



UM TRANSPORTATION
EQUIPMENT

ROADRUNNER

Header Transport
Models: 530, 536, 542, 548

Serial #D67620100 & Higher

Part No. 33278

Foreword



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

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

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

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

PRE-OPERATION CHECKLIST

- | | |
|--|---|
| <input type="checkbox"/> Wheel bolts tightened (recheck after initial use) | <input type="checkbox"/> Safety and operating procedures reviewed |
| <input type="checkbox"/> Tire pressures checked | <input type="checkbox"/> Adjustment information reviewed |
| <input type="checkbox"/> Hardware tightened | <input type="checkbox"/> Lubrication procedures reviewed |
| <input type="checkbox"/> Machine lubricated | <input type="checkbox"/> Warranty information reviewed |

Product Information

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

- Machine name
- 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 right-hand side of the front frame as shown in FIG. 1.

Purchase Date _____ Model _____ Serial No. _____

Dealer _____ City _____

Dealer Contact _____ Phone _____



IMPORTANT

The information, specifications, and illustrations in the manual are on the basis of 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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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

 **DANGER**

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

 **WARNING**

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

 **CAUTION**

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

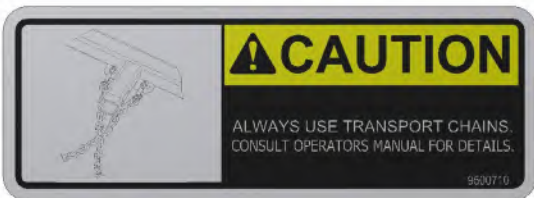
IMPORTANT

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

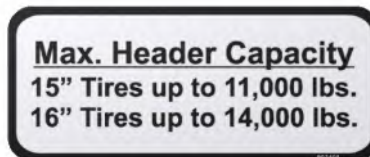
Safety Decals

⚠️ WARNING

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



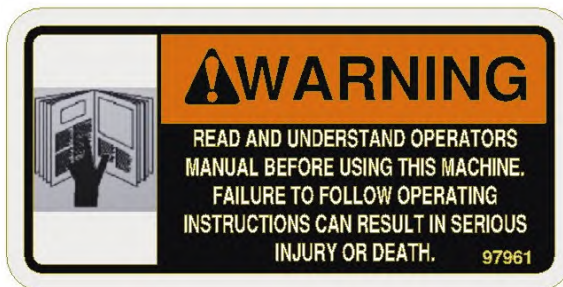
PART NO. 9500710



PART NO. 902401



PART NO. 98229



PART NO. 97961



PART NO. 97877



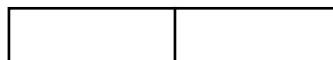
PART NO. 95839



PART NO. 9003126







PART NO. 9003127




PART NO. 25003
CONSPICUITY MARKING (18")

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 towing vehicle 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 driver's seat. 

Before Servicing

- Avoid working under an implement; however, if it becomes absolutely unavoidable, make sure the implement is safely blocked. 
- 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.
- When working near head cutter bar, be careful not to be cut by sharp edges.
- Ensure that all applicable safety decals are installed and legible.

Before Operating

- Do not stand between towing vehicle and implement during hitching.
- Do not stand between head and implement during operation.
- Always make certain everyone and everything is clear of the machine before beginning operation.
- Be sure all hardware is tight and pins are properly installed in rest brackets.
- When working near head cutter bar, be careful not to be cut by sharp edges.
- Ensure that all applicable safety decals are installed and legible.

During Operation

- Regulate speed to field conditions. Maintain complete control at all times.
- Never lubricate equipment when in operation.
- Use extreme care when operating close to ditches, fences, or on hillsides.
- Do not leave towing vehicle unattended with engine running.
- Do not adjust the transporter with the head positioned over the unit.

Before Transporting

- Secure the transport chains to towing vehicle before transporting. DO NOT transport without the chains.
- Check for proper function of all available transport lights. Make sure that all reflectors are clean and in place on the machine.
- This implement may not be equipped with brakes. Ensure that the towing vehicle has adequate weight and braking capacity to tow this unit.
- Before transporting, secure the head with straps. Replace damaged or worn straps, and avoid putting straps over rough, sharp surfaces. Use appropriate number and capacity rating of straps.

During Transport

- Comply with state and local laws governing highway safety when moving machinery.
- Use transport lights as required by local laws to adequately warn operators of other vehicles.
- Use good judgment when transporting equipment on highways. Regulate speed to road conditions and maintain complete control.
- Slow down before making sharp turns to avoid tipping. Drive slowly over rough ground and side slopes.
- It is probable that this implement is taller, wider and longer than the towing vehicle. Become aware of and avoid all obstacles and hazards in the travel path of the equipment, such as power lines, ditches, etc.

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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General Set Up Information

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

IMPORTANT

- *The procedures for assembling this unit were intended for two or more people.*

For ease of assembly, install all hardware loosely until assembly is complete and then tighten according to “Torque Chart” unless otherwise specified.

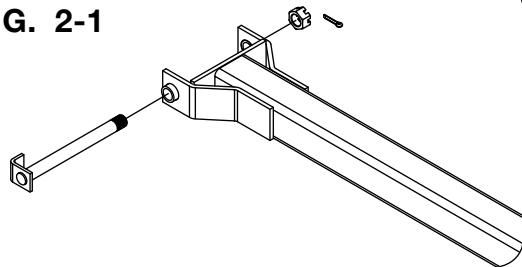
WARNING

- **READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW THE SAFETY SECTION IN THIS MANUAL, IF NECESSARY.**
- **WHEN WORKING AROUND THE MACHINE, BE SURE IT IS SECURELY BLOCKED; FAILURE TO DO SO COULD RESULT IN TIPPING OR MOVEMENT OF MACHINE, CAUSING SERIOUS INJURY OR DEATH.**
- **MOVING PARTS CAN CRUSH AND CUT. KEEP AWAY FROM MOVING PARTS.**
- **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 5,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

Tongue

1. Fasten tongue to pivot axle weldment using pin (106920B), slotted nut (9393-020), and cotter pin (9391-057) (FIG. 2-1).

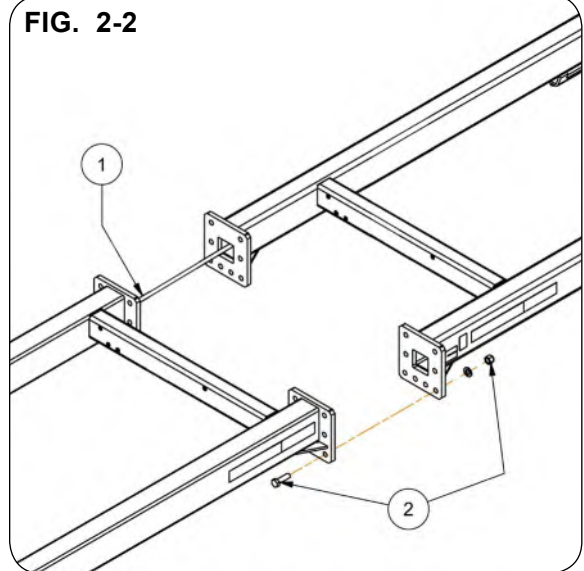
FIG. 2-1



Frame

NOTE: For ease of assembly, install all hardware loosely until assembly of frame is complete.

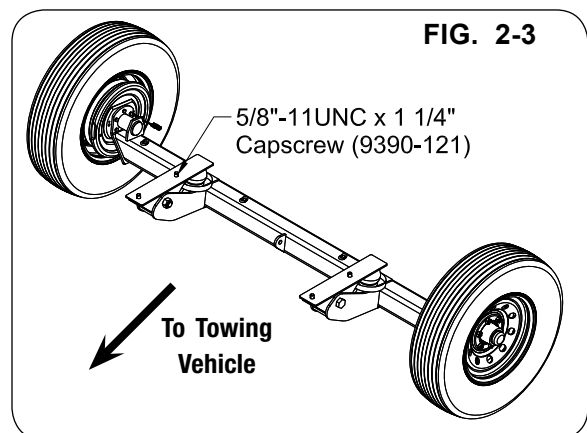
1. Use a safe lifting device with a minimum 1500 lbs. capacity to position the front and rear frames a few feet apart.
2. Secure front and rear frames together using the 3/4"-10UNC x 2 3/4" capscrews (9390-148), sixteen 3/4" flat washers (9405-104), and 3/4"-10UNC elastic stop nuts (9398-021) provided.



Rubber Cushioned Axles Set Up & Alignment

NOTE: If the frame is partially assembled, skip this section.

1. Determine the placement of the axles, forward position or rear position.
 - a. Factory setting is to the rear.
 - b. Ideal location is as close to the feeder house with adequate clearance.
2. With a safe lifting device rated for 400 lbs., place the first axle under the rear frame.
 - a. Forward position - install front axle first.
 - b. Rear position - install rear axle first.
3. Bolt the axle to the frame with the four 5/8"-11UNC x 1 1/4" capscrews (FIG. 2-3). The 5/8"-11UNC locknuts holding the cushion plate on can be discarded.
4. Position the second axle under the frame with a safe lifting device and space it a minimum of 33-inches away from the first axle to allow tire clearance.
 - a. Bolt the axle to the frame with the four 5/8" lock washers and 5/8"-11UNC x 1" capscrews.
5. Make sure the axles are perpendicular to the frame.



NOTE: The rubber cushion support plate must fully rest on axle mounting frame rail. IT CANNOT OVER HANG.

NOTE: Always install all four attaching bolts all the way to the front of the slots in the axle mounts.

Rubber Cushioned Axles Set Up & Alignment (continued)

It is possible to adjust the position of the rear axles. Install 2 axles in 2nd from last set of holes, see FIG. 2-4. Additional forward positions can be used to change weight distribution, or to avoid possible interference with certain heads.

NOTE: Be sure axle faces rear as shown.

NOTE: Do not position the rear axle in the rear most set of holes, rubber cushion support plate is not supported.



Tires And Wheels

1. Using a safe lifting device and jack stands rated at a minimum of 2,500 lbs., raise the frame at least 16 1/2 inches high.
2. Install proper wheels and tires onto axles and secure with bevel nuts. Refer to Wheel Torque Chart in “MAINTENANCE” section.



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

- Check tire inflation pressure before installing.

Arm Installation

NOTE: Install the front and rear arms first.

1. Insert the bolt in the lower hole of the large channel through the frame hole as shown.
2. Pin the link to the frame. If unsure of the hole to utilize, insert in the middle hole and adjust according to the instructions later on in this section.
3. On the middle arm, pin the link so the top of the arm is in line with the front and rear arms. The frame is bowed so it is ideal to keep the bar straight when loaded.

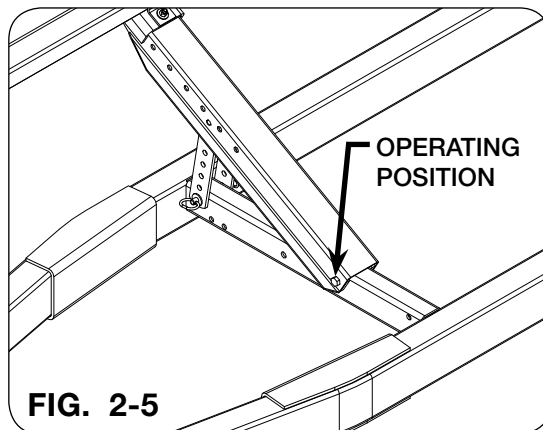


FIG. 2-5

Fender Installation

NOTE: For ease of assembly, install all hardware loosely until assembly of frame is complete.

1. Attach the front and back fender brackets to the axle weldment as shown in FIG. 2-6.

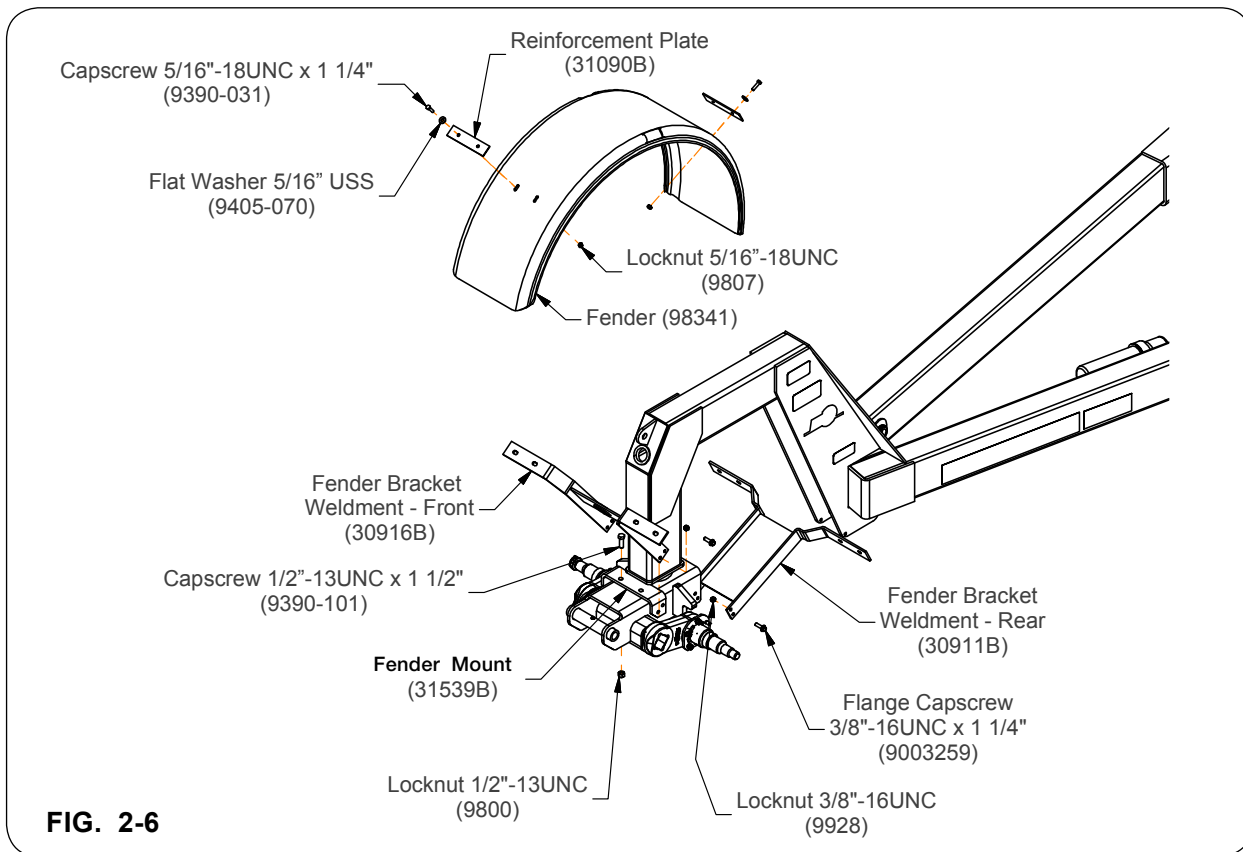
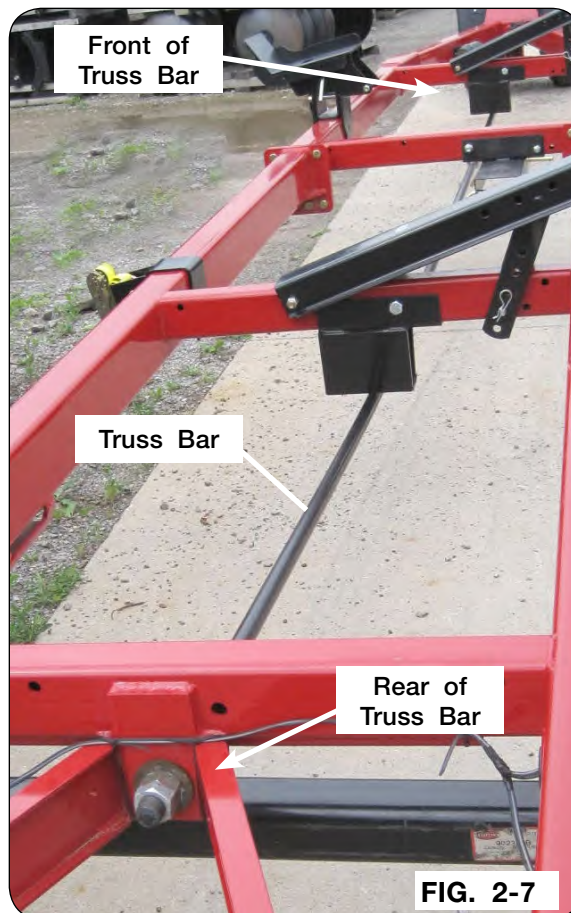


FIG. 2-6

2. Attach the fender to the fender brackets with capscrew, flat washer, reinforcement plate, and locknut as shown in FIG. 2-6.

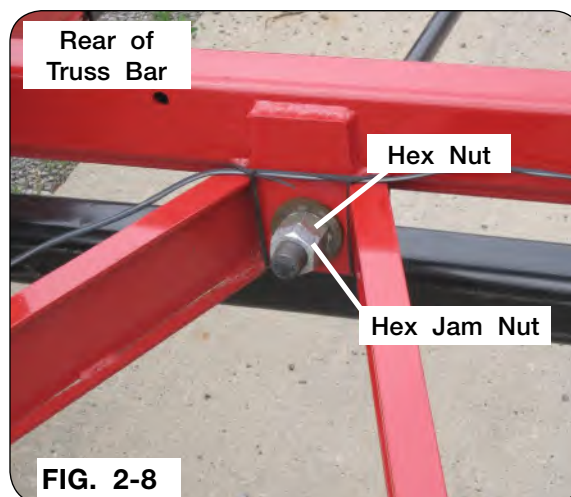
Truss Bar Assembly — All Units

1. Install the truss support on the front most cross tube as shown in FIG. 2-7.



2. Inspect the front truss rod ends. The end with the most threads goes towards the front of the machine.
3. Insert rear truss rod through rear and underneath frame tubes. Install hex nut and jam nut onto the rear end of the truss rod as shown in FIG. 2-8.

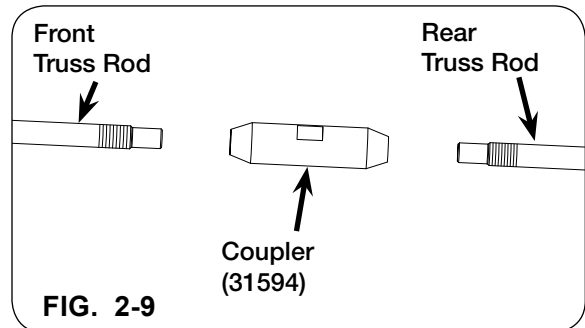
NOTE: The nuts will nest between the two plates adjacent to the rod. The jam nut will be flush with the end of the truss rod.



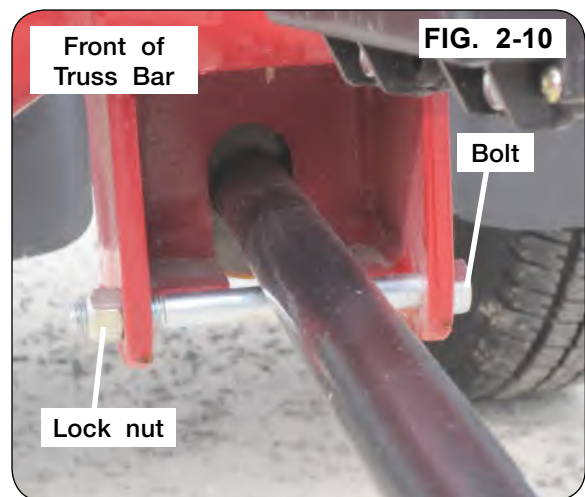
Truss Bar Assembly — All Units (continued)

4. Connect the front and rear truss rods together with coupler (31594) as shown in FIG. 2-9. It may be necessary to lubricate couplers for easy assembly.

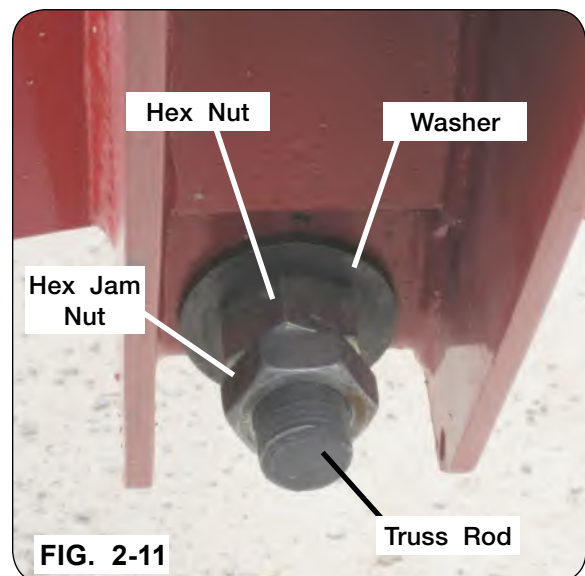
NOTE: The couplers should be tightened completely during assembly. All frame arch and pre-load should be done with the adjustment nuts on the ends of the truss rods.



5. Remove bolt and lock nut, then lift truss rod into position. Re-insert bolt and lock nut to hold the truss rod (FIG. 2-10).



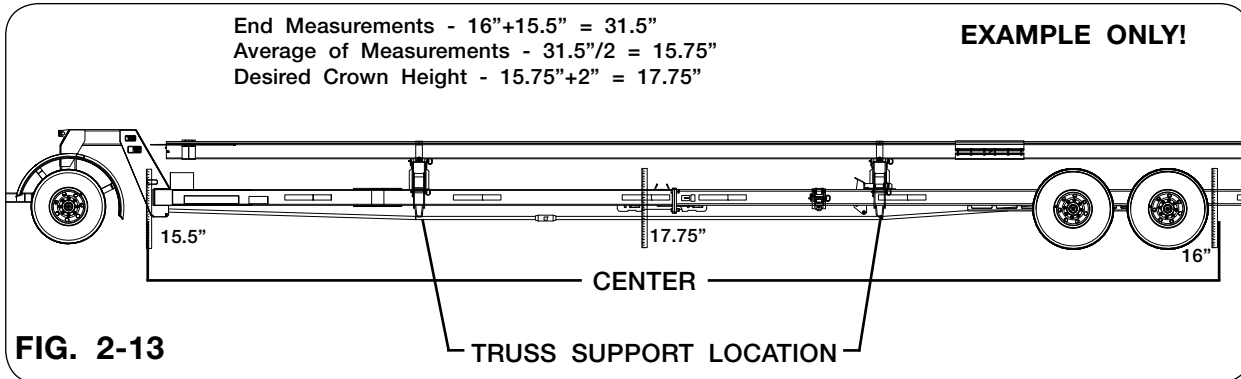
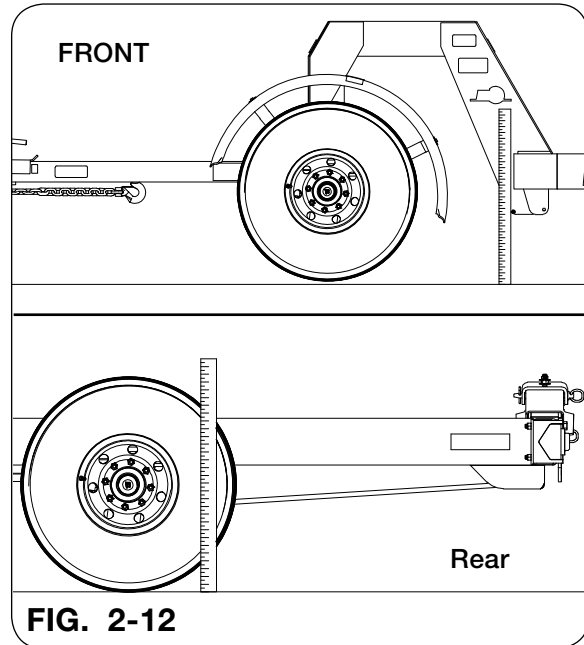
6. Install hardened washer, hex nut and hex jam nut as shown on both ends of the truss rod (FIG. 2-11).
7. Thread nut on front of truss rod so 2" of threads extend beyond nut.



Truss Bar Assembly — All Units (continued)

NOTE: Factory assembled units have a crown of 1 inch.

- To determine proper tensioning, measure height from ground to under frame, just behind rear axle (see FIG. 2-12). Then measure ground to frame clearance just behind front tires. Take an average of the two measurements. The results should be comparable. Next, find the horizontal-center of the two points that were previously measured. This is where a measurement will occur on the frame in order to determine the proper crown dimension. Add 2" to the average value of the rear and front measurements. Tighten nut on rear of truss until desired crown height dimension is reached (see FIG. 2-13).

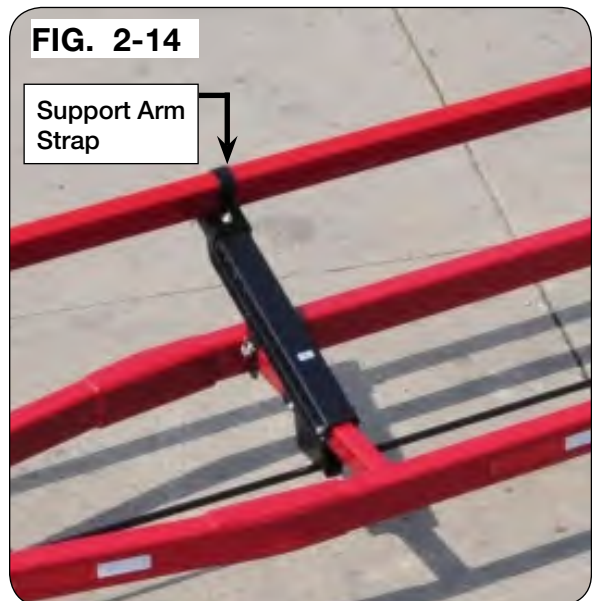


The recommended arch in the frame is based on heads weighing up to 14,000 lbs. For heads weighing significantly less, the arch can be reduced to allow the head to transport properly. Ideally when loaded, the header transport should be level or slightly arched.

- Jam the hex nut and hex jam nut together on both ends of the truss to lock them in place.

Upper Rest Bar

1. Loosen hardware on all arm straps. See FIG. 2-14.
2. Install upper rest bar, position so front end of tube is even with rear of the gooseneck. Once positioned, retighten all strap hardware (FIG. 2-14).



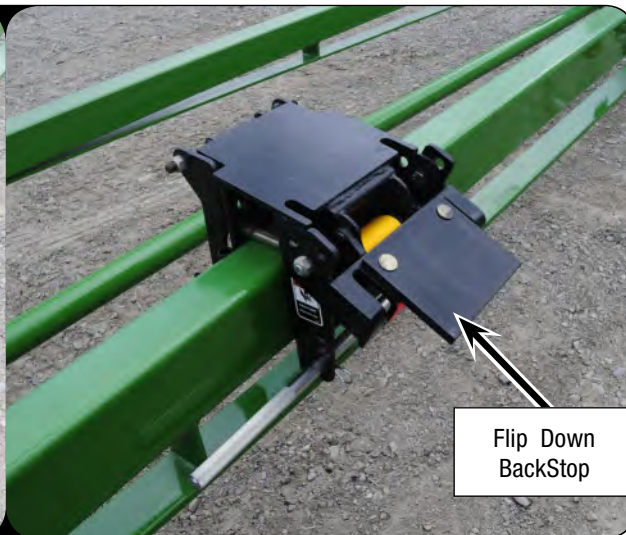
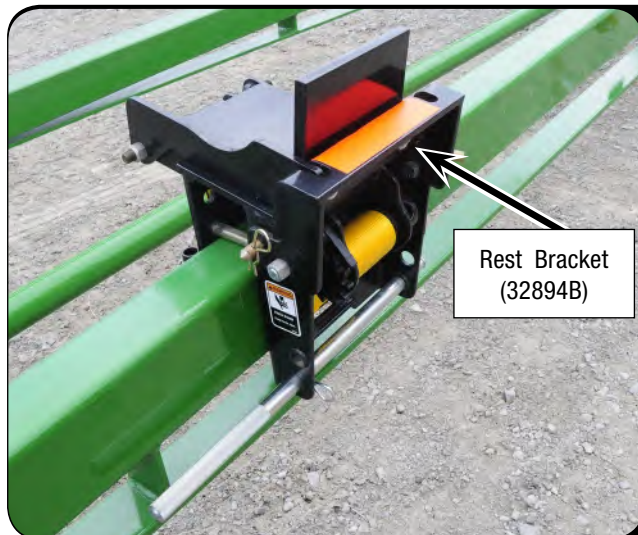
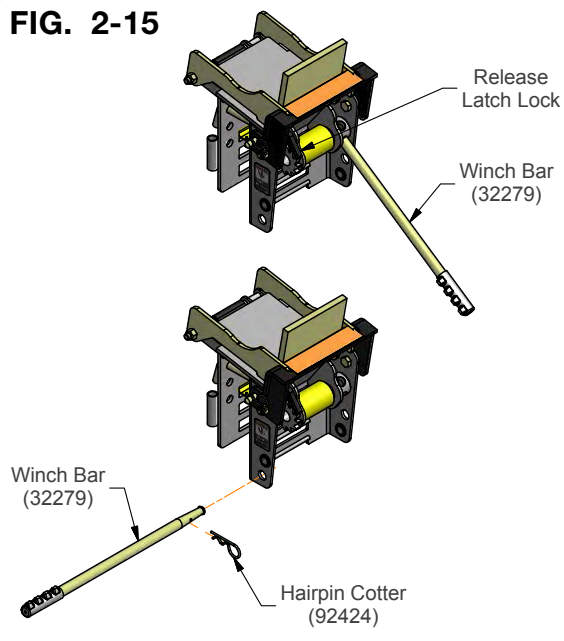
Rest Bracket

1. Using the 2' winch bar, lift the "Lock" up to release the strap.
2. Position the rest brackets on the 6" x 4" support tube and thread strap around the 6" x 4" support swivel with truss bar and back to the rest bracket.

NOTE: Strap must always be routed through the slot aligning with the bottom of the 6"x4" rest tube and be secured directly against the bottom of the tube.

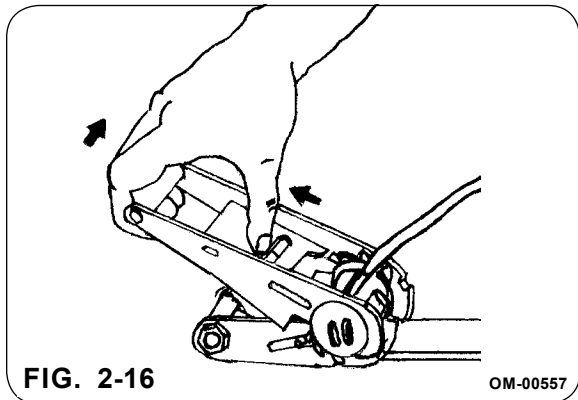
3. Tighten using the 2' winch bar (32279). Replace winch bar in either of the storage positions as shown below.

FIG. 2-15



Tie-Down Kit #30501

The tie down brackets consist of two heavy-duty strap assemblies which secure current design headers to the transport. For proper installation follow steps as shown.



1. Loosen strap by pulling up ratchet handle and lock in open position (FIG. 2-16).

CAUTION

- BE SURE RATCHETS, WEBBINGS, AND HOOKS ARE IN PROPER WORKING CONDITION SO THAT DAMAGE DOES NOT OCCUR DUE TO LOSS OF HEADER FROM TRANSPORT.

NOTE: Before tightening, be sure header is resting against backstops on lower rest brackets.

NOTE: Be sure tie down bracket assemblies are secured to transport directly below the section on the header that the tie down hook is being attached to. DO NOT ATTACH BRACKET AND PULL STRAP AT AN ANGLE TO THE BRACKET TO SECURE. Doing so could result in unnecessary stress and wear to tie down webbing.

2. Slide tie down bracket across lower rest tube and secure in appropriate location under header by inserting carriage bolt, flat washer, and knob. Tighten into position by turning knob clockwise.

NOTE: It is recommended that the tie downs be secured to a main bar or sufficient bar/tube on the combine head that is rigid enough to support total weight of header. Failure to do so could result in damage to the combine header.

CAUTION

- BE SURE ALL SHARP EDGES ARE REMOVED SO THAT WEBBING DOES NOT BECOME CUT OR FRAYED.

Wiring Harness

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

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

Please see federal regulation 49 CFR 562; available at www.govinfo.gov for US federal law requirements.

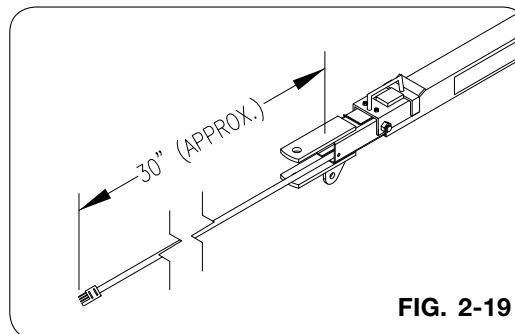
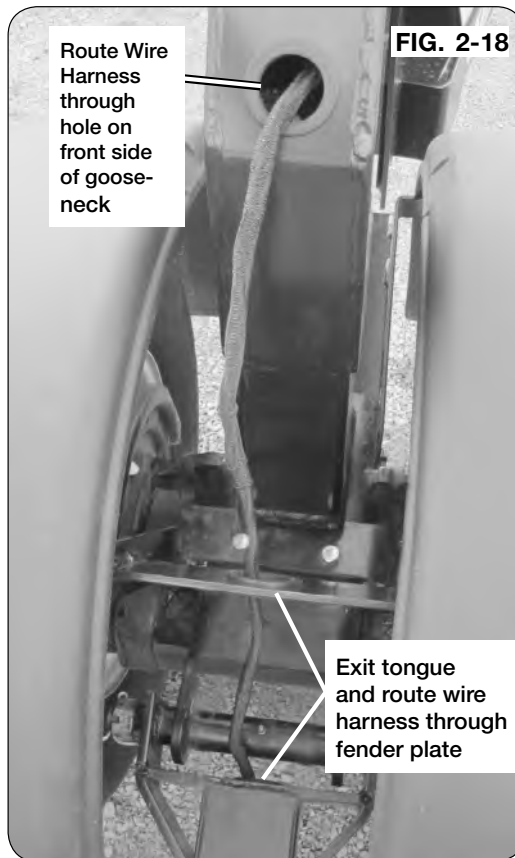
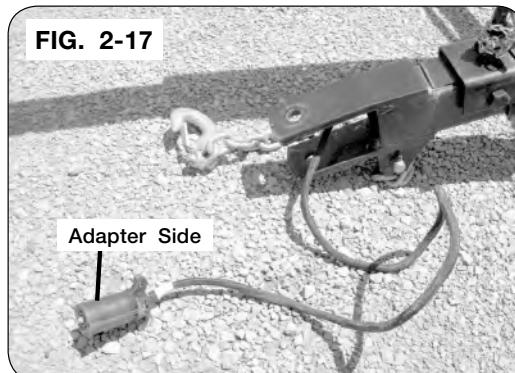
See your Unverferth dealer for additional brackets, reflectors, or lights to meet your requirements.

For brake operation and maintenance, refer to the brake system manual 97962 or www.dexteraxle.com

1. Starting with front harness, feed harness through tongue body and out of rear of tongue. Continue to feed wire through hole in fender plate and then through top tube of gooseneck as shown. See FIG. 2-17 & 2-18.

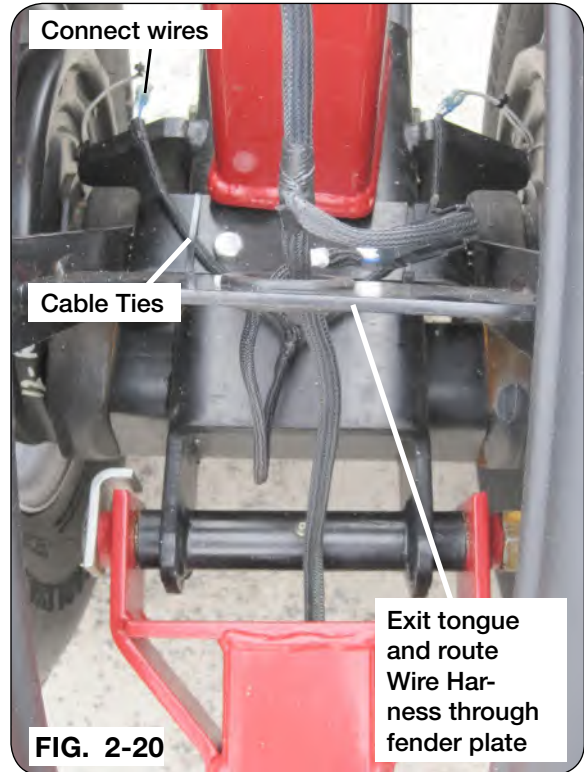
NOTE: There should be approximately 30" of cable extending from the front end of tongue. Any remaining cable can be stored inside the tongue body. See FIG. 2-19.

NOTE: For non-brake units, skip to step 5.



Wiring Harness (continued)

2. Connect the wire harness to the Brake Cluster Harness. See FIG. 2-20.



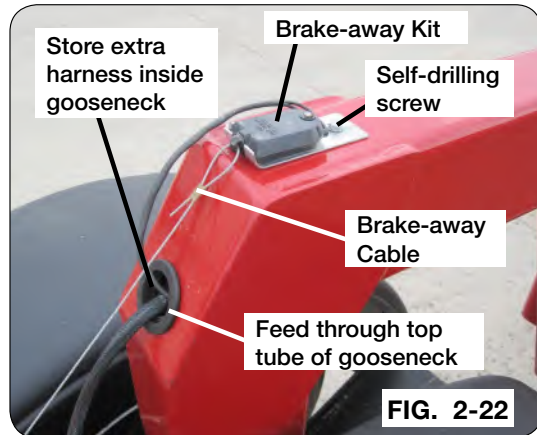
NOTE: Make sure pigtails are routed on top of welded ears and use cable ties to secure wire harness in place.

3. Connect wire harness to brake harness. See FIG. 2-21.



Wiring Harness (continued)

4. Attach break-away switch to top of gooseneck using self-drilling screw, see figure 3-7. Connect wire harness to break-away wire harness. Place wire harnesses inside gooseneck for storage. Break-away cable will be connected to towing vehicle. See FIG. 2-22 & 2-23.

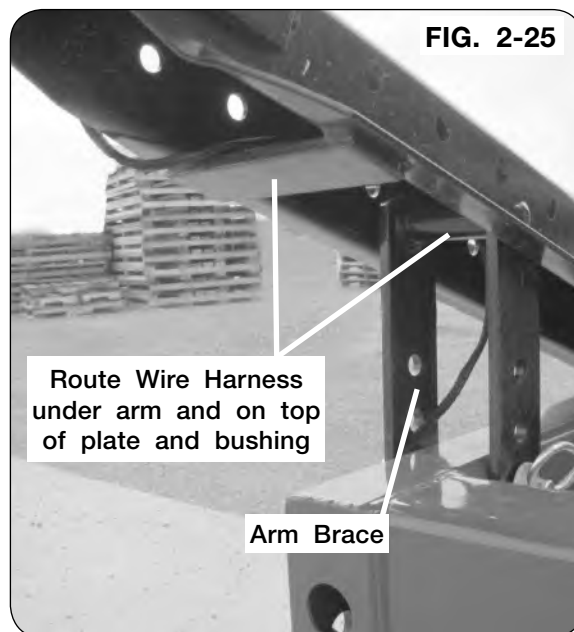


5. Front harness will then exit top tube of gooseneck and be routed inside the gooseneck to the front of the transport frame. Connect the front wire harness to mid-wire harness. Insert fish tape into the harness exit hole of the rear frame and snake it to the front harness entrance hole. Connect the tape to the harness and gently pull it through the frame, leaving about six inches of harness hanging out.



Upper Bar Mount Light Bar Installation

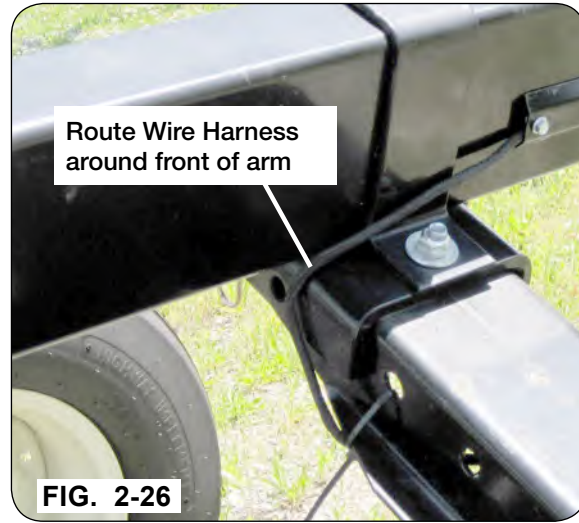
1. Connect the rear harness to the mid-light harness (31815). Route harness up arm brace and on top of bushing and plate on underside of arm. See FIG. 2-25.



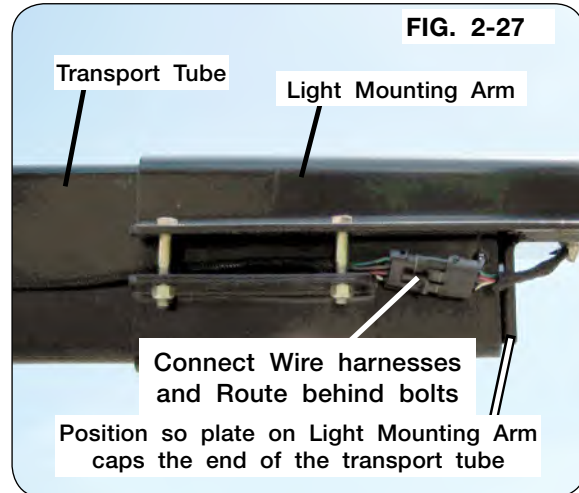
Upper Bar Mount Light Bar Installation (continued)

2. Route wire harness around the front of the arm and continue to route along the transport tube towards the rear of frame. See FIG. 2-26.

NOTE: If installing the Frame Mount Light Kit, refer to page 2-19.

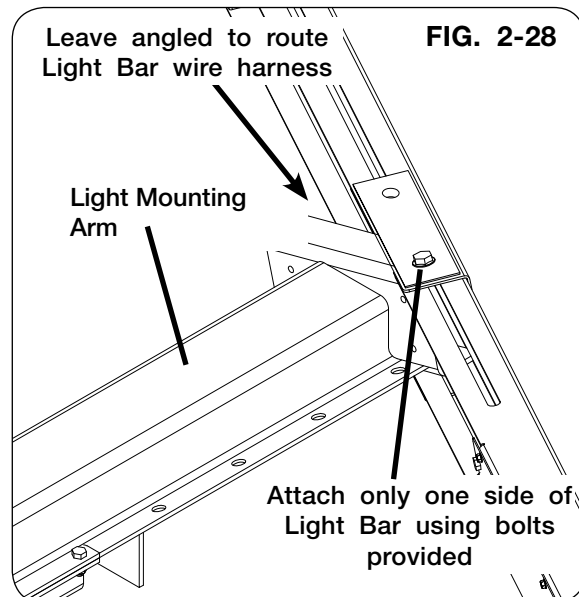


3. Next, mount the light mounting arm onto the header transport frame. Make sure the plate on the light mounting arm caps the end of the transport tube. Secure with hardware provided. See FIG. 2-27. Route wire harness (31815) behind bolts on light mounting arm and connect to light bar wire harness (31811). See FIG. 2-27.



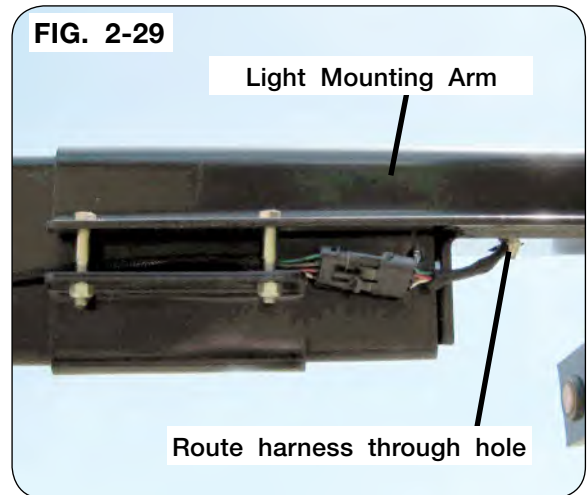
4. Attach light bar onto end of light mounting arm. Remove top and bottom bolts from one side of the backing plate on light bar. Attach that side of the light bar to the light mounting arm using bolts removed. Nuts can be discarded. See FIG. 2-28.

NOTE: When attaching the light bar, be sure the cover side of the light bar is facing the light mounting arm.

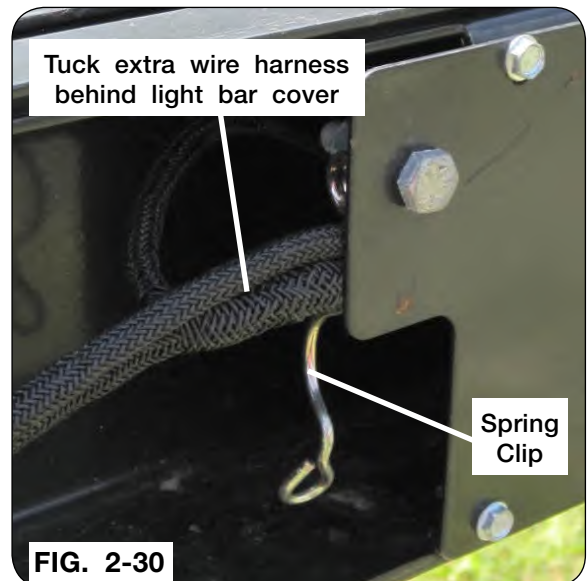


Upper Bar Mount Light Bar Installation (continued)

5. Once secured, angle light bar so wire harness can be routed through end of light mounting arm. Slide wire harness through hole on underside of light mounting arm. See FIG. 2-29.

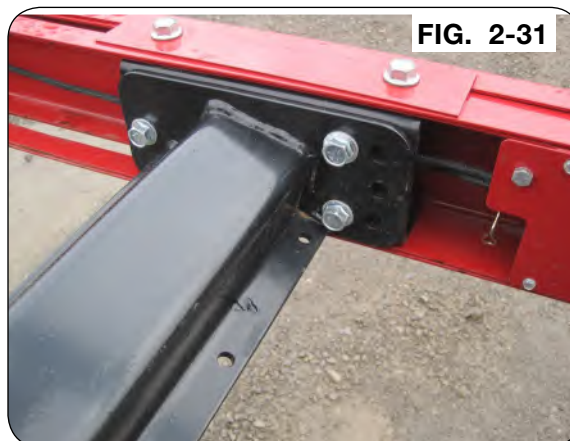


6. Before bolting opposite side of light bar to light mounting arm, remove wire harness from spring clip on the light bar. See FIG. 2-30.

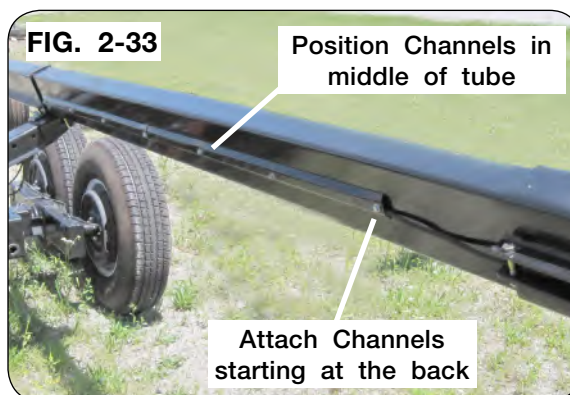


Upper Bar Mount Light Bar Installation (continued)

7. With light bar wire harness in place, remove top and bottom bolts on the opposite side of backing plate on light bar. Attach light bar to light mounting arm using bolts removed, see FIG. 2-31. Nuts can be discarded. Extend light bar all the way to the left to determine the length of wire harness required, see FIG. 2-32.



8. Position upper bar in working position front to rear. Refer to Upper Bar Adjustment in “Operations & Adjustments” section of Header Transport manual. Starting at the back, attach channels by either overlapping or leaving a space in between using self-drilling screws (9523). Center channels along middle of the tube from top to bottom as required by top bar location. See FIG. 2-33.



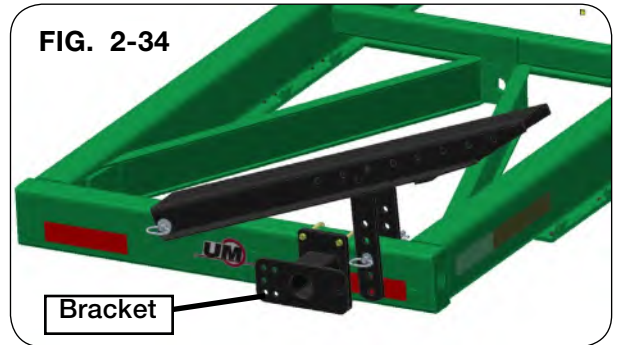
NOTE: The front most channel may need to be pushed back, overlapping more holes of channels if tube positioning interferes with arm.

NOTE:

- A) Make sure no wires are pinched or cut during installation.
- B) Keep all wires concealed to prevent them from getting caught on obstructions.

Frame Mount Light Bar (Optional) Installation

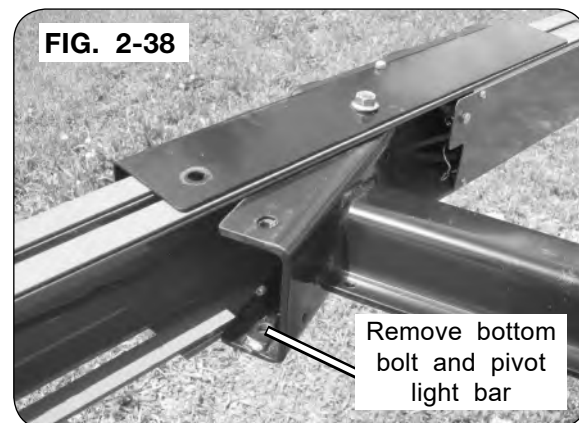
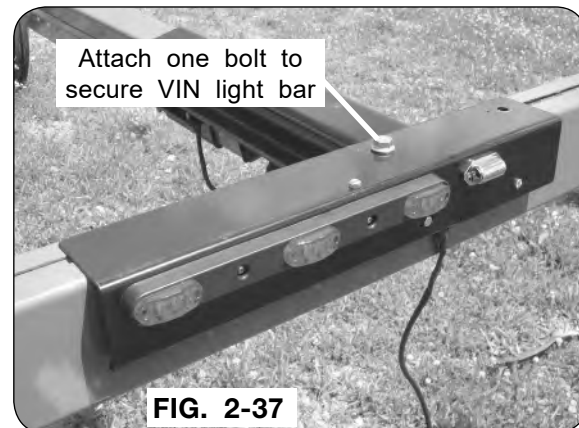
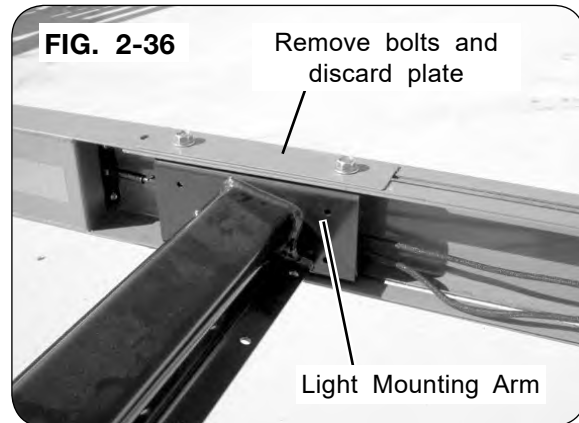
1. Disconnect the wire harness extending down the length of the top bar from the light bar wire harness.
2. Remove the Channels that secure the wire harness to the top bar.
 - a. Dispose of Channels and Self-Drilling Screws.
3. Install the bracket to the rear of the frame with the included U-bolts and locknuts. Locate the mount between the pivot end of the Upper Bar Support arm and the height adjustment link allowing for the adjustment of the Upper Bar Support Arm.
4. Remove the light bar by the supporting light bar and remove the three bolts from the rear side of the light bar angle adjust channel.
5. Install the light bar on the bracket installed in step 3 by reusing the three bolts removed in step 4.
6. Route the wire harness so the wire exits the end of the frame tube and through the hole in the side of the new light bar mount, out the rear of the mount and into the light bar. Connect the light bar harness to the frame harness. Insert the excess harness into the light bar mount and in the rear of the frame as required to conceal the wire harness.
7. Adjust the light bar width to accommodate the header to be transported by the Roadrunner.



VIN Light Bar & Brake Harness Installation

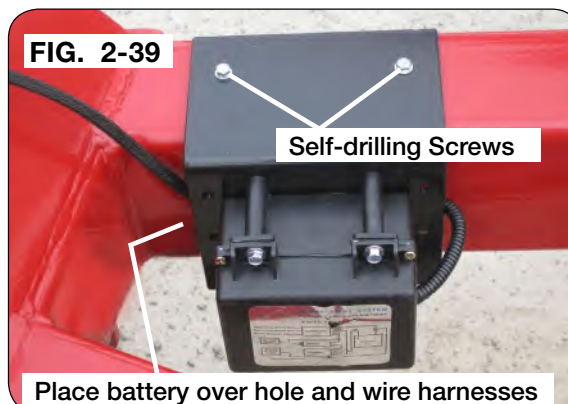
NOTE: VIN package #31758 is an optional package that includes license plate holder, rear running lights, and reflective decals.

1. Remove the top bolts that hold the light bar to the light mounting arm. Once removed, remove the backing plate. Discard backing plate only. See FIG. 2-36.
2. Attach VIN light bar to the top of the light bar and secure using one of the bolts removed from Step 1. See FIG. 2-37.
3. On the underside of the light bar, remove the bolt that is in line with the missing bolt on top of the light bar (FIG. 2-38).
4. With bolt removed, pivot light bar to route wires.

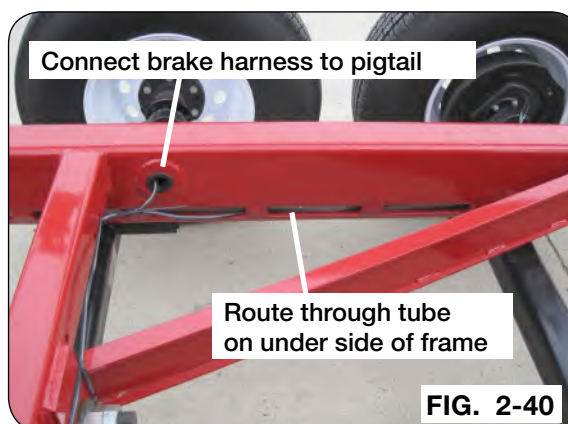


VIN Light Bar & Brake Harness Installation (continued)

- 5. Connect battery harness to wire harness and tuck wire harnesses inside frame. Locate battery over frame hole and wire harnesses. Secure in place using self-drilling screws. See FIG. 2-39.

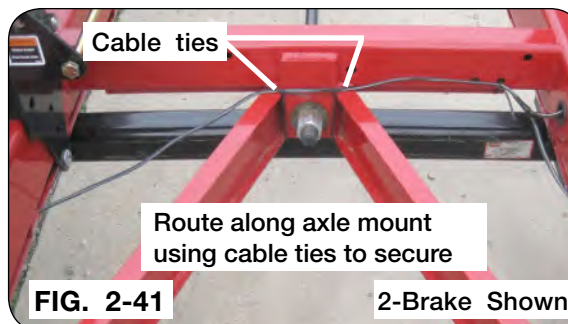


- 6. There will be a harness which will exit the rear frame through an opening just above the axles. Find this opening and extend the wires out. Connect brake harness to wire harness. For leads going to right side of frame, run harness through bolt-on tube on the under side of frame and continue to run wire on top side of axles. On left side, route harness along axle mount using cable ties to secure. Continue to run wires through bolt-on tube on the under side of the frame then on top side of axle. See FIG. 2-40 & 2-41.



NOTE:

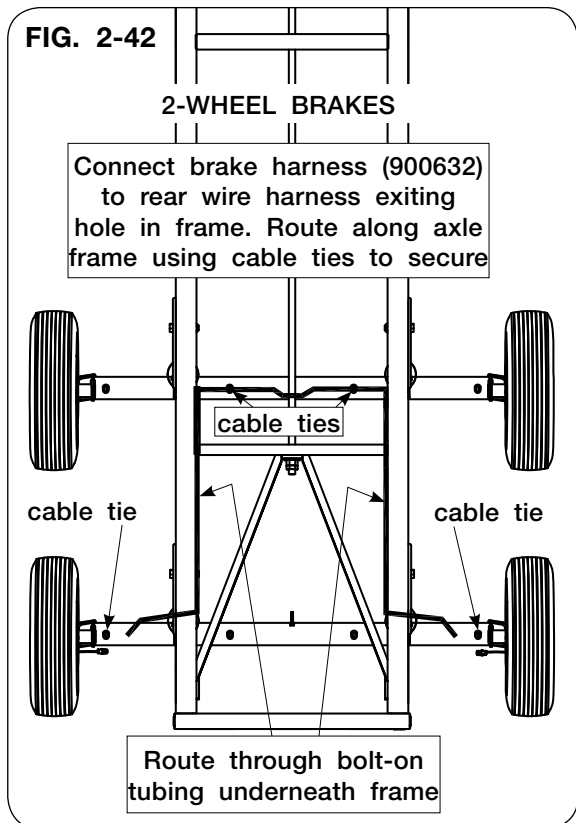
- A) Make sure no wires are pinched or cut during installation.
- B) Keep all wires concealed to prevent them from getting caught on obstructions.



VIN Light Bar & Brake Harness Installation (continued)

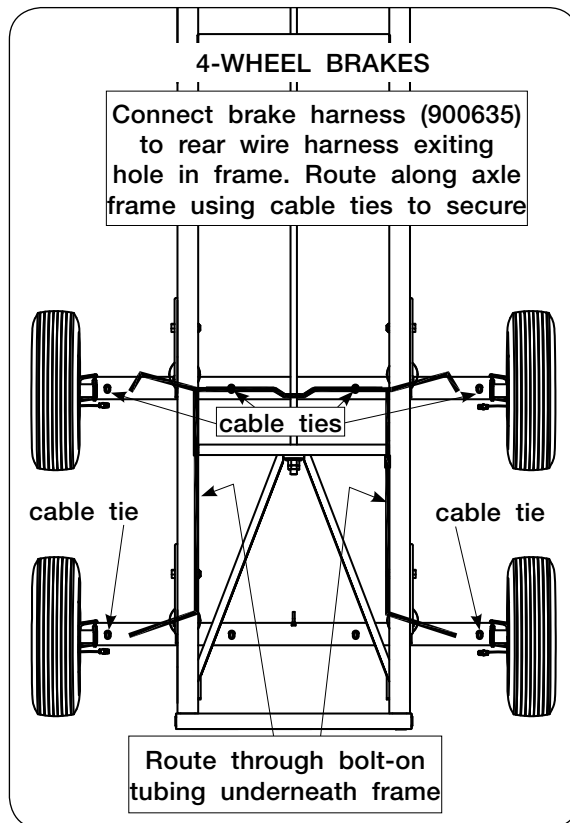
2-BRAKE SYSTEM

Connect rear harness (32062 - 30' & 36' or 32063 - 42' & 48') to 2-wheel brake harness (900632) (FIG. 2-42).



4-BRAKE SYSTEM

Connect rear harness (32062 - 30' & 36' or 32063 - 42' & 48') to 2-wheel brake harness (900635) (FIG. 2-42).

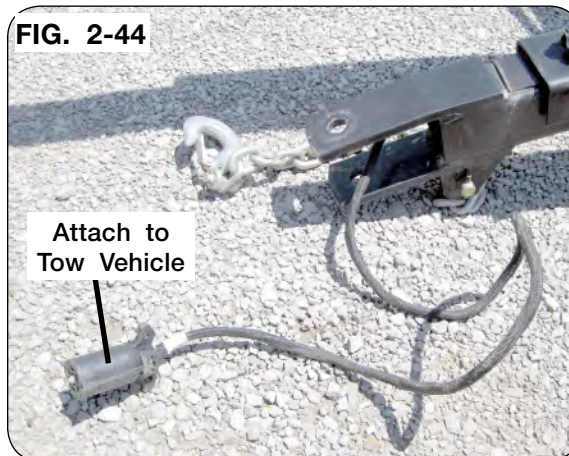


- Next, position harness so that it does not extend below axle frame. Secure using cable ties, see FIG. 2-43.



VIN Light Bar & Brake Harness Installation (continued)

8. Attach HEADER TRANSPORT and wiring harness to tow vehicle and test the lights (FIG. 2-44):



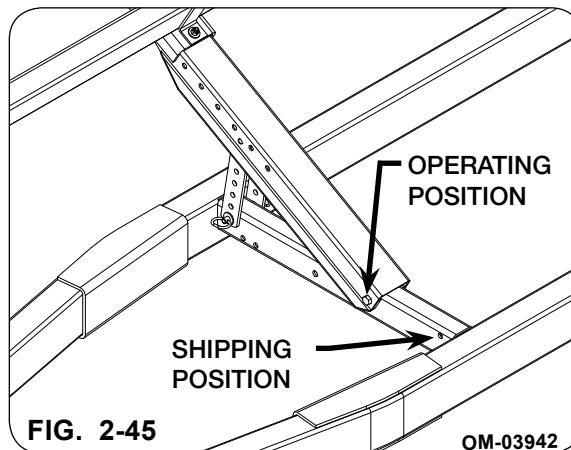
CHECK:

Tail Lights, Brake Lights, Left Turn Signal, Left Turn Signal with Brakes, Right Turn Signal, Right Turn Signal with Brakes

NOTE: If any check fails, check wiring harness on tow vehicle for proper wiring.

Initial Adjustments

NOTE: Be sure upper rest bar is in appropriate position for operating.



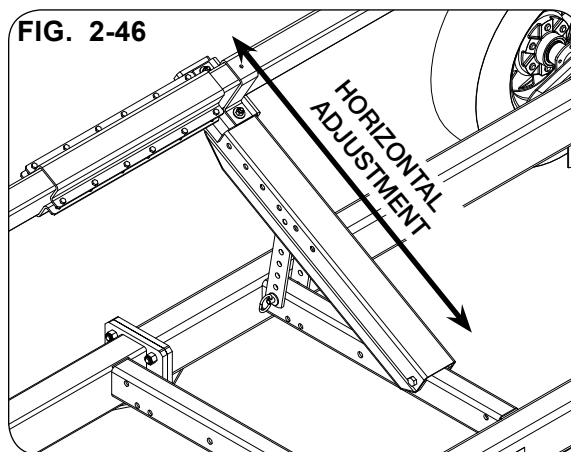
Upper Rest Bar

Horizontal Adjustment

(Optional fourth arm is available on all units.)

1. Adjust the arms from front-to-rear.
2. Adjust the front arm and pin.
3. Adjust the middle arm(s) and pin.
4. Adjust the rear arm and pin.

NOTE: Be sure bar is adjusted equally from side-to-side.



Initial Adjustments (continued)

Vertical Adjustment

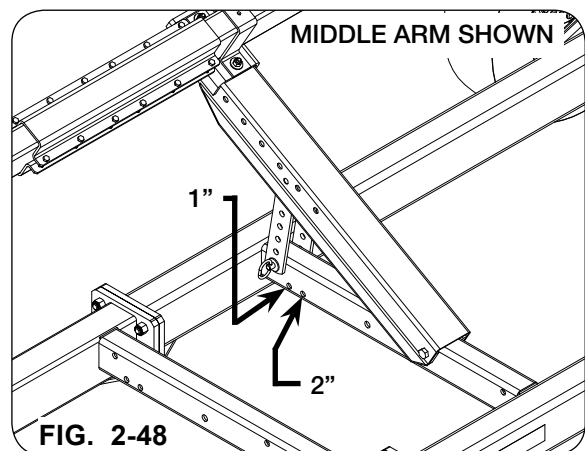
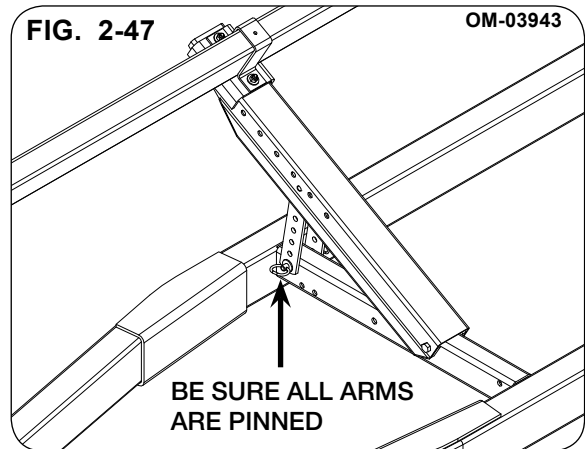
1. Raise upper rest tube using a lifting device rated at a minimum of 1000 lbs. capacity to support weight of upper bar so that pins in arms can easily be removed (FIG. 2-47).
2. Reposition upper rest tube and reinsert pin and lock into position (FIG. 2-47).

CAUTION

- WHEN ADJUSTING UPPER BAR, ALWAYS MOVE ONE PIN AT A TIME PER SIDE. THE WEIGHT OF THE UPPER BAR MAY BE DIFFICULT TO MANAGE IF BOTH ENDS ARE ADJUSTED SIMULTANEOUSLY.

NOTE: The middle arm only has two additional hole settings in the frame to allow the arm adjustment 1" or 2" depending on the amount of main frame bow (FIG. 2-48).

If the arm holes don't line up with the frame holes the pin for sliding channel can be left out and stored in the arm thus leaving a slight gap between the arm and slider channel. Once the head is loaded the slider channel will rest on the arm.

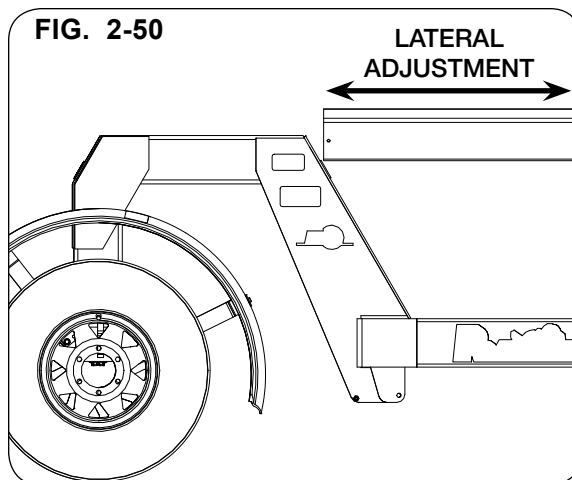
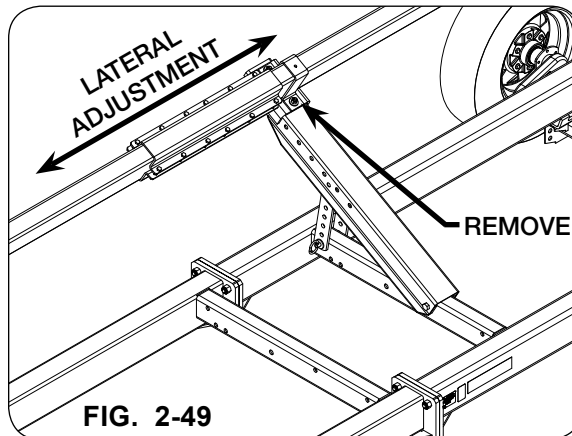


Initial Adjustments (continued)

Lateral Adjustment

1. Remove the hex nuts, flat washers, and strap from the center support arm only. Loosen the front and rear support arm strap hex nuts and flat washers so that the upper rest bar slides freely.

NOTE: For best performance and flexibility of the unit, it is recommended that the front of the upper bar line up with the back of the fifth wheel.



Initial Adjustments (continued)

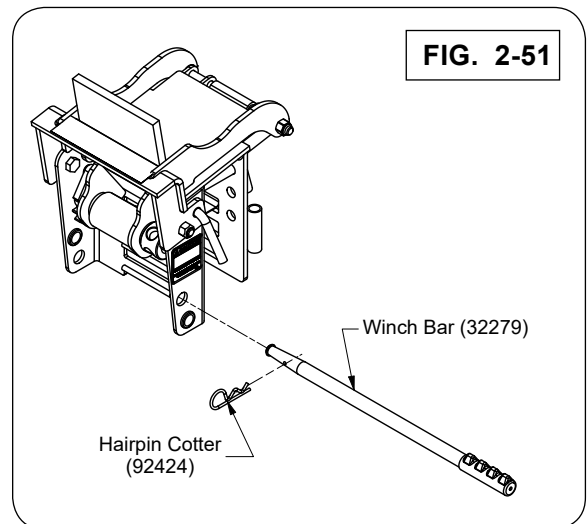
Rest Brackets

⚠ WARNING

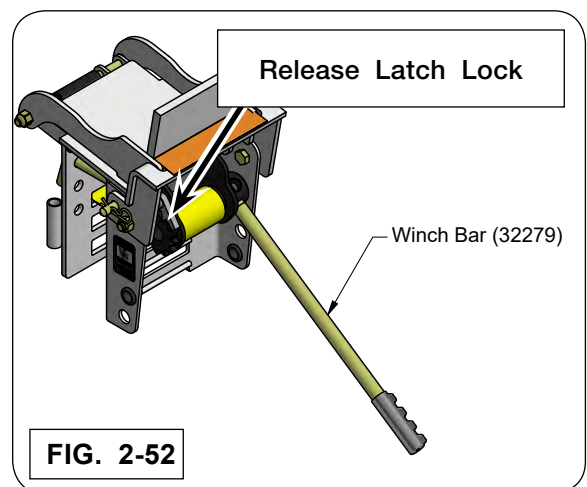
- **FALLING OR LOWERING HEADER CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT ADJUST THE UNIT WHILE THE HEADER IS ABOVE OR ON TRANSPORT.**

Horizontal Adjustment

1. Remove hairpin (92424) and 2' winch bar (32279) from rest bracket storage position (FIG. 2-51).

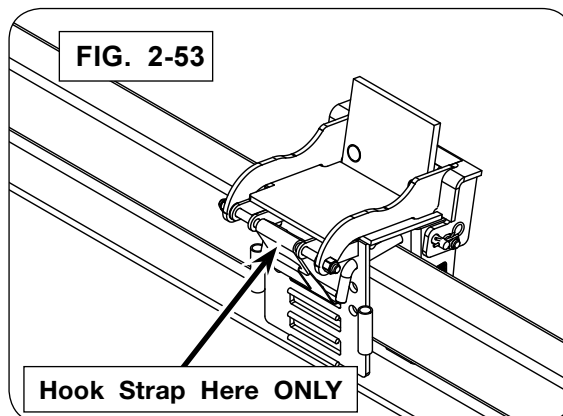


2. Insert the winch bar (32279) into the winch (FIG. 2-52). Apply clockwise pressure to release latch lock and withdraw the strap from the winch.



Initial Adjustments (continued)

3. Reposition the rest brackets. With the strap attached to the back of the rest bracket (FIG. 2-53), re-tighten the strap securely and re-lock the latch. Using the supplied winch bar, tighten the strap to the strongest possible winch notch to properly secure the rest pads to the lower rest tube. Put the winch bar (32279) back in dock and secure with the hairpin (92424).

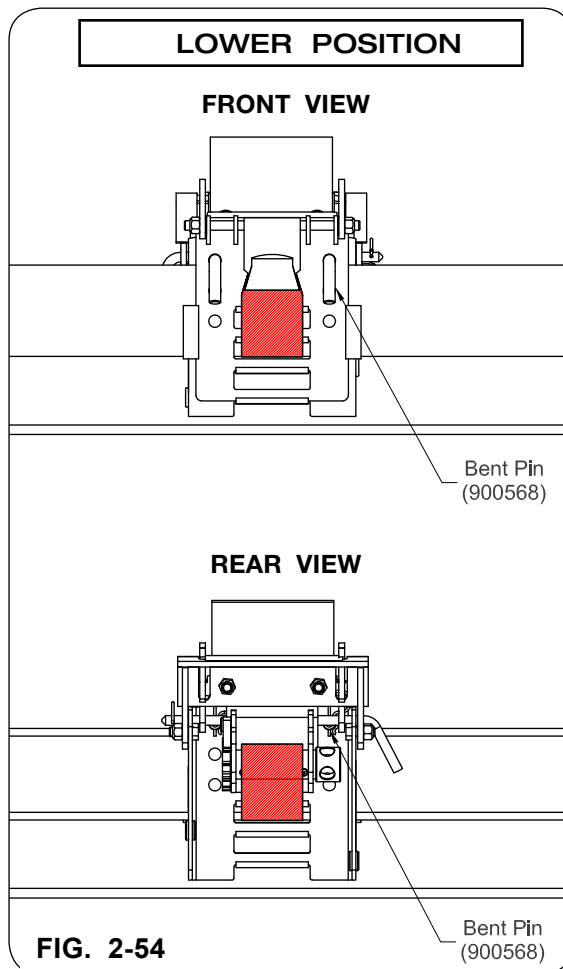


Vertical Adjustment

There are 4 settings totaling 6 inches of vertical adjustment available on the rest bracket.

Lower Position

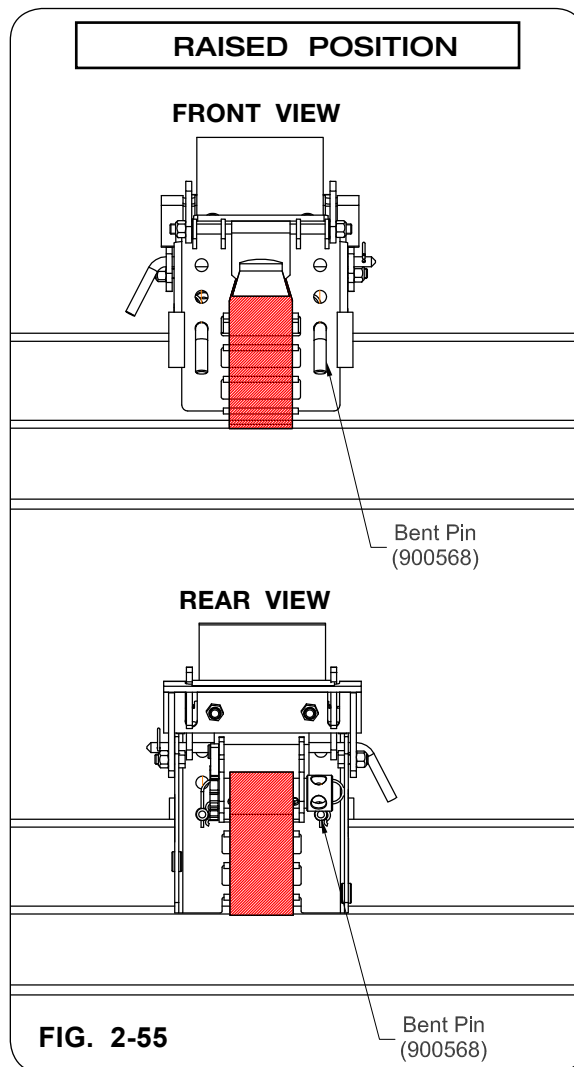
Release the strap pressure using the winch bar. Pins (900568) are placed in the appropriate holes (FIG. 2-54). Align strap and thread it through the slot aligning with the bottom of the 6"x4" lower rest tube and into the winch. Using the supplied winch bar, tighten the strap to the strongest possible winch notch to properly secure the rest pads to the lower rest tube.



Initial Adjustments (continued)

Raised Position

Release the strap pressure using the winch bar. Raise the rest brackets and insert the formed pins (900568) (FIG. 2-55). Align the strap and thread it under the rest bracket and below the cross member and into the winch. Using the supplied winch bar, tighten the strap to the strongest possible winch notch to properly secure the rest pads to the lower rest tube.



NOTE: Strap must wrap the winch spool a minimum of 4 revolutions to secure rest bracket.

IMPORTANT

- If lower rest pad height is required, the height adjustment pins may be removed and the rest pad lowered to the lowest setting. Reroute strap to highest slot. Strap must always be routed through the slot aligning with the bottom of the 6"x4" rest tube and be secured right up against the bottom of the tube. Height adjustment pins are stored in the vertical bushings on the backside of the rest bracket.

CAUTION

- REMOVING BOLTS TO USE THE LOWEST REST PAD POSITION CAUSES REST PAD LEGS TO EXTEND BELOW THE FRAME AND CAN INTERFERE WITH LOW GROUND CLEARANCE SITUATIONS.

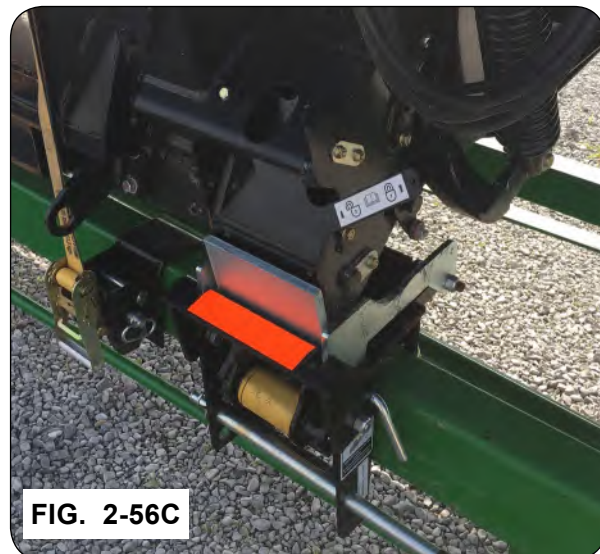
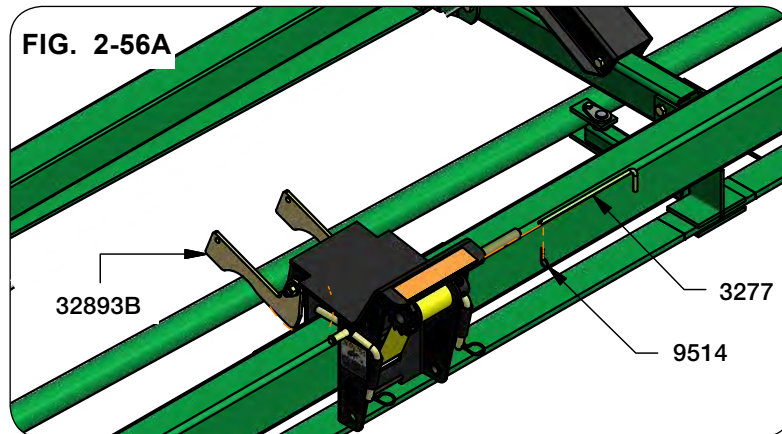
Initial Adjustments (continued)

Riser Side Plates

NOTE: Current fitment photos are viewable at <https://www.umequip.com/header-transport/roadrunner/>

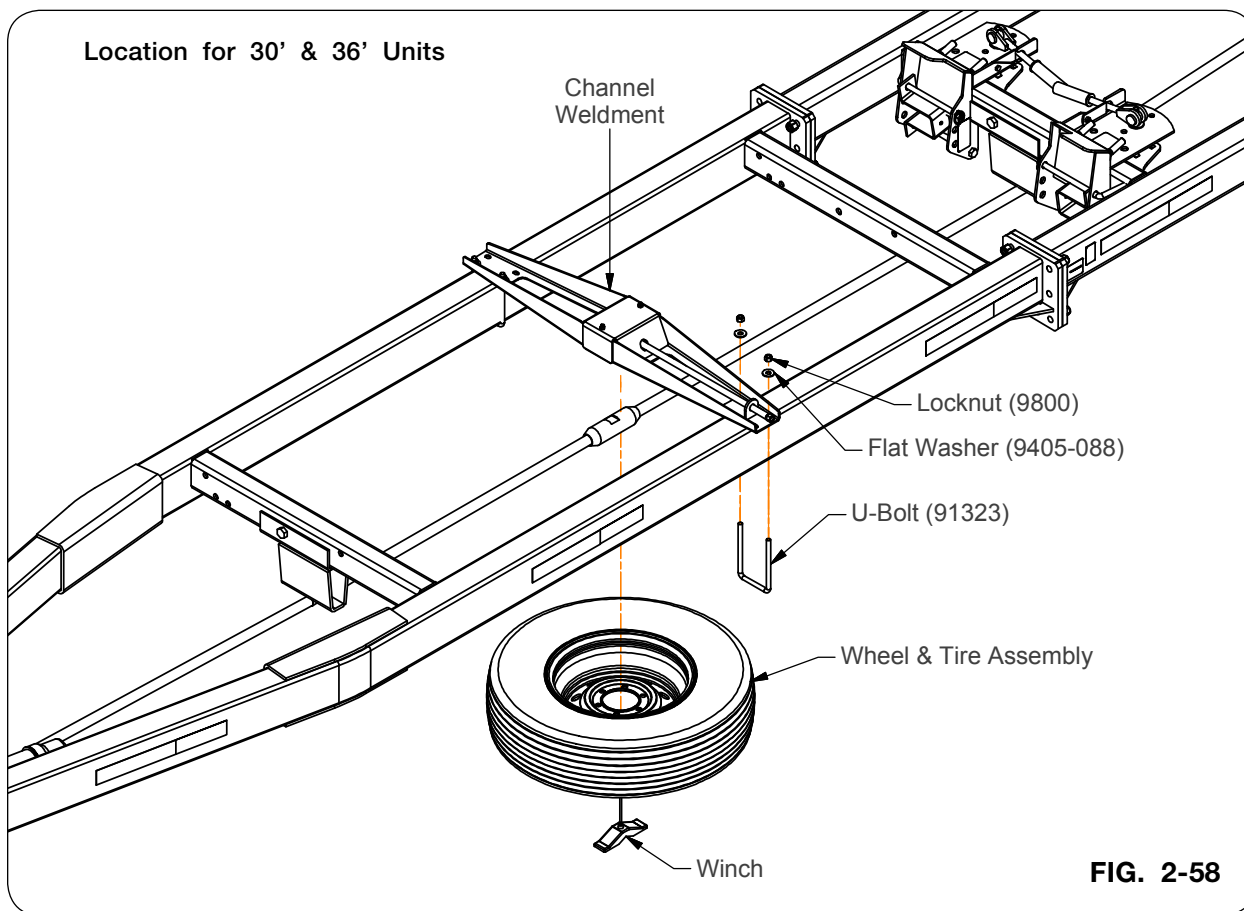
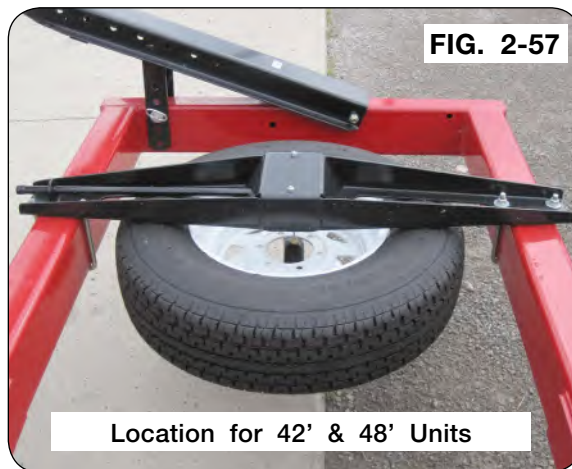
1. The riser side plates (32893B) are used on most corn heads or when the header main cross-member can not rest directly on the rest bracket. The riser side plates are not used for most grain platforms. Only one riser side plate is used when the rest bracket is positioned under the feeder house frame. Typically the riser side plates are used to form a pocket that captures a foot on the head.
2. To put the riser side plates in the storage position:
 - A. Pull hairpin (9514) and pin (3277) holding the riser side plates onto the top of the rest bracket (FIG. 2-56A, B & C).
 - B. Rotate one or both riser side plates behind the rest bracket as required.
 - C. Re-insert pin (3277) and hairpin (9514) through the same hole in the rest bracket.

NOTE: Pin is always in the rest bracket whether using the side plates or not.



Spare Tire (Optional)

1. Attach spare tire channel weldment to the rear frame using u-bolts and locknuts (FIG. 2-57 and FIG. 2-58).
2. Lower the winch cable. Attach the wheel and tire assembly. Winch the wheel and tire assembly up tight to the winch bracket so the tire lies between the frame tubes as shown FIG. 2-57 and FIG. 2-58.



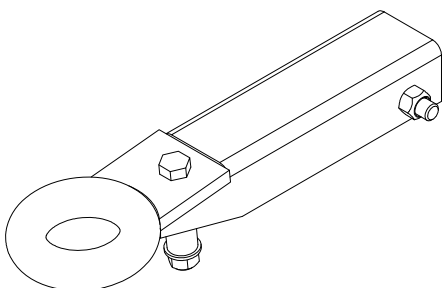
Pintle and Ball Hitches (Optional)

WARNING

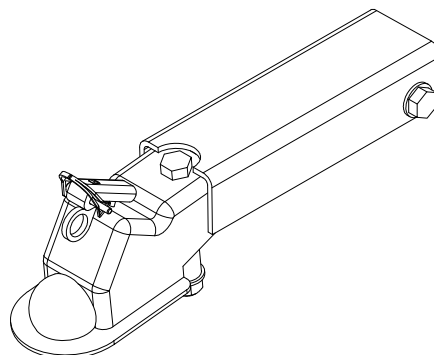
- **FALLING OBJECTS CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT WORK UNDER THE MACHINE AT ANY TIME WHILE BEING HOISTED. BE SURE ALL LIFTING DEVICES AND SUPPORTS ARE RATED FOR THE LOADS BEING HOISTED. THESE ASSEMBLY INSTRUCTIONS WILL REQUIRE SAFE LIFTING DEVICES UP TO 100 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**
- **EYE PROTECTION AND OTHER APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT MUST BE WORN WHILE SERVICING IMPLEMENT.**
- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**

1. Support the tongue using a safe stand rated for 100 lbs.
2. Extend the tongue all the way out.
3. Remove the bolt that holds the latch to the tongue.
4. Move the latch back one hole and reinstall the hardware.
5. Put the hitch on top of the tongue aligning the hole in the channel on the optional hitch with the hole in the tongue where the latch was removed.
6. Insert the bolt to secure the channel to the tongue.
7. Insert the bushing between the ears of the original hitch.
8. Install the bolt through the option hitch, the spacer and both ears of the original hitch.
9. Secure the bolt with the washer and locknut.

Pintle Hitch Adapter #31024B



Ball Hitch Adapter #31022B



Upper Bar Landing Pad (Optional)

Upper bar landing pads are recommended for corn heads with short feet on underside of snouts to provide a wider area for foot to rest on and ease process of setting head on cart.

WARNING

- **KEEP HANDS CLEAR OF PINCH POINT AREAS.**

NOTE: This installation should be done without a head on the Transport.

1. Park the unit on a firm, level surface. Block the wheels on the unit to keep it from moving. Remove keys from towing vehicle and set parking brake.

NOTE:

25', 30', and 42' units will use 1 1/4" bolts.

36' units will use 2 1/2" bolts.

Discard extra unneeded bolts.

2. Mount first plate centered between the front edge of the upper rest bar and the front axle on the header transport. Leave the plate face down so that top is smooth and formed lips are facing down. (Fig. 2-59)



Fig. 2-59

NOTE: Plates are reversible, however in most situations, the holes should be oriented to position the plates further away from the combine. (Fig. 2-60)

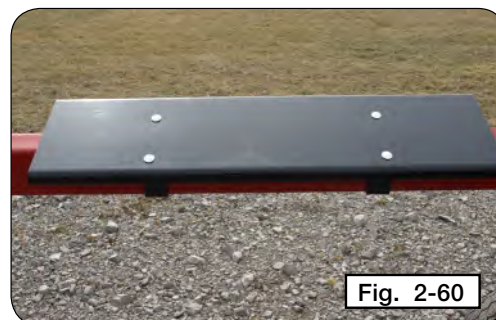


Fig. 2-60

3. Mount the two center plates so that they are evenly spaced approximately 4' to 6' apart and oriented in the same direction as the first plate (Fig. 2-61)

NOTE: 42'-48' units have 6 landing pads.

4. If applicable, remove the wiring protective shield from the upper rest bar behind the axle. (Fig. 2-61)

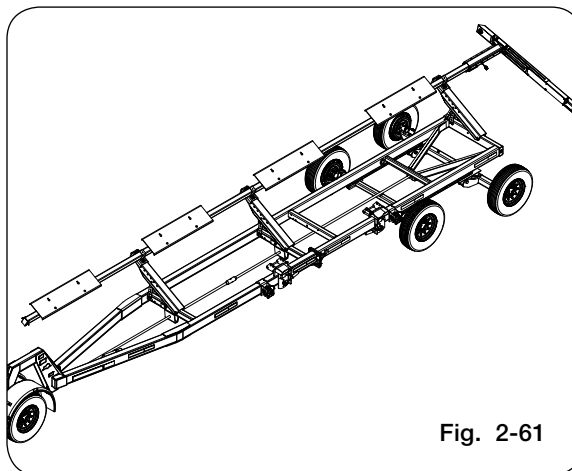
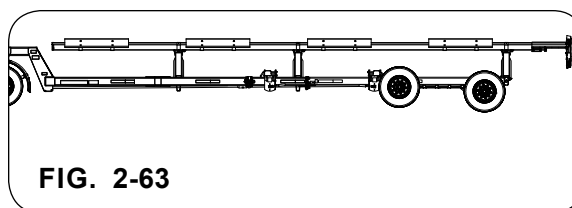


Fig. 2-61

Upper Bar Landing Pad (Optional) (continued)

5. Evenly space the remaining plates along the upper bar. Center the rear plate between the rear axle and the end of the upper rest bar with the hat strap being placed behind the current wiring. (FIG. 2-62)
6. Reinstall harness and protective shield using the 1 1/2" long self tapping screws provided. Insert longer screws in protective shield mounting holes adjacent to the new hat straps used to hold the landing pads (Fig. 2-62)



SECTION III

Operation

- General Operation Information 3-2
- Hitching 3-2
- Adjustable Tongue 3-2
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- Tires and Wheels 3-3
- Positioning Head On Transport 3-4
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 - Upper Bar Adjustment 3-6
- Tie-Down Kit #30501 3-7
- Grain Platform Knife Storage 3-10
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 - Introduction 3-12
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 - Synchronize the Brakes 3-14
 - Brake Adjustment 3-15

General Operation Information

WARNING

- READ AND UNDERSTAND SAFETY RULES BEFORE OPERATING OR SERVICING THIS MACHINE. REVIEW “SAFETY” SECTION IN THIS MANUAL IF NECESSARY.
- FALLING OR LOWERING HEADER CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT ADJUST UNIT WHILE HEADER IS ABOVE OR ON TRANSPORT.

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

Hitching

1. Position towing vehicle in front of header transport. Lift tongue latch handle and extend inner tongue extension enough to attach to vehicle drawbar using a 3/4” minimum diameter hitch pin and lock in place. Back-up towing vehicle to re-latch tongue.

NOTE: Before hitching the header transport to any vehicle drawbar, be sure that the pin hole is located close enough to the rear of the vehicle drawbar to allow the header transport tongue clevis to swing 90 degrees right or left of the centerline without interference.

NOTE: When hitching, be sure not to pinch wire harness. Position wire harness away from all pinch points and any areas that may wear the harness.

CAUTION

- BE SURE TRANSPORT TONGUE IS LATCHED BEFORE TRANSPORTING, OTHERWISE JARRING COULD OCCUR WHEN STOPPING UNIT, CAUSING A SUDDEN SHIFT OF LOAD.

IMPORTANT

- *When hitching to tow vehicle, be sure that wire harness is not kinked or interfered with by any moving parts. Once tongue is telescoped, verify proper movement of the wire harness. Failure to do so could result if premature harness failure.*

Adjustable Tongue

The tongue operating length can be adjusted to customer preference by removing the horizontal 3/4” x 5” capscrew which retains the extendible tongue latch weldment. Extend the tongue to the desired operating length and reinstall the capscrew.

Transport Chain

CAUTION

- ALWAYS USE TRANSPORT CHAINS WHEN TRANSPORTING IMPLEMENTS. FAILURE TO USE TRANSPORT CHAINS COULD CAUSE PERSONAL INJURY OR DAMAGE IF IMPLEMENTS BECOME DISENGAGED.

NOTE: Transport chains should have a rating equal to the gross weight of implement and head.

1. Cross transport chains and connect to towing vehicle as shown in FIG. 3-1.



FIG. 3-1

CAUTION

- REPLACE TRANSPORT CHAIN IF ANY LINK OR END FITTING IS BROKEN, STRETCHED, OR DAMAGED. DO NOT WELD TRANSPORT CHAIN.

Tires and Wheels

Check tire pressures, wheel nut torque, 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.

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.

Positioning Head On Transport

For proper fitment of the head onto the transport, go to www.umequip.com/header-transport/radrunner/ and click on the “Fitments” tab in the middle of the page.



CAUTION

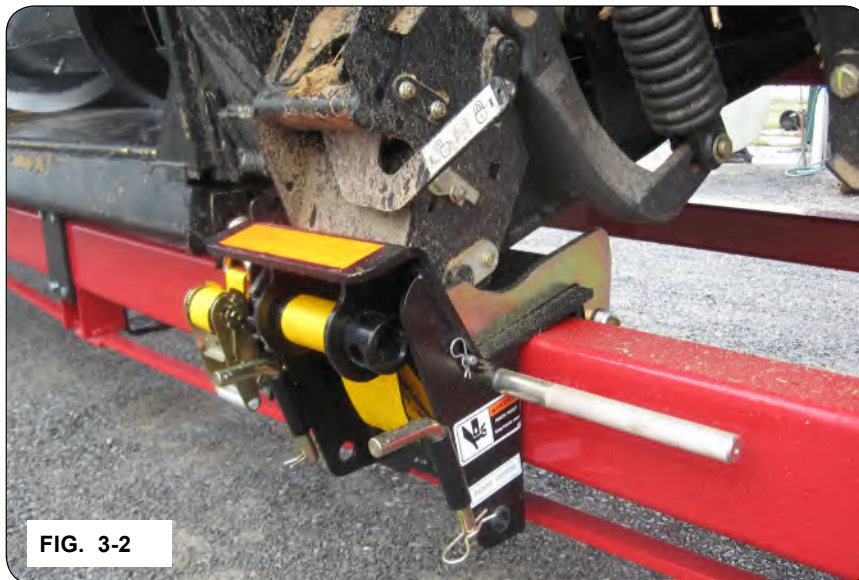
- BE SURE TRANSPORT IS ATTACHED TO TOWING VEHICLE OR THAT THE WHEELS ARE BLOCKED BEFORE POSITIONING HEADER ON TRANSPORT. THE ADDED WEIGHT COULD CAUSE UNIT TO ROLL IF PROPER STEPS ARE NOT TAKEN.

IMPORTANT

- Before placing header over transport, be sure header will clear rest brackets on lower rest bar. Adjust rest brackets if necessary.

NOTE: For best performance and flexibility of the unit, it is recommended that the front of the upper bar line up with the back of the fifth wheel.

NOTE: For best support and stability of header, it is suggested that the rest brackets be positioned as far apart as possible.



Positioning Head On Transport (continued)

Lower Bar Adjustment

1. Position header over transport so that lower rest tube of transport is directly below the frame tube of header. Remove header and make necessary adjustments vertically and laterally to the lower rest brackets. It is recommended that the rest brackets be positioned under the header main support frame, cross frame tube, frame support stiffener, feeder house support frame or header support shoe as needed (refer to “Initial Adjustment” in OPERATION section).

WARNING

- **FALLING OR LOWERING HEADER CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT ADJUST THE UNIT WHILE THE HEADER IS ABOVE OR ON THE TRANSPORT.**

NOTE: Additional rest bracket and tie down suggestions can be viewed at:

umequip.com in the Transportation section under Roadrunner

Grain Platform

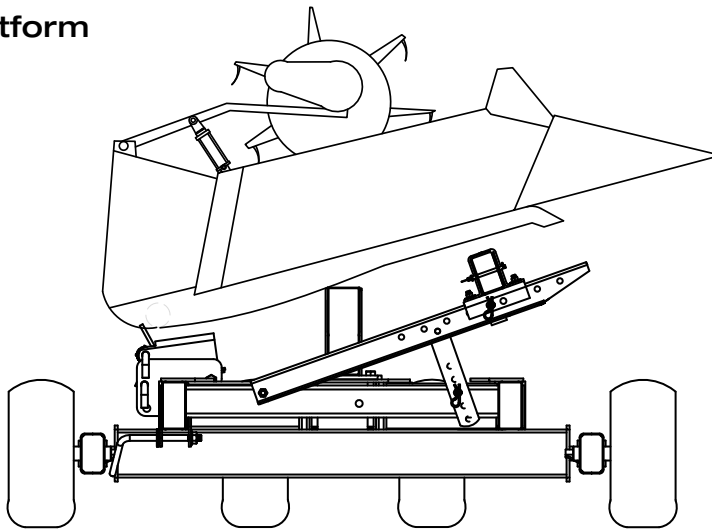


FIG. 3-4A

CORN HEAD

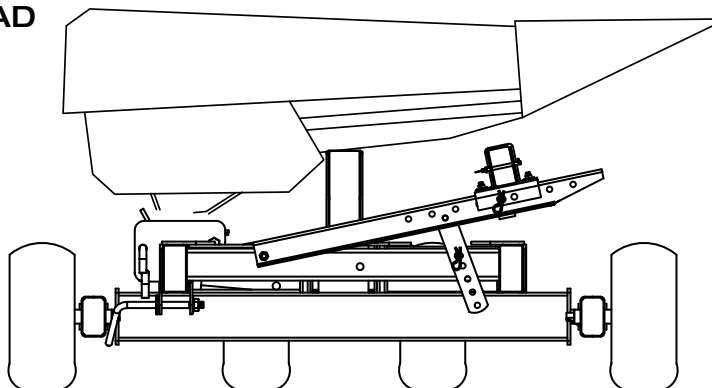


FIG. 3-4B

Positioning Head On Transport (continued)

WARNING

- **FALLING OR LOWERING HEADER CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT ADJUST THE UNIT WHILE THE HEADER IS ABOVE OR ON THE TRANSPORT.**

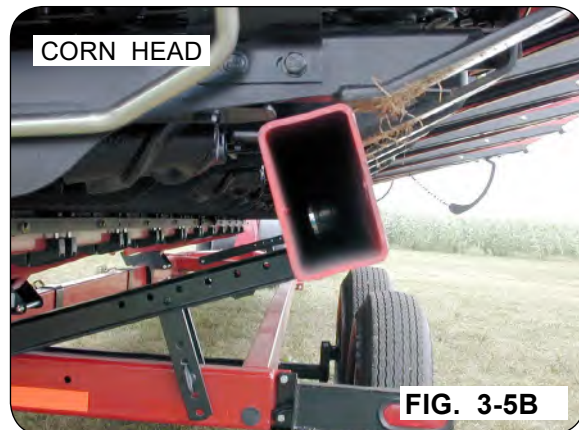
Upper Bar Adjustment

2. Place the header over the unit (Do not lower) and check for adjustments needed to position the upper rest bar.

- A. On grain platforms and draper heads, position the upper bar beneath the skid plates. Generally 4" to 8" behind the cutter bar. Make sure the upper bar is positioned far enough away from the cutter bar that weight is carried evenly across the entire head, not concentrated on the ends of the head.



- B. On corn heads, position the upper bar beyond the snapping rollers. Generally 4" to 8" from the ends of the lower head supports.



Remove header from above transport and make proper adjustments, refer “Initial Adjustments, Upper Rest Bar, Vertical Adjustment” in the operations section.

NOTE: The weight of the head should be carried evenly across the full length of the rest bar.

NOTE: Several attempts may have to be made for proper adjustment of transport.

3. Position header onto transport.

NOTE: For easy repositioning of header onto transport, mark outline of rest brackets on head.

Tie-Down Kit #30501

The information shown is intended to provide general direction for various applications. Specific situations may vary, and the operator is ultimately responsible to make sure they attach the tie downs properly for their combine head in a safe and effective manner.

⚠ WARNING

- **UNSECURE HEADER CAN SHIFT OR FALL CAUSING SERIOUS INJURY OR DEATH. DO NOT EXCEED WORKING LOAD LIMIT STATED ON TIE DOWN STRAP LABEL. DO NOT USE STRAP IF DAMAGED. REPLACE STRAP IF LOAD LIMIT LABEL IS MISSING OR UNREADABLE, OR STRAP IS DAMAGED.**
- **FALLING OR LOWERING HEADER CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT ADJUST THE UNIT WHILE THE HEADER IS ABOVE OR ON THE TRANSPORT.**



⚠ CAUTION

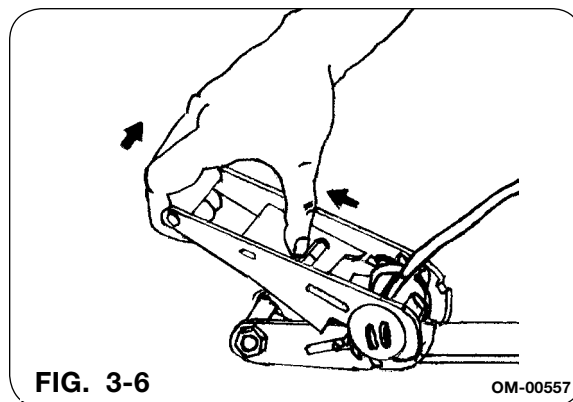
- **BE SURE RATCHETS, WEBBINGS, AND HOOKS ARE IN PROPER WORKING CONDITION SO THAT DAMAGE DOES NOT OCCUR DUE TO LOSS OF HEADER FROM TRANSPORT.**
- **BE SURE ALL SHARP EDGES ARE REMOVED SO THAT WEBBING DOES NOT BECOME CUT OR FRAYED.**

The tie-down brackets consist of two heavy duty strap assemblies which secure current design headers to the transport. For proper installation follow steps as shown.

1. Loosen strap by pulling up ratchet handle and lock in open position (FIG. 3-6).

NOTE: Before tightening be sure header is resting against backstops on lower rest brackets.

NOTE: Be sure tie down bracket assemblies are secured to transport directly below the section on the header that the tie down hook is being attached to. **DO NOT ATTACH Bracket AND PULL STRAP AT AN ANGLE TO THE Bracket TO SECURE.** Doing so could result in unnecessary wear to tie down webbing.

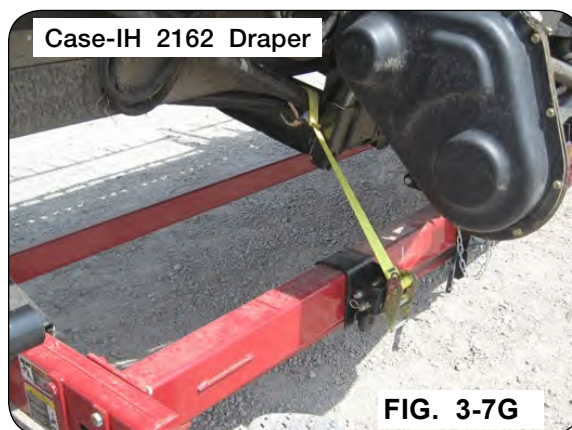
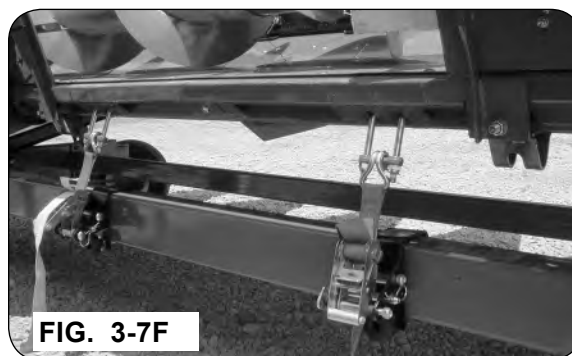
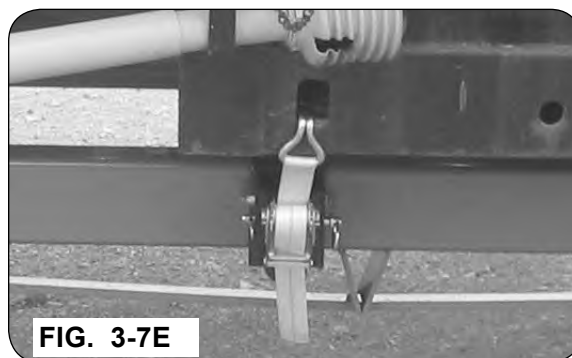


2. Slide tie-down bracket across lower rest tube and secure in appropriate location under header by inserting carriage bolt, flat washer, and knob. Tighten into position by turning knob clockwise.

NOTE: It is recommended that the tie downs be secured to a main bar or sufficient bar/tube that is rigid enough to support total weight of header. Failure to do so could result in section of header breaking off and header becoming unstable.

Tie-Down Kit #30501 (continued)

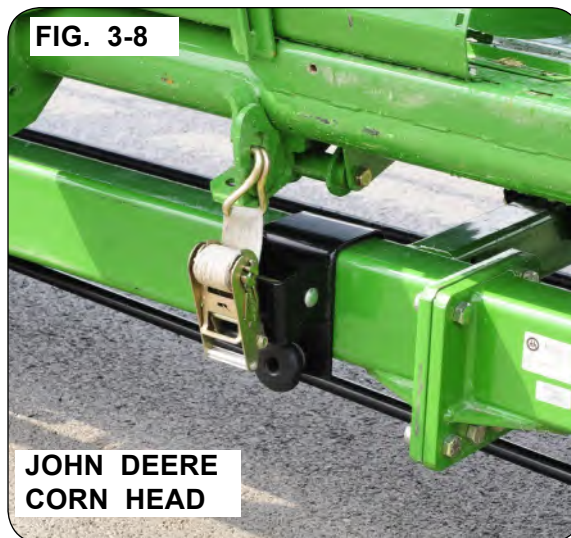
3. Attach tie strap hook through any mainframe hole on header as shown in figures 3-7A through 3-7G. Remove slack in strap, rotate ratchet handle until webbing is **TIGHTLY DRAWN** and header is held to transport.



Tie-Down Kit #30501 (continued)

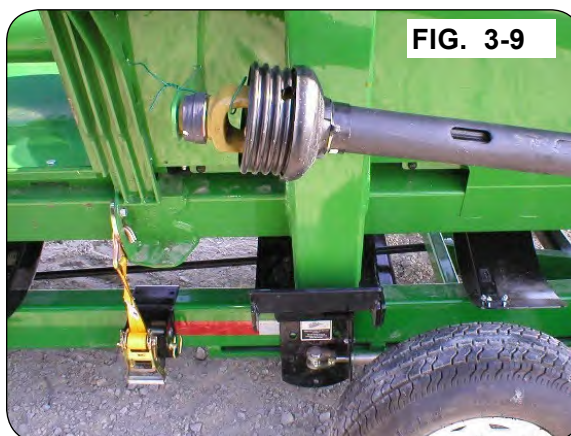
JOHN DEERE CORN HEAD

1. Attach tie-down to lower frame as shown in FIG. 3-8.



JOHN DEERE 600 SERIES STALKMASTER CHOPPING CORN HEAD

1. Attach tie-down to lower frame as shown in FIG. 3-9. The corn head uses the draper pad to carry the head.



Tie-Down Kit #30501 (continued)

⚠ CAUTION

- **AT LEAST TWO STRAPS MUST BE IN PLACE TO PROPERLY SECURE HEADER TO TRANSPORT.**

IMPORTANT

- *Contact your combine header/platform dealer or manufacturer for specific tie-down locations to avoid damaging your equipment.*
- *Use caution when transporting, be aware of transport width of unit when approaching obstacles along the road such as posts, signs, and poles. Check transport width of unit before entering bridges.*

Comply with all state and local laws governing highway safety and regulations when moving machinery on public roads.

⚠ WARNING

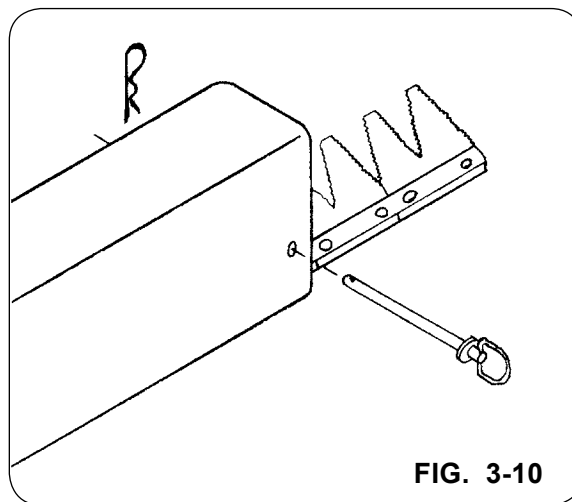
- **ALWAYS TRAVEL AT A SPEED WHICH PERMITS COMPLETE CONTROL OF THE TOWING VEHICLE AND IMPLEMENT.**

Grain Platform Knife Storage

An additional feature of the Unverferth HEADER TRANSPORT is a storage area for a spare cutter knife. To use this, simply remove the hitch pin (with clip) from the end of the upper support tube and insert knife into tube. To retain knife into position, reinsert hitch pin into hole in tube between blades of knife and reinstall clip.

⚠ WARNING

- **CUTTER BAR CAN CUT. KEEP AWAY FROM SHARPENED EDGES.**



Lights

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

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

Please 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.

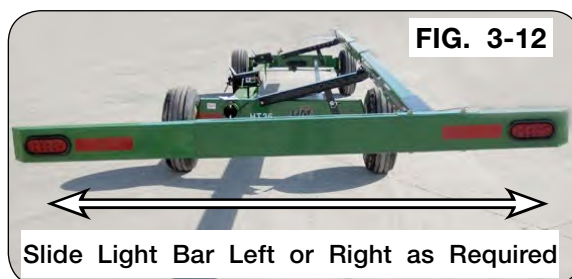
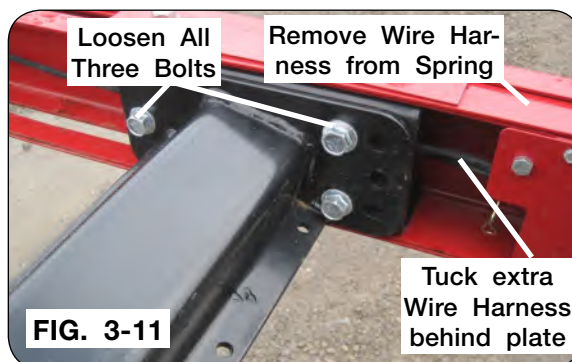
Rear Mounted Light Bar

1. Adjust lights by removing wire harness from spring. Loosen the three bolts holding light bar to light mounting arm which sets the angle.
2. Slide each section of light bar left or right as required. See **“IMPORTANT”** note below.

IMPORTANT

- Lights **MUST** be within 1 ft. of the outermost point on head or cart.
3. Once in position, retighten bolts and place light wire harness back into spring. Tuck any extra light wire harness behind cover on light bar.

Check function of lights before transporting on public roads. Replace reflectors as they become worn, torn, or faded.



Frame Mounted Light Bar (Optional)

1. There will be extra slack in the wire harness when the Light Bar is mounted on the frame as opposed to the Rear Mounted Light Bar. Zip tie the extra wire and tuck it behind the cover on the light bar as shown in FIG. 3-11.

Light Bar Angle Adjustment

1. Loosen the four bolts on the top and bottom of the light bar to adjust the width.
2. To adjust the angle, loosen the single bolt on the left and remove the two bolts on the right holding the light bar to the light mounting arm. Adjust the angle to the desired position.
3. Reinsert the two bolts removed and torque all three bolts to 62-68 ft.-lbs.

Electric Brakes

Brakes

Brakes need to be readjusted after an initial break in period. Refer to brake system operator's manual for additional information. Visit www.dexteraxle.com.

Set Up

For proper performance, all new axles should have the following checked at the specified intervals:

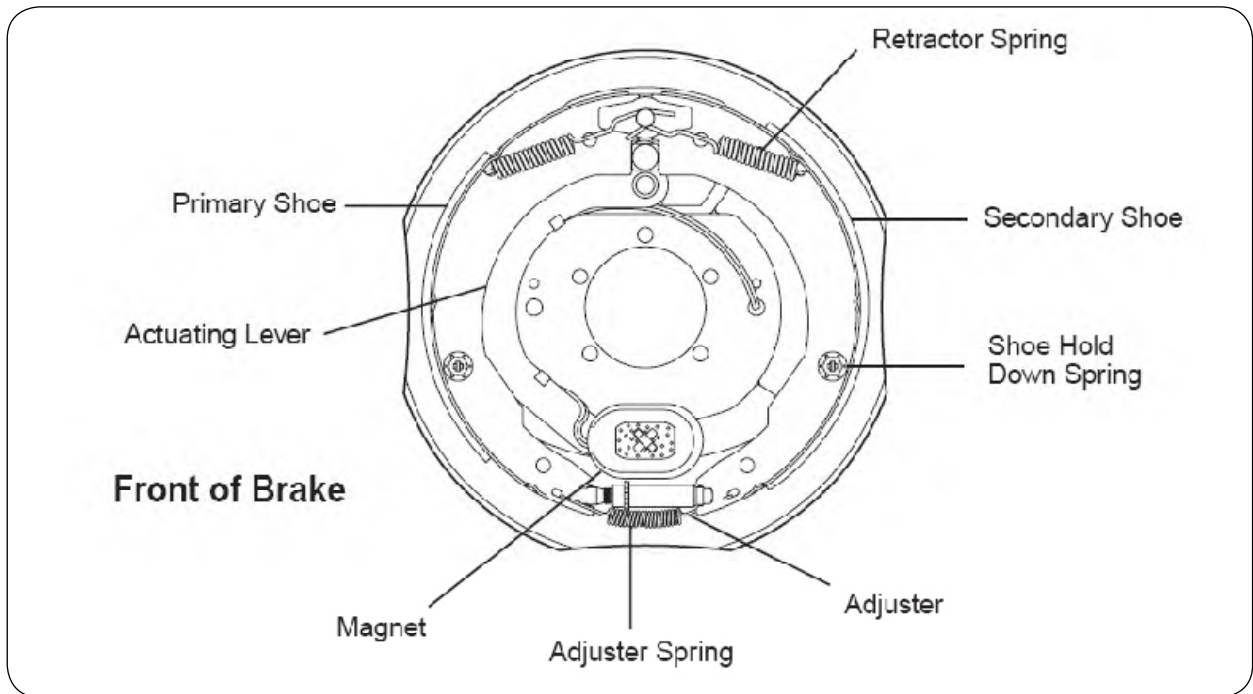
- Wheel Nut Torque: at 10, 25, and 50 miles
- Brake Adjustment: at 200 and 3,000 miles
- Tire pressure: to manufacturer's requirements
- Brake synchronization: set brake controller per controller manufacturer's directions

Introduction

The electric brakes on your trailer are similar to the drum brakes on your automobile. The basic difference is that your automotive brakes are actuated by hydraulic pressure while your electric trailer brakes are actuated by an electromagnet. With all of the brake components connected into the system, the brake will operate as follows:

When the electrical current is fed into the system by the controller, it flows through the electromagnets in the brakes. The high capacity electromagnets are energized and are attracted to the rotating armature surface of the drums which moves the actuating levers in the direction that the drums are turning. The resulting force causes the actuating cam block at the shoe end of the lever to push the primary shoe out against the inside surface of the brake drum. The force generated by the primary shoe acting through the adjuster link moves the secondary shoe out into contact with the brake drum. Increasing the current flow to the electromagnet causes the magnet to grip the armature surface of the brake drum more firmly. This results in increasing the pressure against the shoes and brake drums until the desired stop is accomplished.

Electric Brakes (continued)



Operation

Your trailer brakes are designed to work in synchronization with your tow vehicle brakes. Never use your tow vehicle or trailer brakes alone to stop the combined load. Your brake controller must be set up according to the manufacturer's recommendations to ensure proper synchronization between the tow vehicle and the trailer. Additionally, you may have to make small adjustments occasionally to accommodate changing loads and driving conditions. Proper synchronization of tow vehicle to trailer braking can only be accomplished by road testing. Brake lockup, grabbiness, or harshness is quite often due to the lack of synchronization between the tow vehicle and the trailer being towed, too high of a threshold voltage (over 2 volts), or under adjusted brakes. Before any synchronization adjustments are made, your trailer brakes should be burnished-in by applying the brakes 20-30 times with approximately a 20 m.p.h. decrease in speed, e.g. 40 m.p.h. to 20 m.p.h. Allow ample time for brakes to cool between application. This allows the brake shoes and magnets to slightly "wear-in" to the drum surfaces.

Electric Brakes (continued)

Synchronize the Brakes

To insure safe brake performance and synchronization, read the brake controller manufacturer's instructions completely before attempting any synchronization procedure.



CAUTION

- **BEFORE ROAD TESTING, MAKE SURE THE AREA IS CLEAR OF VEHICULAR AND PEDESTRIAN TRAFFIC. FAILURE TO BRAKE SAFELY COULD RESULT IN AN ACCIDENT AND PERSONAL INJURY TO YOURSELF AND/OR OTHERS.**

Make several hard stops from 20 m.p.h. on a dry paved road free of sand and gravel. If the trailer brakes lock and slide, decrease the gain setting on the controller. If they do not slide, slightly increase the gain setting. Adjust the controller just to the point of impending brake lockup and wheel skid.

NOTE: Not all trailer brakes are capable of wheel lockup.

Loading conditions, brake type, wheel and tire size can all affect whether a brake can lock. It is not generally considered desirable to lock up the brakes and slide the tires. This can cause unwanted flat spotting of the tires and could also result in a loss of control. If the controller is applying the trailer brakes before the tow vehicle brakes, then the controller adjustments should be made so the trailer brakes come on in synchronization with the tow vehicle brakes. For proper braking performance, it is recommended that the controller be adjusted to allow the trailer brakes to come on just slightly ahead of the tow vehicle brakes. When proper synchronization is achieved there will be no sensation of the trailer “jerking” or “pushing” the tow vehicle during braking.

Electric Brakes (continued)

Brake Adjustment

Brakes should be adjusted (1) after the first 200 miles of operation when the brake shoes and drums have “seated,” (2) at 3,000 mile intervals, (3) or as use and performance requires. The brakes should be adjusted in the following manner:

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 5,000 LBS. SPECIFIC LOAD RATINGS FOR INDIVIDUAL LOADS WILL BE GIVEN AT THE APPROPRIATE TIME IN THE INSTRUCTIONS.**

1. Using a safe lifting device and jack stands rated at a minimum of 5000 lbs. capacity, lift on the main frame behind the axles and support the unit with jack stands. Make sure the wheel and drum rotates freely.
2. Remove the adjusting hole cover from the adjusting slot on the bottom of the brake backing plate.
3. With a screwdriver or standard adjusting tool, rotate the star wheel of the adjuster assembly to expand the brake shoes. Adjust the brake shoes out until the pressure of the linings against the drum makes the wheel very difficult to turn.

NOTE: For drop spindle axles, a modified adjusting tool may be necessary.

4. Then rotate the star wheel in the opposite direction until the wheel turns freely with a slight lining drag.
5. Replace the adjusting hole cover and lower the wheel to the ground.
6. Repeat the above procedure on all brakes. For best results, the brakes should all be set at the same clearance.

Notes

SECTION IV

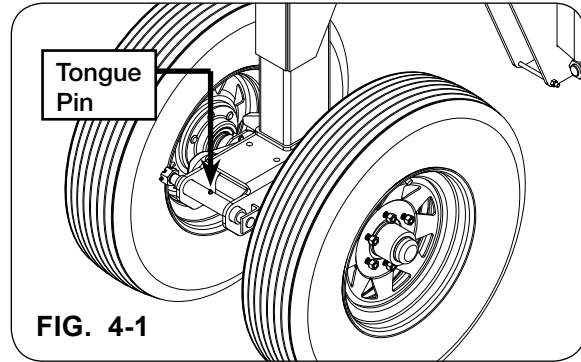
Maintenance

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 - Miscellaneous Lube Points 4-2
- Front Pivot Thrust Bearing 4-3
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- Brake Cleaning and Inspection 4-4
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 - Shoes and Linings..... 4-5
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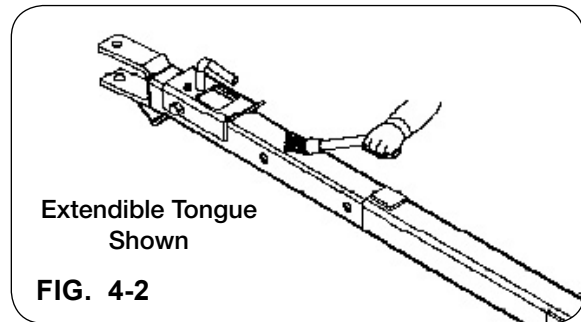
General Maintenance Information

For running gear and bearing longevity, as well as ease of operation, periodic lubrication is essential. This also helps to flush out moisture and dirt. Lubricate with an SAE multi-purpose grease.

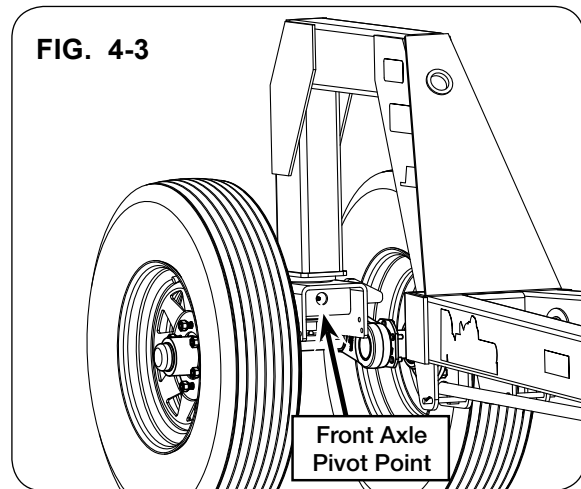
Tongue Pin (Front Axle)
- 1 Point Grease Once/Year



Extension Part of Extendable Tongue
- Oil or Grease When Needed



Front Axle Pivot Point - 5 Hours



Wheel Bearing - 6 Points Repack Grease Yearly

The wheel bearings should be cleaned, replaced, and adjusted once per season. See hub maintenance section for proper assembly information.

Front Pivot Thrust Bearing

The thrust bearing located between the front axle and the fifth wheel arm should be cleaned, greased, and adjusted once per season. The front axle must be removed from the fifth wheel arm and thrust bearing removed for proper lubrication.

Periodically during usage, check the following:

1. Tongue pivot pin.
2. Check all hardware for tightness.
3. Tire pressure-follow manufacturer's specification (too high or too low of pressure causes abnormal tread wear.)
4. Check wheel lug nuts.

After each season's use:

1. It is recommended for improved tire life that tires be rotated diagonally.

Hub Maintenance

1. Lubricate the seal lip with grease.
2. While rotating the hub, place the hub on the spindle, making sure not to damage the seal lip.
3. Be sure the outer cone slides on the spindle and into the cup.
4. Assemble the washer and nut.
5. While rotating the hub, torque the spindle nut to 20-25 ft.-lbs.
6. Back the spindle nut off until the next slot.
7. Insert the cotter pin (9391-035) and bend the ends to secure.
8. Install the hub cap.

NOTE: Reference hub parts pages in PARTS section.

IMPORTANT

- *For maximum bearing life, never tow the Roadrunner in excess of 20 mph.*

Brake Cleaning and Inspection

Your header transport brakes must be inspected and serviced immediately if a loss of performance is experienced. With normal use, servicing at one year intervals is usually adequate. With increased usage, this work should be performed more frequently as required. Magnets and shoes must be changed when they become excessively worn or scored, a condition which can reduce vehicle braking. Clean the backing plate, magnet arm, magnet, and brake shoes. Make certain that all the parts removed are replaced in the same brake and drum assembly. Inspect for any loose or worn parts, stretched or deformed springs and replace as necessary.

WARNING

- **POTENTIAL ASBESTOS DUST HAZARD - SOME BRAKE LININGS MAY CONTAIN ASBESTOS DUST, WHICH HAS BEEN LINKED TO SERIOUS OR FATAL ILLNESSES. CERTAIN PRECAUTIONS NEED TO BE TAKEN WHEN SERVICING BRAKES:**
 1. Avoid creating or breathing dust.
 2. Avoid machining, filing or grinding the brake linings.
 3. Do not use compressed air or dry brushing for cleaning (dust can be removed with a damp brush).

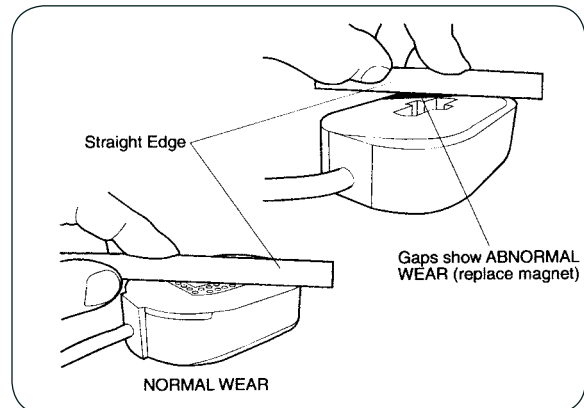
Brake Lubrication

Before reassembling, apply a light film of grease or anti-seize compound on the brake anchor pin, the actuating arm bushing and pin, and the areas on the backing plate that are in contact with the brake shoes and magnet lever arm. Apply a light film of grease on the actuating block mounted on the actuating arm.

NOTE: Do not get grease or oil on the brake linings, drums or magnets.

Magnets

Your electric brakes are equipped with high-quality electromagnets that are designed to provide the proper input force and friction characteristics. Your magnets should be inspected and replaced if worn unevenly or abnormally. Use a straightedge to check magnet condition. For best results, the magnet should be flat. Even if wear is normal as indicated by your straightedge, the magnets should be replaced if any part of the magnet coil has become visible through the friction material facing of the magnet. It is also recommended that the drum armature surface be refaced when replacing magnets. Magnets should also be replaced in pairs - both sides of an axle.



Brake Cleaning and Inspection

Shoes and Linings

A simple visual inspection of your brake linings will tell if they are usable. Replacement is necessary if the lining is worn (to within 1/16" or less), contaminated with grease or oil, or abnormally scored or gouged. Hairline heat cracks are normal in bonded linings and should not be cause for concern. When replacement is necessary, it is important to replace both shoes on each brake and both brakes of the same axle. This will help retain the "balance" of your brakes.

After replacement of brake shoes and linings, the brakes must be re-burnished to seat in the new components. This should be done by applying the brakes 20 to 30 times from an initial speed of 40 m.p.h., slowing the vehicle to 20 m.p.h. Allow ample time for brakes to cool between applications. This procedure allows the brake shoes to seat in to the drum surface.

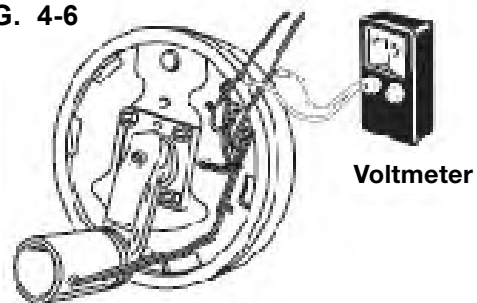
FIG. 4-5



How to Measure Voltage

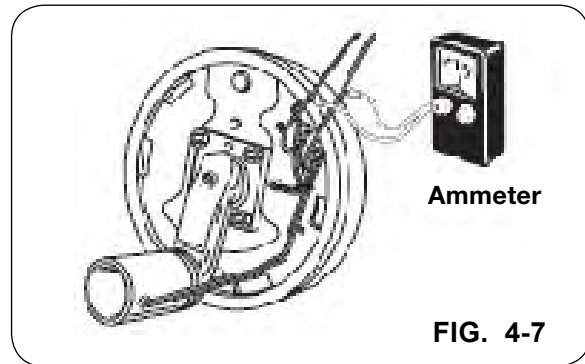
System voltage is measured at the magnets by connecting the voltmeter to the two magnet lead wires at any brake. This may be accomplished by using a pin probe inserted through the insulation of the wires. The engine of the towing vehicle should be running when checking the voltage so that a low battery will not affect the readings. Voltage in the system should begin at 0 volts and, as the controller bar is slowly actuated, should gradually increase to about 12 volts. If the controller does not produce this voltage control, consult your controller manual. The threshold voltage of a controller is the voltage applied to the brakes when the controller first turns on. Lower threshold voltage will provide for smoother braking. If the threshold voltage is too high, the brakes may feel grabby and harsh.

FIG. 4-6



How to Measure Amperage

System amperage is the current flowing in the system when all the magnets are energized. The amperage will vary in proportion to the voltage. The engine of the tow vehicle should be running with the trailer connected when checking the trailer braking system. One place to measure system amperage is at the BLUE wire of the controller which is the output to the brakes. The BLUE wire must be disconnected and the ammeter put in series into the line. System amperage draw should be as noted in the following table.



Make sure your ammeter has sufficient capacity and note polarity to prevent damaging your ammeter. If a resistor is used in the brake system, it must be set at zero or bypassed completely to obtain the maximum amperage reading. Individual amperage draw can be measured by inserting the ammeter in the line at the magnet you want to check. Disconnect one of the magnet lead wire connectors and attach the ammeter between the two wires. Make sure that the wires are properly reconnected and sealed after testing is completed. The most common electrical problem is low or no voltage and amperage at the brakes. Common causes of this condition are:

1. Poor electrical connections
2. Open circuits
3. Insufficient wire size
4. Broken wires
5. Blown fuses (fusing of brakes is not recommended)
6. Improperly functioning controllers or resistors

Another common electrical problem is shorted or partially shorted circuits (indicated by abnormally high system amperage). Possible causes are:

1. Shorted magnet coils
2. Defective controllers
3. Bare wires contacting a grounded object

Finding the cause of a short circuit in the system is done by isolating one section at a time. If the high amperage reading drops to zero by unplugging the trailer, then the short is in the trailer. If the amperage reading remains high with all the brake magnets disconnected, the short is in the trailer wiring. All electrical troubleshooting procedures should start at the controller. Most complaints regarding brake harshness or malfunction are traceable to improperly adjusted or nonfunctional controllers. See your controller manufacturer's data for proper adjustment and testing procedures. For best results, all the connection points in the brake wiring should be sealed to prevent corrosion. Loose or corroded connectors will cause an increase in resistance which reduces the voltage available for the brake magnets.

Brake Drum Inspection

The drum surface should be inspected for excessive wear or heavy scoring. If worn more than .020" oversized, or the drum has worn out of round by more than .015", then the drum surface should be re-machined. If scoring or other wear is greater than .090" on the diameter, the drum must be replaced. When turning the drum surface, the maximum re-bore diameter is as follows:

The machined inner surface of the brake drum that contacts the brake magnet is called the armature surface. If the armature surface is scored or worn unevenly, it should be re-faced to a 120 micro inch finish by removing not more than .030" of material. To insure proper contact between the armature face and the magnet face, the magnets should be replaced whenever the armature surface is re-faced and the armature surface should be re-faced whenever the magnets are replaced.

NOTE: It is important to protect the wheel bearing bores from metallic chips and contamination which result from drum turning or armature re-facing operations. Make certain that the wheel bearing cavities are clean and free of contamination before reinstalling bearing and seals. The presence of these contaminants will cause premature wheel bearing failure.

Bearing Inspection

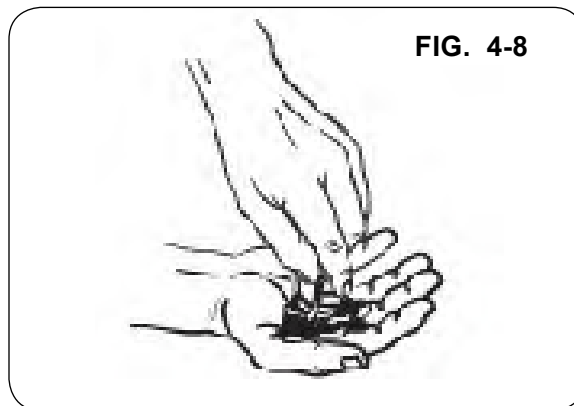
Wash all grease and oil from the bearing cone using a suitable solvent. Dry the bearing with a clean, lint-free cloth and inspect each roller completely.

There are two areas of the brake drum that are subject to wear and require periodic inspection. These two areas are the drum surface where the brake shoes make contact during stopping and the armature surface where the magnet contacts (only in electric brakes).

Bearing Lubrication

Along with bearing adjustment, proper lubrication is essential to the proper function and reliability of your trailer axle. Bearings should be lubricated every 12 months or 12,000 miles. The method to repack bearing cones is as follows:

1. Place a quantity of grease into the palm of your hand.
2. Press a section of the widest end of the bearing into the outer edge of the grease pile closest to the thumb forcing grease into the interior of the bearing.
3. Repeat this while rotating the bearing from roller to roller.
4. Continue this process until you have the entire bearing completely filled with grease.
5. Before reinstalling, apply a light coat of grease on the bearing cup.



Troubleshooting — Brakes

Most electric brake malfunctions, that cannot be corrected by either brake adjustments or synchronization adjustments, can generally be traced to electrical system failure. Voltmeters and ammeters are essential tools for proper troubleshooting of electric brakes. Mechanical causes are ordinarily obvious, i.e. bent or broken parts, worn out linings or magnets, seized lever arms or shoes, scored drums, loose parts, etc. Please consult the following troubleshooting charts to determine the causes and solutions for common problems found in trailer braking systems.



CAUTION

- **BEST BRAKING PERFORMANCE IS ACHIEVED WITH A CONTROLLER SETTING THAT IS JUST SHORT OF WHEEL LOCK UP OR SLIDE. OVERLY AGGRESSIVE BRAKING WHICH RESULTS IN WHEEL LOCK UP AND SLIDING, CAN CAUSE A DANGEROUS LOSS OF CONTROL AND RESULT IN PERSONAL INJURY OR DEATH.**

Storage

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

Before placing the implement in storage:

1. Repaint any chipped or scraped areas.
2. Inspect for damaged or worn parts. Replace before next season.
3. Store implement inside, away from livestock.
4. Use blocking to keep implement tires off bare ground.

Break Away Kit

The breakaway system located on the front of the Roadrunner attached to the pick up truck hitch. It requires a fully charged 12V battery, located on the Roadrunner.

Periodically check the battery, charge or replace as needed.

Wheels and Tires

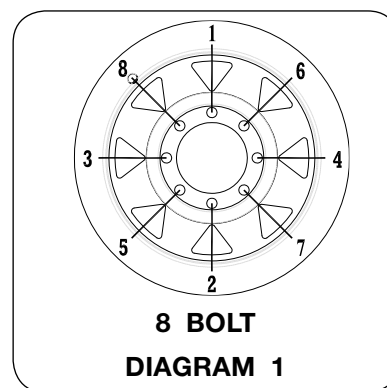
Wheel Nut Torque Requirements

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.

WHEEL HARDWARE	
SIZE	FOOT-POUNDS
9/16-18 (UNF)	110 Ft.-Lbs.



Tire Pressure

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

TIRE SIZE & PRESSURE
225/75 x 15 - 65 PSI
235/80R x 16 - 80 PSI

(All tire pressures in psi)

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

Michelin/
Kleber www.michelinag.com
 Phone 888-552-1213
 Fax 864-458-5538

Carlisle www.carlisletire.com
 Phone 800-260-7959
 Fax 800-352-0075

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

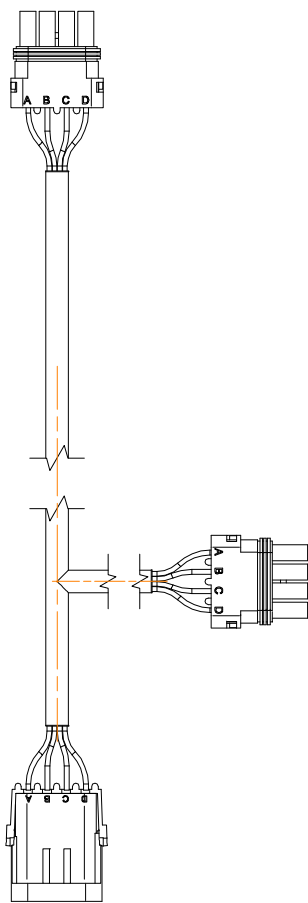
Complete Torque Chart - Capscrews - Grade 5

IMPORTANT

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

SIZE	FOOT POUNDS	NEWTON METERS	SIZE	FOOT POUNDS	NEWTON METERS
1/4-20	8-10	11-13	3/4-10	200-220	270-300
1/4-28	9-11	12-15	3/4-16	210-230	285-310
5/16-18	15-17	20-23	7/8-9	330-350	425-475
5/16-24	17-19	23-26	7/8-14	360-380	460-515
3/8-16	25-28	34-38	1-8	500-525	675-710
3/8-24	28-31	38-42	1-14	540-560	730-760
7/16-14	40-45	54-61	1 1/8-7	600-635	815-860
7/16-20	45-50	61-68	1 1/8-12	665-700	920-950
1/2-13	62-68	84-92	1 1/4-7	850-895	1150-1215
1/2-20	68-75	92-102	1 1/4-12	940-990	1275-1340
9/16-12	90-98	22-133	1 3/8-6	1125-1175	1525-1590
9/16-18	100-110	134-148	1 3/8-12	1280-1335	1735-1810
5/8-11	120-135	162-183	1 1/2-6	1500-1560	2035-2115
5/8-18	124-137	168-186	1 1/2-12	1685-1755	2285-2380

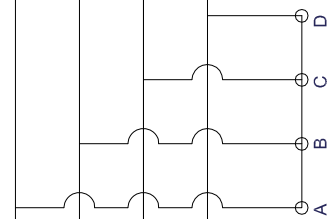
Wiring Harness #31868 for 30' Units — Electrical Schematic



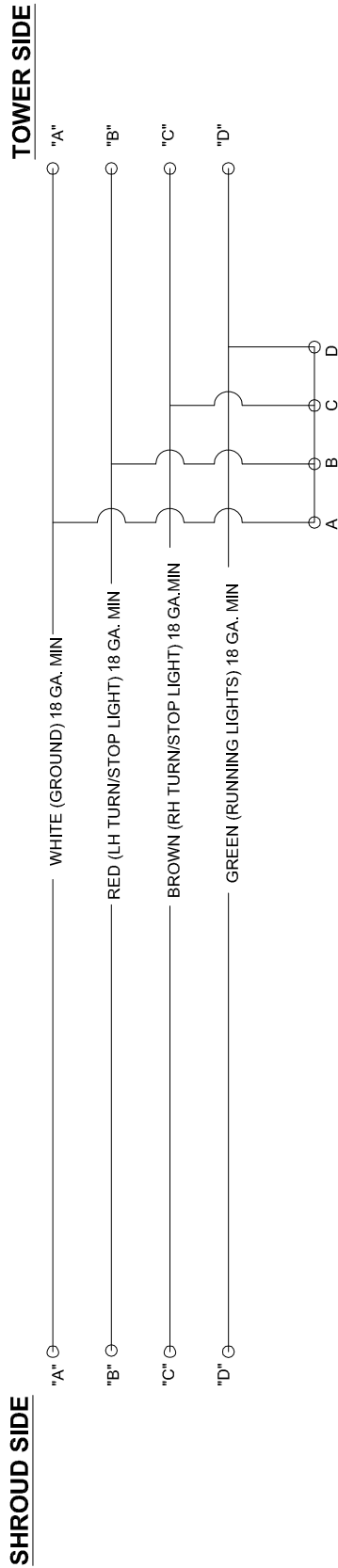
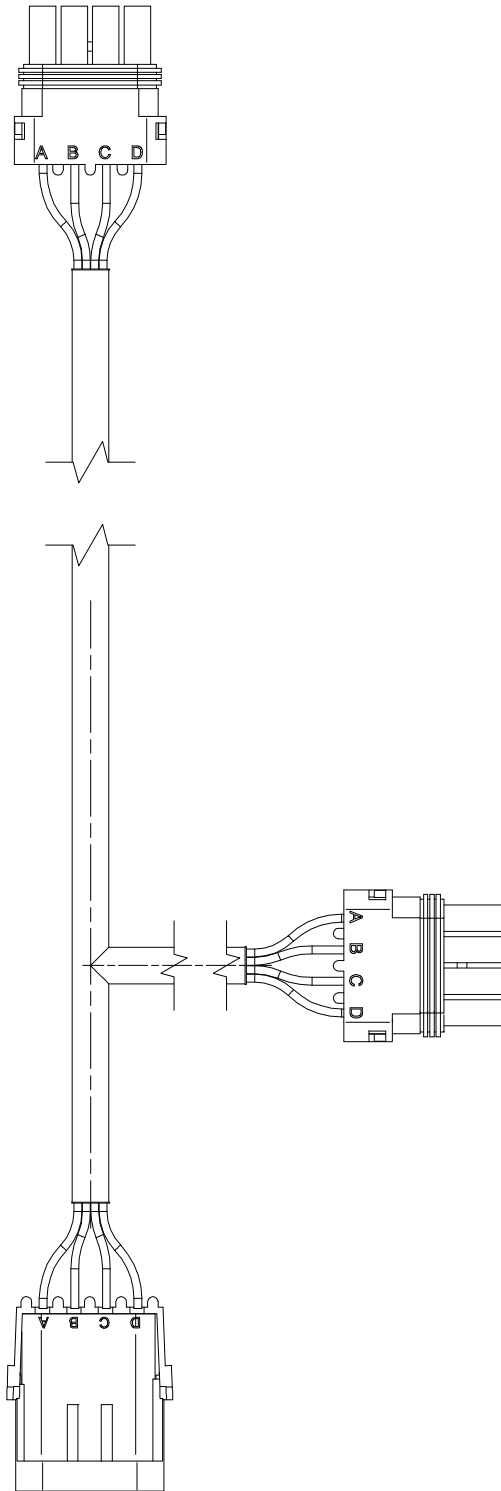
TOWER SIDE



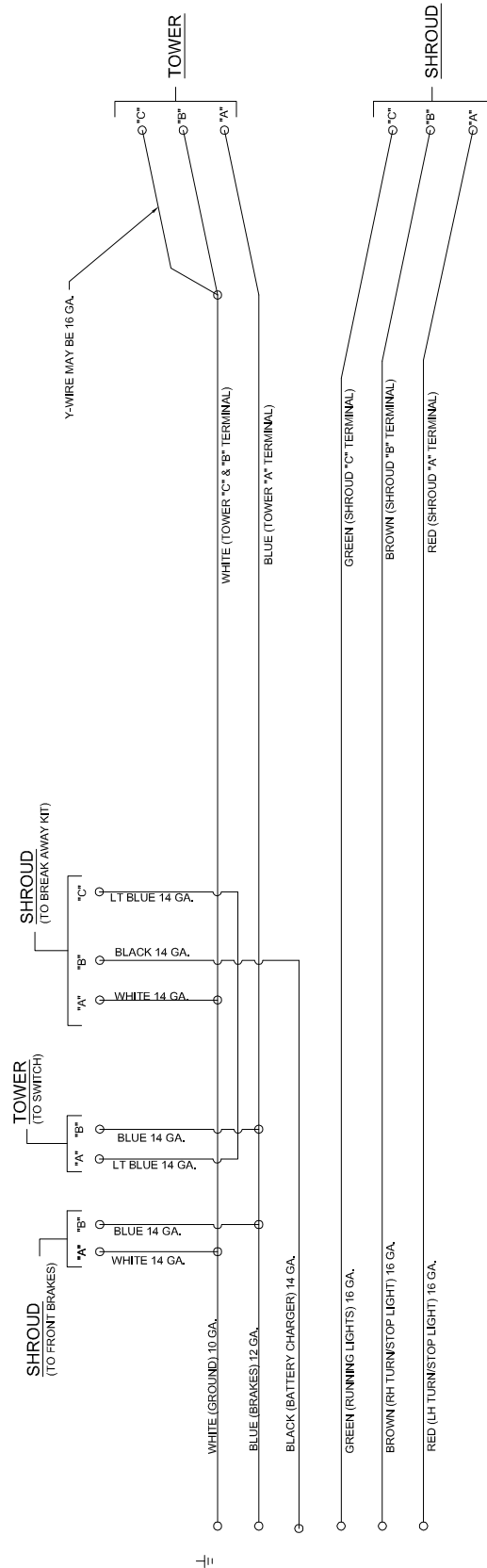
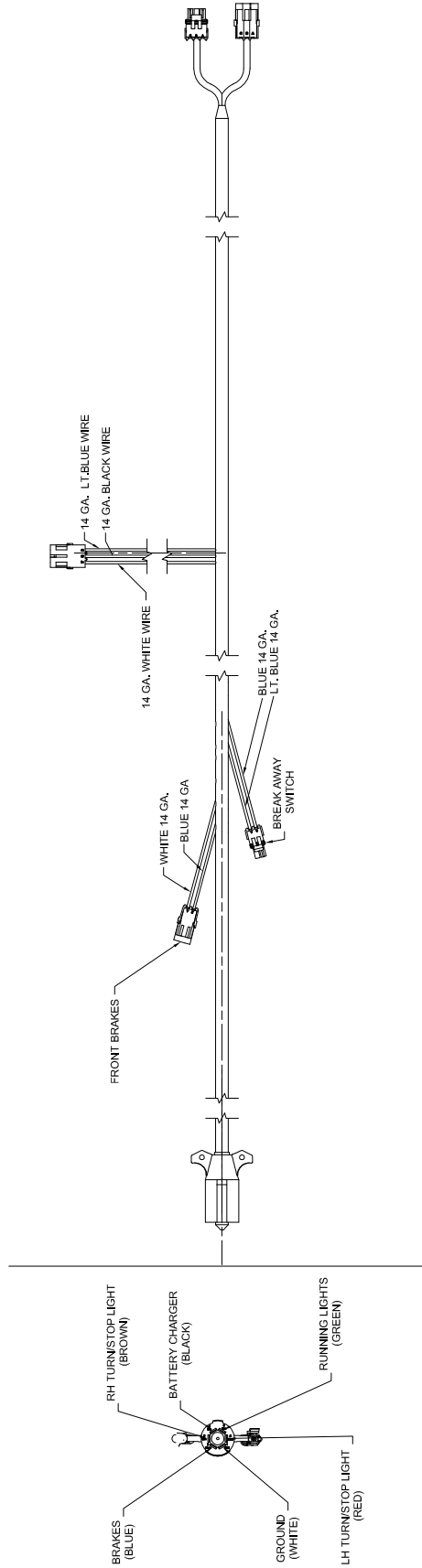
SHROUD SIDE



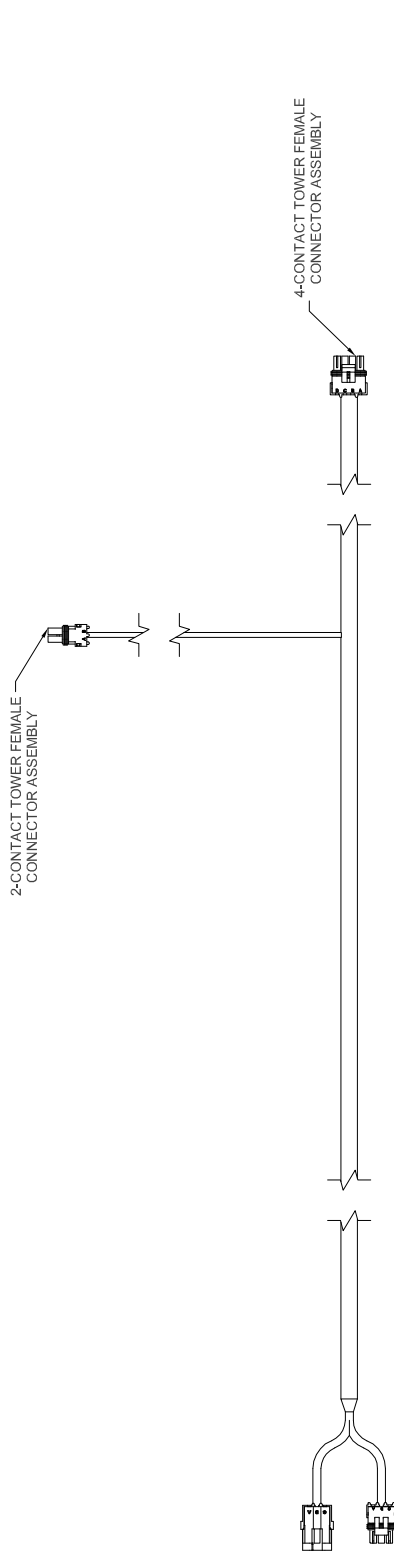
**Wiring Harness #31815
for 36', 42' & 48' Units — Electrical Schematic**



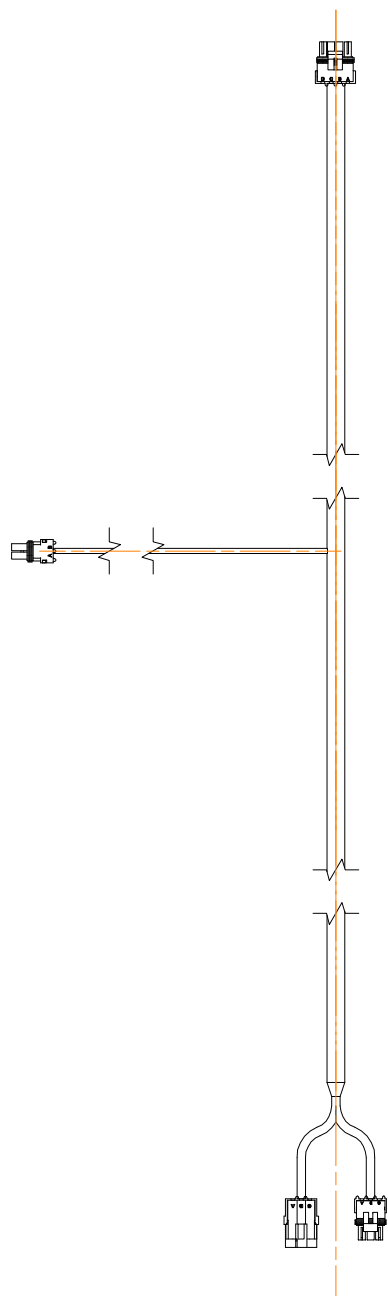
Wiring Harness #32051 — Electrical Schematic



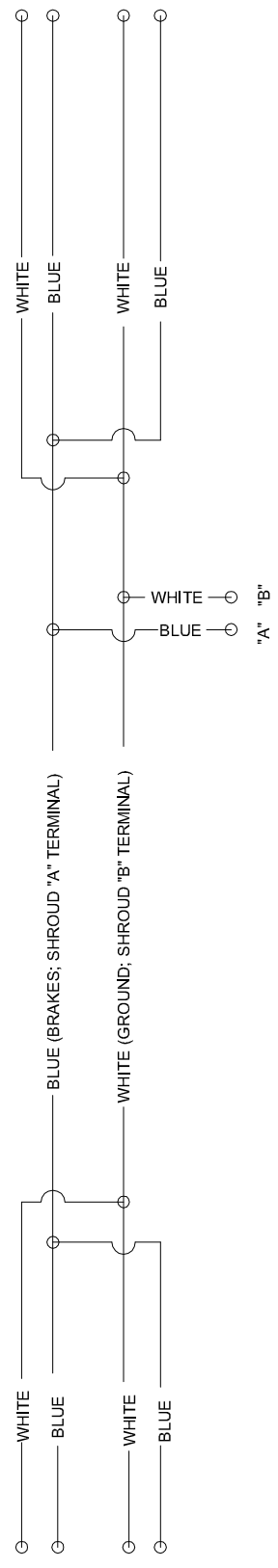
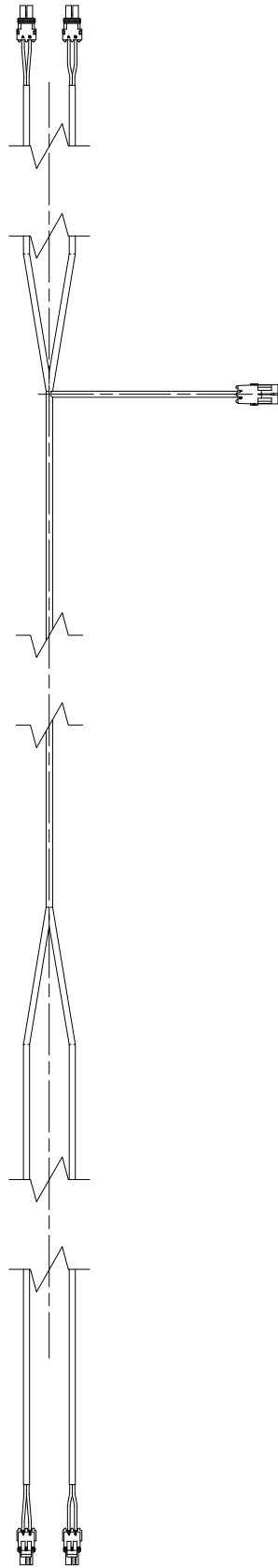
**Wiring Harness #32062
for 30' & 36' Units — Electrical Schematic**



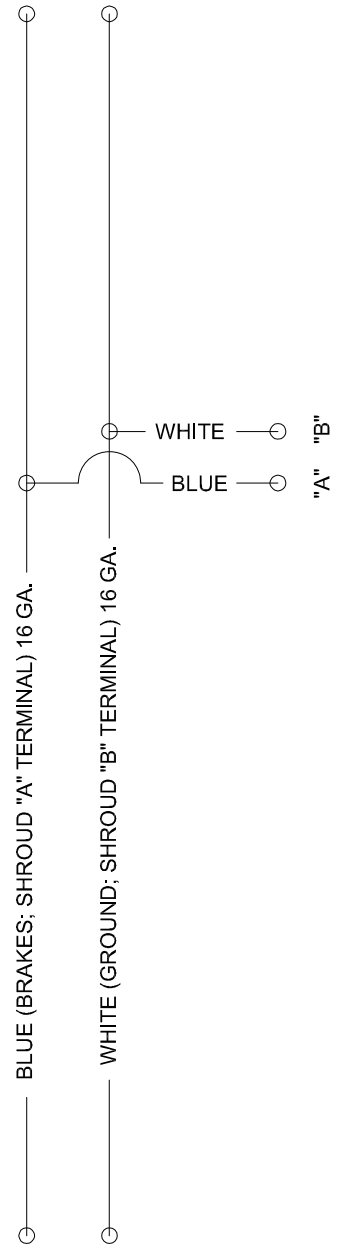
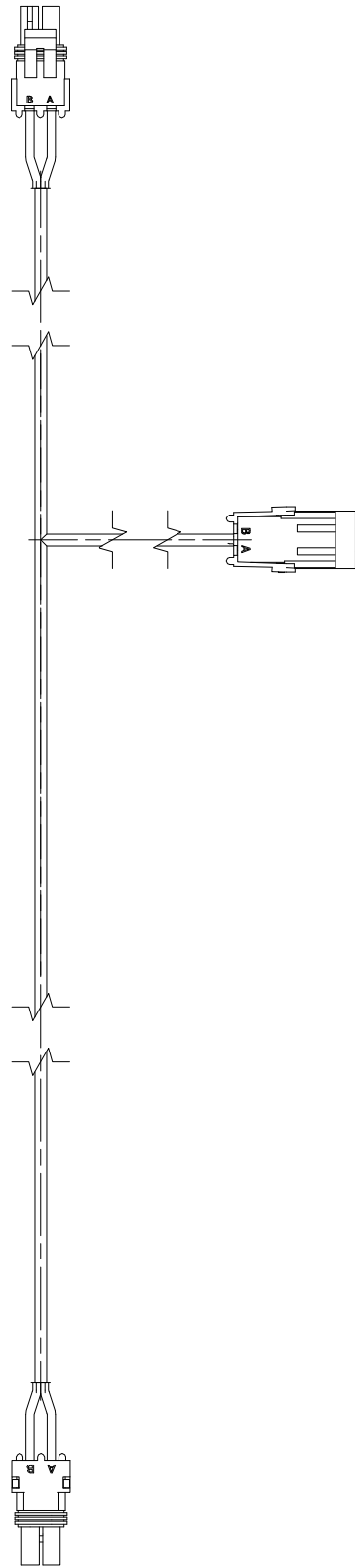
**Wiring Harness #32063
for 42' & 48' Units — Electrical Schematic**



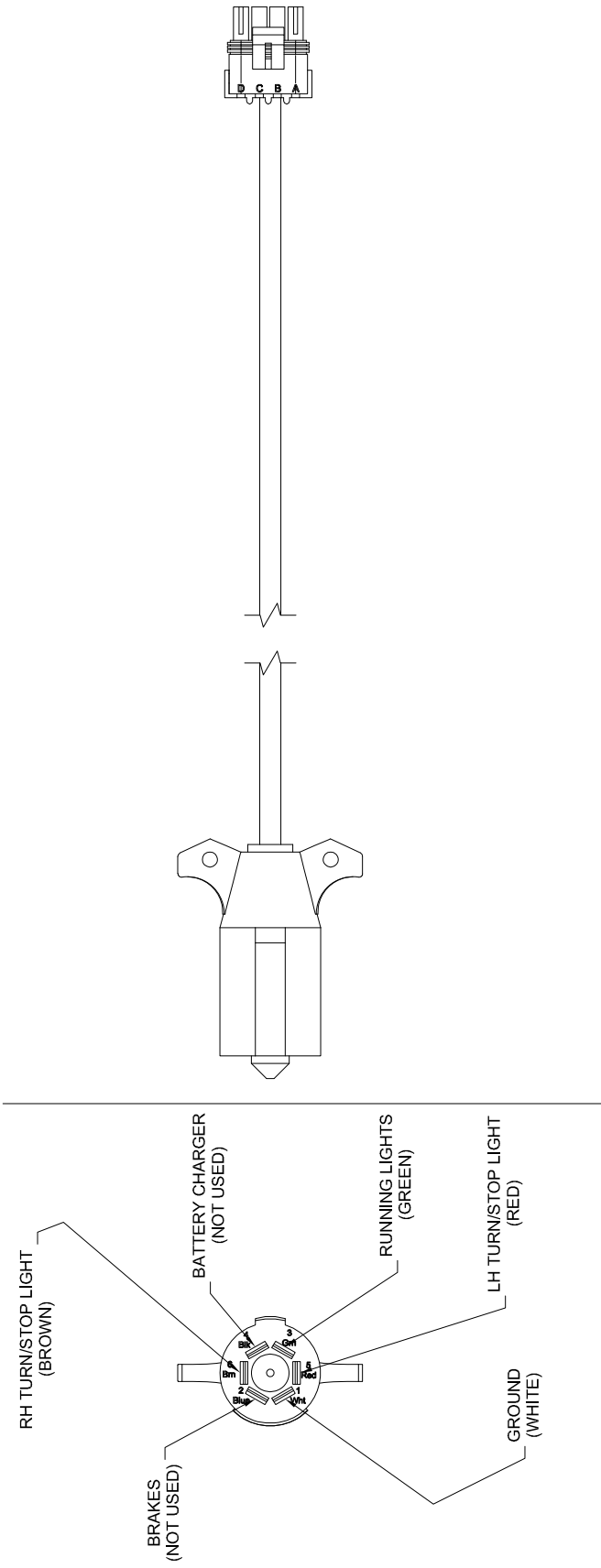
Brake Wiring Harness #900635 — Electrical Schematic



Brake Wiring Harness #900632 — Electrical Schematic

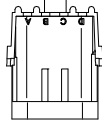
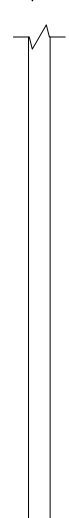
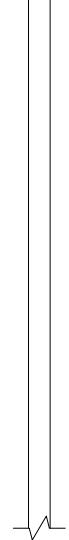
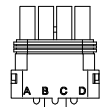


**Wiring Harness #900661
for Units Less Brakes — Electrical Schematic**



- ⊖ — "A" — WHITE (GROUND) 14 GA.
- ⊖ — "B" — RED (LH TURN/STOP LIGHT) 18 GA.
- ⊖ — "C" — BROWN (RH TURN/STOP LIGHT) 18 GA.
- ⊖ — "D" — GREEN (RUNNING LIGHTS) 18 GA.

Wiring Harness #900662 for Units Less Brakes — Electrical Schematic

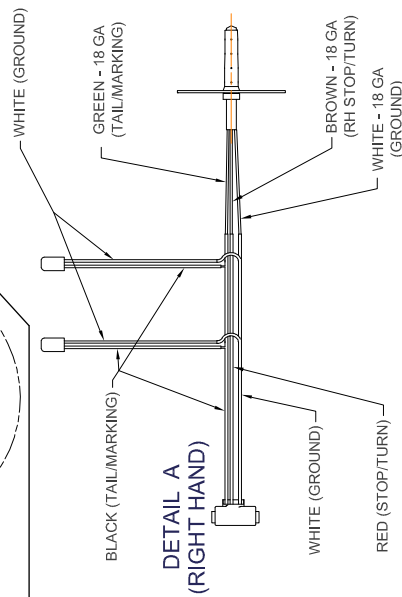
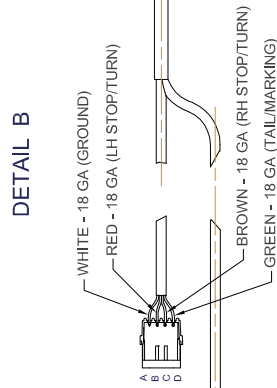
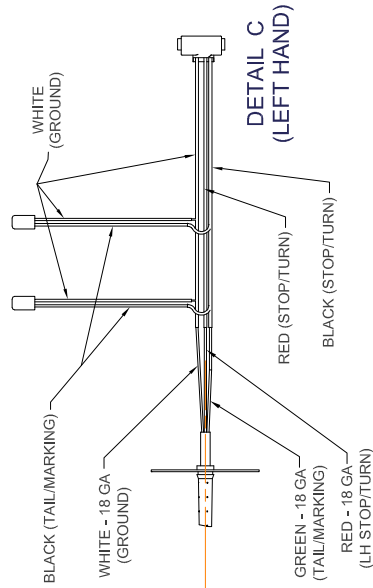
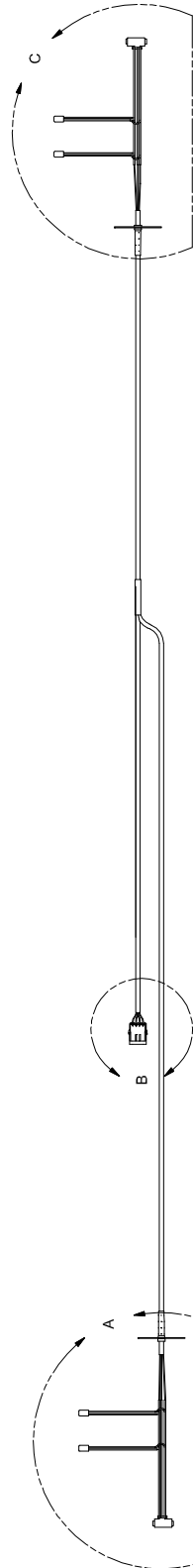


TOWER SIDE

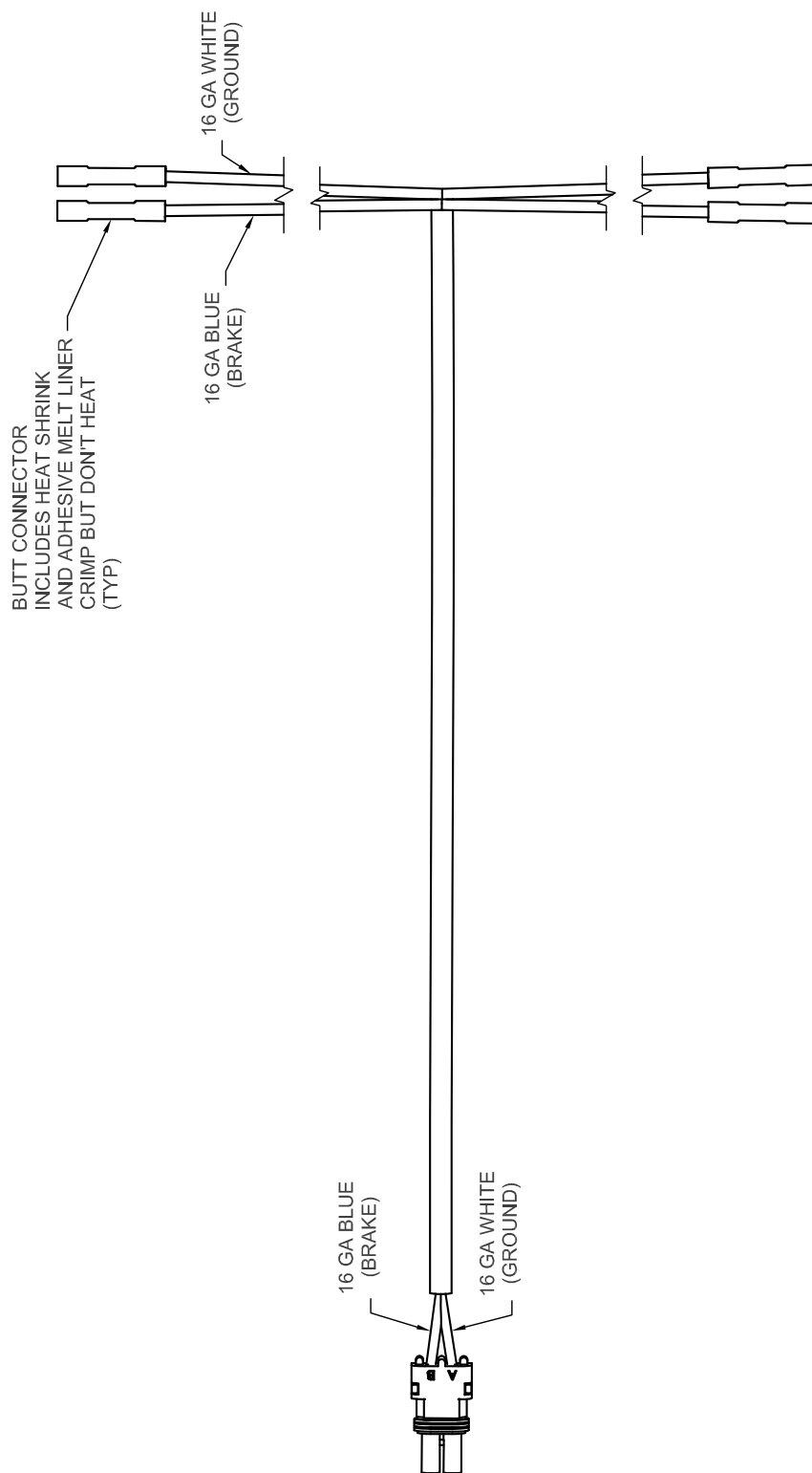
- "A" — ○ — WHITE (GROUND) 18 GA. — ○ "A"
- "B" — ○ — RED (LH TURN/STOP LIGHT) 18 GA. — ○ "B"
- "C" — ○ — BROWN (RH TURN/STOP LIGHT) 18 GA. — ○ "C"
- "D" — ○ — GREEN (RUNNING LIGHTS) 18 GA. — ○ "D"

SHROUD SIDE

Light Bar Harness #31811— Electrical Schematic



Front Axle with Brakes — Electrical Schematic #902264



Notes

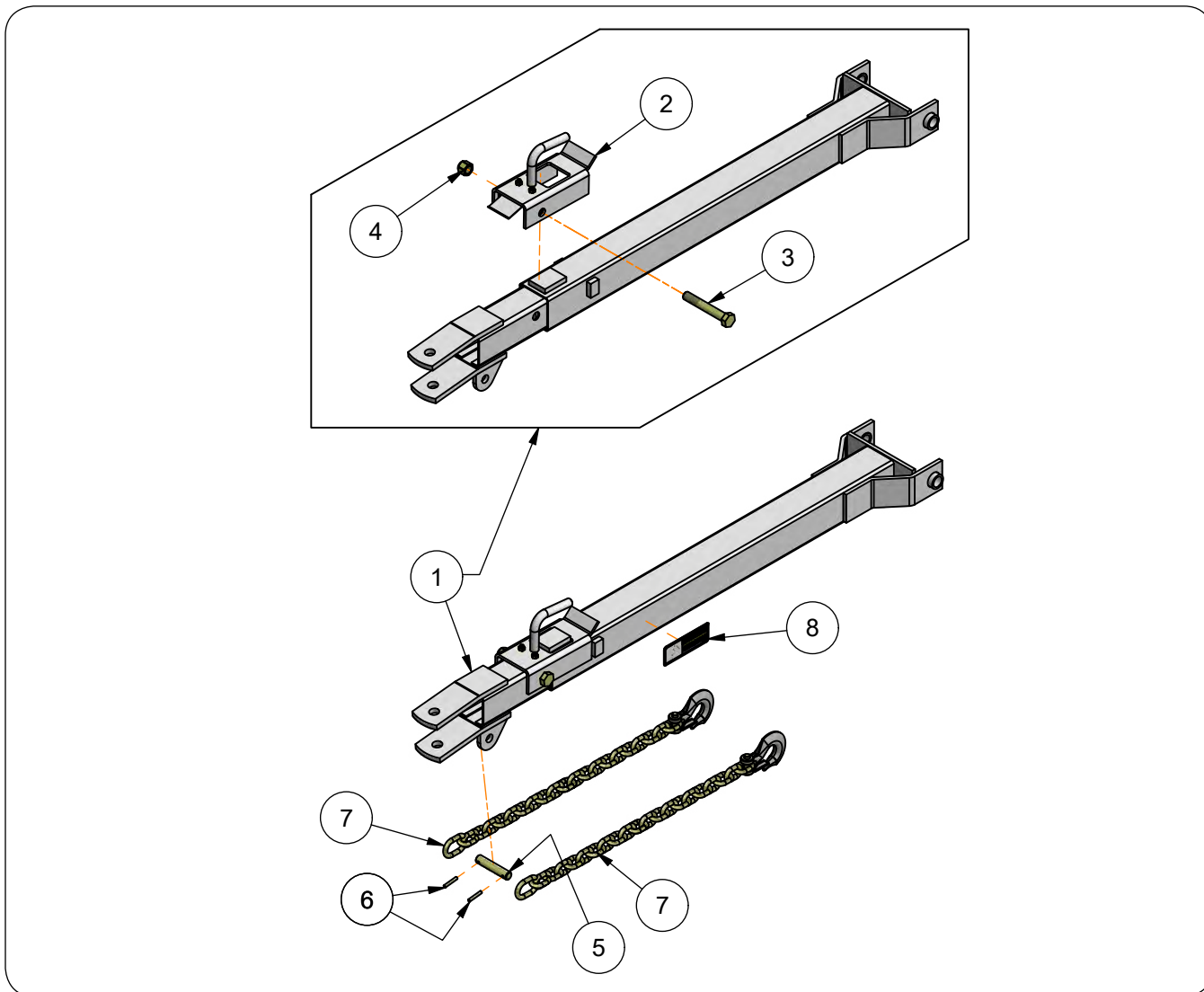
SECTION V

Parts

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Extendible Tongue Components

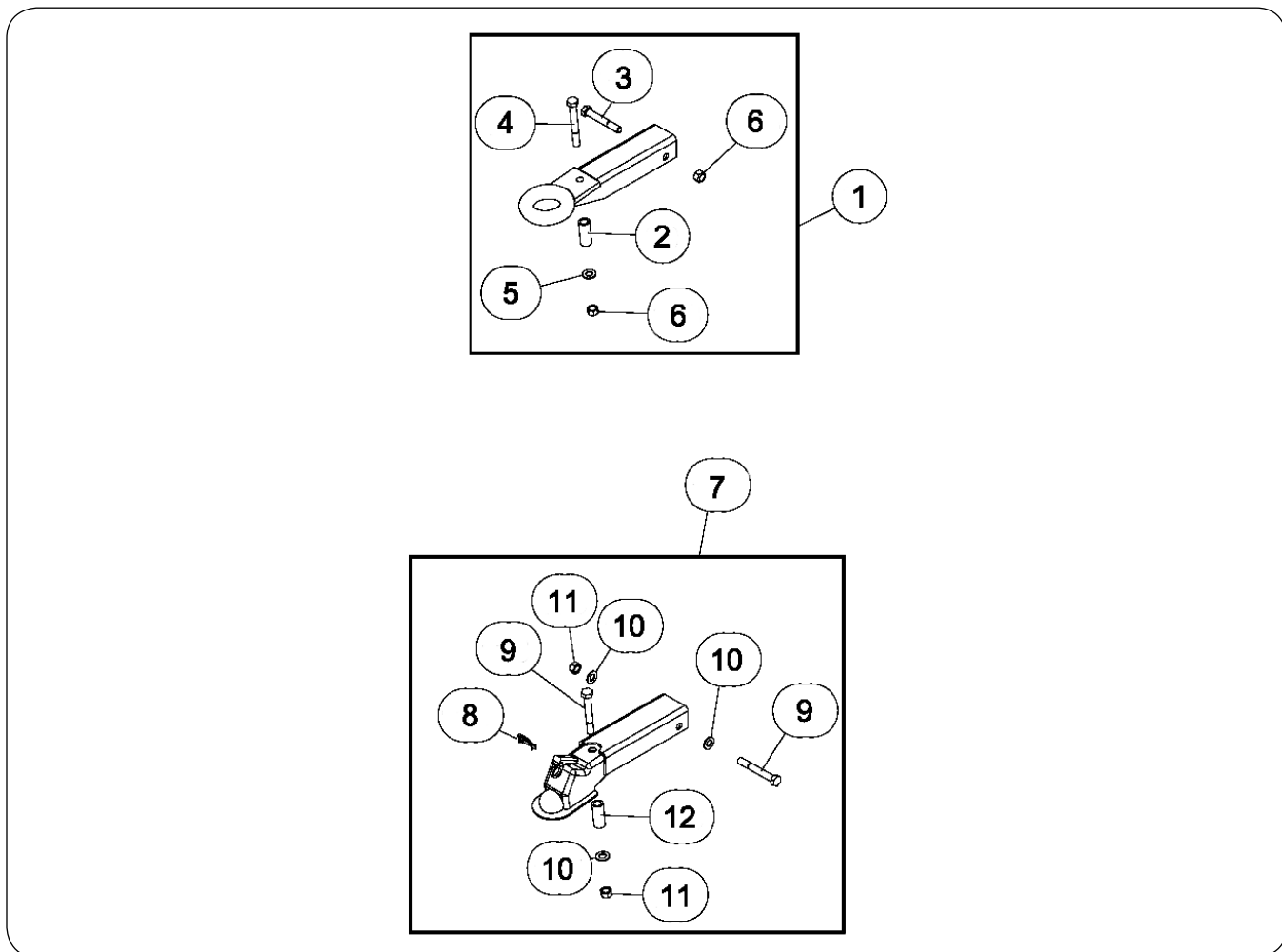
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	30534B	Extendible Tongue Assembly =Black=	1	Includes Items 2-8
	30534G	Extendible Tongue Assembly =Green=		
	30534R	Extendible Tongue Assembly =Red=		
2	105919B	Detent Latch Assembly	1	
3	9390-155	Capscrew 3/4"-10UNC x 5"	1	Grade 5
4	9398-021	Elastic Stop Nut 3/4-10UNC	1	
5	108051	Pin 3/4" Dia. x 3 3/4"	1	
6	91144-162	Spiral Pin 1/4" Dia. x 1 1/2"	2	
7	98792	Transport Chain	2	
8	9500710	Decal, CAUTION (Transport Chains)	1	

Hitch Option Components

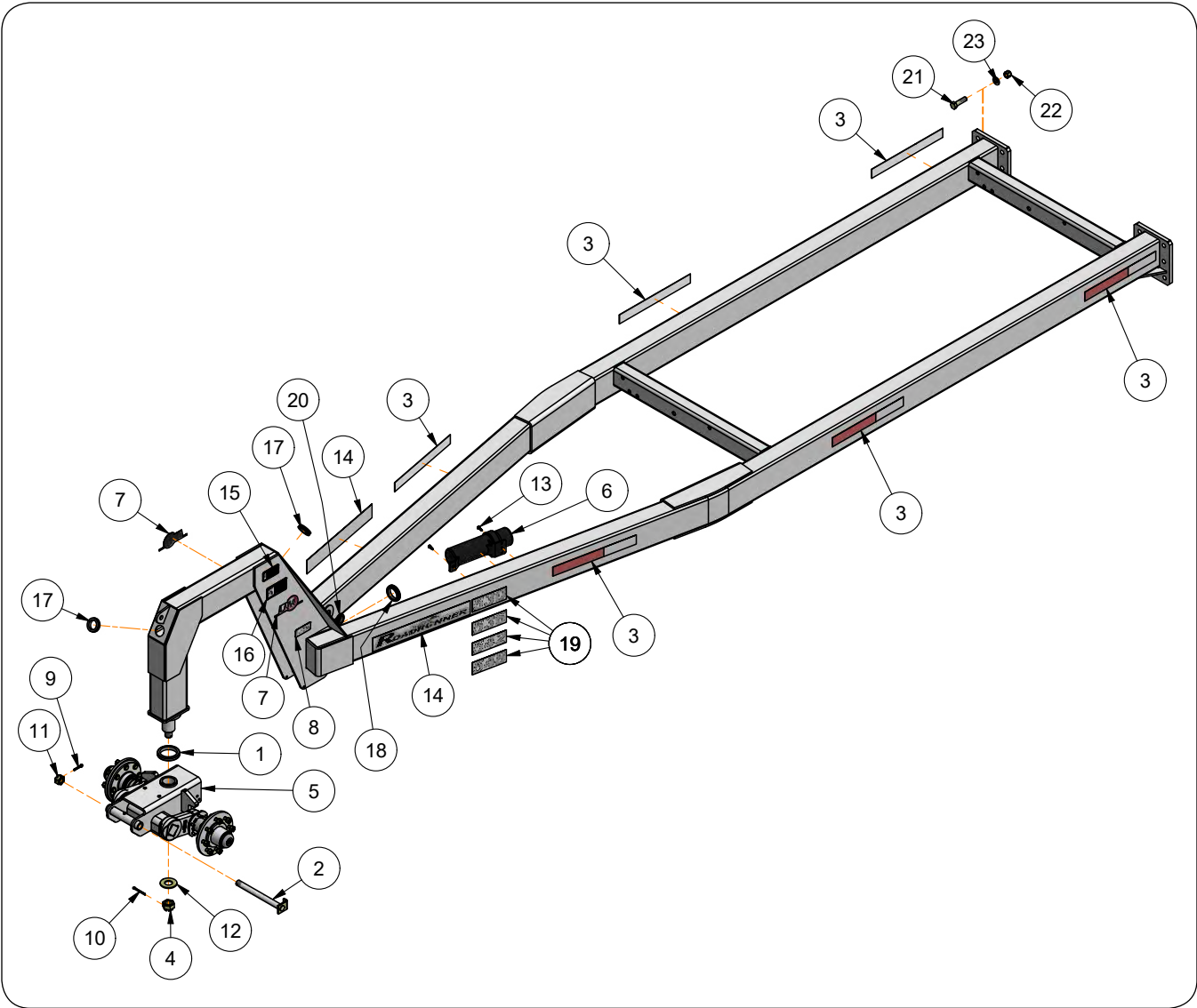
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	31024B	Pintle Hitch Adapter (Optional)		Includes Items 99 - 103
2	30811B	Spacer/Tube		
3	9390-155	Capscrew 3/4"-10UNC x 5"	1	Grade 5
4	9390-157	Capscrew 3/4"-10UNC x 6"		Grade 5
5	9405-104	Flat Washer 3/4"		
6	9802	Locknut 3/4"-10UNC		
7	31022B	Hitch Ball Adapter		Includes Items 105 - 109
8	9000936	Lynch Pin		
9	9390-156	Capscrew 3/4"-10UNC x 5 1/2"		Grade 5
10	9405-104	Flat Washer 3/4"		
11	9802	Locknut 3/4"-10UNC		
12	30811B	Spacer/Tube		

Front Frame Components

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



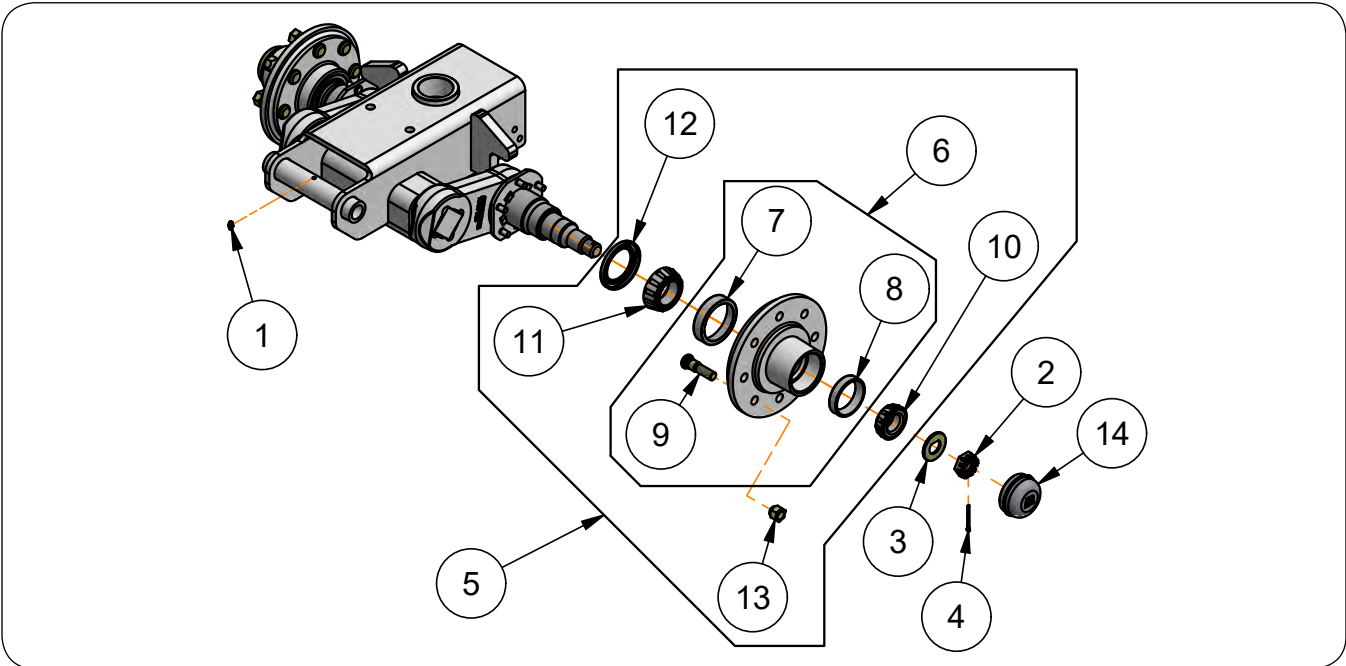
Front Frame Components

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	33244B	A-Frame Assembly w/Decals =Black=	1	all units with 6 brakes (Includes Items 1 Through 16)
	33244G	A-Frame Assembly w/Decals =GREEN=		
	33244R	A-Frame Assembly w/Decals =RED=		
	33243B	A-Frame Weldment w/Decals =Black=	1	all units with no brakes, 2 brakes, & 4 brakes (Includes Items 1 Through 16)
	33243G	A-Frame Weldment w/Decals =Green=		
	33243R	A-Frame Weldment w/Decals =Red=		
1	100241	Thrust Bearing	1	
2	106920	Pin Weldment, 1" Dia. x 11 5/16"	1	
3	25003	Conspicuity Marking	6	
4	901031	Castle Nut, 1 1/4"-12UNF	1	
5	33245B	Suspension Front Axle 7000# Complete Less Brakes (8-Bolt)	1	See Suspension Front Axle (SHOWN)
	33246B	Suspension Front Axle 7000# Complete w/Brakes (8-Bolt)		See Suspension Front Axle w/Brakes
6	900552	Manual Holder	1	
7	901764	Decal, "UM" Swoosh	2	
8	902401	Decal, RRT Max Header	1	
9	9391-057	Cotter Pin, 1/4" Dia. x 1 1/2"	1	
10	9391-061	Cotter Pin, 1/4" Dia. x 2 1/2"	1	
11	9393-020	Slotted Nut, 1"-14UNS	1	
12	9405-130	Flat Washer, 1 1/4"	1	
13	9512	Self Drilling Screw, 1/4"-14 x 1"	2	
14	97407	Decal, ROADRUNNER	2	
15	97961	Decal, WARNING (Read & Understand)	1	
16	98229	Decal, WARNING (Falling Equipment)	1	
17	900513	Rubber Grommet, 1/4" W, 2" Dia. Groove, 1 3/4" ID	3	
18	901334	Rubber Grommet, 1/4" W, 2 1/2" Dia. Groove, 2 1/4" ID	1	
19	902396	Decal, Model 530	2	For 30' Units
	902397	Decal, Model 536		For 36' Units
	902398	Decal, Model 542		For 42' Units
	902399	Decal, Model 548		For 48' Units
20	97840	Rubber Grommet, 1/4" W, 1 1/2" Dia. Groove, 1 1/4" ID	1	
21	9390-148	Capscrew, 3/4"-10UNC x 2 3/4" G5	16	
22	9398-021	Elastic Lock Nut, 3/4"-10UNC	16	
23	9405-104	Flat Washer, 3/4" SAE	16	

Suspension Front Axle Less Brakes Components

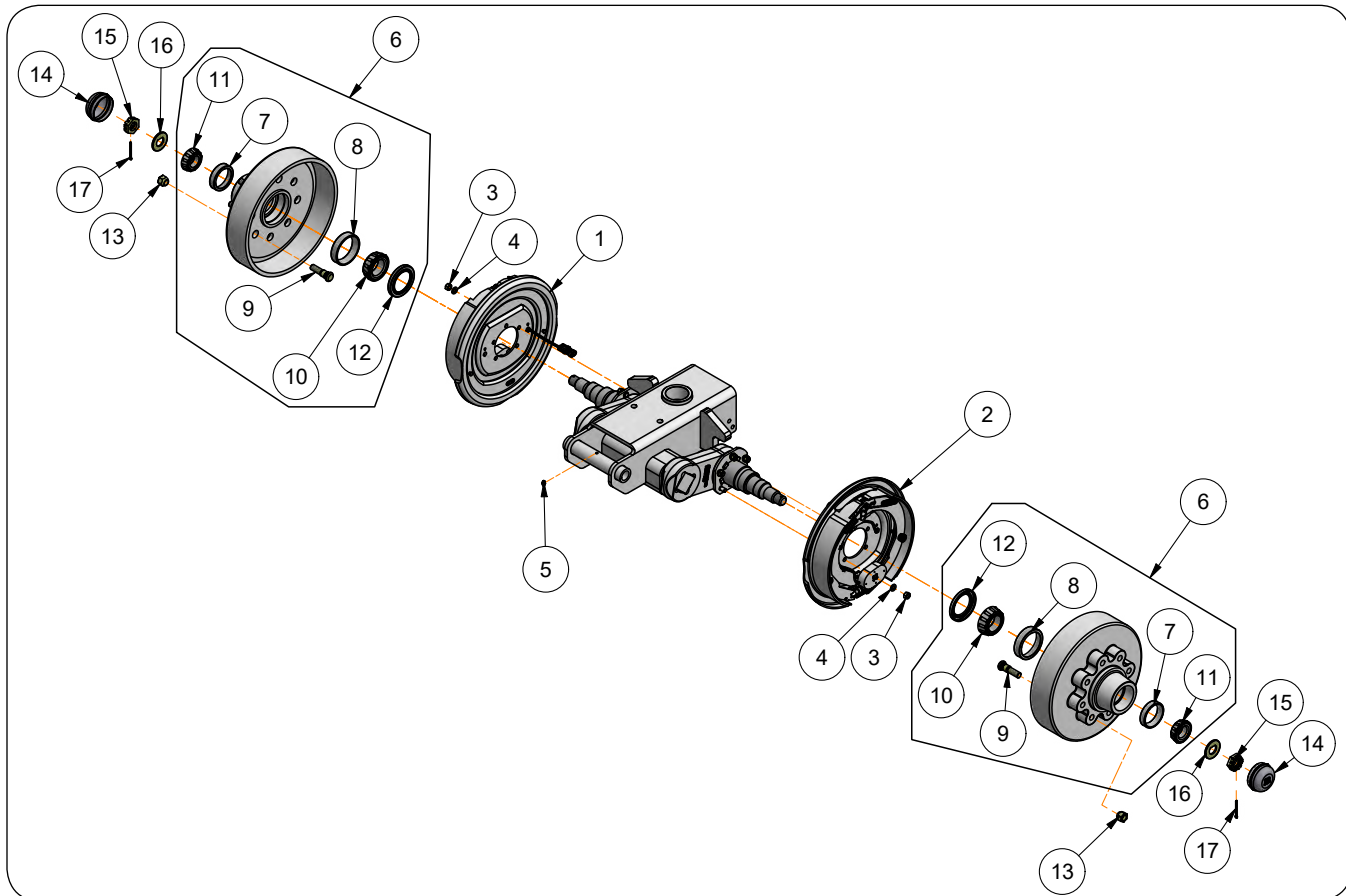
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	33245B	Suspension Front Axle 7000# Idler (8-Bolt) =Black=	1	Includes Items 1 Through 14
1	91160	Grease Zerk, 1/4-28 STT	2	
2	9008548	Slotted Nut, 1"-14UNS G2	2	
3	9008549	Spindle Washer, 1" ID x 2" OD x 1/8"	2	
4	9391-026	Cotter Pin, 1/8" Dia. x 1 3/4"	2	
5	9501118	Idler Assembly 8-Bolt	2	Includes Items 6-13
6	901714	Hub 8-Bolt Subassembly w/Cups and Studs	1	Includes Items 7-9
7	91812	Bearing Cup, 3.265" Dia. (Ref. #25520)	1	
8	92687	Bearing Cup, 2.717" Dia. (Ref. #14276)	1	
9	9502240	Stud Bolt, 9/16"-18UNF x 2.30 G8	8	
10	91824	Bearing Cone, 1 1/4" ID (Ref. #14125A)	1	
11	91822	Bearing Cone, 1.75" ID (Ref. #25580)	1	
12	97342	Seal, 2 1/4" ID x 3.376" OD, Double Lip, Spring Loaded (Ref. #9065061)	1	
13	901669	Tapered Nut, 9/16"-18UNF	16	
14	91887	Hub Cap	2	

Suspension Front Axle With Brakes Components

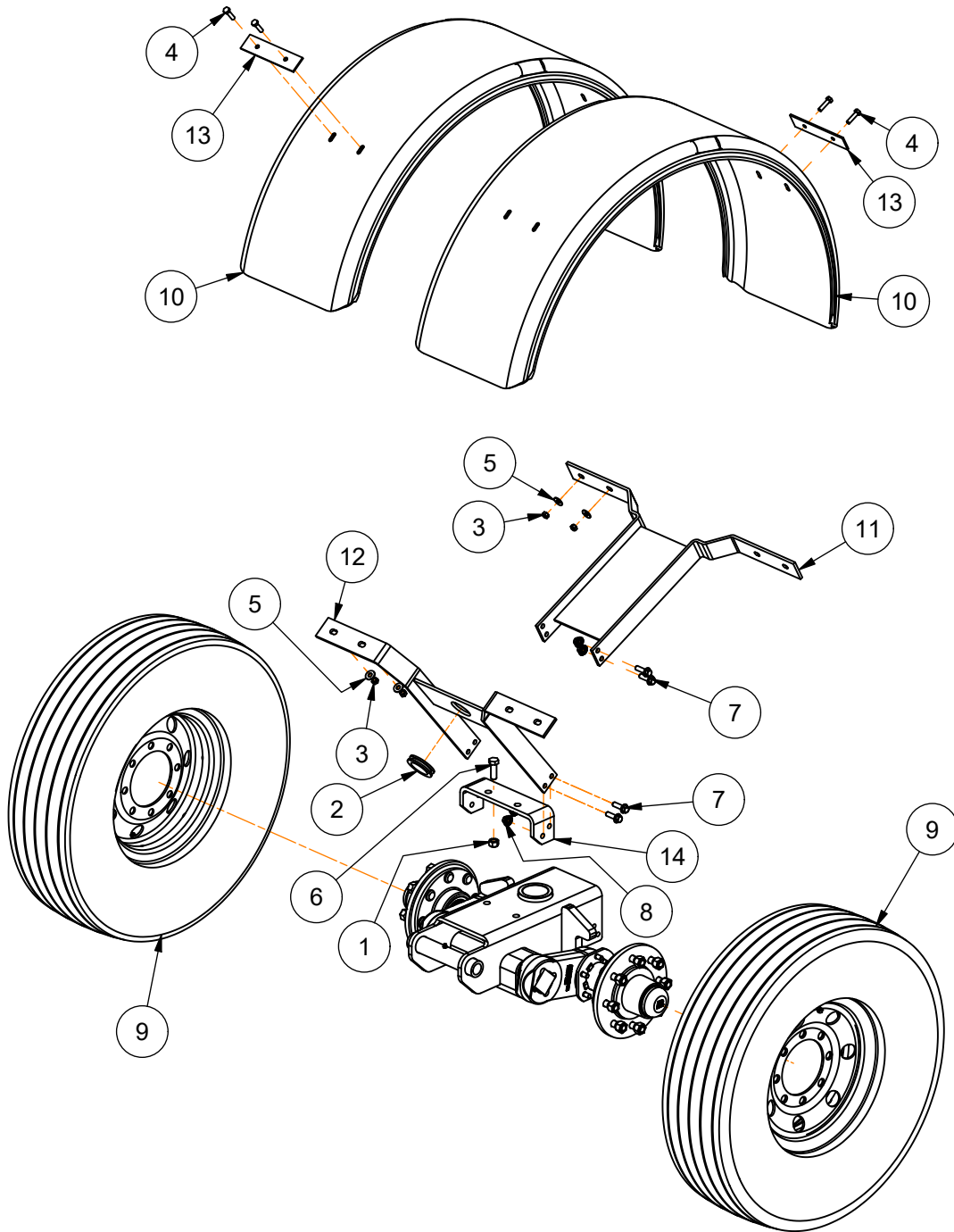
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	33246B	Suspension Front Axle 7000# Idler (8-Bolt) =Black=	1	Includes Items 1 Through 17
1	97349	Brake Cluster RH/Electric	1	
2	97348	Brake Cluster LH/Electric	1	
3	9394-005	Hex Nut, 3/8"-24UNF	10	
4	9404-021	Lock Washer, 3/8"	10	
5	91160	Grease Zerk, 1/4-28 STT	2	
6	9501096	Drum Assembly 8-Bolt	2	Includes Items 7-12
	7	Bearing Cup, 2.717" Dia. (Ref. #14276)	1	
	8	Bearing Cup, 3.265" Dia. (Ref. #25520)	1	
	9	Stud Bolt, 9/16"-18UNF x 2.30 G8	8	
	10	Bearing Cone, 1.75" ID (Ref. #25580)	1	
	11	Bearing Cone, 1 1/4" ID (Ref. #14125A)	1	
	12	Seal, 2 1/4" ID x 3.376" OD, Double Lip, Spring Loaded (Ref. #9065061)	1	
13	901669	Tapered Nut, 9/16"-18UNF	16	
14	91887	Hub Cap	2	
15	9008548	Slotted Nut, 1"-14UNS G2	2	
16	9008549	Spindle Washer, 1" ID x 2" OD x 1/8"	2	
17	9391-026	Cotter Pin, 1/8" Dia. x 1 3/4"	2	

Fender & Tire Components

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



Fender & Tire Components

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

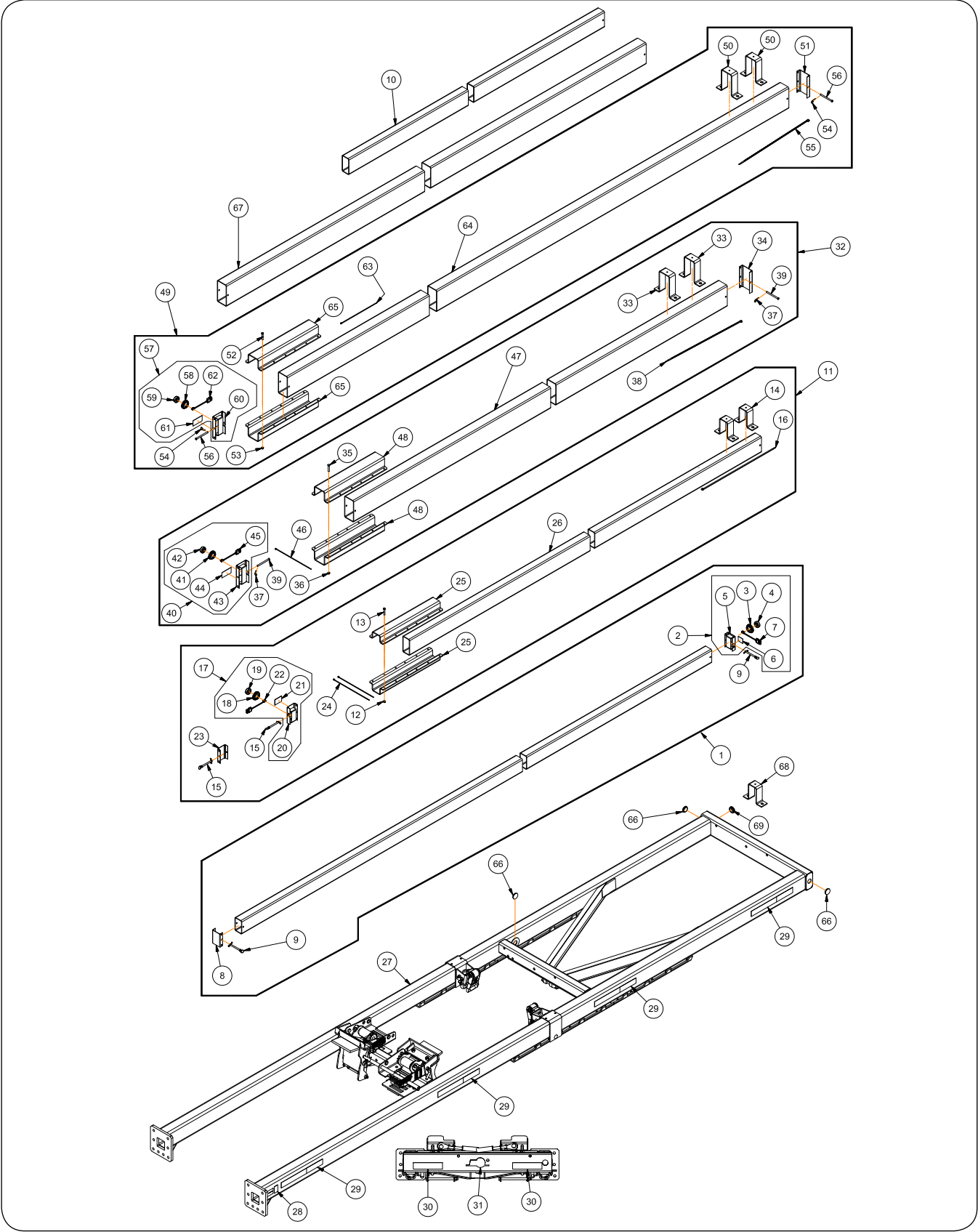
ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9800	Lock Nut/Top, 1/2"-13UNC	2	
2	900513	Grommet, 1/4W x 2" Dia. Groove	1	
3	9807	Lock Nut/Top, 5/16"-18UNC	8	
4	9390-031	Capscrew, 5/16"-18UNC x 1 1/4" G5	8	
5	9405-070	Flat Washer, 5/16" USS	8	
6	9390-101	Capscrew, 1/2"-13UNC x 1 1/2" G5	2	
7	9003259	Flange Screw, 3/8"-16UNC x 1 1/4"	8	
8	9928	Lock Nut/Top, 3/8"-16UNC	8	
9	902702	Wheel/Tire Assembly ST235/85R16	2	
10	98341	Fender	2	
11	30911B	Fender Rear Bracket Weldment	1	
12	30916B	Fender Front Bracket Weldment	1	
13	31090B	Fender Strap/Reinforcement Plate	4	
14	31539B	Fender Mount Formed Bar	1	

FOR TIRE WARRANTY

Any questions concerning tire warranty should be directed to the tire manufacturer or your local tire dealer. Tire manufacturers' phone numbers and websites are listed in "MAINTENANCE" section for your convenience.

Rear Frame & Upper Tube Components

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



Rear Frame & Upper Tube Components

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES	
1	106629B	Tube 5x3 (RRHT30') =Black=	1	For 30' Units Includes Items 2 Through 9	
	106629G	Tube 5x3 (RRHT30') =Green=			
	106629R	Tube 5x3 (RRHT30') =Red=			
	2	32733B	End Cap Assembly 3x5 W/Light	1	Includes Items 3 Through 7
	3	900956	Grommet OPEN BACK	1	
	4	902218	Light/RED LED 4 Diode	1	
	5	32734B	End Cap Weldment 3x5	1	
		900152	Black Foam Rubber	A/R	
	6	9003125	Fluorescent Strip	A/R	
7	9500410	Wire Harness 8 7/32"	1		
8	106582B	Cover =Black=	1		
9	91168	Hitch Pin 3/8" Dia. x 4 3/8 w/Hairpin	2		
10	30925B	Tube 6x3 (RRHT17') =Black=	1	For 36' Units	
	30925G	Tube 6x3 (RRHT17') =Green=			
	30925R	Tube 6x3 (RRHT17') =Red=			
11	30970B	Upper Tube 6x3 Assembly =Black=	1	For 36' Units with 6x3 tubes Includes Items 12 Through 26	
	30970G	Upper Tube 6x3 Assembly =Green=			
	30970R	Upper Tube 6x3 Assembly =Red=			
12	9928	Locknut 3/8-16UNC	12		
13	9390-060	Capscrew 3/8-16UNC x 2 1/4	12	Grade 5	
14	30693B	Strap 1/4 x 2 1/2 x 18 3/4	2	For 6 x 3 Tubes	
15	91168	Hitch Pin 3/8" Dia. x 4 3/8 w/Hairpin	2		
16	94038	Cable Tie 32" Long	1		
17	32738B	End Cap Assembly 3x6 W/Light	1	Includes Items 18 Through 22	
	18	900956	Grommet OPEN BACK	1	
	19	902218	Light/RED LED 4 Diode	1	
	20	32737B	End Cap Weldment 3x6	1	
	21	9003125	Fluorescent Strip	A/R	
	22	9500410	Wire Harness 8 7/32"	1	
23	106582B	Cover =Black=	1		
24	94037	Cable Tie 15 1/2" Long	2		
25	30886B	Coupler 1/4 x 9 15/16 x 26 =Black=	2		
	30886G	Coupler 1/4 x 9 15/16 x 26 =Green=			
	30886R	Coupler 1/4 x 9 15/16 x 26 =Red=			
26	30888B	Upper Tube 6 x 3 x 239 7/8 =BLACK=	1		
	30888G	Upper Tube 6 x 3 x 239 7/8 =GREEN=			
	30888R	Upper Tube 6 x 3 x 239 7/8 =RED=			

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Rear Frame & Upper Tube Components (continued)

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
27	33277B	Rear Frame W/Decals =BLACK=	1	For 30' & 36' Units Includes Items 28 Through 31
	33277G	Rear Frame W/Decals =GREEN=		
	33277R	Rear Frame W/Decals =RED=		
	33276B	Rear Frame W/Decals =black=		SHOWN For 42' & 48' Units Includes Items 28 Through 31
	33276G	Rear Frame W/Decals =GREEN=		
	33276R	Rear Frame W/Decals =RED=		
28	91605	Decal, FEMA	1	
29	25003	Conspicuity Marking	17	
30	9003126	Reflector, Red (2 x 9)	2	
31	901764	Decal, "UM" SWOOSH	3	
32	31892B	Upper Tube 8x4 Assembly =Black=		For 42' Units with 8x4 Tubes Includes Items 33 Through 48
	31892G	Upper Tube 8x4 Assembly =Green=		
	31892R	Upper Tube 8x4 Assembly =Red=		
33	31726B	Strap 1/4 x 2 1/2 x 23 3/4	2	
34	31891B	Cover =BLACK=	1	
35	9390-060	Capscrew 3/8-16UNC x 2 1/4	12	Grade 5
36	9928	Locknut/TOP 3/8-16UNC GB	12	
37	9514	Hairpin Cotter .092" Dia. x 1 7/8	2	
38	94038	Cable Tie, 32"	1	
39	TA8F93	Clevis Pin 3/8" Dia. x 5	2	
40	32742B	End Cap Assembly 4x8 W/Light	1	Includes Items 41 Through 45
41	900956	Grommet OPEN BACK	1	
42	902218	Light/RED LED 4 Diode	1	
43	32741B	End Cap Weldment 4x8	1	
44	9003125	Fluorescent Strip	A/R	
45	9500410	Wire Harness 8 7/32"	1	
46	94037	Cable Tie 15 1/2" Long	1	
47	31727B	Upper Tube 8 x 4 x 240 =BLACK=	1	
	31727G	Upper Tube 8 x 4 x 240 =GREEN=		
	31727R	Upper Tube 8 x 4 x 240 =RED=		
48	31725B	Coupler 1/4 x 12 29/32 x 26 =Black=	2	
	31725G	Coupler 1/4 x 12 29/32 x 26 =Green=		
	31725R	Coupler 1/4 x 12 29/32 x 26 =Red=		

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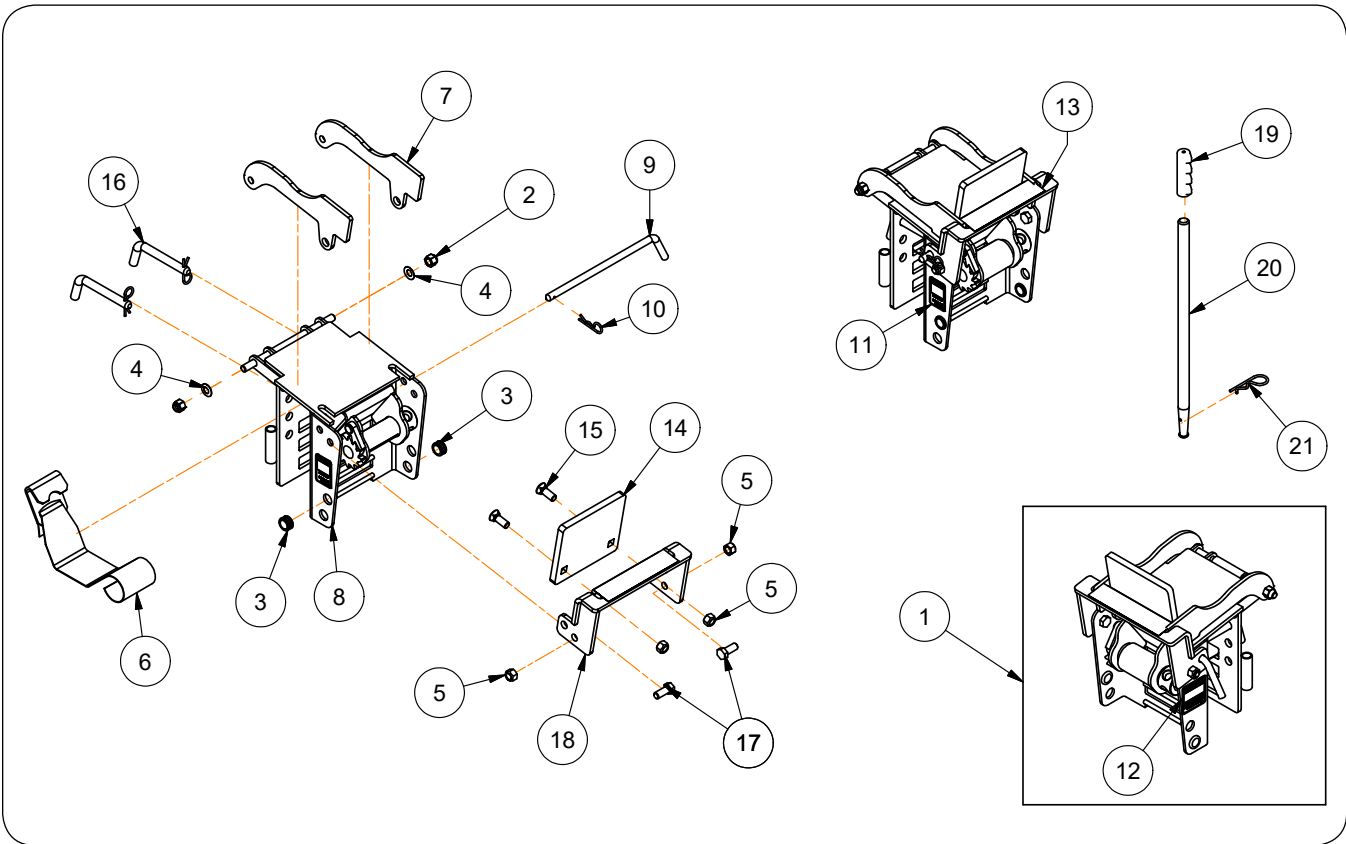
Rear Frame & Upper Tube Components (continued)

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
49	32288B	Upper Tube 8x4 Assembly =Black=	1	For 48' Units with 8 x 4 Tubes Includes Items 50 Through 65
	32288G	Upper Tube 8x4 Assembly =Green=		
	32288R	Upper Tube 8x4 Assembly =Red=		
50	31726B	Strap 1/4 x 2 1/2 x 23 3/4	2	For 8 x 4 Tubes
51	31891B	Cover =Black=	1	
52	9390-060	Capscrew 3/8-16UNC x 2 1/4	12	Grade 5
53	9928	Locknut 3/8-16UNC GB	12	
54	9514	Hairpin Cotter .092" Dia. x 1 7/8	2	
55	94038	Cable Tie, 32"	1	
56	TA8F93	Clevis Pin 3/8" Dia. x 5	2	
57	32742B	End Cap Assembly 4x8 W/Light	1	Includes Items 58 Through 63
58	900956	Grommet OPEN BACK	1	
59	902218	Light/RED LED 4 Diode	1	
60	32741B	End Cap Weldment 4x8	1	
61	9003125	Fluorescent Strip	A/R	
62	9500410	Wire Harness 8 7/32"	1	
63	94037	Cable Tie 15 1/2" Long	1	
64	32287B	Upper Tube 8 x 4 x 312 =BLACK=	1	
	32287G	Upper Tube 8 x 4 x 312 =GREEN=		
	32287R	Upper Tube 8 x 4 x 312 =RED=		
65	31725B	Coupler 1/4 x 12 29/32 x 26 =Black=	2	
	31725G	Coupler 1/4 x 12 29/32 x 26 =Green=		
	31725R	Coupler 1/4 x 12 29/32 x 26 =Red=		
66 76	97422	Grommet Plug	4	
67 77	31728B	Tube 8x4 (RRHT23') =Black=	1	For 42' & 48' Units
	31728G	Tube 8x4 (RRHT23') =Green=		
	31728R	Tube 8x4 (RRHT23') =Red=		
68 78	3962	Strap 1/4 x 2 1/2 x 16 3/4	3	For 30' Units / 5 x 3 Tubes
69 79	97840	Rubber Grommet 1 1/2" Dia.	4	

Rest Bracket Components

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



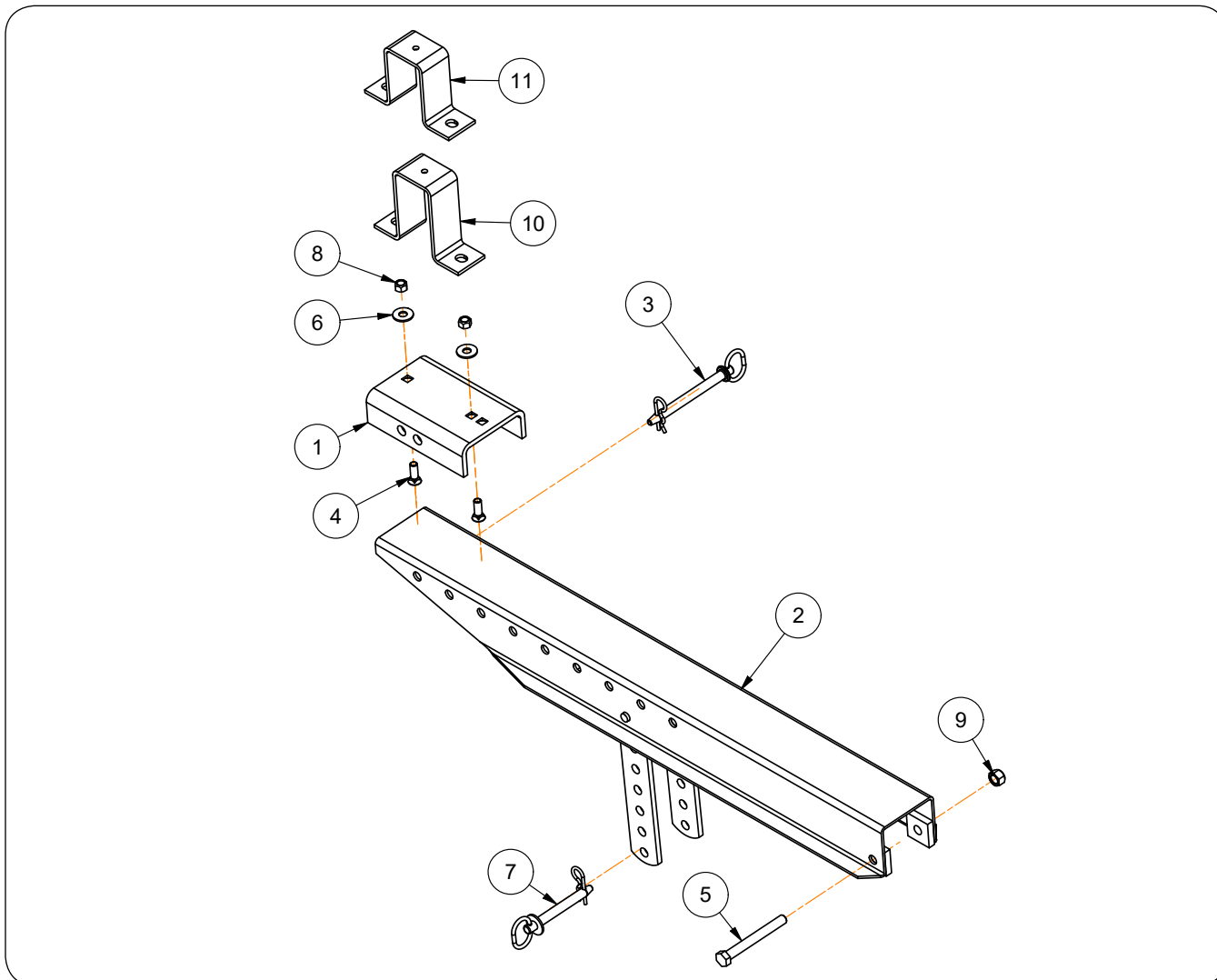
Rest Bracket Components

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

ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
	33099B	Pair of Rest Bracket Assemblies	-	
1	32894B	Rest Bracket Assembly	1	Includes Items 2 through 18
2	9398-019	Elastic Locknut 5/8-11UNC	2	
3	902482	Grommet	2	
4	902490	Belleville Spring Washer 5/8"	2	
5	9801	Lock Nut/Top, 5/8"-11UNC	4	
6	902601	Strap	1	
7	32893B	Side Rest Plate	2	
8	32900B	Rest Bracket Weldment (Less Decals)	1	
9	32928	Pin 5/8" Dia. x 17 5/16	1	
10	95959	Hairpin Cotter .1562" Dia. x 3	3	
11	97048	Decal, WARNING (Pinch Point)	1	
12	97877	Decal, CAUTION (Secure)	1	
13	9003125	Decal, Fluorescent Orange	1	
14	32913B	Bar 8 x 6 1/2	1	
15	97296	Plow Bolt, 5/8"-11UNC x 1 3/4"	2	Grade 5
16	9501179	Formed Pin 3/4" Dia.	2	
	95959	Hairpin Cotter	2	
17	9390-122	Capscrew 5/8-11UNC x 1 1/2	2	Grade 5
18	32925B	Back Stop Weldment	1	
19	93475	Handle Grip	1	
20	32279	Winch Bar	1	
21	92424	Hairpin Cotter .177" Dia. x 3.68	1	

Arm Assembly Upper Bar Components

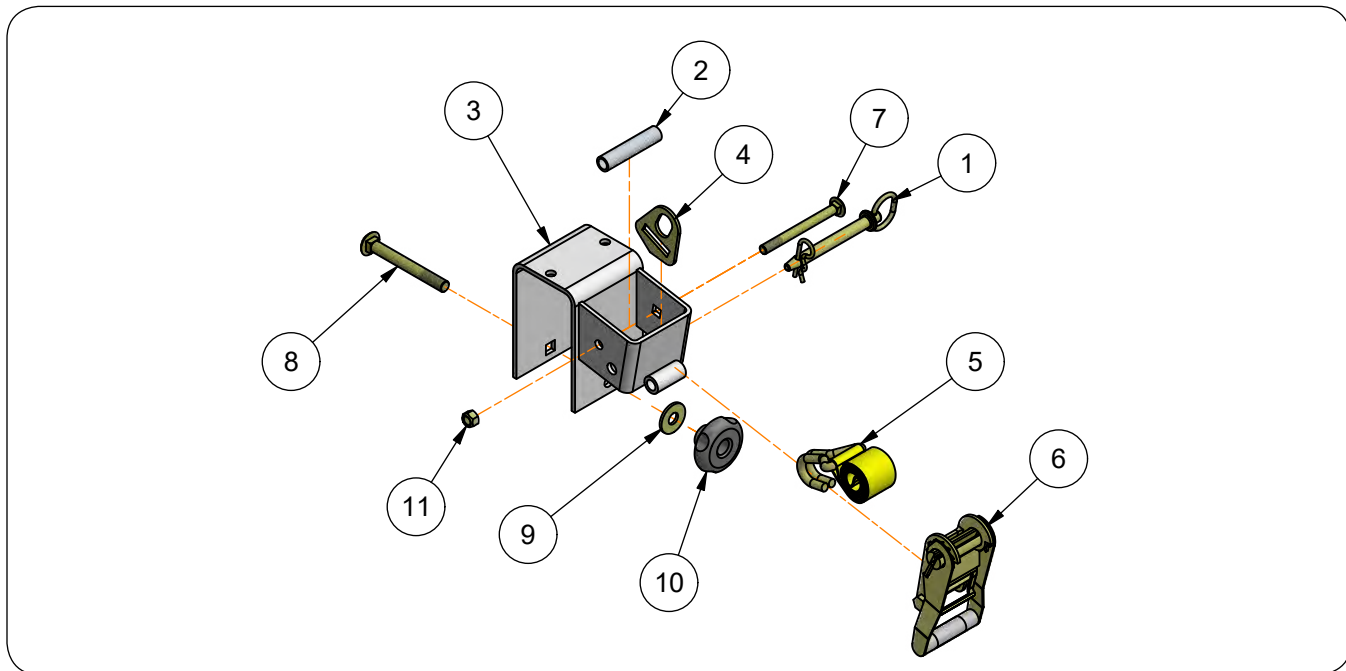
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	33281B	Arm Assembly Upper Bar	-	Includes Items 1-9
1	30114	Channel 3/8" x 8" x 9"	1	
2	33263B	Support Arm Weldment	1	
3	92270	Hitch Hair Pin 5/8 x 6"	1	
4	93561	Plow Bolt 1/2-13 x 1 1/2"	2	Grade 5
5	9390-135	Capscrew 5/8-11 x 5 1/2"	1	Grade 5
6	9405-088	Flat Washer 1/2"	2	
7	97824	Hitch Pin 5/8" Dia. x 4 1/2"	1	
8	9800	Locknut 1/2-13	2	
9	9801	Top Locknut 5/8-11	1	
10	31726B	Strap for 8 x 4 Tube	AR	For 42' & 48' Units
11	30693B	Strap for 6 x 3 Tube	AR	
	3962	Strap for 5 x 3 Tube		

Tie-Down Components

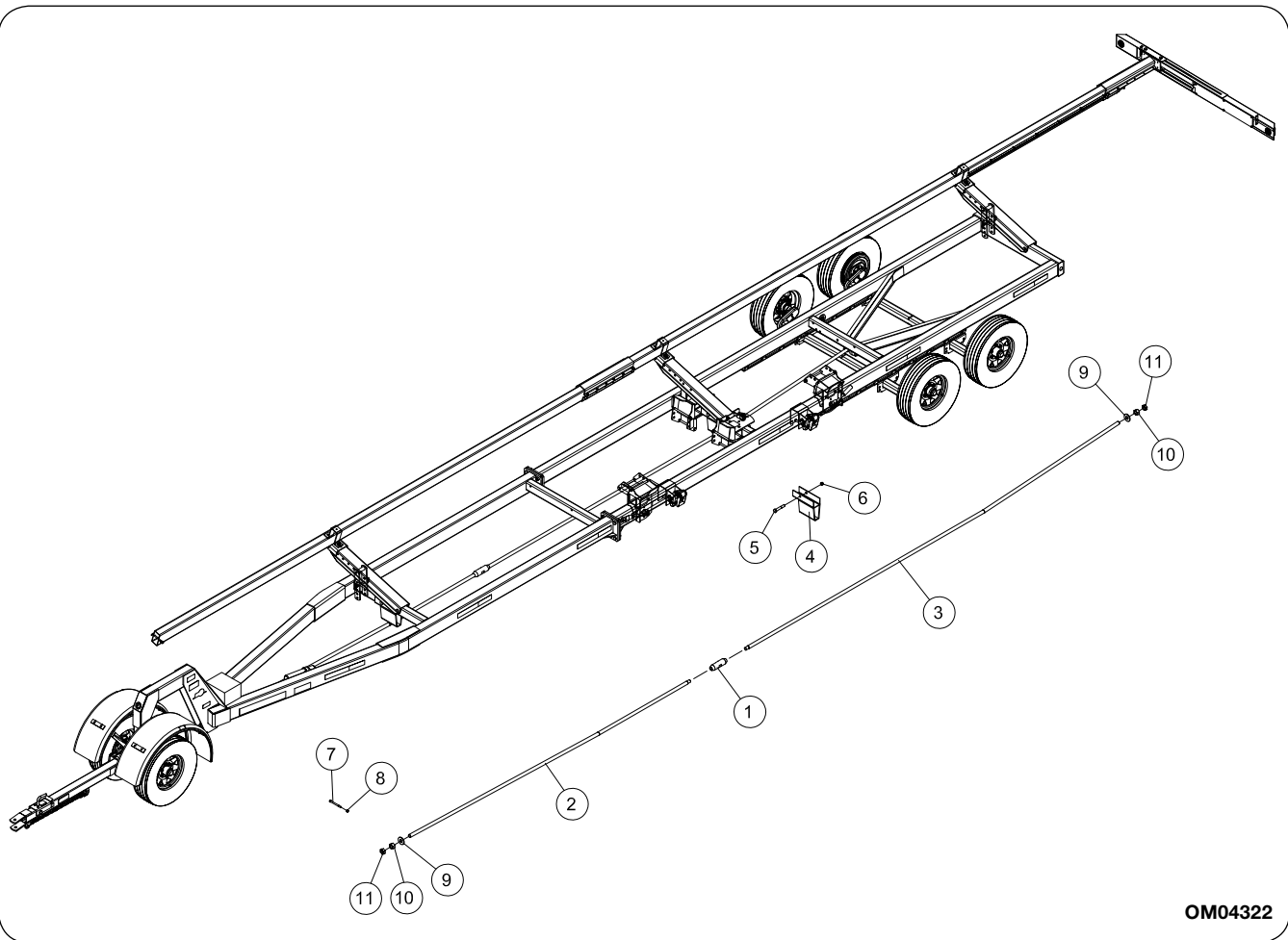
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	30501	Tie-Down Assembly (PAIR)	-	
1	103076	Hitch Pin 5/8" Dia. x 5 3/4"	2	
2	30485	Pipe 3 15/16" Long	2	
3	30544B	Tie-Down Bracket Weldment	2	
4	901677	Hook Back Plate	2	
5	903044	Strap/Tie-Down	2	
6	903121	Ratchet Buckle	2	
7	9388-117	Carriage Bolt 1/2-13UNC x 5 1/2"	2	Grade 5
8	9388-146	Carriage Bolt 5/8-11UNC x 4 1/2"	2	Grade 5
9	9405-100	Flat Washer 5/8"	2	
10	97517	Knob	2	
11	9800	Locknut/Top 1/2-13UNC	2	

Truss Components

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



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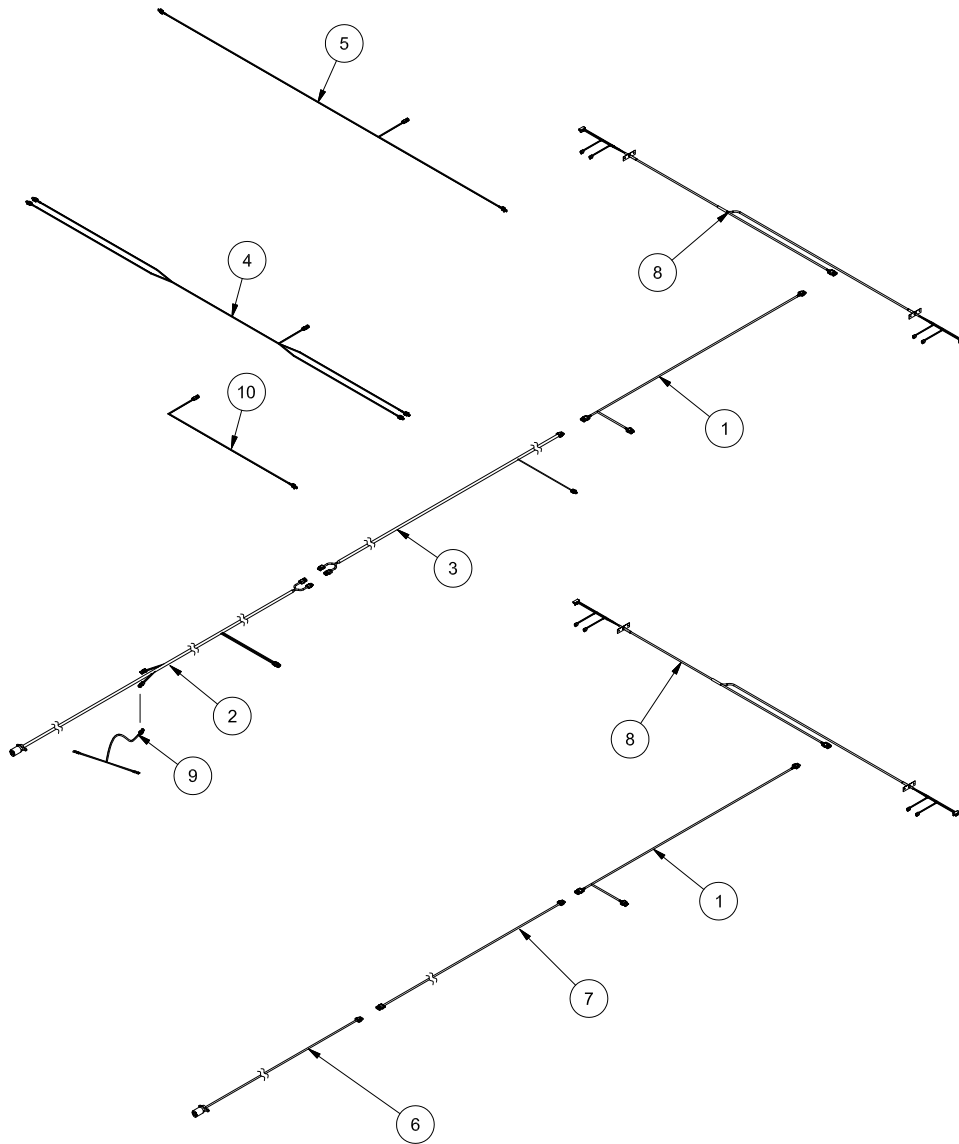
Truss Components

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

ITEM	PART NO.	DESCRIPTION	QTY		NOTES
			30' & 36' UNITS	42' & 48' UNITS	
1	31594	Coupler	1	1	
2	31595B	Front Truss Rod, 1 1/4-7UNC Thread	2	1	
3	31596B	Rear Truss Rod, 1 1/4-7UNC Thread	-	1	
4	31637B	Truss Stand Off	2	2	
5	9390-154	Capscrew, 3/4-10UNC x 4 1/2	2	2	Grade 5
6	9802	Locknut, 3/4-10UNC	2	2	Grade 5
7	9390-114	Capscrew, 1/2-13UNC x 5 1/2	1	1	Grade 5
8	9800	Locknut, 1/2-13UNC	1	1	Grade 5
9	806124B	Washer, 3" Dia.	2	2	
10	9394-024	Hex Nut, 1 1/4-7UNC	2	2	Grade 5
11	9395-024	Hex Jam Nut, 1 1/4-7UNC	2	2	Grade 5

Wire Harness Components

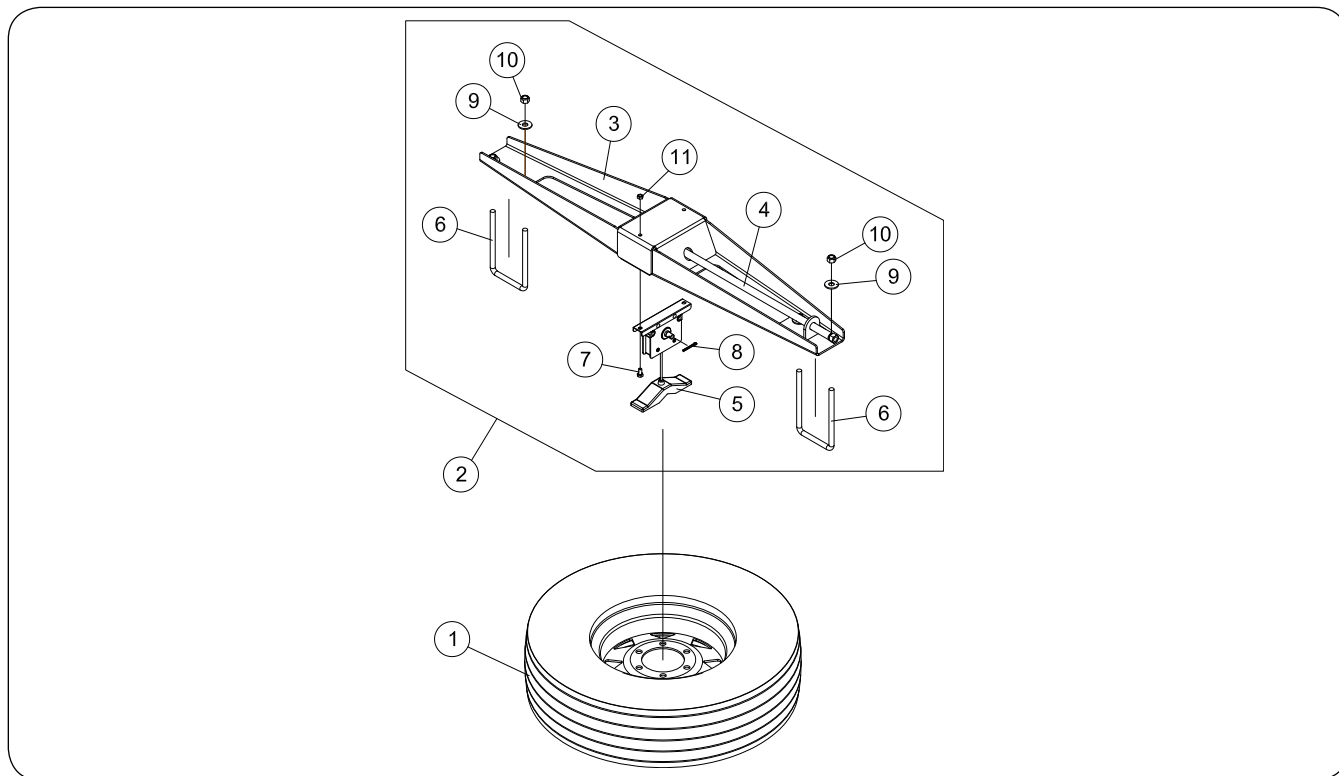
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	31868	Wire Harness, 75" Straight	1	For 30' Units
	31815	Wire Harness, 204" Straight		For 36', 42', 48' Units
2	32051	Wire Harness, 396" T-Y	1	Front Brakes
3	32062	Wire Harness, 152" T-Y	1	For 30', 36' Units with Brakes
	32063	Wire Harness, 260" T-Y		For 42', 48' Units
4	900635	Wire Harness, 127"	1	All Units with 4 or 6-Wheel Brakes
5	900632	Wire Harness, 132"	1	2-Wheel Brakes
6	900661	Wire Harness, 396"	1	Units Less Brakes
7	900662	Wire Harness, 162"	1	Units Less Brakes
8	31811	Light Bar Harness	1	
9	902264	Wire Harness, 96" T	1	All Units with 6-Wheel Brakes
10	9007281	Wire Harness 8"	2	For Rubber Cushioned Trailing Arm Axle

Spare Tire Components (Optional)

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



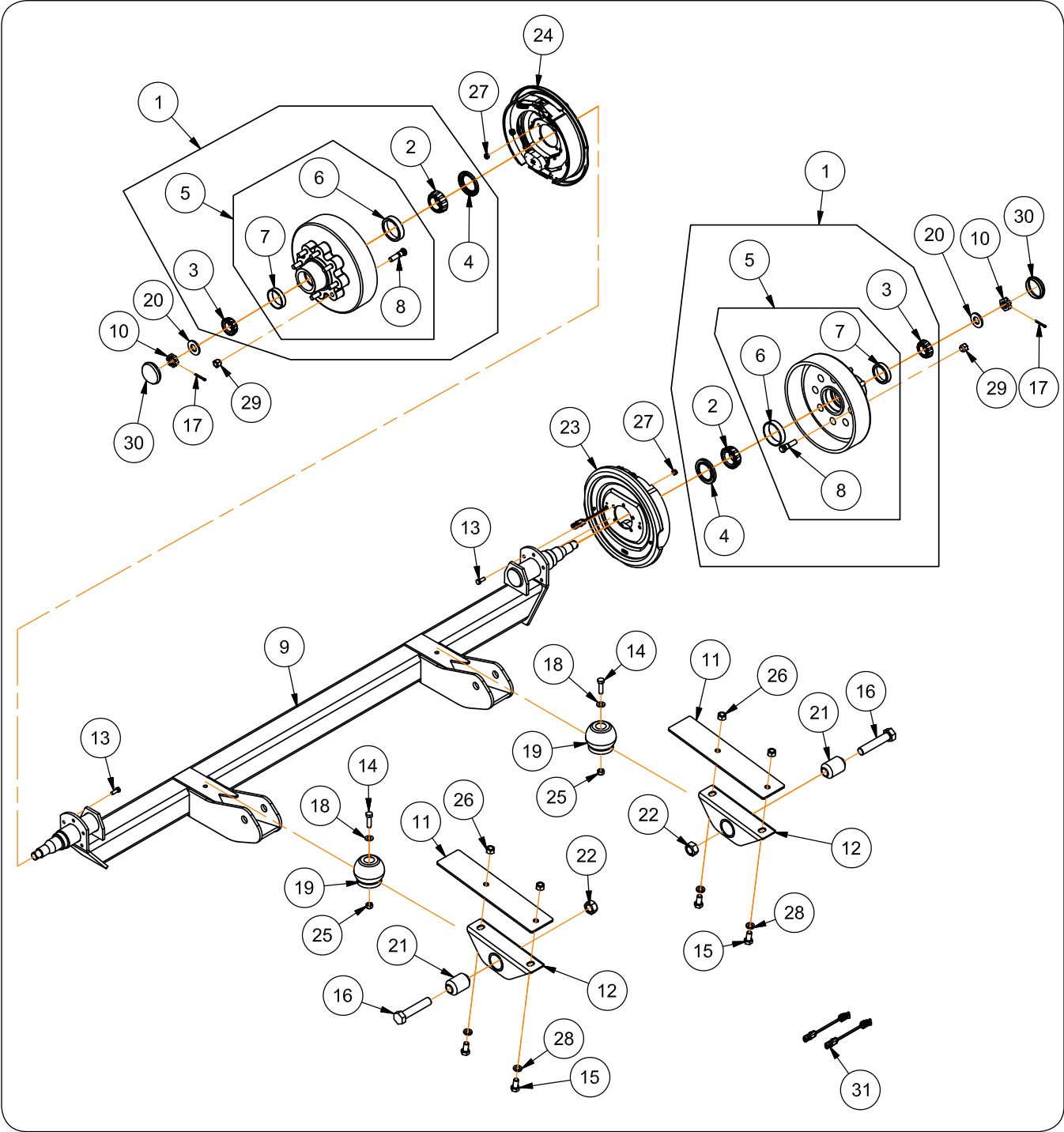
ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
	33274B	Spare Tire Kit with Mounting Bracket	1	TIRE 235/85x16
1	902702	Wheel/Tire 6x16 / ST235/85x16	1	
	98859	Trailer Wheel (Only) 6 x 16		
	9002500	Valve Stem	1	
	2	27207B	Spare Tire Kit Less Tire	1
3	27204B	Channel Weldment	1	
4	27205B	Winch Drive Extension	1	
5	900797	Winch Spare Tire	1	
6	91323	U-Bolt, 1/2-13UNC x 7 1/8	2	
7	9390-028	Capscrew, 5/16-18UNC x 3/4	2	
8	9391-035	Cotter Pin	1	
9	9405-088	Flat Washer, 1/2	4	
10	9800	Locknut, 1/2-13UNC	4	
11	9807	Locknut, 5/16-18UNC	2	

FOR TIRE WARRANTY

Any questions concerning tire warranty should be directed to the tire manufacturer or your local tire dealer. Tire manufacturers' phone numbers and websites are listed in "MAINTENANCE" section for your convenience.

93" Rubber Cushioned Trailing Arm Axle & 8-Bolt Hub Components With Brakes

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



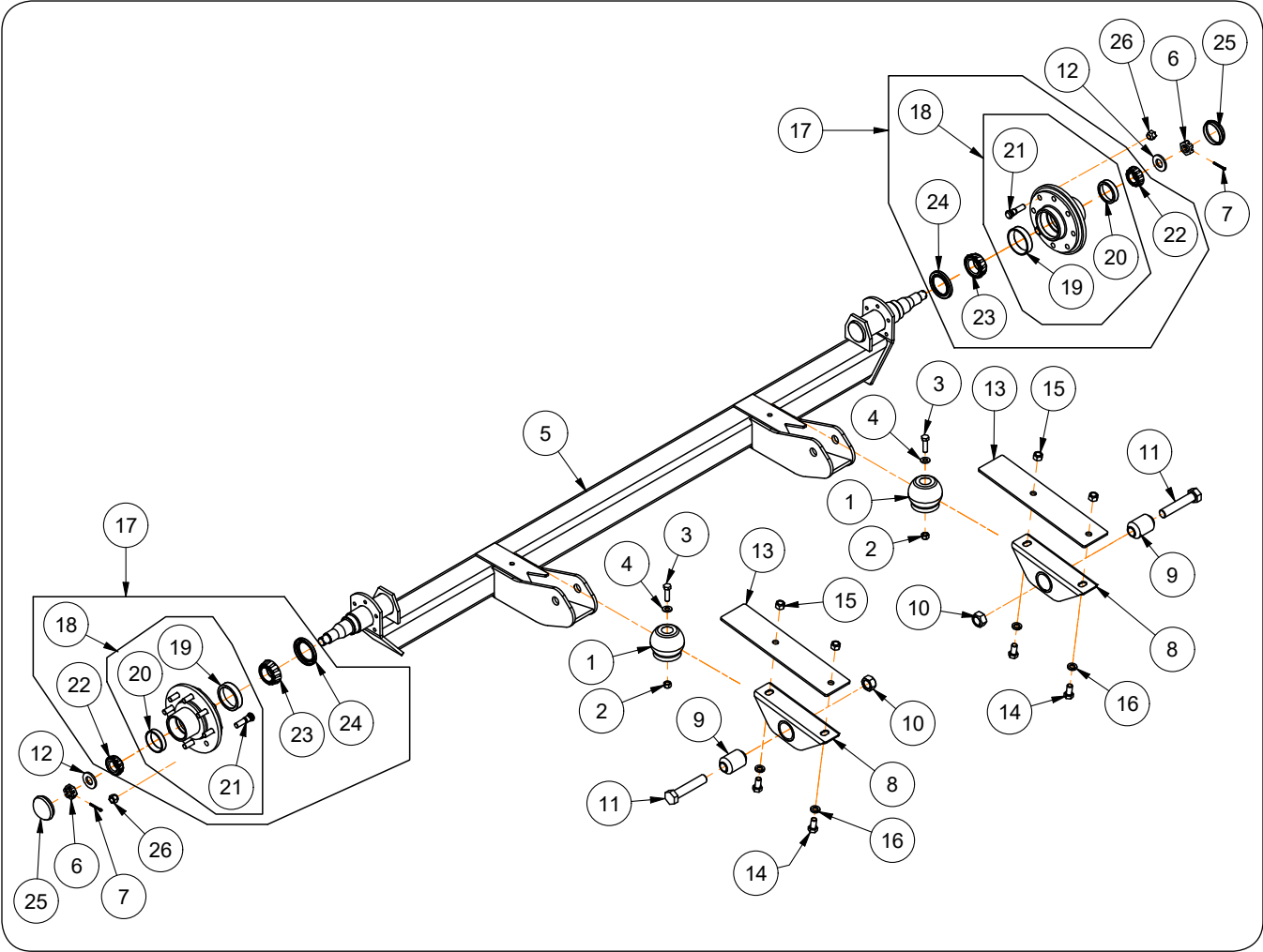
**93" Rubber Cushioned Trailing Arm Axle
& 8-Bolt Hub Components With Brakes**

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

ITEM	PART NO.	DESCRIPTION	QTY PER AXLE
	33241B	Axle Assembly With Brakes (8-Bolt)	-
1	9501096	Drum Assembly with Bearings, Nuts, Seals, and Cap	2
2	91822	Bearing Cone 1.75" ID	1
3	91824	Bearing Cone 1.25" ID (Ref. #14125A)	1
4	97342	Seal 2 1/4" ID	1
5	901686	8 Bolt Hub with Races and Studs	1
6	91812	Bearing Cup 3.265" OD (Ref. #25520)	1
7	92687	Bearing Cup 2.441" OD (Ref. #14276)	1
8	9502240	Stud Bolt 9/16"-18UNF x 2.3" (Grade 8)	8
9	33044B	Axle Weldment Rubber Cushioned Trailing Arm =Black=	1
10	97344	Slotted Jam Nut 1"-14UNS (Grade 2)	2
11	33086B	Bar =Black=	2
12	33092B	Axle Mount Weldment	2
13	9390-055	Capscrew 3/8"-16UNC x 1" (Grade 5)	10
14	9390-102	Capscrew 1/2"-13UNC x 1 3/4" (Grade 5)	2
15	9390-121	Capscrew 5/8"-11UNC x 1 1/4" (Grade 5)	4
16	9390-193	Capscrew 1"-8UNC x 5" (Grade 5)	2
17	9391-035	Cotter Pin 5/32" Dia. x 1 1/2"	2
18	9405-086	Flat Washer 1/2" SAE	2
19	9500159	Bumper - Rubber 3.94" Dia.	2
20	9501130	Washer 1" Hardened	2
21	9501134	Rubber Covered Spring Eye Bushing	2
22	9663	Locknut 1"-8UNC	2
23	97348	Electric Brake Cluster LH (Includes Backing Plate Assembly)	1
	97350	Backing Plate Assembly	1
24	97349	Electric Brake Cluster RH (Includes Backing Plate Assembly)	1
	97350	Backing Plate Assembly	1
25	9800	Locknut 1/2"-13UNC	2
26	9801	Locknut 5/8"-11UNC (Shipping Purposes ONLY)	4
27	9928	Locknut 3/8"-16UNC	10
28	9404-029	Lock Washer 5/8"	4
29	901669	Tapered Nut 9/16"-18UNF	16
30	91887	Hub Cap 2.448" ID	2
31	9007281	Wire Harness 8"	2

**93" Rubber Cushioned Trailing Arm Axle
& 8-Bolt Hub Components Less Brakes**

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



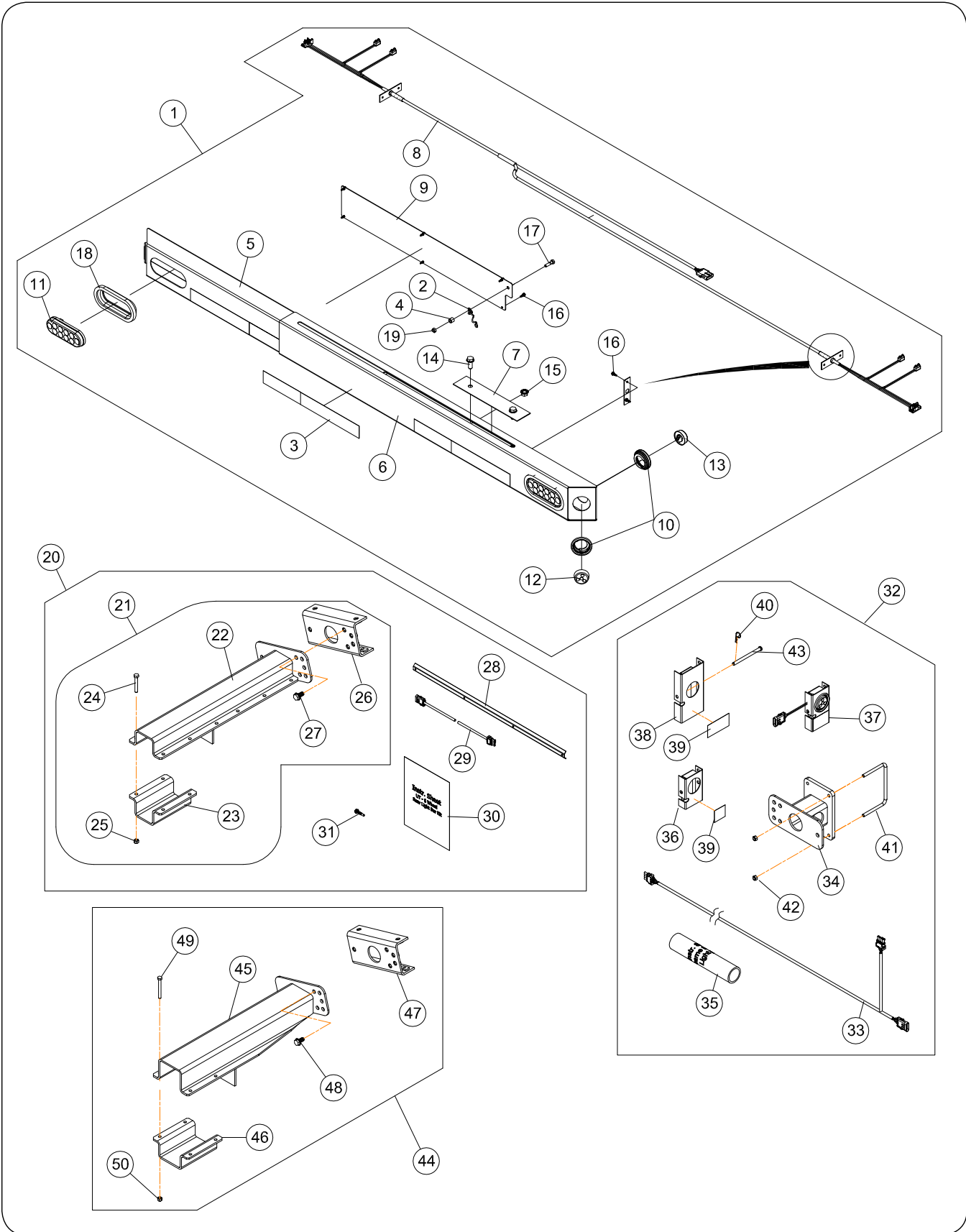
**93” Rubber Cushioned Trailing Arm Axle
& 8-Bolt Hub Components Less Brakes**

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

ITEM	PART NO.	DESCRIPTION	QTY PER AXLE
	33242B	Axle Assembly Less Brakes (8-Bolt)	-
1	9500159	Bumper - Rubber 3.94" Dia.	2
2	9800	Locknut 1/2"-13UNC	2
3	9390-102	Capscrew 1/2"-13UNC x 1 3/4" (Grade 5)	2
4	9405-086	Flat Washer 1/2" SAE	2
5	33044B	Axle Weldment Trailing Arm =Black=	1
6	97344	Slotted Jam Nut 1-14UNS (Grade 2)	2
7	9391-035	Cotter Pin 5/32" Dia. x 1 1/2"	2
8	33092B	Axle Mount Weldment	2
9	9501134	Rubber Covered Spring Eye Bushing	2
10	9663	Locknut 1"-8UNC	2
11	9390-193	Capscrew 1"-8UNC x 5" (Grade 5)	2
12	9501130	Washer 1" Hardened	2
13	33086B	Bar =Black=	2
14	9390-121	Capscrew 5/8"-11UNC x 1 1/4" (Grade 5)	4
15	9801	Locknut 5/8"-11UNC (Shipping Purposes ONLY)	4
16	9404-029	Lock Washer 5/8"	4
17	9501118	Idler Assembly 8-Bolt with Hub, Bearings, and Studs	2
18	901714	Hub 8 Bolt Subassembly with Cups and Studs	1
19	91812	Bearing Cup 3.265" OD (Ref. #25520)	1
20	92687	Bearing Cup 2.717" OD (Ref. #14276)	1
21	9502240	Stud Bolt 9/16"-18UNF x 2.3" (Grade 8)	8
22	91824	Bearing Cone 1.25" ID (Ref. #14125A)	1
23	91822	Bearing Cone 1.75" ID	1
24	97342	Seal 2 1/4" ID	1
25	91887	Hub Cap 2.72" ID	2
26	901669	Tapered Nut 9/16"-18UNF	16

Light Bar Components

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



Light Bar Components

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	31826G	Retro Fit Light Kit - Mounts To Rear Of Upper Bar =Green=	-	Includes Items 1 through 19
	31826R	Retro Fit Light Kit - Mounts To Rear Of Upper Bar =Red=		
1	31741B	Light Bar Assembly =Black=	1	
	31741G	Light Bar Assembly =Green=		
	31741R	Light Bar Assembly =Red=		
2	221069	Spring Harness Retainer	1	
3	25003	Conspicuity Marking 18" (Red / White)	5	
4	281372	Spacer Bushing	1	
5	31734B	Light Bar Weldment - Left Hand =Black=	1	
	31734G	Light Bar Weldment - Left Hand =Green=		
	31734R	Light Bar Weldment - Left Hand =Red=		
6	31735B	Light Bar Weldment - Right Hand =Black=	1	
	31735G	Light Bar Weldment - Right Hand =Green=		
	31735R	Light Bar Weldment - Right Hand =Red=		
7	31744B	Backing Plate =Black=	2	
	31744G	Backing Plate =Green=		
	31744R	Backing Plate =Red=		
8	31811	Harness Light Bar	1	
9	31839B	Cover Plate, 32" =Black=	1	
	31839G	Cover Plate, 32" =Green=		
	31839R	Cover Plate, 32" =Red=		
10	900956	Grommet for 2" Panel Light	4	
11	902217	LED Light, Red 3-Prong	2	
12	902218	LED Light, Red 2-Prong	2	
13	902219	LED Light, Amber 2-Prong	2	
14	91266	Flange Screw, 1/2-13 x 1 1/4	4	
15	91267	Flange Nut, 1/2-13	4	
16	93661	Self Drilling Screw, #10-16 x 5/8	10	
17	9390-031	Capscrew, 5/16-18 x 1 1/4	1	Grade 5
18	97182	Grommet	2	
19	9807	Locknut, 5/16-18UNC	1	

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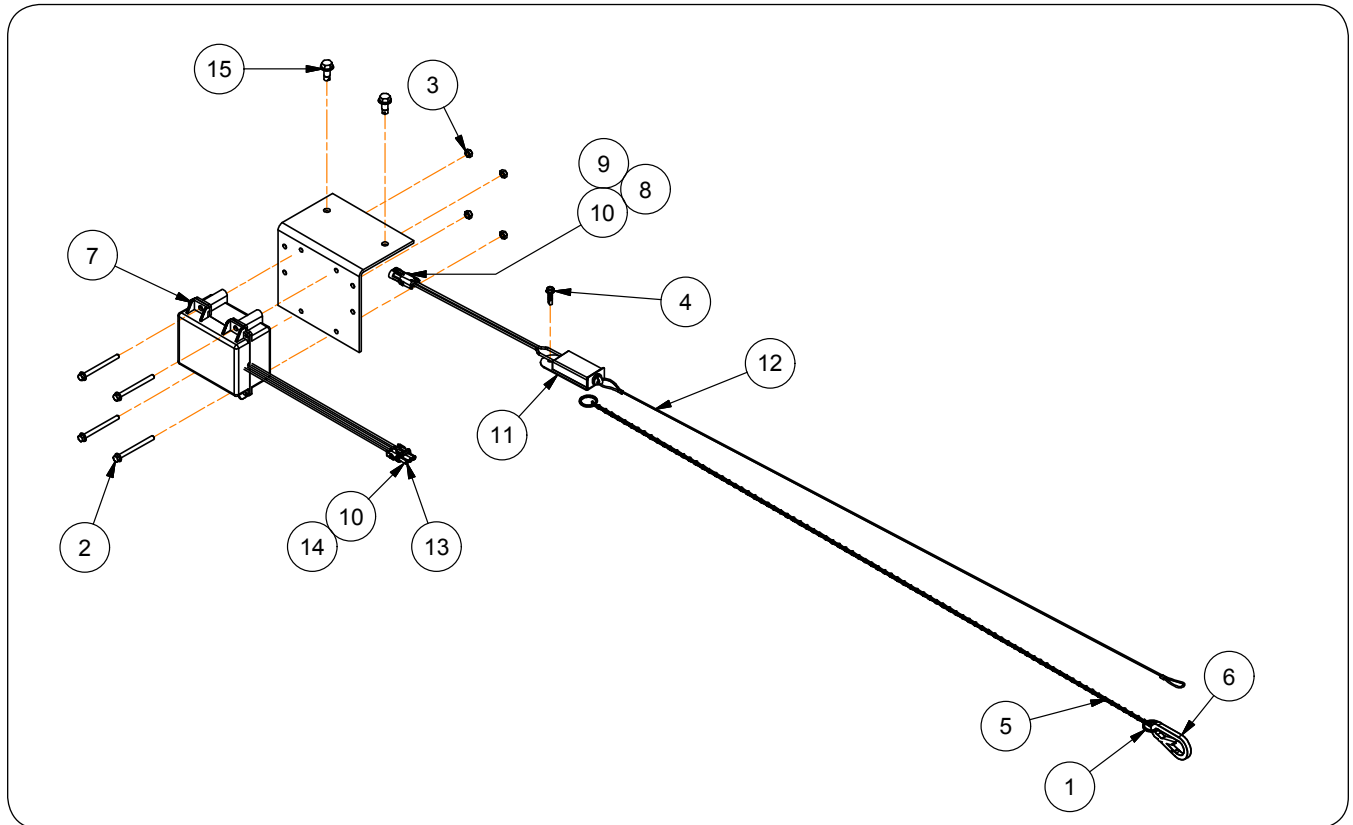
Light Bar Components (continued)

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

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
20	31904G	Upper Mount Light Bar Kit =Green= - Upper Bar Mounted		For 3 x 5 or 3 x 6 Upper Tubes
	31904R	Upper Mount Light Bar Kit =Red= - Upper Bar Mounted		
21	31743B	Light Bar Mount Kit	1	For 30' & 36' Units
22	31738B	Light Mount Weldt, 3" =Black=	1	
23	31742B	Coupler Tube, 3" =Black=	1	
24	900151	Capscrew, 3/8-16 x 2 1/2	4	
25	9928	Locknut, 3/8-16	4	
26	32363B	Channel Weldment =Black=	1	
27	9001529	Flange Screw 1/2-13UNC x 1	3	Grade 5
28	31809B	Cover Plate =Black=	2/4	2 - 36' & 42' Units 4 - 48' Units
	31809G	Cover Plate =Green=		
	31809R	Cover Plate =Red=		
29	31815	Wiring Harness, 204"	1	
30	31905	Instruction Sheet	1	
31	9523	Self Drilling Screw, 1/4-14 x 1 1/4	13	
32	32570B	Optional Frame Mounting Light Kit - Rear Frame Mounted	-	
33	31815	Wire Harness 204"	1	
34	32582B	Light Mount Weldment - Frame Mount	1	
35	32597	Instruction Sheet	1	
36	32734B	End Cap 3 x 5	1	
37	32738B	End Cap Assembly 3 x 6 w/ Light	1	
38	32741B	End Cap 4 x 8	1	
39	9003125	Fluorescent Orange	A/R	
40	9514	Hairpin Cotter .092" Dia. x 1 7/8	1	
41	95142	U-Bolt 3/8-16UNC	2	
42	9928	Locknut 3/8-16UNC	4	
43	TA8F93	Clevis Pin	1	
44	31750B	Light Bar Mount Kit 4x8	1	42' & 48' Units
45	31747B	Light Mount Weldment 4"	1	
46	31748B	Coupler 4" Tube	1	
47	32363B	Channel Weldment	1	
48	9001529	Flange Screw 1/2-13UNC x 1	3	
49	9390-064	Capscrew 3/8-16UNC x 3 1/4	4	Grade 5
50	9928	Locknut 3/8-16UNC	4	

Break Away Kit

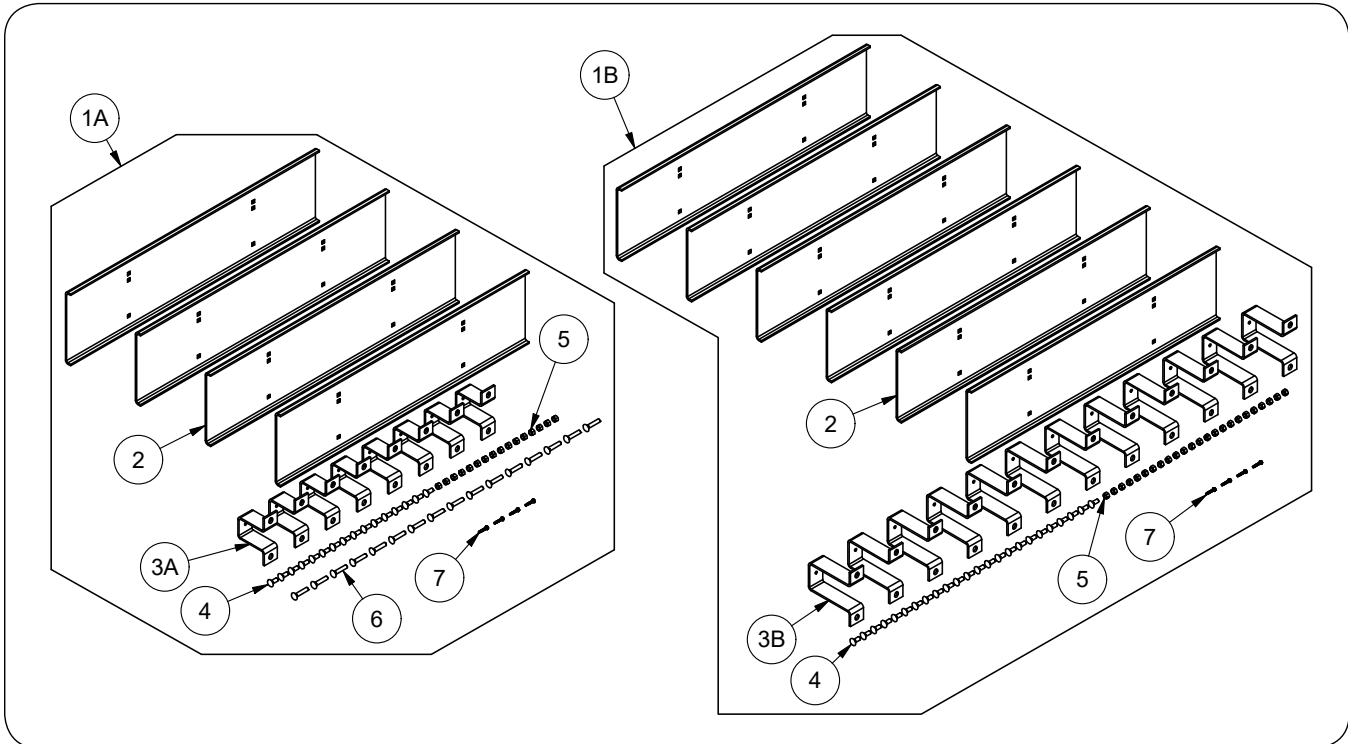
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	31932	Break Away Kit	1	All Units with Brakes
1	97489	Split-Ring	2	
2	902238	Flange Bolt, 1/4-20 x 3	4	Grade 5
3	9936	Locknut, 1/4-20UNC	4	
4	9500832	Self-Drilling Screw, 3/8-12 x 1	2	
5	30675	Sash Chain	1	
6	105251	Snap Link	1	
7	902764	Battery with Charger & Box	1	
8	98012	Terminal - Female	1	
9	98005	Connector - 3 Contact	1	
10	97590	Seal	5	
11	900786	Breakaway Switch	1	
12	901950	Pull Cord Breakaway Switch	1	
13	98004	Connector - 2 Contact	1	
14	98011	Terminal - Male	1	
15	9512	Self-Drilling Screw 1/4-14 x 1	1	

Landing Pad Kits (Optional)

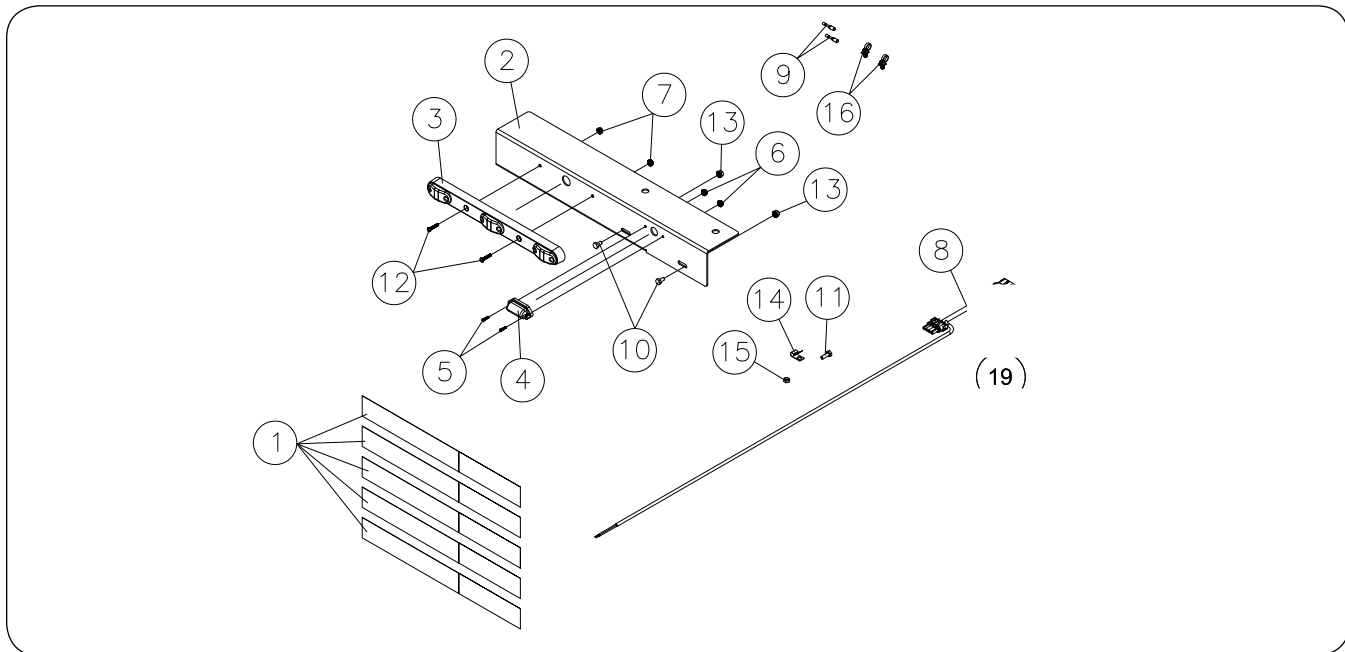
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	
			30'/36' UNITS	42'/48' UNITS
			Kit 33182B	Kit 33183B
1A	33182B	Upper Bar Landing Pad Kit for 3x5 & 3x6 Upper Rest Bar	1	-
1B	33183B	Upper Bar Landing Pad Kit for 4x8 Upper Rest Bar	-	1
2	33180B	Upper Bar Wide Rest Plate	4	6
3A	3962	Hat Strap for 3x5 & 3x6 Upper Rest Bar	8	-
3B	31726B	Hat Strap for 4x8 Upper Rest Bar	-	12
4	9388-103	Carriage Bolt 1/2-13UNC x 1 1/4	16	24
5	9800	Locknut 1/2-13UNC	16	24
6	9388-108	Carriage Bolt 1/2-13UNC x 2 1/2	16	-
7	9501598	Self-Tapping Screw 1/4-14 x 1 1/2	4	4

VIN Package #31758 (Optional)

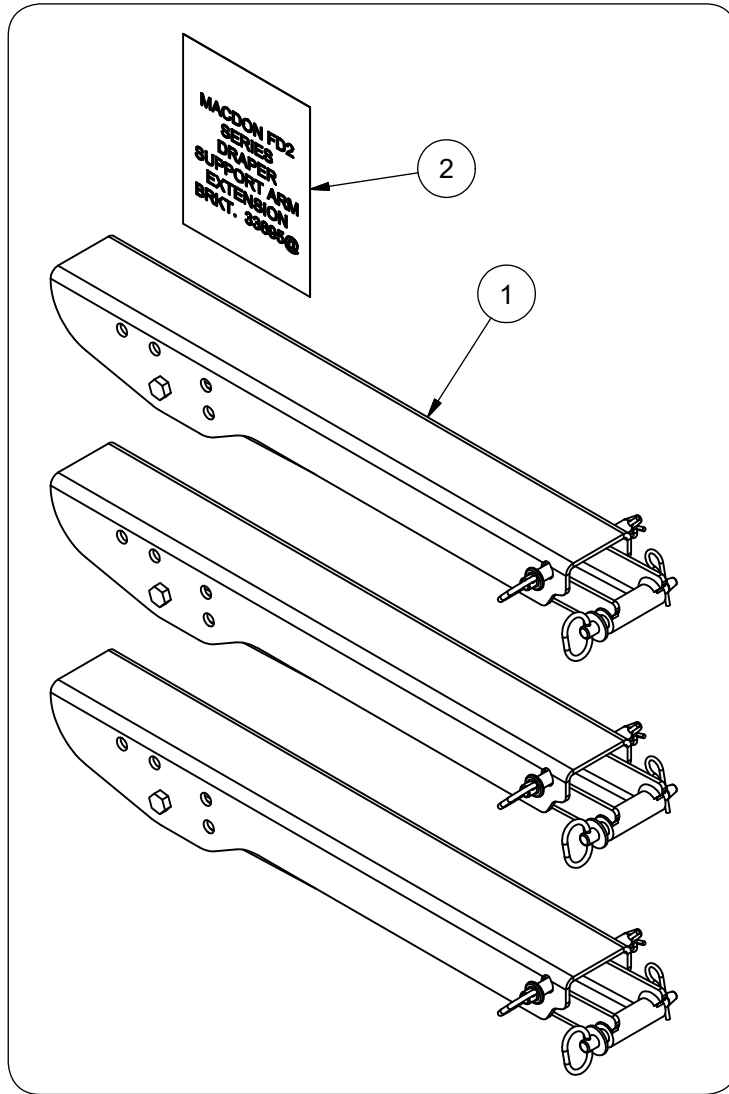
Please visit www.unverferth.com/parts/ for the most current parts listing.



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	31758	VIN PACKAGE	-	Includes license plate holder, running lights and reflective decals
1	25003	Conspicuity Marking, 18"	10	
2	31793B	Mounting Plate	1	
3	902266	TRI Light Bar (Red LED)	1	
4	902328	LED License Light	1	
5	902329	Oval Head Machine Screw, #6-32 x 5/8	2	
6	902330	Flange Hex Nut, #6-32	2	
7	902331	Flange Hex Nut, #10-24	2	
8	902332	Harness Wire, 4-Contact	1	
9	902333	Butt Connector	2	
10	9390-001	Capscrew, 1/4-20UNC x 1/2	2	Grade 5
11	9390-003	Capscrew, 1/4-20UNC x 3/4	1	Grade 5
12	903172-138	Phillips Machine Screw, #10-24UNC x 1	2	
13	97189	Flange Hex Nut, 1/4-20UNC	2	Grade 5
14	97226	Loop Strap	1	
15	9936	Locknut, 1/4-20UNC	1	Grade 5
16	99599	Cable Tie, 8.39"	2	

**Upper Bar Support Arm Extension Kit #33891B
For Mac Don Draper (Option)**

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



ITEM	PART NO.	DESCRIPTION	QTY
1	33695B	Support Arm Extension Assembly	3
2	33948	Instruction Sheet	1

NOTES



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