



Header Transport Models: HD-30/-36/-42/-48/-52

Serial #D72450100 & Higher

Part No. 35051

Roadrunner — Introduction

Foreword

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

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

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

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

PRE-OPERATION CHECKLIST

Wheel bolts tightened (recheck after initial use)	Safety and operating procedures reviewed
Tire pressures checked	 Adjustment information reviewed Lubrication procedures reviewed
Hardware tightened Machine lubricated	Warranty information reviewed

Roadrunner — Introduction

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 upper frame as shown in FIG. 1.

Purchase Date _	Model	Serial No	
Dealer	(City	
Dealer Contact _		Phone	
	Serial Number Decal		
		FIG. 1	

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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Roadrunner — Safety

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

A DANGER

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

A WARNING

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

A 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.



Roadrunner – Safety

Following Safety Instructions

- Read and understand this operator's manual before operating.
- All machinery should be operated only by trained and authorized personnel.
- To prevent machine damage, use only attachments and service parts approved by the manufacturer.
- Always shut 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 or Operating

- 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.
- Sharp edges on the machine can cause injury. Be careful when working around the machine.
- 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.
- Ensure that all applicable safety decals are installed and legible.







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During Operation

- Regulate speed to working conditions. Maintain complete control at all times.
- Never service or 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 unit.

Before Transporting

- Secure transport chains to towing vehicle before transporting. DO NOT transport without chains.
- Check for proper function of all available transport lights. Make sure that all reflectors are clean and in place on machine. Make sure that the SMV emblem and SIS decal are visible to approaching traffic.
- This implement may not be equipped with brakes. Ensure that the towing vehicle has adequate weight and braking capacity to tow this unit.
- 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 all laws governing highway safety when moving machinery.
- Use transport lights as required by all laws to adequately warn operators of other vehicles.
- Regulate speed to road conditions and maintain complete control.
- 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.

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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.



- 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; FAIL-URE 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.

Frame Tires And Wheels

- 1. Using a safe lifting device and supports rated at 500 lbs., raise frame axle at least 16 1/2 inches high.
- 2. Install proper wheels and tires onto axles and secure with tapered nuts. Refer to Wheel Torque Chart in "MAINTENANCE" section.



• IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGU-LARLY. 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. See MAINTENANCE section, "Tire Pressure".



Frame Axle

- 1. Use a safe lifting device and supports with a 5,000 lbs. capacity to support the frame.
- 2. Use a safe lifting device with a 600 lbs. capacity to lift the rear axle assembly to the frame tabs. (FIG. 2-2)

<u>NOTE</u>: Axle assemblies are suggested to be mounted in the center set of frame tabs. If there is interference, move axle assemblies either forward or rearward accordingly.

3. Secure rear axle assembly into position with hardware provided.



- 4. Use a safe lifting device with a 600 lbs. capacity to lift the front axle assembly to the frame tabs. (Reference FIG. 2-2)
- 5. Secure front axle assembly into position with hardware provided.

Gooseneck Frame

- 1. Use a safe lifting device and supports with a 5,000 lbs. capacity to support the frame.
- 2. Use a safe lifting device with a 600 lbs. capacity to install the front gooseneck assembly on the frame. (FIG. 2-3)
- 3. Secure front gooseneck assembly to frame together using the 1"-8UNC x 8 1/2" capscrews (9390-462) and 1"-8UNC locknuts (9663) provided. (FIG. 2-3)



Tongue

1. Use a safe lifting device with a 100 lbs. capacity to fasten extendible tongue hitch assembly to front gooseneck axle using pin (106920B), slotted nut (9393-020), and cotter pin (9391-057) (FIG. 2-4). Tighten nut to align notch with hole in pin. Secure with cotter pin.



Gooseneck Axle Tires And Wheels

- 1. Using a safe lifting device and supports rated at 5,000 lbs., raise the frame at least 16 1/2 inches high.
- 2. Install proper wheels and tires onto axles and secure with tapered nuts. Refer to Wheel Torque Chart in "MAINTENANCE" section.



• IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGU-LARLY. 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. See MAINTENANCE section, "Tire Pressure".



Gooseneck Axle Fender Installation 1. Attach the fenders to the gooseneck axle with capscrews and plates with threaded holes as shown in FIG. 2-6. **Gooseneck Axle** Front RH Fender Assembly (34297B) 3/8"-16UNC x 2 1/2" w/ Epoxy-Lock (9505264) Front LH Fender Assembly (34296B) FIG. 2-6

Frame Axle Fender Option Installation

1. Attach the fenders to the frame axle with capscrews and plates with threaded holes as shown in FIG. 2-7 & FIG. 2-8.



Electrical Installation

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

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

See federal regulation 49 CFR 562; available at www.govinfo.gov 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 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. 2-9 & 2-10.

<u>NOTE</u>: 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. 2-11.



Electrical Installation (continued)

2. Attach mounting plate and battery box to the front frame using 3/8"-16UNC x 1 1/4" flange screws (9003259), 3/8" flat washers (9405-076), and 3/8"-16UNC locknuts (9928). (FIG. 2-12)



3. Secure the breakaway switch to the top of the gooseneck assembly with self drilling screw (9512). (FIG. 2-13)



Electrical Installation (continued)

- 4. Route main harness (34330) through the gooseneck assembly.
- 5. Connect the gooseneck axle harness (34333) to the gooseneck axles. (FIG. 2-14)
- Connect the gooseneck axle harness (34333) to the main harness (34330). (FIG. 2-14 & 2-15)
- 7. Connect the breakaway switch to the main harness (34330). (FIG. 2-14 & 2-15)



Electrical Installation (continued)

8. Attach the breakaway battery harness to the main harness (34330). (FIG. 2-16)

 Use cable ties to secure excess wiring harnesses to the top of the frame. (FIG. 2-16 & 2-17)

- 10. Route frame harness (34683) through the frame (FIG. 2-18).
- 11. Connect main harness (34330) to frame harness (34683) and tuck wire harnesses inside frame. See FIG. 2-18.



FIG. 2-18

Electrical Installation (continued)

- 12. Frame harness (34683) brake and light connections will exit the frame through openings just above the axles. (FIG. 2-19 & 2-20)
- 13 If applicable, connect brake harnesses (9504906) to wire frame harness (34683). (FIG. 2-19 & 2-20)

2-BRAKE SYSTEM

Connect frame harness (34683) to the rear axle brake harness (9504906) (FIG. 2-19).



14. Run brake harness (9504906) under the sides of the frame and continue to run wire on top side of axles. Use cable ties to secure. (FIG. 2-21A & 2-21B)

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.

4-BRAKE SYSTEM

Connect frame harness (34683) to front and rear axle brake harnesses (9504906) (FIG. 2-20).



Electrical Installation (continued)

- 15. Loosen light combo lamp arm capscrew and rotate the light so the lights face rearward. (FIG. 2-22)
- 16. Tighten the light combo lamp arm hardware. Torque hardware according to torque chart in MAINTENANCE section (FIG. 2-22)
- 17. Repeat process for the opposite side of the Road Runner.



18. Attach HEADER TRANSPORT and wiring harness to towing vehicle and test the lights (FIG. 2-23):

CHECK:

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

<u>NOTE</u>: If any check fails, check wiring harness on tow vehicle for proper wiring.



Frame Extension Kit – Model HD-52 Only

1. Remove and save clevis pin, hairpin cottter and cover plate from the frame upper tubing. (FIG. 2-24)



2. Remove and save light bracket RH assembly and mounting hardware. (FIG. 2-25



3. Use a safe lifting device with a 200 lbs. capacity to lift the frame extension into position as shown in FIG. 2-26. Secure into position with lower coupler and 1/2"-13UNC hardware provided. (FIG. 2-26)





Frame Extension Kit - Model HD-52 Only (continued)

- 6. Route the light wire extension harness behind the harness cover as shown in FIG. 2-29.
- 7. Use cable ties to secure excess wire harness to the frame coupler. (FIG. 2-29)
- 8. Connect light wire extension harness (34825) to the light bar wire harness (34633) and right-hand rear light combo lamp (9501503).



9. Attach HEADER TRANSPORT and wiring harness to towing vehicle and test the lights:

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.

Optional VIN Light Kit #34584B Installation

<u>NOTE</u>: VIN package #34584B is an optional package that includes VIN light, tri-light bar, and VIN and tri-light harness.

1. Attach VIN light to the rear of the frame with the light facing the ground and secure using two #6-32UNC x 7/8" oval head machine screws (9504915) and #6-32UNC flange hex nuts (902330). See FIG. 2-30.



machine screws (903172-140) and #10-24UNC flange hex nuts (902331). (FIG. 2-30)



- 4. Connect the VIN and tri-light harness (902332) "GREEN" wire to the VIN light (902328) and tri-light bar (902266) "BROWN" wires with a butt connector (902333). (FIG. 2-31)
- 5. Connect the VIN and tri-light harness (902332) "WHITE" wire to the VIN light (902328) and tri-light bar (902266) "WHITE" wires with a butt connector (902333). (FIG. 2-31)
- 6. Attach HEADER TRANSPORT and wiring harness to towing vehicle and test the lights:

CHECK:

Tail Lights, Brake Lights, Left Turn Signal, Left Turn Signal with Brakes, Right Turn Signal, Right Turn Signal with Brakes, VIN light, Tri-Light Bar

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

Initial Adjustments

Rest Brackets



• 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. Rotate the CAM handle and remove the carriage bolt from rest bracket (FIG. 2-32).
- 2. Reposition the rest brackets. Reinstall the carriage bolt and CAM handle previously removed to properly secure the rest brackets to the lower frame tube.



Lateral Adjustment

- 1. Remove the hairpin cotters and pins retaining the rest bracket (FIG. 2-33).
- 2. Reposition the rest brackets. Reinstall the pins and hairpin cotters previously removed to properly secure the rest brackets.



Initial Adjustments (continued)

Riser Side Plates

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

- 1. The riser side plates (34449B) 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 (95959) and pin (32928) holding the riser side plates onto the top of the rest bracket (FIG. 2-34, 2-35, & 2-36).
 - B. Rotate one or both riser side plates behind the rest bracket as required.
 - C. Re-insert pin (32928) and hairpin (95959) through the same hole in the rest bracket.

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







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. 2-38).

A 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.

<u>NOTE</u>: 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.

<u>NOTE</u>: 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.

A CAUTION

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

Spare Tire (Optional)

- 1. Attach spare tire channel weldment to the upper rear frame using capscrews and locknuts (FIG. 2-39).
- 2. Attach the wheel and tire assembly with carriage bolts, flange nuts, flat washers, and elastic locknuts. (FIG. 2-39)



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.


Stripper Head Kit (Optional) For Shelbourne or Applequist

Additional brackets are recommended for stripper heads to provide an area to set header on transport. Refer to your header manual for additional transport information.



• KEEP HANDS CLEAR OF PINCH POINT AREAS.

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

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:

30' and 36' units will use kit #34843B 42', 48', and 52' units will use kit #34839B

- 2. Mount cross brackets between the upper and lower support frame tubes as shown in FIG. 2-42. Secure with carriage bolts, flat washers, and handle wing nuts.
- 3. Place rest bracket weldments (34841B) on top of the cross brackets. Secure with hitch pins (24395) and hairpin cotters (95959). (FIG. 2-42)



Draper Kit For John Deere Hinged Drapers (Optional)

Park the unloaded header transport on a firm, level surface. Block the wheels on the unit to keep it from moving.

Rest Bracket Installation

1. Remove the side plates and the back stop weldment and save the hardware on both rest brackets. (FIG. 2-43)

NOTE: Save parts for possible later use (not used for the hinged draper).





Draper Kit For John Deere Hinged Drapers (continued)

4. Set one rest pad weldment with decals onto the main rest base bracket. Secure using the capscrews, washers and nuts retained in step 1. The rear (combine side) of the rest pad will be secured to the bracket using the bent pin and hairpin cotter retained from step 1. (FIG. 2-46)



<u>NOTE</u>: The side ear of the "L" pocket must be away from the combine, positioned to t outside of the combine feeder house.

- 5. Repeat step 2 for the other rest bracket.
- 6. Torque 5/8"-11UNC hardware to 120-135 Ft. Lbs.

Draper Kit For John Deere Hinged Drapers (continued)

IMPORTANT

- 2024 and newer hinged drapers **DO NOT** use the "C"-shaped spacer plates (34466B) pinned on top of the 2 center rest brackets. Once removed, store under the rest pad using pin supplied, or set aside for possible future use.
- 2023 and older heads require the C-shaped spacer plates (34466B) to properly position the hinged draper head onto the 2 center rest pads. Failure to use the C-shaped spacer plates could result in damage to the draper gearbox located under the head.
- 8. For 2023 and older heads, insert "C"-shaped spacer plates (34466B) into the top of the rest brackets as shown in FIG. 5. Secure into position with bent pin and hairpin cotter. (FIG. 2-47)





2. Attach rest pad weldment on the riser weldment with bent pins and hairpin cotters. (FIG. 2-48)



<u>NOTE</u>: Plates are reversible, however in most situations, the holes should be oriented to position the plates further away from the combine. (FIG. 2-49)

3. Mount the upper bar landing pad plates (33180B) evenly spaced and oriented in the same direction as the first plate (FIG. 2-49) Secure with carriage bolts, spacers, and locknuts.

Notes

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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.

<u>NOTE</u>: 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.

<u>NOTE</u>: 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.

A 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.

Roadrunner — Operation Transport Chain CAUTION ALWAYS USE TRANSPORT CHAIN WHEN TRANSPORTING IMPLEMENTS. FAILURE TO USE A TRANSPORT CHAIN COULD CAUSE PERSONAL INJURY IF IMPLEMENT BE-COMES DISENGAGED. REPLACE TRANSPORT CHAIN IF ANY LINK OR END FITTING IS BROKEN, STRETCHED, DAMAGED OR NOT FUNCTIONING. DO NOT WELD TRANSPORT CHAIN. USE ONLY AN UNVERFERTH DOT TRANSPORT CHAIN WITH A WEIGHT RATING EX-CEEDING THE GROSS COMBINED WEIGHT OF ALL TOWED IMPLEMENTS. CONTACT YOUR UNVERFERTH DEALER FOR ADDITIONAL INFORMATION. NOTE: Transport chains should have a rating equal to the gross weight of implement and head. Cross transport chains and connect to 1. towing vehicle as shown in FIG. 3-1. FIG. 3-1

Tires and Wheels

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



• IMPROPERLY TORQUED WHEEL NUTS/BOLTS CAN CAUSE A LOSS OF IMPLEMENT CONTROL AND MACHINE DAMAGE. WHEEL NUTS/BOLTS MUST BE CHECKED REGU-LARLY. 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/headertransports/roadrunner/ and click on the "Fitments" tab in the middle of the page.

A 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 as necessary.

<u>NOTE</u>: 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.

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

Rest Bracket Adjustment



- FALLING OR LOWERING HEADER CAN CAUSE SERIOUS INJURY OR DEATH. DO NOT ADJUST THE UNIT WHILE THE HEADER IS ABOVE OR ON THE TRANSPORT.
- 1. Position header over transport (DO NOT LOWER) so that the rest brackets on the transport are directly 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). Remove header and make necessary adjustments laterally to the rest brackets.





Positioning Head On Transport (continued)

- 2. Place the header over the unit (DO NOT LOWER) and check for adjustments needed to the rest brackets to position the header over the upper tube.
 - A. On grain platforms and draper heads, adjust the rest brackets so the upper bar is beneath the skid plates. Generally 4" to 8" behind the cutter bar. Make sure the upper bar is 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, adjust the rest brackets so the upper bar is beyond the snapping rollers. Generally 4" to 8" from the ends of the lower head supports.



Positioning Head On Transport (continued)

C. On Shelbourne or Applequist stripper heads, adjust the rest brackets so the head frame is supported as shown in FIG. 3-5A and 3-5B.





Remove header from above transport and make proper adjustments, refer "Initial Adjustments, Rest Bracket Adjustments" 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.



 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 UNREAD-ABLE, 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.



- 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).

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

<u>NOTE</u>: 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.

<u>NOTE</u>: 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)

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





• 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.



• ALWAYS TRAVEL AT A SPEED WHICH PERMITS COMPLETE CONTROL OF THE TOW-ING 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) and cover from the end of the upper support tube and insert knife into tube. To retain knife into position, reinsert cover and hitch pin into hole in tube between blades of knife and reinstall clip.



• CUTTER BAR CAN CUT. KEEP AWAY FROM SHARPENED EDGES.



Lights

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

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

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

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

Rear Mounted Lights

IMPORTANT

• Lights MUST be within 1 ft. of the outermost point on head or cart.

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



Fender Mounted Lights (Optional)

- 1. There will be a fender light wire harness that will connect to the frame wire harness. Cable tie the extra wire and tuck it in the frame.
- 2. Check function of lights before transporting on public roads.



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.



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.



• BEFORE ROAD TESTING, MAKE SURE THE AREA IS CLEAR OF VEHICULAR AND PE-DESTRIAN 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:

A 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 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.

Draper Kit For John Deere Hinged Drapers

Refer to header/combine manufacturer to determine disconnect and reconnect procedures for your specific header.

NOTE: Header wings need tied down so they don't ratchet up during transport.



• Must follow John Deere trailering procedures requiring weight transfer onto outer wings once the head is set onto the header transport. Failure to follow John Deere trailering procedure may result in header damage. Contact your John Deere dealer for these instructions.

Additional Guidelines Per John Deere

- If header has integrated transport, special attention must be given while loading and unloading.
- Visibility of wing frame cradles from combine cab will be reduced.
- Ensure no hoses or harnesses interfere with trailer during loading and transportation.

Notes

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Roadrunner — Maintenance

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 multipurpose grease.

Grease Gun Lube Points Lube Cycle

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



Miscellaneous Lube Points

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. Roadrunner – Maintenance

Front Pivot Thrust Bearing

A 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.

The thrust bearing located between the front axle and the fifth wheel arm should be cleaned, greased, and adjusted once per season. Using a safe lifting device rate at 5,000 lbs., support the front of the RoadRunner frame. 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 ASBES-TOS 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 highquality 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.



Roadrunner – Maintenance

Brake Cleaning and Inspection (continued)

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.

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.



Roadrunner – Maintenance

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.



Roadrunner – Maintenance

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.

A 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.

Breakaway Kit

The breakaway system is located on the front of the RoadRunner needs to be attached to the towing vehicle's hitch. It requires a fully charged 12V battery, located on the RoadRunner.

Periodically check the battery, charge or replace as needed.

Roadrunner – Maintenance

Wheels and Tires

Wheel Nut Torque Requirements



• 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 FtLbs.		



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		
225/85R x 16 - 80 PSI MAX.		
235/75R x 17.5 - 125 PSI MAX.		

(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:

<u>Firestone</u>	www.firestoneag.com Phone 800-847-3364	Carlisle	www.carlisletire.com Phone 800-260-7959 Fax 800-352-0075
<u>Titan</u>	www.titan-intl.com		T dx 000-002-0075
or	Phone 800-USA-BEAR	Greenball	www.greenball.com
<u>Goodyear</u>	Fax 515-265-9301		Phone nearest location:
			California 800-937-5204
<u>Michelin/</u>	www.michelinag.com		Georgia 800-283-4569
<u>Kleber</u>	Phone 888-552-1213		Florida 800-935-0200
	Fax 864-458-5538		Indiana 800-426-4068
			Tennessee 800-946-9412
			Ohio 800-840-7295
			Pennsylvania 800-869-6787
		1	

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






Roadrunner — Maintenance



Roadrunner — Maintenance





Roadrunner — Maintenance







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Decals



Decals

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	9500710	Decal, CAUTION "Transport Chains"	1	
2	9003126	Reflector, RED	2	
3	9003127	Reflector, AMBER	16	
4	9008714	Decal, Rear SIS "20 MPH"	1	
5	97530	Decal, SMV Emblem	1	
6	9008715	Decal, Front SIS "20 MPH"	1	
7	901764	Decal, UM Swoosh	2	
8	9505112	Decal, RoadRunner HD (2.68" x 30")	2	
9	97961	Decal, WARNING "Read & Understand Operator Manual"	1	
10	98229	Decal, WARNING "Falling or Lowering Equipment"	1	
11	97048	Decal, WARNING "Pinch Point"	2	
12	97877	Decal, CAUTION "Unsecured Header"	2	
13	9505111	Decal, UM RoadRunner (3.7" x 46")	1	
	9505027	Decal, HD-30		
	9505028	Decal, HD-36		
14	9505029	Decal, HD-42	2	
	9505030	Decal, HD-48		
	9505031	Decal, HD-52		

Extendible Tongue Components



ITE	EM	PART NO.	DESCRIPTION	QTY	NOTES
		30534B	Extendible Tongue Assembly =Black=		
1	1	30534G	Extendible Tongue Assembly =Green=	1	Includes Items 2-8
		30534R	Extendible Tongue Assembly =Red=		
	2	105919B	Detent Latch Assembly	1	
	3	9390-155	Capscrew 3/4"-10UNC x 5" G5	1	
	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





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 Gooseneck, Fenders & Suspension Axle Components





Front Gooseneck, Fenders & Suspension Axle Components

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	100241	Thrust Bearing	1	
2	106920	Pin Weldment, 1" Dia. x 11 5/16"	1	
3A	34296B	Fender LH Assembly =Black=	1	lasludes there 4.10
3B	34297B	Fender RH Assembly =Black=	1	Includes Items 4-12
4	91262	Flange Screw, 3/8"-16UNC x 1" G5	4	
5	9003259	Flange Screw, 3/8"-16UNC x 1 1/4" G5	3	
6	34294B	Fender Bracket w/Slots =Black=	1	
7	34290B	Fender Bracket w/Holes =Black=	1	
8	34291B	Fender Plate w/Threaded Holes =Black=	1	
9	34293B	Fender Plate w/Slots =Black=	2	
10	9405-076	Flat Washer, 3/8" USS	7	
11	902875	Locknut/Center, 3/8"-16UNC	7	
12	9505264	Capscrew, 3/8"-16UNC x 2 1/2" G5	4	
13		Front Gooseneck w/Decals	1	
14	34333	Brakes Wire Harness, 17 13/16"	1	For Units w/Brakes ONLY
15	34336B	Suspension Front Axle 6500# Complete w/Brakes (8-Bolt)	1	See Suspension Front Axle w/Brakes
16	9008715	Decal, SIS 20 MPH (Front)	1	
17	901031	Castle Nut, 1 1/4"-12UNF	1	
18	901764	Decal, "UM" Swoosh	2	
19	9390-462	Capscrew, 1"-8UNC x 8 1/2" G5	3	
20	9391-057	Cotter Pin, 1/4" Dia. x 1 1/2"	1	
21	9391-061	Cotter Pin, 1/4" Dia. x 2 1/2"	1	
22	9393-020	Slotted Nut, 1"-14UNS	1	
23	9405-130	Flat Washer, 1 1/4"	1	
24	9505112	Decal, RoadRunner HD	2	
25	9663	Locknut/Top, 1"-8UNC	3	
26	97840	Rubber Grommet, 1/4" W, 1 1/2" Dia. Groove, 1 1/4" ID	1	
27	97961	Decal, WARNING (Read & Understand)	1	
28	98229	Decal, WARNING (Falling Equipment)	1	
29	34340B	Suspension Front Axle 6500# Complete Less Brakes (8-Bolt)	1	See Suspension Front Axle

Suspension Front Axle With Brakes Components



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	34336B	Suspension Front Axle 7000# Idler (8-Bolt) =Black=	1	Includes Items 1 Through 19
1	9501096	Drum Assembly 8-Bolt	2	Includes Items 2-8
2	901686	Hub 8 Bolt Sub Assembly w/Cups and Stud Bolt	2	Includes Items 3-5
3	92687	Bearing Cup, 2.717" Dia. (Ref. #14276)	1	
4	91812	Bearing Cup, 3.265" Dia. (Ref. #25520)	1	
5	9502240	Stud Bolt, 9/16"-18UNF x 2.30" G8	8	
6	91822	Bearing Cone, 1.75" ID (Ref. #25580)	1	
7	91824	Bearing Cone, 1 1/4" ID (Ref. #14125A)	1	
8	97342	Seal, 2 1/4" ID x 3.376" OD, Double Lip, Spring Loaded (Ref. #9065061)	1	
9	91887	Hub Cap	2	
10	97348	Brake Cluster LH/Electric	1	
11	97349	Brake Cluster RH/Electric	1	
12	9404-021	Lock Washer, 3/8"	10	
13	9394-005	Hex Nut, 3/8"-24UNF	10	
14	901669	Tapered Nut, 9/16"-18UNF	16	
15	91160	Grease Zerk, 1/4-28 STT	2	
16	9503186	Retaining Clip, 1 17/32"	2	
17	9503187	Hex Jam Nut, 1"-14UNS	2	
18	9008549	Spindle Washer, 1" ID x 2" OD x 1/8"	2	
19	98830	Grommet, 1 1/4" ID	1	

Roadrunner — Parts

Suspension Front Axle Less Brakes Components

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ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	34340B	Suspension Front Axle 7000# Idler (8-Bolt) =Black=	1	Includes Items 1 Through 15
1	91887	Hub Cap	2	
2	901669	Tapered Nut, 9/16"-18UNF	16	
3	91160	Grease Zerk, 1/4-28 STT	2	
4	TA0-902902-0	Grommet, 1 1/2" ID	1	
5	9501118	Idler Assembly 8-Bolt	2	Includes Items 6-12
6	N/A	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	9503186	Retaining Clip, 1 17/32"	2	
14	9503187	Hex Jam Nut, 1"-14UNS	2	
15	9008549	Spindle Washer, 1" ID x 2" OD x 1/8"	2	

Frame Fenders





Frame Fenders

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	34585B	Fender Kit - Rear LH & RH	1	Includes 1A & 1B
1A	34303B	Rear Fender RH Assembly =Black=	2	Includes Items 2-11
1B	34304B	Rear Fender LH Assembly =Black=	2	Includes Items 2-11
2	34212	Fender	1	
3	34291B	Fender Bracket w/Threaded Holes =Black=	1	
4	34293B	Fender Plate, 1 1/2" x 9 3/4" =Black=	2	
5	34294B	Fender Bracket =Black=	1	
6	34301B	Fender Bracket =Black=	1	
7	9003259	Flange Screw, 3/8"-16UNC x 1 1/4" G5	3	
8	902875	Locknut/Center, 3/8"-16UNC	7	
9	91262	Flange Screw, 3/8"-16UNC x 1" G5	4	
10	9405-076	Flat Washer, 3/8" USS	7	
11	9505264	Capscrew, 3/8"-16UNC x 2 1/2" G5	4	

Tire Components

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



2	

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	902702	Wheel/Tire Assembly 6 x 16, ST235/85R16	6	
4	9002500	Valve Stem	1	
I	98859	Wheel, 6 x 16, 8-Bolt =White=	1	
	N/A	Tire 235/85R16	1	
	9501425	Wheel/Tire Assembly 6.75 x 17.5, ST235/75R17.5	6	
	9002500	Valve Stem	1	
2	9501426	Wheel, 6.75 x 17.5, 8-Bolt =White=	1	
	N/A	Tire, 235/75R17.5		

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 "MAINTE-NANCE" section for your convenience.

Frame Components



ITI	EM	PART NO.	DESCRIPTION	QTY	NOTES
-	1	900552	Manual Holder	1	
1	2	9512	Screw/Self Drill, 1/4"-14 x 1"	2	
3		34274B	Cover Assembly =Black=	1	For Models HD-30 & HD-36 Includes Items 4-7
	5	34169B	Cover Assembly =Black=		For Models HD-42, HD-48, HD-52 Includes Items 4-7
	4	900152	Foam Strip	2	
	5	34275B	Cover =Black=	4	For Models HD-30 & HD-36
	5	34170B	Cover =Black=	י ך	For Models HD-42, HD-48, HD-52
	6	TA8F93	Clevis Pin, 3/8" Dia. x 5"	1	
	7	9514	Hairpin Cotter, .092" Dia. x 1 7/8"	1	
8	3	9390-068	Capscrew, 3/8"-16UNC x 4 1/2" G5	6	
Ģ	9	9398-012	Elastic Locknut, 3/8"-16UNC	6	
4	0	34545B	Cover =Black=	2	For Models HD-30 & HD-36
	0	34570B	Cover =Black=	- 3	For Models HD-42, HD-48, HD-52

Frame Extension Components - Model HD-52 Only



Frame Extension Components – Model HD-52 Only

ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	34580B	Extension Kit Assembly, 4" x 14" =Black=		
	34580G	Extension Kit Assembly, 4" x 14" =Green=	1	Includes 1-11
	34580R	Extension Kit Assembly, 4" x 14" =Red=		
	34313B	Cover =Black=		
1	34313G	Cover =Green=	1	
	34313R	Cover =Red=		
	34573B	Formed Channel, 26" =Black=		
2	34573G	Formed Channel, 26" =Green=	1	
	34573R	Formed Channel, 26" =Red=	7	
	34574B	Formed Channel, 11" =Black=		
3	34574G	Formed Channel, 11" =Green=	2	
	34574R	Formed Channel, 11" =Red=		
	34576B	Lower Coupler, 26" =Black=		
4	34576G	Lower Coupler, 26" =Green=	1	
	34576R	Lower Coupler, 26" =Red=		
5	34825	Light Extension Harness	1	
	34965B	Extension Weldment =Black=		
6	34965G	Extension Weldment =Green=	1	
	34965R	Extension Weldment =Red=		
7	9003127	Reflector, Amber	1	
8	9390-100	Capscrew, 1/2"-13UNC x 1 1/4" G5	24	
9	9504089	Button Head Tie	2	
10	9523	Self Drilling Screw, 1/4"-14 x 1 1/4"	4	
11	9800	Locknut/Top, 1/2"-13UNC	24	

Axle & 8-Bolt Hub Components For Models With Brakes





Axle & 8-Bolt Hub Components For Models With Brakes

	ITE	EM	PART NO.	DESCRIPTION	QTY	NOTES
			34679B	Axle Assembly w/Brakes (8-Bolt) =Black=	1	
	1	1	34188B	Axle Gusset Weldment =Black=	1	
	2		34210B	Axle Mount Weldment =Black=	1	
	3		34337B	Torsion Axle Assembly w/Brakes, 88 7/8" =Black=	1	
		4	97348	Brake Cluster LH/Electric	1	
		5	97349	Brake Cluster RH/Electric	1	
		6	9404-021	Lock Washer, 3/8"	10	
		7	9394-005	Hex Nut, 3/8"-24UNF	10	
		8	9501096	Drum Assembly 8-Bolt	2	Includes Items 2-8
		9	901686	Hub 8 Bolt Sub Assembly w/Cups and Stud Bolt	2	Includes Items 3-5
		10	92687	Bearing Cup, 2.717" Dia. (Ref. #14276)	1	
		11	91812	Bearing Cup, 3.265" Dia. (Ref. #25520)	1	
		12	9502240	Stud Bolt, 9/16"-18UNF x 2.30 G8	8	
		13	91822	Bearing Cone, 1.75" ID (Ref. #25580)	1	
		14	91824	Bearing Cone, 1 1/4" ID (Ref. #14125A)	1	
		15	97342	Seal, 2 1/4" ID x 3.376" OD, Double Lip, Spring Loaded (Ref. #9065061)	1	
	1	6	91887	Hub Cap	2	
	1	7	901669	Tapered Nut, 9/16"-18UNF	16	
	1	8	9503186	Retaining Clip, 1 17/32"	2	
	1	9	9503187	Hex Jam Nut, 1"-14UNS	2	
	2	0	9008549	Spindle Washer, 1" ID x 2" OD x 1/8"	2	
	2	:1	9003127	Reflector, AMBER	2	
	2	2	9388-135	Carriage Bolt, 5/8"-11UNC x 2" G5	3	
	23 24 25		9390-123	Capscrew, 5/8"-11UNC x 1 3/4" G5	4	
			9390-124	Capscrew, 5/8"-11UNC x 2" G5	4	
			9405-098	Flat Washer, 5/8" SAE	7	
	2	6	9746	Flat Washer, 5/8"	8	
	2	.7	9801	Locknut/Top, 5/8"-11UNC	11	

Axle & 8-Bolt Hub Components For Models No Brakes



Axle & 8-Bolt Hub Components For Models No Brakes

ITEM	PART NO.	DESCRIPTION	QTY PER AXLE	NOTES
	34688B	Axle Assembly, Idler (No Brakes, 8-Bolt)	-	Includes Items 1-22
1	34188B	Axle Gusset Weldment =Black=	1	
2	34210B	Axle Mount Weldment =Black=	1	
3	34338B	Torsion Axle Assembly, Idler =Black=	1	Includes Items 4-15
4	9008549	Spindle Washer, 1" ID x 2" OD x 1/8"	2	
5	901669	Tapered Nut, 9/16"-18UNF	16	
6	91887	Hub Cap	2	
7	9501118	Idler Hub Assembly	2	Includes items 8-13
8	91812	Bearing Cup 3.265" OD (Ref. #25520)	1	
9	92687	Bearing Cup 2.441" OD (Ref. #14276)	1	
10	9502240	Stud Bolt 9/16"-18UNF x 2.3" (Grade 8)	8	
11	91822	Bearing Cone 1.75" ID	1	
12	91824	Bearing Cone 1.25" ID (Ref. #14125A)	1	
13	97342	Seal 2 1/4" ID	1	
14	9503186	Retaining Clip, 1 17/32"	2	
15	9503187	Hex Jam Nut, 1"-14UNS	2	
16	9003127	Reflector, AMBER	2	
17	9388-135	Carriage Bolt, 5/8"-11UNC x 2" G5	3	
18	9390-123	Capscrew, 5/8"-11UNC x 1 3/4" G5	4	
19	9390-124	Capscrew, 5/8"-11UNC x 2" G5	4	
20	9405-098	Flat Washer, 5/8" SAE	7	
21	9746	Flat Washer, 5/8"	8	
22	9801	Locknut/Top, 5/8"-11UNC	11	

Rest Bracket Components For Models HD-30 & HD-36



Rest Bracket Components For Models HD-30 & HD-36

ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
	34566B	Set of Lower Rest Brackets (PAIR)	-	
1	34974B	Lower Rest Bracket 12" =Black=	2	Includes Items 2-28
2	34281B	Lower Rest Bracket 12" Assembly =Black=	1	Includes Items 3-14
3	30193	Pin, 1 1/4" Dia. x 2"	1	
4	9388-149	Carriage Bolt, 5/8"-11UNC x 7" G5	1	
5	30189	CAM Handle Weldment =Black=	1	
6	95757	Flat Washer, 5/8" USS	1	
7	30181	Plate, 1 1/2" x 3 13/16" =Black=	2	
8	9928	Locknut/Top, 3/8"-16UNC	2	
9	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2	
10	34283B	Side Plate Rest Bracket Base =Black=	1	
11	9388-134	Carriage Bolt, 5/8"-11UNC x 1 3/4" G5	2	
12	97048	Decal, WARNING "Pinch Point"	1	
13	97877	Decal, CAUTION "Secure Header"	1	
14	9801	Locknut/Top, 5/8"-11UNC	2	
15	34133B	Rest Bracket Assembly =Black=	1	Includes Items 16 through 28
16	32928	Pin, 5/8" Dia. x 17 5/16"	3	
17	95959	Hairpin Cotter, .1562" Dia. x 3"	3	
18	9801	Locknut/Top, 5/8"-11UNC	4	
19	9003125	Decal, Fluorescent Orange	1	
20	32913B	Plate, 5/8" x 6 7/8" x 8" =Black=	1	
21	97296	Plow Bolt, 5/8"-11UNC x 1 3/4"	2	
22	902490	Belleville Washer, 5/8"	2	
23	9398-019	Elastic Locknut. 5/8"-11UNC	2	
24	9390-123	Capscrew, 5/8"-11UNC x 1 3/4" G5	2	
25	34154B	Back Stop Weldment =Black=	1	
26	9390-126	Capscrew, 5/8"-11UNC x 2 1/2" G5	2	
27	34156B	Rest Pad Weldment =Black=	1	
28	34449B	Side Plate, 3/8" x 5 3/8" x 13"	2	

Rest Bracket Components For Models HD-42, HD-48 & HD-52



Rest Bracket Components For Models HD-42, HD-48 & HD-52

ITEM	PART NO.	DESCRIPTION	QTY.	NOTES
	34593B	Set of Lower Rest Brackets (PAIR)	-	
1	34975B	Lower Rest Bracket 14" =Black=	2	Includes Items 2-28
2	34133B	Rest Bracket Assembly =Black=	1	Includes Items 3 through 15
3	32928	Pin, 5/8" Dia. x 17 5/16"	3	
4	95959	Hairpin Cotter, .1562" Dia. x 3"	3	
5	9801	Locknut/Top, 5/8"-11UNC	4	
6	9003125	Decal, Fluorescent Orange	1	
7	32913B	Plate, 5/8" x 6 7/8" x 8" =Black=	1	
8	97296	Plow Bolt, 5/8"-11UNC x 1 3/4"	2	
9	902490	Belleville Washer, 5/8"	2	
10	9398-019	Elastic Locknut. 5/8"-11UNC	2	
11	9390-123	Capscrew, 5/8"-11UNC x 1 3/4" G5	2	
12	34154B	Back Stop Weldment =Black=	1	
13	9390-126	Capscrew, 5/8"-11UNC x 2 1/2" G5	2	
14	34156B	Rest Pad Weldment =Black=	1	
15	34449B	Side Plate, 3/8" x 5 3/8" x 13"	2	
16	34222B	Lower Rest Bracket 14" Assembly =Black=	1	Includes Items 17-28
17	30193	Pin, 1 1/4" Dia. x 2"	1	
18	9388-149	Carriage Bolt, 5/8"-11UNC x 7" G5	1	
19	30189	CAM Handle Weldment =Black=	1	
20	95757	Flat Washer, 5/8" USS	1	
21	30181	Plate, 1 1/2" x 3 13/16" =Black=	2	
22	9928	Locknut/Top, 3/8"-16UNC	2	
23	9390-055	Capscrew, 3/8"-16UNC x 1" G5	2	
24	34107B	Side Plate Rest Bracket Base =Black=	1	
25	9388-134	Carriage Bolt, 5/8"-11UNC x 1 3/4" G5	2	
26	97048	Decal, WARNING "Pinch Point"	1	
27	97877	Decal, CAUTION "Secure Header"	1	
28	9801	Locknut/Top, 5/8"-11UNC	2	

Tie-Down Components For Models HD-30 & HD-36



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	34276B	Tie-Down Assembly (PAIR)	-	
2	103076	Hitch Pin 5/8" Dia. x 5 3/4"	2	
3	30485	Pipe 3 15/16" Long	2	
4	34278B	Tie-Down Bracket Weldment	2	
5	901677	Hook Back Plate	2	
6	903044	Strap/Tie-Down	2	
7	903121	Ratchet Buckle	2	
8	9388-117	Carriage Bolt 1/2"-13UNC x 5 1/2" G5	2	
9	9388-147	Carriage Bolt 5/8"-11UNC x 6" G5	2	
10	9405-100	Flat Washer 5/8"	2	
11	9504918	Handle Wing Nut	2	
12	9800	Locknut/Top 1/2"-13UNC	2	

Tie-Down Components For Models HD-42, HD-48, HD-52



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
1	34159B	Tie-Down Assembly (PAIR)	-	
2	103076	Hitch Pin 5/8" Dia. x 5 3/4"	2	
3	30485	Pipe 3 15/16" Long	2	
4	34160B	Tie-Down Bracket Weldment	2	
5	901677	Hook Back Plate	2	
6	903044	Strap/Tie-Down	2	
7	903121	Ratchet Buckle	2	
8	9388-117	Carriage Bolt 1/2"-13UNC x 5 1/2" G5	2	
9	9388-147	Carriage Bolt 5/8"-11UNC x 6" G5	2	
10	9405-100	Flat Washer 5/8"	2	
11	9504918	Handle Wing Nut	2	
12	9800	Locknut/Top 1/2"-13UNC	2	

Electrical Components



Electrical Components

ITEM	PART NO.	www.unverterth.com/parts/ for the most c DESCRIPTION	QTY	NOTES
11 EIVI	903172-138	Pan Head/Phillips, Machine Screw, #10-24UNC x 1"	2	NUIES
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2A 2B	34211B	Light Bracket Right-Hand Assembly =Black=	1	Includes Items 3-14
	34460B	Light Bracket Left-Hand Assembly =Black=	1	
3	34150B	Light Bracket Plate =Black=	•	
4	9504089	Button Head Zip Tie	1	
5	9501503	Light Combo Lamp RED/AMBER	1	
6	9830-016	Hex Nut, #10-32UNF G2	2	
	91004	Lock Washer, #10	2	
8	9003126	Reflector, RED	1	
10	9003127 97420	Reflector, AMBER		
11		Flange Screw, 1/4"-20UNC x 3/4" G5	4	
	9390-099	Capscrew, 1/2"-13UNC x 1" G5	2	
12	9800	Locknut/Top, 1/2"-13UNC	2	
13	34509B	Channel, 18 11/32" =Black=	1	
14	34514B	Channel, 11" =Black=	1	
15	34330	Wire Harness, Brakes & Lights	1	
16	34332	Breakaway Kit	1	Includes Items 17-27
17	97489	Split Ring	2	
18	902238	Flange Screw, 1/4"-20UNC x 3" G5	4	
19	9936	Locknut/Top, 1/4"-20UNC	4	
20	9512	Screw/Self Drill, 1/4"-14 x 1"	1	
21	30675	Sash Chain, #35 x 48"	1	
22	105251	Spring Clip Snap Link, 8MM x 3 1/8"	1	
23	902764	Battery w/Charger & Box (12V/5AH)	1	
24	900786	Breakaway Electric Switch	1	
25	9003259	Flange Screw, 3/8"-16UNC x 1 1/4" G5	2	
26	9928	Locknut/Top, 3/8"-16UNC	2	
27	9405-070	Flat Washer, 5/16" USS	2	
28	34333	Wire Harness, Brakes	1	
29	34515B	Light Assembly, AMBER (Pair)	1	Includes Items 30-36
30	97420	Flange Screw, 1/4"-20UNC x 3/4" G5	8	
31	903172-350	Pan Head/Phillips, Machine Screw, #10-32UNF x 1 1/4"	4	
32	9404-013	Lock Washer, #10	4	
33	9830-016	Hex Nut, #10-32UNF G2	4	
34	34510B	Light Bracket Plate =Black=	2	
35	34511B	Channel, 9 3/4" =Black=	2	
36	9006281	Light AMBER (LED)	2	
37	34517	Wire Harness, Forward Stop & Turn Lights	1	
38	34683	Wire Harness, Rear Brakes & Stop/Turn Lights	1	
39	9504089	Button Head Zip Tie	5	
40	34633	Wire Harness, Light Bar	1	
41	9000104	Cable Tie, 21 1/2"	2	
42	97840	Grommet, 1 1/4" ID x 1/4"W	5	
43	98830	Grommet, 1 1/4" ID x 1/8"W	1	
44	99599	Cable Tie, 18" (Fir Tree Mount)	1	
45	902266	Tri-Light Bar w/Leads	2	
46	902328	LED License Light w/Leads	2	
47	902329	Oval Head/Phillips, Machine Screw, #6-32UNC x 5/8" (Stainless Steel)	2	
48	902330	Hex Nut/Flange, #6-32UNC	6	
49	902331	Hex Nut/Flange, #10-24UNC	2	ļ
50	902332	Wire Harness, DOT Package	1	
51	902333	Butt Connector, Multi Wire	2	
52	9504906	Wire Harness, Brakes	2	

Spare Tire Components (Optional)

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



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 "MAINTE-NANCE" section for your convenience.

Spare Tire Components (Optional)

ITEM	PART NUMBER	DESCRIPTION	QTY	NOTES
1A	34437B	Spare Tire Kit with Mounting Bracket	1	Tire 235/85x16 Includes Items 2-4, 5A, 6-9
1B	34626B	Spare Tire Kit with Mounting Bracket	1	Tire 235/75x17.5 Includes Items 2-4, 5B, 6-9
2	34437B	Spare Tire Mount Weldment =Black=	1	
3	9390-109	Capscrew, 1/2"-13UNC x 3 1/2" G5	2	
4	9800	Locknut/Top, 1/2"-13UNC	4	
	902702	Wheel/Tire 6" x 16" / ST235/85x16	1	
5A	98859	Trailer Wheel (Only) 6" x 16"	1	
	9002500	Valve Stem	1	
	9501425	Wheel/Tire 6.75" x 17.5" / ST235/75x17.5	1	
5B	9501426	Wheel (Only) 6.75" x 17.5"	1	
	9002500	Valve Stem	1	
6	9388-106	Carriage Bolt, 1/2"-13UNC x 2" G5	2	
7	91267	Flange Nut, 1/2"-13UNC	2	
8	9398-016	Elastic Locknut, 1/2"-13UNC	2	
9	9405-085	Flat Washer, 1/2" SAE	2	

Landing Pad Kits (Optional)



				QTY	
ITEM	PART NO.	DESCRIPTION	30'/36' UNITS	42'/48'/52' UNITS	
			Kit 34645B	Kit 34646B	
	34645B	Upper Bar Landing Pad Kit for 12" Upper Support Tube	1	-	
	34646B	Upper Bar Landing Pad Kit for 14" Upper Support Tube	-	1	
1	33180B	Upper Bar Wide Rest Plate	4	6	
2	34435B	Strap	16	24	
3	34436B	Spacer	8	12	
4	9388-103	Carriage Bolt 1/2"-13UNC x 1 1/4"	16	24	
5	9388-117	Carriage Bolt 1/2"-13UNC x 5 1/2"	8	12	
6	9800	Locknut 1/2"-13UNC	24	36	

Roadrunner — Parts

Stripper Head Kits (#34839B — 14" Tube; 34843B — 12" Tube) For Shelbourne or Applequist Stripper Head (Options)



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	34839B	Stripper Head Rest Bracket, 14" Tube Bundle =Black=	1	For Models HD-42, HD-48, HD-52 Includes Items 1-7
	34843B	Stripper Head Rest Bracket, 12" Tube Bundle =Black=	1	For Models HD-30 & HD-36 Includes Items 1-7
1	24395	Hitch Pin, 3/4" Dia. x 11 1/4"	8	
2	34838B	Stripper Head Cross Bracket, 14" Tube Weldment =Black=	4	For Models HD-42, HD-48, HD-52
2	34845B	Stripper Head Cross Bracket, 12" Tube Weldment =Black=	4	For Models HD-30 & HD-36
3	34841B	Rest Bracket Weldment =Black=	4	
4	9388-147	Carriage Bolt, 5/8"-11UNC x 6" G5	8	
5	9405-100	Flat Washer, 5/8" USS	8	
6	9504918	Handle Wing Nut, 5/8"-11UNC	8	
7	95959	Hairpin Cotter, 5/32" Dia. x 2 15/16"	8	

Rest Pad & Hinge Draper Kits (34641B - Models HD-30, HD-36 34592B — Models HD-42, HD-48, HD-52) For John Deere Draper (Options)



ITEM	PART NO.	DESCRIPTION	QTY	NOTES
	34592B	Rest Pad & Hinge Draper Kit, 14" Tube Bundle =Black=	1	For Models HD-42, HD-48, HD-52 Includes Items 1-7
	34641B	Rest Pad & Hinge Draper Kit, 12" Tube Bundle =Black=	1	For Models HD-30 & HD-36 Includes Items 1-10
1	34354B	Rest Pad Weldment - Narrow 5" =Black=	2	
2	34360G	Riser Weldment =Green=	2	For Models HD-30 & HD-36
2	34349G	Riser Weldment =Green=	2	For Models HD-42, HD-48, HD-52
3	34443B	Rest Pad RH Weldment =Black= w/Decal	1	
3	9505118	Decal, CAUTION "Follow John Deere Trailing Procedure"	1	
4	34444B	Rest Pad LH Weldment =Black= w/Decal	1	
4	9505118	Decal, CAUTION "Follow John Deere Trailing Procedure"	1	
5	34466B	Spacer 6 1/2" x 13 3/4" =Black=	2	
6	34567B	Tie Down Pair =Black=	1	For Models HD-30 & HD-36
0	34594B	Tie Down Pair =Black=		For Models HD-42, HD-48, HD-52
7	9388-147	Carriage Bolt, 5/8"-11UNC x 6" G5	2	
8	9501179	Bent Pin, 3/4" Dia. x 5"	4	
9	9504918	Handle Wing Nut, 5/8"-11UNC	2	
10	95959	Hairpin Cotter, 5/32" Dia. x 2 15/16"	4	

Roadrunner – Parts

Notes





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