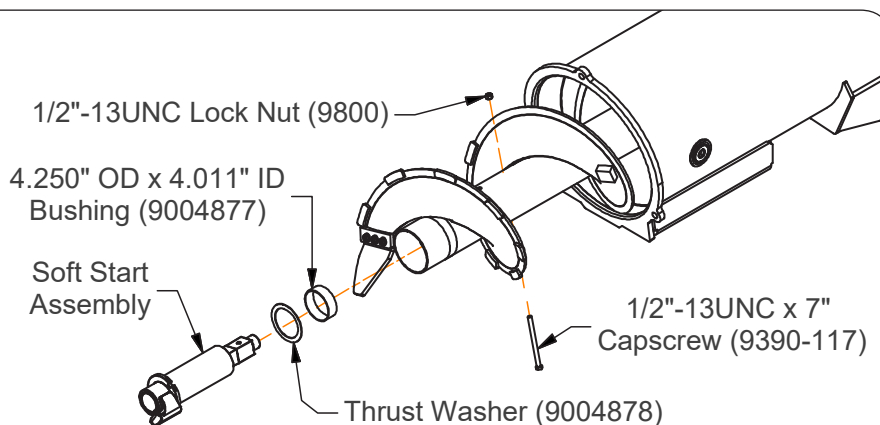


FIG. 4-14

Upper Auger Assembly and Timing

NOTE: Before soft start reassembly, ensure the spacer bushing (410511) is on the same side as lock nut (9800).

- Insert the bushing (9004877) into the end of the upper auger. Attach the thrust washer (9004878) and apply anti-seize to the soft start and insert into the auger tube. (FIG. 4-15 and 4-16)
- Time the drive pin (as in FIG. 4-16) with the finished edge of the flighting at 12:00. Position the drive pin at 7:00.

NOTE: Looking up at the upper flighting (FIG. 16) the auger rotation will be counter clockwise.

NOTE: Grain leaving the lower auger flighting should be captured by the upper auger flighting within 1/2 revolution of the augers.

NOTE: There is only one way the soft-start will go in.

NOTE: For additional auger timing assistance, refer to your dealer for an auger timing fixture (288932Y).

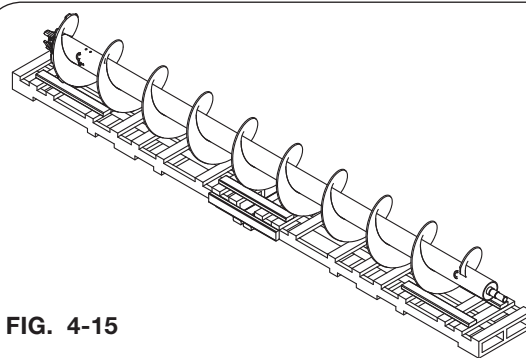


FIG. 4-15

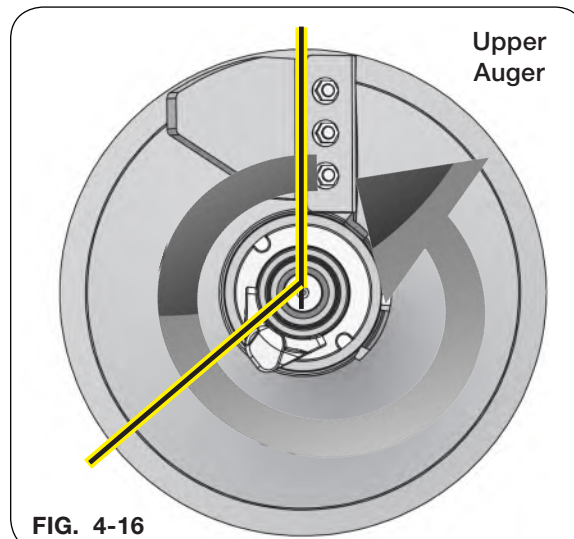
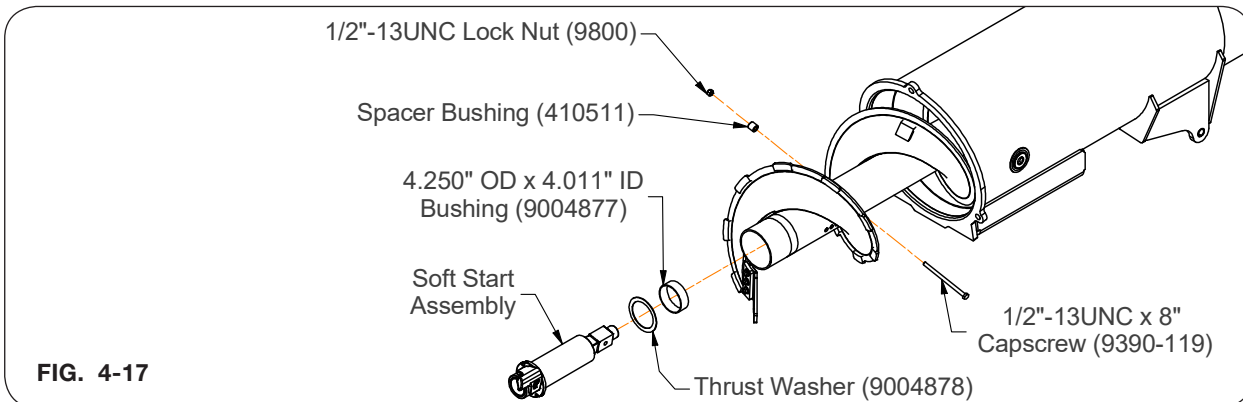


FIG. 4-16

Auger System (continued)

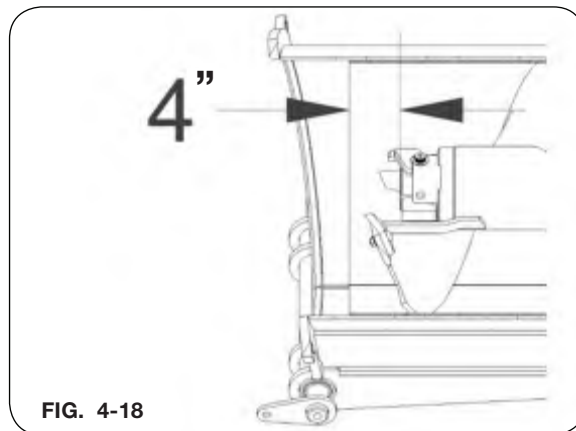
7. Retain the soft start into position with 1/2"-13UNC x 8" capscrew (9390-119), spacer bushing (410511), and 1/2"-13UNC lock nut (9800). (FIG. 4-17)



8. The replacement auger is factory balanced. Remove entire auger from shipping crate and secure from rolling.
9. Using an adequate safe lifting device with a minimum capacity of 2,000 lbs. to support the upper auger, install upper auger into the tube.

Upper Auger Inset

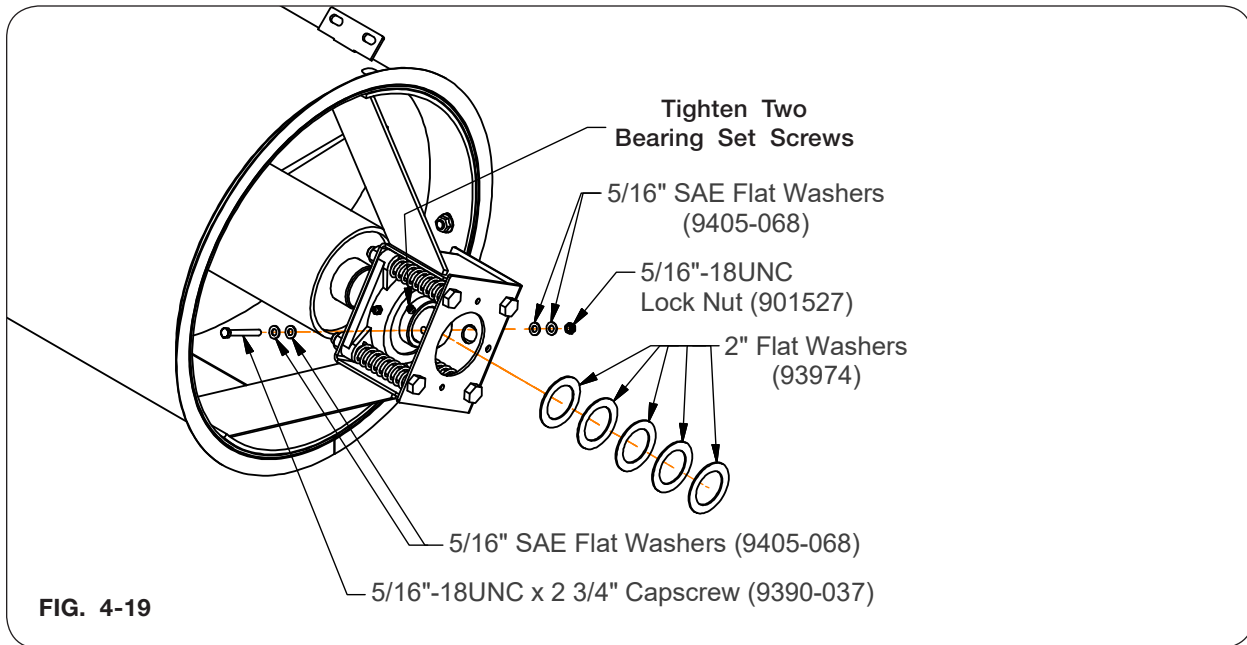
10. Set upper auger in-set of 4". With the upper auger unfolded, ensure the height of the upper auger is set correctly. The face of the soft start bushing that sits on the top of the drive dog should be 4" back from the square cut face of the auger housing tube. (FIG. 4-18)



Auger System (continued)

Upper Auger Inset (continued)

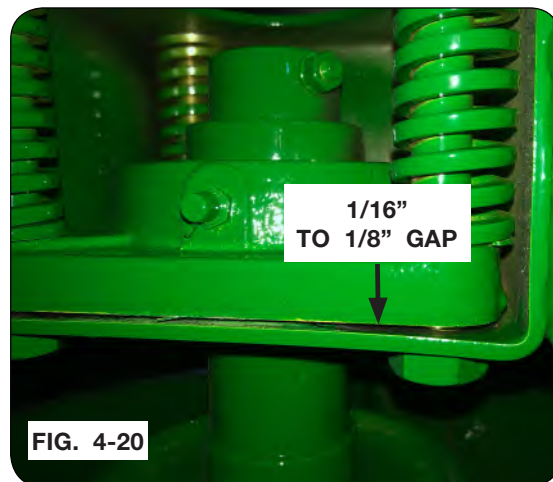
11. Make sure that the 4 bolt flange bearing is sitting tight against the mounting plate and then tighten the two bearing set screws. Attach the 5/16"-18UNC x 2 3/4" capscREW (9390-037), four 5/16" SAE flat washers (9405-068) 5/16"-18UNC lock nut (901527) and as many 2" flat washers (93974) as required to fill the gap between the bearing and the cross bolt. (FIG. 4-19)



Auger System (continued)

Upper Auger Bearing Gap

12. Unfold the auger to the unload position.
13. Verify the upper auger bearing height by inspecting the upper auger bearing in operating position. There should be minimum 1/16" to 1/8" gap between the bearing and mount plate with the upper auger in operating position and the drive dog completely engaged. (FIG. 4-20) If gap is present, no action is needed, go to step 14. If no gap or gap is too large, Re-adjust the upper auger placement to achieve a 1/16-1/8" gap. If there is no gap, the upper auger will need to be moved ahead. If there is too large of a gap, move it backwards in the upper auger housing. The number of washers (93974) will also need to be adjusted to eliminate any gap between the bearing and the cross bolt. (FIG. 4-21)
14. Place upper auger in the folded/transport position.
15. Once the upper auger height has been verified, remove the upper bearing set screws one at a time, and dimple the stud shaft with a 1/4" diameter drill bit. Apply blue thread locker to the set screws, and reinstall the set screws into the flange bearing and into the dimples on the stud shaft. Tighten set screws. Tighten all hardware.
16. Test run auger driveline. Verify smooth driveline operation.



Auger System (continued)

Auger Flow Door Cylinder Replacement

⚠ WARNING

- TO PREVENT PERSONAL INJURY OR DEATH ALWAYS ENSURE THAT THERE ARE PEOPLE WHO REMAIN OUTSIDE THE CART TO ASSIST THE PERSON WORKING INSIDE, AND THAT ALL SAFE WORKPLACE PRACTICES ARE FOLLOWED. THERE ARE RESTRICTED MOBILITY AND LIMITED EXIT PATHS WHEN WORKING INSIDE THE IMPLEMENT.

 - NEVER ENTER CART WITH AUGER OR TRACTOR RUNNING. SERIOUS OR FATAL INJURY CAN OCCUR DUE TO ENTANGLEMENT WITH ROTATING COMPONENTS. ALWAYS STOP ENGINE AND REMOVE KEY BEFORE ENTERING CART.

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

 - KEEP HANDS CLEAR OF PINCH POINT AREAS.

 - RELIEVE THE HYDRAULIC SYSTEM OF ALL PRESSURE BEFORE ADJUSTING OR SERVICING. SEE THE HYDRAULIC POWER UNIT OPERATOR'S MANUAL FOR PROPER PROCEDURES.

 - 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.

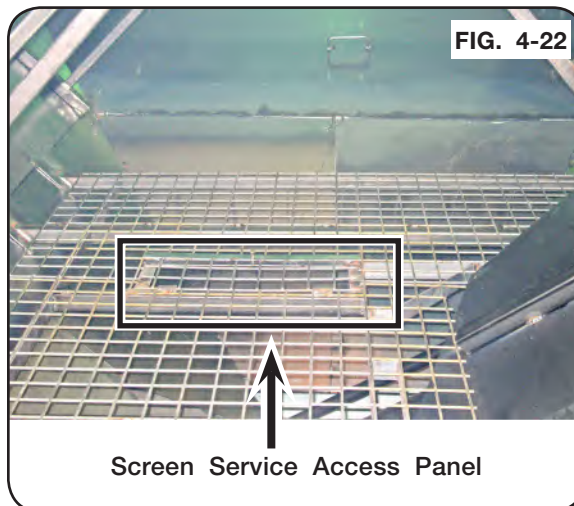
1. Park the empty grain cart on a firm, level surface and extend auger. Block the tires on the machine to keep it from moving. Unfold upper auger to make the flow door cylinder easier to access. If possible, close the flow door at least 8" from the fully open position. Relieve hydraulic pressure, see tractor operator's manual. Set the tractor's parking brake, shut-off the engine, remove the ignition key and disconnect the PTO shaft.



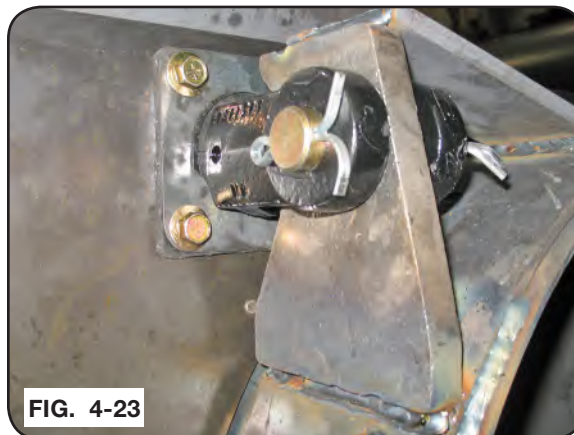
Auger System (continued)

Auger Flow Door Cylinder Replacement (continued)

2. On the inside of the cart, open the screen service access panel shown in FIG. 4-22.



3. Remove the cotter pins from the lower cylinder pin then remove the pin. Then remove the four 3/8"-16UNC x 1" flange bolts holding on the gasket and gasket plate, shown in FIG. 4-23.



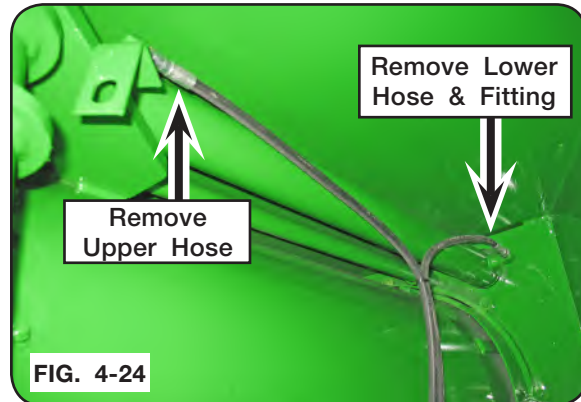
4. Remove all tools and extra hardware from the grain cart. Make sure all personnel are outside of the hopper. Then, retract the cylinder so that there is about 8" of clearance between the cylinder clevis and the lug.
5. Relieve hydraulic pressure, shut off the engine, remove the ignition key, and disconnect the hydraulic hoses from the tractor and cart.



Auger System (continued)

Auger Flow Door Cylinder Replacement (continued)

6. Label the hydraulic hoses to indicate upper and lower. Disconnect them from the cylinder, along with the lower hydraulic fitting (Fig. 4-24).



7. Remove the cotter pins from the upper cylinder pin and remove pin (Fig. 4-25).



8. Slide the flow door cylinder through the hole in the junction box until the upper cylinder clevis clears the lug, then raise the top of the cylinder above the auger fold bushing and remove the cylinder.
9. Replace with the new cylinder and insert the upper cylinder pin. Remove the cylinder port plugs. Manually extend the cylinder until the lower clevis lines up with the door lug and assemble the pin and cotter pins. Assemble hydraulic fittings and attach hoses.
10. Replace rubber gasket and gasket plate with 3/8"-16UNC x 1" flange screws, shut and secure the screen service access panel.
11. Remove all tools and extra hardware from the grain cart. Make sure all personnel are outside of the hopper. **After the hydraulic components have been tightened, purge air from system as follows:**
 - A. Pressurize the system and maintain system at full pressure for at least 5 seconds after cylinder rods stop moving. Check that all cylinders have fully extended or retracted.
 - B. Check oil reservoir in hydraulic power source and re-fill as needed.
 - C. Pressurize system again to reverse the motion of step A. Maintain pressure on system for at least 5 seconds after cylinder rods stop moving. Check that cylinders have fully extended or retracted.
 - D. Check for hydraulic leaks using cardboard or wood. Tighten connections according to directions in the Torque Specifications in your Operator's Manual.
 - E. Repeat steps A, B, C and D three or four times.

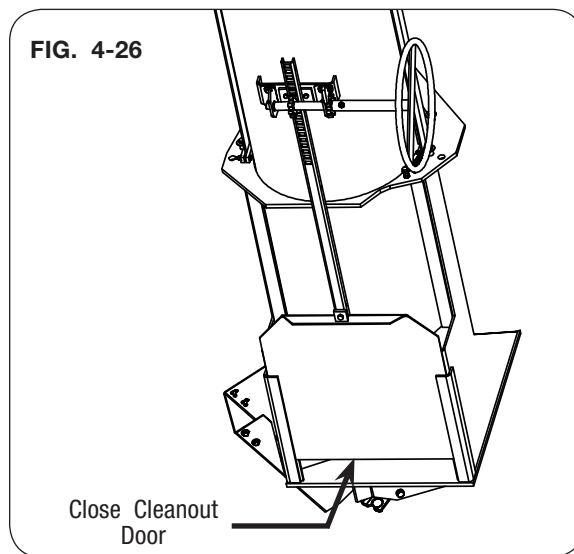
Adjusting Cleanout Door

WARNING

- **MOVING PARTS CAN CRUSH AND CUT. KEEP AWAY FROM MOVING PARTS.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING THE IMPLEMENT.**

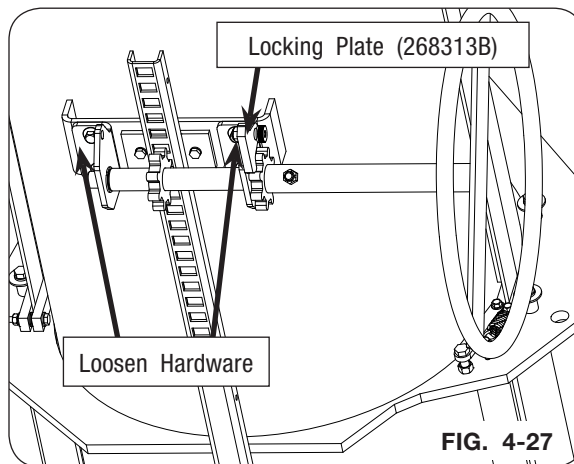
1. Park the empty grain cart on a firm and level surface. Block the tires/tracks on the machine to keep it from moving. Set the tractor's parking brake, shut-off the engine, remove the ignition key and disconnect the PTO shaft.

2. Completely close cleanout door. Inspect and verify that all the grain dust and filings are removed that may prevent the door from shutting completely. (FIG. 4-26)



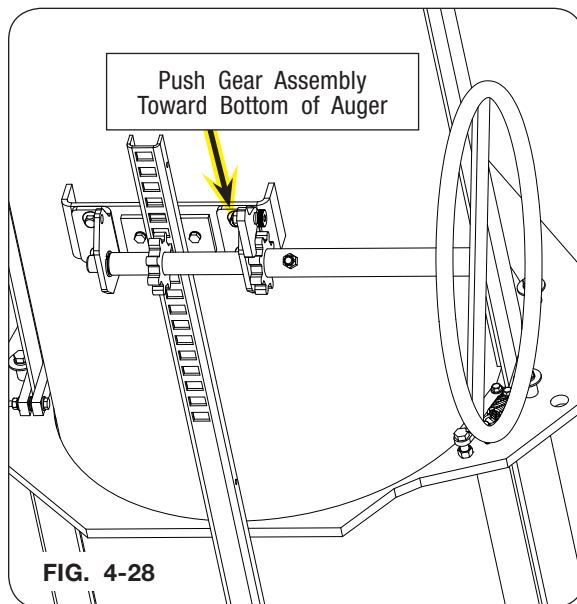
3. Engage the locking plate (268313B). (FIG. 4-27)

4. Loosen mounting hardware. (FIG. 4-27)

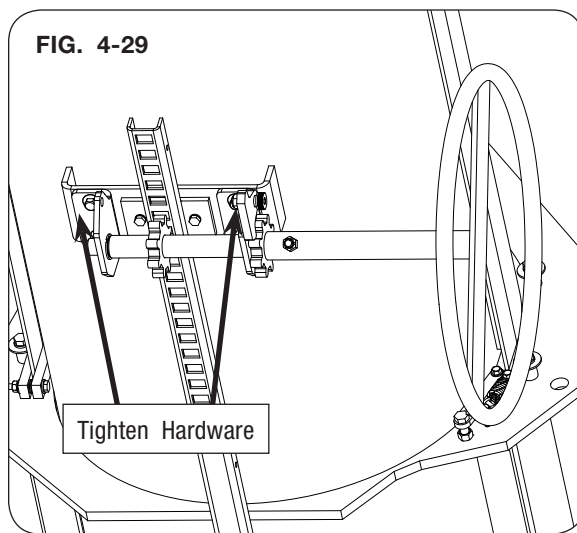


Adjusting Cleanout Door (continued)

5. Push the gear assembly toward bottom of auger to remove excess movement and prevent the door from moving upward when unloading the cart. (FIG. 4-28)



6. Tighten hardware loosened in step 4. (FIG. 4-29)
7. Check door operation. Lock the handle weldment into position. (FIG. 4-29)



Verify Telescoping PTO Shaft Length

⚠ WARNING

- PROPER EXTENDED AND COLLAPSED LENGTHS OF THE TELESCOPING PTO SHAFT MUST BE VERIFIED BEFORE FIRST OPERATION WITH EACH TRACTOR. IF THE EXTENDED LENGTH OF THE PTO SHAFT IS NOT SUFFICIENT, IT MAY BECOME UNCOUPLED IN OPERATION AND CAUSE SERIOUS INJURY OR DEATH FROM CONTACT WITH UNCONTROLLED FLAILING OF PTO SHAFT ASSEMBLY COMPONENTS.

IMPORTANT

- Check the length of the telescoping members to ensure the driveline will not bottom out or separate when turning and/or going over rough terrain.

Verify distance between the end of tractor PTO shaft and center of drawbar hole is set to 20 inches.

An excessive collapsed length can result in damage to the PTO driveline and attached components. This is most likely to occur during extreme turning angles and/or travel over rough terrain. Conditions are amplified on tractors with tracks operating in uneven terrain, particularly rice levies. Damaged driveline components can result in unsafe operation and severely reduced driveline component life.

NOTE: Do not exceed 10 degrees beyond a straight pull line while operating the PTO. To verify proper extended and collapsed lengths, use the following procedure:

1. Fully collapse PTO shaft and measure length "L" (Figure 4-30).

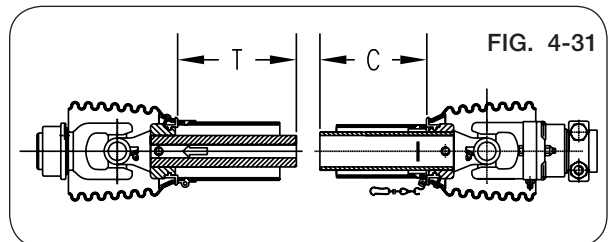
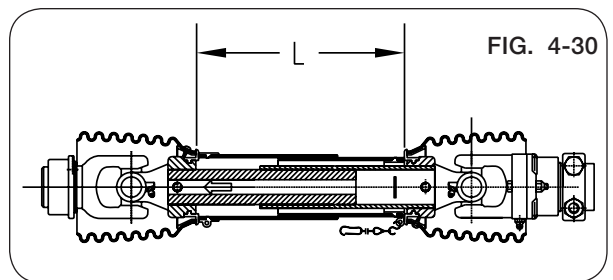
Enter here: _____ (1)
 (Verify that outer tube does not bottom out on surrounding plastic shield components).

2. Pull apart PTO telescoping shaft ends and measure lengths "T" & "C" (Figure 4-31)

Add "T" + "C" measurements together
 Enter total here: _____ (2)

3. Calculate maximum recommended extended length:

- a. Subtract line 1 from line 2
 Enter here: _____ (a)
- b. Divide line (a) by 2
 Enter here: _____ (b)
- c. Add line (b) to line 1.
 Enter here: _____ (c)
- d. Subtract 3 inches from line (c)
 Enter here: _____ (d)

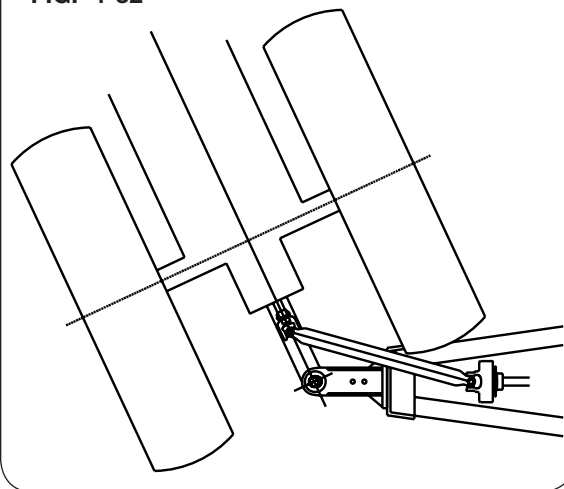


This is the maximum recommended extended length.

Verify Telescoping PTO Shaft Length (continued)

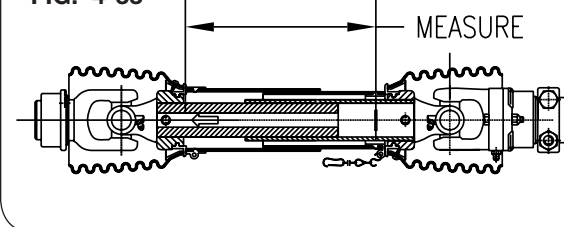
4. Hitch tractor drawbar to cart, ensuring that tractor and cart are on level ground and coupled as straight as practical.
5. Connect PTO shaft to tractor, and measure length “L” from same points as used in step 1. Ensure that this measurement does not exceed the maximum recommended extended length calculated in step 3 above. If necessary, obtain a longer PTO shaft assembly before operating cart.
6. Position the tractor to obtain tightest turning angle, relative to the cart. (Fig. 4-32)

FIG. 4-32



7. Measure length “L” from same points as used in step 1. **This distance must be at least 1.5 inches greater than the distance measured in step 1.** If necessary, adjust length of PTO shaft by cutting inner and outer plastic guard tubes and inner and outer sliding profiles by the same length. Round off all sharp edges and remove burrs before greasing and reassembling shaft halves. (Fig. 4-33)

FIG. 4-33



PTO Shaft and Clutch (continued)

Coupling the PTO drive shaft (Figs. E1 - E2)

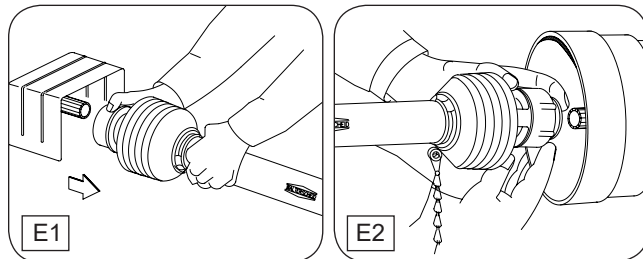
Clean and grease the PTO and implement input connection (IIC)

AS-Lock

1. Pull locking collar and simultaneously push PTO drive shaft onto PTO shaft until the locking device engages.

Push-Pull Lock

2. Pull locking collar and simultaneously push PTO drive shaft onto PTO shaft until the locking device engages.



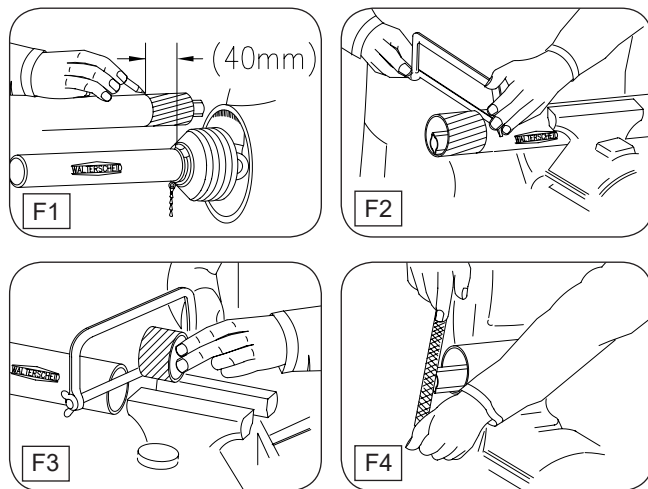
⚠ WARNING

- CHECK TO INSURE ALL THE LOCKS ARE SECURELY ENGAGED BEFORE STARTING WORK WITH THE PTO DRIVESHAFT.

Length Adjustment (Figs. F1 - F4)

NOTE: Maximum operating length LB. (Refer to “Verify Telescoping PTO Shaft Length” for LB length.)

1. To adjust length, hold the half-shafts next to each other in the shortest working position and mark them.
2. Shorten inner and outer guard tubes equally.
3. Shorten inner and outer sliding profiles by the same length as the guard tubes.
4. Round off all sharp edges and remove burrs. Grease sliding profiles.



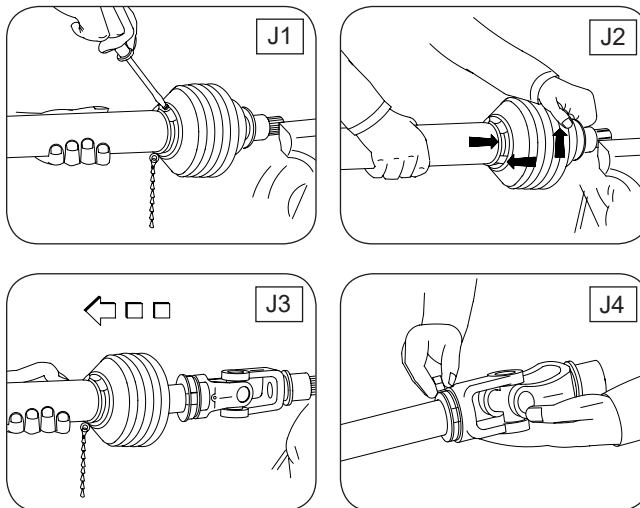
⚠ WARNING

- CHECK THE LENGTH OF THE TELESCOPING MEMBERS TO INSURE THE DRIVELINE WILL NOT BOTTOM OUT OR SEPARATE WHEN TURNING AND/OR GOING OVER ROUGH TERRAIN.

PTO Shaft and Clutch (continued)

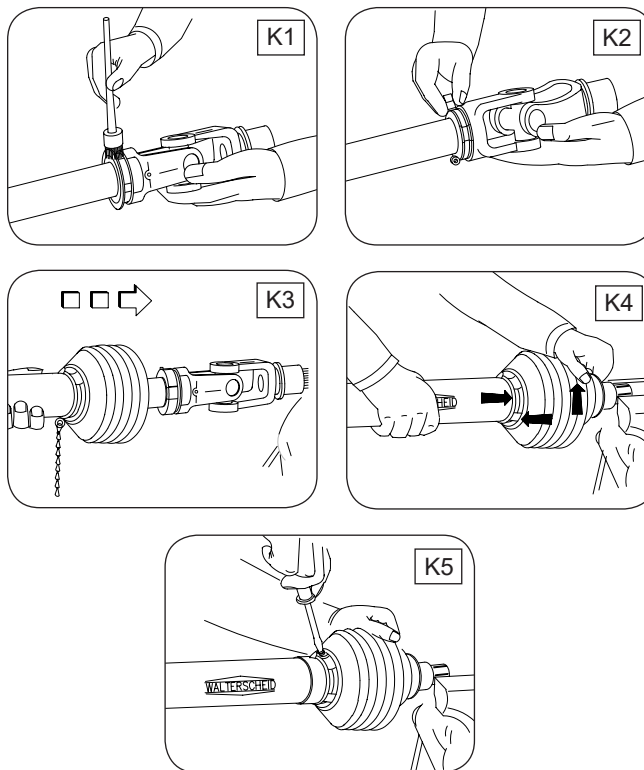
To Dismantle Guard (Figs. J1 - J4)

1. Remove locking screw.
2. Align bearing tabs with cone pockets.
3. Remove half-guard.
4. Remove bearing ring.



To Assemble Guard (Figs. K1 - K5)

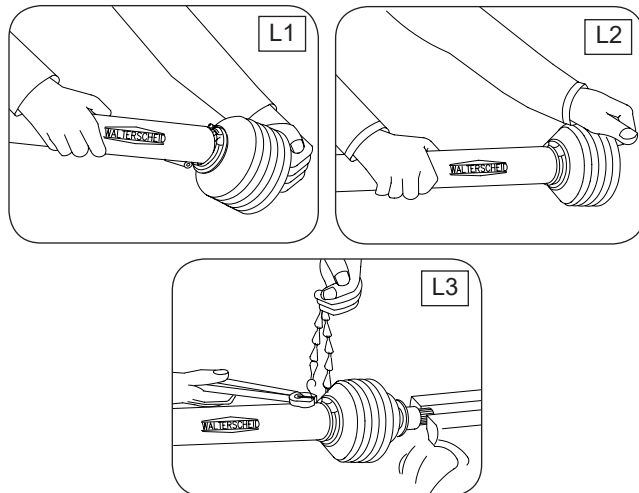
1. Grease yoke groove and inner profile tube.
2. Fit bearing ring in groove with recesses facing profile tube.
3. Slip on half-guard.
4. Turn cone until it engages correctly.
5. Install locking screw.



PTO Shaft and Clutch (continued)

To Assemble Cone (Figs. L1 - L3)

1. Dismantle guard (Figs. J1 - J3). Remove old cone (e.g. cut open with knife). Take off chain. Place neck of new cone in hot water (approx 80° C / 180° F) and pull onto bearing housing. (Fig. L1).
2. Turn guard cone into assembly position (Fig. L2). Further assembly instructions for guard (Figs. K1 - K5).
3. Reconnect chain if required (Fig. L3).

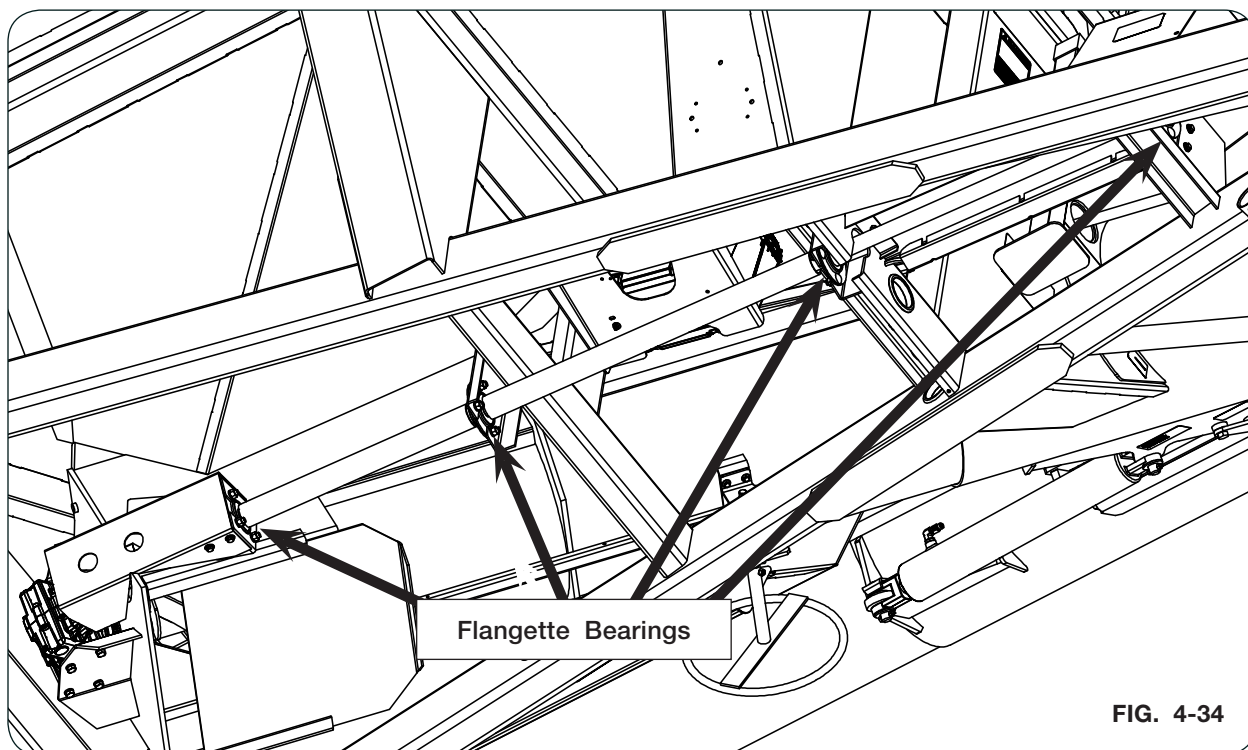


Auger Driveline

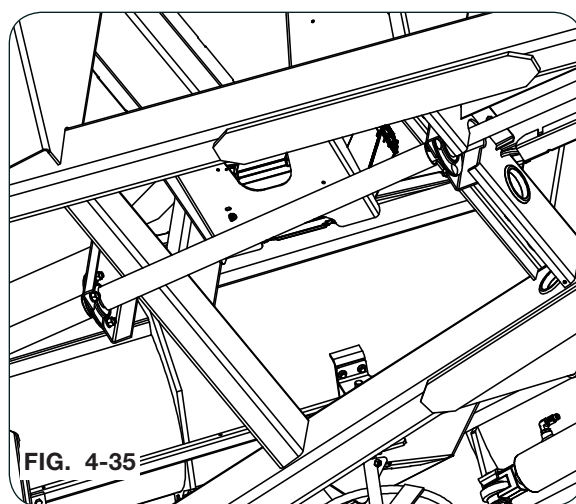
Bearings

It is important to periodically check setscrews in all bearings of the driveline for tightness.

Driveline Replacement



1. Park the empty cart on a firm, level surface. Block the wheels or tracks on the cart to keep it from moving. Set the tractor parking brake, shut off the engine, and remove the ignition key from the tractor before disconnecting driveline assembly and bearing hardware.
2. Loosen the setscrews (9399-071) on all flangette bearings (9003920) (Fig. 4-34).
3. Remove the 1/2" carriage bolts (9388-103), flange nuts (9394-010), and lock washers (9404-025) holding the flangette bearings. Keep hardware. (Fig. 4-35).
4. Remove paint on driveshaft to allow for easier movement. Slide driveshaft forward until the rear spline is out of the universal joint connected to the gearbox.



5. Drop the gearbox end of driveshaft down and slide driveshaft out of the flangette bearing on the hitch end of the driveshaft.

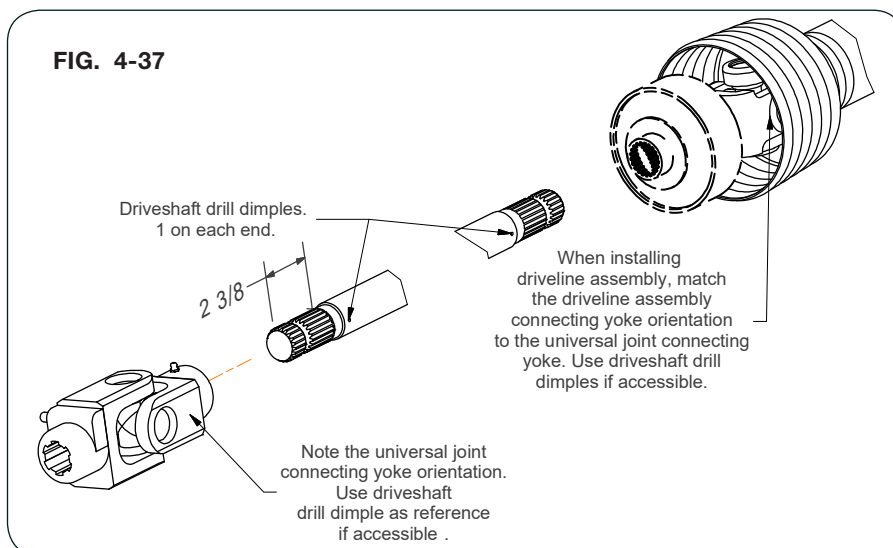
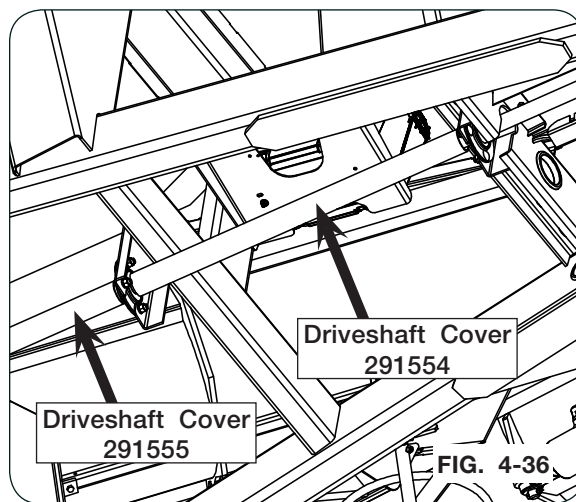
Auger Driveline (continued)

Driveline Replacement (continued)

6. Remove bearings, bearing mounts, universal joint cover, PVC driveshaft covers, driveshaft lock collars (if lock collars are attached to driveshaft), and driveline cover, located behind the ladder, from the current driveshaft.
7. Slide new 1 1/2" dia. two-piece lock collars (9008671) to both sides of new bearing (9003920) closest to the U-Joint, when installing bearings onto new driveshaft (9007718).
8. Assemble new 25" PVC driveshaft cover (291555) between bearings near the gearbox, and new 36" PVC driveshaft cover (291554) between bearings behind the hitch driveline cover. (FIG. 4-36)

NOTE: Ends of driveshaft are symmetrical.

9. Slide the hitch end of the driveshaft, bearing and hitch driveline cover into the bearing near hitch of the cart. (FIG. 4-36)
10. Raise the gearbox end of the driveshaft up and insert the original 1/2" carriage bolts, flange nuts, and lock washers into the mounting flanges making sure that the bearing flanges are both on the front side of the mounting brackets. Only loosely tighten the hardware.
11. Slide driveshaft down into the universal joint attached to the gearbox until the end of the shaft extends into the universal joint about 2 3/8". Ensure universal joint and driveshaft splines completely engage. Verify the hitch end for adequate length for driveline assembly to connect. (FIG. 4-37)



Auger Driveline (continued)

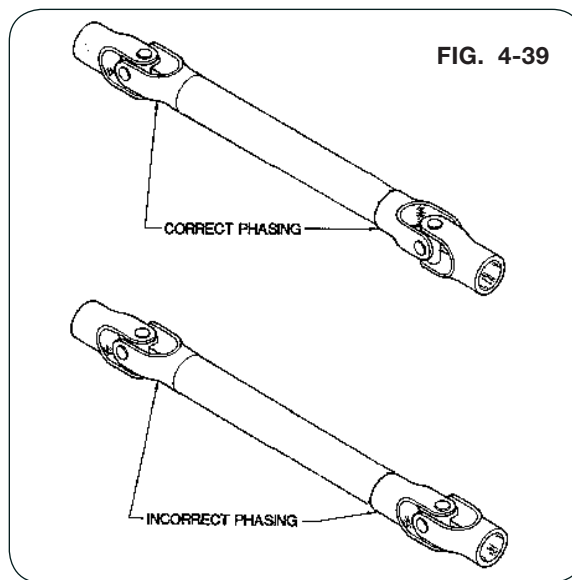
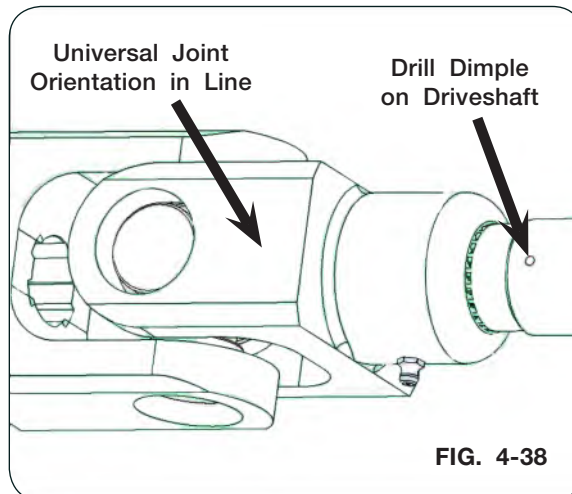
Driveline Replacement (continued)

12. Tighten all flangette mounting hardware.
13. With flangette mounting hardware completely tightened, drill a setscrew dimple in the driveshaft by going through the bearing setscrew threaded hole to dimple the driveshaft being careful to not damage threads. Drill the dimple to a depth that setscrews are flush with the bearing prior to applying blue thread locker and installing setscrews. (FIG. 4-38)
14. For alignment of the yoke, the orientation of the universal joint at the gearbox must be in line with the driveshaft drill dimple when the driveline assembly is attached. (FIG. 4-38 and 4-39)
15. Apply blue thread locker on bearing setscrews and tighten.
16. Torque lock collars to 170 inch-lbs., if lock collars are attached to driveshaft.

NOTE: Check/fill gearbox oil and grease universal joint before reinstalling universal joint cover. See "Gearbox Lubrication" for oil specifications.

17. Attach new universal joint cover (290720B) to the bearing mount in front of the gearbox using original 3/8"-16UNC capscrews and 5/16"-18UNC weld nuts. Verify PVC driveshaft covers and driveline cover, located behind the ladder, are in place and hardware tightened prior to operation.

18. Test run driveline. Verify smooth driveline operation.

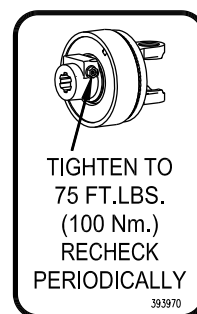
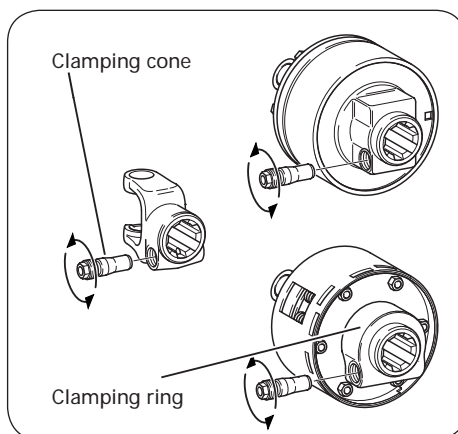
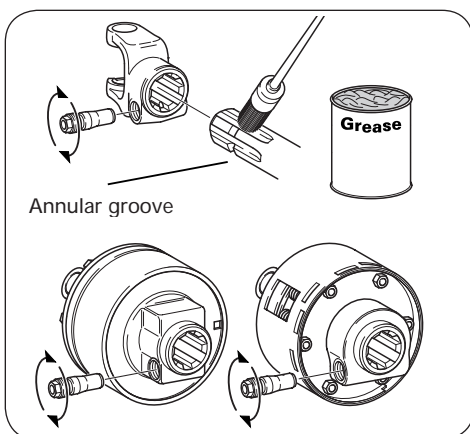


PTO Quick Disconnect

Coupling

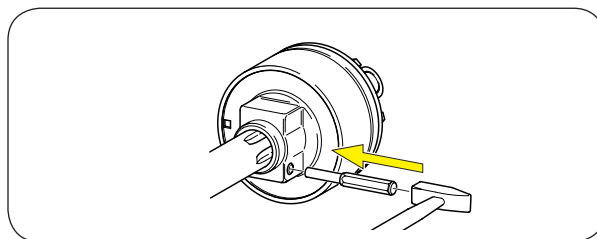
Slide clamp yoke or cut-out clutch onto connecting shaft. Make sure the location hole for the clamping cone is positioned above the annular groove of the connecting shaft. Screw appropriate clamping cone into the location hole. Slightly moving the clamp yoke or clutch to-and-fro in the axial direction will help drive in the clamping cone. Check the clamp yoke or clutch for a tight and safe fit and continue to check at regular intervals. Retighten the clamping cone as necessary. Torque clamping cone to 75 ft.-lbs.

When over loading occurs, the clutch disengages and will repeatedly attempt to reset. The clutch will create a repeated “clicking” noise when resetting. Torque demand must decrease for clutch to reset.



Uncoupling

First dislodge the clamping cone with a punch and hammer from its current position. Unscrew the clamping cone a partial turn. Use the punch and hammer again to help alleviate the torque resistance on the wrench, if necessary. After a few cycles, the clamping cone will move freely with low torque resistance for the removal process.



Tarp Troubleshooting Inspection & Maintenance

PROBLEM	SOLUTION
TARP SAGS IN MIDDLE AREAS	<ol style="list-style-type: none"> 1. BOWS MAY BE BENT OR ADJUSTED TOO LOW 2. MISSING OR LOOSE RIDGE STRAP REPLACE OR RETIGHTEN 3. TENSION MAY BE TOO LOOSE. U-JOINT MAY NEED TO BE ADJUSTED ON SPLINED SHAFT TO PROVIDE MORE TENSION
HOLES OR TEARS IN TARP	<ol style="list-style-type: none"> 1. CONSULT YOUR LOCAL DEALER FOR REPAIRS 2. ORDER TARP REPAIR KIT FROM DEALER 3. WHEN NEW TARP OR PARTS ARE NEEDED ALWAYS REPLACE WITH ORIGINAL PARTS

Inspection and Maintenance

WARNING

- TO PREVENT PERSONAL INJURY OR DEATH, DO NOT ALLOW ANYONE ON A CLOSED TARP. TARP SYSTEM IS NOT DESIGNED TO SUPPORT A PERSON.
- FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. REMOVE ACCUMULATED WATER/SNOW/ICE OR ANY OTHER OBJECTS FROM TARP BEFORE OPENING TARP.

IMPORTANT

- *Do not open or close tarp while moving or in high wind conditions. Damage to the tarp may occur.*
- *Tarp should not be used if it is torn or the bungee cords are frayed or show damage. If water pools on the tarp adjust tension of tarp cables and/or arm springs as required.*

Periodic preventive maintenance should be practiced. Inspect tarp and hardware often for abrasions or loosened bolts that may need adjustment and/or repair. Check bungee cords for wear and adjust tension at the beginning of the season and again half way through the season.

Tears in tarp should addressed before further tarp operation. If water pools on tarp, adjust tension of tarp cables and/or crank handle tension.

If installed correctly, tarp should always operate as well as when first installed. If tarp does not pass this simple inspection, make all appropriate repairs or adjustments immediately before serious damage occurs.

Wheel, Hub and 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 18,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

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.**

IMPORTANT

- *Remove only one wheel and tire from a side at any given time in the following procedure.*
1. Hitch cart to tractor. Park the empty cart on a firm, level surface. Set the tractor's parking brake, shut off engine and remove key. 
 2. With cart empty, use safe lifting and load holding devices rated at 18,000 lbs. to support the weight of your grain cart. Place the safe lifting device under the axle closest to the tire.
 3. Use a 3,000 lbs. safe lifting device to support the wheel and tire during removal.

WARNING

- **FOR DUAL WHEELS, INNER WHEEL AND TIRE MAY FALL FROM HUB CAUSING SERIOUS INJURY OR DEATH. ALWAYS SUPPORT INNER WHEEL WHEN REMOVING OUTER WHEEL.**
4. If only changing wheel and tire, skip to Step 8; otherwise continue with Step 4.

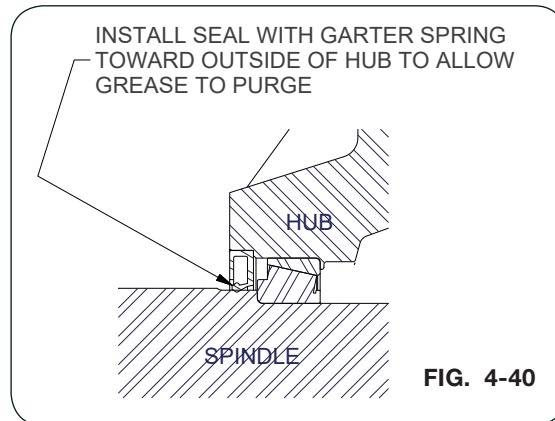
Remove the hardware retaining the hubcap. Next, remove the hubcap, gasket, cotter pin, castle nut and spindle washer. Remove hub with bearings from old spindle using a 200 lb. safe lifting device.

Wheel, Hub and Spindle Disassembly and Assembly

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.

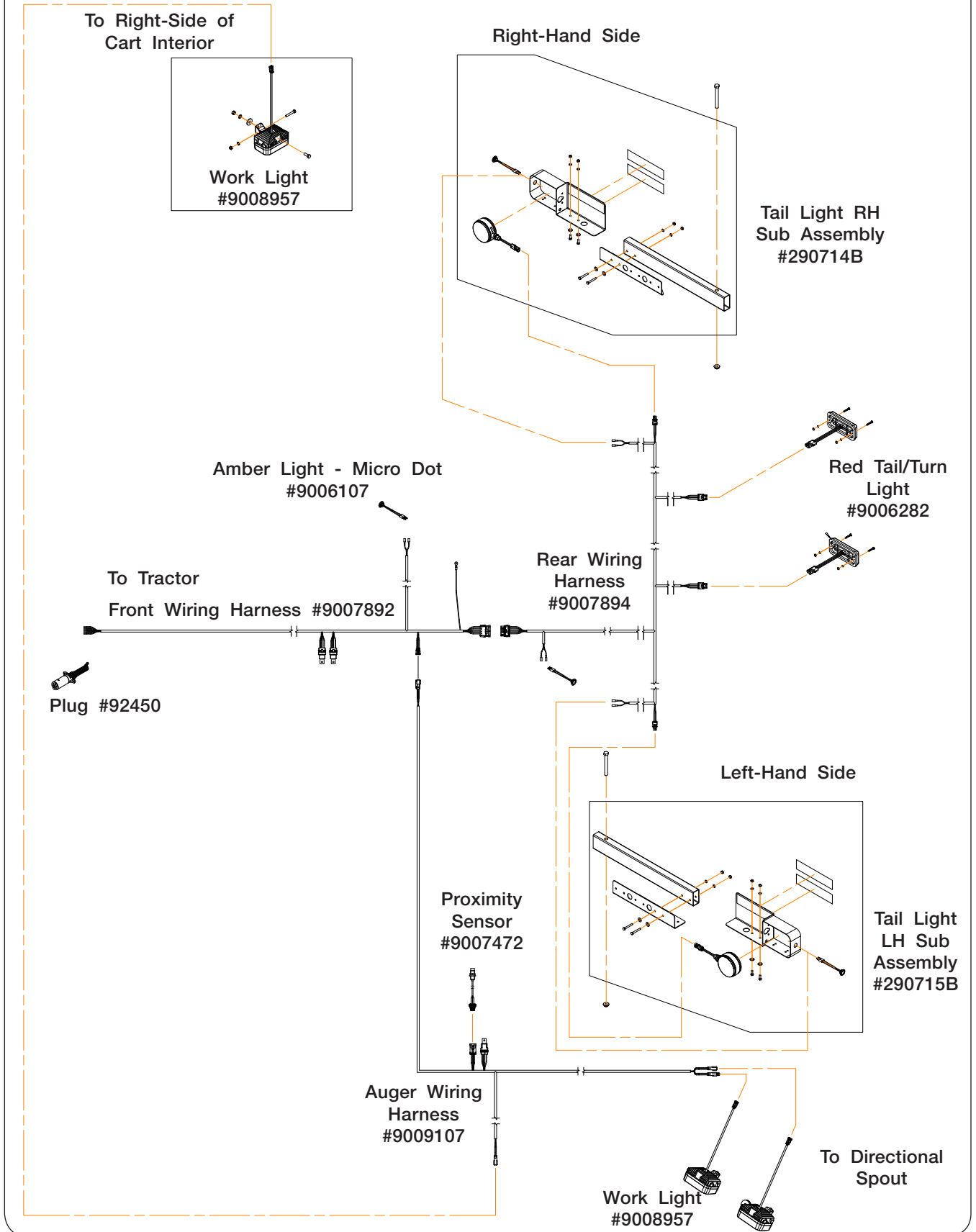
Remove the bolt and lock nut that retains the spindle to the axle. Using a safe lifting device rated for 200 lbs., replace the old spindle with a new spindle. Coat axle contact length of spindle shaft (scale or non-scale) with anti-seize lubricant prior to installation. If installing scale spindle, install with 'top' decal facing upwards. Reuse bolt and lock nut to retain spindle to axle. Tighten as outlined in MAINTENANCE section.

6. Remove seal and inspect bearings, spindle washer, castle nut and cotter pin. Replace if necessary. Pack both bearings with approved grease and reinstall inner bearing. Install new seal in hub with garter spring facing the outside of hub by tapping on flat plate that completely covers seal while driving it square to hub. (FIG. 4-40) Install until flush with back face of hub. Using a safe lifting device rated for 200 lbs., install hub assembly onto spindle. Install outer bearing, spindle washer and castle nut.



7. Slowly tighten castle nut while spinning the hub until drag causes the hub to stop freely spinning. Do not use an impact! Turn castle nut counterclockwise until the hole in the spindle aligns with the next notch in castle nut. Hub should spin smoothly with little drag and no end play. If play exists, tighten to next notch of castle nut. If drag exists, then back castle nut to next notch of castle nut. Spin and check again. Install cotter pin. Clean face for hub cap gasket and install gasket, grease-filled hub cap and retain hubcap with hardware removed. Tighten hubcap hardware in alternating pattern.
8. Attach the wheel(s) and tire(s) to the hub using the same rated lifting device for removal. Tighten wheel nuts to appropriate requirements and recheck as outlined in the Wheel and Tire section of this manual.
9. Raise cart, remove safe load holding devices and lower tire to the ground.

Electrical System Diagram — Overall



Electrical System Diagram — Plug #92450

Black - Work Lights

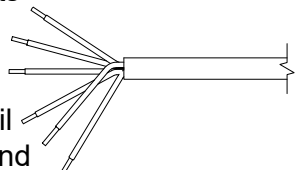
Green - RH Turn

Yellow - LH Turn

Brown - Tail

White - Ground

Red - Brake



GRAIN CART WIRES

White -- Ground

Green -- Right amber flashing lamp

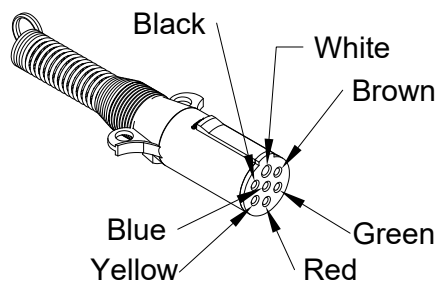
Yellow -- Left amber flashing lamp

Brown -- Tail light

Black -- Work Lights

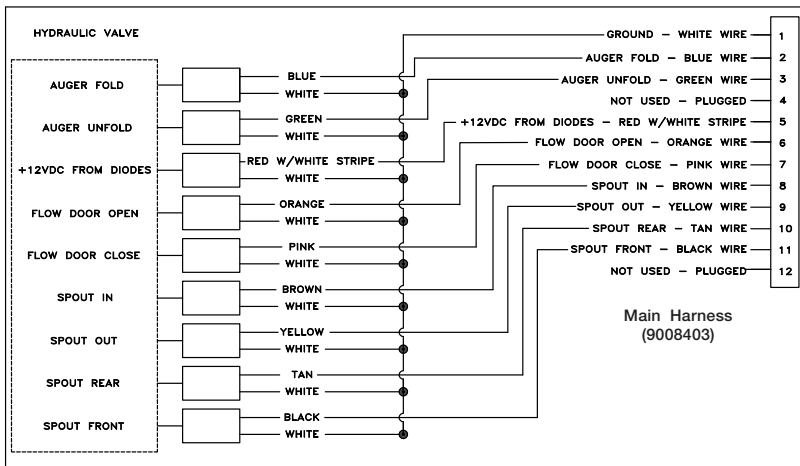
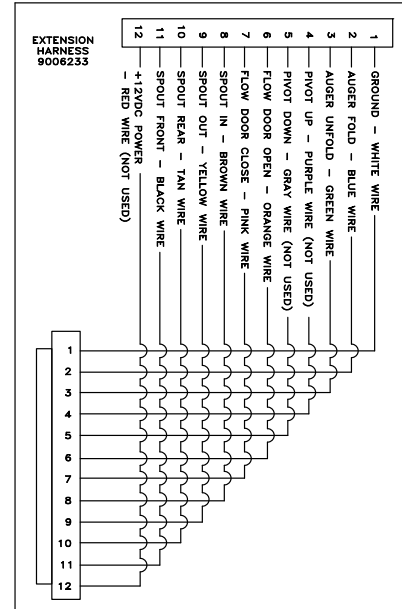
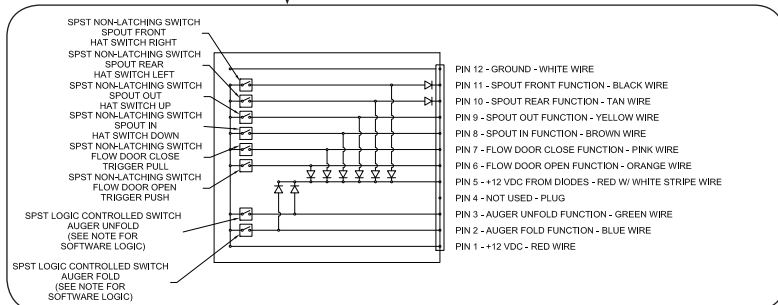
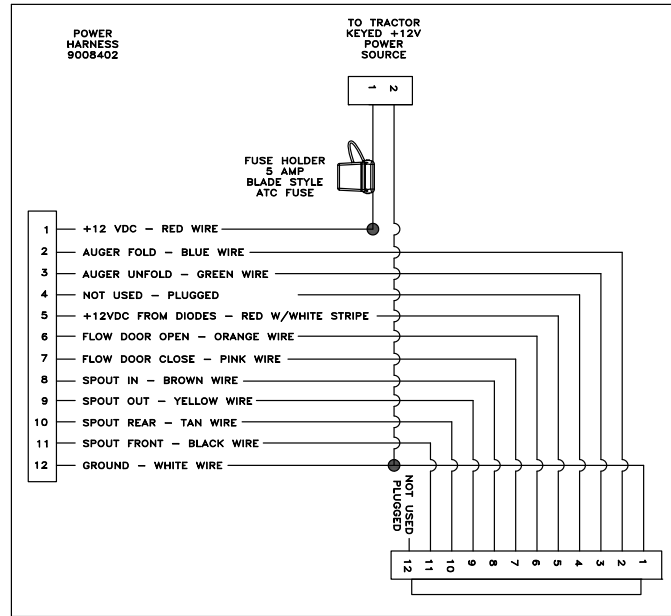
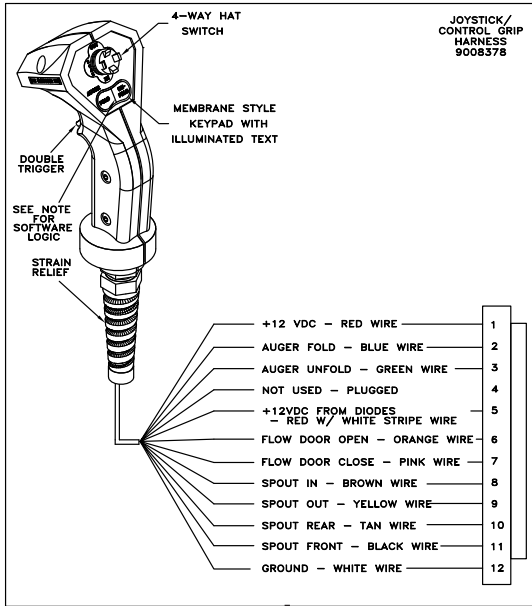
Red -- Brake Lights

Blue -- NOT USED

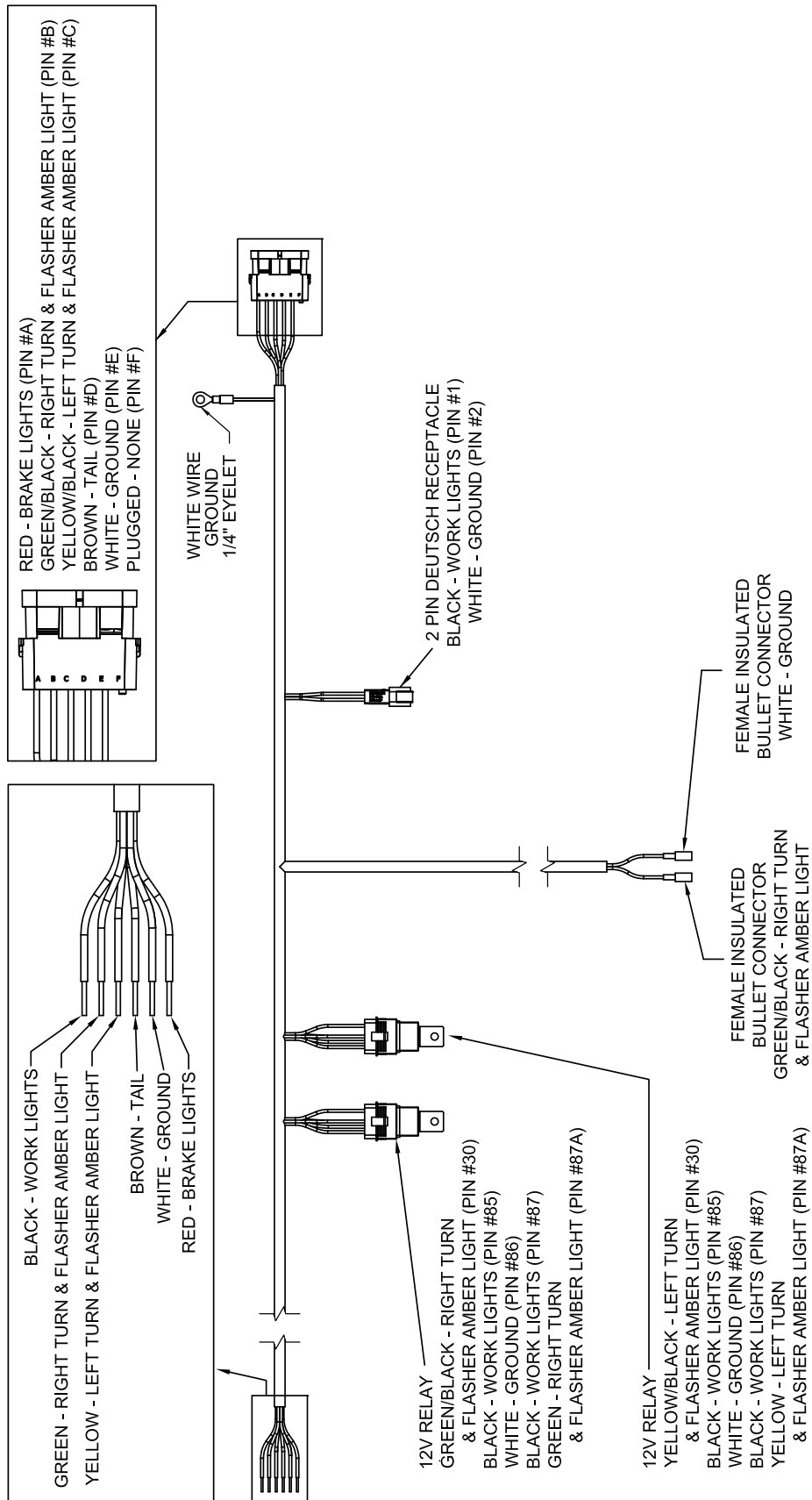


Electric Over Hydraulic (EOH) System Schematic 4 Function Optional

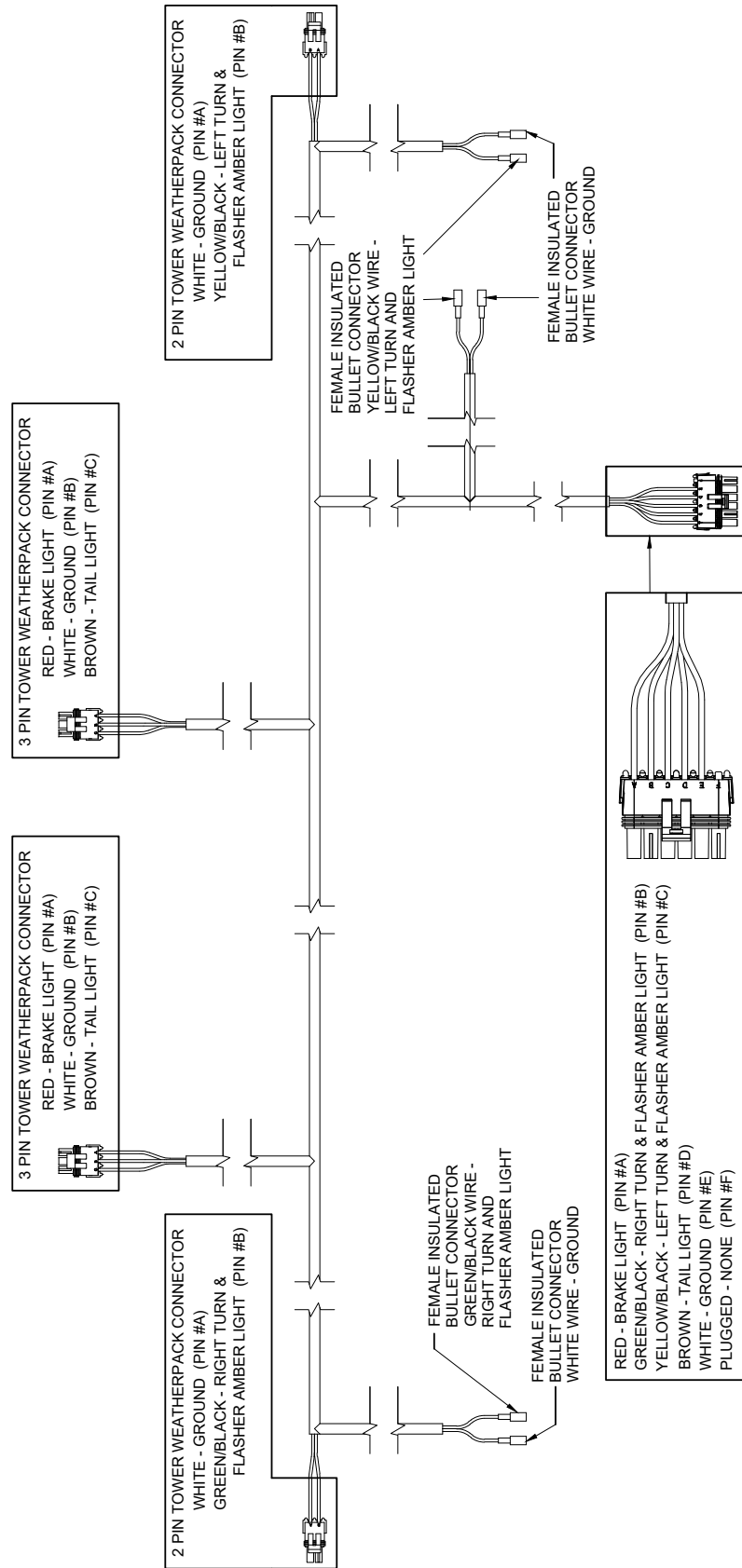
NOTE: 7-pin connector must be plugged into the tractor in order for the EOH system to operate.



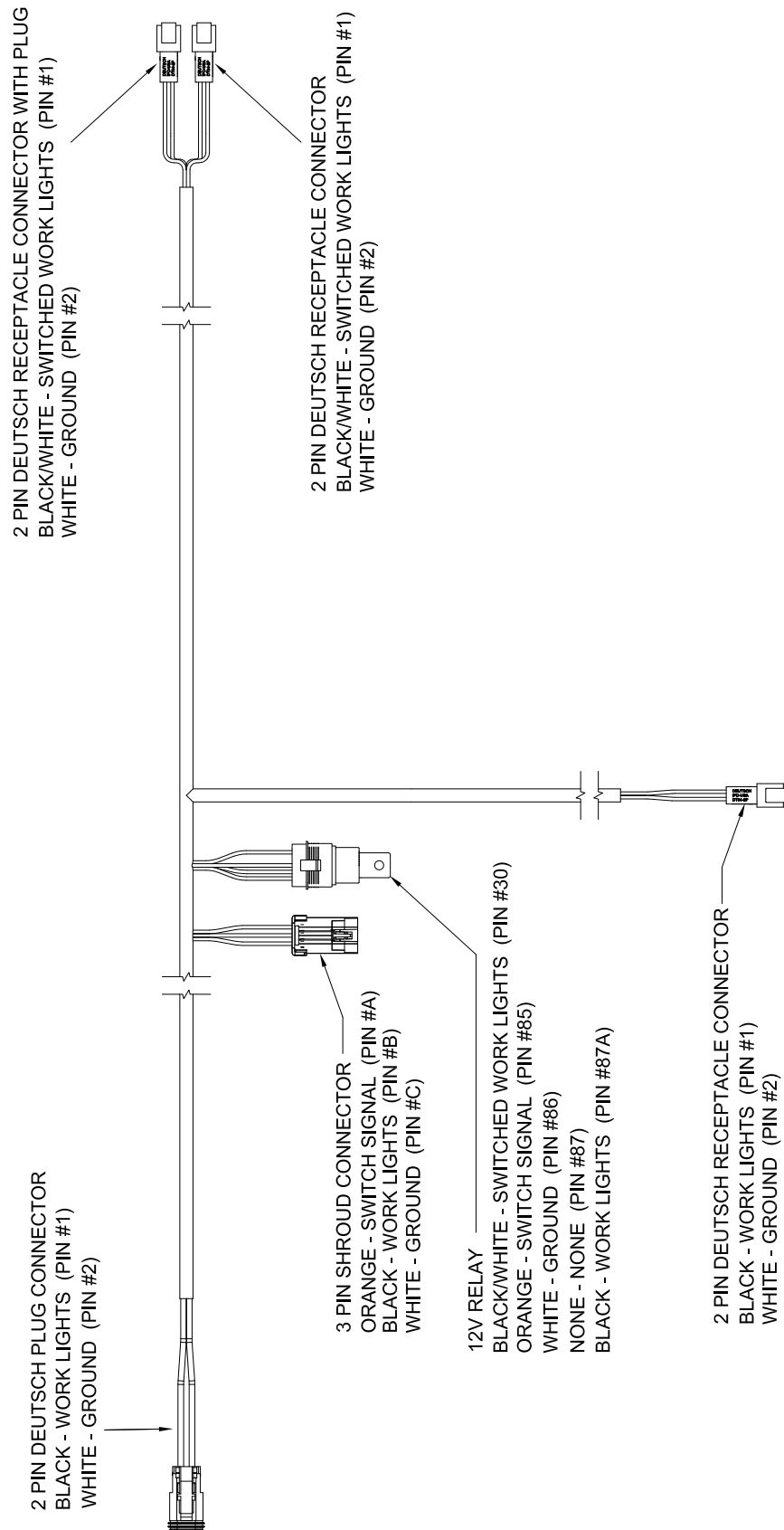
Electrical Diagram — Front Wiring Harness #9007892



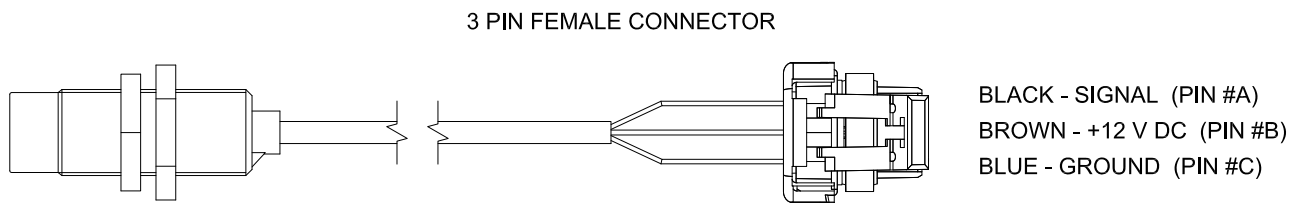
Electrical Diagram — Rear Wiring Harness # 9007894



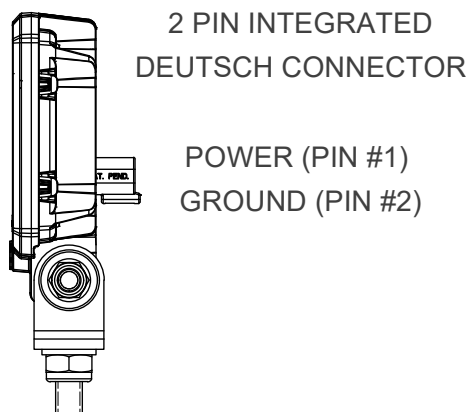
Electrical Schematic — Auger Wiring Harness
#9009107 - For SN B40920100 & Higher
#9007893 - For SN B40920099 & Lower



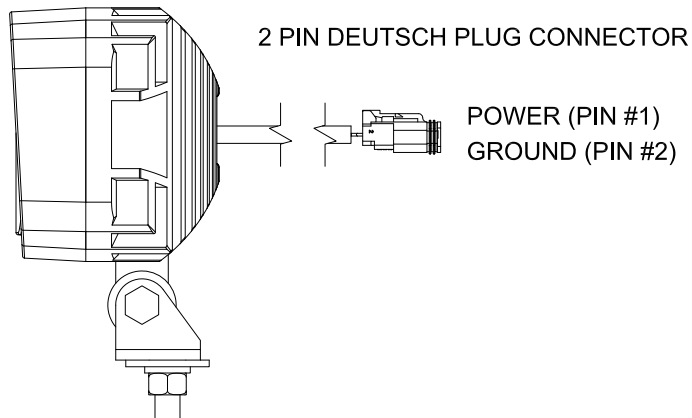
Electrical Diagram — Proximity Sensor #9007472



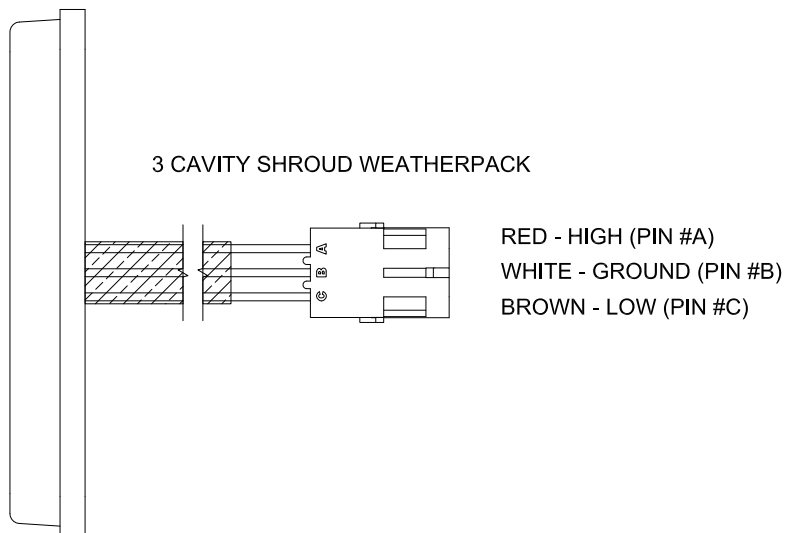
**Electrical Schematic — Work Light #9008957
For SN B40920100 & Higher**



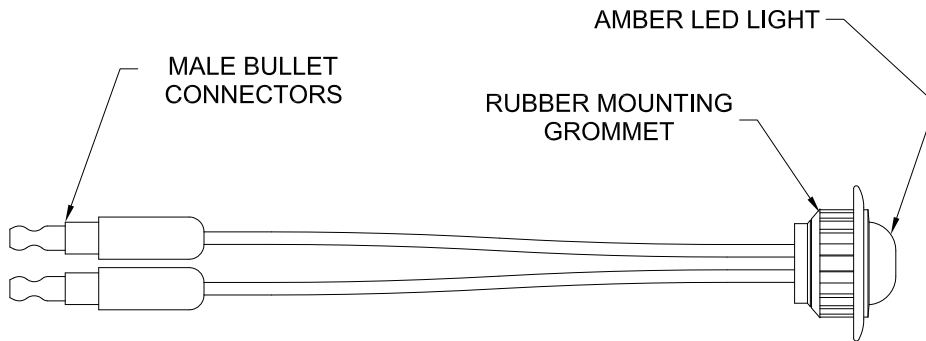
**Electrical Schematic — Work Light #9007186
For SN B40920099 & Lower**



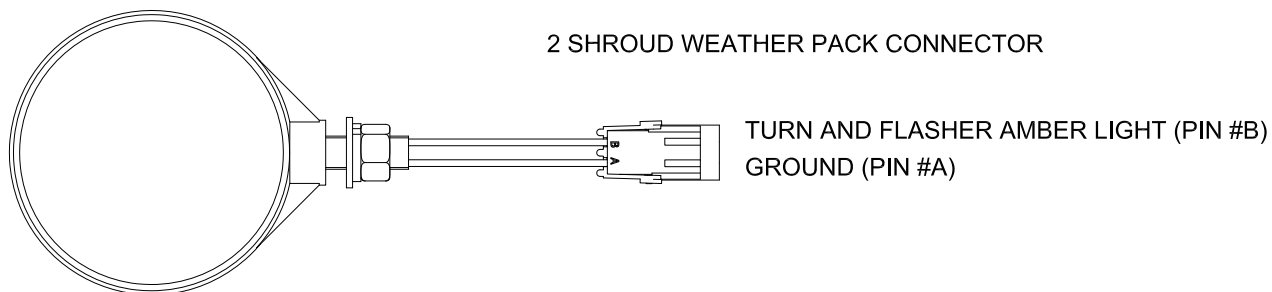
Electrical Diagram — Red Tail/Turn Light #9006282



Electrical Diagram — Amber Light - Micro Dot #9006107

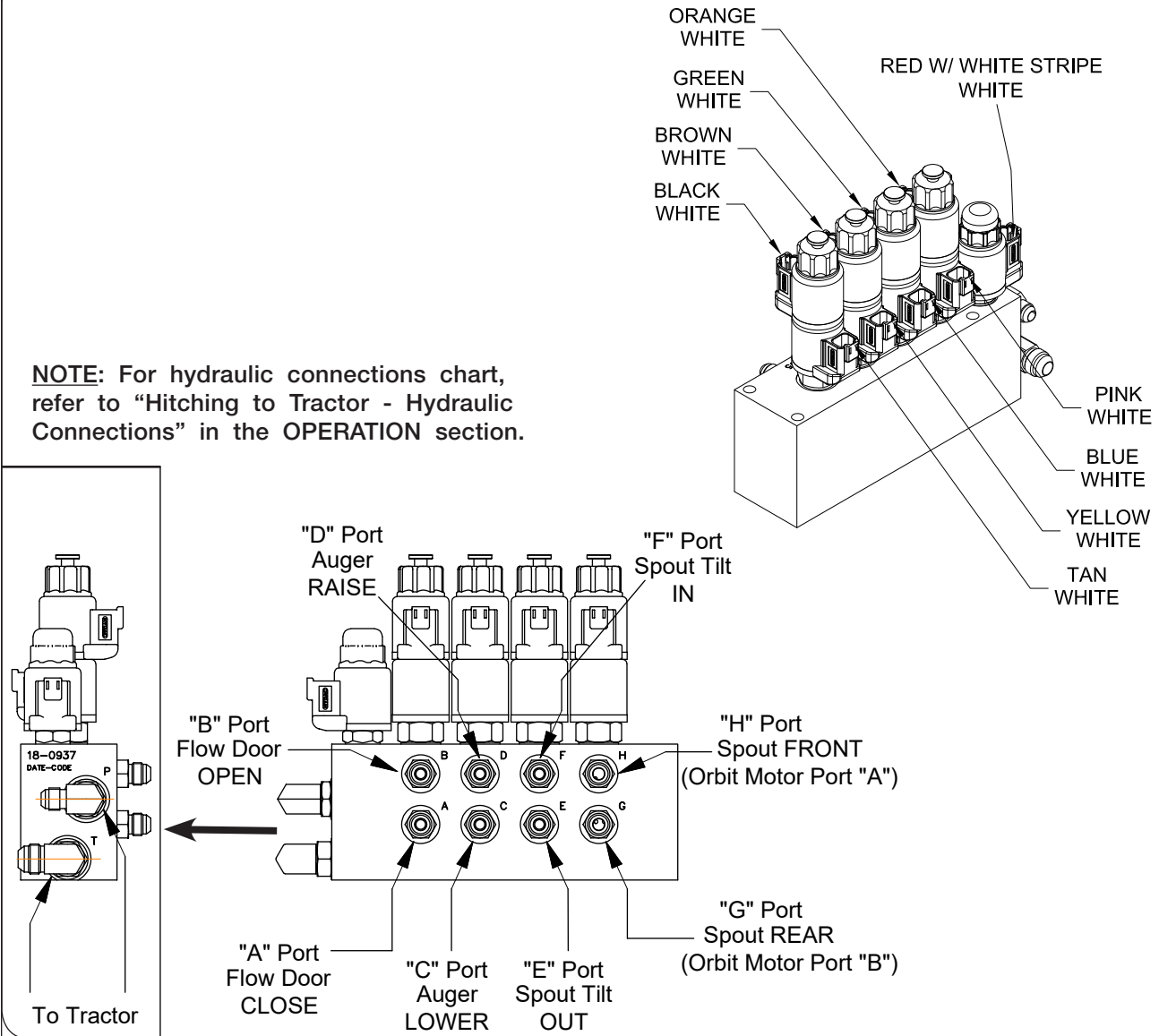


Electrical Diagram — Amber Lamp Double Face #9005142



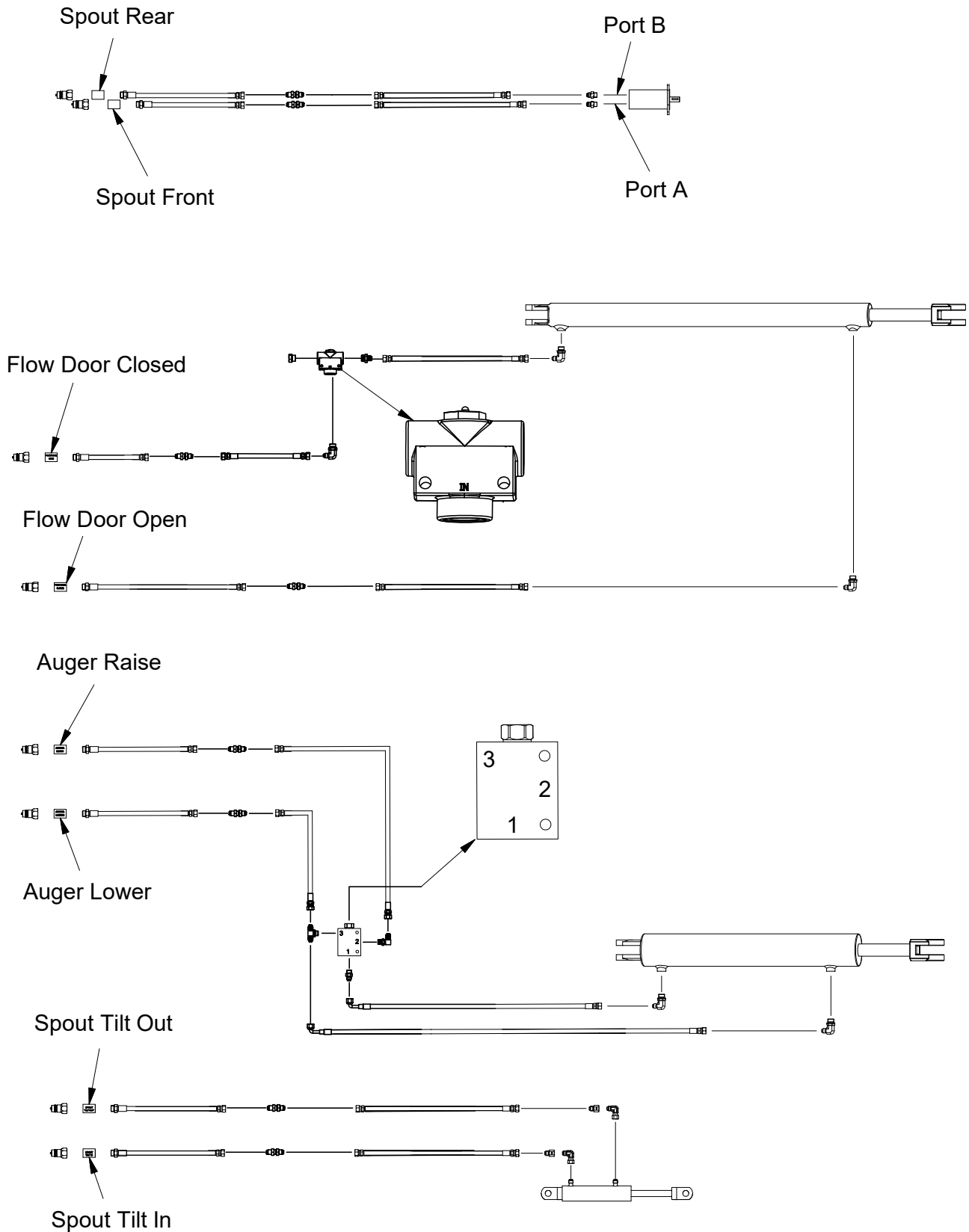
**Optional Electric Over Hydraulic Valve Electric Schematic
4 Spool**

NOTE: For hydraulic connections chart, refer to "Hitching to Tractor - Hydraulic Connections" in the OPERATION section.

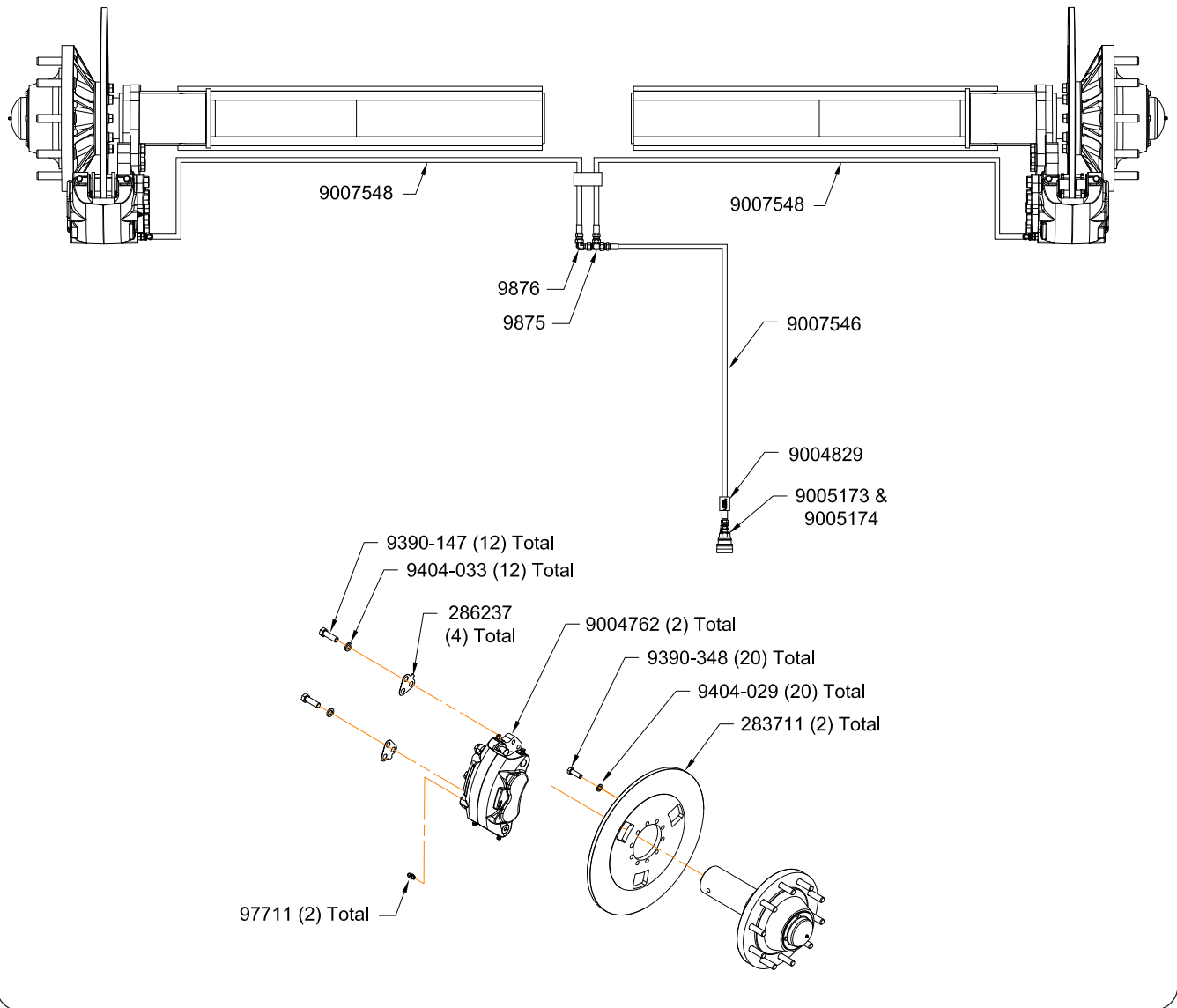


PORT	END OF CYLINDER	FUNCTION
A	BUTT END	FLOW DOOR CLOSE
B	RAM END	FLOW DOOR OPEN
C	RAM END	AUGER FOLD LOWER
D	BUTT END	AUGER FOLD RAISE
E	RAM END	SPOUT TILT OUT
F	BUTT END	SPOUT TILT IN
G	ORBIT MOTOR PORT B	SPOUT REAR
H	ORBIT MOTOR PORT A	SPOUT FRONT
P		TRACTOR PRESSURE
T		TRACTOR RETURN

Hydraulic System Plumbing Diagram



Braking System Schematic (Optional)



Wheels and Tires

Wheel Nut Torque Requirements



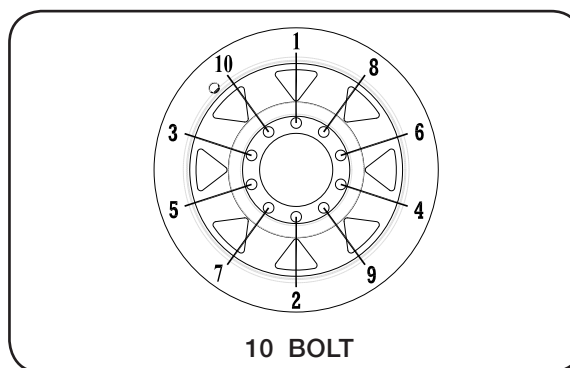
CAUTION

- 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.

Failure to check torque before first load 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.

NOTE: Do not use anti-seize on wheel hardware.

WHEEL HARDWARE	
SIZE	FOOT-POUNDS
M22x1.5	475 ft.-lbs.



10 BOLT

DIAGRAM 1

Wheels and Tires (continued)

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 recommended by tire manufacturer. The tire should stand up with no side-wall buckling or distress as tire rolls. Record the pressure needed to support full load and maintain this pressure to achieve proper tire life. **Do not exceed maximum recommended tire pressure.** Each tire must be inflated to max PSI to seat the beads, deflated to 5-10 PSI, then reinflated to recommended minimum pressure.

Tire Pressure for Grain Carts

Tire Make	Tire Size	Load Index / Ply Rating	Max. PSI
Firestone	23.1x26 R-3	12	32
	23.1x26 R-1	12	32
	28Lx26 R-3	12	26
	24.5x32 R-3	12	32
	24.5x32 R-1	12	32
	30.5x32 R-1	14	28
	30.5x32 R-3	14	28
	30.5x32 R-3	16	34
	30.5x32 R-1	16	26
	35.5x32 R-3	20	36
	76x50.00x32 HF-3	16	40
	76x50.00x32 HF-3	20	50
	800/65R32 R-1W	172A8	44
	800/60R32 R-3	181B	46
	900/65R32 R-3	191B	46
	900/60R32 R-1	176A8	44
	1250/50R32F IF/CFO R-1WNP	201D	46
	1250/50R32F IF/CFO R-1W	188B	30
	520/85R38 R-1	155A8	29
	520/85R38 R-1	173A8	64
	480/80R42 R-1	151A8	36
	520/85R42 R-1	157A8	29
	520/85R42 R-1	165A8	51
	520/85R42 IF/CFO R-1	169A8/B	35
	520/85R42 R-1W	169B	35
	420/80R46 R-1	151A8	44
480/80R46 R-1	158A8	44	
380/90R46 R-1	152B	51	

Wheels and Tires (continued)

Tire Pressure (continued)

Tire Make	Tire Size	Load Index / Ply Rating	Max. PSI
Titan/Goodyear	23.1x26 R-3	10	26
	23.1x26 R-1	10	26
	24.5R32 R-1	169A8/B (5-Star)	48
	24.5x32 R-3	12	32
	24.5x32 R-1	12	32
	30.5x32 R-3	16	26
	30.5x32 R-3	14	22
	30.5x32 R-1	14	22
	480/80x42 R-1	166A8	23
<hr/>			
	1100/45R46 F-1W	195D	35
Mitas	650/75R32 R-1W	172A8	58
	900/60x32 R-1W	176A8	41
	900/70R32 R-1W	188A8	53
	1050/50x32 R-1W	178A8	41
	1250/50R32 R-1W	188A8	41
	900/60x38 R-1W	181A8	44
	520/85x42 R-1W	162A8	44
	650/65x42 R-1W	168A8	44
Alliance	35.5LR32	193A8	44
	900/60R32 R-1W	192D	46
	1050/50R32 R-1W	185A8	63
	1250/50R32 R-1W	201B	46
Trelleborg	VF1050/50R32 R-1	198D	52
	900/50R32 R-1W	181A8	55
	900/60x32	176LI	44
	850/55R42 R-1W	161A8	32

Wheels and Tires (continued)

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
Phone 800-847-3364

Titan www.titan-intl.com
or Phone 800-USA-BEAR
Goodyear Fax 515-265-9301

Trelleborg www.trelleborg.com
Phone 866-633-8473

Continental/Mitas www.mitas-tires.com
Phone 704-542-3422
Fax 704-542-3474

Alliance www.atgtire.com
Phone 781-325-3801

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

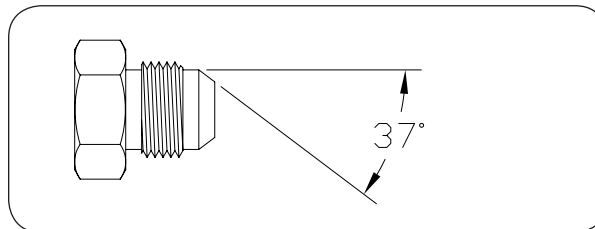
IMPORTANT

- Follow these torque recommendations except when specified in text.

Hydraulic Fittings - Torque and Installation

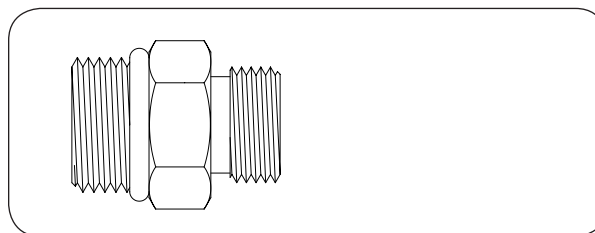
SAE Flare Connection (J. I. C.)

1. Tighten nut with finger until it bottoms the seat.
2. Using a wrench, rotate nut to tighten. Turn nut 1/3 turn to apply proper torque.



SAE Straight Thread O-Ring Seal

1. Insure jam nut and washer are backed up to the back side of smooth portion of elbow adapter.
2. Lubricate o-ring
3. Thread into port until washer bottoms onto spot face.
4. Position elbows by backing up adapter.
5. Tighten jam nut.



Section V Parts

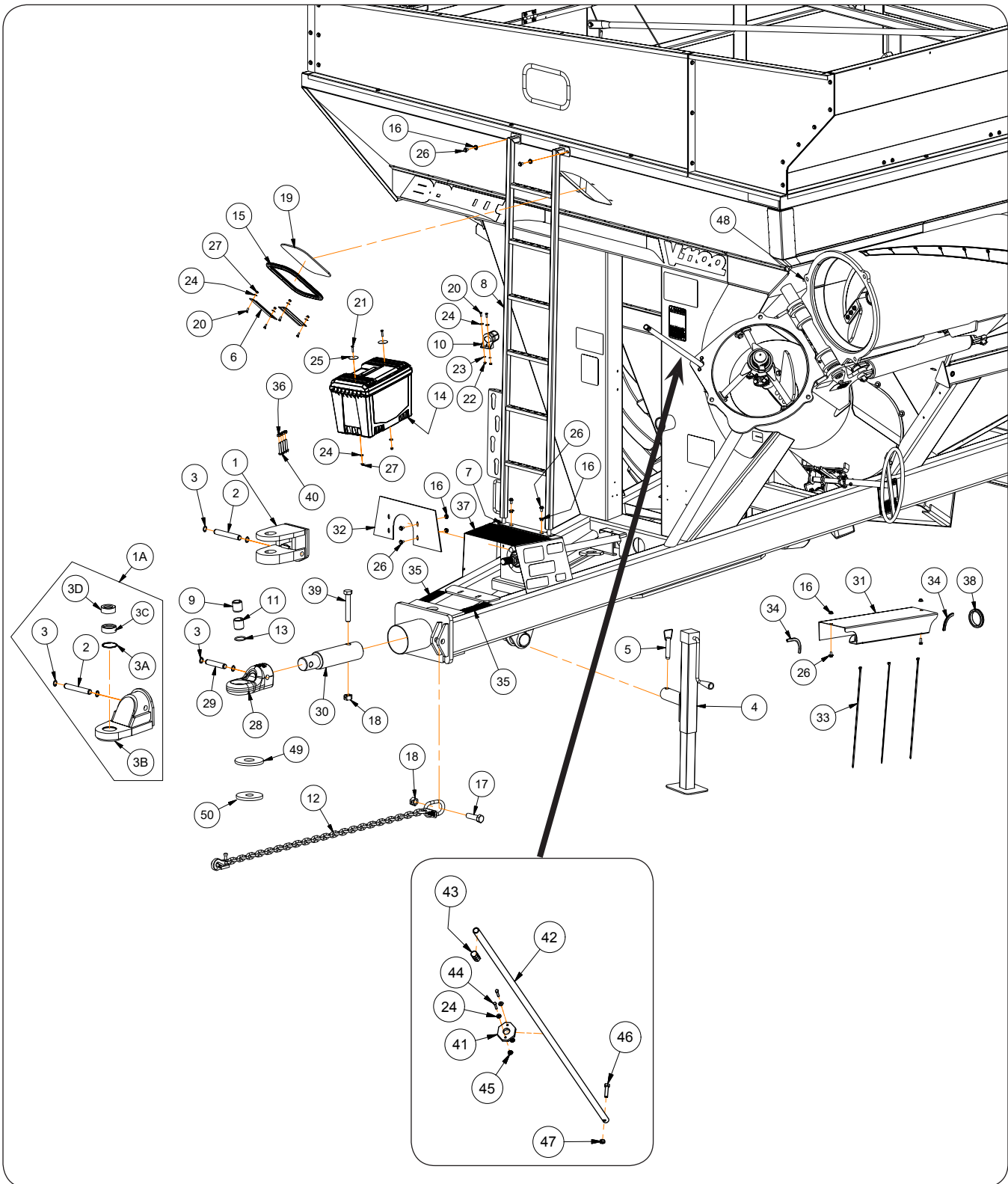
Please visit www.unverferth.com/parts/ for the most current parts listing.

Final Assembly	5-2
Rigid Axle (SN B37730100 and Higher)	5-4
Rigid Axle (SN B37730099 and Lower)	5-5
Adjustable Axle (SN B37730100 and Higher)	5-6
Adjustable Axle (SN B37730099 and Lower)	5-8
Track Axle Components with 5 Point Scale System (SN B37730100 and Higher)	5-10
Track Axle Components with 5 Point Scale System (SN B37730099 and Lower)	5-12
Hub & Spindle — Rigid Axle Without Scales & Adjustable Axles	5-14
Hub & Spindle — Rigid Axle With Scales	5-15
Brake Components (Optional)	5-16
Single Wheels & Tires	5-18
Decals	5-20
Sideboards	5-22
EOH Valve Assembly Components 4 Spool (Optional)	5-24
EOH Tractor Circuit Hydraulic Components (Optional)	5-26
EOH Valve Electric Schematic 4 Spool (Optional)	5-27
Electrical	5-28
Drive Components	5-30
Upper Auger Components	5-32
Lower Auger Components	5-34
Cleanout Door Assembly	5-36
Flow Door Seals	5-37
Internal Bracing	5-38
Cylinders	5-39
Touch-Up Paint	5-40
Hydraulics - Beginning with Serial Number B37910100	5-42
Hydraulics - Serial Number B37910099 & Lower	5-46
Directional Spout	5-48
PTO Cut Out Clutch Components	5-51
PTO Assembly Cutout Clutch	5-52
PTO Assembly Shear-Bolt Clutch	5-54
PTO Assembly Friction Clutch	5-56
Friction Clutch Assembly	5-57
45 Degree Gearbox - With 20 Spline Input Shaft	5-58
45 Degree Gearbox - With 6 Spline Input Shaft	5-60
Driveline U-Joint Assembly	5-61
Weather Guard Tarp	5-62
Video System Option	5-65

FOR SCALE, TRACK, UHARVEST, HYDRAULIC DRIVE, ELECTRIC TARP, AND VIDEO SYSTEM
OPTIONS, PLEASE REFER TO THE SPECIFIC MANUAL.

Final Assembly

Please visit www.unverferth.com/parts/ for the most current parts listing.



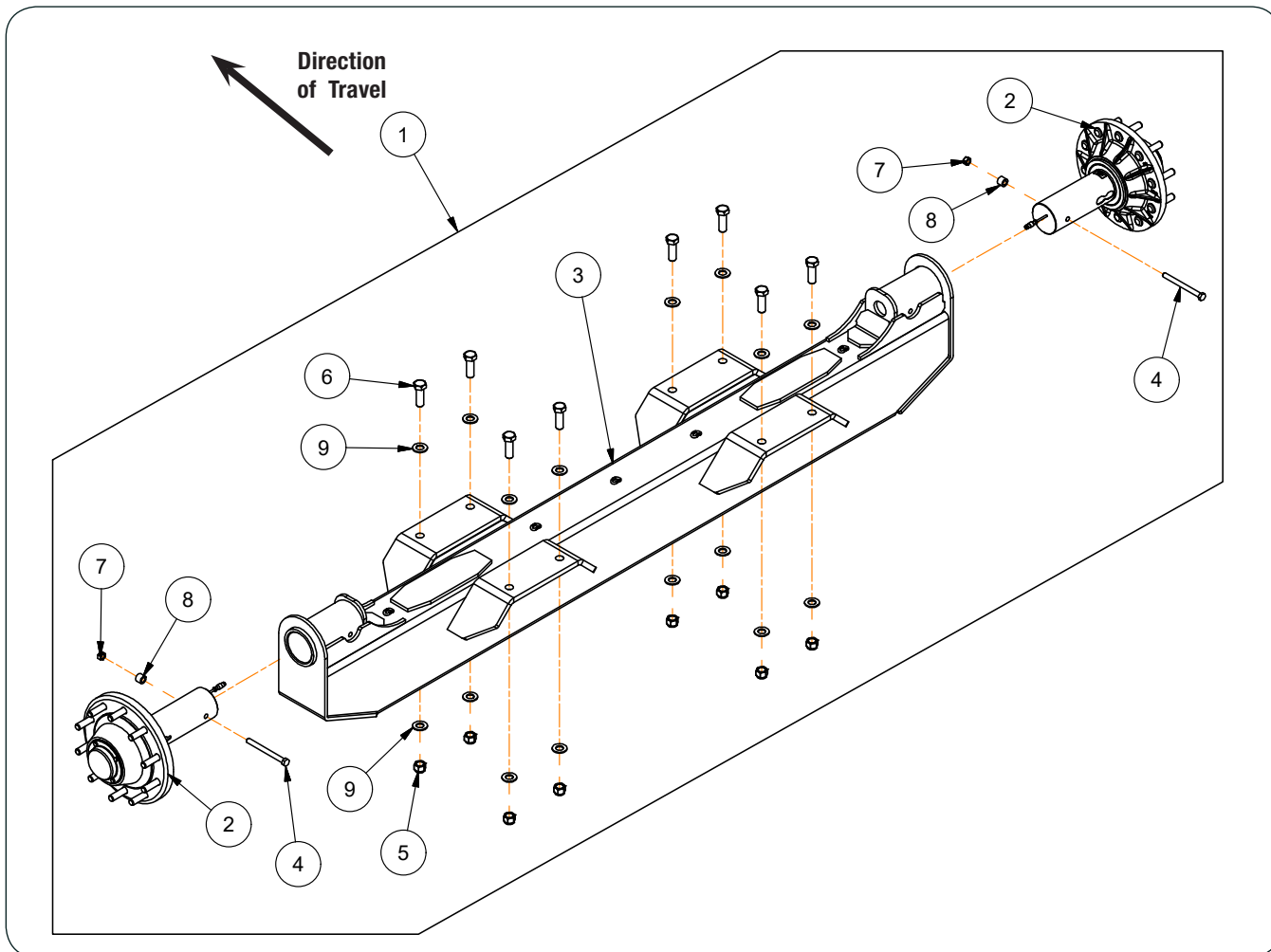
Final Assembly

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	Scale Clevis Hitch	281690	Opt.	Includes Items 2 & 3
1A	Drop Hitch Conversion Kit CAT 4 (Black)	293184B	Opt.	Includes Items 2, 3, and 3A-3D
2	Pin 1" Dia. x 7 3/8	281691	Opt.	
3	Retaining Ring 1"	91192	2	
3A	Retaining Ring	9003554	2	For Carts With LSW-1100 Tires
3B	Drop Hitch Weldment CAT 4 =Black=	293175B	1	
3C	Bushing For CAT 4	266797	1	
3D	Bushing For CAT 3	266796	1	
4	Jack Assembly w/Pin	9004156	1	Includes Item #5
5	Pin	9004171	1	
6	Bracket, Window Retainer	250461B	4	
7	Ladder Bracket Weldment	280603B	1	
8	Ladder Weldment	290746B	1	
9	Tension Bushing 2 OD x 1.516 ID x 2	9001917	1	
10	Connector Holder	9001968	1	
11	Split Tension Bushing 2 OD x 1 3/4 ID x 2	9002130	1	
12	Transport Chain	9003278	1	
13	O-Ring	9005259	4	
14	Storage Box	9005850	1	
15	Window Molding	271951	2	
16	Nut/Large Flange 3/8-16UNC	91263	10	Grade 5
17	Capscrew 1-8UNC x 3 1/2	91299-189	1	Grade 8
18	Locknut 1-8UNC	92199	2	
19	Window	92403	2	
20	Capscrew 1/4-20UNC x 3/4	9390-003	10	Grade 5
21	Capscrew 1/4-20UNC x 1 1/4	9390-006	2	Grade 5
22	Hex Nut 1/4-14UNC	9394-002	2	
23	Lock Washer 1/4"	9404-017	2	
24	Flat Washer 1/4"	9405-064	6	
25	Fender Washer	94763	2	
26	Capscrew/Large Flange 3/8-16UNC x 3/4	95585	10	Grade 5
27	Locknut 1/4-20UNC	9936	10	
28	Hitch, Single Tang	282875B	1	For Carts Without LSW-1100 Tires
29	Pin 1" Dia. x 5 1/2	282876	1	
30	Hitch Bar 3 3/4" Dia.	284780	1	
31	Driveshaft Cover	290718B	1	
32	Driveshaft Cover Plate	290888B	1	Prior to Serial Number B37740100
33	Cable Tie 21 1/2"	9000104	5	
34	Trim Lock	9000787	A/R	Specify in Feet
35	Runner Pad	9001498	2	
36	Locknut 10MM	9003645	7	Prior to Serial Number B38140100
37	Platform Rubber Pad	9004114	1	
38	Rubber Grommet, 1/4 W x 3 1/2 D Groove	9006780	2	
39	Capscrew 1-8UNC x 6	91299-195	1	Grade 8
40	Capscrew M10-1.5x60	94910-015	7	Prior to Serial Number B38140100
41	Pad Indicator 3 x 3 1/2	286942	1	
42	Indicator Tube =BLACK=	290723B	1	
43	Decal, Checker Tape	265384	1	
44	Capscrew 1/4"-20UNC x 1 3/4" G5	9390-008	2	
45	Hex Nut/Large Flange 1/4"-20UNC	97189	2	
46	Capscrew 1/2"-13UNC x 2" G5	9390-103	1	
47	Locknut/CENTER 1/2"-13UNC	94981	1	
48	Rubber Grommet, 3/16 W x 3/4 D Groove	9007987	1	
49	Poly Wear Shoe For CAT 3	281663	1	
50	Poly Wear Shoe For CAT 4	281898	1	

Rigid Axle - (SN B37730100 and Higher)

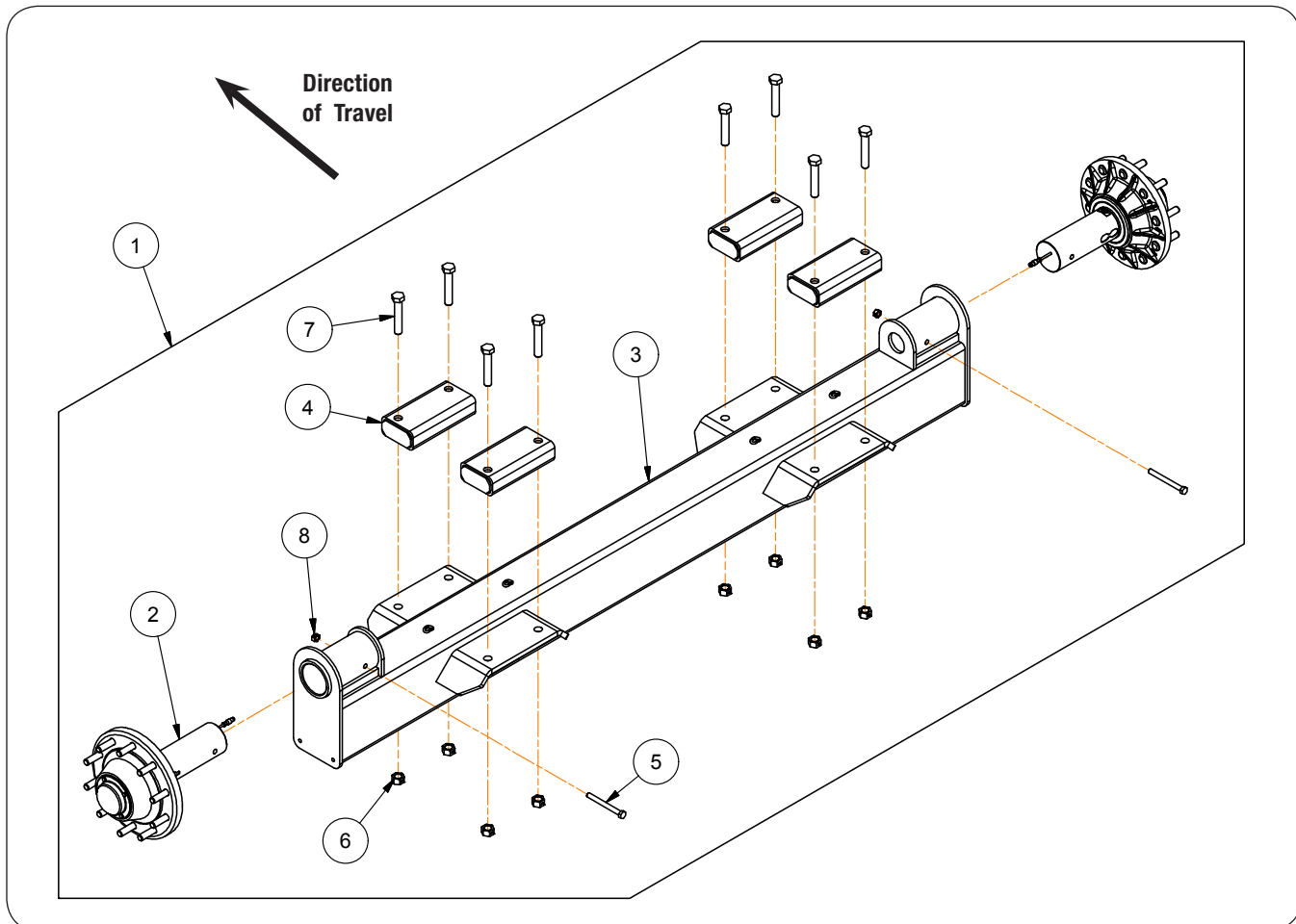
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	Rigid Axle Assembly w/out Scales (Green)	292516G	1	
	Rigid Axle Assembly w/out Scales (Red)	292516R		
	Rigid Axle Assembly w/Scales (Green)	292517G		
	Rigid Axle Assembly w/Scales (Red)	292517R		
2	Hub & Spindle Assembly w/out Scales (Green)	267284G	2	See "Hub & Spindle PARTS Page"
	Hub & Spindle Assembly w/out Scales (Red)	267284R		
	Hub & Spindle Assembly w/Scales (Green)	267280G		
	Hub & Spindle Assembly w/Scales (Red)	267280R		
3	Axle Tube Weldment =Green=	292250G	1	
	Axle Tube Weldment =Red=	292250R		
4	Cap screw 5/8"-11UNC x 7"	91299-138	2	Grade 8
5	Locknut 1"-14UNS	9008441	8	Grade 8
6	Cap screw 1"-14UNS x 3"	91299-1456	8	Grade 8
7	Locknut 5/8"-11UNC	9008440	2	Grade 8
8	Spacer Bushing	288789B	2	
9	Washer 2" Dia.	804685	16	

Rigid Axle - (SN B37730099 and Lower)

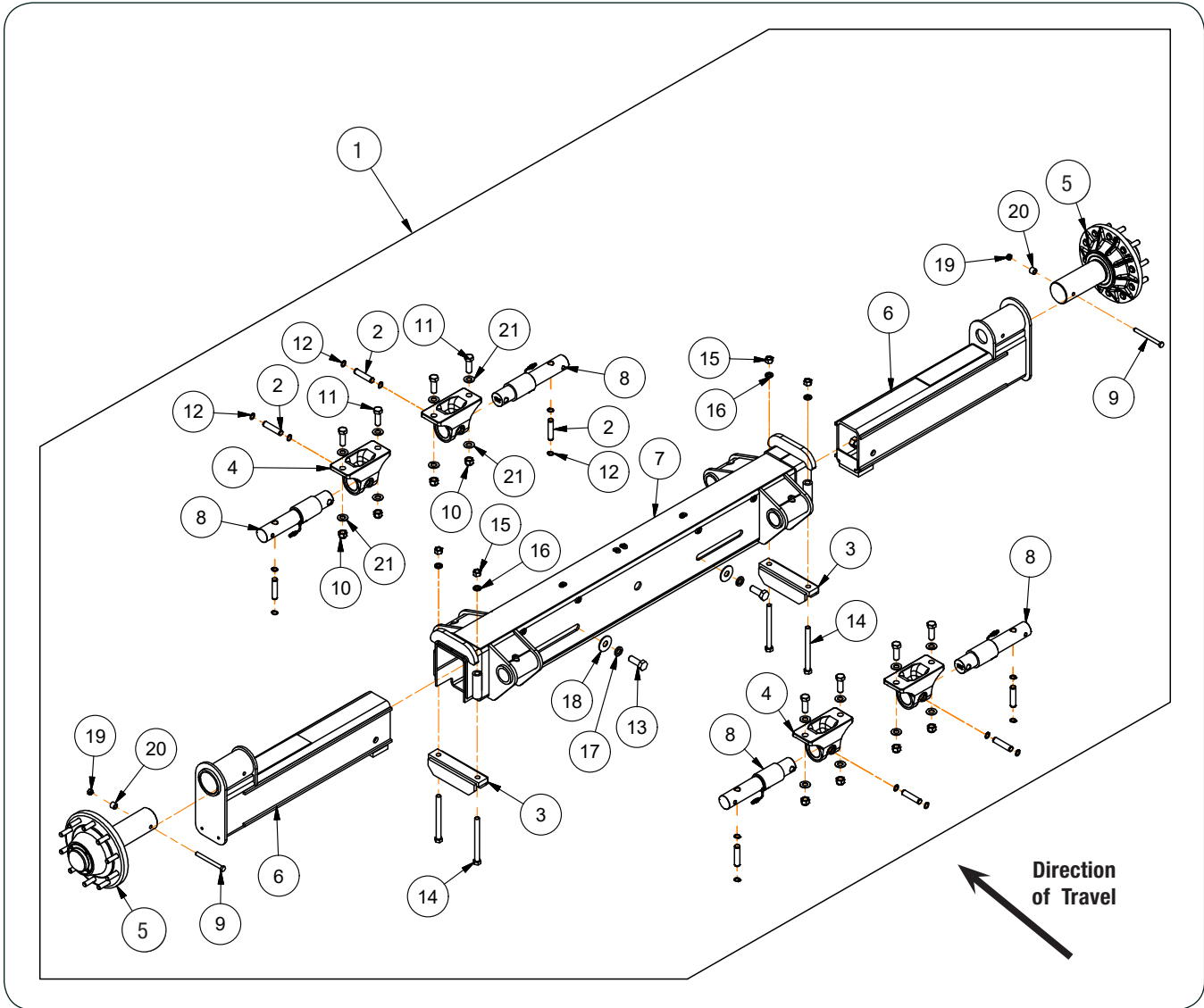
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	Rigid Axle Assembly w/out Scales (Green)	290958G	1	
	Rigid Axle Assembly w/out Scales (Red)	290958R		
	Rigid Axle Assembly w/Scales (Green)	290957G		
	Rigid Axle Assembly w/Scales (Red)	290957R		
2	Hub & Spindle Assembly w/out Scales (Green)	267284G	2	See "Hub & Spindle PARTS Page"
	Hub & Spindle Assembly w/out Scales (Red)	267284R		
	Hub & Spindle Assembly w/Scales (Green)	267280G		
	Hub & Spindle Assembly w/Scales (Red)	267280R		
3	Axle Tube Weldment =Green=	290195G	1	
	Axle Tube Weldment =Red=	290195R		
4	Axle Riser Weldment (Green)	290198G	4	
	Axle Riser Weldment (Red)	290198R		
5	Capscrew 5/8"-11UNC x 6 1/4"	9007387	2	Grade 5
6	Locknut/Center 1"-8UNC	92199	8	
7	Capscrew 1"-8UNC x 5 1/2"	9390-194	8	Grade 5
8	Locknut 5/8"-11UNC	95905	2	

Adjustable Axle - (SN B37730100 and Higher)

Please visit www.unverferth.com/parts/ for the most current parts listing.



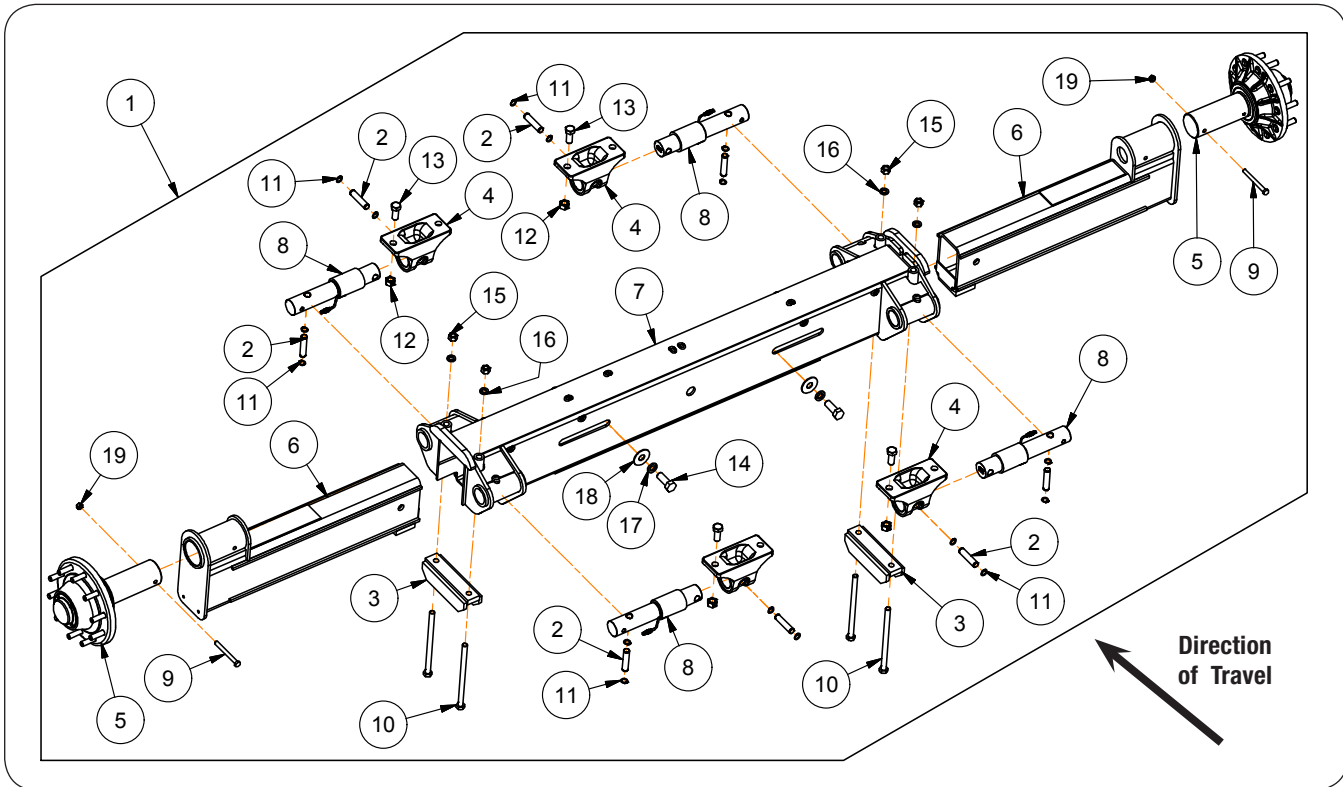
Adjustable Axle - (SN B37730100 and Higher)

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
1	Adjustable Axle Assembly w/out Scales (Green)	292518G	1	For B42740099 & Lower
	Adjustable Axle Assembly w/out Scales (Red)	292518R		
	Adjustable Axle Assembly w/out Scales (Black)	292518B		For B42740100 & Higher
	Adjustable Axle Assembly w/Scales (Green)	292519G	1	For B42740099 & Lower
	Adjustable Axle Assembly w/Scales (Red)	292519R		
	Adjustable Axle Assembly w/Scales (Black)	292519B		For B42740100 & Higher
2	Hitch Pin 1" Dia. x 4 9/16"	250843	8	
3	Axle Clamp Weldment	280293B	2	
4	Axle Mount Casting (Green)	283855G	4	
	Axle Mount Casting (Red)	283855R		
5	Hub & Spindle Assembly (Green)	267284G	2	
	Hub & Spindle Assembly (Red)	267284R		
6	Axle Extension Tube Weldment (Black)	292217B	2	
7	Adjustable Axle Weldment (Green)	292255G	1	
	Adjustable Axle Weldment (Red)	292255R		
8	Bar For Units w/out Scales	268289	4	
	Load Cell For Units w/Scales	9004903		
9	Capscrew 5/8"-11UNC x 7"	91299-138	2	Grade 8
10	Locknut 1"-14UNS	9008441	8	Grade 8
11	Capscrew 1"-14UNS x 3"	91299-1456	8	Grade 8
12	Retaining Ring 1"	91192	16	Grade 5
13	Capscrew 1 1/8"-7UNC x 3"	9390-200	2	Grade 5
14	Capscrew 7/8"-9UNC x 10"	9390-457	4	Grade 5
15	Hex Nut 7/8"-9UNC	9394-018	4	
16	Lock Washer 7/8"	9404-037	4	
17	Lock Washer 1 1/8"	9404-045	2	
18	Heavy Duty Washer 1 1/8"	289325	2	
19	Locknut/Center 5/8"-11UNC	9008440	2	

Adjustable Axle - (SN B37730099 and Lower)

Please visit www.unverferth.com/parts/ for the most current parts listing.



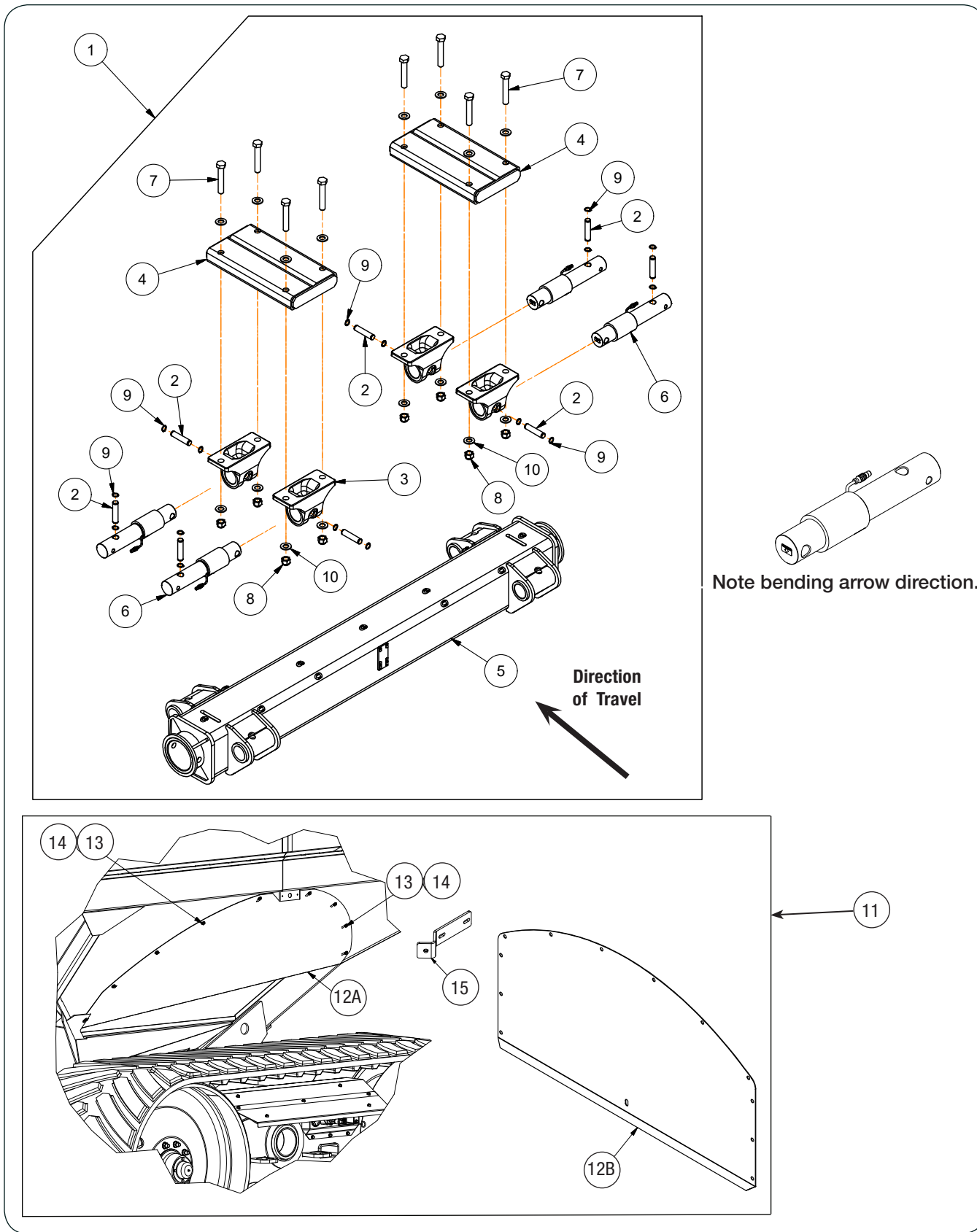
ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
1	Adjustable Axle Assembly w/out Scales (Green)	290868G	1	
	Adjustable Axle Assembly w/out Scales (Red)	290868R		
	Adjustable Axle Assembly w/Scales (Green)	290867G		
	Adjustable Axle Assembly w/Scales (Red)	290867R		
2	Hitch Pin 1" Dia. x 4 9/16"	250843	8	
3	Axle Clamp Weldment	280789B	2	
4	Axle Mount Casting (Green)	283855G	4	
	Axle Mount Casting (Red)	283855R		
5	Hub & Spindle (Green)	267284G	2	See "Hub & Spindle" Parts Pages
	Hub & Spindle (Red)	267284R		
6	Axle Extension Tube Weldment (Black)	290863B	2	
	Adjustable Axle Weldment (Green)	290866G		
7	Adjustable Axle Weldment (Red)	290866R	1	
	Bar For Units w/out Scales	268289		4
8	Load Cell For Units w/Scales	9004903		
	9	Capscrew 5/8"-11UNC x 6 1/4"	9007387	2
10	Capscrew 7/8"-9UNC x 14"	9007566	4	Grade 5
11	Retaining Ring 1"	91192	16	Grade 5
12	Locknut/Center 1"-8UNC	92199	8	
13	Capscrew 1"-8UNC x 2 1/2"	9390-185	8	Grade 5
14	Capscrew 1 1/8"-7UNC x 3"	9390-200	2	Grade 5
15	Hex Nut 7/8"-9UNC	9394-018	4	
16	Lock Washer 7/8"	9404-037	4	
17	Lock Washer 1 1/8"	9404-045	2	
18	Heavy Duty Washer 1 1/8"	289325	2	
19	Locknut/Center 5/8"-11UNC	95905	2	

Notes

Please visit www.unverferth.com/parts/ for the most current parts listing.

Track Axle Components with 5 Point Scale System
(SN B37730100 and Higher)

Please visit www.unverferth.com/parts/ for the most current parts listing.



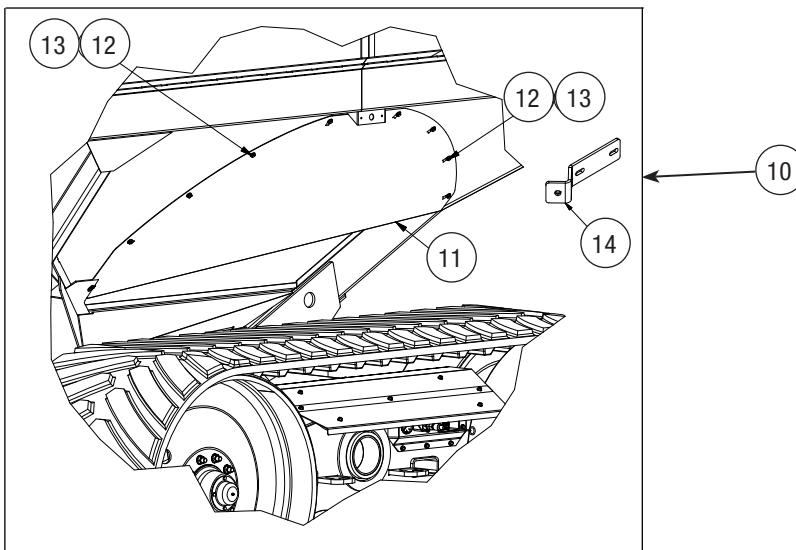
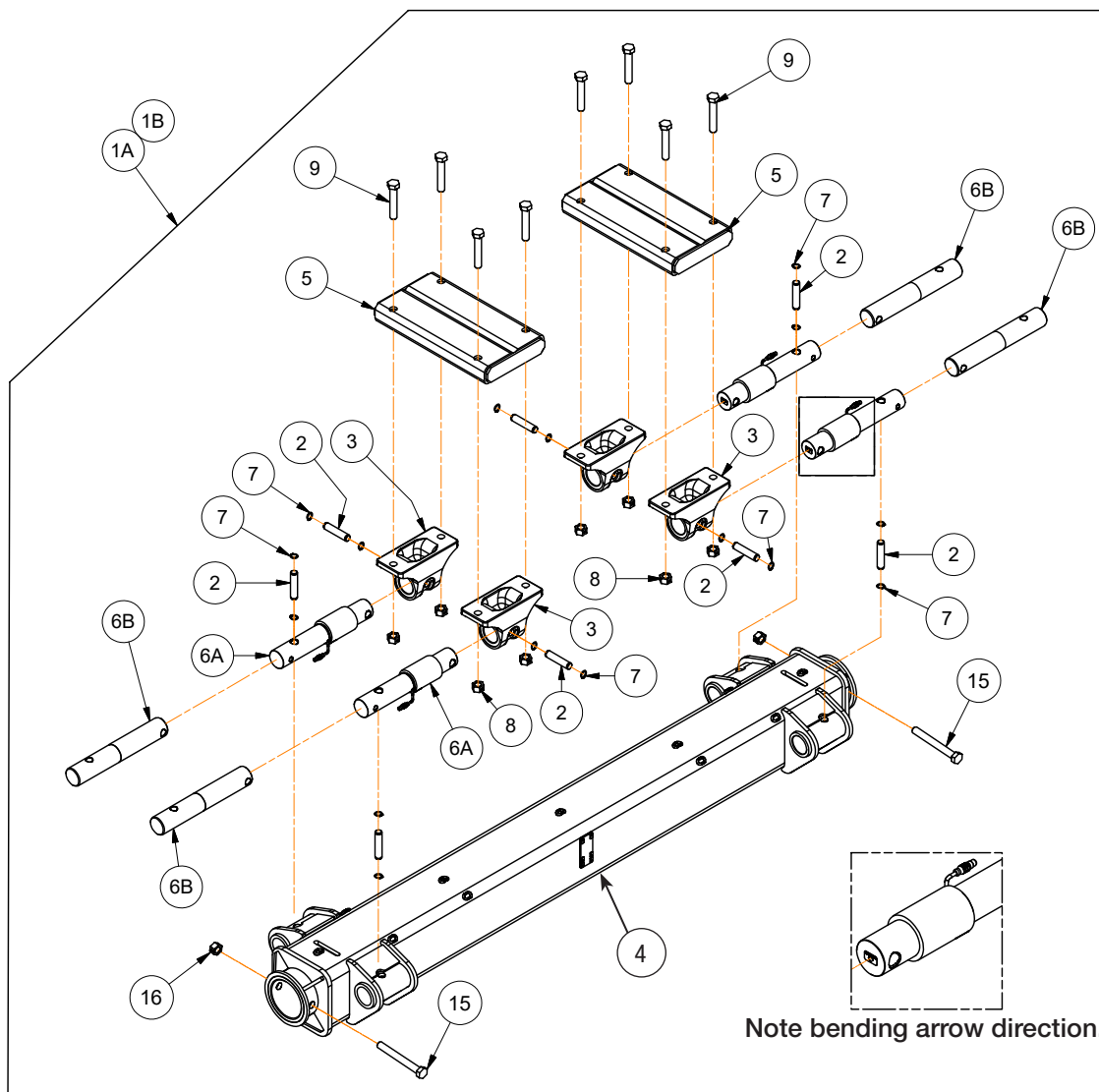
**Track Axle Components with 5 Point Scale System
(SN B37730100 and Higher)**

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NO.	QTY	NOTES
1	36" Track Axle Bundle, Scale =Black=	291394B	-	Includes Items 1-9
	42" Track Axle Bundle, Scale =Black=	292525B		
	36" Track Axle Bundle, Non-Scale =Black=	292522B	-	
	42" Track Axle Bundle, Non-Scale =Black=	292524B		
2	Pin 1" Dia. x 4 9/16	250843	8	
3	Axle Mount Casting =Black=	283855B	4	
4	Riser Weldment =Black=	287945B	2	
5	Axle Weldment =Black=	291393B	1	For 36" Track Axle (SHOWN)
	Axle Weldment =Black=	292264B		For 42" Track Axle
6	Scale Load Cell 2.875" Dia.	9004903	4	For Units with Scales (SHOWN)
	Bar 2.875" Dia.	268289		For Units without Scales
7	Capscrew 1-14UNS x 6	91299-1464	8	Grade 8
8	Locknut 1-14UNS	9008441	8	
9	Retaining Ring 1"	91192	16	
10	Washer 2" Dia.	804685	16	
11	Wheel Well Cover Kit =Green=	291561G	1	
	Wheel Well Cover Kit =Red=	291561R		
12A	Wheel Well Panel LH, =Green=	291531G	1	
	Wheel Well Panel LH, =Red=	291531R		
12B	Wheel Well Panel RH, =Green=	292482G	1	
	Wheel Well Panel RH, =Red=	292482R		
13	U-Nut, 3/8"-16UNC	9005376	22	
14	Large Flange Capscrew, 3/8"-16UNC x 3/4 Gr.5	95585	24	
15	Plate Weldment	287691B	2	

Track Axle Components with 5 Point Scale System
(SN B37730099 and Lower)

Please visit www.unverferth.com/parts/ for the most current parts listing.



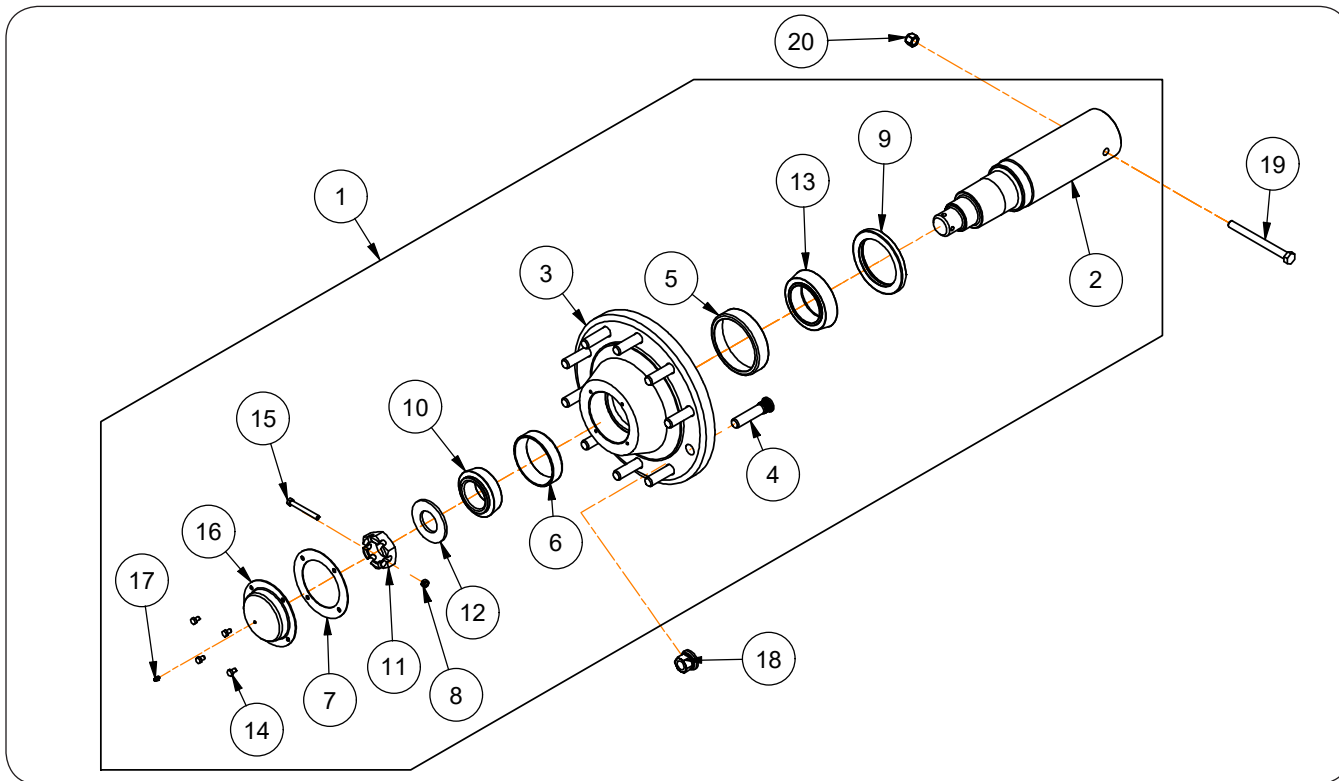
**Track Axle Components with 5 Point Scale System
(SN B37730099 and Lower)**

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NO.	QTY	NOTES
1A	Track Axle Bundle, Scale =Green=	267290G	-	Includes Items 1-5, 6A, 7-9
	Track Axle Bundle, Scale =Red=	267290R		
1B	Track Axle Bundle, Non-Scale =Green=	267291G	-	Includes Items 1-5, 6B, 7-9
	Track Axle Bundle, Non-Scale =Red=	267291R		
2	Pin 1" Dia. x 4 9/16	250843	8	
3	Axle Mount Casting =Green=	283855G	4	
	Axle Mount Casting =Red=	283855R		
4	Axle Weldment =Green=	267292G	1	
	Axle Weldment =Red=	267292R		
5	Riser Weldment =Green=	287945G	2	
	Riser Weldment =Red=	287945R		
6A	Scale Load Cell 2.875" Dia.	9004903	4	For Units with Scales
6B	Bar 2.875" Dia.	268289		For Units without Scales
7	Retaining Ring 1"	91192	16	
8	Locknut 1-8UNC	92199	8	
9	Capscrew 1-8UNC x 5 1/2	9390-194	8	Grade 5
10	Wheel Well Cover Kit =Green=	290962G	2	
	Wheel Well Cover Kit =Red=	290962R		
11	Wheel Well Panel, =Green=	290898G	2	
	Wheel Well Panel, =Red=	290898R		
12	U-Nut, 3/8"-16UNC	9005376	22	
13	Large Flange Capscrew, 3/8"-16UNC x 3/4 Gr.5	95585	24	
14	Plate Weldment	287691B	2	
15	Capscrew 1-8UNC x 8 1/2	9390-462	2	
16	Locknut 1-8UNC	92199	2	

Hub & Spindle — Rigid Axle Without Scales & Adjustable Axles

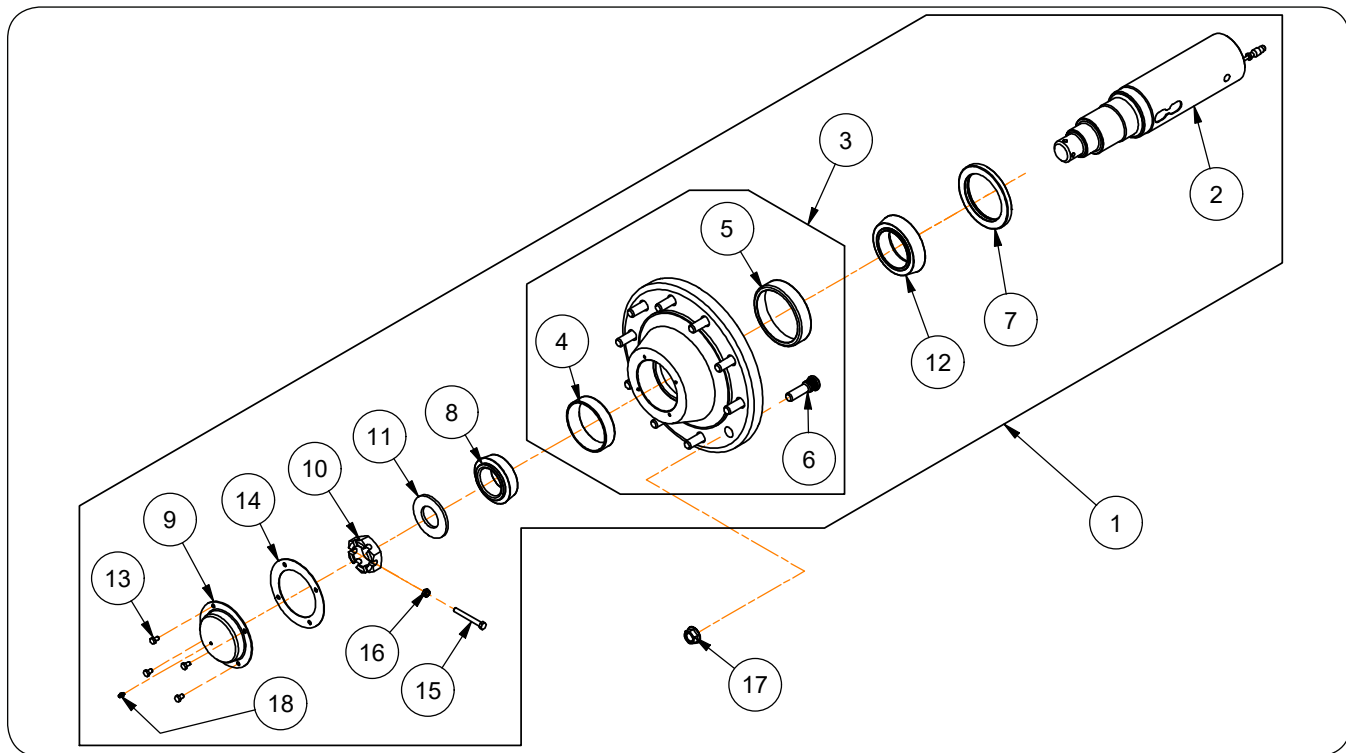
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
1	Hub & Spindle Assembly (Green)	267284G	-	Includes 2 through 17
	Hub & Spindle Assembly (Red)	267284R		
2	Spindle Dia. 4.50"	280240	1	
3	Hub Sub Assembly (Green)	265390G	1	Includes Items 4, 5, 6
	Hub Sub Assembly (Red)	265390R		
4	Stud Bolt M22x1.5x4	9007001	10	
5	Bearing Cup	92476	1	HM218210
6	Bearing Cup	92462	1	HM212011
7	Gasket	284230	1	
8	Locknut 3/8"-16UNC	902875	1	
9	Seal - 4.375" I.D.	92455	1	43605SA
10	Outer Bearing Cone	92464	1	HM212049
11	Nut	92470	1	
12	Washer	92472	1	
13	Inner Bearing Cone	92545	1	HM218248
16	Hub Cap (Green)	286171G	1	
	Hub Cap (Red)	286171R		
	Hub Cap (Black)	286171B		
17	Grease Zerk	91160	1	
18	Flanged Cap Nut M22x1.5	97319	10	
19	Cap screw 5/8"-11UNC x 7"	9390-138	1	
20	Elastic Lock Nut 5/8"-11UNC	9390-019	1	

Hub & Spindle — Rigid Axle With Scales

Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
1	Hub & Spindle Assembly (Green)	267280G	-	Includes 2 through 16 and 18
	Hub & Spindle Assembly (Red)	267280R		
2	Scale Spindle Dia. 4.50"	9006348	1	
3	Hub Sub Assembly (Green)	265390G	1	Includes Items 4, 5, 6
	Hub Sub Assembly (Red)	265390R		
4	Bearing Cup	92462	1	HM212011
5	Bearing Cup	92476	1	HM218210
6	Stud Bolt M22x1.5x4	9007001	10	
7	Seal - 4.375" ID	92455	1	43605SA
8	Outer Bearing Cone	92464	1	HM212049
9	Hub Cap (Green)	286171G	1	
	Hub Cap (Red)	286171R		
	Hub Cap (Black)	286171B		
10	Nut	92470	1	
11	Washer	92472	1	
12	Inner Bearing Cone	92545	1	HM218248
13	Capscrew 5/16"-18UNC x 1/2"	9390-026	4	Grade 5
14	Gasket	284230	1	
15	Capscrew 3/8"-16UNC x 3 1/4"	9390-064	1	Grade 5
16	Locknut 3/8"-16UNC	902875	1	
17	Flanged Cap Nut M22x1.5	97319	10	
18	Grease Zerk	91160	1	

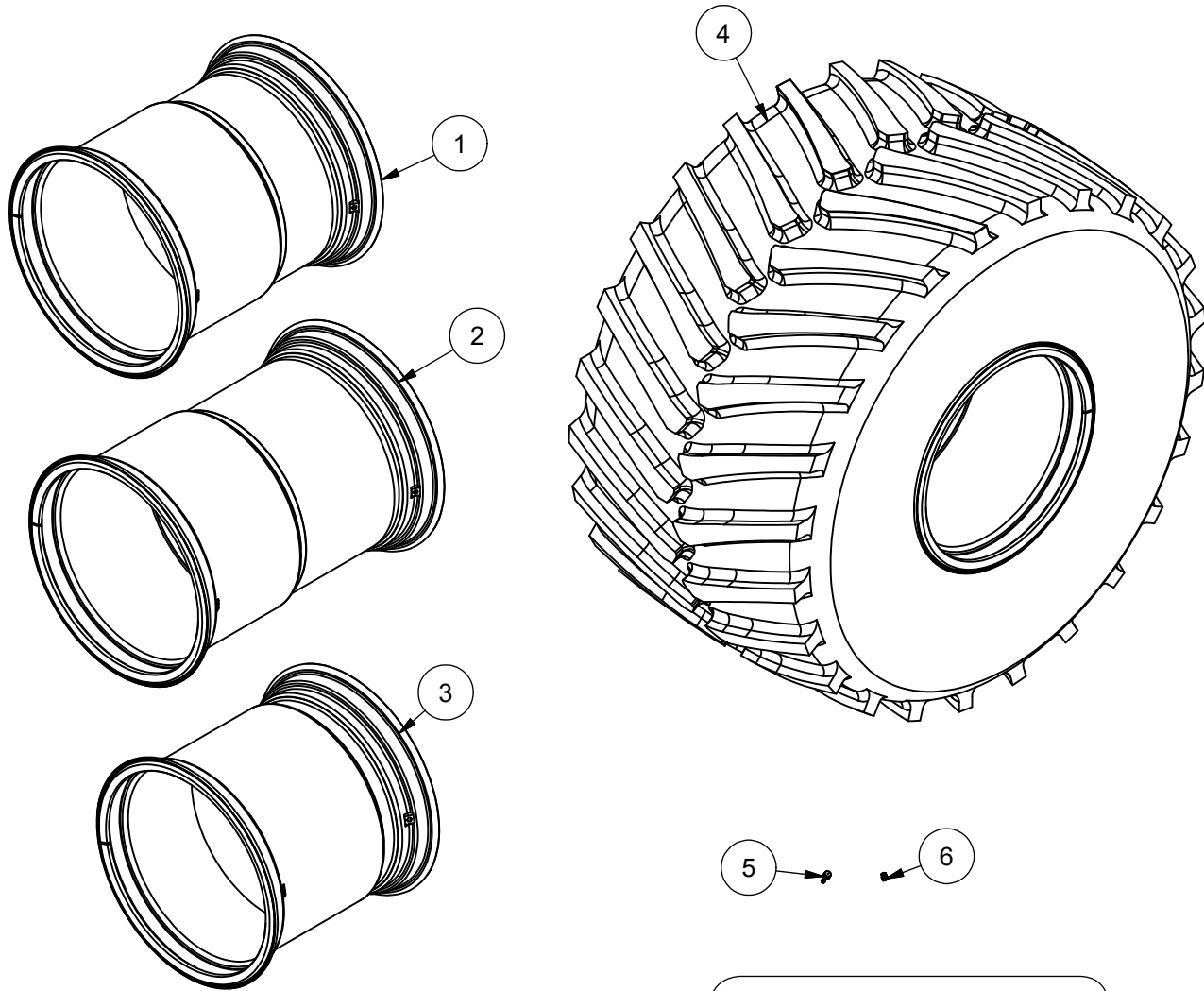
Brake Components (Optional)
(Requires tractor with Implement Braking)

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES	
1	290167B	Axle Extension Weldment, Left-Hand =BLACK=	1	SN B37730099-Lower	
1A	292496B			SN B37730100-Higher	
2	290760B	Axle Extension Weldment, Right-Hand =BLACK=	1	SN B37730099-Lower	
2A	292945B			SN B37730100-Higher	
3	9004762	Brake Assembly	2	Includes 3A, 3B, & 3C	
	3A	9007135	Brake Pad - Outer	1	Quantity Per Brake Caliper (Not Shown)
	3B	9007136	Brake Pad - Inner	1	
	3C	9007137	Seal Kit	1	
4	9404-033	Lock Washer 3/4"	12		
5	9390-147	Capscrew 3/4"-10UNC x 2 1/2" Grade 5	12		
6	286170G	Hub & Spindle Assembly =GREEN=	2		
	286170R	Hub & Spindle Assembly =RED=			
7	283711	Brake Rotor Plate	2		
8	9404-029	Lock Washer 5/8"	20		
9	286237	Shim	4	Use as Needed	
10	9390-348	Capscrew 5/8"-18UNF x 2" Grade 5	20		
11	9876	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	1		
12	9875	Tee 9/16-18 JIC M	1		
13	9007548	Hose 1/4 x 102 (3000 PSI)	2		
14	9007546	Hose 1/4 x 320 (3000 PSI)	1		
15	9004829	Hose Marker Sleeve = Brake Pressure	1		
16	9005174	Adapter 9/16-18 JIC Male x 3/8-19 BSPP	1		
17	9005173	Quick Coupler	1		
18	98487	Grommet	1		
19	9007162	Information Tag	1		
20	9003735	Cable Tie 11" Long	10		
21	97711	Adapter 9/16-18 JIC Male x 7/16-20 O-R Male	2		

Single Wheels & Tires

Please visit www.unverferth.com/parts/ for the most current parts listing.



TIRES
For questions regarding new tire warranty, please contact your local original equipment tire dealer. Used tires carry no warranty.

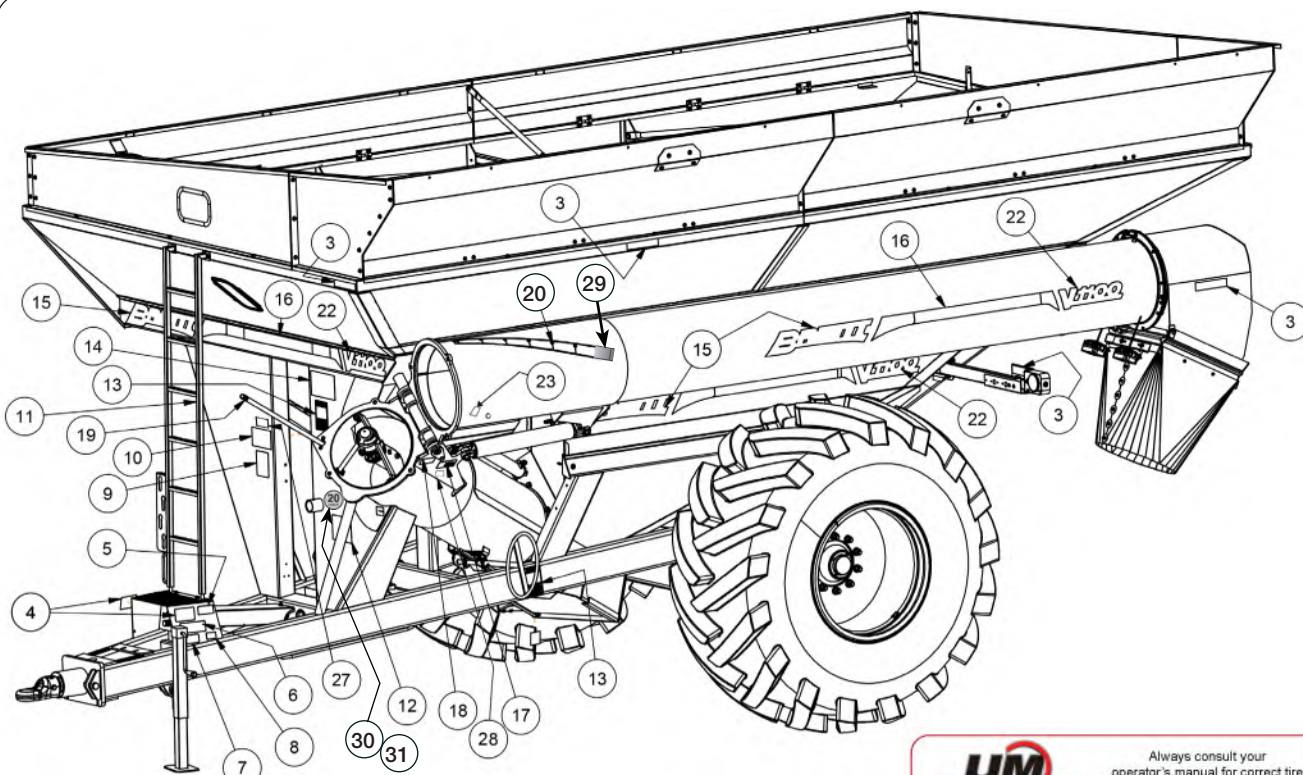
Single Wheels & Tires

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER		QTY.	NOTES
		RIGID AXLE	ADJUSTABLE AXLE		
1	Wheel Only	-	110825SM	2	36 x 32
2	Wheel Only	-	110803SM	2	44 x 32
3	Wheel Only	17939SM	17939SM	2	30 x 32
4	Wheel & Tire Assembly	17939SM/9500946	17939SM/9500946	2	30 x 32 / TLIF900/65R32 R-3 (191B)
		-	18904SM		30 x 32 / TL900/70R32 R-1W (188A8 LI)
		-	110825SM/99478		36 x 32 / TL1050/50R32 R-1W (178A8 LI)
		-	110803SM/9500992		44 x 32 / TL1250/50R32 R-1W (194A8 LI)
		-	110803SM/9501414		44 x 32 / TLIF1250/50R32 R-1W (188B LI)
			9502741SM		Left-Hand Assembly 38 x 46 / TL1100/45R46 LSW R-1W (195D)
			9502742SM		Right-Hand Assembly 38 x 46 / TL1100/45R46 LSW R-1W (195D)
5	Valve Stem	93300	93300	1	
6	Valve Plug	95365	95365	1	

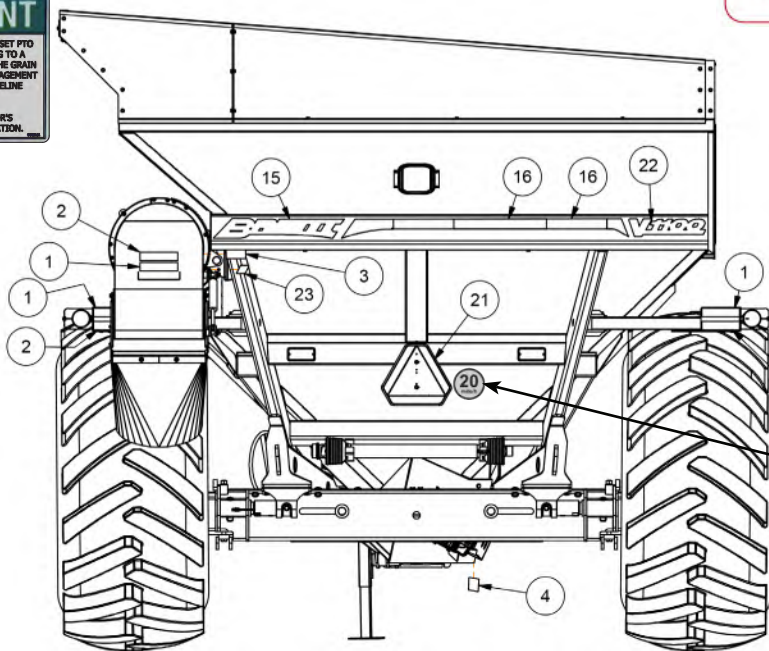
Decals

Please visit www.unverferth.com/parts/ for the most current parts listing.



IMPORTANT
 BEFORE GRAIN CART OPERATION, SET PTO CONTROL ENGAGEMENT SETTING TO A MINIMUM TO AVOID DAMAGE TO THE GRAIN CART DRIVELINE. ABRUPT PTO ENGAGEMENT CAN DAMAGE GRAIN CART DRIVELINE COMPONENTS.
 CONSULT TRACTOR OPERATOR'S MANUAL FOR SETTING INFORMATION.

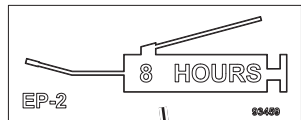
26



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Always consult your operator's manual for correct tire pressure and wheel hardware torque specifications.

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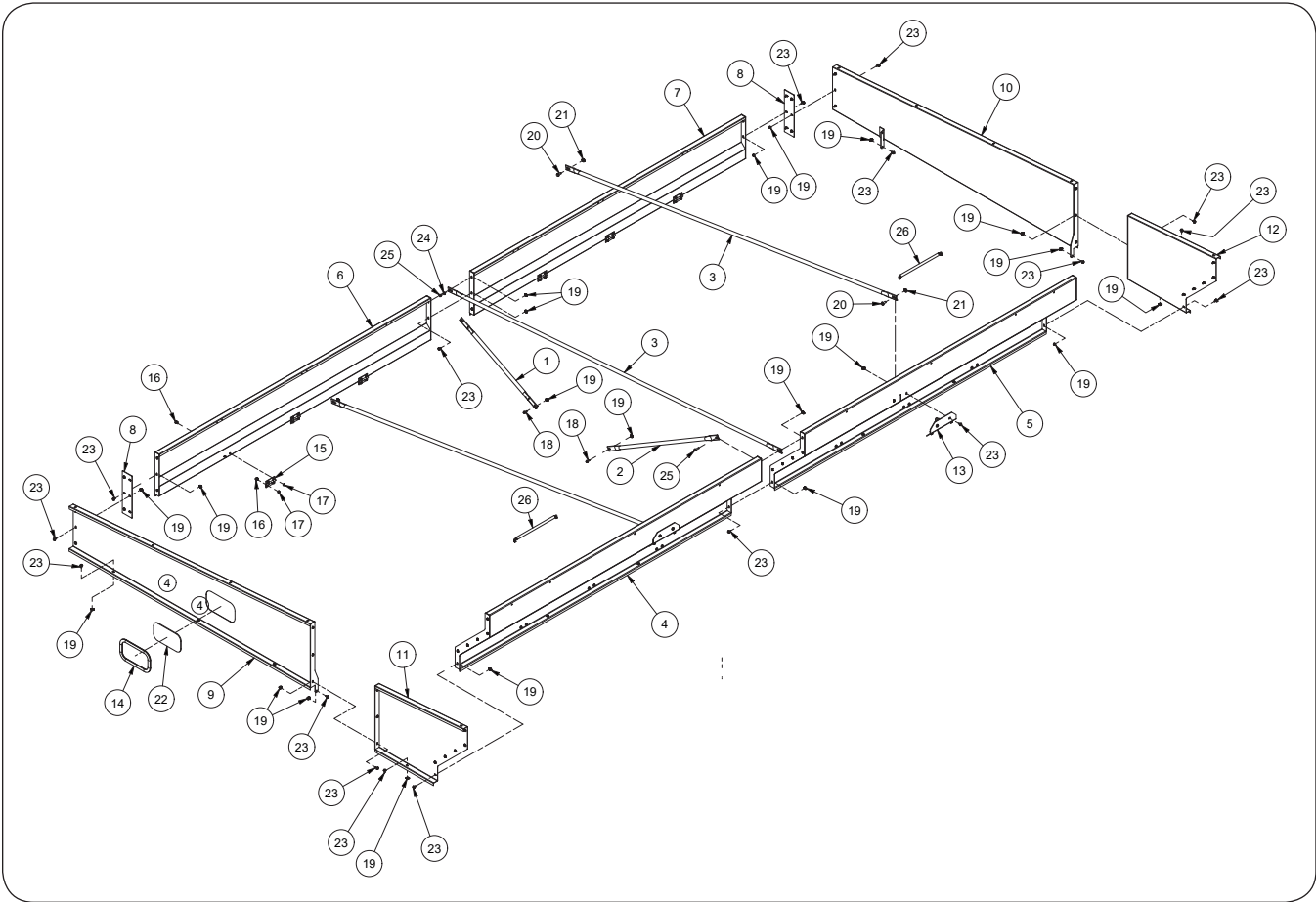
Decals

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	Fluorescent Strip	9003125	3	2 x 9"
2	Red Reflector	9003126	3	2 x 9"
3	Amber Reflector	9003127	8	2 x 9"
4	Decal, DANGER "Drive Shaft Entanglement"	95046	3	
5	Decal, WARNING "Read & Understand"	97961	1	
6	Decal, WARNING "Tongue Drop"	94094	1	
7	Decal, CAUTION "Transport Chain"	97575	1	
8	Decal, IMPORTANT "Shear-Bolts"	9003574	1	Prior to Serial Number B38140100
9	Decal, DANGER "Just For Kids"	9003478	1	
10	Decal, WARNING "No Riders"	9003476	1	
11	Decal, FEMA	91605	1	
12	Decal, IMPORTANT "Flow Control Gate"	9003477	1	
13	Decal, WARNING "PTO Cut & Crush"	9003475	2	
14	Decal, DANGER "Electrical Lines"	9003474	1	
15	Decal, Brent Logo - 5.5 x 43	9006360	5	
16	Decal, Stripe - 2.73 x 36.50	9006361	10	
17	Decal, WARNING "High-Pressure"	95445	1	
18	Decal, WARNING "Pinch Point"	95839	1	
19	Decal, Reflective Checker Tape	265384	1	
20	Decal, Flow Control 3" x 38"	92563	1	
21	SMV Sign	TA510514	1	
22	Decal, V1100	9007734	5	
23	Decal, WARNING "Moving Parts"	TA1-906109-0	2	
24	Decal, UM Wheel Systems	94754	1	
25	Decal, 8 Hours Grease	93459	1	
26	Decal, IMPORTANT "PTO Engagement"	9008151	1	Prior to Serial Number B38140100
27	Decal, CAUTION "Slippery Surface"	95008	1	
28	Decal, IMPORTANT "Grease U-Joint Bearing"	9008447	1	Beginning with Serial No. B38280100
29	Decal, Max Flow	9008908	1	
30	Decal, Front SIS 20 MPH	9008715	1	
31	Decal, Front SIS 30 KPH	9008721	1	
32	Decal, Rear SIS 20 MPH	9008714	1	Use Items 34, 35 and 36
33	Decal, Rear SIS 30 KPH	9008720	1	
34	SIS Decal Mounting Bracket =Black=	276987B	1	Not Shown
35	Flange Screw 1/4"-20UNC x 3/4" G5	97420	2	
36	Hex Nut 1/4"-20UNC	97189	2	

Sideboards

Please visit www.unverferth.com/parts/ for the most current parts listing.



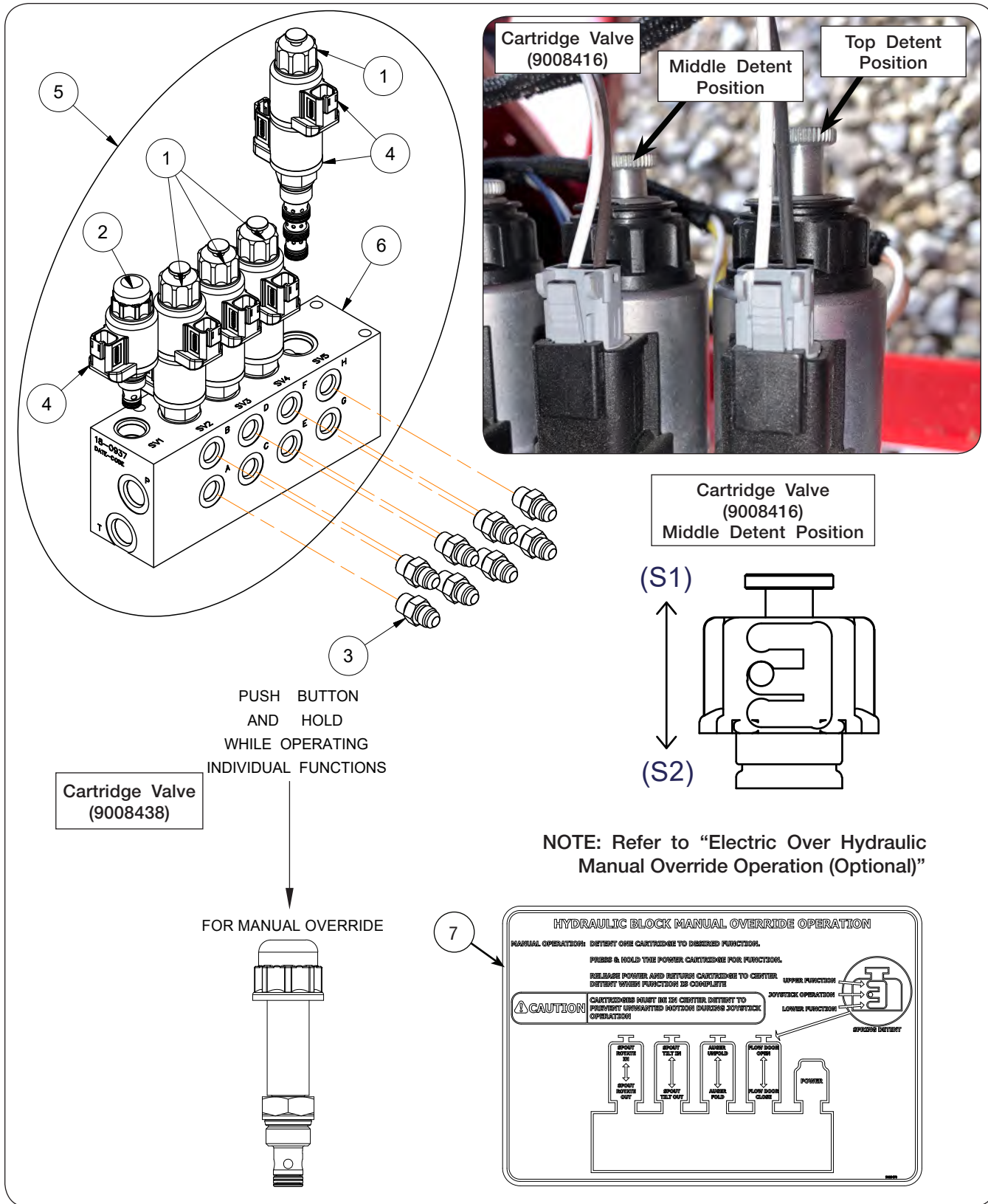
Sideboards

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	Tube, Angle Brace/Sideboard Support 39 7/8"	220032B	1	
2	Tube, Angle Brace/Sideboard Support 59 1/2"	287524B	1	
3	Tube, Angle Brace/Sideboard Support 156"	289981B	3	Beginning with Serial No. B40920100
	Tube, Angle Brace/Sideboard Support 155"	287586B	2	Prior to Serial No. B40920100
4	Sideboard, Front LH	291317B	1	Beginning with Serial No. B37020100
		287759B		Prior to Serial No. B37020100
5	Sideboard, Rear LH	291319B	1	Beginning with Serial No. B37020100
		287761B		Prior to Serial No. B37020100
6	Sideboard, Front RH	291322B	1	Beginning with Serial No. B37020100
		287764B		Prior to Serial No. B37020100
7	Sideboard, Rear RH	291324B	1	Beginning with Serial No. B37020100
		287766B		Prior to Serial No. B37020100
8	Bolt Plate	291329B	2	Beginning with Serial No. B37020100
		287782B		Prior to Serial No. B37020100
9	Sideboard Front Weldment	291332B	1	Beginning with Serial No. B37020100
		287784B		Prior to Serial No. B37020100
10	Sideboard Rear Weldment	291334B	1	Beginning with Serial No. B37020100
		287785B		Prior to Serial No. B37020100
11	Small Sideboard, Front	291337B	1	Beginning with Serial No. B37020100
		287789B		Prior to Serial No. B37020100
12	Small Sideboard, Rear	291339B	1	Beginning with Serial No. B37020100
		287790B		Prior to Serial No. B37020100
13	Brace Weldment	287792B	2	
14	Window Molding	250431	1	
15	Hinge	9004626	12	
16	Flange Bolt 5/16-18UNC x 3/4	91256	48	
17	Flange Nut 5/16-18UNC	91257	48	
18	Screw/Large Flange 3/8-16UNC x 1	91262	2	Beginning with Serial No. B40920100
			14	Prior to Serial No. B40920100
19	Nut/Large Flange 3/8-16UNC	91263	82	
20	Flange Screw 1/2"-13UNC x 1 1/4"	91266	4	
21	Flange Nut 1/2"-13UNC	91267	4	
22	Window, 1/4 x 7 1/16 x 12 5/8	92403	1	
23	Capscrew/Large Flange 3/8-16UNC x 3/4	95585	67	
24	Flat Washer 3/8	9405-076	2	Beginning with Serial No. B40920100
25	Flange Screw 3/8"-16UNC x 1 1/2"	95785	2	Beginning with Serial No. B40920100
26	Gas Shock	9008198	2	

EOH Valve Assembly Components 4 Spool (Optional)

Please visit www.unverferth.com/parts/ for the most current parts listing.



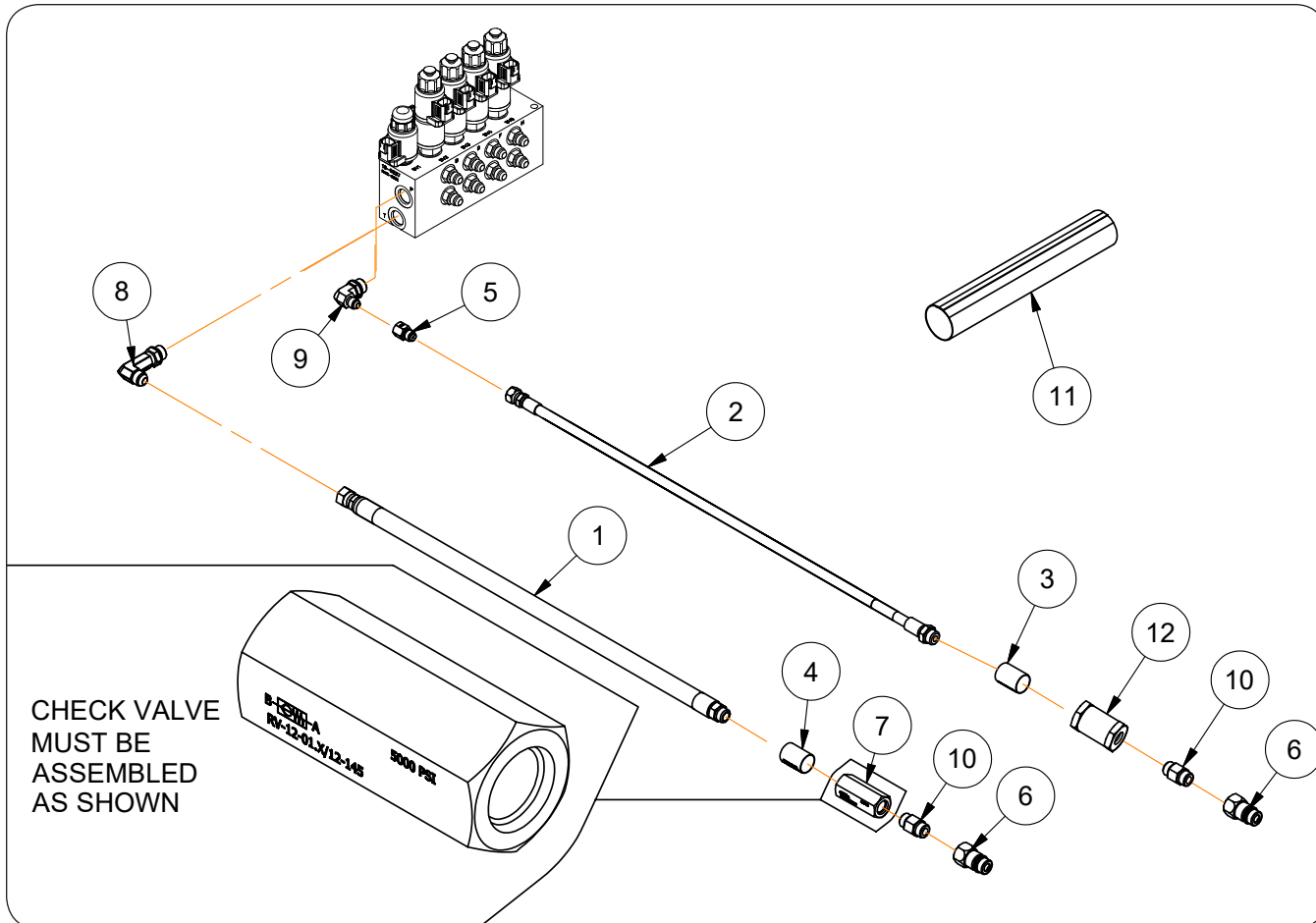
EOH Valve Assembly Components 4 Spool (Optional)

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
1	9008416	Cartridge Valve - 4 Way, 3 Position - Closed Center w/Detented Manual Override	4	
	9003906	Seal Kit	-	
2	9008438	Cartridge Valve - 2 Way, 2 Position w/Push Type Manual Override	1	
	9003904	Seal Kit	-	
3	9001495	Adapter 9/16-18 JIC Male x 9/16-18 O-Ring Male	8	
4	9005769	Coil - 12 VDC DN-40	9	
5	9008374	4 Spool Hydraulic Block Assembly	1	Includes Items 1, 2, 4, and 6
6	9008366	Manifold Block - 4 Spool	1	
7	9009470	Decal, Valve Block Caution	1	

EOH Tractor Circuit Hydraulic Components (Optional)

Please visit www.unverferth.com/parts/ for the most current parts listing.

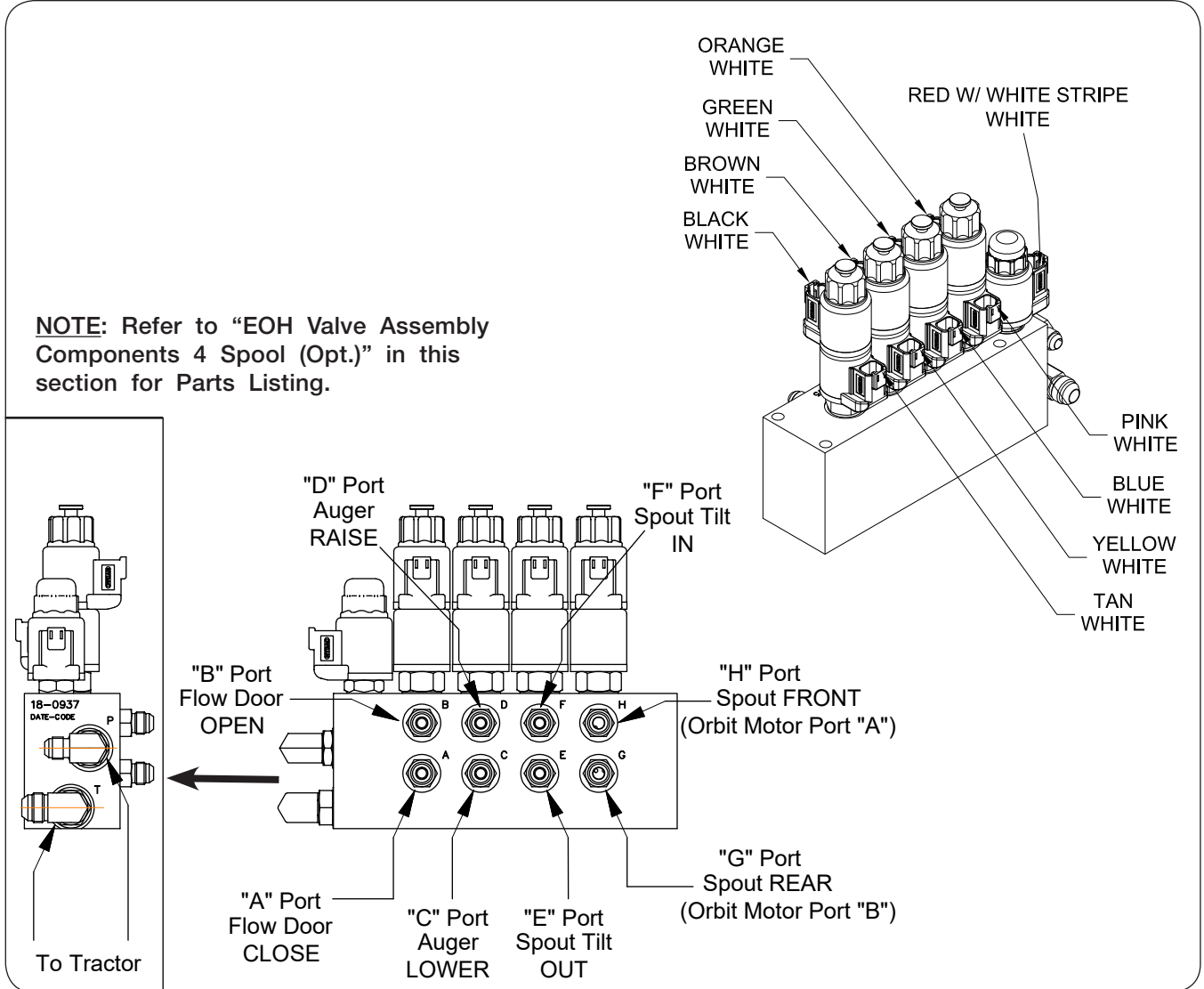


ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
1	9002283	Hydraulic Hose, 1/2 x 194" - 3000 PSI	1	
2	9007842	Hydraulic Hose, 1/4 x 196" - 3000 PSI	1	
3	9005982	Hydraulic Pressure Hose Marker	1	
4	9005983	Hydraulic Return Hose Marker	1	
5	9006527	JIC Tube Reducer, 9/16-18 UNF Male x 9/16-18 UNF Female	1	
6	91383	Male Tip Coupling, 3/4-16	2	
7	9006994	Check Line Valve 145 PSI	1	
8	901568	90° Elbow 3/4-16 JIC Male x 3/4-16 O-Ring ADJ Male	1	
9	9874	90° Elbow 9/16-18 JIC Male x 3/4-16 O-Ring ADJ Male	1	
10	98508	Adapter 3/4-16 O-Ring Male x 3/4-16 O-Ring Male	2	
11	9003848	Velcro Hose Wrap, 2" ID x 127" Lg.	1	
12	9005403	120 Micron Hydraulic Filter	1	

**Optional Electric Over Hydraulic Valve Electric Schematic
4 Spool**

Please visit www.unverferth.com/parts/ for the most current parts listing.

NOTE: Refer to “EOH Valve Assembly Components 4 Spool (Opt.)” in this section for Parts Listing.



PORT	END OF CYLINDER	FUNCTION
A	BUTT END	FLOW DOOR CLOSE
B	RAM END	FLOW DOOR OPEN
C	RAM END	AUGER FOLD LOWER
D	BUTT END	AUGER FOLD RAISE
E	RAM END	SPOUT TILT OUT
F	BUTT END	SPOUT TILT IN
G	ORBIT MOTOR PORT B	SPOUT REAR
H	ORBIT MOTOR PORT A	SPOUT FRONT
P		TRACTOR PRESSURE
T		TRACTOR RETURN

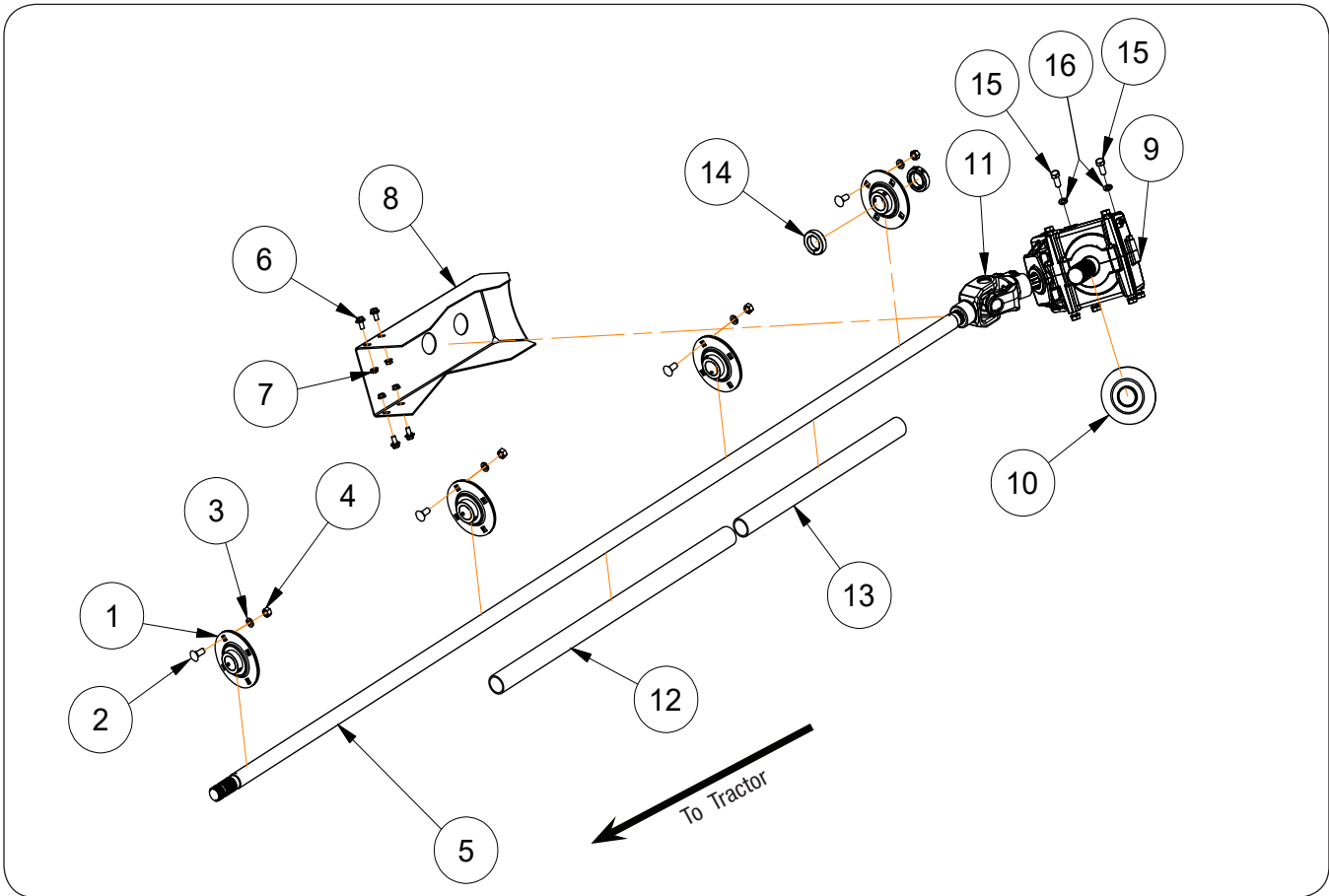
Electrical

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
1	Wiring Harness, Front 180"	9007892	1	
2A	Tail Light RH Sub Assembly =BLACK=	290714B	1	Includes Items 3A, 4 through 12, 13A, 14, 15 For SN B37730099-Lower
		292358B		
2B	Tail Light LH Sub Assembly =BLACK=	290715B	1	Includes Items 3B, 4 through 12, 13B, 14, 15 For SN B37730099-Lower
		292357B		
3A	RH Plate =BLACK=	251406B	1	
3B	LH Plate =BLACK=	251407B	1	
4	LED Light, Amber - Double Face	9005142	2	
5	Amber Reflector	9003127	7	2 x 9"
6	Red Reflector	9003126	2	2 x 9"
7	Fluorescent Strip, Red-Orange	9003125	2	2 x 9"
8	Capscrew, 1/4-20UNC x 3/4	9390-003	4	
9	Flat Washer, 1/4	9405-064	8	
10	Lock Washer, 1/2	9404-017	8	
11	Hex Nut, 1/4-20UNC	9394-002	8	
12	Capscrew, 1/4-20 UNC x 2	9390-009	4	
13A	RH Light Bracket Weldment Kit (BLACK)	292719B	1	Includes Items 5 through 7
13B	LH Light Bracket Weldment Kit (BLACK)	292718B	1	
14	Micro Dot Amber Light (LED)	9006107	2	
15	Tube, Light =BLACK=	280370B	2	
16	Cable Tie, 21 1/2"	9000104	2	
17	Cable Tie, 7 1/2"	9000106	9	
18	Cable Tie, 14 1/2"	9000107	2	
19	Locking Flange Nut 1/2"-13UNC	9003397	2	
20	Micro Dot Amber Light (LED)	9006107	2	
21	Red Light- Tail/Turn (LED)	9006282	2	
22	Work Light (LED)	9008957	3	Includes Items 23 through 29
23	Capscrew 3/8-16UNC x 1	9390-055	1	
24	Flat Washer 3/8"	9405-078	1	
25	Lock Washer 3/8"	9404-021	1	
26	Hex Nut 3/8-16UNC	9394-006	1	
27	Capscrew 5/16-18UNC x 2	9390-034	1	
28	Lock Washer 5/16"	9404-019	1	
29	Hex Nut 5/16-18UNC	9394-004	1	
30	Proximity Switch	9007472	1	
31	Wiring Harness, Rear 219"	9007894	1	
32	Electrical Coupler	92450	1	
33	Capscrew 1/2"-13UNC x 4 1/2	9390-112	2	
34	Pan Head Machine Screw, #10-32UNF x 1 1/4	903172-350	4	
35	Split Lock Washer, #10	9404-013	4	
36	Hex Nut #10-32 Grade 2	9830-016	4	
37	Wiring Harness - Auger Light 440"	9007893	1	For SN B40920099-Lower
	Wiring Harness - Auger Light 382"	9009107		
38	Lock Washer - External Tooth	9004981	1	
39	Capscrew 1/4-20UNC x 3/4	9390-003	1	
40	Hex Nut 1/4-20UNC	9394-002	1	
41	Lock Washer 1/4"	9404-017	1	
42	Light Bracket =BLACK=	271574B	1	
43	Truss Head Machine Screw 3/8-16UNC x 1	9005312	1	For SN B40920099-Lower
	Truss Head Machine Screw 3/8-16UNC x 1 1/4	9009089		
44	Nut/Large Flange 3/8-16UNC	91263	1	
45	Hydraulic Block Assembly 4 Spool	291585	1	
46	Harness - Main	9008403	1	
47	Harness - Extension	9006233	1	
48	Harness - Power	9008402	1	
49	L-Series Control Grip - 4 Function	9008378	1	

Drive Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



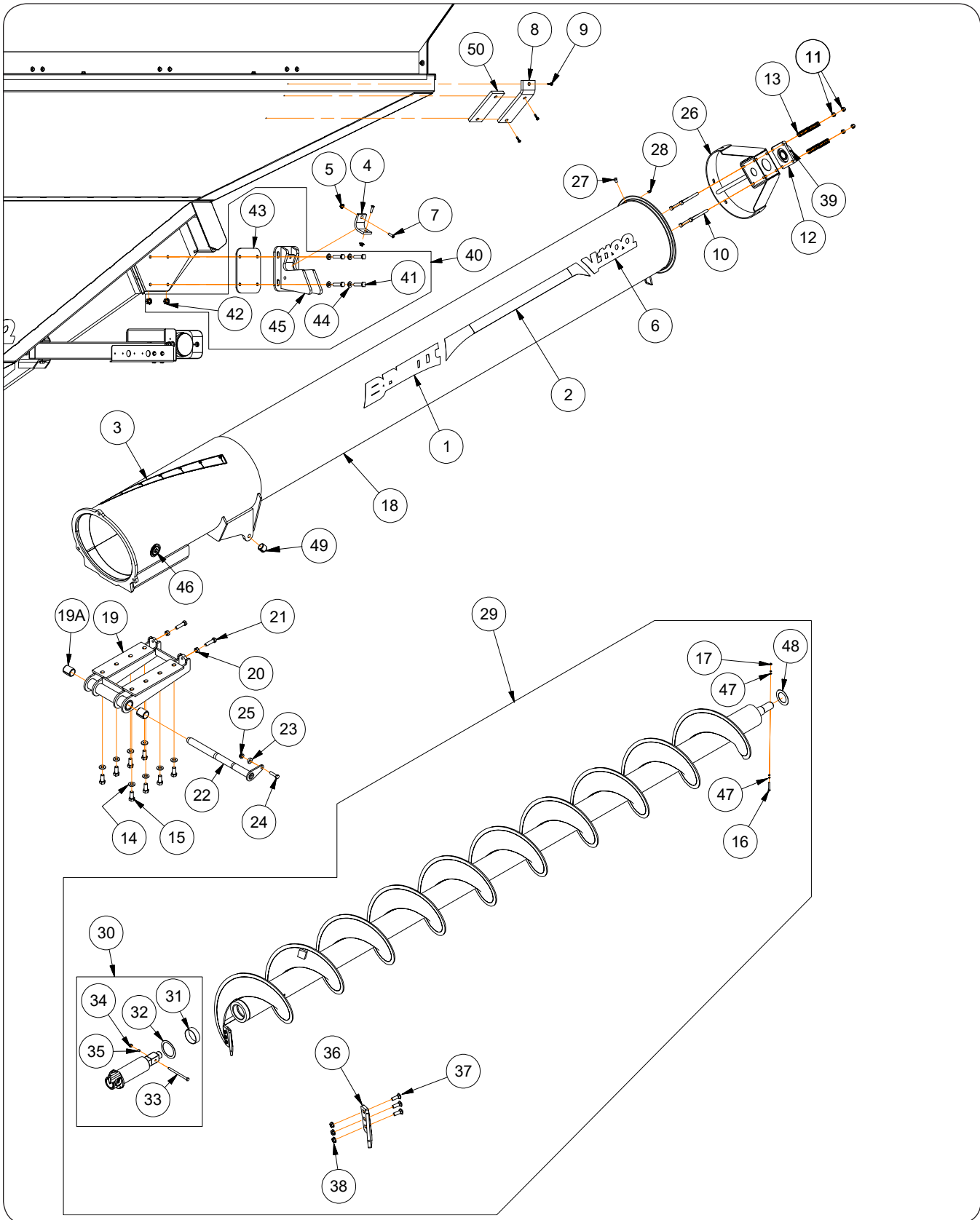
Drive Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	1 1/2" Flangette Bearing	9003920	4	
2	Carriage Bolt 1/2"-13UNC x 1 1/4"	9388-103	16	
3	Lock Washer 1/2"	9404-025	16	
4	Hex Nut 1/2"-13UNC	9394-010	16	
5	Drive Shaft Replacement Kit	289787	1	Serial Number B39580149 & Higher 1 3/8-21 Splined Includes Items 1 - 4, 12 - 14
	Drive Shaft Replacement Kit	289769	1	Prior to Serial Number B39580149 1 3/8-21 Splined Includes Items 1 - 4, 12 - 14
6	Screw/Large Flange 3/8"-16UNC x 3/4"	95585	4	
7	Locknut/Top 3/8"-16UNC	9003396	4	
8	U-Joint Cover =BLACK=	293392B	1	Serial Number B39580149 & Higher
		290720B		Prior to Serial Number B39580149
9	Gearbox 45°	9009053	1	Refer to "45 Degree Gearbox - For 20 Spline Shaft" in this Section for Parts Listing
		9002812		Refer to "45 Degree Gearbox - For 6 Spline Shaft" in this Section for Parts Listing
10	Gearbox Dust Cover =BLACK=	92805B	1	
11	U-Joint Assembly	9009064	1	For 20 Spline Shaft
		9008741		For 6 Spline Shaft
		9007809		Serial Number B37730100 - B39580148
		291149		Refer to "Driveline U-Joint Assembly" in this Section for Parts Listing for SN B37730099-Lower (U-Joint Replacement Kit)
12	Tube 1 1/2" SCH 40 x 36"	291554	1	
13	Tube 1 1/2" SCH 40 x 26 3/4"	293391	1	
14	Shaft Collar 1 1/2" Bore	9008671	2	
15	Capscrew 1/2"-13UNC x 1 1/4" Gr.5	9390-100	8	
16	Lock Washer 1/2"	9404-025	8	

Upper Auger Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



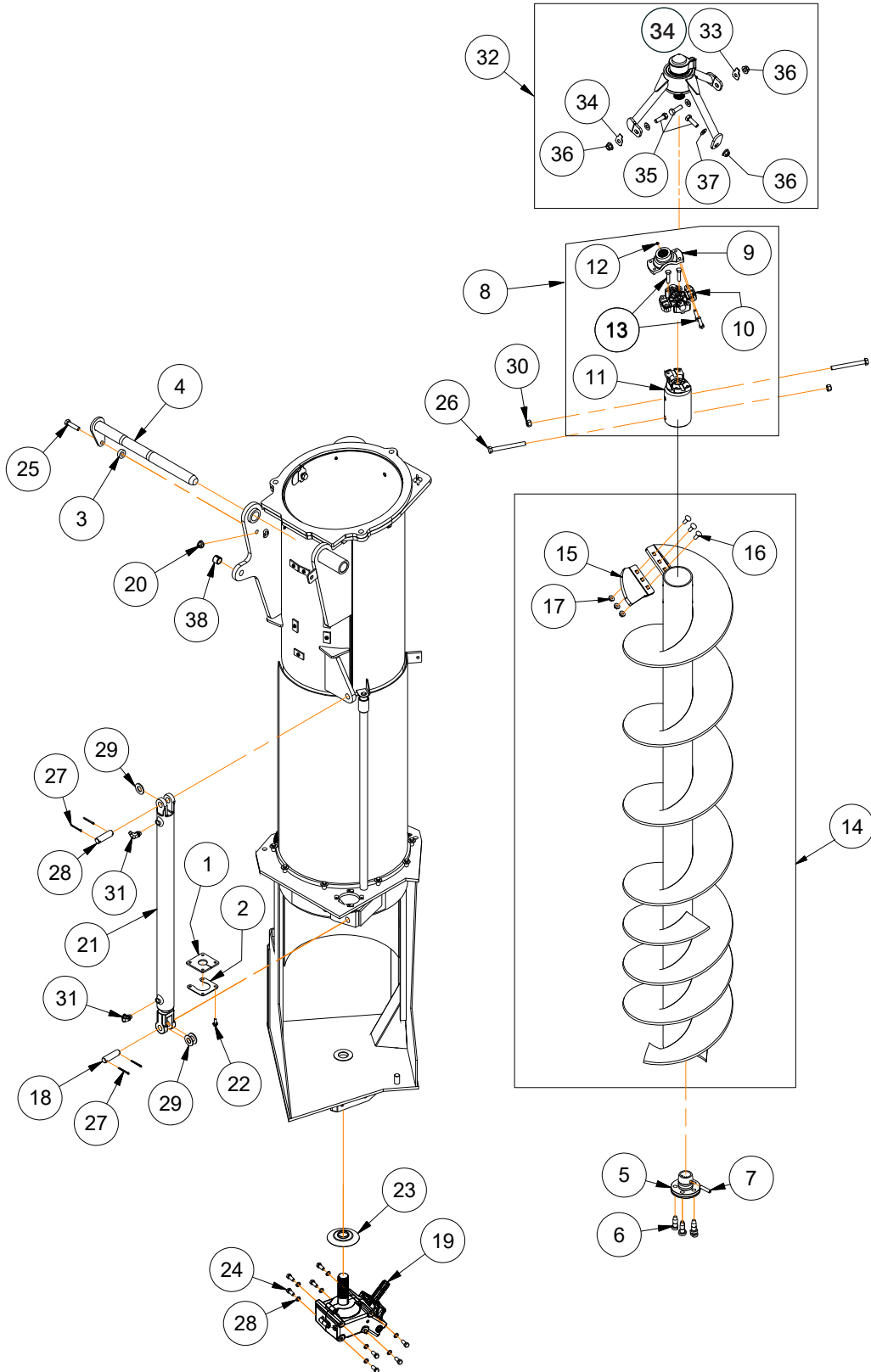
Upper Auger Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES	
1	9006360	Decal, Brent Logo (5 1/2" x 43")	5		
2	9006361	Decal, Stripe (2.73" x 36.5")	10		
3	92563	Decal, Flow Control (3" x 38")	1		
4	9004263	Stop Pad (2" x 4 3/8")	1		
5	91257	Hex Nut/Large Flange 5/16"-18UNC	17		
6	9007734	Decal, V1100	5		
7	903171-662	Flat Phillips Head 5/16"-18UNC x 1 1/4" Machine Screw	2		
8	291133	Poly Bumper	1		
9	9512	Self Drill Screw, 1/4"-14 x 1"	3		
10	9390-136	Capscrew 5/8"-11UNC x 6" G5	6		
11	9801	Locknut/TOP 5/8"-11UNC	6		
12	9002492	Flanged Bearing 2" Dia.	1		
13	9004899	Compression Spring	4		
14	97041	Flat Washer 7/8" Nom.	8		
15	9390-164	Capscrew 7/8"-9UNC x 2" G5	8		
16	9390-037	Capscrew 5/16"-18UNC x 2 3/4" G5	1		
17	901527	Locknut/CENTER 5/16"-18UNC	1		
18	290908G	Upper Auger Housing Weldment =GREEN=	1		
	290908R	Upper Auger Housing Weldment =RED=			
19	286984G	Upper Auger Pivot Weldment =GREEN=	1		
	286984R	Upper Auger Pivot Weldment =RED=			
19A	9004980	Split Tension Bushing	2		
20	9394-016	Hex Nut 3/4"-10UNC	2		
21	94733	Capscrew 3/4"-10UNC x 3" G5 (Full Threaded)	2		
22	268946	Pivot Shaft Weldment	1		
23	268896	Bushing Spacer	1		
24	9390-126	Capscrew 5/8"-11UNC x 2 1/2" G5	1		
25	9003398	Flange Locknut/TOP 5/8"-11UNC	1		
26	290990B	Hanger Bearing Weldment =BLACK=	1		
27	9388-102	Carriage Bolt 1/2"-13UNC x 1" G5	4		
28	9003397	Locking Flange Nut 1/2"-13UNC G5	4		
29	291667B	Upper Auger Replacement Kit =BLACK=	1	Includes Items 30 through 38	
30	281682	Soft Start Kit	1	Includes Items 31 through 35	
	31	9004877	Self Lubricating Bushing	1	
	32	9004878	Self Lubricating Thrust Washer	1	
	33	9390-119	Capscrew 1/2"-13UNC x 8" G5	1	Includes Items 33, 34, 35 (For SN B36860100 & Higher)
		293428	Retaining Bolt Replacement Kit		Includes Items 33, 34, 35 (For SN B36860099 & Lower)
		9390-117	Capscrew 1/2"-13UNC x 7" G5		
		293437	Retaining Bolt Replacement Kit		
	34	9800	Locknut/TOP 1/2"-13UNC	1	
	35	410511	Spacer Bushing	1	
	36	293466B	Extension Plate Replacement Kit =BLACK=	1	
37	9388-104	Carriage Bolt 1/2"-13UNC x 1 1/2" G5	3		
38	9003397	Locking Flange Nut 1/2"-13UNC	3		
39	93426	Grease Zerk	1		
40	291792G	Rest Bracket Kit =Green=	1	Includes Items 41 through 45	
	291792R	Rest Bracket Kit =Red=			
41	9390-105	Capscrew, 1/2"-13UNC x 2 1/2" G5	4		
42	91267	Flange Nut, 1/2"-13UNC	4		
43	291586G	Shim Plate =Green=	AR		
	291586R	Shim Plate =Red=			
44	9405-086	Flat Washer, 1/2" SAE	AR		
45	288494G	Auger Rest Weldment =GREEN=	1		
	288494R	Auger Rest Weldment =RED=			
46	9008430	Socket Plug	1		
47	9405-068	Flat Washer 5/16"	4		
48	93974	Flat Washer 2"	AR		
49	91268	Split Tension Bushing	1		
50	294648B	Spacer Bumper =BLACK=	1		

Lower Auger Components

Please visit www.unverferth.com/parts/ for the most current parts listing.



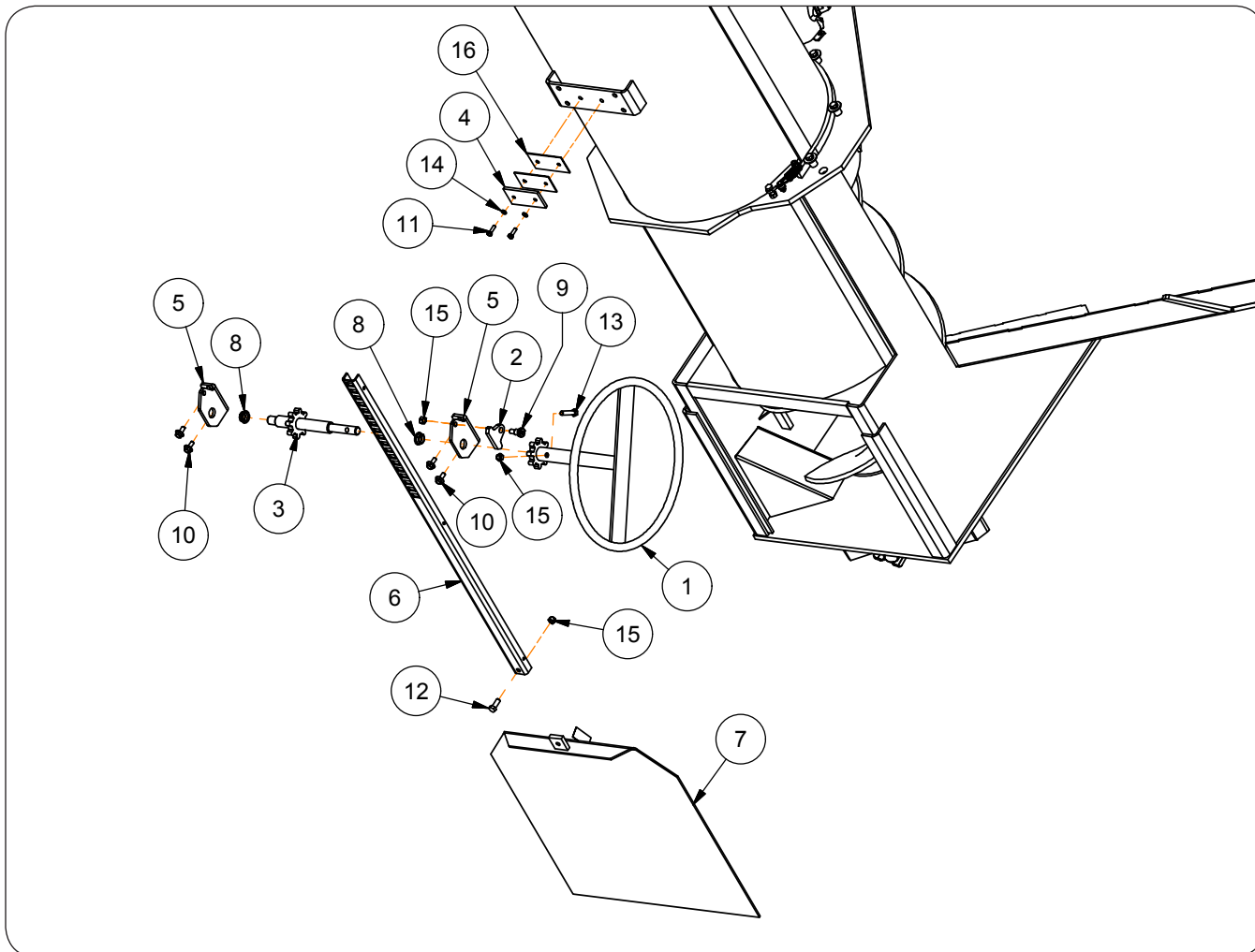
Lower Auger Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1	268217	Rubber Gasket (4" x 4")	1	
2	268218	Cover Plate	1	
3	268896	Spacer Bushing	1	
4	268946	Pivot Shaft Weldment	1	
5	286436	Auger Drive Plate Assembly 5-Pin	1	
6	9007000	Headed Drive Pin	5	
7	902614-236	Spiral Pin 1/2" Dia. x 2 1/4"	1	
8	286443B	U-Joint Assembly =BLACK=	1	For SN B37730099-Lower
	291543			For SN B37730100-Higher
9	286442	Yoke-Splined, Modified	1	For SN B37730099-Lower
	280065	Yoke-Splined		For SN B37730100-Higher
10	9008443	Wing Bearing Assembly	1	
11	286430	Adapter Tube Yoke Assembly	1	
12	91160	Grease Zerk	1	
13	9008432	Capscrew 1/2"-20UNF x 2" Gr.8	8	
14	291666B	Lower Auger Replacement =BLACK=	1	Includes Lower Auger and Items 15, 16, 17
15	293465B	Extension Plate Replacement Kit =BLACK=	1	
16	9388-104	Carriage Bolt 1/2"-13UNC x 1 1/2" G5	3	
17	9003397	Locking Flange Nut 1/2"-13UNC	3	
18	804572	Axle Lift Pin 1" Dia. x 3 1/2"	2	
19	9009053	Gearbox 45°	1	For 20 Spline Input Shaft Gearbox
	9002812			For 6 Spline Input Shaft Gearbox
20	9003398	Flange Locknut/TOP 5/8"-11UNC	1	
21	9005363	Hydraulic Welded Cylinder 2 1/2" x 36" 3000PSI	1	
	9005409	Seal Kit		
22	91262	Flange Screw 3/8"-16UNC x 1" Gr.5	4	
23	92805B	Dust Cover =BLACK=	1	
24	9390-100	Capscrew 1/2"-13UNC x 1 1/4" Gr.5	8	
25	9390-126	Capscrew 5/8"-11UNC x 2 1/2" Gr.5	1	
26	9390-136	Capscrew 5/8"-11UNC x 6" Gr.5	6	
27	9391-046	Cotter Pin 3/16" Dia. x 2"	4	
28	9404-025	Lock Washer 1/2"	8	
29	9405-116	Flat Washer 1" SAE	4	
30	9801	Locknut/TOP 5/8"-11UNC	6	
31	9874	90° Elbow 9/16"-18 JIC Male x 3/4"-16 O-Ring Male	2	
32	293456B	Hanger Bearing Replacement Kit =BLACK=	1	Includes Items 33 through 37 For SN B37730099-Lower
	293454B		1	For SN B37730100-Higher
33	286498B	Shim Plate, 8GA =BLACK=	1	For SN B36560099-Lower
34	286499B	Shim Plate, 12GA =BLACK=	1	For SN B36560099-Lower
	288679B	Shim Plate, 12GA =BLACK=	2	For SN B36560100-Higher
35	903161-057	Flange Screw, 1/2-13UNC x 1 3/4 Gr.5	3	For SN B36560099-Lower
	9390-124	Capscrew, 5/8-11UNC x 2 Gr.5		For SN B36560100-Higher
36	9003397	Locking Flange Nut, 1/2-13UNC Gr.5	3	For SN B36560099-Lower
	9003398	Lock Nut, 5/8-11UNC		For SN B36560100-Higher
37	9405-098	Flat Washer 5/8" SAE	3	For SN B36560100-Higher
38	91268	Split Tension Bushing	1	

Cleanout Door Assembly

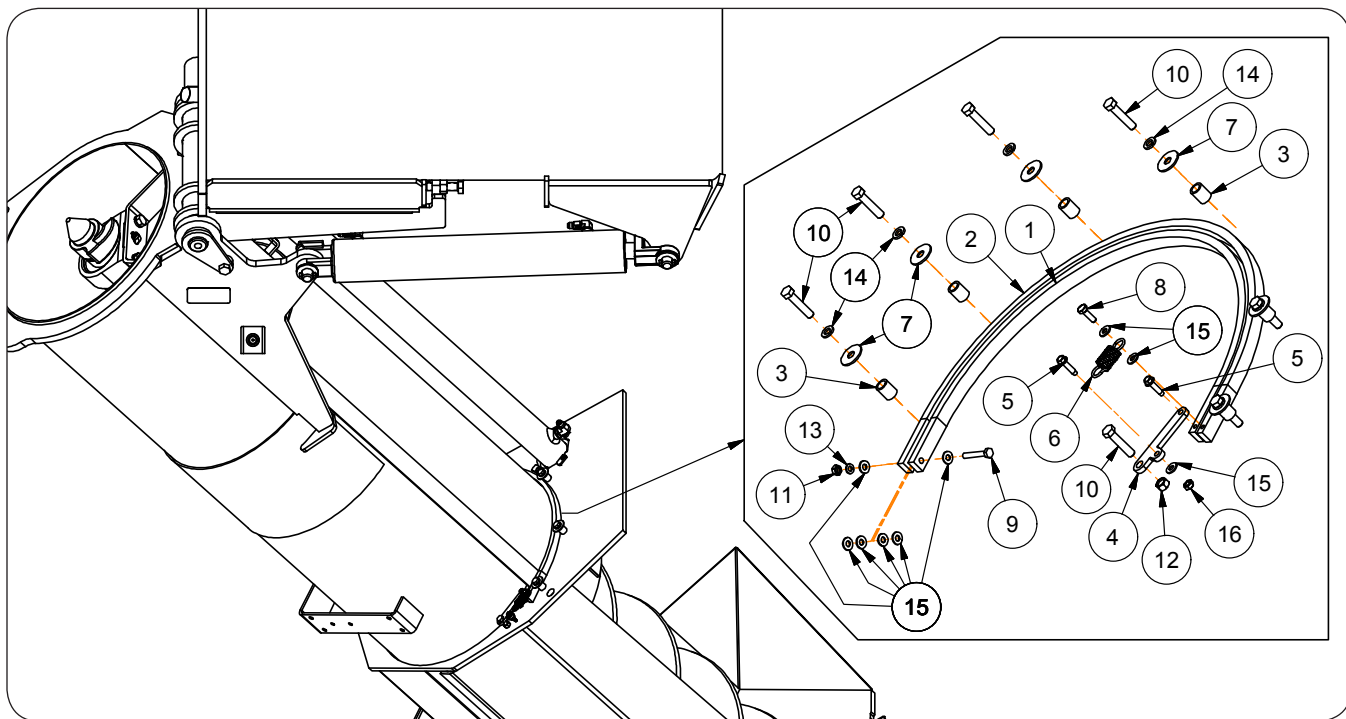
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	Door Lift/Wheel Weldment =BLACK=	291654B	1	
2	Plate - Lock =BLACK=	268313B	1	
3	Door Lift/Shaft Weldment	268901	1	
4	Pad - Wear	286801	1	
5	Plate - Door Lift =BLACK=	286802B	2	
6	Plate - Door Rack =BLACK=	290722B	1	
7	Door Weldment =BLACK=	290890B	1	
8	Bushing-Split	9003411	2	
9	Shoulder Bolt-1/2" Dia. x 1/2"	9006181	1	
10	Flange Screw 5/16"-18UNC x 3/4"	91256	4	
11	Capscrew 1/4"-20UNC x 7/8"	9390-004	4	
12	Capscrew 3/8"-16UNC x 1"	9390-055	1	
13	Capscrew 3/8"-16UNC x 1 3/4"	9390-058	1	
14	Lock Washer 1/4"	9404-017	4	
15	Top Locknut 3/8"-16UNC	9928	2	
16	Shim	291087B	2	

Flow Door Seals

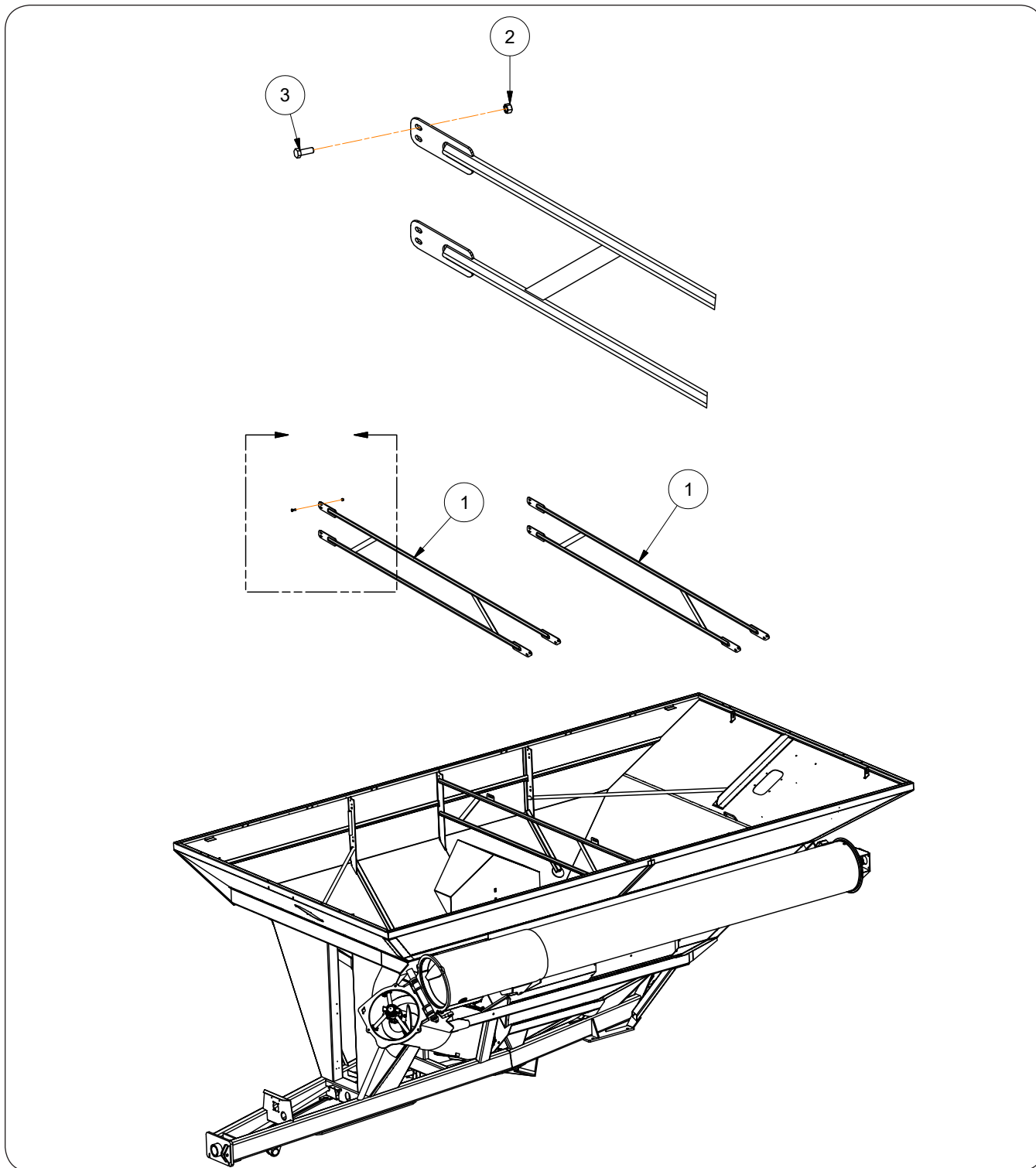
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	Seal - Poly	281255	1	
2	Seal - Poly	281256	1	
3	Spacer Bushing =Green=	281257G	6	
	Spacer Bushing =Red=	281257R		
4	Spring Bracket =Green=	281258G	1	
	Spring Bracket =Red=	281258R		
5	Screw, 1/4-20UNC x 1 (Self-Threading)	9004355	2	
6	Spring	9004375	1	
7	Fender Washer, 3/8	9004537	6	
8	Capscrew, 1/4-20UNC x 7/8 G5	9390-004	1	
9	Capscrew, 1/4-20UNC x 1 3/4 G5	9390-008	1	
10	Capscrew, 3/8-16UNC x 1 3/4 G5	9390-058	7	
11	Hex Nut, 1/4-20UNC G5	9394-002	1	
12	Hex Nut, 3/8-16UNC G5	9394-006	1	
13	Lock Washer, 1/4	9404-017	1	
14	Lock Washer, 3/8	9404-021	6	
15	Flat Washer 1/4	9405-062	7	
16	Lock Nut, 1/4-20UNC	9936	1	

Internal Bracing Components

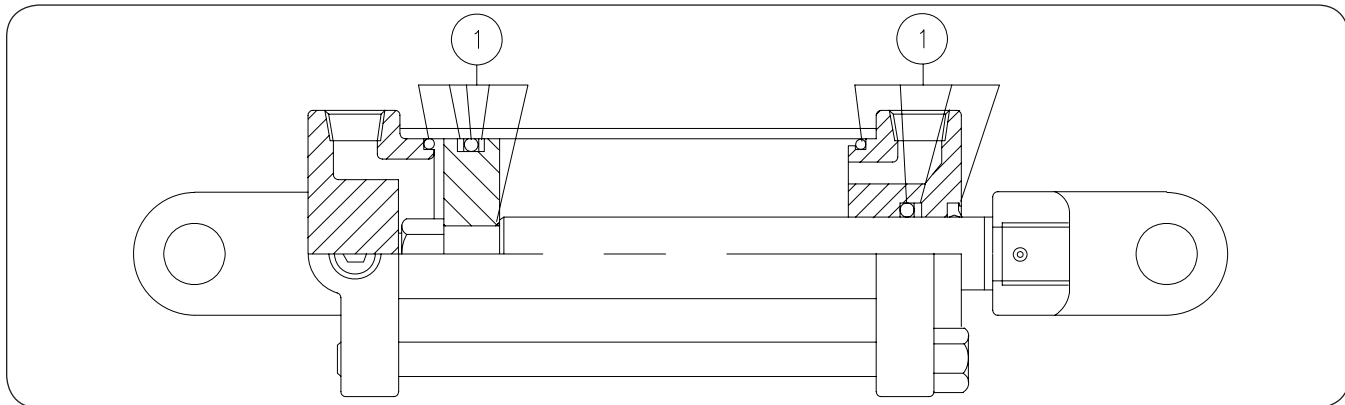
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	281943B	Cross Brace Weldment =Black=	2	
2	9002058	Flange Nut 1/2"-13UNC	16	
3	91266	Flange Screw 1/2"-13UNC x 1 1/2 G5	16	

Cylinders — 3 1/2" x 20" (Auger Fold)

Please visit www.unverferth.com/parts/ for the most current parts listing.

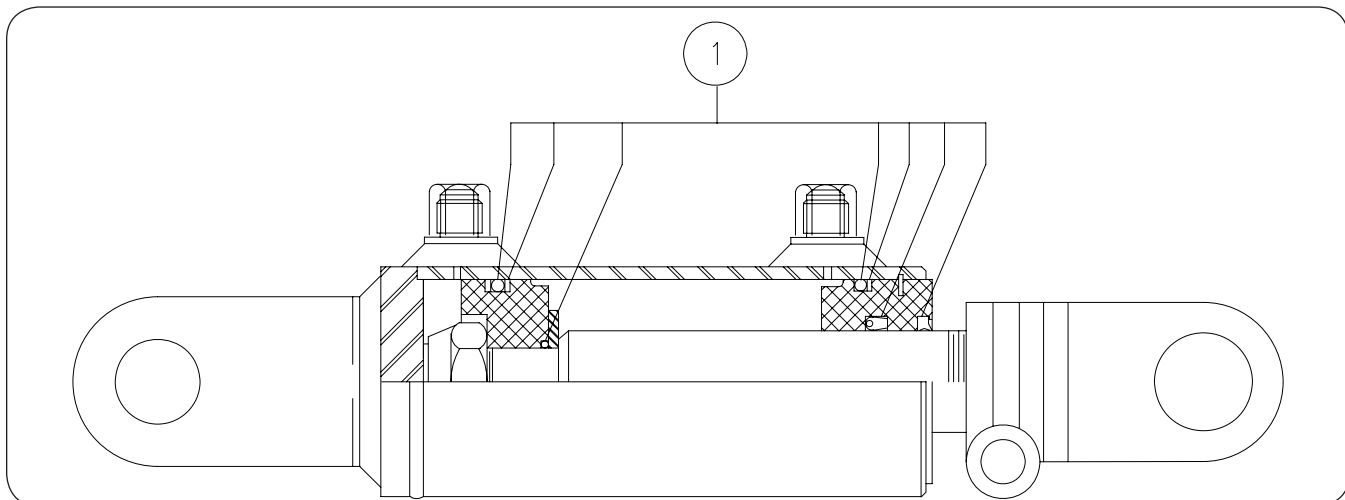


ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
	Cylinder, Complete	9007639	1	
1	Seal Kit	9006942	1	

Cylinders — 2 1/2" x 36" (Flow Door)

ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
	Cylinder, Complete	9005363	1	
1	Seal Kit	9005409	1	

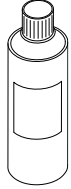
Cylinders — 1 1/2" x 4" & 1 1/2" x 6" (Discharge Spout)



ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
	Cylinder, Complete 1 1/2" x 6"	9008152	1	For SN B37730100 & Higher
1	Seal Kit	9008341	1	
	Cylinder, Complete 1 1/2" x 4"	9003789	1	For SN B37730099 & Lower
1	Seal Kit	9005419	1	

Touch-Up Paint

Please visit www.unverferth.com/parts/ for the most current parts listing.



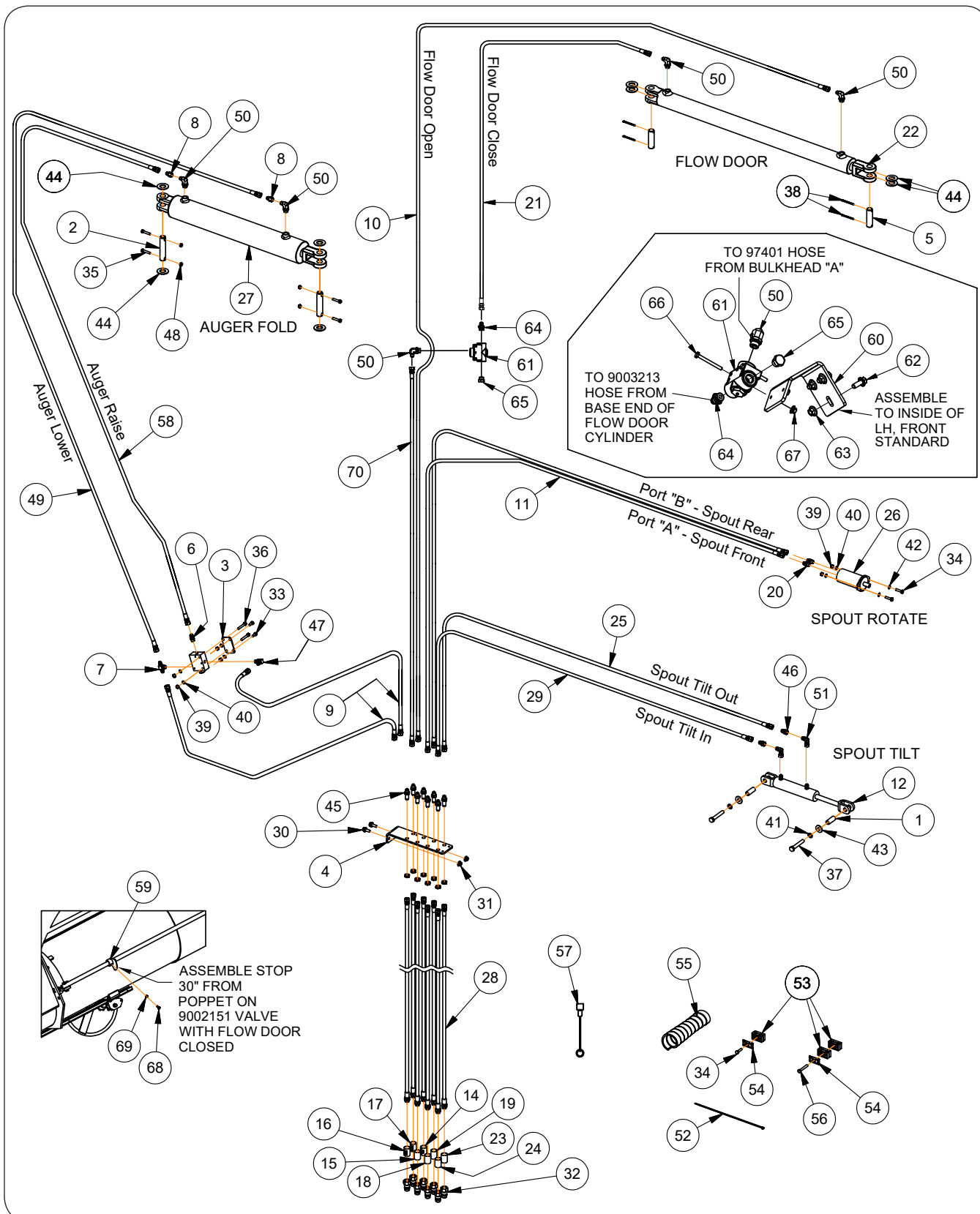
PAINT	SPRAY
Black	97013
Green	97015
Red	97301
Primer, Gray	950082
Silver Mist	97012
Off White	97016

Notes

Please visit www.unverferth.com/parts/ for the most current parts listing.

Hydraulics — Beginning with Serial Number B37910100

Please visit www.unverferth.com/parts/ for the most current parts listing.



Hydraulics — Beginning with Serial Number B37910100

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
1	Sleeve/Bushing	285290	2	
2	Pin 1" Dia. x 4 7/8"	291988	2	
3	Valve Mounting Plate	290892B	1	
4	Bulkhead Mounting Plate	291583B	1	
5	Pin 1" Dia. x 3 1/2 (For Auger & Door Cylinders)	804572	2	
6	Adapter (9/16-18 JIC Male x 9/16-18 O-Ring Male)	9001495	1	
7	Tee (9/16-18 JIC Male x 9/16-18 O-Ring Male x 9/16-18 JIC Male)	9001710	1	
8	Reducer	9002199	2	
9	Hose 1/4 x 31 (9/16-18 JIC Female x 9/16-18 JIC Female)	9003113	2	
10	Hose 1/4 x 122 (9/16-18 JIC Female x 9/16-18 JIC Female)	9003212	1	
11	Hose 1/4 x 285 (9/16-18 JIC Female x 9/16-18 JIC Female)	9003344	2	
12	Hydraulic Cylinder 1 1/2" x 6" - Spout Tilt	9008152	1	
	Seal Kit	9008341	-	
13	Pilot Operated Check Valve Block	9003990	1	
14	Sleeve, Hose Marker (RED, Flow Door Open)	9003995	1	
15	Sleeve, Hose Marker (RED, Flow Door Close)	9003996	1	
16	Sleeve, Hose Marker (GREEN, Auger Raise)	9003997	1	
17	Sleeve, Hose Marker (GREEN, Auger Lower)	9003998	1	
18	Sleeve, Hose Marker (YELLOW, Spout Rear)	9003999	1	
19	Sleeve, Hose Marker (YELLOW, Spout Front)	9004000	1	
20	Adapter	9004393	2	
21	Hose 1/4 x 88 (9/16-18 JIC Female x 9/16-18 JIC Female)	9003213	1	
22	Flow Door Cylinder 2 1/2 x 36 - Flow Door	9005363	1	
	Seal Kit	9005409	-	
23	Sleeve, Hose Marker (WHITE, Spout Tilt Out)	9007260	1	
24	Sleeve, Hose Marker (WHITE, Spout Tilt In)	9007261	1	
25	Hose 1/4 x 320 (9/16-18 JIC Female x 9/16-18 JIC Female)	9007546	1	
26	Spout Hydraulic Motor - Spout Rotate	9007626	1	
	Seal Kit	9008974	-	
27	Hydraulic Cylinder, 3 1/2 x 20 - 3000 PSI - Auger Fold	9007639	1	
	Seal Kit	9006942	-	
28	Hose 1/4 x 196 (9/16-18 JIC Female x 3/4-16 O-Ring Male)	9007842	8	
29	Hose 1/4 x 310 (9/16-18 JIC Female x 9/16-18 JIC Female)	9008433	1	
30	Flange Screw 3/8"-16UNC x 1"	91262	2	
31	Nut/Large Flange 3/8"-16UNC	91263	2	
32	Male Coupler 3/4-16 Female O-Ring	91383	8	
33	Capscrew 5/16"-18UNC x 3/4"	9390-028	2	
34	Capscrew 5/16"-18UNC x 1 1/4" G5	9390-031	2	

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Hydraulics — Beginning with Serial Number B37910100

Please visit www.unverferth.com/parts/ for the most current parts listing.

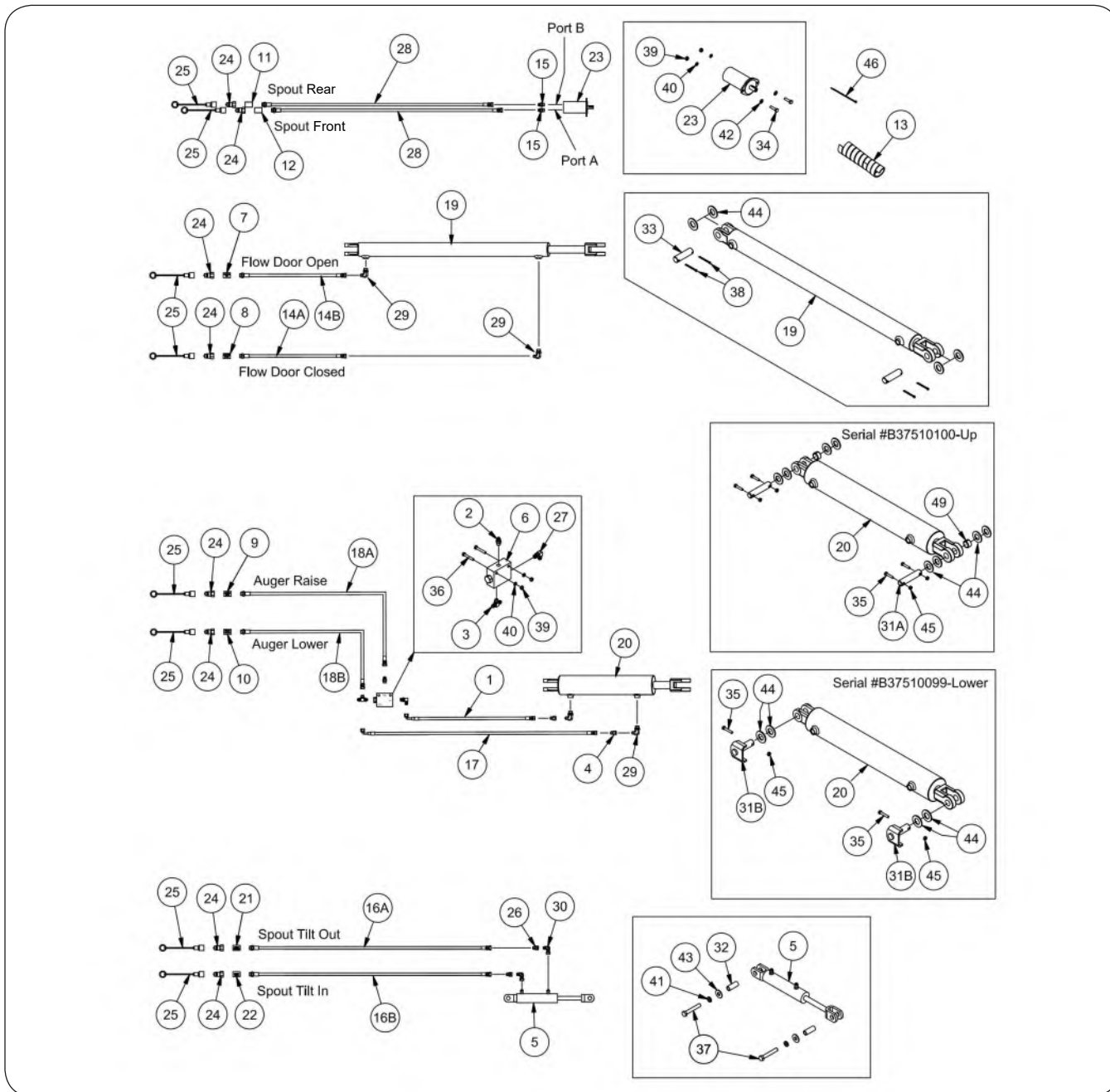
ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
35	Capscrew 5/16"-18UNC x 1 1/2" G5	9390-032	4	
36	Capscrew 5/16"-18UNC x 2" G5	9390-034	2	
37	Capscrew 1/2"-13UNC x 3 1/4" G5	9390-108	2	
38	Cotter Pin 3/16" Dia. x 2"	9391-046	4	
39	Hex Nut 5/16"-18UNC	9394-004	2	
40	Lock Washer 5/16"	9404-019	2	
41	Lock Washer 1/2"	9404-025	2	
42	Flat Washer 5/16" SAE	9405-068	2	
43	Flat Washer 1/2" USS	9405-088	2	
44	Flat Washer 1" SAE	9405-116	8	
45	Bulkhead Union 9/16"-18UNF JIC	95192	8	
46	Adapter (9/16-18 JIC Female x 9/16-18 JIC Male)	95193	2	w/.030 Restrictor
47	90° Elbow (9/16-18 JIC Male x 9/16-18 O-Ring Male)	97445	1	
48	Locknut 5/16"-18UNC	9807	4	
49	Hose 1/4 x 100 (9/16-18 JIC Female x 9/16-18 JIC Female)	98082	1	
50	90° Elbow (9/16-18 JIC Female x 3/4-16 O-Ring Male)	9874	4	
51	90° Elbow (9/16-18 JIC Female x 9/16-18 JIC Male)	9876	2	
52	Cable Tie 21 1/2"	9000104	4	
	Cable Tie 7 1/2"	9000106	22	
	Cable Tie 14 1/2"	9000107	8	
53	Clamp Pair	9003816	6	
54	Top Plate	9003814	6	
55	Spiral Hose Wrap	9004075	4	
56	Capscrew 5/16"-18UNC x 2 1/4" G5	9390-035	2	
57	Dust Cap	91511	8	
58	Hose 1/4 x 80 (9/16-18 JIC Female x 9/16-18 JIC Female)	9005299	1	
59	Cylinder Stop Weldment =Black=	289737B	1	Serial Number B39580100 & Up
60	Valve Mount Plate =Black=	289752B	1	Serial Number B39580100 & Up
61	Flow Door Control Valve	9002151	1	Serial Number B39580100 & Up
62	Flange Screw 3/8"-16UNC x 1" Gr. 5	91262	3	Serial Number B39580100 & Up
63	Large Flange Nut 3/8"-16UNC	91263	3	Serial Number B39580100 & Up
64	Adapter (9/16-18 JIC Male x 3/4-16 O-Ring Male)	92927	1	Serial Number B39580100 & Up
65	Plug (3/4-16 O-Ring Male)	93657	1	Serial Number B39580100 & Up
66	Capscrew 1/4"-20UNC x 2 1/2" Gr. 5	9390-011	2	Serial Number B39580100 & Up
67	Hex Nut 1/4"-20UNC	97189	2	Serial Number B39580100 & Up
68	Capscrew 3/8"-16UNC x 3/4" Gr. 5	9390-053	1	Serial Number B39580100 & Up
69	Hex Jam Nut 3/8"-16UNC	9395-006	1	Serial Number B39580100 & Up
70	Hose 1/4 x 34 (9/16-18 JIC Female Swivel)	97401	1	Serial Number B39580100 & Up

Notes

Please visit www.unverferth.com/parts/ for the most current parts listing.

Hydraulics — Serial Number B37910099 & Lower

Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
1	Hose 1/4 x 80 (9/16-18 JIC Female x 9/16-18 JIC Female)	9005299	1	
2	Adapter (9/16-18 JIC Male x 9/16-18 O-Ring Male)	9001495	1	
3	Tee (9/16-18 JIC Male x 9/16-18 O-Ring Male x 9/16-18 JIC Male)	9001710	1	
4	Reducer	9002199	2	
5	Hydraulic Cylinder 1 1/2 x 6	9008152	1	For SN B37730100 & Up
	Seal Kit	9008341	-	
5	Hydraulic Cylinder 1 1/2 x 4	9003789	1	For SN B37730099 & Lower
	Seal Kit	9005419	-	
6	Pilot Operated Check Valve Block	9003990	1	
7	Sleeve, Hose Marker (RED, Flow Door Open)	9003995	1	

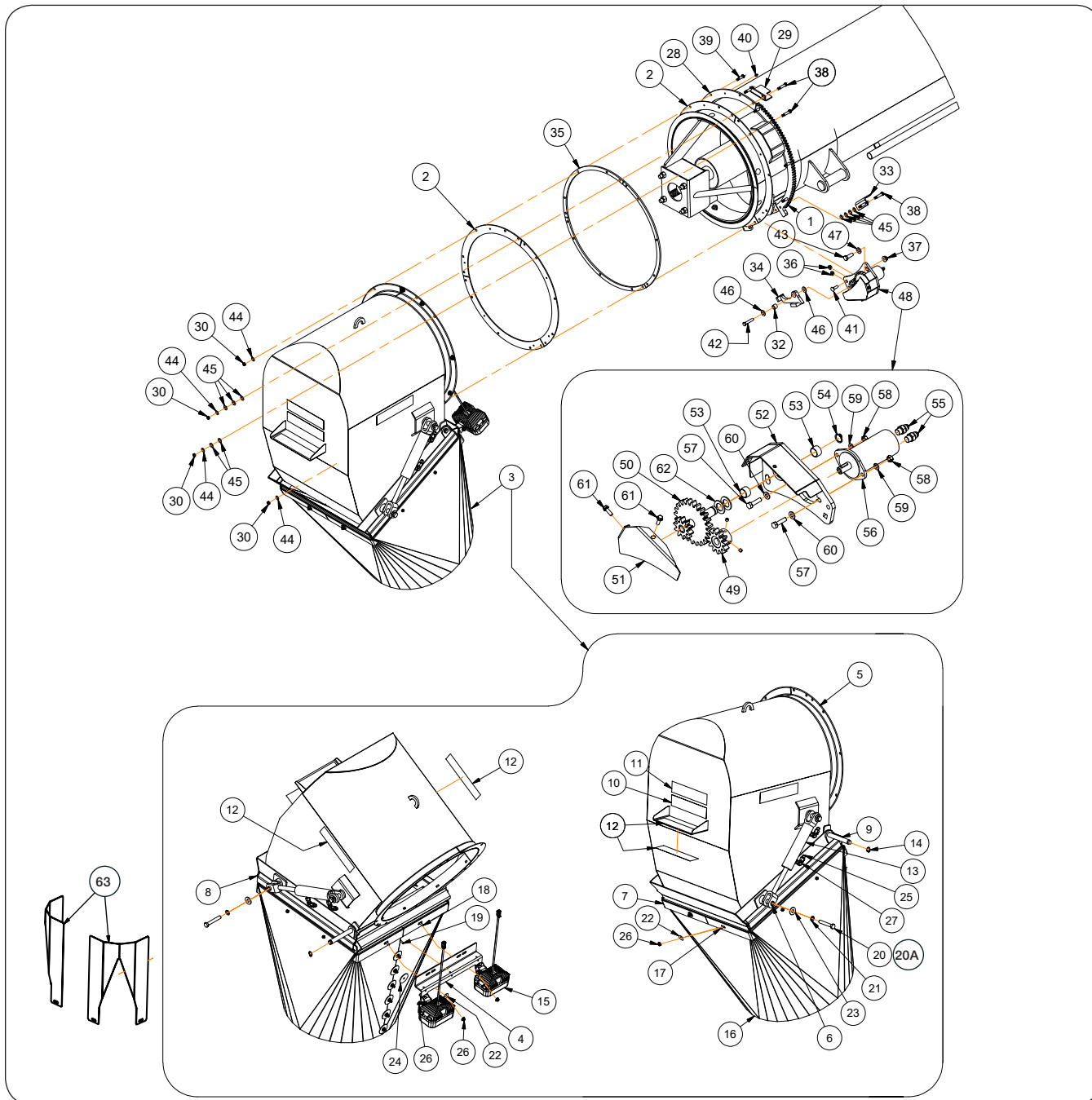
Hydraulics — Serial Number B37910099 & Lower

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
8	Sleeve, Hose Marker (RED, Flow Door Close)	9003996	1	
9	Sleeve, Hose Marker (GREEN, Auger Raise)	9003997	1	
10	Sleeve, Hose Marker (GREEN, Auger Lower)	9003998	1	
11	Sleeve, Hose Marker (YELLOW, Spout Rear)	9003999	1	
12	Sleeve, Hose Marker (YELLOW, Spout Front)	9004000	1	
13	Spiral Hose Wrap	9004075	4	
14A	Hose 1/4 x 295 (9/16-18 JIC Female x 3/4-16 O-Ring Male)	9004121	1	
14B	Hose 1/4 x 261 (9/16-18 JIC Female x 3/4-16 O-Ring Male)	9005301	1	
15	Adapter	9004393	2	
16A	Hose 1/4 x 500 (9/16-18 JIC Female x 3/4-16 O-Ring Male)	9004540	1	
16B	Hose 1/4 x 490 (9/16-18 JIC Female x 3/4-16 O-Ring Male)	9004539	1	
17	Hose 1/4 x 100 (9/16-18 JIC Female x 9/16-18 JIC Female)	98082	1	
18A	Hose 1/4 x 196 (90° Elbow 9/16-18 JIC Female x 3/4-16 O-Ring Male)	9007841	1	
18B	Hose 1/4 x 196 (9/16-18 JIC Female x 3/4-16 O-Ring Male)	9007842	1	
19	Flow Door Cylinder 2 1/2 x 36	9005363	1	
	Seal Kit	9005409	-	
20	Hydraulic Cylinder, 3 1/2 x 20 - 3000 PSI	9007639	1	
	Seal Kit	9006942	-	
21	Sleeve, Hose Marker (WHITE, Spout Tilt Out)	9007260	1	
22	Sleeve, Hose Marker (WHITE, Spout Tilt In)	9007261	1	
23	Spout Hydraulic Motor	9007626	1	
24	Male Coupler 3/4-16 Female O-Ring	91383	8	
25	Dust Cap	91511	8	
26	Adapter (9/16-18 JIC Female x 9/16-18 JIC Male)	95193	2	w/.030 Restrictor
27	90° Elbow (9/16-18 JIC Male x 9/16-18 O-Ring Male)	97445	1	
28	Hose 1/4 x 460 (9/16-18 JIC Female x 3/4-16 O-Ring Male)	9004635	2	For Spout Hydraulic Motor
29	90° Elbow (9/16-18 JIC Female x 3/4-16 O-Ring Male)	9874	4	
30	90° Elbow (9/16-18 JIC Female x 9/16-18 JIC Male)	9876	2	
31A	Pin 1" Dia. x 4 7/8"	291988	2	For SN B37510100 & Up
31B	Pin Replacement Kit	291468	2	For SN B37510099 & Lower Requires Drilling Out Hole to 1.25" Diameter
32	Sleeve/Bushing	285290	2	
33	Pin 1" Dia. x 3 1/2 (For Auger & Door Cylinders)	804572	2	
34	Capscrew 5/16-18UNC x 1 1/4	9390-031	2	Grade 5
35	Capscrew 5/16-18UNC x 1 1/2	9390-032	2	Grade 5
36	Capscrew 5/16-18UNC x 2	9390-034	2	Grade 5
37	Capscrew 1/2-13UNC x 3 1/4	9390-108	2	Grade 5
38	Cotter Pin 3/16" Dia. x 2	9391-046	4	
39	Hex Nut 5/16-18UNC	9394-004	2	
40	Lock Washer 5/16"	9404-019	2	
41	Lock Washer 1/2"	9404-025	2	
42	Flat Washer 5/16" SAE	9405-068	2	
43	Flat Washer 1/2" USS	9405-088	2	
44	Flat Washer 1" SAE	9405-116	8	
45	Locknut 5/16-18UNC	9807	2	
46	Cable Tie 21 1/2"	9000104	4	
	Cable Tie 7 1/2"	9000106	22	
	Cable Tie 14 1/2"	9000107	8	
47	Top Plate	9003814	6	(NOT SHOWN)
48	Clamp Pair	9003816	6	(NOT SHOWN)
49	Split Tension Bushing	95122	2	

Directional Spout

Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	Gear-Spout, Pivot	272719	1	
2	Poly Pad-Pivot, 20 13/16" ID x 1/8"	272748	6	
3	Spout Assembly =BLACK=	272755B	1	For SN B37730099-Lower
		292350B		For SN B37730100-Higher
4	Bracket-Light =BLACK=	272566B	1	For SN B37730099-Lower
		292198B		For SN B37730100-Higher

Directional Spout

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
5	Spout Weldment =BLACK=	272943B	1	For SN B37730099-Lower
		291668B		For SN B37730100-Higher
6	Bushing-Sleeve 2.0625" Long	285290	2	
7	Plate-Chute Strap =BLACK=	286469B	2	For SN B37730099-Lower
		292197B		For SN B37730100-Higher
8	Spout Weldment =BLACK=	290162B	1	For SN B37730099-Lower
		292352B		For SN B37730100-Higher
9	Shaft-Pivot 3/4" Dia. x 23 1/2"	290993	1	
10	Fluorescent Orange Decal	9003125	1	For SN B37730099-Lower
11	Reflector RED	9003126	1	For SN B37730099-Lower
12	Reflector AMBER	9003127	4	For SN B37730099-Lower
			2	For SN B37730100-Higher
13	Hydraulic Welded Cylinder 1 1/2 x 4	9003789	1	For SN B37730099-Lower
	Hydraulic Welded Cylinder 1 1/2 x 6	9008152		For SN B37730100-Higher
14	Snap Ring 3/4"	9003810	2	
15	Light-Work, LED	9007186	2	For SN B40750099-Lower
		9008957		For SN B40750100-Higher
16	Rubber Chute	9007250	1	For SN B37730099-Lower
		9008139		For SN B37730100-Higher
17	Carriage Bolt 1/4"-20UNC x 1"	9388-003	6	
18	Carriage Bolt 1/4"-20UNC x 1 1/4"	9388-004	2	
19	Capscrew 1/4"-20UNC x 1"	9390-005	7	For SN B37730099-Lower
			8	For SN B37730100-Higher
20	Capscrew 1/2"-13UNC x 3 1/4"	9390-108	2	For SN B37730099-Lower
20A	Capscrew 1/2"-13UNC x 3"	9390-107	2	For SN B37730100-Higher
21	Lock Washer 1/2"	9404-025	2	
22	Flat Washer 1/4" (Fender Washer)	9405-066	8	
23	Flat Washer 1/2" USS	9405-088	2	
24	Fender Washer 5/16" ID	94763	14	For SN B37730099-Lower
			16	For SN B37730100-Higher
25	Adapter 9/16-18 JIC Female x 9/16-18 JIC Male w/Restrictor	95193	2	
26	Hex Nut/Large Flange 1/4"-20UNC	97189	15	For SN B37730099-Lower
			16	For SN B37730100-Higher
27	90° Elbow 9/16-18 JIC Male x 9/16-18 JIC Female	9876	2	
28	Plate-Pivot, Spout =BLACK=	272842B	2	
29	Plate-Stop =BLACK=	272855B	1	
30	Lock Nut 5/16"-18UNC	9807	17	
31	Indicator Tube	290723B	1	
32	Bushing-Pivot, Lock	290882	1	
33	Plate-Stop =BLACK=	290884B	1	

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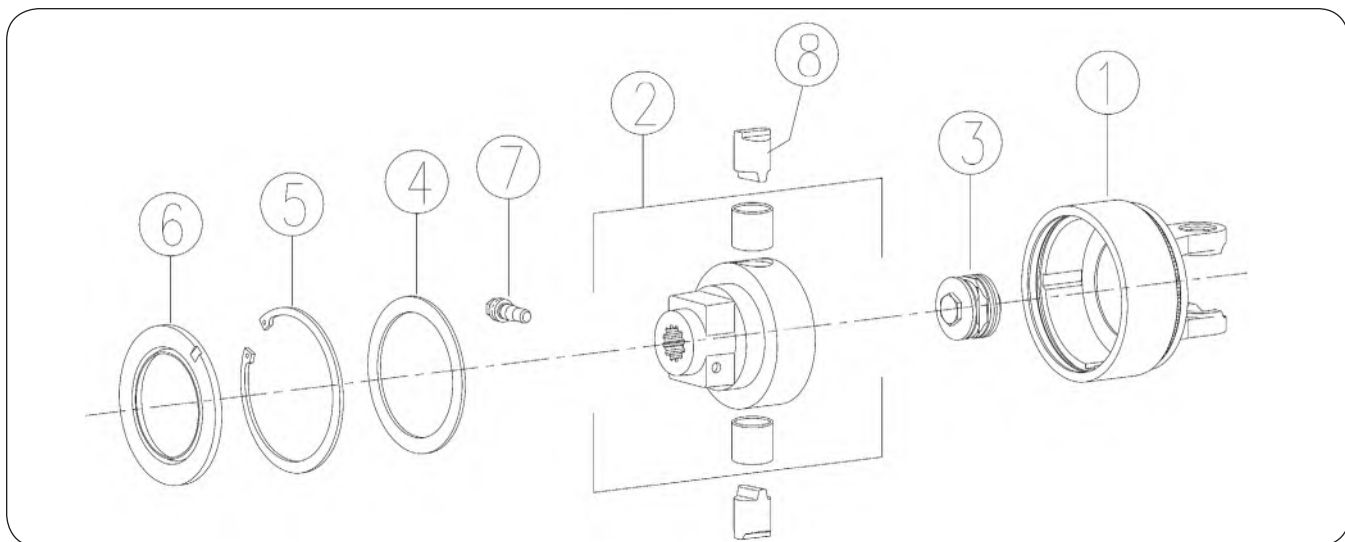
Directional Spout (continued)

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
34	Stop Weldment =BLACK=	291327B	1	
35	Plate-Pivot, 22 7/16" ID x 1/4"	291344B	3	
36	Lock Nut/Top 3/8"-16UNC	9003396	2	
37	Lock Nut 1/2"-13UNC	9003397	2	
38	Shoulder Bolt 3/8" Dia. x 1 1/4", Socket Head, 5/16"-18UNC	9007837	6	
39	Shoulder Bolt 3/8" Dia. x 7/8", Socket Head, 5/16"-18UNC	9007838	7	
40	Grease Zerk	91160	4	
41	Carriage Bolt, 3/8"-16UNC x 1-1/4"	9388-052	1	
42	Capscrew 3/8"-16UNC x 2"	9390-059	1	
43	Capscrew 1/2"-13UNC x 1 1/2"	9390-101	2	
44	Flat Washer 1/4" USS	9405-064	19	
45	Flat Washer 3/8" SAE	9405-074	18	
46	Flat Washer 3/8" USS	9405-076	2	
47	Flat Washer 1/2" SAE	9405-086	1	
48	Spout Motor Assembly	288188B	1	
49	Gear Weldment w/ 1/4"-20UNC Set Screws	272840	1	
50	Gear & Shaft Weldment	272844	1	
51	Panel-Cover =BLACK=	288384B	1	
52	Spur Gear Mount Weldment =BLACK=	288385B	1	
53	Self-Lubricating Bushing	9003809	2	
54	Snap Ring 3/4"	9003810	1	
55	Adapter 9/16-18 JIC Female x 9/16-18 JIC Male w/Restrictor	9004393	2	
56	Motor-Hydraulic 3.07 CID, 5.28 GPM, 2 Bolt Flange Mount	9007626	1	
57	Capscrew 5/16"-18UNC x 1 1/4"	9390-031	2	
58	Hex Nut 5/16"-18UNC	9394-004	2	
59	Lock Washer 5/16"	9404-019	2	
60	Flat Washer 5/16" SAE	9405-068	2	
61	Flange Screw 1/4"-20UNC x 3/4"	97420	2	
62	Washer	TA500309	2	
63	Plate - Chute Support	292292B	2	For SN B37730100-Higher

PTO Cut Out Clutch Components

Please visit www.unverferth.com/parts/ for the most current parts listing.

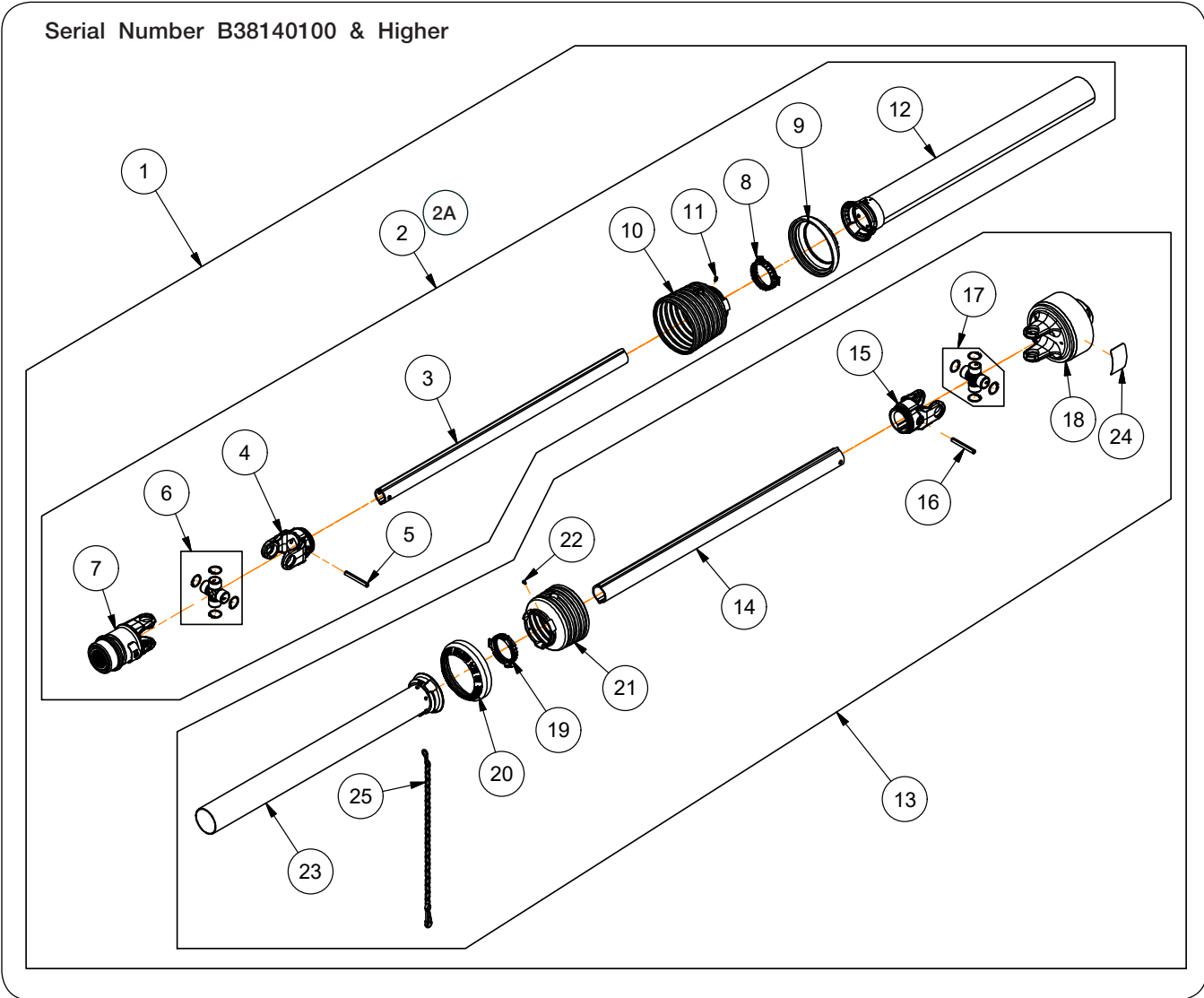


ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	9008399	Cut Out Clutch (2400 N*m Setting)		Includes Items 1-8
1	9005679	Clutch Housing	1	
2	9008664	Clutch Hub 1 3/8-21 Spline	1	
3	9005421	Spring Pack	1	
4	9005250	Washer	1	
5	9005251	Retaining Ring	1	
6	9005252	Sealing Ring	1	
7	9008665	Cone Clamp Lock Assembly	1	
8	9005254	Clutch Cam	2	

PTO Assembly Cutout Clutch

Please visit www.unverferth.com/parts/ for the most current parts listing.

Serial Number B38140100 & Higher



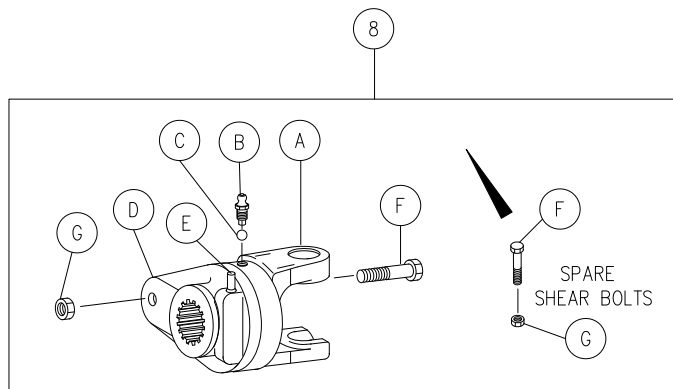
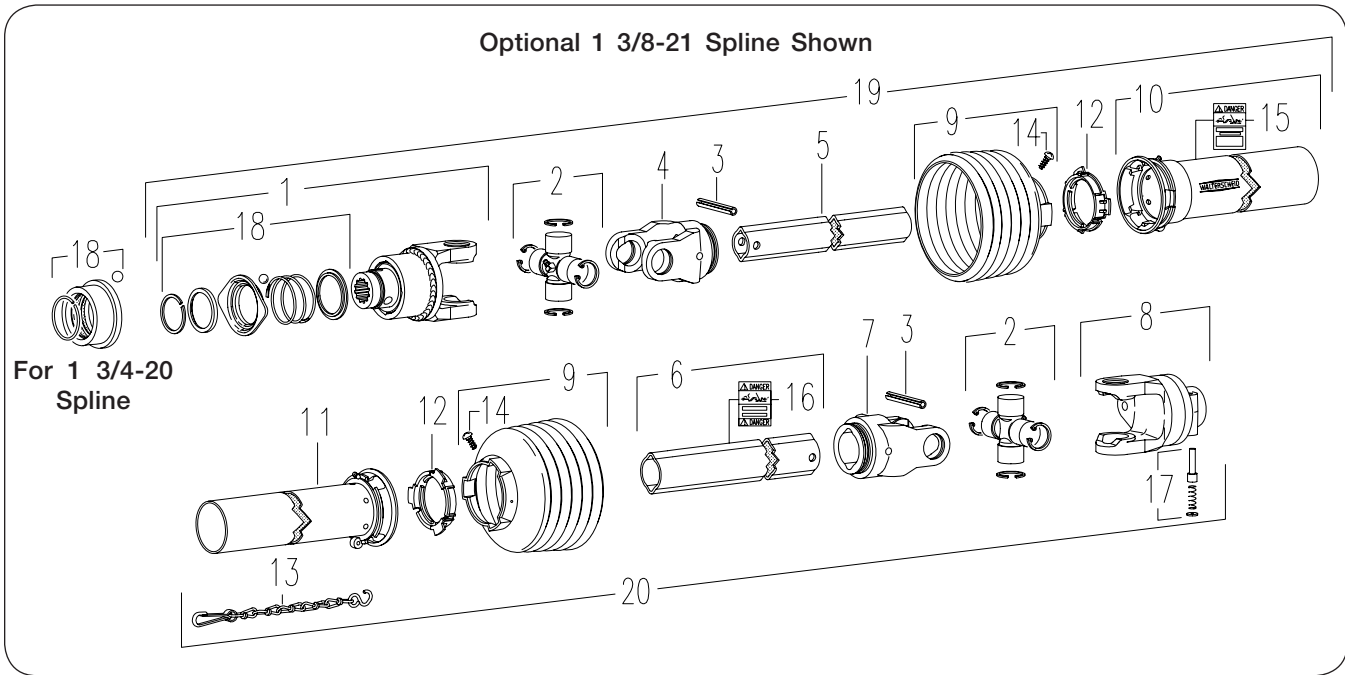
PTO Assembly Cutout Clutch

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
1	PTO Assembly Complete - 1 3/4-20 Spline (Tractor End)	9008390	1	Serial Number B38140100 & Higher Includes Items 2 & 13
2	PTO Front Half Assembly - 1 3/4-20 Spline (Tractor End)	9008396	1	Includes Items 3 through 12
2A	PTO Front Half Assembly - 1 3/8-21 Spline (Tractor End)	9004770	1	Optional
3	Inner Profile	9004274	1	
4	Front Inboard Yoke	93858	1	
5	Spring Pin	93859	2	
6	Cross & Bearing Kit	93857	2	
7	Overrunning Clutch - 2400 Series	9004778	1	
8	Bearing Ring	92373	1	
9	Reinforcing Collar	9001364	1	
10	Cone Guard, Black 7-Rib	9008398	1	
11	Screw	92372	1	
12	Outer Shield Tube w/Cap	94839	1	
13	PTO Rear Half Assembly 1 3/8-21 Spline	9008397	1	Includes Items 14 through 25
14	Outer Profile	94837	1	
15	Rear Inboard Yoke	93862	1	
16	Spring Pin	93859	2	
17	Cross & Bearing Kit	93857	2	
18	Cutout Clutch - 2400 Series	9008399	1	
19	Bearing Ring	92373	1	
20	Reinforcing Collar	9001364	1	
21	Shield Cone - Rear Half	92371	1	
22	Screw	92372	1	
23	Inner Shield Tube w/Cap	94840	1	
24	Decal K64	9005233	1	
25	Restraint Chain	92374	1	

PTO Assembly Shear-Bolt Clutch

Please visit www.unverferth.com/parts/ for the most current parts listing.



PTO Assembly Shear-Bolt Clutch

Please visit www.unverferth.com/parts/ for the most current parts listing.

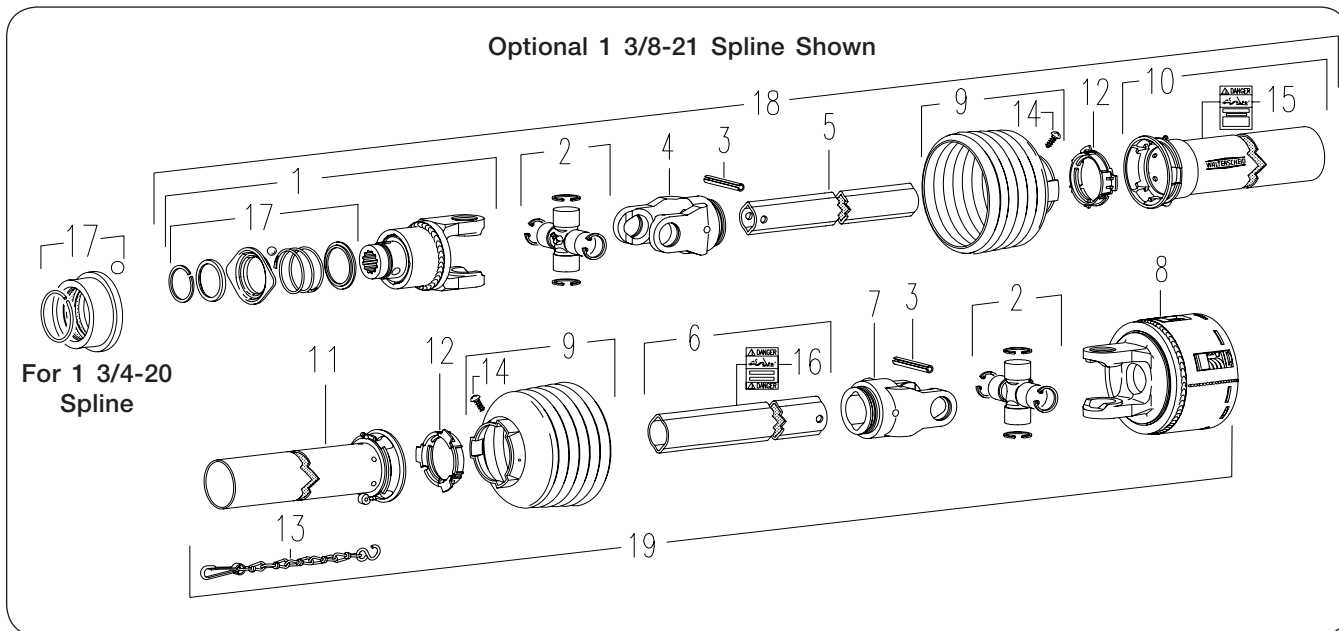
ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
	PTO Assembly Complete	9004767	1	Prior to Serial Number B38140100 1 3/4-20 Spline - Tractor End
	PTO Assembly Complete	9004766	1	Prior to Serial Number B38140100 1 3/8-21 Spline - Tractor End (Optional)
1	End Yoke / Overrunning Clutch	9004778	1	1 3/4-20 Spline - Tractor End
	End Yoke / Overrunning Clutch	9004777	1	1 3/8-21 Spline - Tractor End (Optional)
2	Cross & Bearing Kit	93857	2	
3	Spring Pin	93859	2	
4	Front Inboard Yoke	93858	1	
5	Inner Profile	9004274	1	
6	Outer Profile	94837	1	
7	Rear Inboard Yoke	93862	1	
8	Shear Clutch Complete	9004170	1	1 3/8-21 Spline
	A Shear Yoke	9003710	1	
	B Grease Zerk	95256	1	
	C Ball	95257	24	
	D Housing, Splined	9003884	1	
	E Quick Disconnect Pin Kit	92362	1	
	F Bolt, M10 x 60 Gr. 10.9	94910-015	1	Qty. 6 in toolbox - See note* Torque to 57 ft.-lbs.
	G Locknut, M10	9003645	1	Qty. 6 in toolbox - See note*
9	Shield Cone, Black 6-Rib	93863	2	
10	Outer Shield Tube w/Cap	94839	1	
11	Inner Shield Tube w/Cap	94840	1	
12	Bearing Ring	92373	2	
13	Safety Chain	92374	1	
14	Screw	92372	2	
15	Decal, "Danger / Out"	92377	1	
16	Decal, "Danger / Inn"	92378	1	
17	Quick Disconnect Kit for Shear Clutch	92362	1	
18	Quick Disconnect Kit for Overrunning Clutch	93856	1	1 3/4-20 Spline - Tractor End
	Quick Disconnect Kit for Clutch	92393	1	1 3/8-21 Spline - Tractor End (Optional)
19	Front Half PTO for Shear Clutch	9004771	1	1 3/4-20 Spline - Tractor End
	Front Half PTO for Shear Clutch	9004770	1	1 3/8-21 Spline - Tractor End (Optional)
20	Rear Half PTO / Shear Clutch	9004136	1	

IMPORTANT

- *USE GENUINE OEM REPLACEMENT PART. Incorrect part may cause shear function to occur too soon causing inconvenience or too late resulting in damage to driveline and auger components. Tighten to specified torque value.*

PTO Assembly Friction Clutch

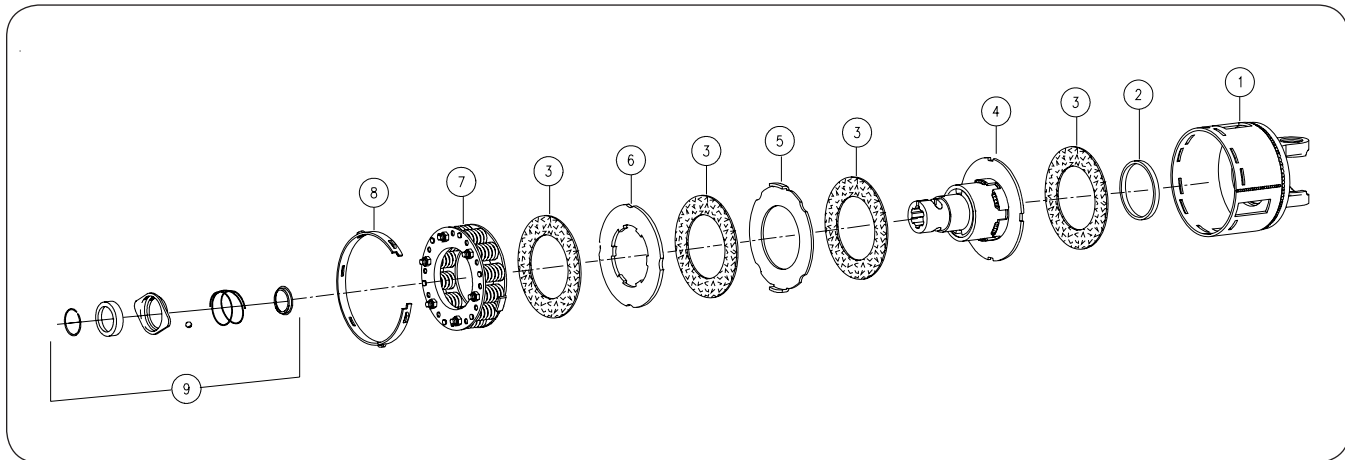
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
	PTO Assembly Complete	9004769	1	1 3/4-20 Spline - Tractor End Prior to Serial Number B38140100
	PTO Assembly Complete	9004768	1	1 3/8-21 Spline - Tractor End (Optional) Prior to Serial Number B38140100
1	End Yoke / Overrunning Clutch	9004778	1	1 3/4-20 Spline - Tractor End
	End Yoke / Overrunning Clutch	9004777	1	1 3/8-21 Spline - Tractor End (Optional)
2	Cross & Bearing Kit	93857	2	
3	Spring Pin	93859	2	
4	Front Inboard Yoke	93858	1	
5	Inner Profile	9004274	1	
6	Outer Profile	94837	1	
7	Rear Inboard Yoke	93862	1	
8	Friction Clutch Complete	9004275	1	1 3/8-21 Spline
9	Shield Cone, Black 6-Rib	93863	2	
10	Outer Shield Tube w/Cap	94839	1	
11	Inner Shield Tube w/Cap	94840	1	
12	Bearing Ring	92373	2	
13	Safety Chain	92374	1	
14	Screw	92372	2	
15	Decal, "Danger / Out"	92377	1	
16	Decal, "Danger / Inn"	92378	1	
17	Quick Disconnect Kit for Overrunning Clutch	93856	1	1 3/4-20 Spline - Tractor End
	Quick Disconnect Kit for Clutch	92393	1	1 3/8-21 Spline - Tractor End (Optional)
18	Front Half PTO	9004771	1	1 3/4-20 Spline - Tractor End
	Front Half PTO	9004770	1	1 3/8-21 Spline - Tractor End (Optional)
19	Rear Half PTO / Friction	9004212	1	

Friction Clutch Assembly

Please visit www.unverferth.com/parts/ for the most current parts listing.

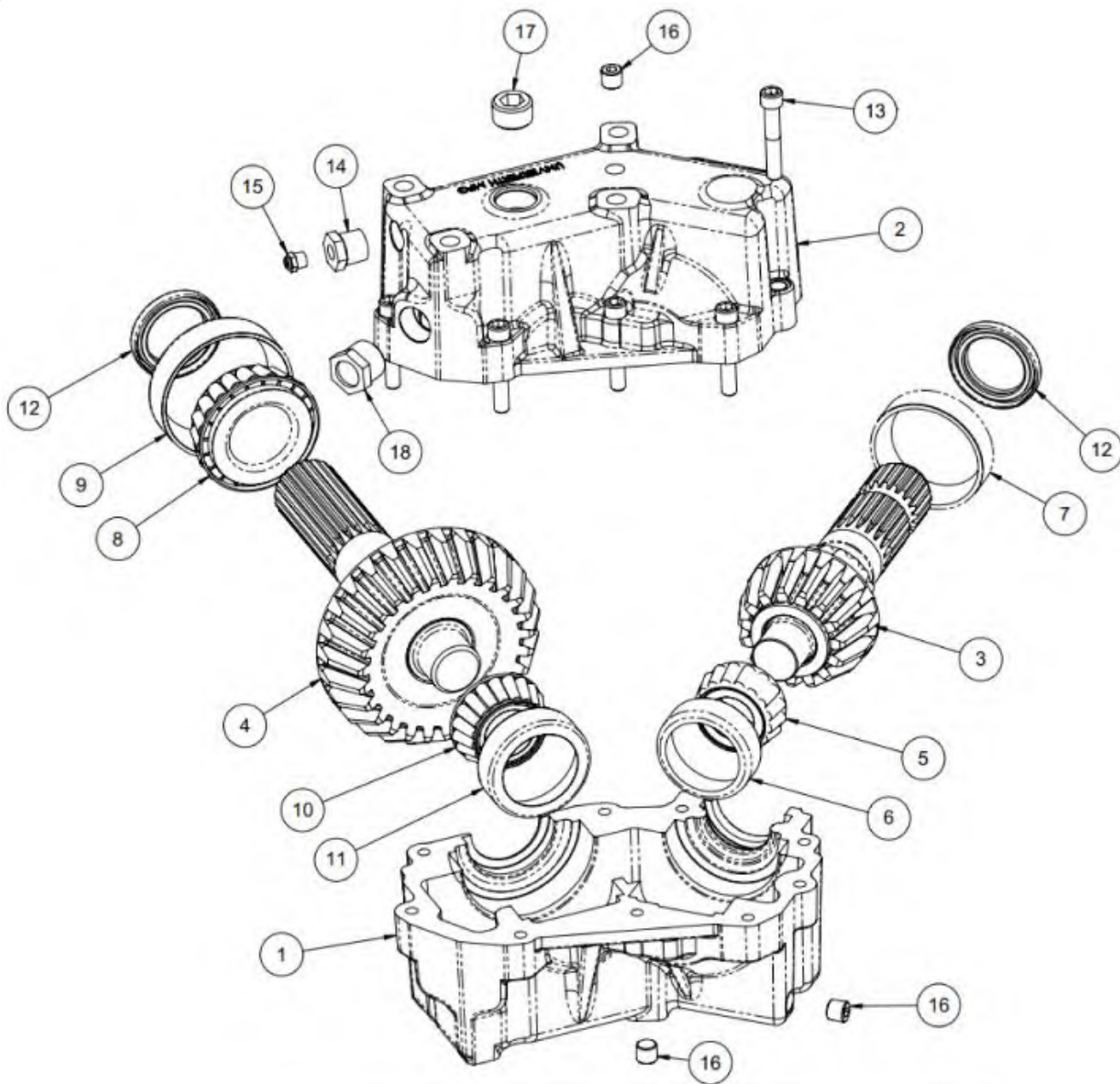


NOTE: Friction Clutch (9004275) must be used with the Complete PTO Assembly (9004769 or 9004768). This will not work with the Cut Out Clutch PTO Assembly (9008390).

ITEM	DESCRIPTION	PART NUMBER	QTY	NOTES
	Complete Clutch	9004275	1	Includes Items 1-9 Prior to Serial Number B38140100
1	Clutch Housing	9004276	1	
2	Ring	9002770	1	
3	Friction Disk	9002771	4	
4	Hub	9004277	1	
5	Drive Plate	9002780	1	
6	Drive Plate	9002781	1	
7	Spring Pack	9002782	1	
8	Setting Ring	9002783	1	
9	Quick Connect Flange Kit	92393	1	

45 Degree Gearbox - With 20 Spline Input Shaft

Please visit www.unverferth.com/parts/ for the most current parts listing.



FOR 1 3/4"-20 spline gearbox ONLY. For 1 3/8"-6 spline gearbox, see additional diagrams in this section.

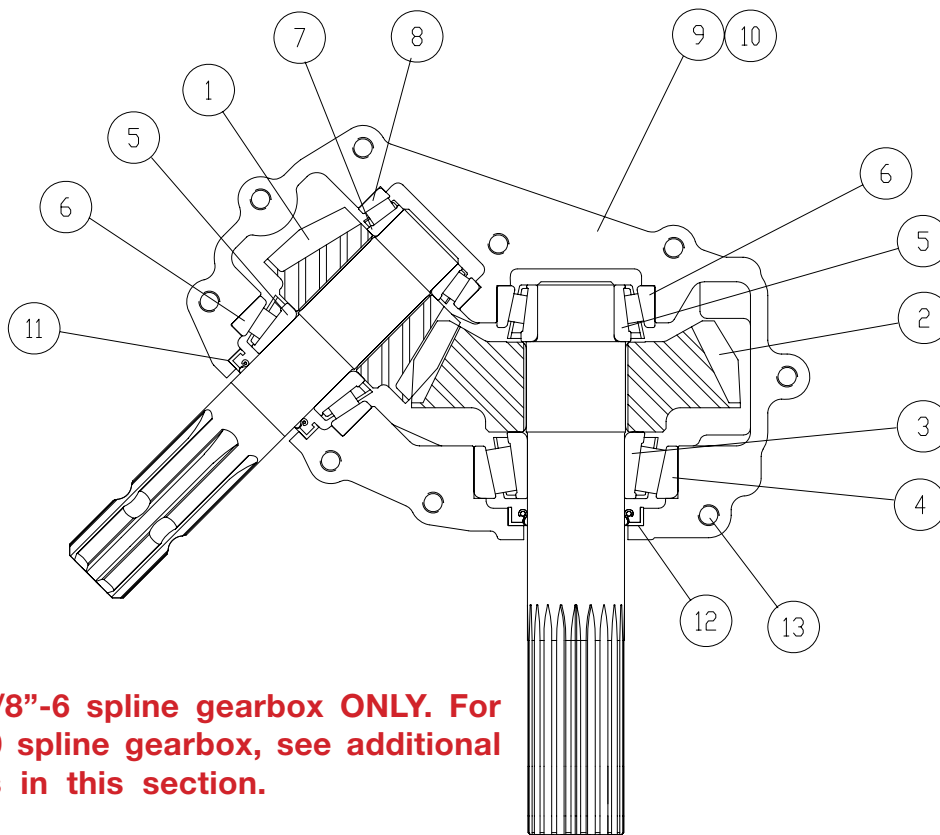
45 Degree Gearbox - With 20 Spline Input Shaft

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
	Gearbox, Complete with 20 Spline Input Shaft	9009053	1	Includes Items 1 thru 18
1	Gearbox Bottom Half Housing	9009157	1	
2	Gearbox Top Half Housing	9009158	1	
3	Shaft, Input	9009159	1	1 3/4"-20 Input Spline
4	Shaft, Output	9001132	1	1.8:1 Gear
5	Bearing Cone	9009160	1	
6	Bearing Cup	9009161	1	
7	Bearing Cup	9009162	1	
8	Bearing Cup	92697	1	
9	Bearing Cup	91151	1	
10	Bearing Cone	9001133	1	
11	Bearing Cup	9001134	1	
12	Seal, 2 7/16" OD x 1 11/16" ID	92702	2	
13	Socket Capscrew, 3/8"-16UNC x 2 1/4"	95281	9	
14	Vented Reducer Bushing	9003453	1	
15	Vented Pressure Relief Plug, 1/8" NPT, 5 PSI	92352	1	
16	Plug, 1/4" NPTF Male	92350	3	
17	Hex Plug, 3/4" NPTP Male	98523	1	
18	Sight Glass Plug, 3/4" NPT Male	9009163	1	

45 Degree Gearbox - With 6 Spline Input Shaft

Please visit www.unverferth.com/parts/ for the most current parts listing.



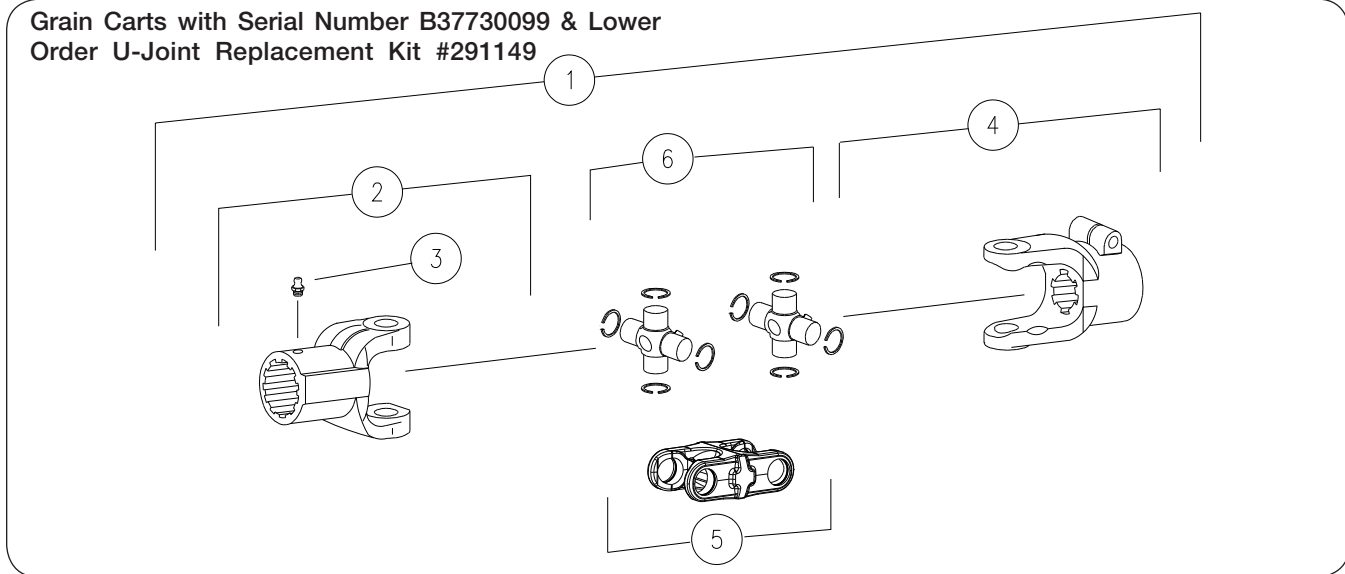
FOR 1 3/8"-6 spline gearbox ONLY. For 1 3/4"-20 spline gearbox, see additional diagrams in this section.

ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
	Gearbox, Complete with 6 Spline Input Shaft	9002812	1	Includes Items 1 thru 17
1	Shaft, Input	9001131	1	1 3/8"-6 Input Spline
2	Shaft, Output	9001132	1	1.8:1 Gear
3	Bearing Cone	92697	1	Large
4	Bearing Cup	91151	1	Large
5	Bearing Cone	9001133	2	
6	Bearing Cup	9001134	2	
7	Bearing Cone	91816	1	Small
8	Bearing Cup	92896	1	Small
9	Casting w/ Tapped Holes - Model Q81 Gearbox	9003447	1	Use Kit #281885
10	Casting w/ Thru Holes - Model Q81 Gearbox	9003448	1	Not Shown - Use Kit #281885
9A	Casting w/ Thru Holes - Model Q145 Gearbox	9007299	1	Not Shown
10A	Casting w/ Tapped Holes - Model Q145 Gearbox	9007300	1	Not Shown
11	Seal	92688	1	Small
12	Seal	92702	1	Large
13	Capscrew, 3/8-16 UNC x 1 1/2	95281	9	
14	Pressure Relief, 5-PSI	92352	1	Not Shown
15	Plug, Plain	92350	3	Not Shown
16	Plug, 3/4" Npt	9001139	1	Not Shown
17	Hex Bushing Reducer	9003453	1	Not Shown

Driveline U-Joint Assembly

Please visit www.unverferth.com/parts/ for the most current parts listing.

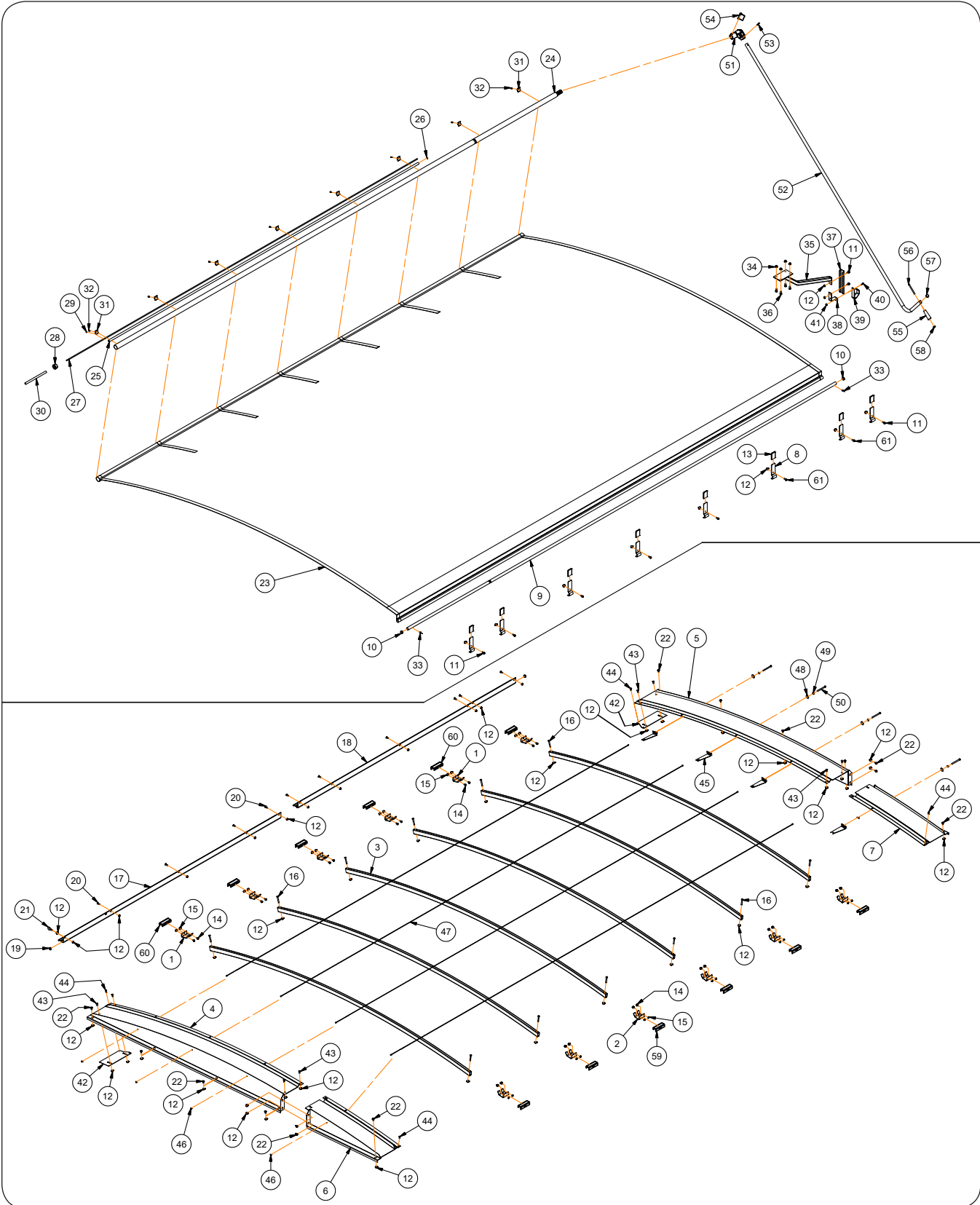
Grain Carts with Serial Number B37730099 & Lower
 Order U-Joint Replacement Kit #291149



ITEM	DESCRIPTION	PART NUMBER	QTY.	NOTES
1	Complete U-Joint Assembly	9009064	1	For 1 3/4"-20 Spline Gearbox
		9008741		For 1 3/8"-6 Spline Gearbox
		9007809		For SN B37730100 - B39580148
		291149		For SN B37730099-Lower (U-Joint Replacement Kit)
2	Yoke, 1 3/8-21 Spline (Driveline End)	92531	1	For SN B37730100 & Higher
3	Grease Zerk, 1/4-28 UNF	91160	1	
		9007829	1	For 1 3/4"-20 Spline Gearbox (Includes M16 Hardware - Not Shown)
		9008758		For 1 3/8"-6 Spline Gearbox
4	Yoke, 1-3/8-6 Spline	9007831	1	For SN B37730100 - B39580148
5	Center Yoke	92533	1	For SN B39580149 & Higher
6	Cross & Bearing Kit	92529	2	For SN B37730100 & Higher
			1	For SN B37730099 & Lower

Weather Guard Tarp

Please visit www.unverferth.com/parts/ for the most current parts listing.



Weather Guard Tarp

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	287908B	Complete Tarp Kit =Black=	1	
1	283425B	Tarp Bow Bracket =Black=	6	
2	283427B	Tarp Bow Bracket =Black=	6	
3	287400B	Tarp Bow Tube =Black=	6	
4	287340B	End Cap Weldment - Front - Long =Black=	1	
5	287341B	End Cap Weldment - Rear - Long =Black=	1	
6	287357B	End Cap Weldment - Front - Short =Black=	1	
7	287356B	End Cap Weldment - Rear - Short =Black=	1	
8	266689B	Stop - Tarp Short =Black=	8	
9	221610	Fixed Tube Weldment	1	
10	9005088	Plastic Plug 1.125"	2	
11	91262	Flange Screw 3/8-16UNC x 1 (Grade 5)	4	For SN B40920100-Higher
			10	For SN B40920099-Higher
12	91263	Nut/Large Flange 3/8-16UNC	56	
13	9003078	Plastic Cap	8	
14	97604	Flange Screw 5/16-18UNC x 1 (Grade 5)	24	For SN B40920100-Higher
	91256	Flange Screw 5/16-18UNC x 3/4 (Grade 5)		For SN B40920099-Lower
15	91257	Hex Nut/Large Flange 5/16-18UNC	24	
16	902703-046	Flat Socket Countersunk Capscrew 3/8-16UNC x 3 (RH Thread)	12	
17	221670	Latch Plate - Front 126 1/2"	1	
18	221671	Latch Plate - Rear 126 1/2"	1	
19	9004968	Plug 1"	2	
20	9005312	Truss Head Machine Screw 3/8-16UNC x 1 (Grade 5)	10	
21	9004548	Eye Bolt 3/8-16UNC x 1 3/4	1	
22	95585	Capscrew/Large Flange 3/8-16UNC x 3/4 (Grade 5)	14	
23	9007458	Tarp 181 x 247	1	
	9005581	Tarp Repair Kit	-	
24	221604	Roll Tube Weldment	1	
25	221668	PVC Pipe	1	
26	9405-074	Flat Washer 3/8" SAE	1	
27	221722	Cord - Bungee 3/8" Dia. x 204	1	
28	9004947	Tube End Plug 2"	1	
29	9001396	Self Drilling Screw #10-16 x 1/2"	1	
30	TA806225	Hose 1/2" EPDM	1	
31	9004949	U-Clamp	8	
32	9005197	Self Drilling Screw #10-16 x 3/4"	8	
33	9003378	Rivet 3/16"	2	
34	9002058	Flange Nut 1/2-13UNC	4	
35	265706B	Tarp Crank Holder Weldment =Black=	1	

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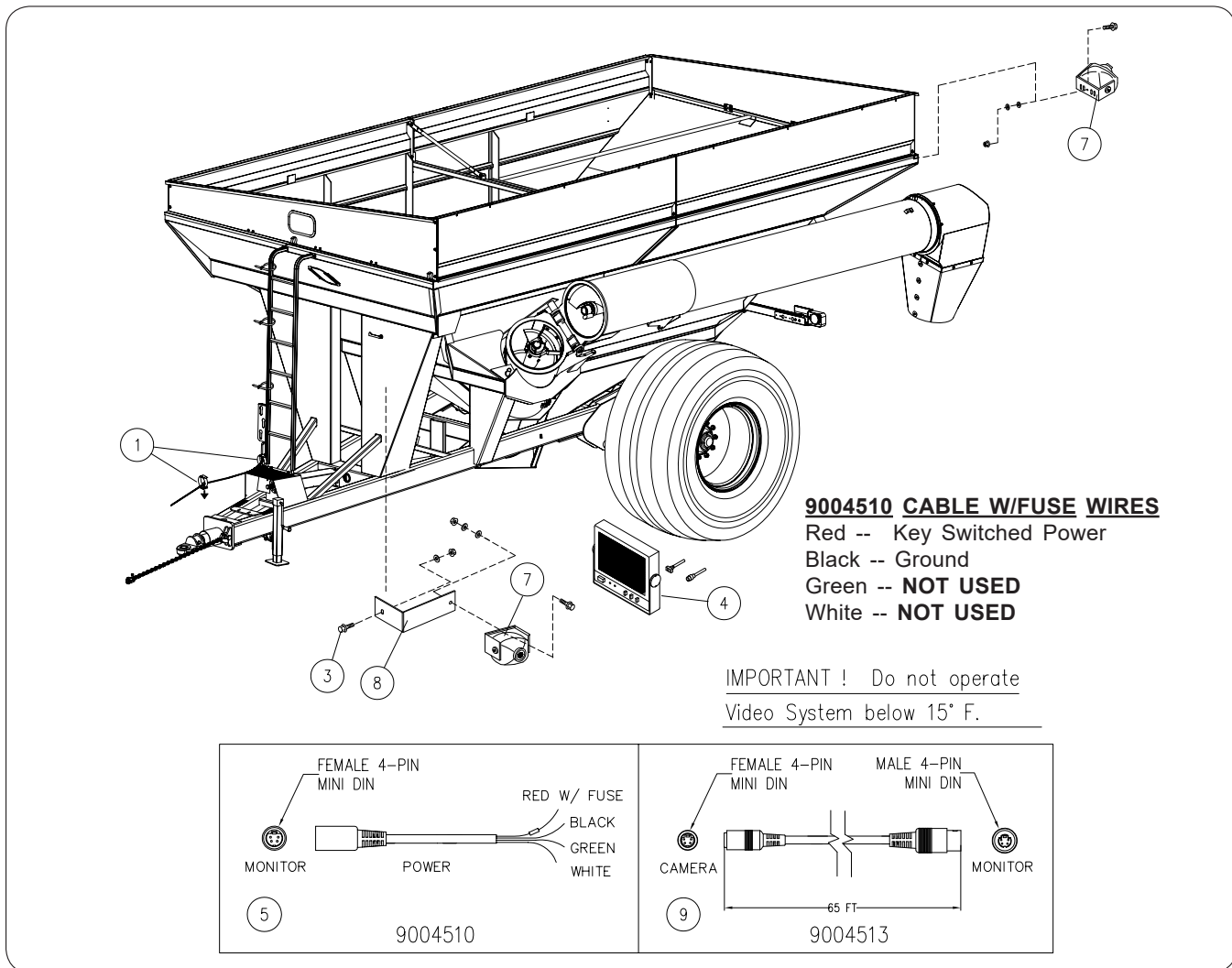
Weather Guard Tarp

Please visit www.unverferth.com/parts/ for the most current parts listing.

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
36	9390-099	Capscrew 1/2-13UNC x 1 (Grade 5)	4	
37	265743B	Crank Holder - Channel Extension =Black=	1	
38	221700B	Offset Bracket =Black=	1	
39	221770B	Handle Retainer Weldment =Black=	1	
40	9390-055	Capscrew 3/8-16UNC x 1 (Grade 5)	1	
41	9928	Locknut 3/8-16UNC	1	
42	283431B	End Cap Plate =Black=	2	
43	9388-051	Carriage Bolt 3/8-16UNC x 1 (Grade 5)	8	
44	9512	Self Drilling Screw 1/4-14 x 1	4	
45	281712B	Bracket & U-Nut Assembly =Black=	4	
46	9005727	Plug 7/16	4	
47	9005698	Cable Assembly 234"	4	
48	9005696	Fender Washer 3/8"	4	
49	9005688	Lock Washer/External Tooth 3/8"	4	
50	TA0-907131-0	Capscrew 3/8-16UNC x 4 1/2 (Grade 5) Full Threaded	4	
51	9004977	U-Joint 1 3/8-21 Spline	1	
52	287944	Tarp Handle Weldment	1	
53	9392-180	Roll Pin 3/8" Dia x 2	1	(Not Shown)
54	9005305	Lynch Pin 3/8" Dia. x 3	1	
55	9004969	Handle	1	
56	903172-450	Pan Head Phillips Machine Screw 3/8"-16UNC x 4-1/2"	1	
57	9005089	Plug 1 1/4"	1	
58	9398-012	Elastic Locknut 3/8-16UNC	1	
59	294678B	Doubler Plate Left-Hand =Black=	6	For SN B40920100-Higher
60	289986B	Doubler Plate Right-Hand =Black=	6	For SN B40920100-Higher
61	9003259	Flange Screw 3/8-16UNC x 1 (Grade 5)	6	For SN B40920100-Higher

Video System Option

Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
	265770	Video System Kit for Front View	1	Includes Items 1,3,4,5,7,8,9 and own instruction sheet
	9004506	Additional Camera for Rear View	1	Includes Items 7 & 9
1	TAAU14007	Snap Clip, Adhesive	10	
3	9512	Self-Drilling Screw 1/4-14 x 1	10	
4	9006273	Monitor, 7" LCD/LED	1	
5	9004510	Cable w/Fuse	1	
7	9006274	Camera	1	
8	265771B	Bracket	1	
9	9004513	Cable, 65'	1	
10	9000106	Cable Tie	AR	
11	9004506	Camera Kit for Rear View with 65' Cable	1	Not Shown
12	9007174	Camera Cable, 16 ft.	1	Not Shown



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