LOFTNESS

Windrow Crop Shredder

15' • 20' • 20' w/Transport

Owner's Manual and Parts Book
(Originating w/Serial Number 41-1212)

Model Number: _____
Serial Number: _____
Date of Purchase: _____

N34600 Rev. H

07.22.25


LOFTNESS

LOFTNESS SPECIALIZED EQUIPMENT, INC.
LIMITED WARRANTY POLICY

The limited warranty policy begins upon delivery of the unit to the original customers.

The following Loftness products have a two (2) year limited warranty;

XLB10 Grain Bag Loader, Battle Ax L-series Skid Steer, Battle Ax S-series Skid Steer, Battle Ax H-series Skid Steer, Battle Ax Excavator 20-series, Battle Ax Excavator 30-series, Battle Ax Excavator 40-series, Battle Ax Excavator 50-series, Battle Ax Extreme, Bad Ax Skid Steer, Timber Ax Skid Steer, Stump Ax, BT20, Kwik Cut.

All other Loftness products have a one (1) year limited warranty.

If any Loftness product is used as rental or leased equipment the limited warranty period is for only 30 days from the delivery date to the original customers.

Loftness Specialized Equipment, hereinafter referred to as LOFTNESS, a manufacturer of quality machinery since 1956, warrants new LOFTNESS machinery and/or attachments at the time of delivery to the original purchaser, to be free from defects in material and workmanship when properly set up and operated in accordance with the recommendations set forth in the LOFTNESS Operator's Manual.

LOFTNESS' liability for any defect with respect to accepted goods shall be limited to repairing the goods at an authorized dealer or other LOFTNESS designated location, or replacing them as LOFTNESS shall elect. The above shall be in accordance with LOFTNESS warranty adjustment policies.

WARRANTY REQUIREMENTS

Warranty registration form must be filled out and returned to Loftness Specialized Equipment to validate all warranty claims. To receive a warranty claim, a return authorization from LOFTNESS must be obtained. The failed part may then be returned in an untampered status. This warranty does not include freight or delivery charges incurred when returning machinery for servicing. Dealer mileage, service calls and pick-up/delivery charges are the customer's responsibility.

LIMITATIONS OF WARRANTY

LOFTNESS products are designed to provide years of dependable service when proper use and maintenance is adhered to. The potential for misuse in many applications exists; therefore, a limited warranty is provided as follows.

This warranty shall not apply to any machine or attachment which shall have been repaired or altered outside the LOFTNESS factory or authorized LOFTNESS dealership or in any way so as in LOFTNESS' judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident, nor to any machine or attachment which shall not have been operated in accordance with LOFTNESS' printed instructions or beyond the company recommended machine rated capacity. LOFTNESS may elect to have an area representative evaluate the condition of the machine before warranty is considered.

In addition, this limited warranty provides no coverage for general wear or maintenance items, misuse, environmental conditions and/or contamination for which they were not designed or not intended, including but not limited to the following items;

Use of machine beyond its rated capacity, Conveyors, Improper knife replacement, Auger wear, Missing knives, Saw blades, Striking foreign objects, Brakes and brake pads, Lack of lubrication, Tires, Failures caused by running in an "out-of-balance" condition, Hydraulic hoses damaged by being caught in "pinch points" or by moving parts, and Damage caused by excessive force from the power unit.

EXCLUSIONS OF WARRANTY

Except as otherwise expressly stated herein, LOFTNESS makes no representation or warranty of any kind, expressed or implied. **The implied warranty of merchantability and fitness for a particular purpose are excluded from this limited warranty.** The remedies set forth in this warranty are the only remedies available to any person under this warranty. LOFTNESS shall have no liability to any person for incidental, consequential or special damages of any description, whether arising out of express or implied warranty or any other contract, negligence, or other tort or otherwise. This exclusion of consequential, incidental and special damages is independent from and shall survive any finding that the exclusive remedy failed of its essential purpose. Upon purchase, the buyer assumes all liability, all personal injury and property damage resulting from the handling, possession or use of the goods by the buyer.

No agent, employee or representative of LOFTNESS has any authority to bind LOFTNESS to any affirmation, representation or warranty concerning its machinery and/or attachments except as specifically set forth herein. (August 2023)


LOFTNESS

Warranty

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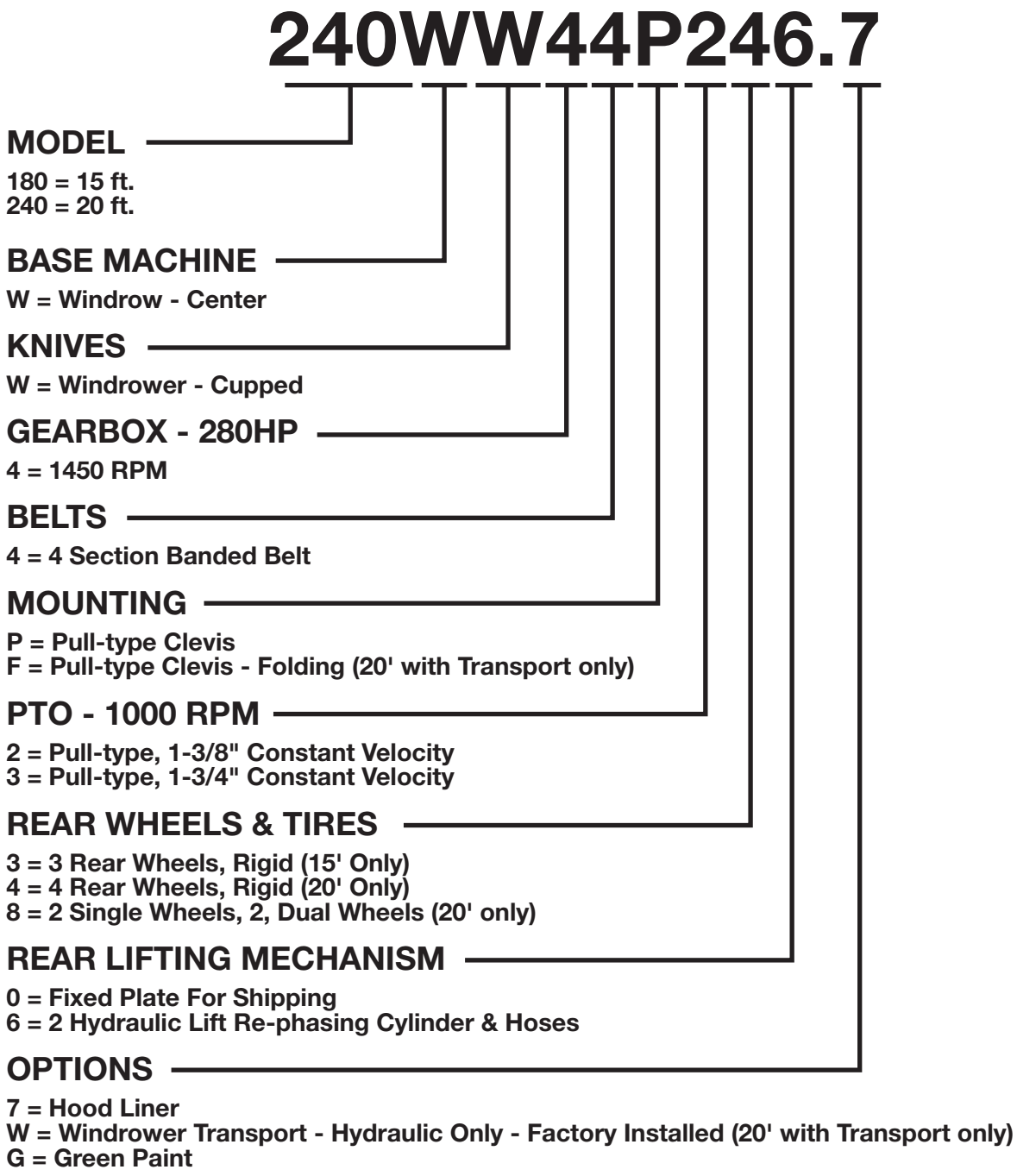
LOFTNESS

Ordering Code

Windrow Crop Shredder (Example)

The ordering code will consist of three numbers (machine model), one letter (base machine), one letter (knives type), one number (gearbox rpm), one number (belt style), one letter (mounting type), one number (PTO type), one number (rear wheel setup), one number (lifting mechanism), and one to three numbers/letters (options). An example for a Windrow Crop Shredder of this type would be as shown below.




LOFTNESS

Owner Information

Thank you for your decision to purchase a windrow crop shredder from Loftness. To ensure maximum performance of your machine, it is mandatory that you thoroughly study the owner's manual and follow its recommendations. Proper operation and maintenance are essential to prevent injury or damage and to maximize machine life.

Operate and maintain this machine in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and/or laws, and in compliance with on-product labeling and these instructions.

Make sure that all personnel have read this owner's manual and thoroughly understand safe and correct operating, set-up, installation and maintenance procedures.

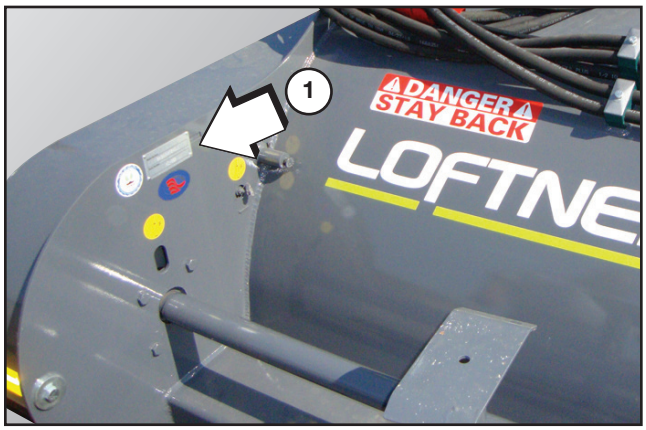
Make sure the shredder is set-up correctly before being placed in service and at regular intervals thereafter serviced in accordance with procedures outlined in this manual.

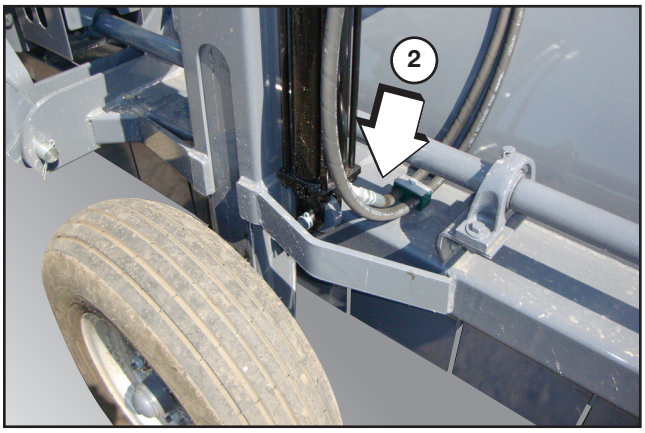
Continuous improvement and advancement of Loftness products may result in changes to your equipment that may not be reflected in this publication. Loftness reserves the right to make product improvements to the machine at any time. Although great care has been taken to ensure the accuracy of this publication, Loftness does not assume any liability for errors or omissions.

Warranty Policy

Be sure to read and understand the Warranty Policy at the beginning of this manual. It is also important that you fill out the Warranty Registration form(s) completely with your dealer so as not to void the warranty.

Serial Number Location





The arrows indicate the location of the serial number tag (1), and the location of the serial number stamped into the frame (2). The serial number stamp is located to the left of the operation hitch, just behind the transport wheel (if equipped).

Always use your model and serial number when requesting information or when ordering parts.

Manual Storage

Keep the owner's manual and the entire documentation packet in the storage compartment (1) provided on your windrow crop shredder. The owner's manual must be available for all operators.

Windrow Crop Shredder Features

- 15' or 20' Cutting Width
- Pull-type Hitch
- Center Discharge
- 1-3/8 in. or 1-3/4 in. Constant Velocity 1000 RPM PTO
- 1,450 RPM Rotor
- 4-1/2 in. Wide Cupped Knives - Hardened
- Adjustable Angle Crop Deflector
- 4-Groove Banded Belts
- Spring-loaded Push-type Idler System
- Full Length Rear Shields
- Rear Lift Provides Precise Height Adjustment

Windrow Crop Shredder Options

- Transport System (Street Side and Curb Side Transport Wheels Hydraulically Positioned) - Factory Installed (20' only)
- Hood Liner
- Wide Windrow Kit

Safety First

Safety Alert Symbol

This message alert symbol identifies important safety messages on the machine and in the owner's manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

In the owner's manual and on decals used on the machine the words **DANGER, WARNING, CAUTION, IMPORTANT, and NOTE** are used to indicate the following:

DANGER: This word warns of immediate hazards which, if not avoided, will result in severe personal injury or death. The color associated with Danger is RED.

WARNING: This word refers to a potentially hazardous situation which, if not avoided, could result in severe personal injury or death. The color associated with Warning is ORANGE.

CAUTION: This word refers to a potentially hazardous or unsafe situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. The color associated with Caution is YELLOW.

IMPORTANT: Highlights information that must be heeded.

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

If Safety Decals on this machine are ISO two panel pictorial, decals are defined as follows:

- The first panel indicates the nature of the hazard.
- The second panel indicates the appropriate avoidance of the hazard.
- Background color is YELLOW.
- Prohibition symbols such as and if used, are RED.

Be certain all machine operators are aware of the dangers indicated by safety decals applied to the machine, and be certain they follow all safety decal instructions. Contact Loftness for safety decal replacement.

Loftness cannot anticipate every possible circumstance that may involve a potential hazard. The warnings in this owner's manual are not all inclusive.

Owner's Responsibility

Due to the potential danger of flying debris, it is the owner's responsibility and is "**ABSOLUTELY MANDATORY** that **IMPACT-RESISTANT SHIELDING**" be installed on the machine to protect the operator.

It is **ABSOLUTELY MANDATORY** that all personnel read and follow all safety precautions before operating the machine and attachment.

Make sure that all personnel have read this owner's manual, and thoroughly understand safe and correct installation, operation, and maintenance procedures.

Operate and maintain this machine in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and/or laws; and in compliance with on-product labeling and this owner's manual instructions.

Make sure that all personnel know how to stop the machine and attachment by disengaging all controls. See "Mandatory Shut-Down Procedure" on page 5.

Make sure the attachment is installed on the machine correctly before being placed in service. At regular intervals thereafter, the attachment should be serviced in accordance with procedures outlined in this owner's manual.

Mandatory Shut-Down Procedure

- Stop the machine and attachment on a level surface and lower the attachment to the ground.
- Move throttle to idle position.
- Disengage all power to the attachment.
- Shut off engine and remove the key.
- Wait until the rotor has stopped completely before inspecting the attachment.

Safety Rules

These are general safety considerations. Additional precautions may be necessary to operate your machine in a safe manner. Be certain you are operating your machine in accordance with all safety codes, OSHA rules and regulations, insurance requirements and local, state, and federal laws.

- Never allow children to operate equipment. Never allow adults to operate equipment without proper instructions.
- Keep the area of operation clear of all unauthorized persons.
- Remove from area of operation all foreign objects such as sticks, wire, rocks, etc., that might become tangled in rotors, causing damage to the shredder or be thrown from the shredder striking other objects.
- Never attempt to make any adjustments while the engine is running or the key is in the “ON” position of the tractor. Before leaving the operator’s position, disengage power to the shredder and remove ignition key.
- Disengage PTO, clutch and hydraulic valve and shift tractor into neutral or park before starting engine.

Safety Instructions for Operation and Maintenance

The following safety warnings are used here and on the shredder. Become familiar with them before operating this machine.

CAUTION:

- Do not start, operate, or work on this machine until you have carefully read and thoroughly understand the contents of the operator’s manual.
- Failure to follow safety, operating, and maintenance instructions could result in death or serious injury to the operator or bystanders, poor operation, or costly breakdown.
- Unless instructed by decal or operator’s manual, stop engine before leaving operator’s position and wait for all movement to stop before attempting to adjust, lubricate, unclog or inspect. Exercise mandatory shut-down procedure. After the service has been performed, be sure to restore all guards, shields and covers to their original position.
- Always observe all safety rules shown on decals. Replace any damaged decals immediately. If the unit is repainted, be sure to replace all decals which apply to the machine.
- Become familiar with and know how to use all the safety devices and controls on the shredder before attempting to operate the unit. Know how to stop the unit before starting it.
- Before working under any hydraulically controlled implement, be sure to securely block implement in position.
- Keep children and spectators off and away from the machine while it is in operation.
- Never operate the shredder with a 540 RPM tractor.
- Never use a steel hammer when connecting or disconnecting a PTO shaft.

CAUTION:

- Repeated impact of the knives with frozen ground or hard objects can cause excessive wear and damage to tractor or shredder. Be sure to maintain recommended ground clearance as specified in this manual.
- Should excessive vibration occur, disengage the tractor PTO immediately and shut off tractor. Do not continue to operate the machine until the problem has been determined and corrected.
- Be sure the rotor has stopped completely before checking the knives.

WARNING:

- Keep all guards, shields and decals in place.
- Always repair or replace any front flipper shields that are damaged or missing.

Safety Instructions for Operation and Maintenance (Cont'd)

- Be sure PTO outer guard turns freely before operating machine.

WARNING:

- Keep hands, feet and clothing away from moving components.
- Do not wear loose or baggy clothing around rotating machinery. Machine must be clear of people, tools, and other objects before engaging PTO.
- Engage the PTO slowly at idle speed to prevent unnecessary stress to drive-line.
- Read and observe all warnings on the machine before attempting to operate the shredder. Do not attempt to operate this machine unless all factory-installed safety devices are in place.
- Never attempt to lubricate the shredder with the engine running. Always be sure to exercise the mandatory shut-down procedure.
- Be extremely careful not to bottom out or extend PTO shaft too far, damage to tractor or shredder could occur. Be careful to avoid lifting shredder too high, which results in excessive PTO shaft wear if machine is operated during turning maneuver. DO NOT USE PTO ADAPTERS OF ANY KIND.
- Do not operate the shredder without the universal joints locked to the tractor and gearbox shafts.
- Operating the shredder at less than rated RPM will reduce drum speed and cause improper cutting. In difficult conditions, reduce tractor speed by down-shifting gears while maintaining rated engine RPM. Severely difficult conditions may require a delay until conditions improve.
- Do not operate the shredder above the rated RPM.

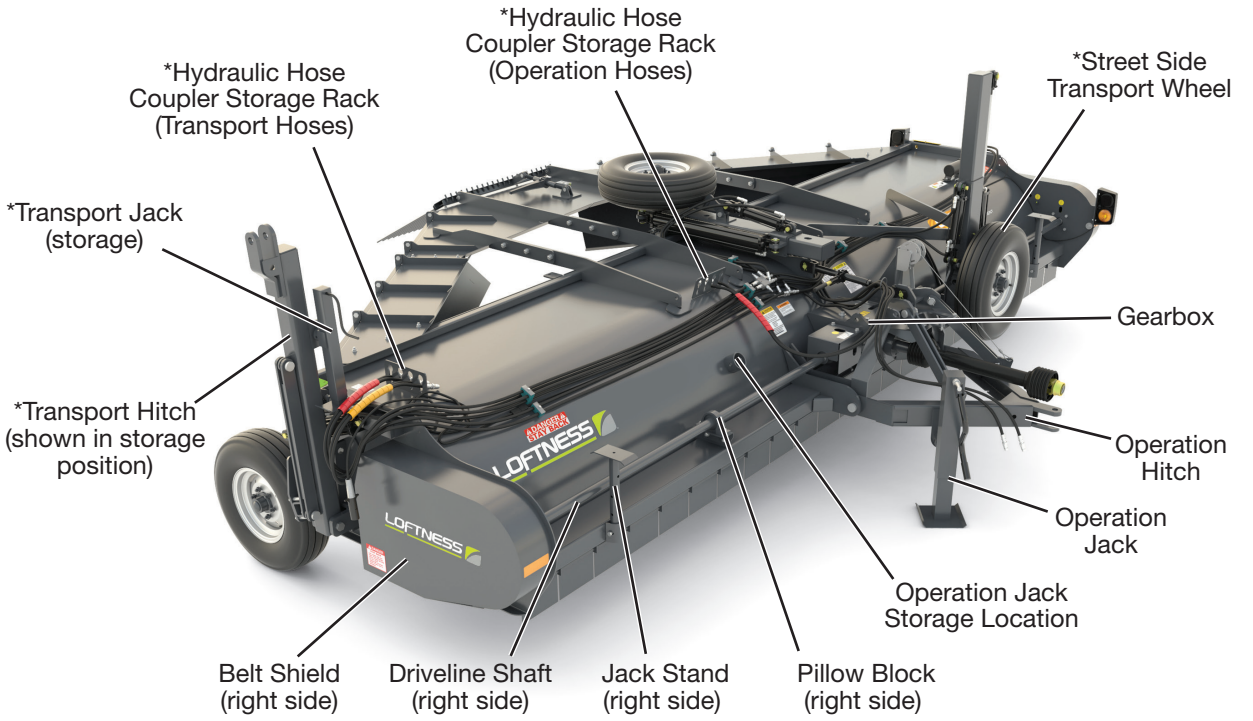
DANGER:

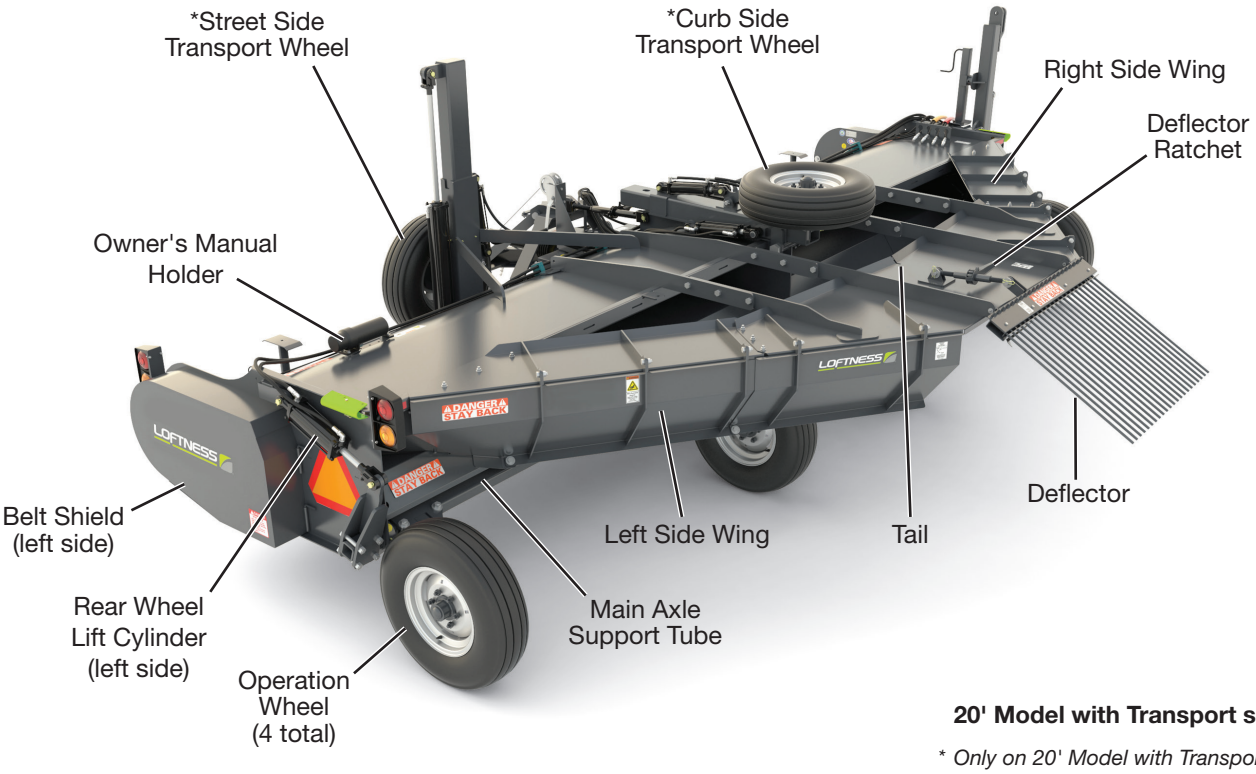
- Escaping fluid under pressure can be invisible and can penetrate the skin. Do not use hands to search for leaks!
- Hydraulic lines or other components can be hot after operation! “DO NOT TOUCH”!
- Keep hands and feet out! Do not step on or over the machine while it is in operation!
- Rotating drive-line. Personal injury or death can result from entanglement.

Hydraulic Safety

- The hydraulic system is under high pressure. Make sure all lines and fittings are tight and in good condition. These fluids escaping under high pressure can have sufficient force to penetrate skin and cause serious injury.
- Never check for leaks by using any part of your body to feel for escaping fluid.

Center Windrower Shredder Identification



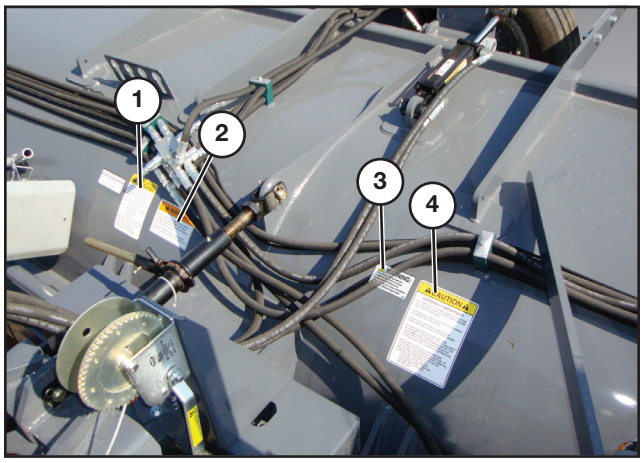


20' Model with Transport shown.

** Only on 20' Model with Transport.*

Safety Decal Locations

Check and replace any worn, torn, hard to read or missing safety decals on your machine.



1

CAUTION

DO NOT START, OPERATE, OR WORK ON THIS MACHINE UNTIL YOU HAVE CAREFULLY READ AND THOROUGHLY UNDERSTAND THE CONTENTS OF THE OPERATOR'S MANUAL.

NOTE: IF YOU DO NOT HAVE AN OPERATOR'S MANUAL, CONTACT YOUR DEALER OR

LOFTNESS SPECIALIZED EQUIPMENT
650 SOUTH MAIN
HECTOR, MN 55342
1-800-828-7624

FAILURE TO FOLLOW SAFETY, OPERATING, AND MAINTENANCE INSTRUCTIONS COULD RESULT IN DEATH OR SERIOUS INJURY TO THE OPERATOR OR BYSTANDERS, POOR OPERATION, AND COSTLY BREAKDOWN.

Part No. 4256

2

WARNING

Due to the possible danger of flying debris, it is absolutely MANDATORY that impact-resistant shielding be provided on the power unit to protect the operator.

The owner is responsible for providing the operator protection devices on the power unit.

Part No. N17013

3

WARNING:

This product can expose you to Mineral Oil, which is known to the State of California to cause cancer. For more information, go to www.p65warnings.ca.gov.

203264

Part No. 203264

4

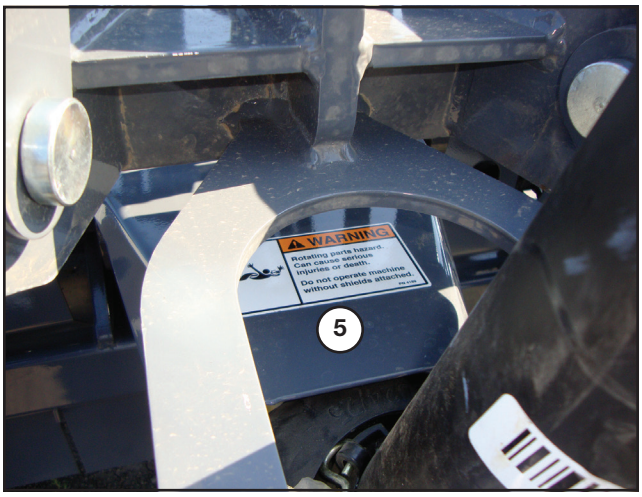
CAUTION

EXTREMELY IMPORTANT!

- BE SURE THE PTO SHAFT DOES NOT BOTTOM OUT OR TELESCOPE TOO FAR APART BEFORE USING THIS SHREDDER.
- PERIODICALLY CHECK ALL BOLTS INCLUDING GEARBOX FOR TIGHTNESS.
- GREASE ALL BEARINGS (AND ROTOR COUPLERS ON 24 & 30 FT.) EVERY 8 HOURS.
- DO NOT CONTINUE TO OPERATE THIS SHREDDER IF IT BECOMES "OUT OF BALANCE." STOP IMMEDIATELY, DETERMINE AND FIX THE PROBLEM OR CONTACT YOUR DEALER OR LOFTNESS BEFORE CONTINUING OPERATION.
- READ AND FOLLOW ALL INFORMATION PROVIDED IN THE OPERATOR'S MANUAL. IF YOU DO NOT HAVE AN OPERATOR'S MANUAL, ONE WILL BE PROVIDED TO YOU AT NO CHARGE. CALL OR WRITE TO:
  LOFTNESS SPECIALIZED FARM EQUIPMENT
  S. HIGHWAY 4 - BOX 337
  HECTOR, MN 55342-0337
  320-848-6273

4335

Part No. 4335



5

WARNING

Rotating parts hazard. Can cause serious injuries or death.

Do not operate machine without shields attached.

PN 4189

Part No. 4189

Safety Decal Locations (Cont'd)

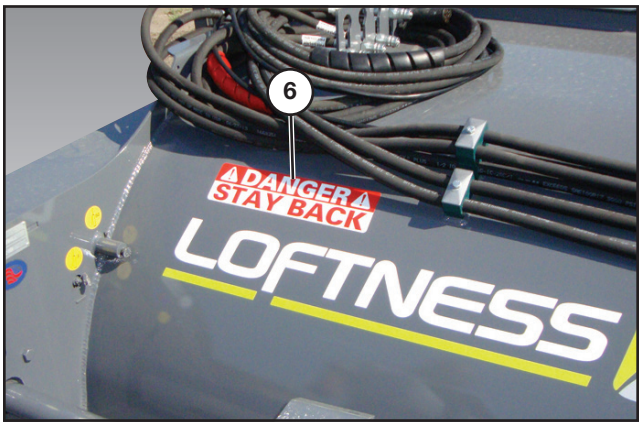
6

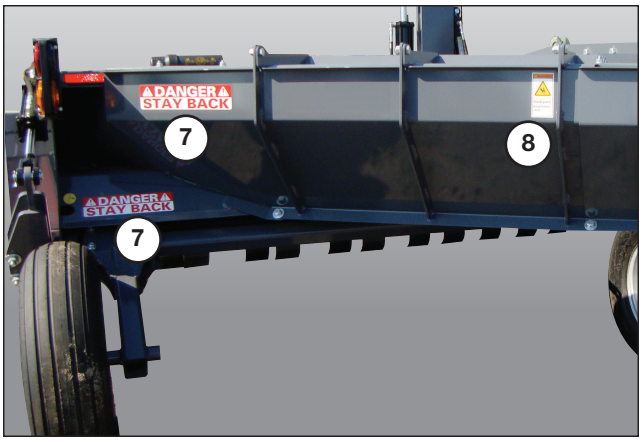
Part No. N22763

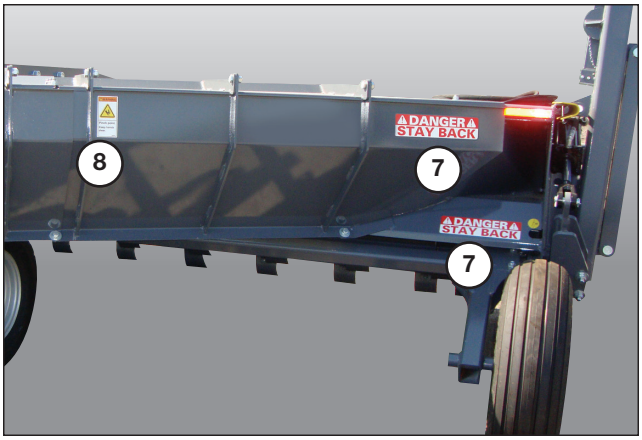
7

DANGER
STAY BACK

Part No. 4334



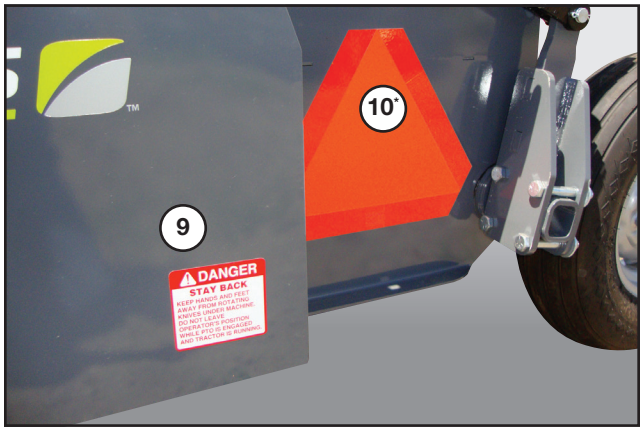




8

Part No. N23507

Safety Decal Locations (Cont'd)



9

DANGER

STAY BACK

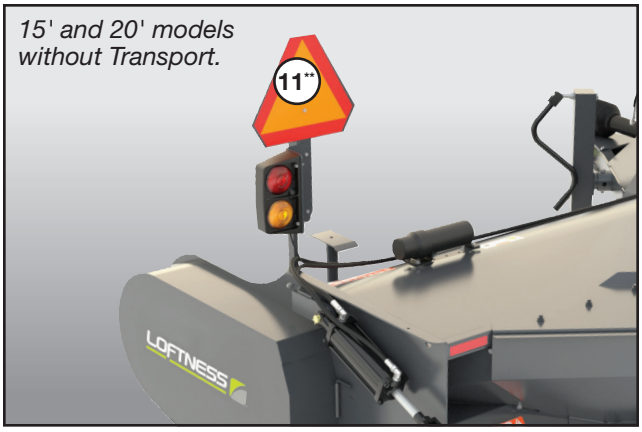
KEEP HANDS AND FEET AWAY FROM ROTATING KNIVES UNDER MACHINE. DO NOT LEAVE OPERATOR'S POSITION WHILE PTO IS ENGAGED AND TRACTOR IS RUNNING.

Part No. 4135

10*

Part No. 4132
*(*20' with Transport)*

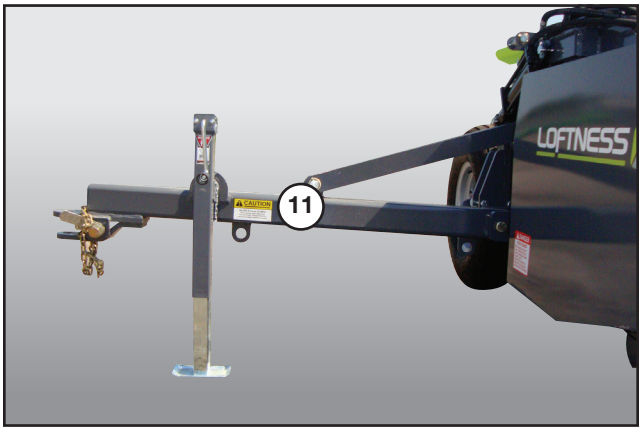
15' and 20' models without Transport.



11**

Part No. N18549
*(**15' and 20' without Transport)*

Safety Decal Locations (Cont'd)



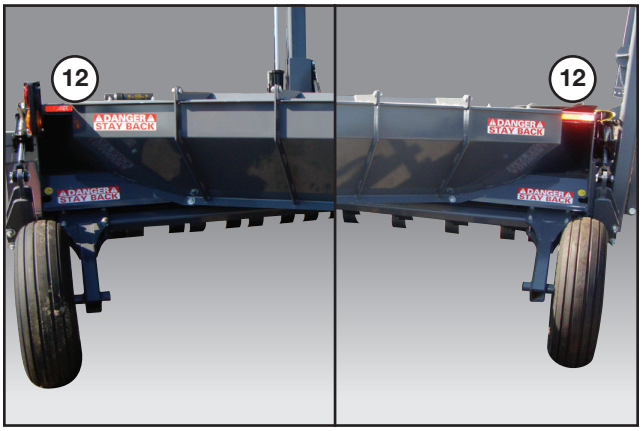
11

CAUTION

Do Not Exceed 20 MPH.
This machine uses implement tires and hubs. Transporting this machine at higher speeds is unsafe.

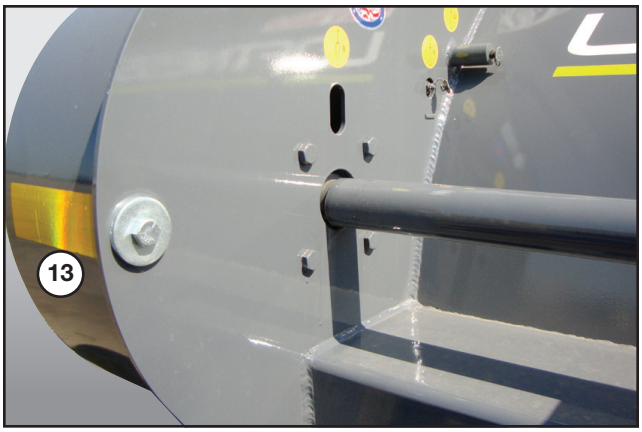
N23931

Part No. N23931



12

Part No. 4141



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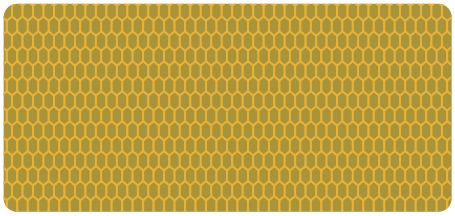


Part No. 4140

Equipment Set-up

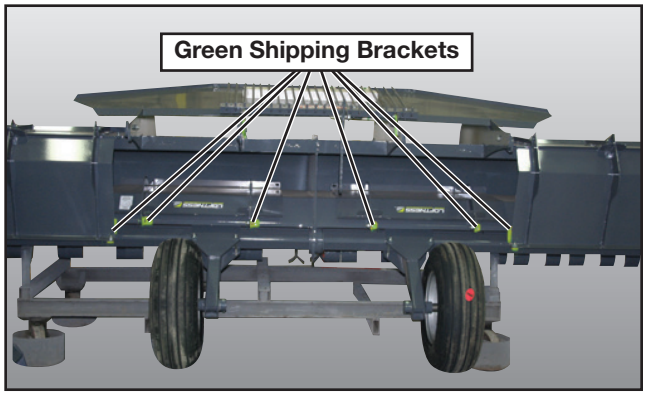
The windrow shredder is shipped partly assembled with the rear deflector doors, tail, outer wing and hardware partially disassembled. The hitch is also separate and will need to be attached.

Windrower shown in its shipping configuration as it would arrive at the dealer.

Preparing windrower for assembly. Make sure machine is level and stable. A lifting device capable of lifting 360 lbs. (163.3 kg) is recommended.

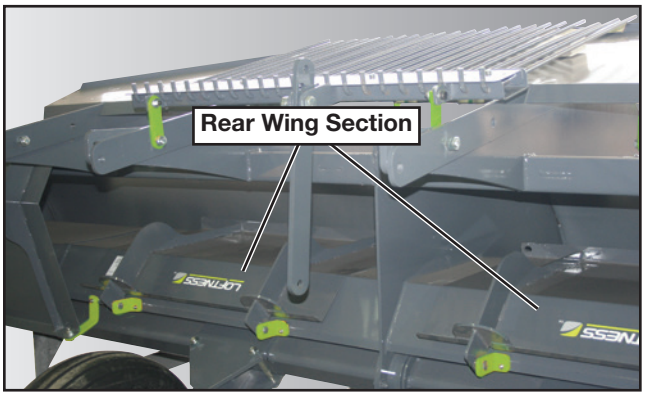
Assemble hardware as described but do not tighten the hardware until assembly is complete and properly adjusted.

Refer to “Parts Identification” beginning on page 47 for part descriptions.



Locate the green shipping brackets at the back of the machine.

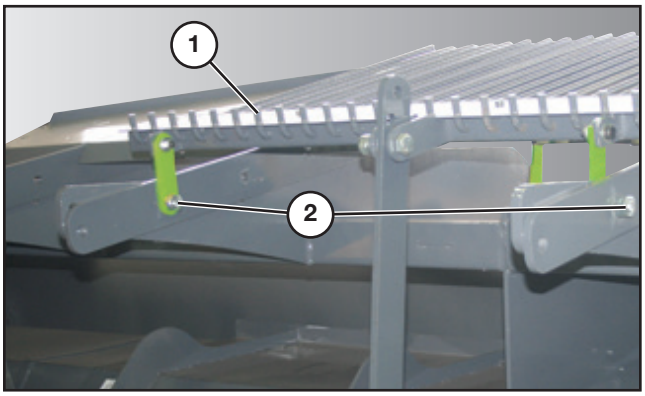
NOTE: *The green shipping brackets are for shipping only and are not used in the assembly of the machine.*



Remove brackets and hardware before starting assembly.

IMPORTANT: *Save the hardware for use in assembly.*

Remove rear wing sections (both sides) from inside the tunnel near the center. Place off to the side for assembly later.

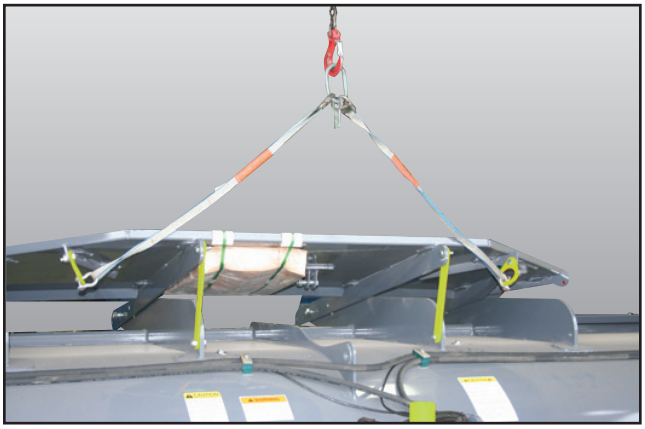


Remove rear deflector assembly (1).

Reassemble hardware (2) after removing shipping bracket but do not completely tighten.

NOTE: *These bolts will act as pivots for positioning the tail discussed later in this section.*

Equipment Set-up (Cont'd)



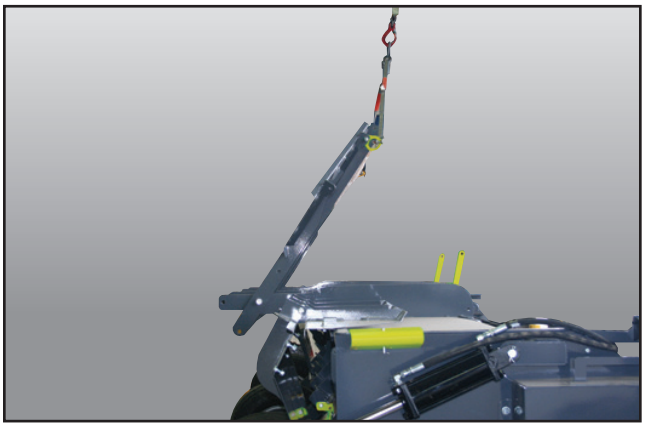
Attach chains from lifting device to green lifting rings as shown, making sure connection is secure.

NOTE: *If your lifting device is a tractor and loader, position the loader behind windrower and lift tail section towards loader.*

⚠	**CAUTION:** *Lifting device must be capable of lifting at least 360 lbs. (163.3 kg).*

Remove the two shipping brackets adjacent to the lifting rings, towards the front of the machine. Place wood blocks under tail section to prevent injury when the brackets are removed.

⚠	**WARNING:** *Failure to add blocks could cause serious injury when brackets are removed.*



Verify lifting chains are securely attached to the lifting rings.

Slowly raise the tail by using the lifting device. The tail will pivot on the loosened 3/4" bolts.

Once the tail is past vertical, start to lower the tail towards the rear of the machine.

IMPORTANT: *Use caution as the tail approaches the vertical position.*

Once the tail is past vertical, start to lower the tail towards the rear of the machine.

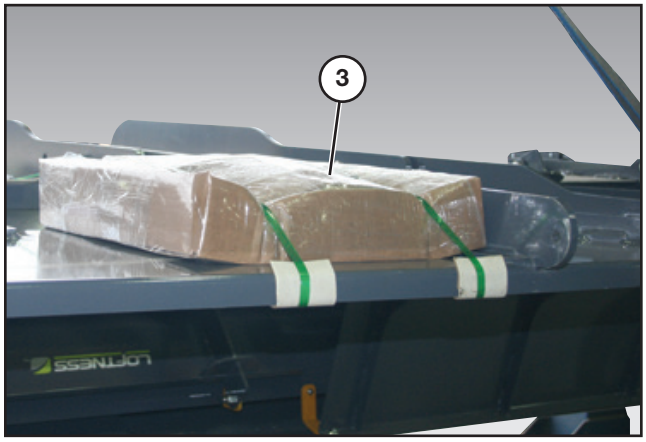
Lower the tail to a horizontal position.

⚠	**WARNING:** *Do not stand underneath tail section as it is lowered.*

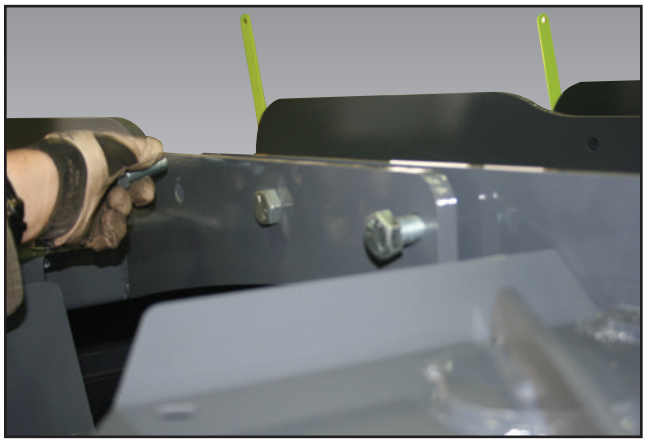
Place support blocks (not provided) underneath the horizontal tail before continuing.

IMPORTANT: *Blocks are used as a safety device should the tail section fall.*

Equipment Set-up (Cont'd)



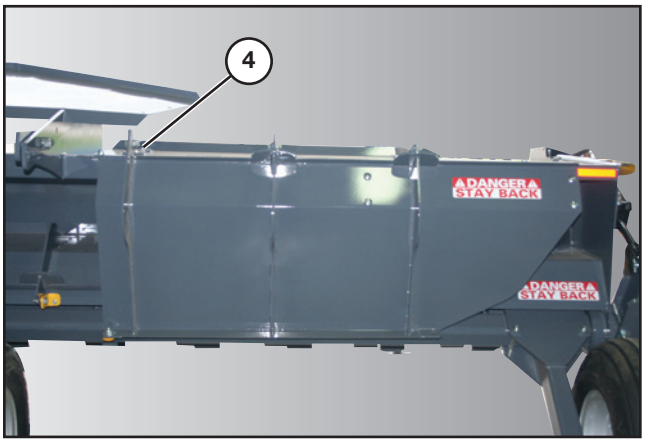
Remove box (3) containing hardware.



Align the holes in the tail arms with the holes in the windrower arms with the aid of the lifting device. Use the remaining 3/4" x 2" bolts and nuts (12 total) to secure the tail in place. Refer to Parts Identification section “Wing Assembly” on page 48 for hardware orientation.

IMPORTANT: *Do not tighten the hardware completely.*

Locate the tucked-in wings on each end of the windrower.



Remove the 1/2" bolt (4) holding the inside end of the top wing to the body near the center arms.

Repeat procedure on opposite side.

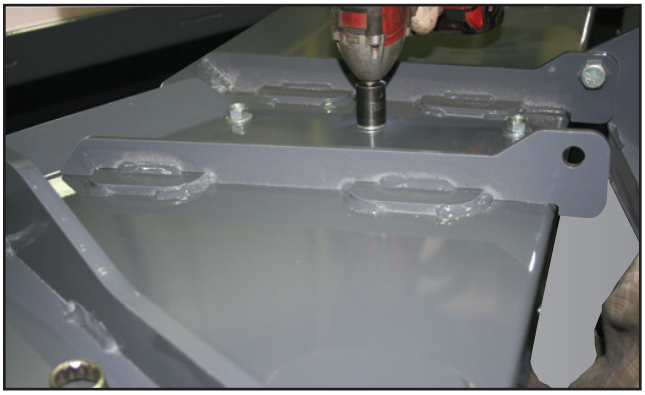
Loosen *but do not remove* the 1/2" bolt (5) securing the outside end of the wing tops to the body. (Left side shown.)

Support the inside end of the wing top and slowly rotate the wing assembly towards the tail.

Slide the wing top assembly under the tail section.

Align the three holes in the wing top assembly and the tail section.

Equipment Set-up (Cont'd)



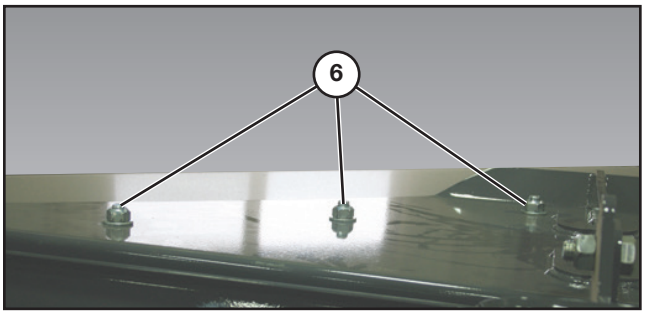
Attach the wing top to the tail by inserting a 1/2" x 1-1/4" carriage bolt and 5/8" flat washer from the bottom up through the top (3 each side).

From the top, add a 1/2" flat washer and 1/2" lock nut (3 each side).

IMPORTANT: *Do not tighten the hardware completely.*

Repeat procedure on opposite side.

Underside view of the wing top, showing the 1/2" x 1-1/4" carriage bolts and 5/8" flat washers installed into the tail.



On the outer end of each wing top, add the remaining 1/2" x 1-1/4" hex bolts, 1/2" flat washers and 1/2" lock nuts (6). (Left side shown)

IMPORTANT: *Do not tighten the hardware completely.*

Repeat procedure on opposite side.

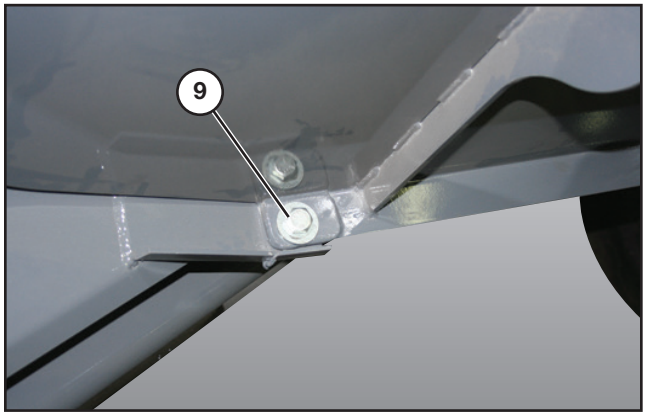
Rotate the wings (7) down on both sides. (Left side shown).

Attach the rear wing door (8) sections with 5/8" x 1-1/2" hex bolts, 1/2" flat washer, and 1/2" lock nuts (2 per side).

The top lugs fit between the notches cut into the top edge of the wings.

IMPORTANT: *Do not tighten the hardware completely.*

Equipment Set-up (Cont'd)



Attach bottom corner of wing door to body with 5/8" x 1-1/2" hex bolt (9), 1/2" flat washer and 1/2" lock nut.

IMPORTANT: *Do not tighten the hardware completely.*

Repeat procedure on opposite side.

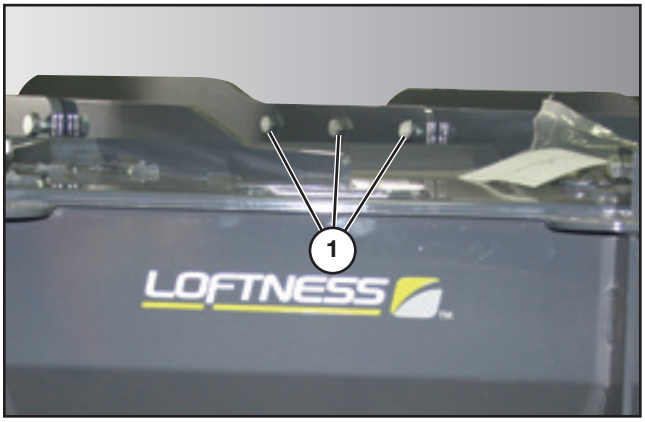
Attach the bottom mid-sections of the wing doors together with 5/8" x 1-1/2" hex bolt (10), 1/2" flat washer and 1/2" lock nut. (Left side shown.)

IMPORTANT: *Do not tighten the hardware completely.*

Repeat procedure on opposite side.

Tightening Hardware

IMPORTANT: *When assembly is complete, tighten all the hardware in the set-up procedure. Follow the instructions below as a guide.*



With all the sections and hardware assembled, level the tail and tighten the 3/4" bolts holding the tail arms to the body arms.

Next tighten the hardware connecting the wing tops to the body and the tail section.

Repeat procedure on opposite side.

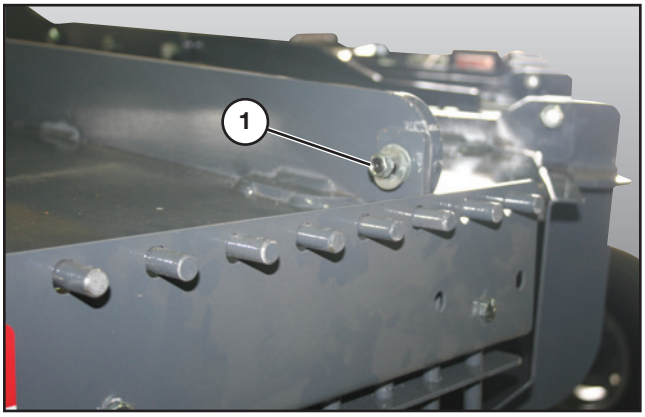
Push the wings doors underneath to minimize the gap at the top and tighten the 5/8" bolts.

Repeat procedure for all four wing door sections.

Tighten the hardware at the bottom of the wing doors.

Remove green lifting rings, 5/8" hardware, and lifting chains.

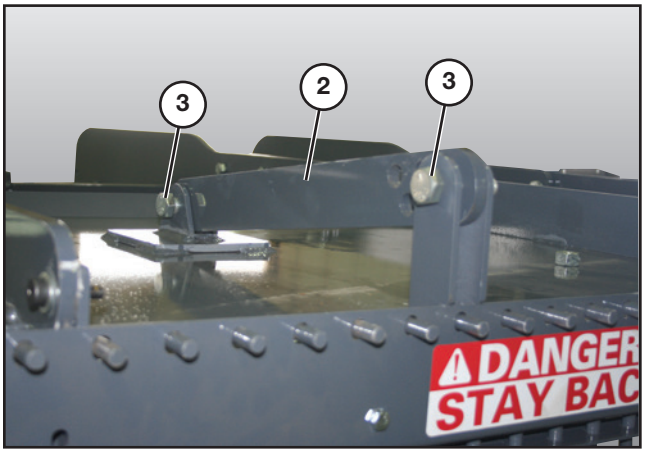
Installing Rear Deflector



Place the deflector rod assembly into position. Insert two 5/8" x 1-1/2" hex bolts (1) and 5/8" lock nuts into the lower holes on the pivot plates. (Right side shown.)

For the 20' model with transport, use the 1/2" x 1" shoulder bolt, 1/2" flat washer and 1/2" lock nut.

IMPORTANT: *Do not tighten the hardware completely.*



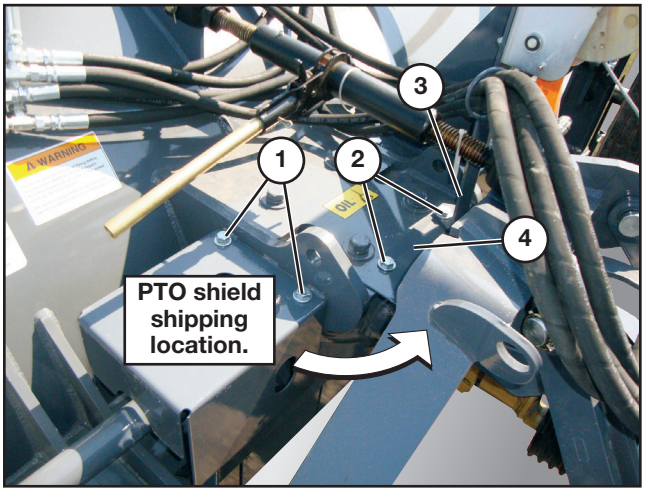
Connect deflector adjustment plate (2) to frame using 3/4" x 2-1/2" bolts, 3/4" flat washers, 3/4" lock nut (3).

For the 20' model with transport, use the 3/4" x 1-3/4" pin, 3/4" flat washer, 1/8" x 2-1/4" hairpin clip.

Adjust deflector to preferred angle and align hole on deflector to hole in adjustment plate. Connect using same size hardware as above. Tighten all hardware for the deflector rod assembly.

See “Deflector Angle Adjustment” on page 23 for instructions on raising and lowering the deflector.

PTO Shield



Move PTO shield from shipping location to operating position by removing two bolts and washers (1). Reinsert hardware back into holes to secure driveline shield.

Remove two bolts and washers (2) and hydraulic hose guide (3).

Install shield into new position (4) as shown above. Return hydraulic hose guide back into its original position on top of shield and secure with the bolts and washers.

PTO Set-up

When connecting the PTO to both the windrow shredder and tractor, it is the owner’s/operator’s responsibility to insure that the PTO length is correct and will not bottom out or become disengaged.

The PTO provided with each Loftness windrow shredder will work on most tractors without modification.

Variations in the PTO and hitch geometry on some tractors may make it necessary to adjust the length of the PTO.

Check PTO length (6" overlap minimum). Lubricate CV before initial start-up and before connecting to tractor to allow movement of tractor yoke in all directions to help distribute grease through out the moving parts. Lubricate after every 8 hours of use. Tighten PTO clamp bolts (torque to 150 ft. lbs.), then recheck after 10 minutes of operation and again after 1 hour of operation.

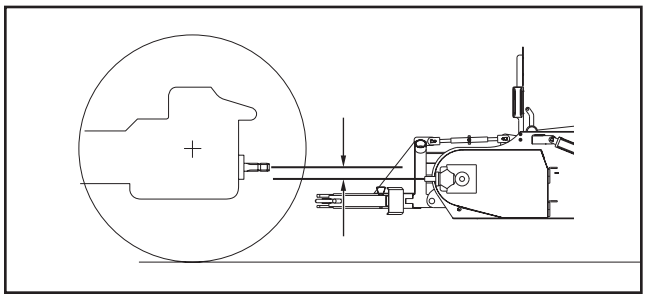
PTO Set-up (Cont'd)

PTO Attaching and Use

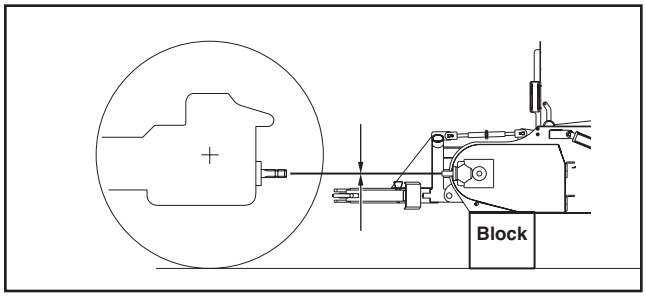
The shredder can be attached to any tractor with a PTO that conforms to ASAE-SAE standards. Do not use a windrow shredder built for 1000 RPM with a 540 RPM tractor or serious damage to the shredder could occur.

The procedures listed below are provided to assist you in obtaining the correct PTO length.

1. Attach shredder to tractor lift arms.



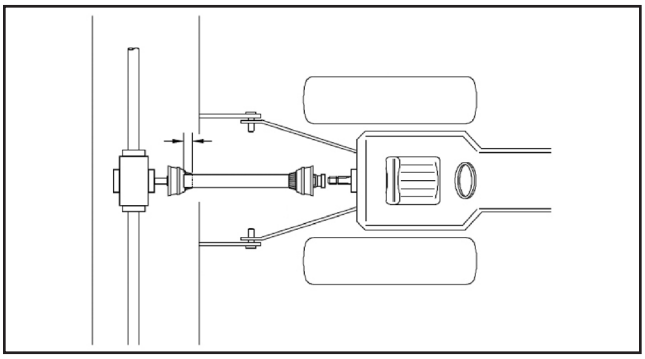
2. Adjust tractor top link until shredder gearbox input shaft is parallel with tractor input shaft as shown above.



3. Raise shredder until the gearbox input shaft is level with the tractor PTO shaft. Position blocks under the shredder to stabilize as shown above.

4. Attach PTO implement half onto the shredder gearbox.

5. Position tractor half of the PTO against the tractor's PTO shaft, but do not attach.



6. Line up both halves of the PTO so they are parallel to each other. Measure 1/2" back from the universal joint bell shield and mark on opposite half. Repeat this measuring to other half of the PTO.

7. Remove the blocks, raise and lower the shredder to determine the position which has the greatest distance between gearbox input shaft and tractor PTO shaft. Replace blocks under the shredder to stabilize when the greatest distance is determined.

8. Line up both halves of the PTO parallel to each other and measure the distance between the two marks. This measurement will indicate the overlap of the two halves. A minimum of 6" overlap must be available or the PTO cannot be used.

9. Clamp PTO in padded vise to prevent damage to shield. Cut off the shield where marked (determined in step 6).

10. Use the cut off section of shield as a guide and cut off the same amount of the shaft.

11. Repeat steps 9 and 10 to other half of PTO.

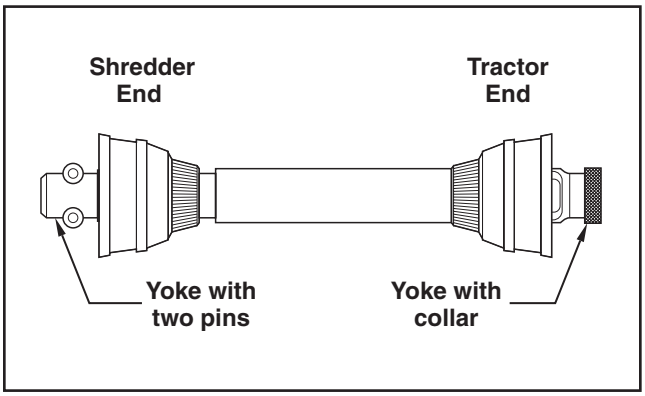
12. Deburr cut ends of PTO sections and remove all chips and filings.

13. Apply grease to male half of PTO. Assemble PTO with shields in place and install on tractor and shredder, insuring the yokes lock into place.

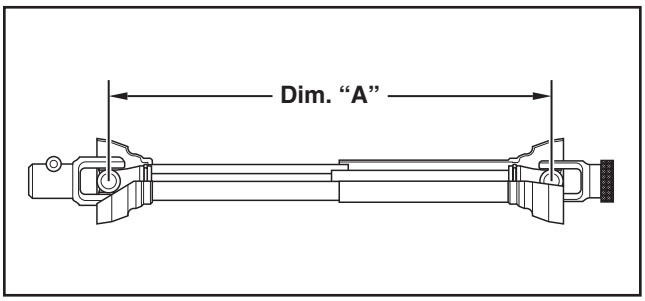
PTO Set-up (Cont'd)

PTO Sizing

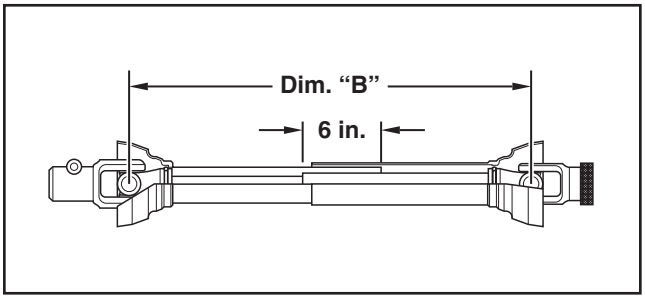
The following diagrams assist in sizing the PTO as outlined in “PTO Set-up” on page 18.



IMPORTANT: *Before operating windrow shredder, check to make sure the PTO will not bottom out or become disengaged.*

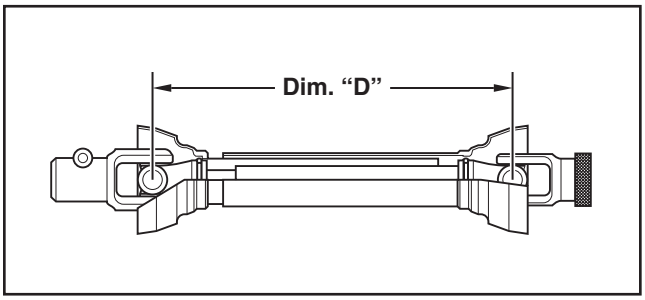


Extend the PTO until it is fully extended, but not completely separated. This will determine dimension “A”.



Subtract 5" from dimension “A” to determine dimension “B”. This will be your maximum operating length.

IMPORTANT: *Never operate equipment with the PTO extended further than dimension “B”.*



Push PTO halves together, as far as possible, to determine dimension “C”. Add 1" to this dimension for dimension “D” which will be the minimum operating length.

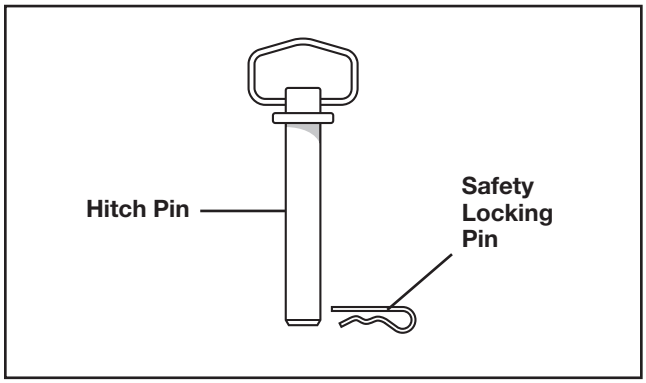
IMPORTANT: *Never operate equipment with PTO collapsed to less than dimension “D”.*

Getting Started

Pre-Start Checklist

- Grease the machine. See “Grease Point Location” on page 36 for grease point locations.
- Adjust air in tires to recommended pressure.
- Check oil level in gearbox (maintain level to the lower check plug hole on side of gearbox case). See “Adding Oil to Gearbox” on page 38 for gearbox oil information.
- Drive Belt tension – if belt needs adjustment, refer to “Belt Tension” on page 21 for instructions.
- Check all bolts, nuts and set screws for tightness.
- Review operator’s manual.

Attaching the Windrow Shredder to Tractor



IMPORTANT: *Use a safety-locking pin when connecting hitch pins.*

⚠	**DANGER:** *Failure to install a safety locking pin could result in loss of hitch pin, causing the windrow shredder to become disconnected from the tractor during operation, or in transport, which could cause serious injury, or death, to those near by.*

Jack Stands

IMPORTANT: *During operation and transport, the jack stands should be locked in their highest position.*

Belt Tension

If adjustments need to be made, see “Belt Adjustment” on page 39 for instructions.

IMPORTANT: *To avoid damage or excessive wear, always engage or disengage PTO with engine at idle speed.*

Operating Speed

Various shredding conditions require different ground speeds. Under most conditions, the tractor can be driven between 3 and 7 MPH by using lower rpm’s and shifting to a higher gear to maintain the needed ground speed without causing undue wear on the shredder.

Maintaining Rotor Balance

The rotors of the windrow shredder are factory balanced and must remain in balance during the life of the machine. Should any knives on the machine need replacing, be sure to also replace the knives directly opposite to avoid vibration and maintain the rotor balance. See “Knife Replacement” on page 42 for instructions on replacing the knives.

If a knife is not available, take the opposite one off until two new knife sets can be replaced.

⚠	**CAUTION:** *Should excessive vibration occur, disengage the tractor PTO immediately and shut off the tractor. Do not continue operation until the problem has been determined and corrected.*

⚠	**CAUTION:** *Be sure the rotors have stopped completely before checking the knives.*

The knives will pivot on the D-ring or on knife mounting bolt to avoid damage when striking stones or other obstructions. They will swing back to clear obstacles, and they will return to working position automatically.

⚠	**CAUTION:** *Repeated impact to the knives from frozen ground or other hard objects can cause excessive wear and damage to tractor or windrow shredder. Repeated impact to hard objects can cause the metal ring constraining knives to rotor to fail and release the knife from the rotor. Be sure to maintain recommended ground clearance as specified in this manual.*

Cutting Height Adjustment

The recommended minimum cutting height is 5-6". Continually cutting below this height increases the likelihood that ground scalping could occur. Frequent scalping greatly reduces windrow shredder component lifetimes. Loftness considers this pattern to be misuse, and subsequently will not be covered under warranty.

The cutting height is adjusted and controlled with the rear hydraulic cylinders.

NOTE: *Customer may need to supply cylinder stops to aid in maintaning the recommended cutting height.*

Maintaining the proper cutting height will provide a uniform crop shredding. It is also easier to begin the new round by eliminating the need to adjust the cutting height every time. The most important advantage is that it eliminates repositioning.

Another important consideration is the PTO shaft angle. For the longest PTO shaft life and minimum vibration, the tractor PTO shaft and the stub shaft on the windrow shredder need to be parallel after adjustment into the operating position. It might be necessary to remove the PTO shaft from the windrow shredder when adjusting the cutting height for a better viewpoint to get the shaft angles similar. See “Attaching the Windrow Shredder to Tractor” on page 21, and “PTO Set-up” on page 18 for more information on installing and adjusting the PTO shaft.

Turning

IMPORTANT: *The constant velocity PTO shaft can be turned with PTO engaged.*

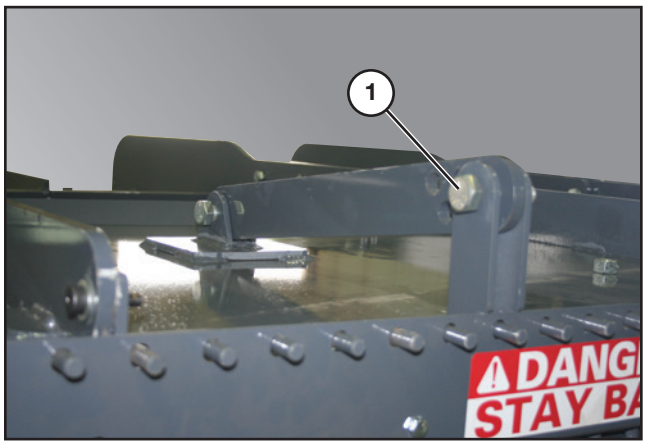
IMPORTANT: *To avoid damage or excessive wear, always engage or disengage PTO with engine at idle speed.*

⚠	**CAUTION:** *Be extremely careful not to bottom out or extend PTO shaft too far, damage to tractor or windrow shredder could occur. Be careful to avoid lifting windrow shredder too high, which results in excessive PTO shaft wear if machine is operated during turning maneuver. Do NOT use PTO adapters of any kind.*

Operating Adjustments

Check the hardware periodically, especially those securing the wings and tails, and tighten if necessary. Properly tightened hardware will make the machine rigid and less prone to wear.

Deflector Angle Adjustment



Adjustments can be made to control the windrow as it comes out of the machine. Adjusting position of bolt (1) lowers or raises the fingers on the deflector to control the material. The rod deflector is designed to get the material to the ground quickly while letting the forced air escape.

Wet, heavy material may start to plug between the rods if the angle is too steep.

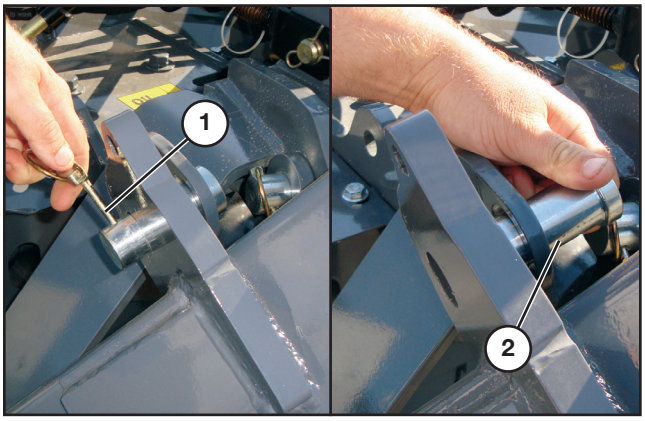
Raise the fingers for wet, heavy material.

Lower the fingers for dry, light material.

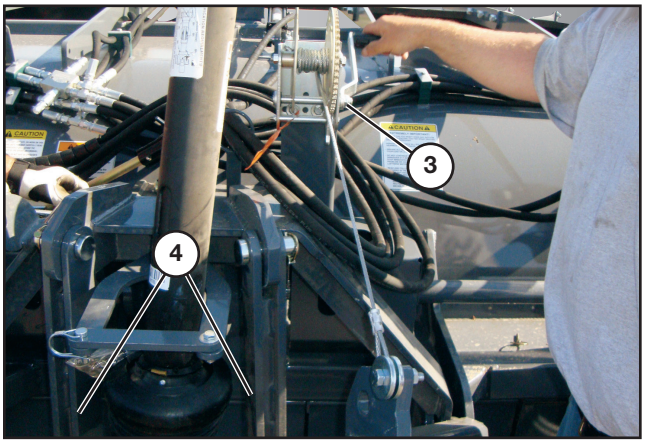
⚠	**CAUTION:** *Make sure fingers on deflector are lowered and do not extend beyond the operation wheels when transporting.*

Transport to Working Configuration Procedure

If equipped, follow this section for proper instructions to safely convert the windrow shredder from a transport configuration to a working configuration.

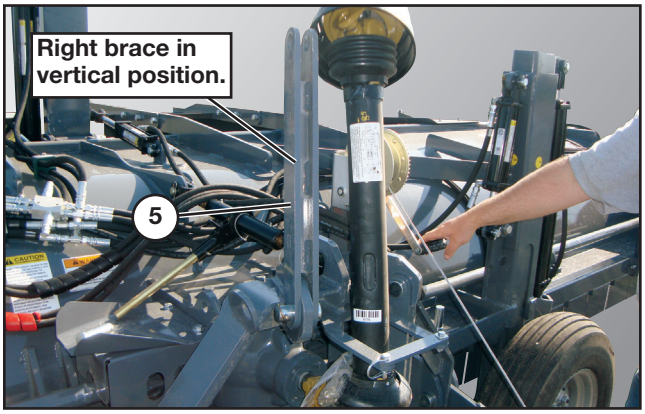


Remove the linchpin (1) and safety lock pin (2) on the operating hitch.

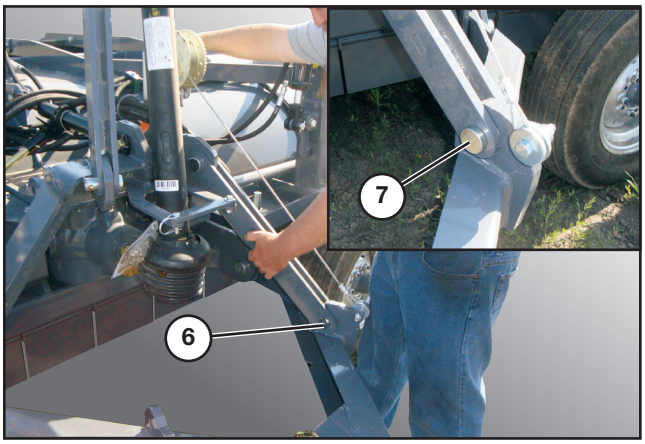


Lower the hitch using the hand winch (3) until the hitch braces (4) can rotate up and through the hitch frame.

Transport to Working Configuration Procedure (Cont'd)

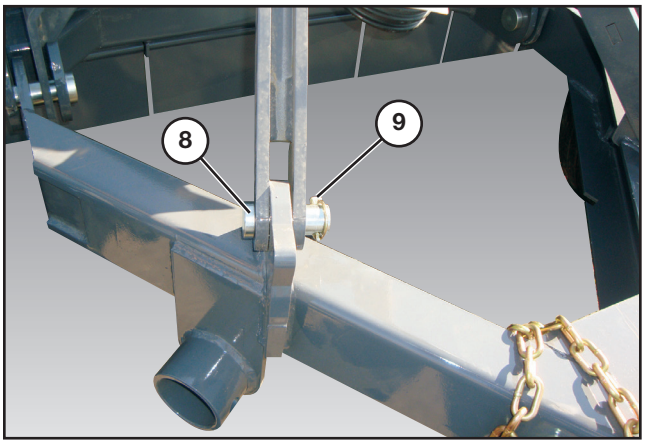


Rotate the right side hitch (5) brace to a vertical position.



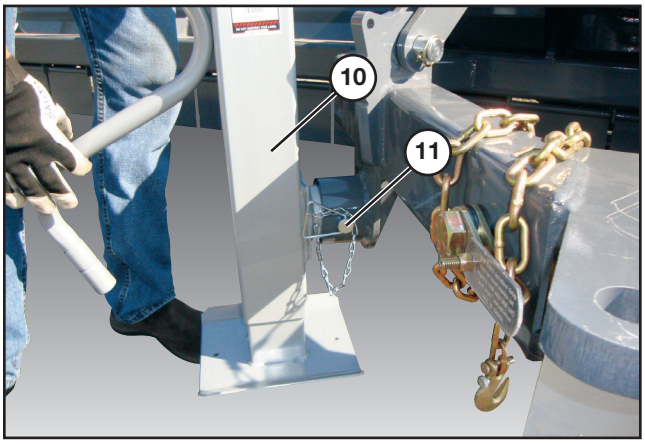
Using one hand, hold the left hitch brace while operating the hand winch to bring the hitch into alignment with the lower hole in the left brace (6).

Insert pin (7), and secure with linchpin.



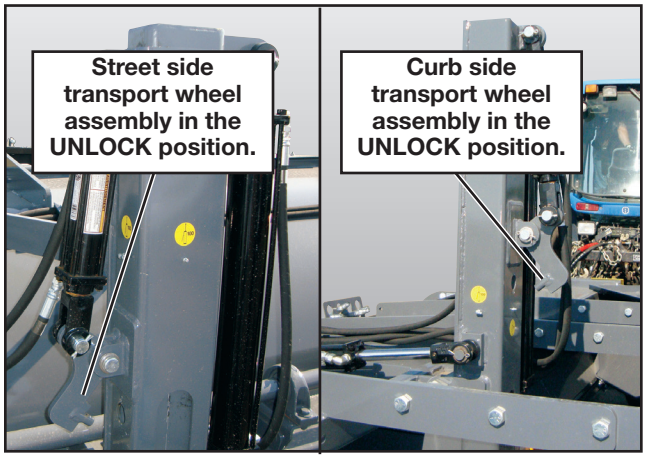
Lower right brace and align with hole in hitch. Insert pin (8) and secure with linchpin (9) as shown above.

IMPORTANT: *When complete with this step, operate the hand winch to add some slack in the operation hitch cable to allow for sharp turns.*

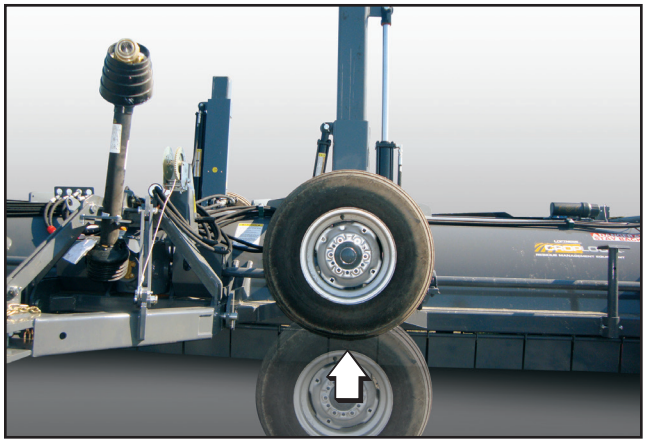


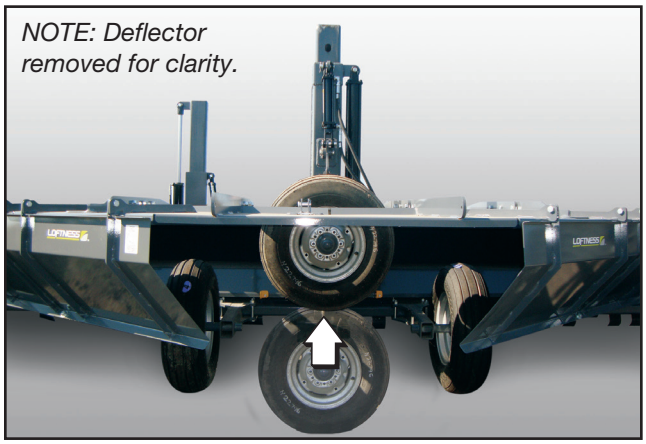
Remove operation jack (10) from storage position and install into the operating position. Secure with safety pin (11).

Transport to Working Configuration Procedure (Cont'd)

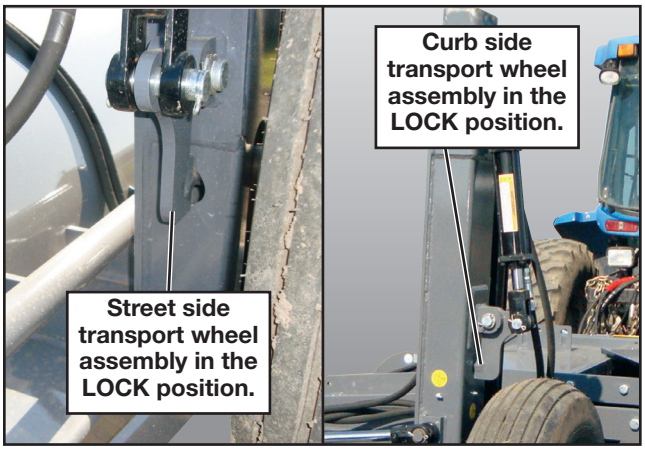


From the tractor, use the hydraulic system to simultaneously unlock the transport wheel assemblies.





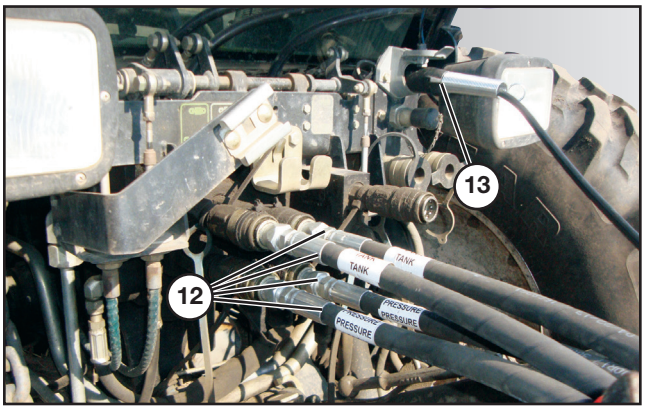
Using the hydraulics, raise the transport wheels to full height.



Hydraulically lock the transport wheel assemblies in the full up position.

Turn off the tractor and cycle hydraulic valves to remove any pressure from the hoses before unhooking them.

Dismount tractor.



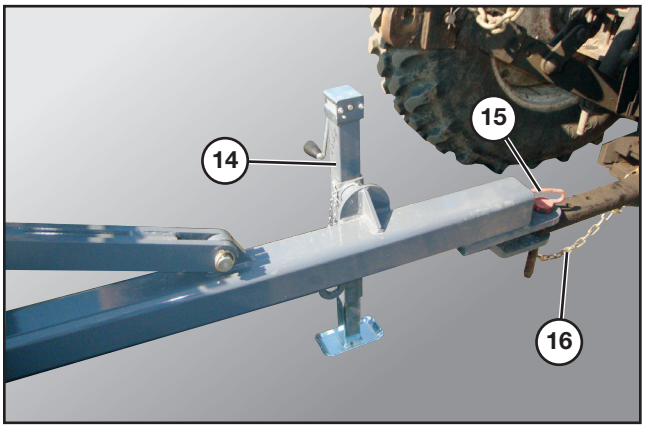
With tractor turned off, disconnect all hydraulic couplers (12) from the windrower to the tractor.

⚠	**DANGER:** *Failure to turn the tractor off before disconnecting the hydraulic lines could result in serious injury or death.*

Disconnect the electrical wiring harness for transport (13).

Transport to Working Configuration Procedure (Cont'd)

Neatly wrap hydraulic hoses and secure coupler ends into storage rack on top of shredder.



Rotate transport jack (14) into position.

Using jack, raise the transport hitch enough to remove drawbar pin (15).

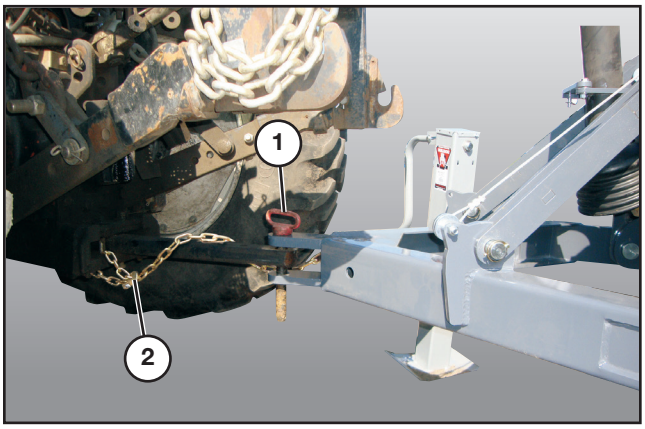
Remove safety chain (16).

Connecting to the Operation Hitch

Remount tractor and move into position to connect to operation hitch.

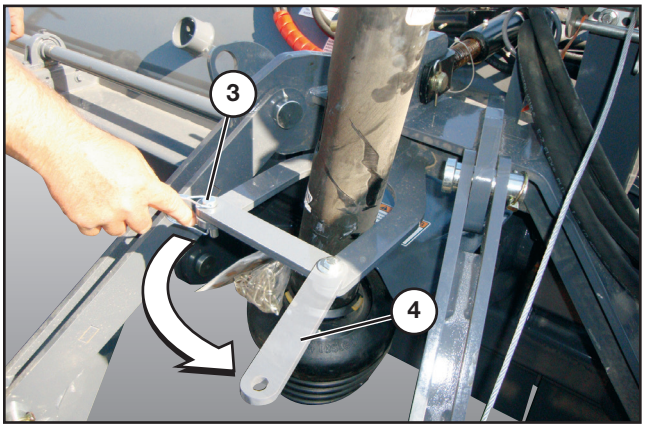
Once aligned, turn off tractor and dismount.

⚠	**DANGER:** *Failure to turn the tractor off before connecting the hydraulic lines and PTO shaft could result in serious injury or death.*



Insert drawbar pin (1), secure with safety locking pin.

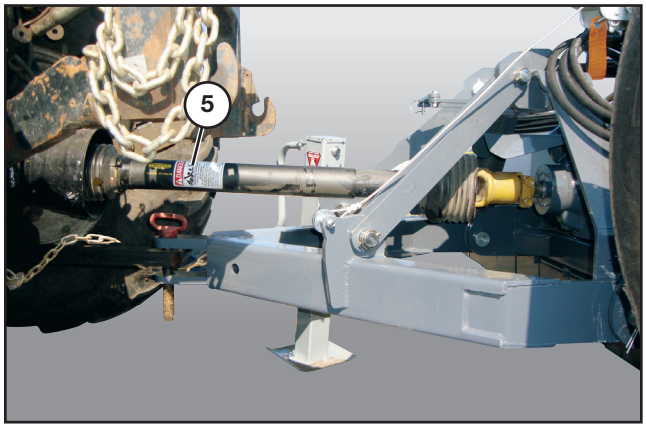
Connect safety chain (2).



Pull retaining pin (3) on PTO holder and move arm (4) out of the way to release tractor end of PTO shaft.

Return arm and retaining pin back into position.

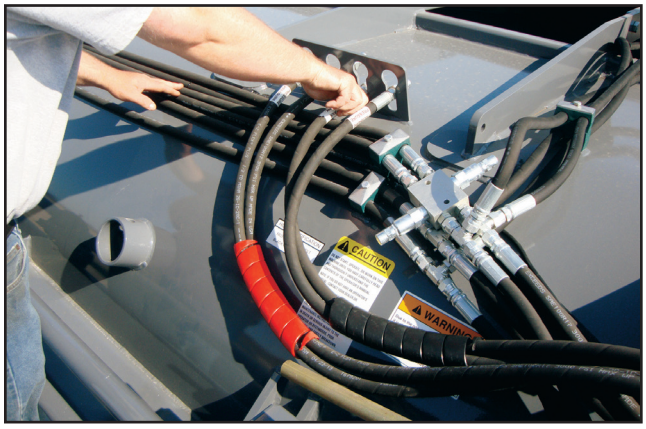
Transport to Working Configuration Procedure (Cont'd)



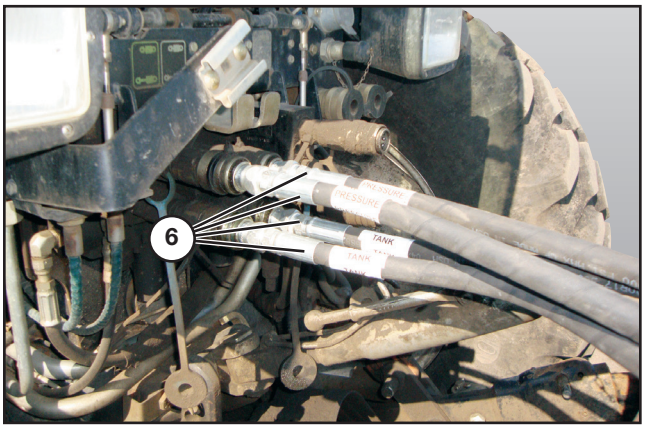
Connect PTO (5) shaft to tractor.

NOTE: *Watch length of PTO shaft. Make sure you have enough clearance to get by tractor's hitch configuration. You may need to release PTO shaft before connecting shredder to tractor.*

Refer to "PTO Set-up" on page 18 for reference on installing and adjusting PTO shaft.



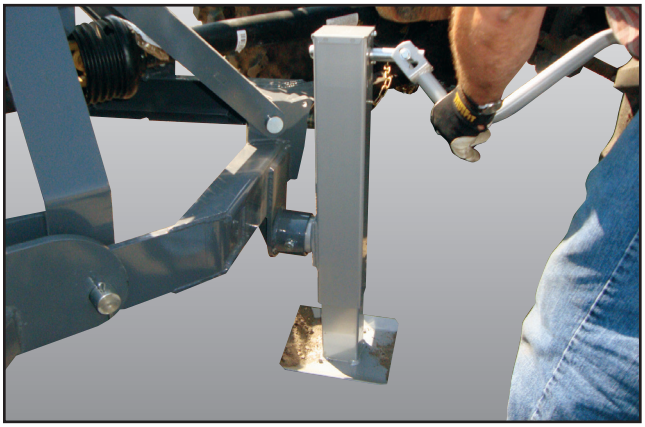
Remove coupler ends of hydraulic hoses from storage rack on top of shredder.



Connect the hydraulic hoses (6) to the tractor's hydraulic system.

NOTE: *Hydraulic hoses are labeled to indicate which coupler to connect to on the tractor's hydraulic system.*

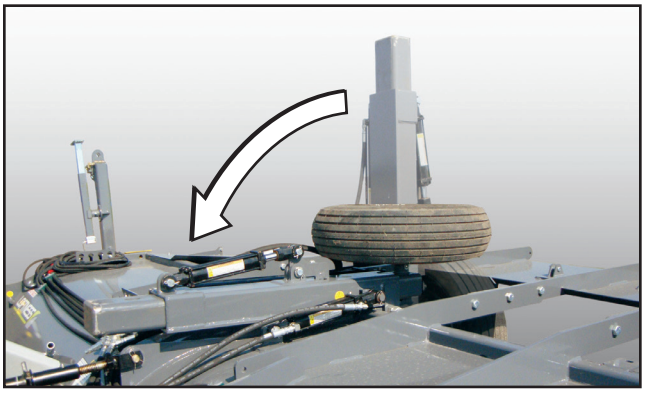
NOTE: *Make sure there is enough slack in the hydraulic hoses to allow for sharp turns.*



Retract jack and return to its storage position, securing in place with safety pin.

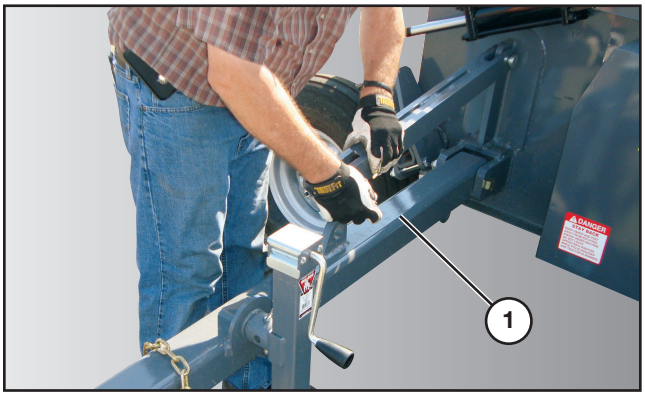
Transport to Working Configuration Procedure (Cont'd)

Remount tractor, and using the tractor's hydraulic system, raise the windrow shredder to full operating height.



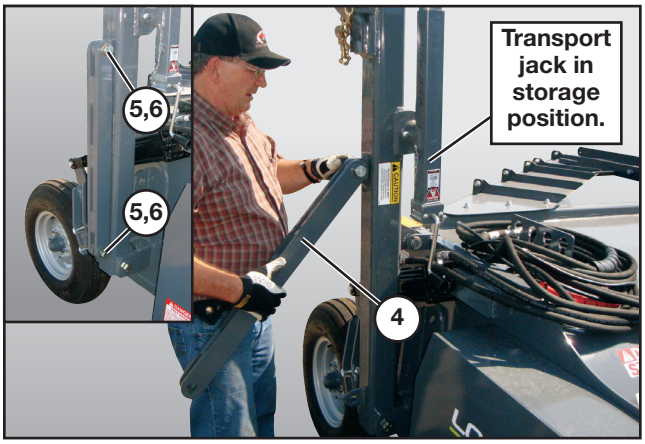
Hydraulically rotate the curb side transport wheel down into its storage position.

Folding Up Transport Hitch



Remove the transport hitch support bar (1) by removing the pins at each end. Set aside.

Rotate hitch to its vertical storage position and install pin (2). Secure with linchpin (3).



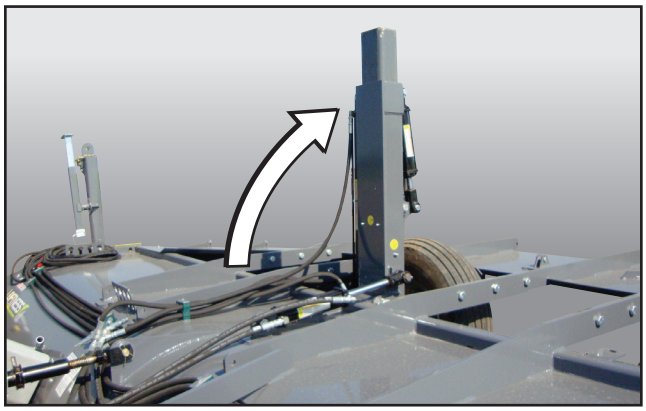
Rotate the transport jack into the storage position as shown and secure with safety pin.

Attach the support bar (4) to the bottom of the transport hitch and secure with pins (5) and linchpins (6).

Working to Transport Configuration Procedure

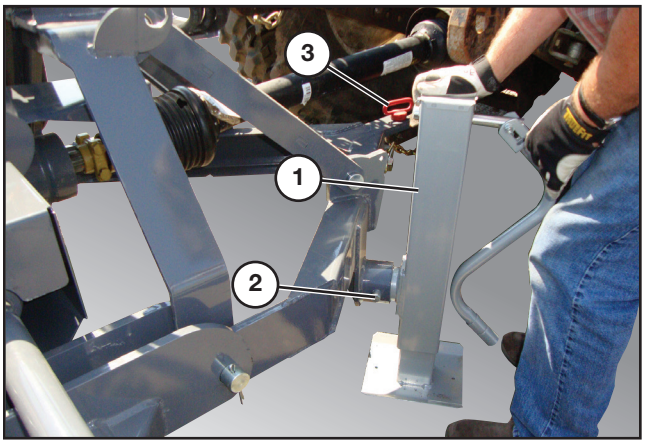
If equipped, follow this section for proper instructions to safely convert the windrow shredder from a working configuration to a transport configuration.

Using the tractors hydraulic system, lower the shredder to its lowest position.



Hydraulically rotate the curb side transport wheel into the vertical transport position.

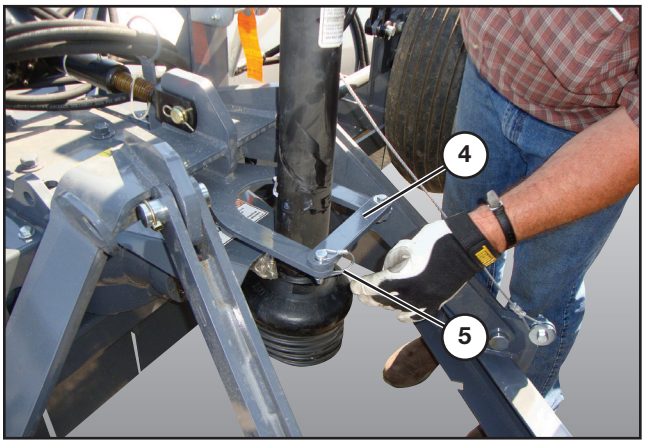
Turn off the tractor and cycle hydraulic valves to remove any pressure from the hoses.



Remove operation jack (1) from its storage position and install into the working position as shown, securing in place with safety pin (2).

Raise the operaton jack and remove drawbar pin (3).

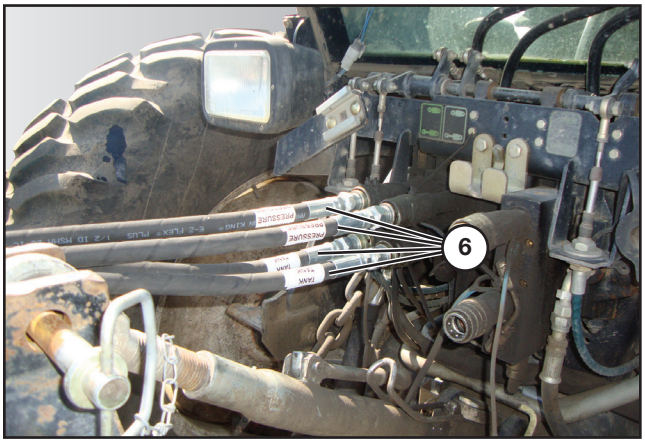
Disconnect safety chain connected to the tractor.



With tractor turned off, disconnect the PTO shaft from the tractor end and position in the PTO holder as shown. Make sure arm (4) is secured with retaining pin (5).

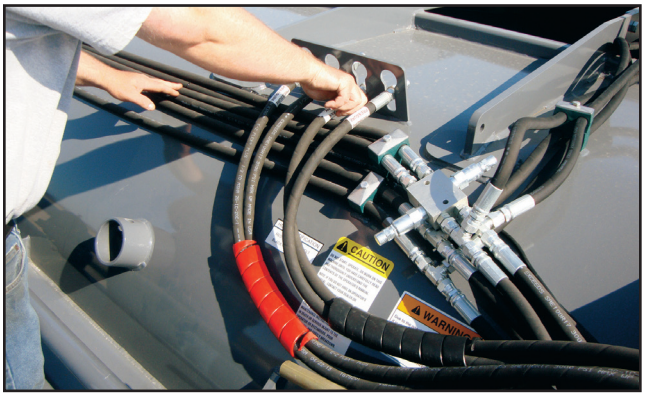
⚠	**DANGER:** *Failure to turn the tractor off before disconnecting the PTO shaft could result in serious injury or death.*

Working to Transport Configuration Procedure (Cont'd)



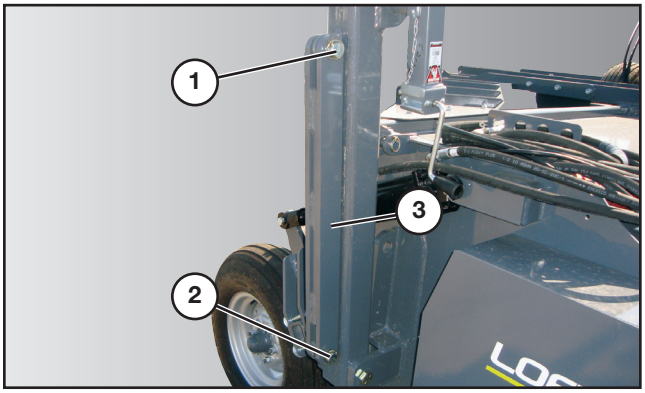
With tractor turned off, disconnect all hydraulic couplers (6) from the shredder to the tractor.

⚠	**DANGER:** *Failure to turn the tractor off before disconnecting the hydraulic lines could result in serious injury or death.*

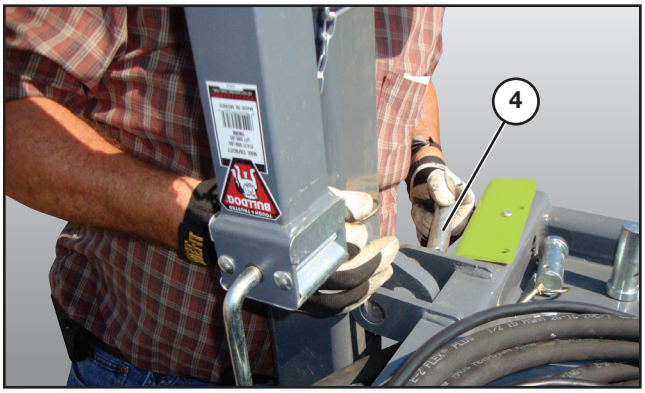


Wrap hydraulic hose neatly and make sure they are secure. Place coupler ends in the storage rack on top of shredder.

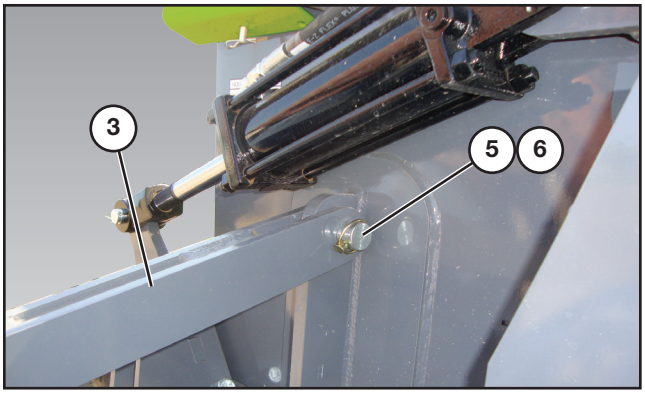
Setting Up Transport Hitch



Remove pins (1 & 2) securing the support bar (3) to the underside of the transport hitch and set the bar aside.



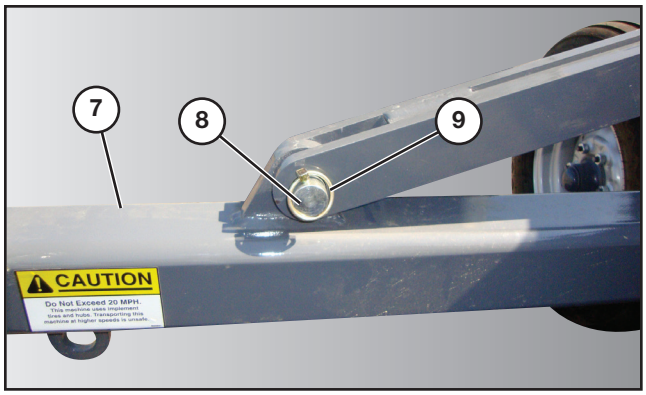
Remove the pin (4) holding the transport hitch in the upright position, then manually lower the hitch.



Connect the machine end of the support bar (3) to the shredder as shown, securing with pin and linchpin (5 & 6).

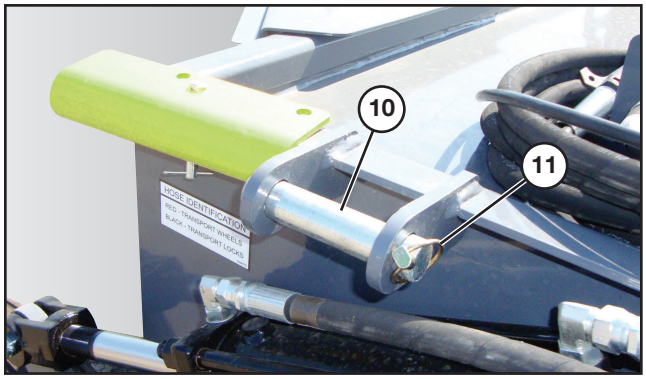
Working to Transport Configuration Procedure (Cont'd)

Setting Up Transport Hitch (Cont'd)



Lift the transport hitch (7) into position and connect the opposite end of the support bar to the hitch tongue and insert pin (8). Secure with linchpin (9).

Rotate the transport jack into working position and raise the transport hitch to tractor drawbar height.

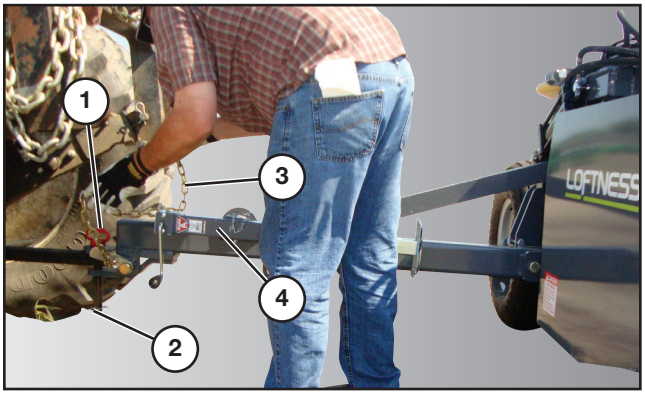


Return pin (10) used to hold transport hitch in upright position back to its storage position. Secure with linchpin (11).

Remount tractor, start, and move into position to connect to the transport hitch.

Turn tractor off and dismount.

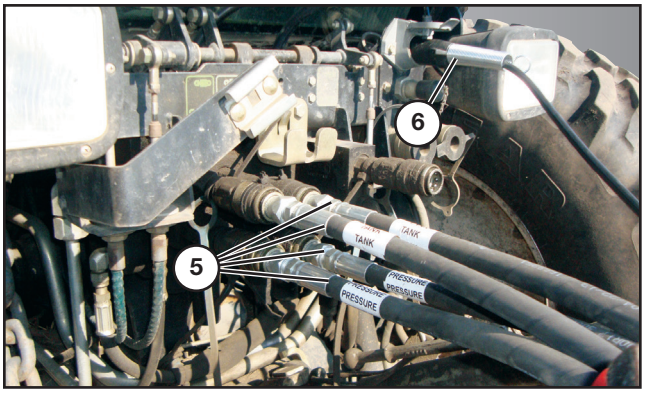
Connecting to the Transport Hitch



Insert drawbar pin (1), securing with safety locking pin (2).

Connect safety chain (3).

Retract transport jack (4) and rotate into storage position as shown.



With the tractor turned off, remove coupler end of transport hydraulic hoses from the storage rack and connect the hoses (5) to the tractor's hydraulic system.

NOTE: *Hydraulic hoses are labeled to indicate which coupler to connect to on the tractor's hydraulic system.*

NOTE: *Make sure there is enough slack in the hydraulic hoses to allow for sharp turns.*

⚠	**DANGER:** *Failure to turn the tractor off before connecting the hydraulic lines could result in serious injury or death.*

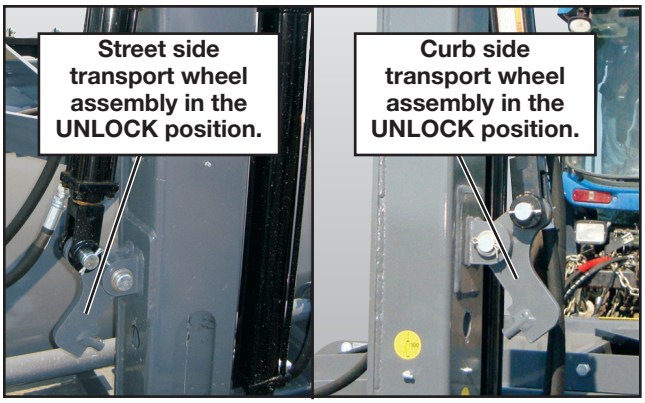
Connect the electrical wiring harness for transport (6).

Working to Transport Configuration Procedure (Cont'd)

Preparing Transport Wheels

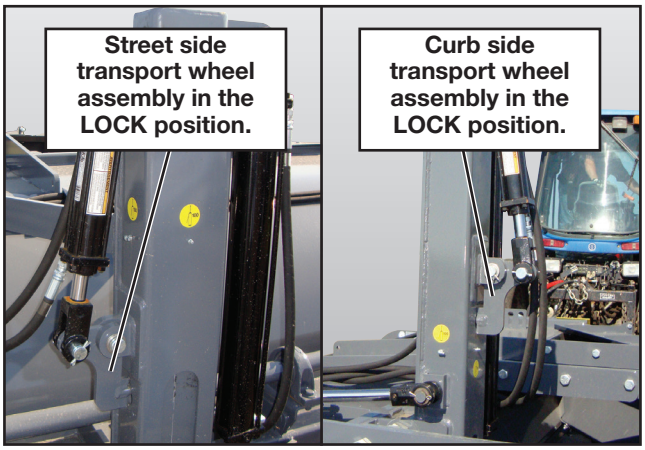
Remount and start tractor.

IMPORTANT: *Using the tractor hydraulics, make sure the transport wheels are fully retracted.*



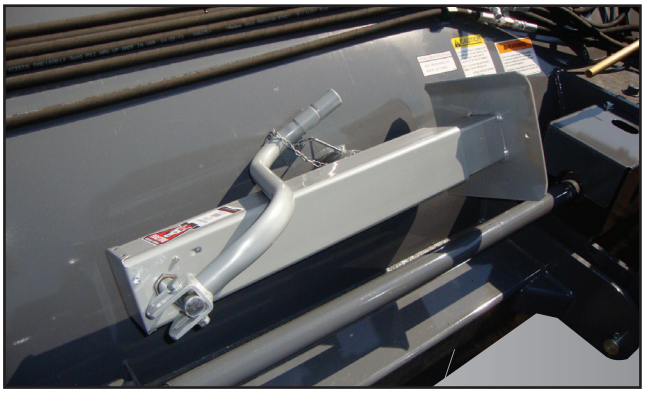
From the tractor, use the hydraulic system to simultaneously disengage the transport locks on the transport wheel assemblies.

Hydraulically lower the transport wheels so the shredder is in full transport height.

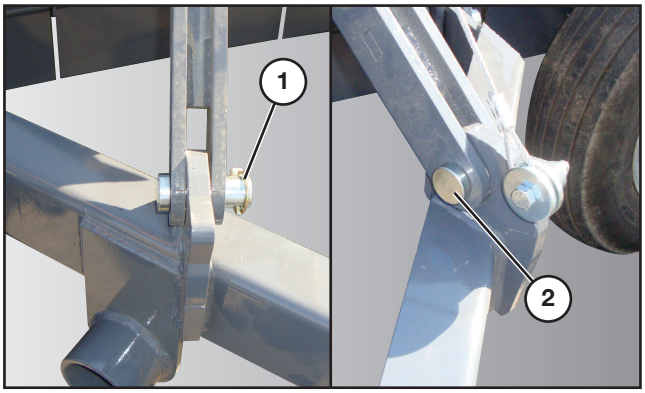


Engage the hydraulic transport locks.

Folding the Operation Hitch



Remove the operation jack from the hitch and return to its storage position, securing in place with pin and safety clip.

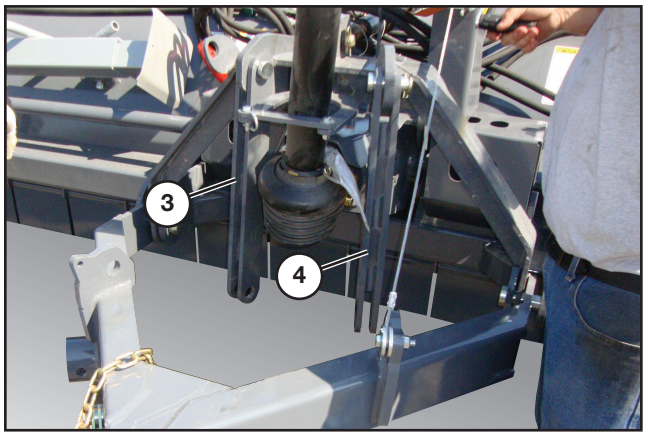


Using the hand winch on the operation hitch, adjust cable to create enough slack to allow the lower pins (1 & 2) in the braces to be removed.

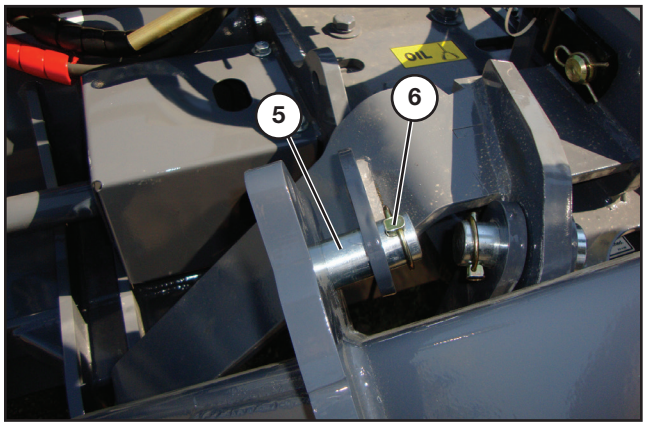
Remove the lower pins.

Working to Transport Configuration Procedure (Cont'd)

Folding the Operation Hitch (Cont'd)



With pins removed, lower the hitch with the hand winch until the braces (3 & 4) drop clear through the hitch.



Using the hand winch, raise the hitch up to the storage position. Use a brace pin (5) and linchpin (6) to secure into position.

Transporting

Obey these safety instructions before transporting the windrow shredder on public roads.

⚠	**CAUTION:** *Do not exceed 20 mph when transporting the shredder.*

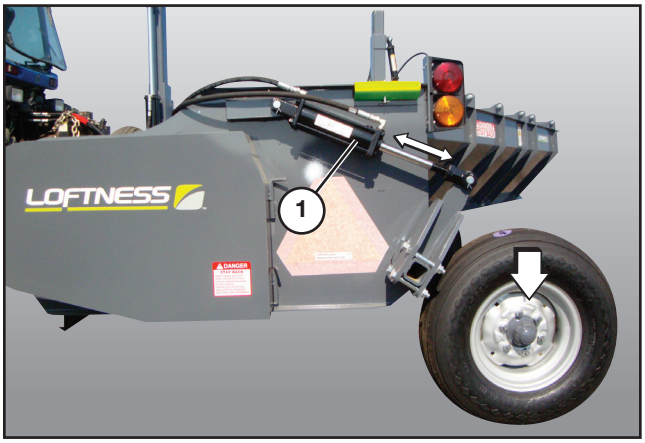
⚠	**CAUTION:** *Verify warning lights are properly operating before transporting the shredder on public roads. Make sure "Slow Moving Vehicle" decal is visible.*

⚠	**CAUTION:** *Verify all jacks have been returned to their storage positions and the jack stands are raised and locked in their highest position before transport.*

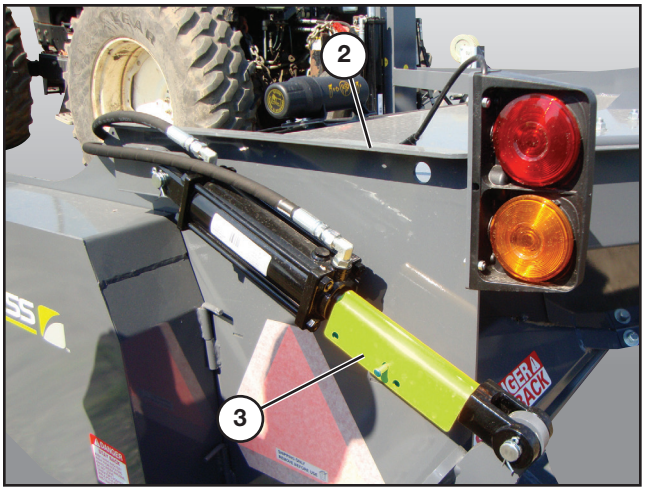
⚠	**DANGER:** *Verify the* ***operation hitch*** *is secure and cannot drop during transport. Failure to secure could result in serious injury, or death, to other drivers on the road.*

⚠	**DANGER:** *Make sure fingers on deflector are lowered. Refer to "Deflector Angle Adjustment" on page 23 for instructions.*

Transporting Windrow Crop Shredder in the Working Configuration



When transporting the shredder short distances in its working configuration, rear operation wheels must be lowered so the windrow shredder is at its highest position. At this point the rear wheel lift cylinders (1) will be fully extended.



Remove each green cylinder stop from its storage position (2) above the lift cylinder. Attach cylinder stop (3) to each of the rear wheel lift cylinders. Secure with pin and retaining clip.

NOTE: *Only left side shown cylinder shown.*

IMPORTANT: *Failure to install the cylinder locks when transporting the shredder in the working configuration could result in major damage to the cylinder and the windrow shredder.*

⚠	**CAUTION:** *Verify warning lights are properly operating before transporting the windrow shredder on public roads. Make sure "Slow Moving Vehicle" decal is visible.*

⚠	**CAUTION:** *Verify all jacks have been returned to their storage positions and the jack stands are raised and locked in their highest position before transport.*

General Maintenance

To ensure efficient operation, you should inspect, lubricate, and make necessary adjustments and repairs at regular intervals. Parts that are starting to show wear should be ordered ahead of time, before a costly breakdown occurs and you have to wait for replacement parts. Keep good maintenance records, and adequately clean your windrow shredder after each use.

Maintenance of any type on equipment is dangerous when the machine is running.

⚠	**DANGER:** *Always shut-down all equipment prior to cleaning, adjusting, lubricating or performing service of any kind. Review and become familiar with the mandatory shutdown procedure before attempting any service work. See "Mandatory Shut-Down Procedure" on page 5 for shutdown instructions.*

When reassembling components, always use new lock nuts and a thread-locking compound to insure against vibration loosening. Use an anti-seize compound on all bearing/shaft contacts.

Maintenance Schedule

HOURS	SERVICE POINTS	SERVICE REQUIRED					
		CHECK	CLEAN	CHANGE	GREASE	ADJUST	OIL
Every 8	Machine		X				
	Loose Bolts					X	
	Hoses and Wiring	X					
	Oil Leaks	X					
	Rotor Bearings				X		
	Knives	X					
	Belt Tensioner				X		
	PTO CV Shaft	X			X		
Every 25	Telescoping PTO Tube	X			X		
	Line Shaft U-Joints	X			X		
	Line Shaft Bearings	X			X		
Every 50	PTO Overrunning Clutch	X			X		
	Wheel Lift Tubes	X			X		
	Drive Belt Tension	X					
	Drive Belt	X					
	Safety Labels	X					
Every 100	Wheel Bearings	X			X		
	Gearbox (w/oil change)	X					X

Lubrication

Proper lubrication is important. Too little lubricant will cause premature failure of a bearings. Too much lubrication usually causes high operating temperature and early failure of seals. Follow all lubrication instructions and schedules included in this section.

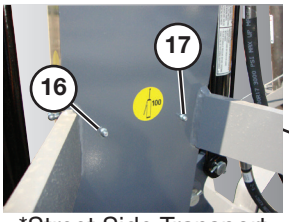
The operation and component lifetimes of this machine are very dependent on regular and proper lubrication. The frequency of lubrication recommended is based on normal conditions. Severe or unusual conditions may determine actual service requirements.

Replace any broken or missing grease fittings. Be sure to clean fitting before greasing.

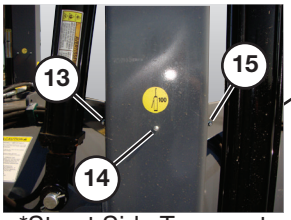
Grease Point Location

20' Model with Transport shown.

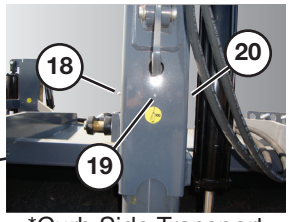
** Only on 20' Model with Transport.*



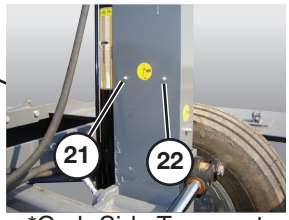
*Street Side Transport
Wheel Tube (back)



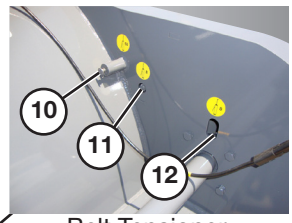
*Street Side Transport
Wheel Tube (front/sides)



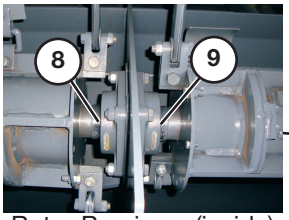
*Curb Side Transport
Wheel Tube (front/sides)



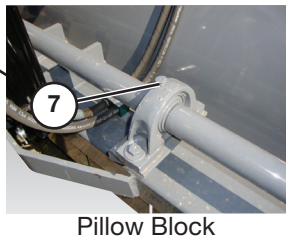
*Curb Side Transport
Wheel Tube (back)



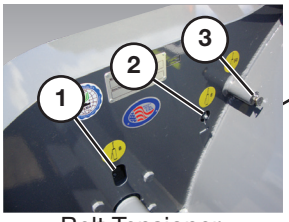
Belt Tensioner,
Rotor Bearing,
Line Shaft Bearing, left



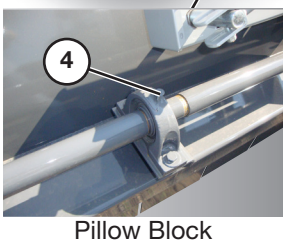
Rotor Bearings, (inside)



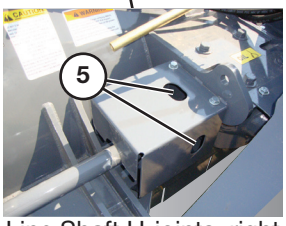
Pillow Block
Bearing, left



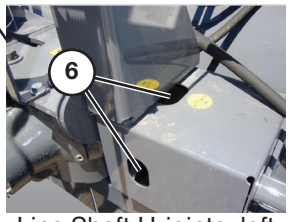
Belt Tensioner,
Rotor Bearing,
Line Shaft Bearing, right



Pillow Block
Bearing, right



Line Shaft U-joints, right

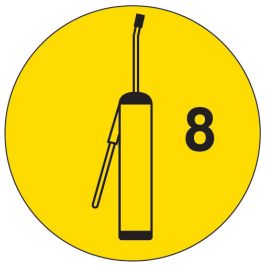


Line Shaft U-joints, left

Grease Points Location (Cont'd)

Use a #2 general purpose lithium based grease unless noted otherwise.

NOTE: *Replace any broken or missing grease fittings. Be sure to clean fittings before greasing.*



NOTE: *Lubricate the grease point every "X" hours indicated on the decal adjacent to the grease point.*

WARNING: *Do not lubricate parts while the machine is running.*

Numbers below after "Location" correspond to grease point locations on opposite page.

See page 8 for component location and identification.

- **Line Shaft Grease Fittings**

  Location: (1, 20) - Located on the left and right ends of the windrow shredder, behind the belt shields. Lubricate the fitting through the opening in the frame.

  Interval: Every 8 hours of operation.

- **Rotor Bearing Grease Fittings**

  Location: (2, 8, 9, 11) - Located on the left and right ends of the windrow shredder, behind the belt shields. Lubricate the fitting through the opening in the frame.
  There are also two fittings on the rotor bearings located between the two rotors. Access the fittings from underneath the windrow shredder near operation hitch.

NOTE: *Rotor bearings cannot be damaged by overgreasing. Grease fittings until a small amount of grease is purged from the bearing.*

Interval: Every 8 hours of operation.

- **Belt Tensioner Grease Fittings**

  Location: (3, 10) - Located on the left and right ends of the windrow shredder, behind the belt shields. Fitting located on end of protruding shaft.

NOTE: *Remove the belt cover when lubricating the fitting. Visually inspect the idler pulley components while lubricating. Do Not over lubricate the idler tensioner shaft.*

NOTE: *Over lubricating may be transferred to the belt, causing the belt to slip, resulting in loss of rotor RPM speed and loss of power to the rotor*

Interval: Every 50 hours of operation.

- **Pillow Block Grease Fittings**

  Location: (4, 7) - Located on line shaft between the gearbox and the end plates.

  Interval: Every 8 hours of operation.

- **Line Shaft U-joint Grease Fittings**

  Location: (5, 6) - Located on the U-joints on each side of the gearbox. Access via holes on top or side of gearbox/line shaft shields.

  Interval: Every 8 hours of operation.

- **Street Side Transport Wheel Tube Fittings**

  Location: (13 - 17) - Five fittings located on the tube for the street side transport wheel assembly.

  Interval: Every 100 hours of operation.

- **Curb Side Transport Wheel Tube Fittings**

  Location: (18 - 22) - Five fittings located on the tube for the street side transport wheel assembly.

  Interval: Every 100 hours of operation.

Grease Points Location (Cont'd)

- **Standard PTO CV Shaft Grease Fittings**

  Location: (not shown) - Three U-joints and two additional fittings located under the bell housing.

  Interval: Every 8 hours of operation.

- **Telescoping PTO Tube Grease Fittings**

  Location: (not shown) - One located by lining up the hole in the PTO guard with grease zerk.

  Interval: Every 25 hours of operation.

- **PTO Overrunning Clutch Grease Fittings**

  Location: (not shown) - Fitting located near U-joint yoke.

  Interval: Every 50 hours of operation.

Other Lubrications Points

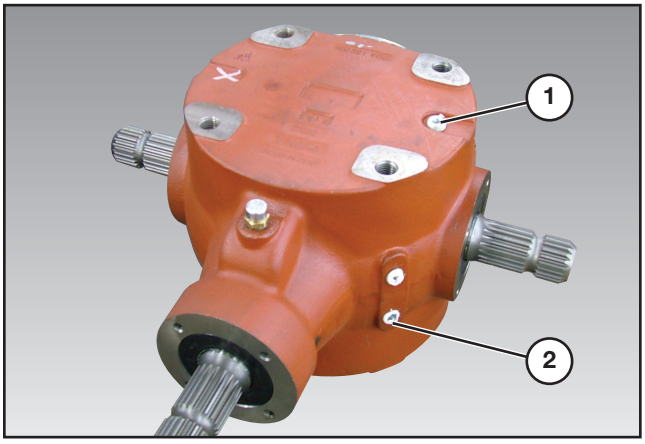
- **Wheel Bearings**

  Location: (not shown) - All wheel bearings.

NOTE: *Grease and re-pack.*

Interval: Annually.

Adding Oil to Gearbox



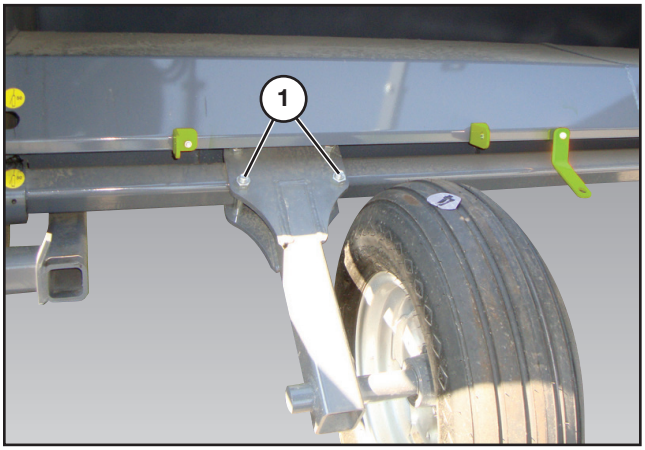
Remove the plug from the upper port (1), and the plug from the lower port (2).

Using a funnel, add a 80W-90 gear oil into the upper port until it runs out through the bottom port. Reinsert the plug back into the lower port and tighten.

Return the remaining plug back into the upper port and tighten.

Wheel Spacing Adjustment

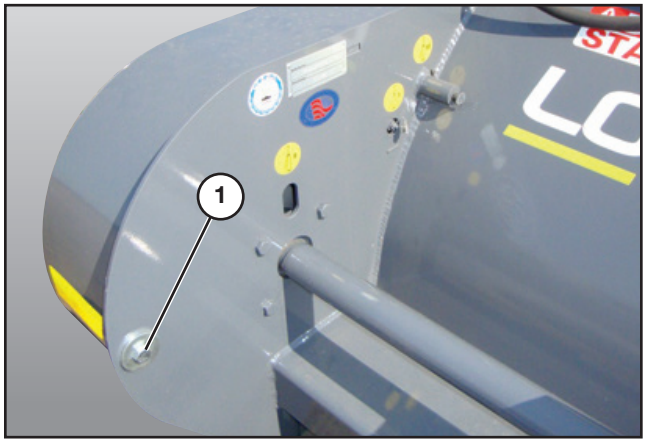
To obtain the best results from the shredder, wheel spacing should conform to crop row spacing. To adjust wheel spacing, raise shredder and install blocks under shredder end plates.



Loosen wheel strut clamping bolts (1) and adjust wheels to desired spacing.

NOTE: *The center plate of shredder should ride in center between crop rows.*

Belt Shields



To open the belt shields, remove bolt (1) and washer securing the belt shield to the frame.

Remove the two bolts (2) and washers to free the belt shield. Lift the shield up and off of the frame using the two handles (3). This will expose the belt drive components.

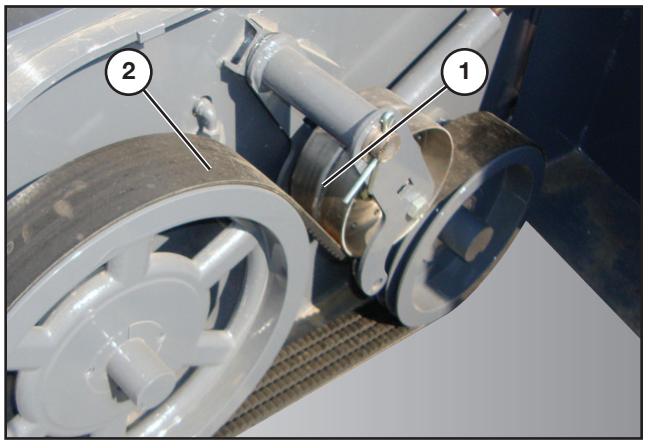
Belt Adjustment

NOTE: *Refer to "4-Band Drive" on page 56 for parts breakdown and assembly of belt drive components.*

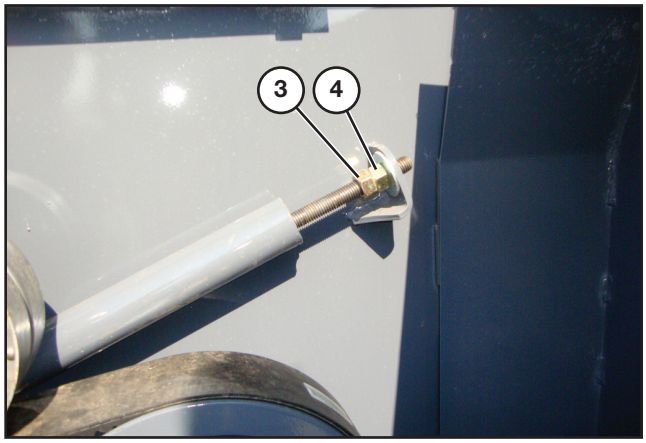
Turn off all power to the windrow shredder.

⚠	**DANGER:** *Failure to turn off power to the windrow shredder before adjusting the belt drive could result in serious injury or death.*

Open belt shield. See "Belt Shields" on page 39 for instructions on opening the belt shield.



Check belt idler (1) position to insure it is centered on the belt (2).



Loosen the jam nut (3).

Turn the hex nut (4) next to the adjustment bracket clockwise until the washer on the spring base is recessed into the tightener tube. Tighten jam nut (3) to lock.

Rotate the pulleys manually in the direction of normal machine rotation to check alignment of idler on the belt. Adjust if necessary.

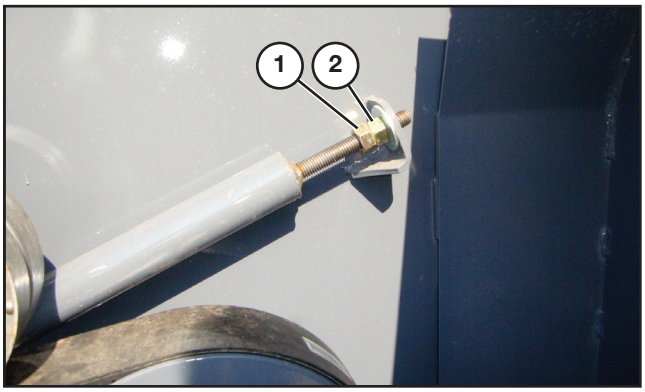
Belt Replacement

NOTE: *Refer to "4-Band Drive" on page 56 for parts breakdown and assembly of belt drive components.*

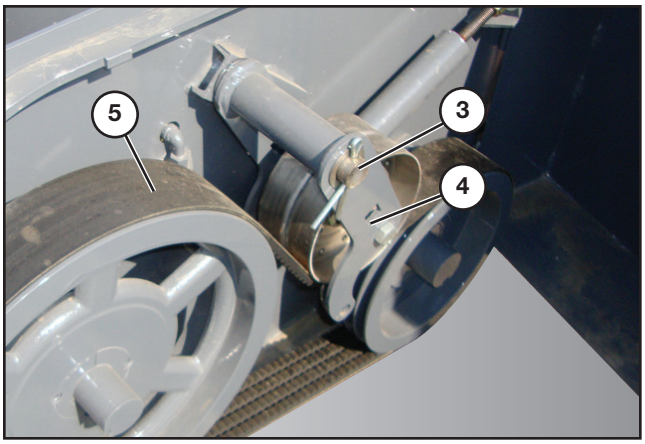
Turn off all power to the windrow shredder.

⚠	**DANGER:** *Failure to turn off power to the windrow shredder before replacing the belt could result in serious injury or death.*

Open belt shield. See "Belt Shields" on page 39 for instructions on opening the belt shield.



Loosen jam nuts (1 & 2) on the belt tightener which will release the tension from the belt.



Remove the pin (3) connecting the idler arm (4) on the tightener bracket to the belt tightener, then remove the belt (5).

Replace with new belt.

Reinsert idler arm and pin. Tighten jam nuts.

Sheave and Pulley Removal

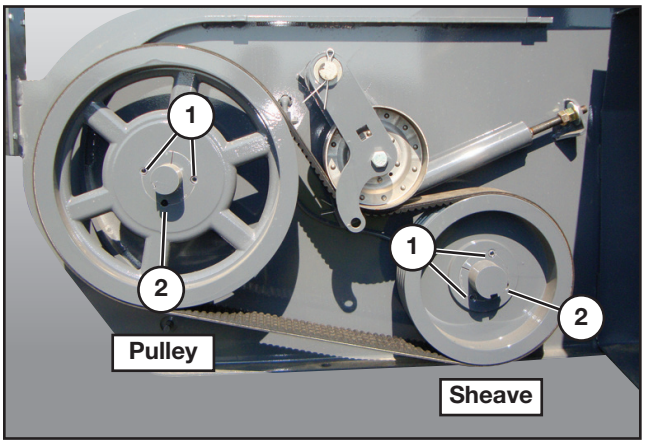
NOTE: *Refer to "4-Band Drive" on page 56 for parts breakdown and assembly of belt drive components.*

Turn off all power to the windrow shredder.

⚠	**DANGER:** *Failure to turn off power to the windrow shredder before removing the pulleys could result in serious injury or death.*

Open belt shield. See "Belt Shields" on page 39 for instructions on opening the belt shield.

Remove the idler arm and drive belt, following the instructions in "Belt Replacement" on page 40.



Remove the taper lock bushing set screws (1).

Insert set screw into threaded hole (2).

Tighten screw until bushing grip is released. If excessively tight, lightly hammer face of pulley using drift or sleeve.

IMPORTANT: *Never hit pulley directly with hammer.*

⚠	**CAUTION:** *Excessive or uneven pressure on set screws may damage the bushing, making removal difficult or possibly damaging the sheave.*

⚠	**CAUTION:** *Excessive screw torque may cause damage to the bushing or sheave. Recommended torque is 35 ft/lbs.*

Pulley Assembly

Clean shaft, bore of bushing, outside of bushing and hub bore of all oil, paint and dirt. File away any burrs

Insert bushing in hub. Match the hole pattern, not threaded holes (each complete hole will be threaded on one side only).

Apply a thread-locking compound to setscrews and thread into the two opposing holes.

Position assembly on shaft and alternately torque set screws to 35 ft. lbs.

To increase gripping force, hammer face of bushing using drift or sleeve.

IMPORTANT: *Never hit bushing directly with hammer.*

Re-torque screws after hammering.

Recheck screw torque after initial run-in, and periodically thereafter. If loose, hammer face of bushing and re-torque screws again and recheck screw torque.

Check alignment of the pulleys. Repeat pulley removal and assembly procedures if necessary.

Install belt. See “Belt Replacement” on page 40 for reference.

Rotor Removal

This service section is written as if the windrow shredder is upside down. If procedure is done with machine in operating position, movable jacks will be needed to support and move the rotors. The first rotor removed must be the last rotor installed. The center bearing with the bolts started through it, must be on the last rotor removed (first rotor installed).

NOTE: *Refer to “Rotors and Knives” on page 58 and “4-Band Drive” on page 56 for parts breakdown and assembly of rotor components.*

Turn off all power to the windrow shredder.

⚠	**DANGER:** *Failure to turn off power to the windrow shredder before removing the rotors could result in serious injury or death.*

1. Apply an appropriate supporting mechanism to both rotors. (Chains and hoist)
2. Loosen the set screws on bearing lock collars.
3. Loosen and remove the outer bearing from the shaft of the first rotor to be removed.
4. Remove the four nuts from the bolts holding the two center bearings to the center plate. (The rotor on the side of the removed nuts is the first to be removed from the machine).
5. Slide the rotor outward away from center plate. (This step might require the removal of the stripper bolts located on the outside balancing ring. Make note of which hole the stripper bolts are removed from and replace in the same holes to insure proper balance.
6. Slide the four inner bearing bolts outward until the center bearing on the first rotor is free. Be careful not to slide them too far out or the second rotor might fall free prematurely.
7. Remove rotor from the machine by lifting inner end of rotor first to clear center plate and then sliding outer shaft in through end plate.
8. To remove inner rotor bearing, loosen and remove flat head cap screw, star washer and retaining washer. Slide bearing off shaft. Remove collar.

Repeat steps 3 through 8 for the opposite rotor.

Rotor Assembly

1. Slide bearing spacer on shorter shaft of the rotor. (Shaft with 1/2 in. [1.27 cm] tapped hole in center).
2. Install roll pin into end of shaft.
3. Insert the four bolts through the bearing housing and then slide it completely on the shaft.
4. Apply thread-locking compound to flat head screw. Slide through washers and install into threaded hole in shaft. Torque to 75 ft lbs.

NOTE: *To determine left and right rotor, install so that the bolt head on the knife U-clamp faces the front of the machine.*

5. Insert four outer bearing bolts into end plate with the heads of the bolts inside the rotor cavity (nuts will be inside belt housing).
6. Install rotor by inserting the outer end (long shaft) into the bearing hole of the end plate.

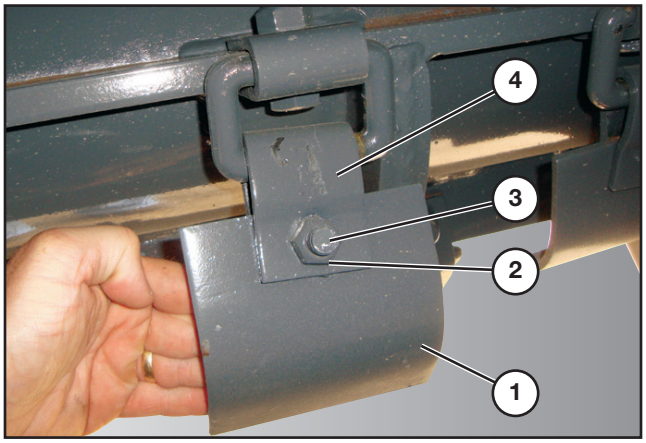
Rotor Assembly (Cont'd)

7. Align the four bearing bolts with the center plate holes and insert the bolts so that they protrude about 1/4 in. (.635 cm) through opposite side of plate. To allow for easier future greasing, point the grease fitting toward the rear of the machine.
8. Repeat steps 1-5 (without the four bolts through the bearing) on the second rotor.
9. Align the holes in bearing and push center bolts completely through both bearings and center plate. Install new locking nuts but do not torque.
10. Install outer bearings onto shafts (grease fitting to point up when machine is in operating position) and tighten new lock nuts to 170 ft. lbs.
11. While supporting the rotor at the center plate, tighten the bearing bolts to 170 ft lbs.
12. Apply a thread locking compound and tighten the set screws.
13. Replace stripper bolts directly across from each other to maintain proper rotor balance.

Knife Replacement

Turn off all power to the windrow shredder.

⚠	**DANGER:** *Failure to turn off power to the windrow shredder before replacing knives could result in serious injury or death.*



To replace a knife (1), remove lock nut (2) and bolt (3). Remove knife from u-bar (4).

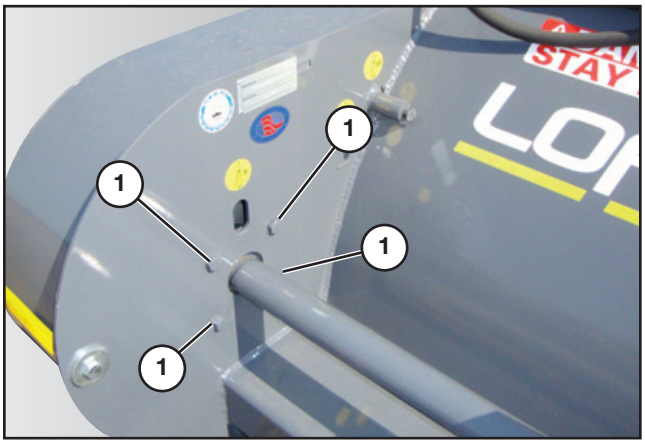
IMPORTANT: *The rotors of the windrow shredder are factory balanced and must remain in balance during the life of the machine. Should any knives on the machine need replacing, be sure to also replace the knives directly opposite to avoid vibration and maintain the rotor balance. If a knife is not available, take the opposite one off until two new knife sets can be replaced.*

Gearbox Repair

Repairs to the gearbox by the customer will be limited to the replacing of the cross or pinion shaft seals. See “Gearbox, 1450 RPM Bondioli (N13950)” on page 62 for parts breakdown. These seals can be removed and replaced by using a screwdriver or similar instrument without opening the gearbox. If the machine is still under warranty, do not attempt to repair the gearbox as unauthorized repairs will void the warranty. All warranty repairs should be done through your Authorized Loftness Dealer. Contact your dealer or the Loftness factory for specific details concerning the gearbox warranty.

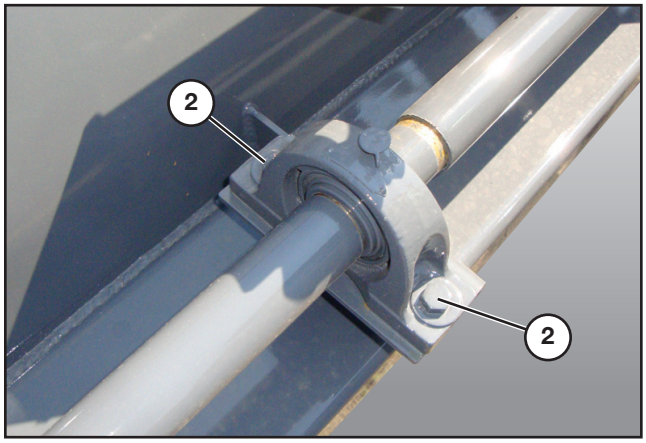
Gearbox Removal

Remove the drive belt. Follow instructions in “Belt Replacement” on page 40 up until the point where the drive belt is removed.

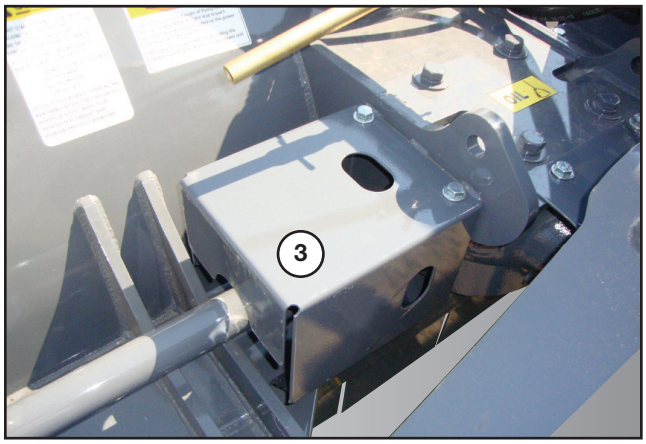


Remove the bolts (1) with washers securing the line-shaft bearing located behind the large pulley.

Gearbox Removal (Cont'd)



Remove the bolts (2) securing the pillow block bearing supporting the line-shaft.

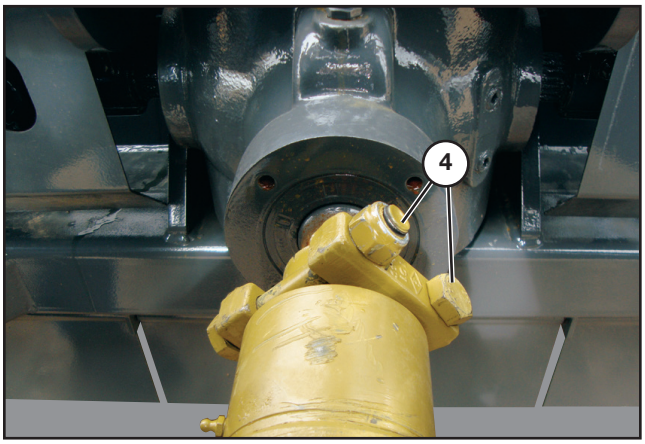


Remove driveline shield (3).

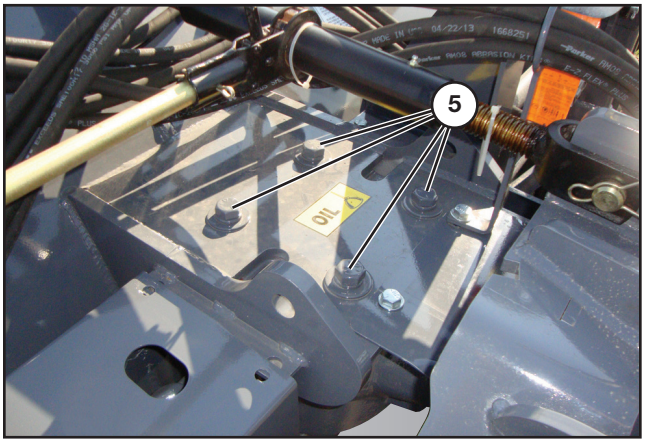
Loosen and remove the clamp bolts securing the U-joint to the gearbox shaft.

Slide the line-shaft outward until the U-joint is free of the shaft.

Repeat steps to remove opposite side line-shaft.



Remove PTO shaft by loosening and removing the clamp bolts (4). Then slide it off the shaft.



Remove the four bolts (5) with lock washers and washers securing the gearbox to the frame.

Maintenance

Storage

End of the Season

- Clean entire windrow shredder thoroughly.
- Paint all parts that are worn.
- Lubricate all parts of the machine
- Block up the frame of the windrow shredder, DO NOT deflate the tires.
- Store windrow shredder in a dry area.
- Review your operator's manual.

Beginning of the Season

- Review your operator's manual.
- Check air pressure in the tires.
- Drain and refill gearbox to proper level. Gearbox should be filled to the lower plug.
- Lubricate all parts of the machine.
- Tighten all loose bolts, nuts and set screws.
- Check and replace all worn knives.
- Should any knives need replacing, remember to replace the worn knives and those directly across from the those being replaced to avoid rotor imbalance and subsequent vibration.

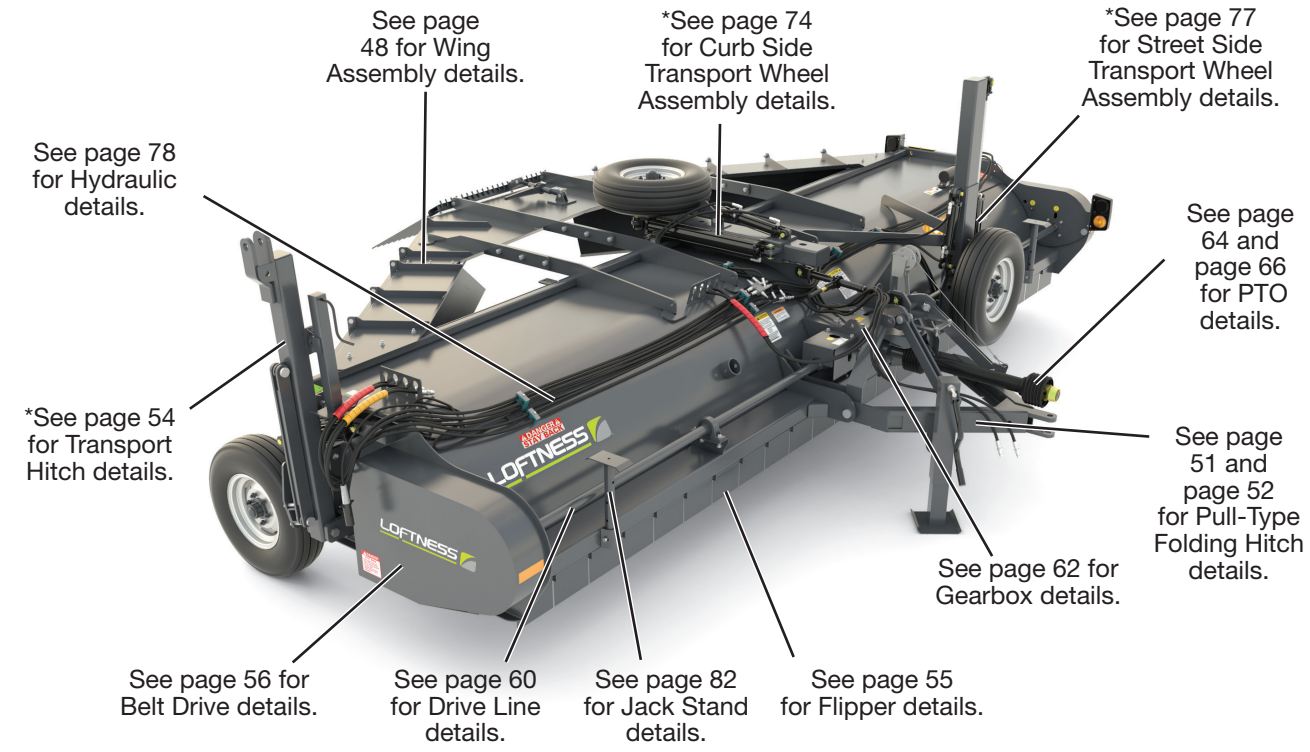
Troubleshooting

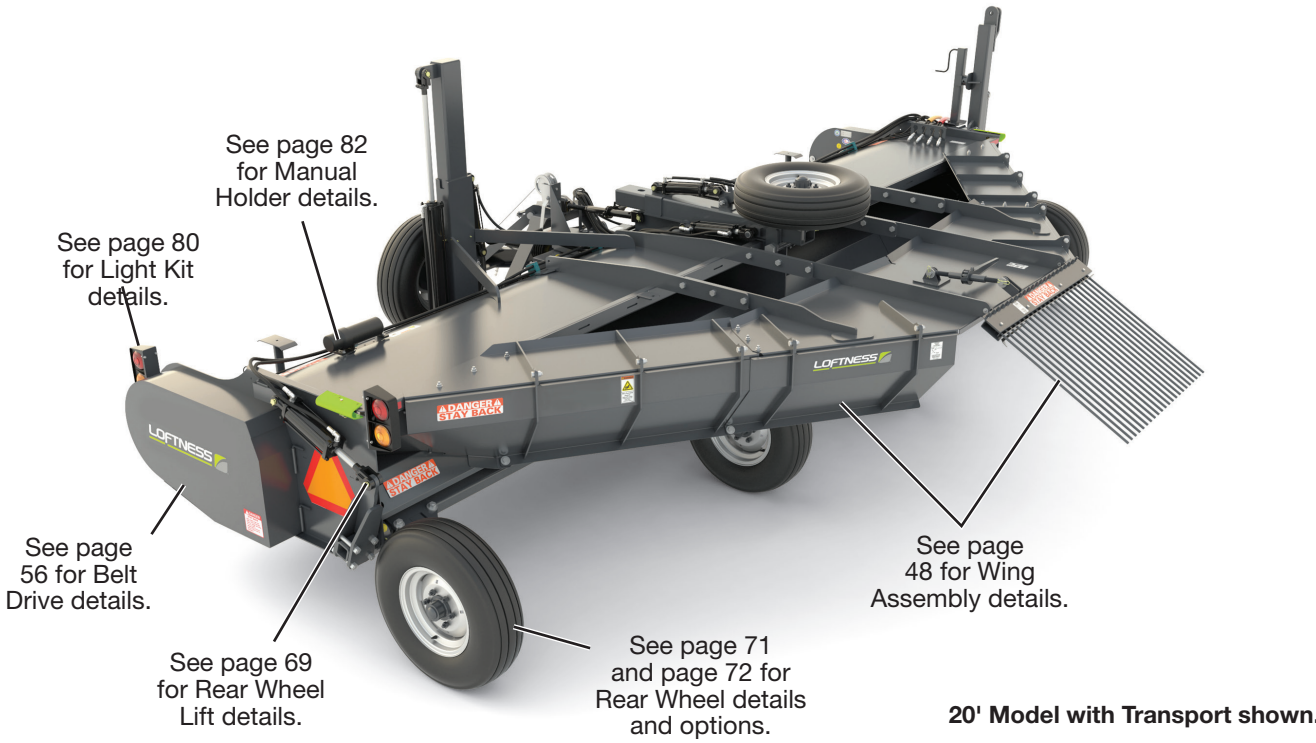
To assist with maintenance and repair, the following list of common problems and corrections is provided.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Excessive Vibration	Broken or missing knives.	Replace broken/missing knives plus the worn knives on the opposite side of the rotor to maintain a balanced rotor.
	Mud and/or debris wrapped around the drum or knives.	Clean & remove all debris/mud.
	Bearing malfunction.	Check rotor & drive-line bearings, replace faulty bearings.
	Rotor damage.	Inspect rotor for physical damage. If damaged, remove and return to factory for proper repair.
Rotor Does Not Turn	Knife has become wedged.	Dislodge wedged knife between the end plate and the balancing ring.
	Gearbox malfunction.	Disconnect PTO and manually rotate the gearbox, if unable to rotate, remove gearbox and contact dealer for servicing.


LOFTNESS

Parts Identification

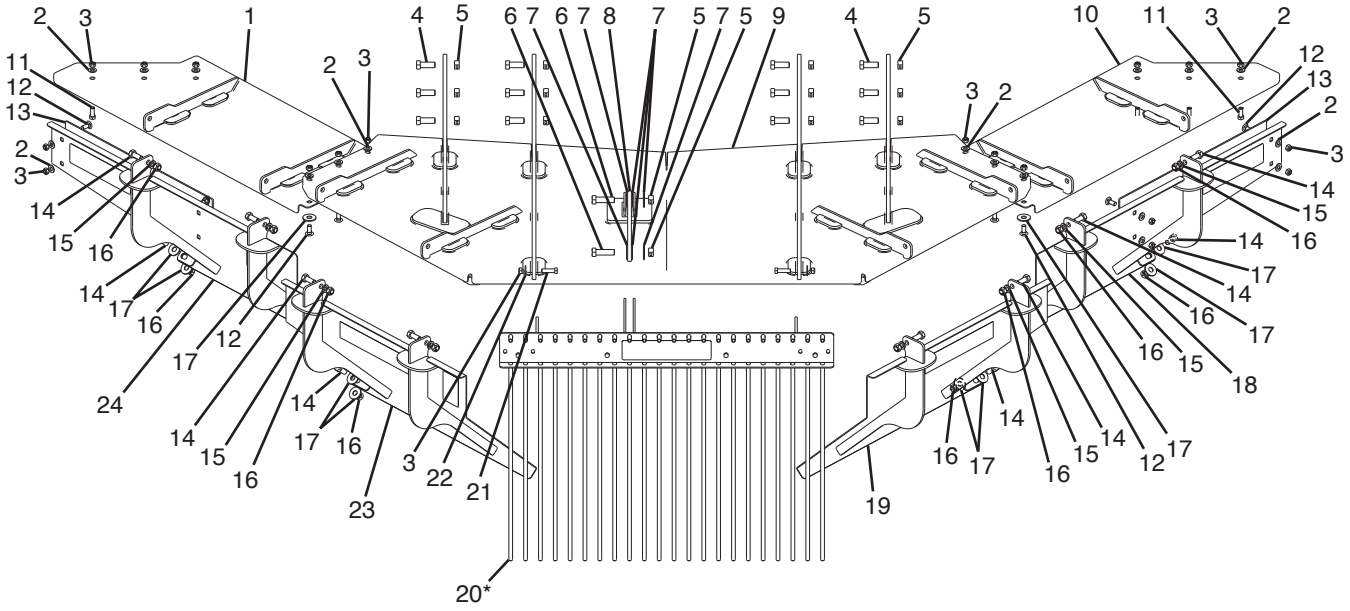




20' Model with Transport shown.

** Only on 20' Model with Transport.*

Wing Assembly



*** For parts breakdown of item 20 - Deflector (N34552), see page 50.**

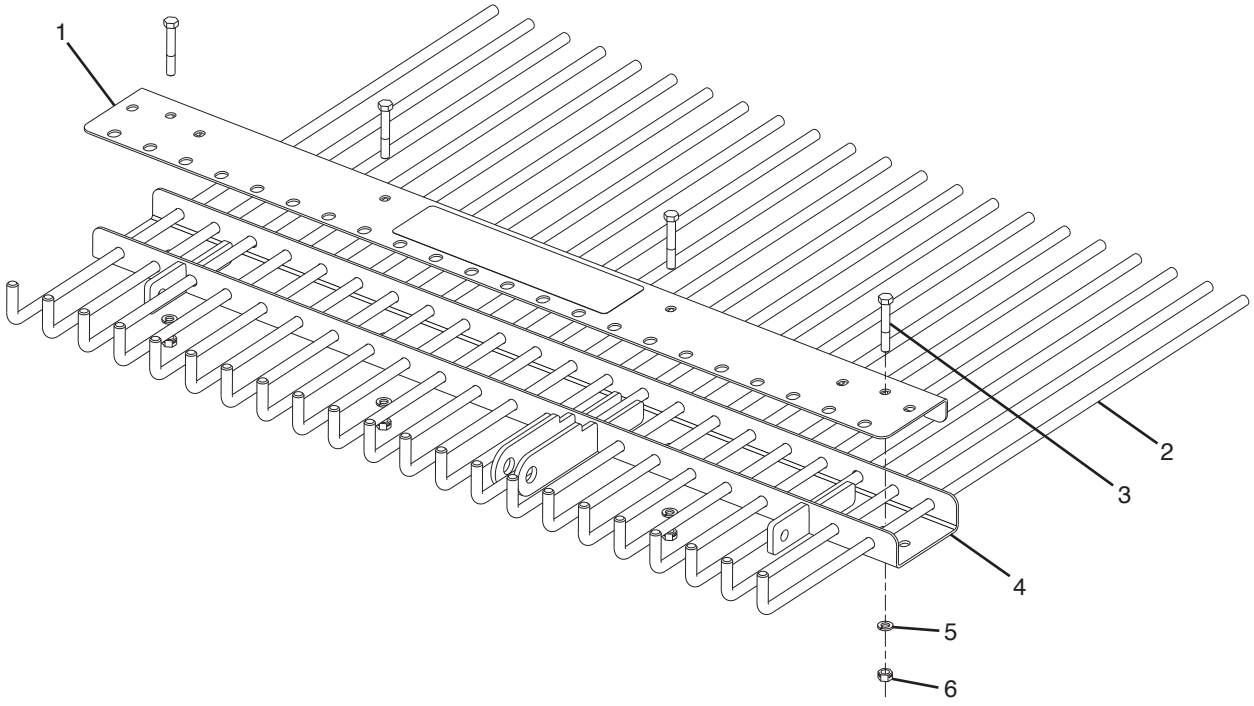
Items 3, 5, 6, 21 use a different part configuration on the 20' with Transport model. See parts list.

#	QTY.	PART #	DESCRIPTION
1	1	N19627	WING TOP WELD-LH, 15' WINDROW
	1	N19575	WING TOP WELDMENT LH - WINDROW 20'
2	20	4068	WASHER, 1/2" SAE FLAT
3	22	4054	NUT, LOCK 1/2" TOP
3a	2	4052	NUT, LOCK 3/8" (ON 20' w/TRANSPORT ONLY)
4	12	4517	BOLT, 3/4" X 2" BOLT GR 5
5	14	4056	NUT, LOCK 3/4"
5a	2	4336	CLIP, HAIRPIN 1/8" X 2-1/4" (ON 20' w/TRANSPORT ONLY)
6	2	4224	BOLT, 3/4" X 2-1/2" GRADE 5
6a	2	4521	PIN, 3/4" X 1-3/4" (ON 20' w/TRANSPORT ONLY)
7	6	4071	WASHER, 3/4" FLAT
8	1	N34938	PLATE, ADJUST
9	1	N34609	TAIL WELDMENT - WINDROW (15')
	1	N34546	TAIL WELDMENT - WINDROW (20')

Wing Assembly

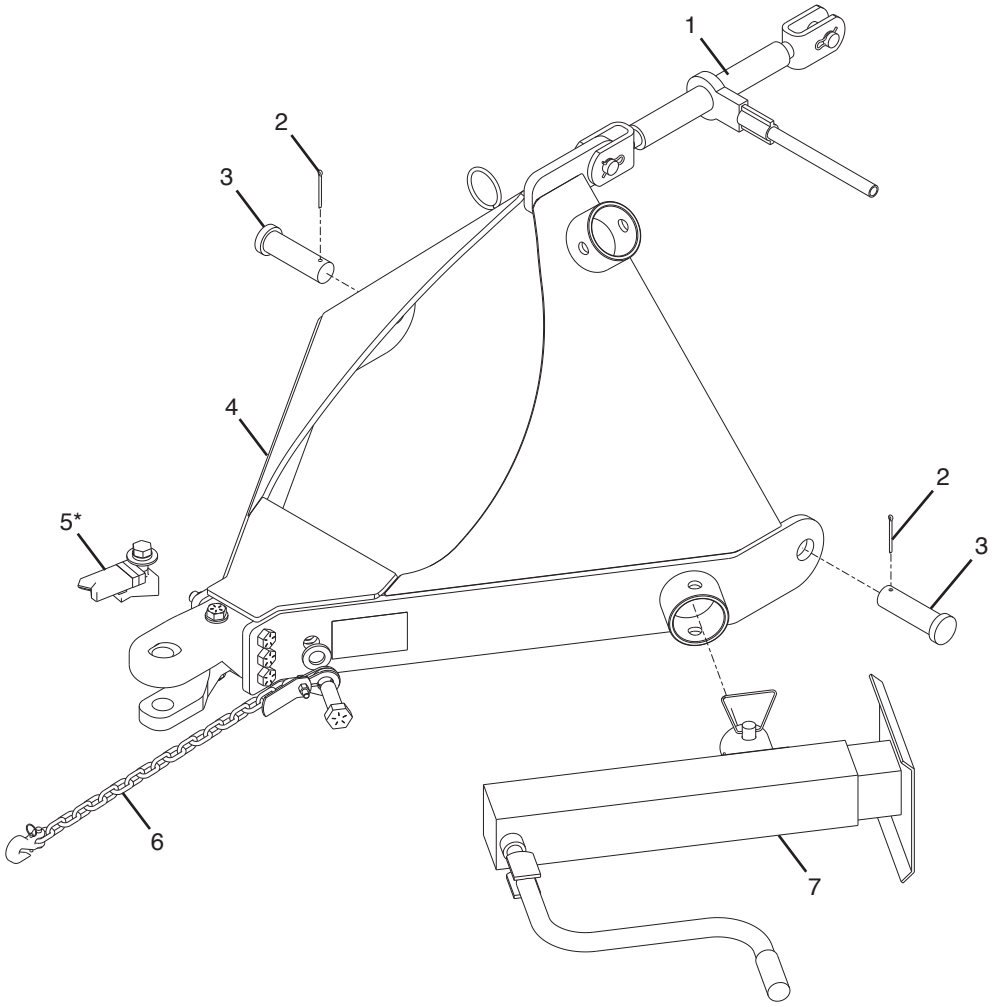
#	QTY.	PART #	DESCRIPTION
10	1	N19626	WING TOP WELD-RH, 15' WINDROW
	1	N19565	WING TOP WELDMENT RH - WINDROW 20'
11	6	4012	BOLT, 1/2" X 1-1/4" GRADE 5
12	14	4038	BOLT, CARRIAGE 1/2" X 1-1/4"
13	2	N34924	PLATE, WEAR
14	12	4020	BOLT, 5/8" X 1-1/2" GRADE 5
15	8	4070	WASHER, LOCK 5/8"
16	12	4055	NUT, LOCK 5/8" TOP
17	14	4069	WASHER, FLAT 5/8"
18	1	209247	WING, FRONT RH 15 SHW W/DECALS
	1	209241	WING, FRONT RH 20 SHW W/DECALS
19	1	209246	WING, REAR RH 15 SHW W/DECAL
	1	209242	WING, REAR RH 20 SHW W/DECAL
20	1	N34552	DEFLECTOR ASSY, WIND
21	2	4014	BOLT, 1/2" X 1-3/4" GRADE 5
21a	2	N29742	BOLT, SHOULDER, 1/2" X 1" (ON 20' w/TRANSPORT ONLY)
22	2	4486	WASHER, 1/2" FLAT
23	1	209245	WING, REAR LH 15 SHW W/DECALS
	1	209240	WING, REAR LH 20 SHW W/DECALS
24	1	209244	WING, FRONT LH 15 SHW W/DECALS
	1	209239	WING, FRONT LH 20 SHW W/DECALS

Deflector (N34552)



#	QTY.	PART #	DESCRIPTION
1	1	209243	ROD CLAMP, WINDROW W/DECAL
2	22	N19502	ROD, REAR TAIL - WINDROW
3	4	4313	BOLT, 3/8" X 2-1/2" GRADE 5
4	1	N34550	ROD PIVOT HEAD WELDMENT
5	4	4065	WASHER, 3/8 LOCK
6	4	4052	NUT, LOCK 3/8"

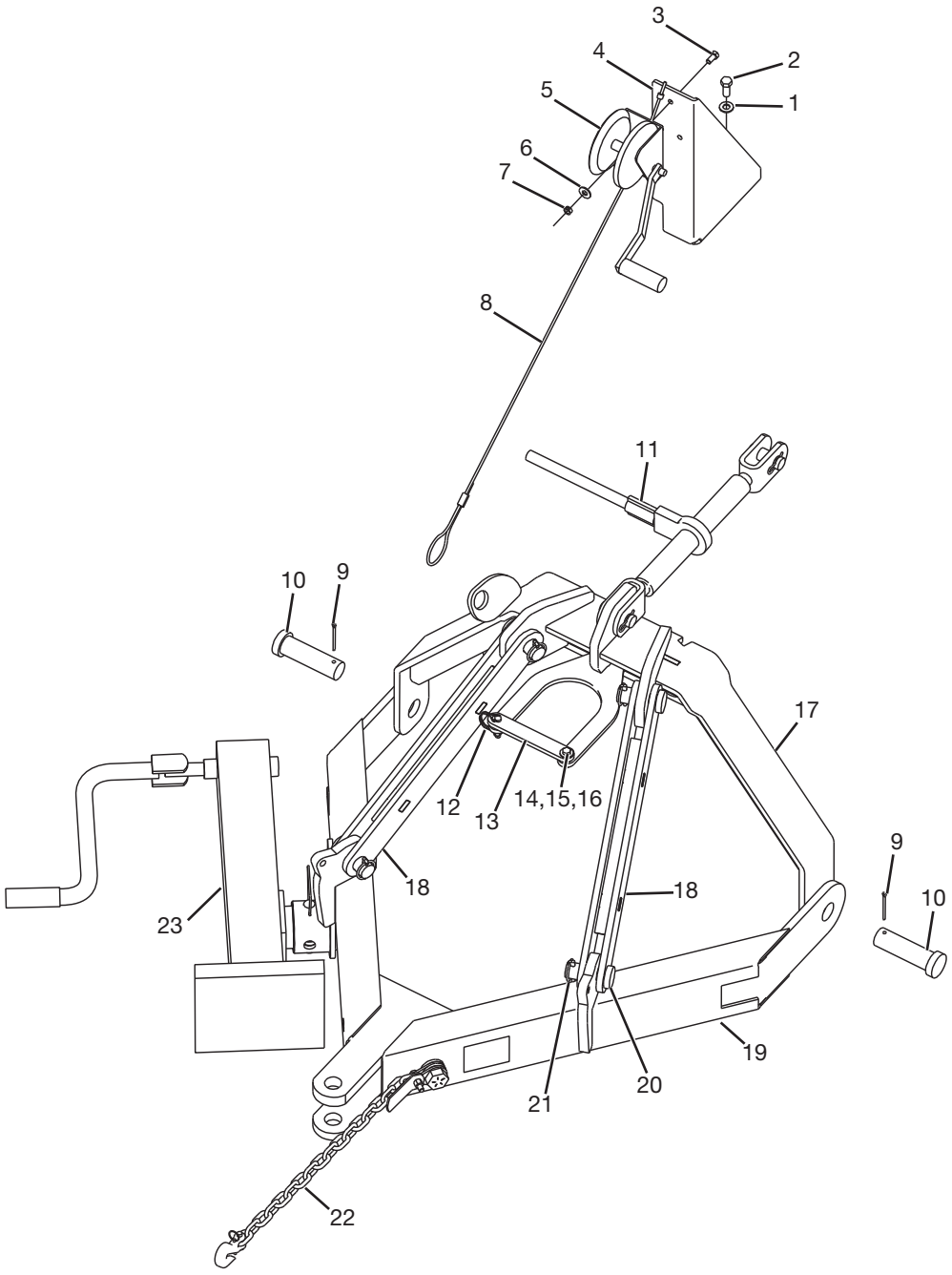
Hitch, Operation - 15' & 20' Models (N40152)



*** Place item 5 - Hitch Conversion Kit (N37609) in the manual holder.**

#	QTY.	PART #	DESCRIPTION
1	1	8048	BODY, RATCHET JACK
2	2	4355	PIN, COTTER 3/16" X 2-1/2"
3	2	N13095	PIN, HITCH 1-1/2" X 4-3/8"
4	1	N32583	HITCH, UNIV. SHWD. PULL-TYPE
5	1	N37609	KIT, GBU HITCH CONV PART
6	1	N50260	CHAIN,SAFETY 21,000LB W/ HDWR
7	1	N13732	JACK, PULL-TYPE HITCH

Hitch, Pull-Type Folding (Operation) and Winch Assy. - 20' w/Transport Model

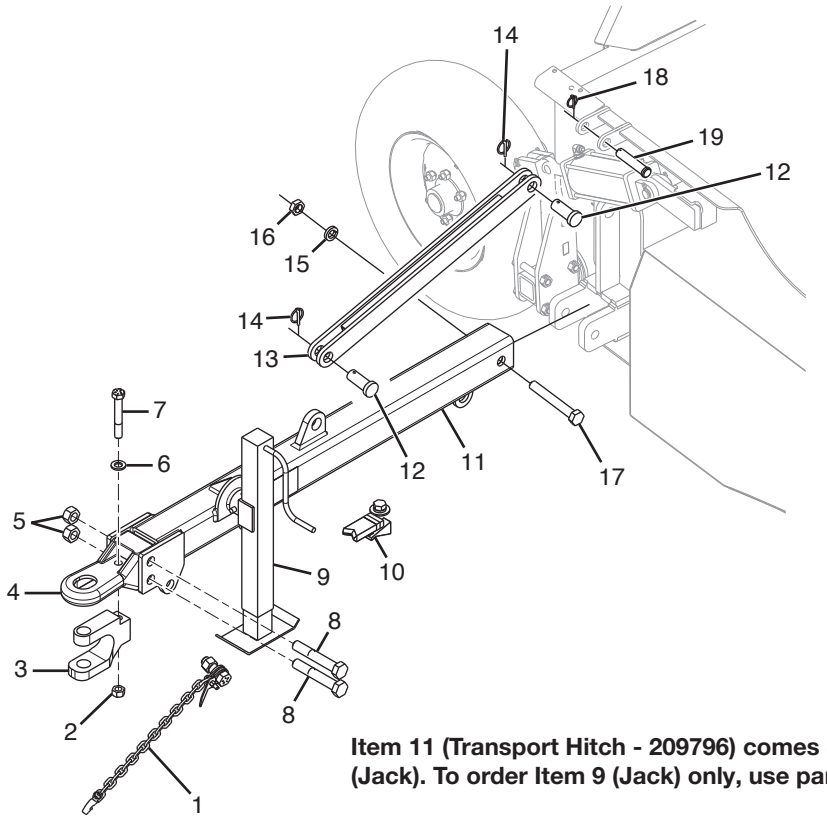


To order a complete pull-type folding hitch (Items 11 through 23), use part number N32950

Hitch, Pull-Type Folding (Operation) and Winch Assy. - 20' w/Transport Model

#	QTY.	PART #	DESCRIPTION
1	1	4068	WASHER, FLAT 1/2" SAE
2	2	4012	BOLT, 1/2" X 1-1/4" GRADE 5
3	2	4193	BOLT, 3/8" X 3/4" GRADE 5
4	1	N34487	MOUNTING WINCH BRACKET
5	1	201805	WINCH, CABLE 1800# DL
6	2	4064	WASHER, FLAT 3/8"
7	2	4052	NUT, LOCK 3/8"
8	1	N13272	CABLE, WINCH ASSY
9	2	4355	PIN, COTTER 3/16" X 2-1/2"
10	2	N13095	PIN, HITCH 1-1/2" X 4-3/8"
11	1	8048	BODY, RATCHET JACK
12	1	N27991	PIN, 3/8" X 1-3/8" RETAINER
13	1	N27990	BAR, PTO HOLDER
14	1	4006	BOLT, 3/8" X 1-1/2" GRADE 5
15	1	4052	NUT, LOCK 3/8"
16	3	4064	WASHER, FLAT 3/8"
17	1	N32960	VERTICAL HITCH WELD - FOLDING HITCH
18	2	N32957	LINK WELD - FOLDING HITCH
19	1	209248	HITCH, SHW FOLDING W/DECAL
20	4	4290	PIN, 1-1/4 X 2-1/2
21	4	4095	CLIP, LINCHPIN
22	1	N24248	CHAIN, SAFETY W/MOUNT HARDWARE
23	1	N13732	JACK, PULL-TYPE HITCH

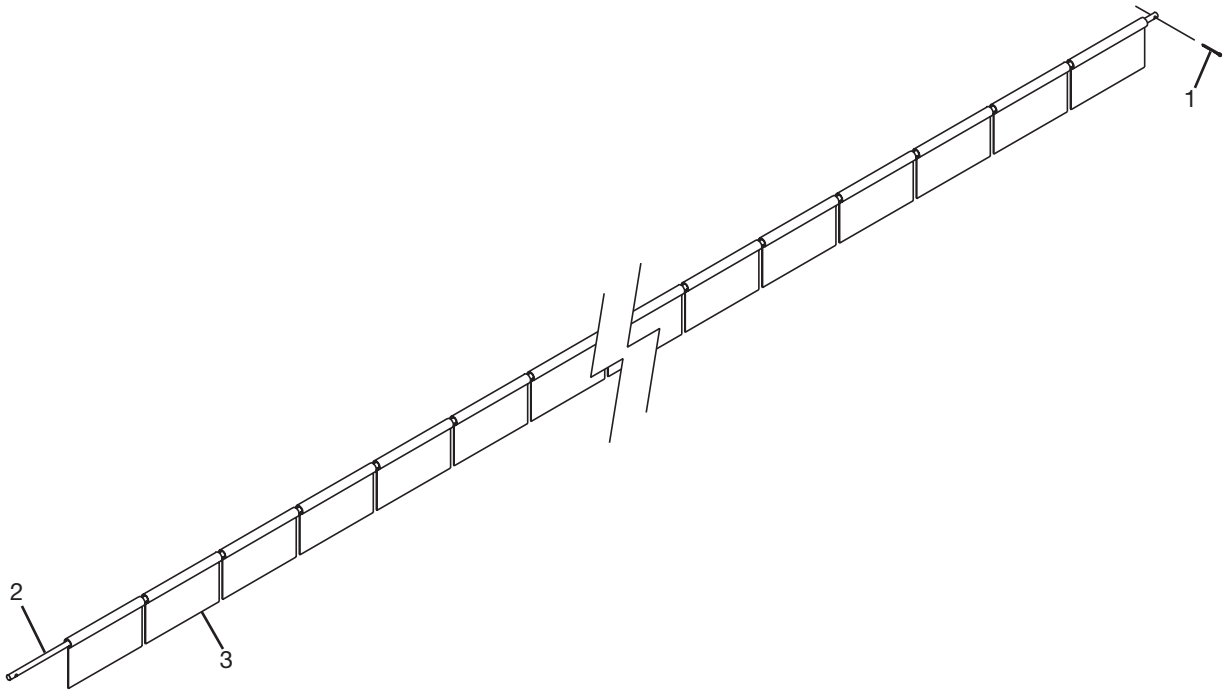
Hitch, Transport - 20' Model w/Transport



Item 11 (Transport Hitch - 209796) comes complete with Item 9 (Jack). To order Item 9 (Jack) only, use part number N34567.

#	QTY.	PART #	DESCRIPTION
1	1	N24248	CHAIN, SAFETY W/MOUNT HARDWARE
2	1	N16352	NUT, LOCK 3/4" GRADE 8 FINE
3	1	N37463	CLEVIS, CAT 2 BOLT-ON HITCH
4	1	N37474	BASE, CAT 2 BOLT-ON REC HITCH
5	2	N16700	NUT, 1"-14GR.8FINE THREADTOPLOCK
6	1	N35327	WASHER, FLAT 3/4" SAE
7	1	4577	BOLT, 3/4" X 5" FN TH GR 8
8	2	N28583	BOLT, 1 X 6" FN TH GR 8
9	1	N34567	JACK, SQ SWVL 5000 LB.
10	1	N37609	KIT, GBU HITCH CONV PART
11	1	209796	TONGUE, SHW TRANS W/DECAL
12	2	4290	PIN, 1-1/4 X 2-1/2
13	1	N23271	LINK, WIND SHRD TRANSPORT HITCH
14	2	4095	CLIP, LINCHPIN
15	1	4166	WASHER, 1" LOCK
16	1	N19767	NUT, 1" GR. 8 TOPLOCK
17	1	N13410	BOLT, TRANSPORT SHORTENED
18	1	N22192	PIN, LINCH 3/16" X 1-9/16"
19	1	N11932	PIN, 1" X 4-1/2" PLATED HITCH

Flippers

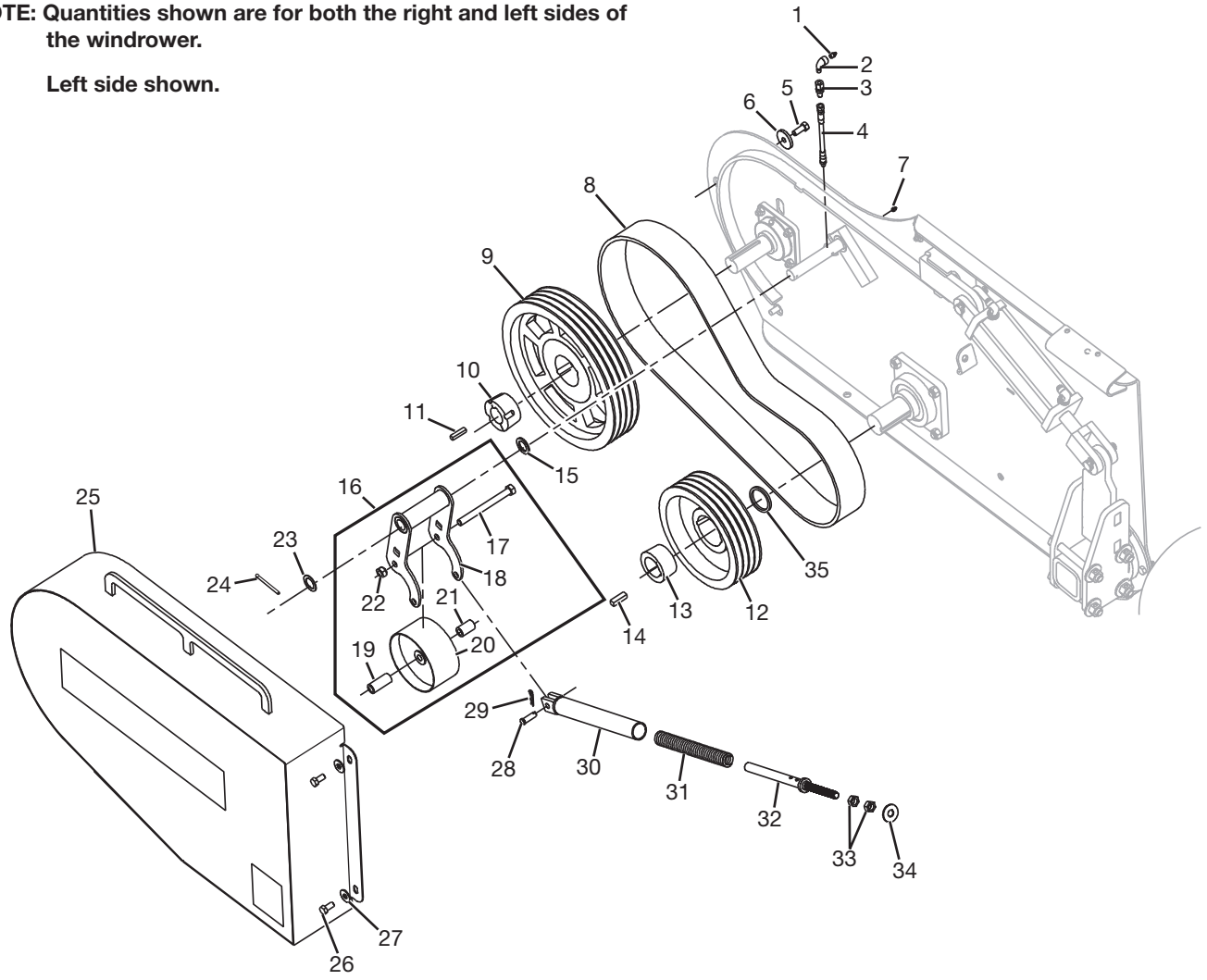


#	QTY.	PART #	DESCRIPTION
1	1	4092	PIN COTTER 5/32" X 2"
2	1	N34608	ROD FLIPPER (15FT.)
	1	N34539	ROD FLIPPER (20FT.)
3	18	N18774	FLIPPER, SHREDDER 9-1/2" X 8-1/2" (15FT.)
	24	N18774	FLIPPER, SHREDDER 9-1/2" X 8-1/2" (20FT.)

4-Band Drive

NOTE: Quantities shown are for both the right and left sides of the windrower.

Left side shown.

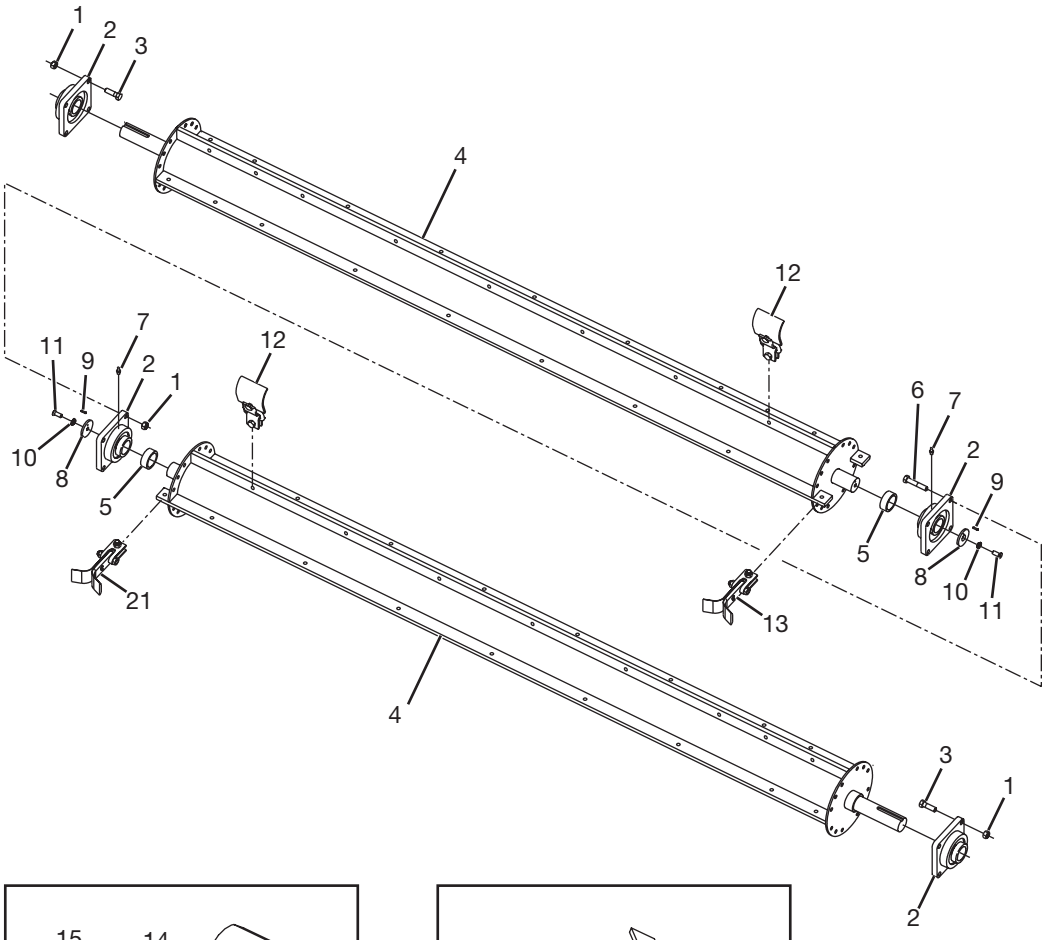


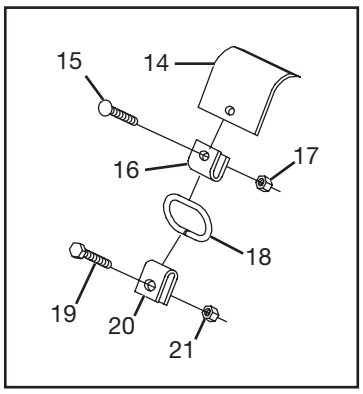
#	QTY.	PART #	DESCRIPTION
1	2	N17007	GREASEZERK, 1/8" NPT
2	2	4472	ELBOW, 1/8" 90 DEG. STREET
3	2	4304-10	BULKHEAD, FITTING-GREASE HOSE
4	2	4304	HOSE, 15' GREASE W/FITTINGS
5	2	4012	BOLT, 1/2" X 1-1/4" GRADE 5
6	2	4074	WASHER, 2" OD X 1/2" ID X 1/4"

4-Band Drive

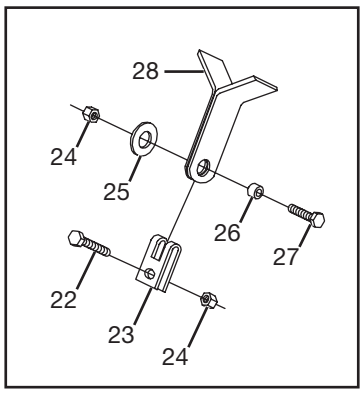
#	QTY.	PART #	DESCRIPTION
7	2	4105	GREASE-ZERK, 1/4" SCREW-IN
8	2	N10507	BELT, 4B X 87" BOND. SHRD.
9	2	8140	PULLEY, 4B X 16" TAPERLOCK
10	2	8127	BUSHING, 1-3/4 KW TAPERLOCK
11	2	7121-02	KEY, 3/8" X 1-3/4"
12	2	8139	SHEAVE, 4B X 11" TAPERLOCK
13	2	8165	BUSHING, 2-3/16" TPL. DOD. 117715
14	2	N27290	KEY, 1/2" X 1-3/4" EXTRA HARDENED
15	2	4470	WASHER, 1-1/8" ID X 1-3/4" OD X 10 GA
16	1	N18056	TIGHTENER, BELT LEFT 4B (Shown)
	1	N18090	TIGHTENER, BELT RIGHT 4B
17	2	4457	BOLT, 5/8" X 6-1/2" GRADE 5
18	2	N18057	BRACKET, BELT TIGHTENER
19	2	N18089	PIPE, BELT TIGHTENER SPACER (LONG)
20	2	N10508	PULLEY, IDLER 6-1/2" O.D. w/5/8" BORE
21	2	N18088	PIPE, BELT TIGHTENER SPACER (SHORT)
22	2	4055	NUT, LOCK 5/8"
23	4	4491	WASHER, 1-1/8" ID X 1-3/4" OD X 18 GA
24	2	4322	PIN COTTER 5/32" X 2"
25	1	209237	SHIELD, SHW FLAT L W/DECALS
	1	209238	SHIELD, SHW FLAT R W/DECALS
26	4	4011	BOLT, 1/2" X 1" GRADE 5
27	4	4486	WASHER, 1/2" FLAT
28	2	4392	PIN, 1/2" X 1-1/2"
29	2	4089	CLIP, HAIRPIN .093" X 1-5/8"
30	2	N18517	TUBE, BELT TIGHTENER
31	2	8067	SPRING, BELT TIGHTENER
32	2	7525	ROD, BELT TIGHTENER
33	4	4438	NUT, STANDARD 5/8" GRADE 8
34	2	4069	WASHER, FLAT 5/8"
35	2	N16445	BUSHING, 2-3/16 ID X 2-3/4 OD

Rotors and Knives





Cupped Knife Detail - 12



High Residue Knife Detail - 13

To order a complete RIGHT side rotor with knives use part number:

N19789 - *15' model*
N19610 - *20' model*

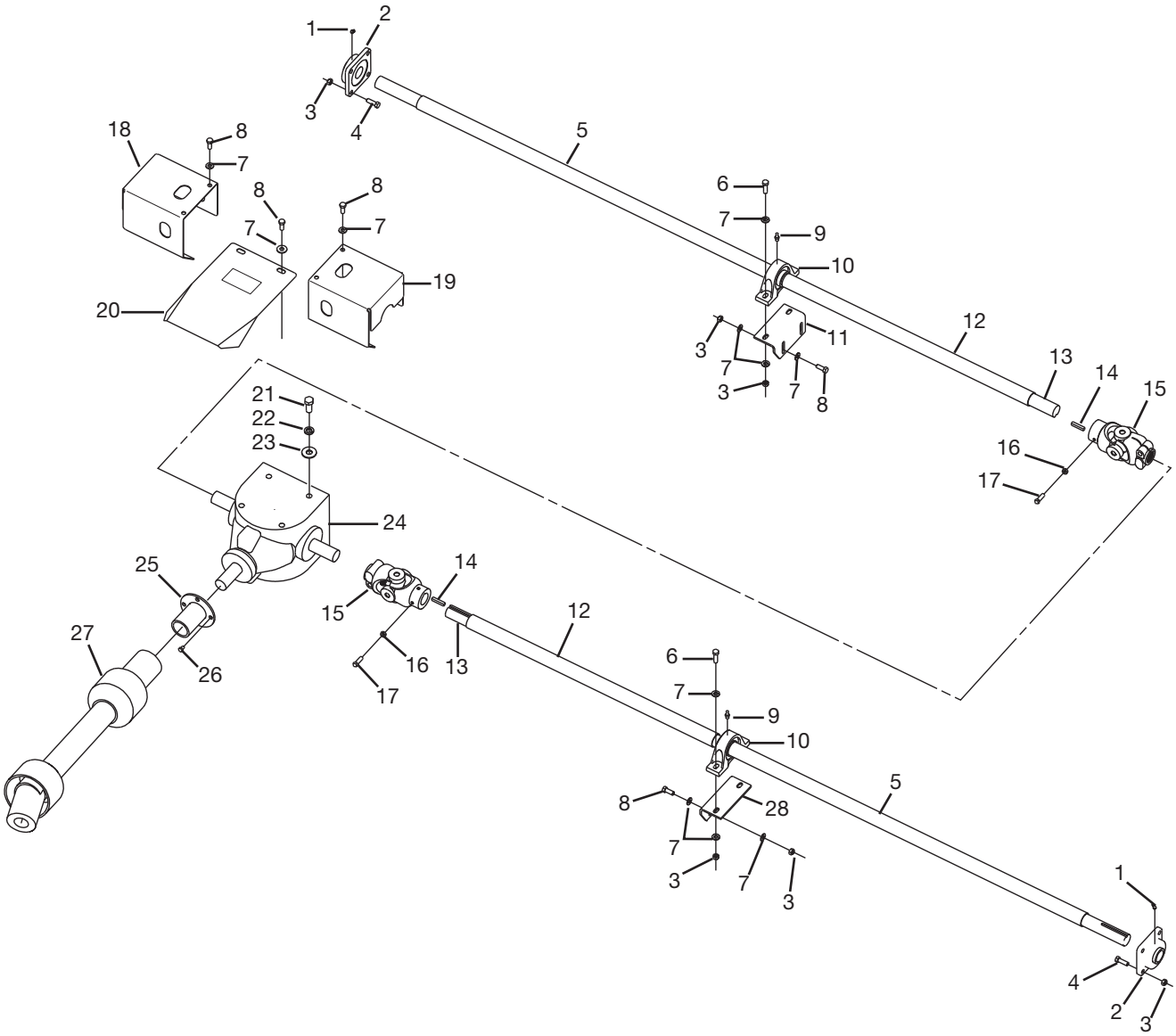
To order a complete LEFT side rotor with knives use part number:

N19788 - *15' model*
N19611 - *20' model*

Rotors and Knives

#	QTY.	PART #	DESCRIPTION
1	12	4057	NUT, 5/8" FINE THREAD TOP LOCK
2	4	211873	BEARING, 2-3/16" 4-BOLT FLG
3	8	4042	BOLT, 5/8" X 2" FINE THRD. GR. 8
4	2	N32945	ROTOR, 15' WINDROW W/O KNIVES
	2	N32940	ROTOR, 20' WINDROW W/O KNIVES
5	2	211869	SPACER, SHRD ROTOR 2-3/16" BRNG
6	4	4306	BOLT, 5/8" X 3" GRD 8 FINE
7	2	4105	GREASE-ZERK, 1/4" SCREW-IN
8	2	4075	WASHER, 2-5/8" OD BEARING RETAINING
9	2	4085	PIN, ROLL 3/16 " X 3/4"
10	2	4076	WASHER, 1/2" EXT CNTSK LOCK
11	2	4468	SCREW, 1/2" -20UNF X 1-1/4" FN TD FL HD CAP
12	24	8022-10	KIT, CUPPED KNIFE COMPLETE ASSEMBLY - 15'
	32	8022-10	KIT, CUPPED KNIFE COMPLETE ASSEMBLY - 20'
13	*2 - per rotor*	8136-10	SET, 70° HIGH RESIDUE KNIFE
NOTE: Quantities shown for items 13-20 are for <u>one</u> complete Cupped Knife (8022-10) assembly.			
14	1	8022	KNIFE, HARD-SURFACED CUPPED
15	1	4039	BOLT, CARRIAGE 1/2" X 1-1/2" GR5
16	1	8035	CLIP, CUPPED KNIFE
17	1	4054	NUT, LOCK 1/2" TOP
18	1	N24282	SQUARE-RING, CUPPED KNIFE
19	1	4043	BOLT, 5/8" X 2" GR 8
20	1	8033	U-BAR, KNIFE
21	1	4055	NUT, 5/8" LOCK
NOTE: Quantities shown for items 22-28 are for <u>one</u> complete High Residue Knife (8136-10) assembly.			
22	1	4043	BOLT, 5/8" X 2" GR 8
23	1	8034	U-BAR, SLOTTED
24	2	4055	NUT, 5/8" LOCK
25	1	4488	WASHER, .894" I.D. X 1.750" O.D.
26	1	9073	BUSHING, KNIFE
27	1	4045	BOLT, 5/8" X 2-3/4" GR 8
28	2	8136	KNIFE, 70° HIGH RESIDUE

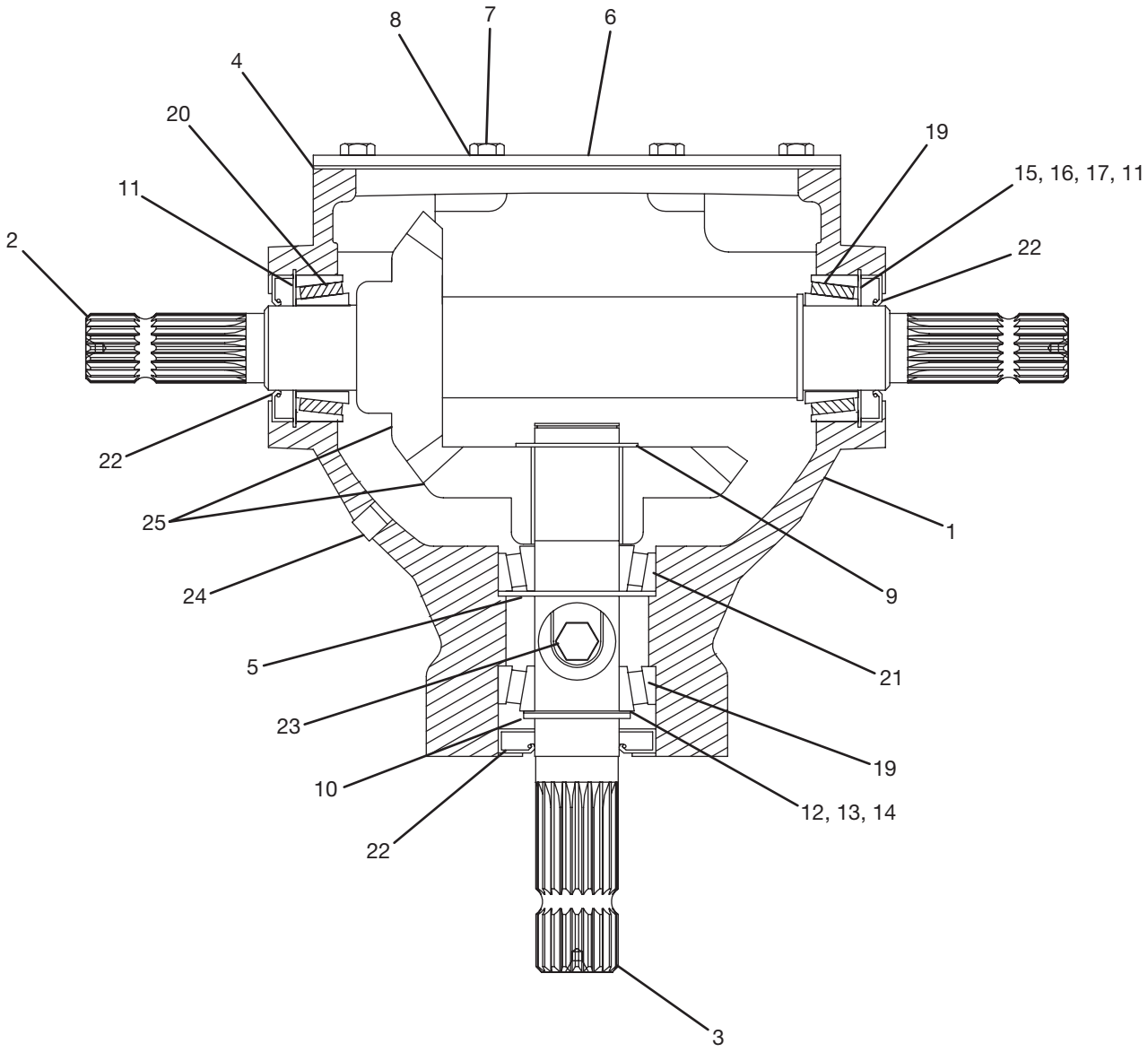
Drive Lines



Drive Lines

#	QTY.	PART #	DESCRIPTION
1	2	N154810	GREASEZERK,45 DEG SCW-IN 1/8NPT
2	2	8087	BEARING, 1-3/4" 4-BOLT FLANGE
3	16	4054	NUT, LOCK 1/2" TOP
4	8	4013	BOLT, 1/2" X 1-1/2" GRADE 5
5	2	N13132	SHIELD, SHRD 15' DRVLN OTR PVC
	2	N13023	SHIELD, SHRD 20' DRVLN OTR PVC
6	4	4014	BOLT, 1/2" X 1-3/4" GRADE 5
7	22	4068	WASHER, 1/2" SAE FLAT
8	10	4012	BOLT, 1/2" X 1-1/4" GRADE 5
9	2	4105	GREASE-ZERK, 1/4" SCREW-IN
10	2	8089	BEARING, 1-3/4 PLWBK
11	1	9127	MOUNT, SHRD. DRVLN. BEARING RIGHT
12	2	N13022	SHIELD, SHRD DRVLN INNER PVC
13	2	9092	SHAFT, SHRD DRIVELINE 82-1/2" (15')
	2	9094	SHAFT, SHRD DRIVELINE 112-1/2" (20')
14	2	7121-03	KEY, 3/8" X 2"
15	2	N12440	U-JOINT, 1-3/4" RB X 1-3/4"-20SPL
16	4	4061	NUT, 3/8" JAM
17	4	4082	SCREW, SQ HEAD SET 3/8" X 1-1/4"
18	1	N11987	SHIELD, UNV SHRD BONDIOLI DRIVELINE RIGHT
19	1	N11988	SHIELD, UNV SHRD BONDIOLI DRIVELINE LEFT
20	1	203276	SHIELD, SHRD PTO 12IN X 16IN W/ DECAL
	1	209236	SHIELD, PTO FOLDING HITCH W/DEC
21	4	N13997	BOLT, 3/4" X 1-3/4" GRADE 5
22	4	4287	WASHER, 3/4" LOCK
23	4	4071	WASHER, 3/4" FLAT
24	1	N13950	GEARBOX, 1450RPM 1:1 BONDIOLI
25	1	N13858	GUARD, GEARBOX SHAFT
26	4	4415	BOLT, 3/8" X 1/2" GRADE 5
27	1	8176	PTO, PT (1-3/4"-20 SPLINED W/OVERRUNNING CLUTCH)
	1	8175	PTO, PT (1-3/8"-21 SPLINED W/OVERRUNNING CLUTCH)
29	1	9098	MOUNT, SHRD. DRVLN. BEARING LEFT

Gearbox, 1450 RPM Bondioli (N13950)



To order a complete gearbox (Items 1-25), use part number N13950.

This gearbox uses 3/4"-10 NC bolts for mounting to the shredder.

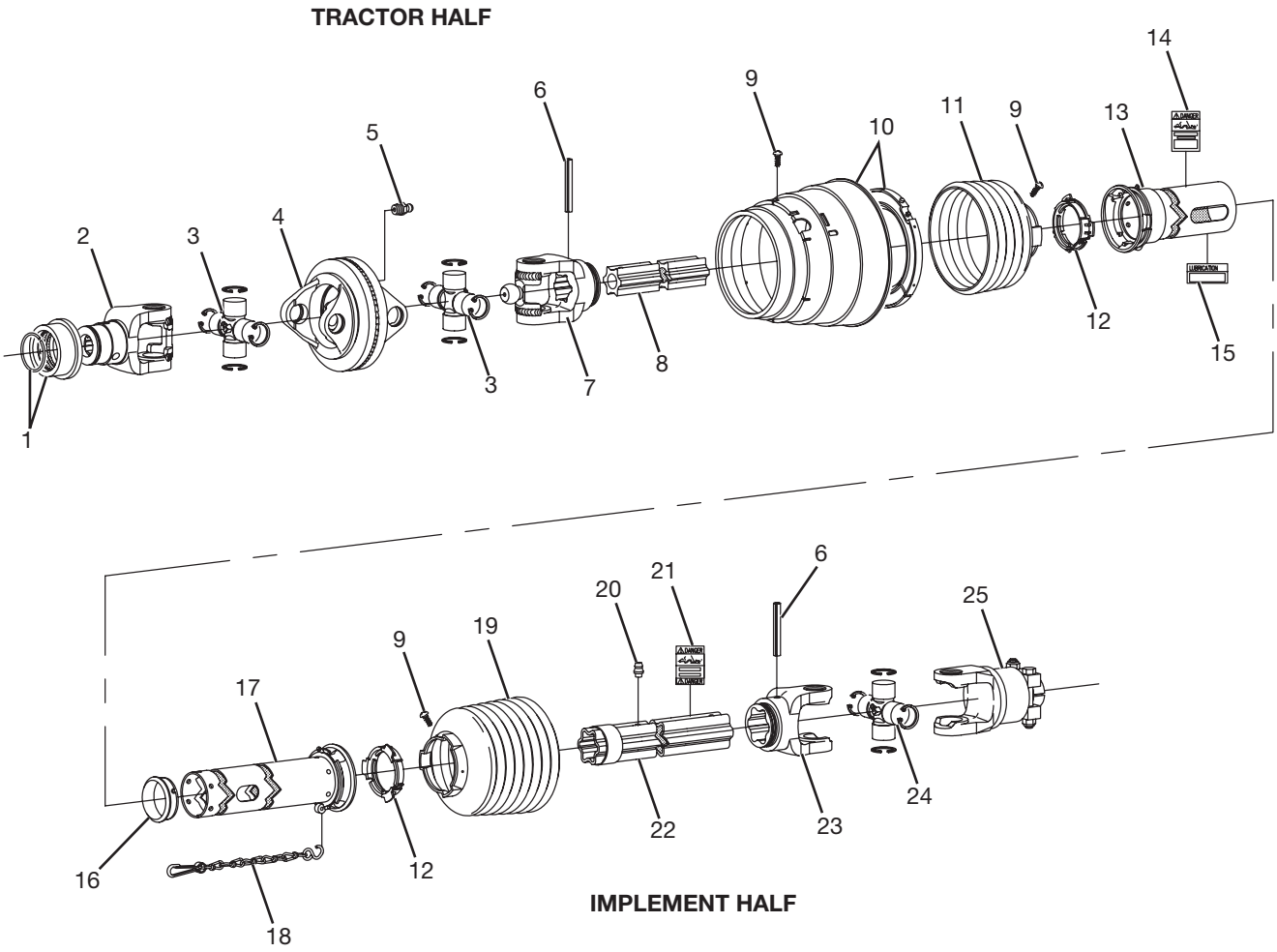
To order a complete pinion shaft ring kit (items 12, 13, 14), use part number 8170-26.

To order a complete through shaft ring kit (items 11, 15, 16, 17), use part number 8170-27.

Gearbox, 1450 RPM Bondioli (N13950)

#	QTY.	PART #	DESCRIPTION
1	1	N14122	HOUSING, GEARBOX
2	1	8170-02	SHAFT, THROUGH
3	1	N14121	SHAFT, PINION
4	1	8170-04	GASKET, COVER
5	1	N14120	SPACER, PINION SHAFT
6	1	8170-06	COVER, HOUSING
7	8	8170-07	SCREW, COVER
8	8	8170-08	WASHER, COVER SCREW
9	1	8170-09	CIRCLIP, PINION SHAFT
10	1	8170-10	SNAP-RING, PINION SHAFT
11	2	N/A	SNAP-RING, THROUGH SHAFT
12	1	N/A	RING, PINION SHAFT
13	1	N/A	RING, PINION SHAFT
14	1	N/A	RING, PINION SHAFT
15	2	N/A	RING, THROUGH SHAFT
16	2	N/A	RING, THROUGH SHAFT
17	2	N/A	RING, THROUGH SHAFT
18	2	8170-18	RING, THROUGH SHAFT
19	2	8170-19	BEARING, TAPERED ROLLER
20	1	8170-20	BEARING, THROUGH SHAFT
21	1	8170-21	BEARING, PINION SHAFT
22	3	8170-22	SEAL OIL
23	1	8001-18	PLUG, OIL VENT
24	5	8001-19	PLUG, OIL
25	1	N14119	GEAR, BEVEL 1:1 (SET)

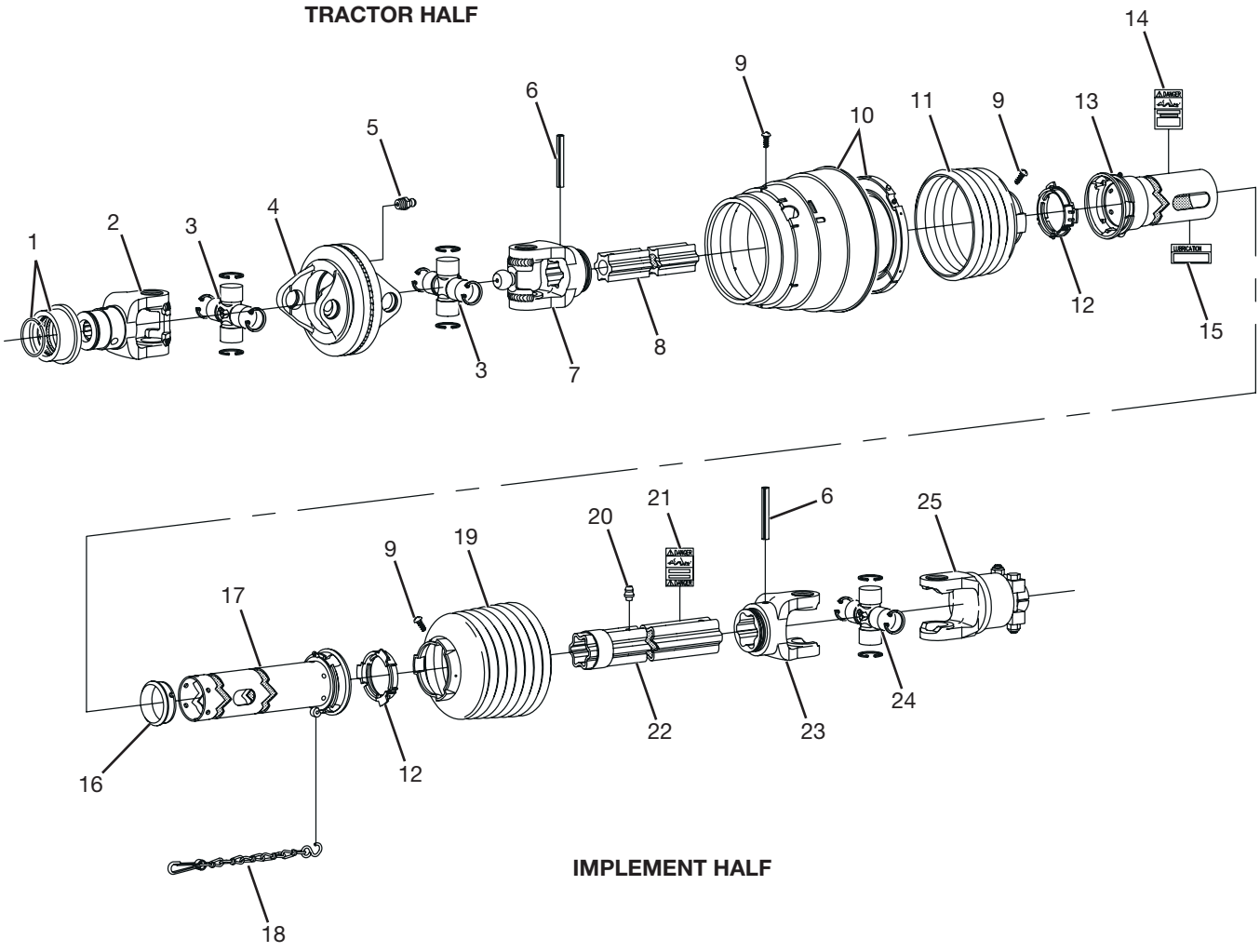
PTO, 1-3/8" Walterscheid w/Overrunning Clutch (8175)



PTO, 1-3/8" Walterscheid w/Overrunning Clutch (8175)

#	QTY.	PART #	DESCRIPTION
1	1	N10360	KIT; PTO SNAP RING (INCLUDED W/N10337)
2	1	N10337	YOKE, PTO 1-3/8"-21 SPLINE AS
3	2	N10341	KIT, PTO CROSS & BEARING
4	1	N10338	YOKE, PTO DOUBLE
5	1	N10339	ZERK, PTO GREASE (INCLUDED W/N10338)
6	2	N10342	PIN, PTO SPRING (10MM X 90MM)
7	1	N10340	YOKE, PTO INBOARD (S4)
8	1	N10343	SHAFT, PTO PROFILE (S4GA)
9	8	N11750	SCREW, PTO RIBBED SHIELD (W/N10351, NI0352 & N10367)
10	1	N10351	BEARING, PTO CV CONE
11	1	N10352	SHIELD, PTO CONE 4-RIB
12	2	N10348	RING, PTO BEARING (SC25)
13	1	N10349	GUARD, PTO SHAFT OUTER
14	1	N10357	DECAL, PTO SHAFT GUARD (INCLUDED W/N10349)
15	1	N10862	DECAL, PTO LUBRICATION
16	1	N10355	BEARING, PTO TUBE GUARD SUPPORT
17	1	N10350	GUARD, PTO TUBE INNER
18	1	N10356	CHAIN, PTO SAFETY
19	1	N10367	SHIELD, PTO CONE 7-RIB
20	1	N10359	ZERK, PTO GREASE (INCLUDED W/N10861)
21	1	N11761	DECAL, PTO TUBE GUARD (INCLUDED W/N10861)
22	1	N10861	TUBE, PTO PROFILE W/SLEEVE
23	1	N10345	YOKE, PTO INBOARD (S5)
24	1	N10347	KIT, PTO CROSS & BEARING
25	1	8192	CLUTCH, PTO OVERRUNNING

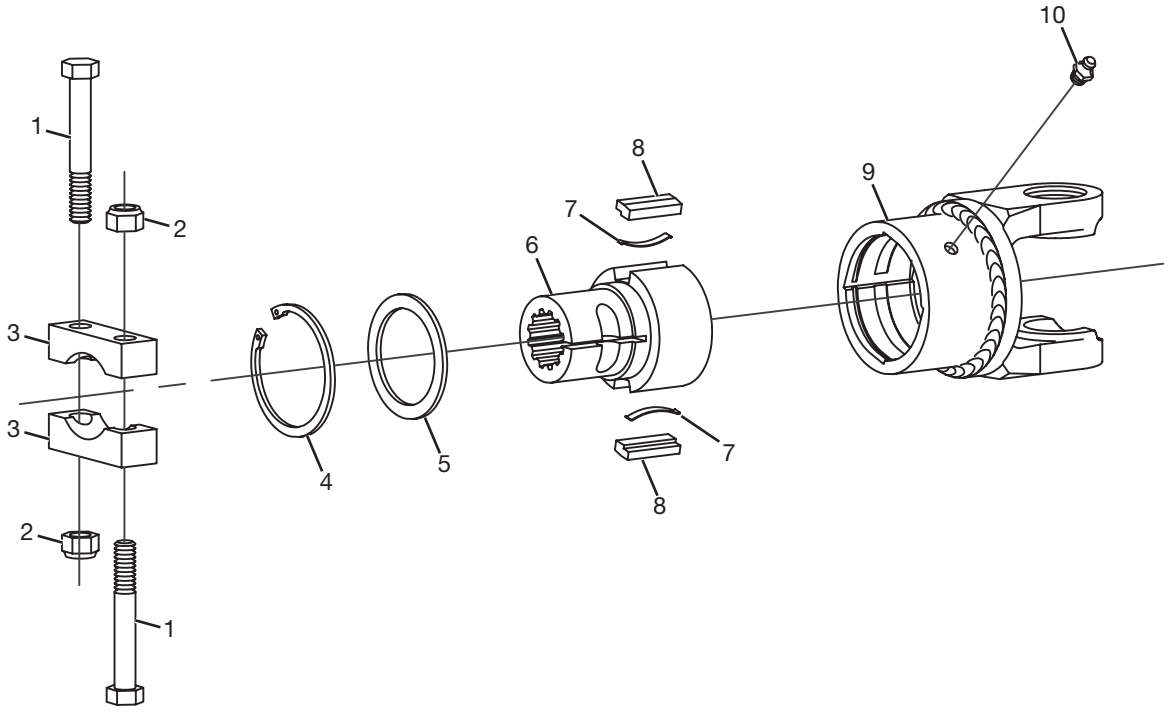
PTO, 1-3/4" Walterscheid w/Overrunning Clutch (8176)



PTO, 1-3/4" Walterscheid w/Overrunning Clutch (8176)

#	QTY.	PART #	DESCRIPTION
1	1	N10362	KIT, PTO SNAP RING (INCLUDED W/N10361)
2	1	N10361	YOKE, PTO 1-3/4"-20 SPLINE AS
3	2	N10341	KIT, PTO CROSS & BEARING
4	1	N10338	YOKE, PTO DOUBLE
5	1	N10339	ZERK, PTO GREASE (INCLUDED W/N10338)
6	2	N10342	PIN, PTO SPRING (10MM X 90MM)
7	1	N10340	YOKE, PTO INBOARD (S4)
8	1	N10343	SHAFT, PTO PROFILE (S4GA)
9	8	N11750	SCREW, PTO RIBBED SHIELD (W/N10351 & N10367)
10	1	N10351	BEARING, PTO CV CONE
11	1	N10352	SHIELD, PTO CONE 4-RIB
12	2	N10348	RING, PTO BEARING (SC25)
13	1	N10349	GUARD, PTO SHAFT OUTER
14	1	N10357	DECAL, PTO SHAFT GUARD
15	1	N10862	DECAL, PTO LUBRICATION
16	1	N10355	BEARING, PTO TUBE GUARD SUPPORT
17	1	N10350	GUARD, PTO TUBE INNER
18	1	N10356	CHAIN, PTO SAFETY
19	1	N10367	SHIELD, PTO CONE 7-RIB
20	1	N10359	ZERK, PTO GREASE
21	1	N11761	DECAL, PTO TUBE GUARD
22	1	N10861	TUBE, PTO PROFILE W/SLEEVE
23	1	N10345	YOKE, PTO INBOARD (S5)
24	1	N10347	KIT, PTO CROSS & BEARING
25	1	8192	CLUTCH, PTO OVERRUNNING

Clutch, 1-3/4" Walterscheid Overrunning (8192)



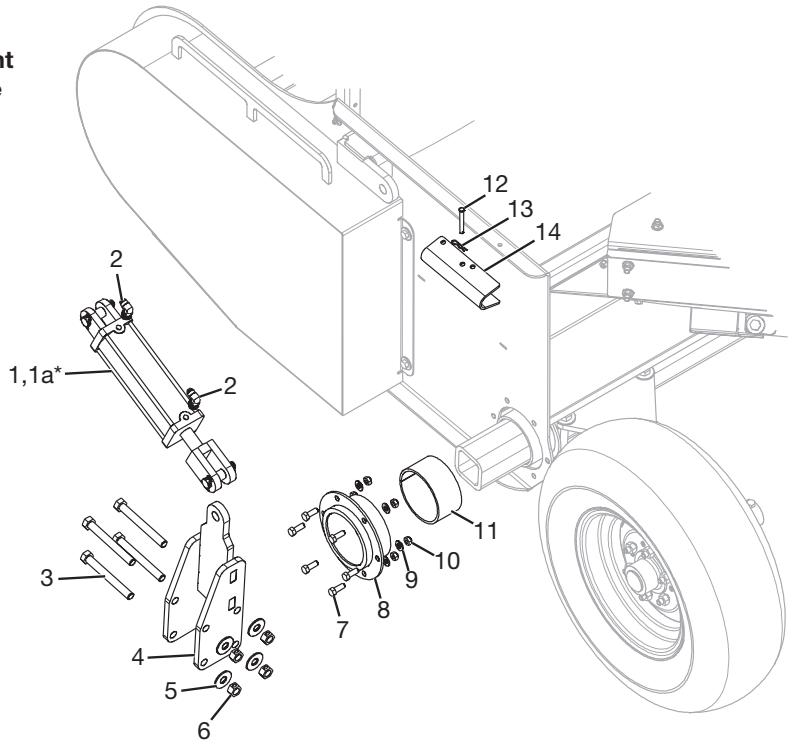
To order a complete overrunning clutch (items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10), use part number 8192

#	QTY.	PART #	DESCRIPTION
1	2	4448	BOLT, M16 X 110MM HEX HD.
2	2	4449	NUT, M16 LOCK
3	2	N10388	BRIDGE, CLUTCH CLAMP
4	1	N10873	1-3/4" HD CLUTCH RETAINING
5	1	N10878	WASHER, 1-3/4" HD CLUTCH (59.8 X 72)
6	1	N10892	HUB, 1-3/4"-20 SPLINE CLUTCH
7	2	N10877	SPRING, 1-3/4" HD CLUTCH LEAF
8	2	N10888	KEY, CLUTCH
9	1	N10887	HOUSING, CLUTCH
10	1	N10339	ZERK, GREASE (INCLUDED W/N10887)

Rear Wheel Lift

NOTE: Quantities shown are for both the right and left sides of the windrower.

Left side shown.

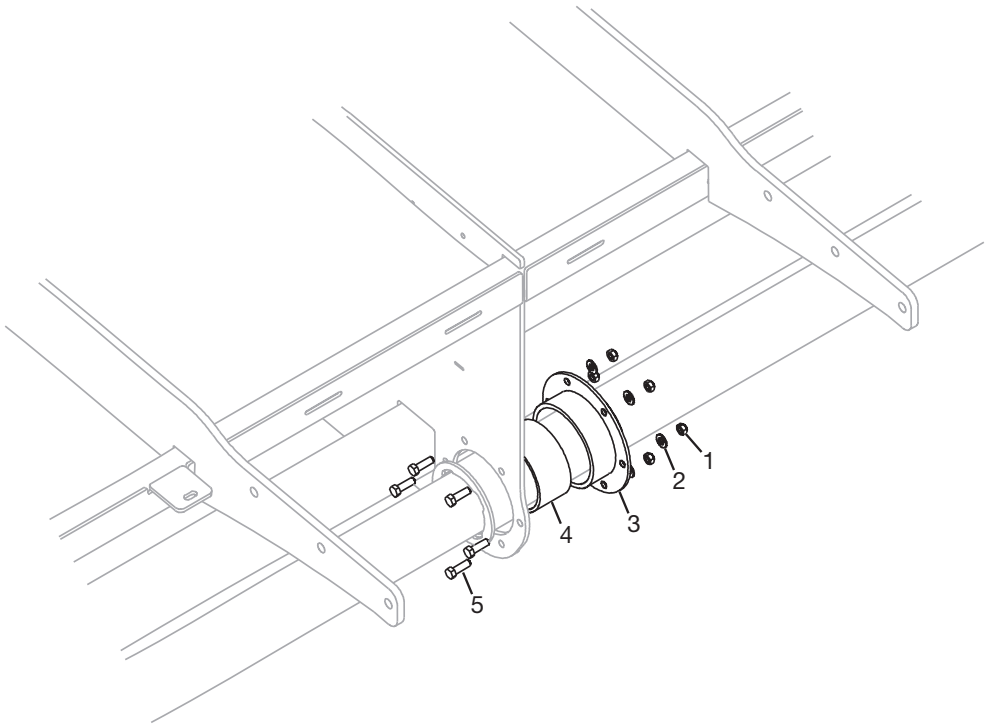


IMPORTANT: ITEMS 1 AND 1a ARE REPHASING CYLINDERS AND CANNOT BE INTERCHANGED!

NOTE: See "Hydraulics" on page 78 for the complete hydraulic system.

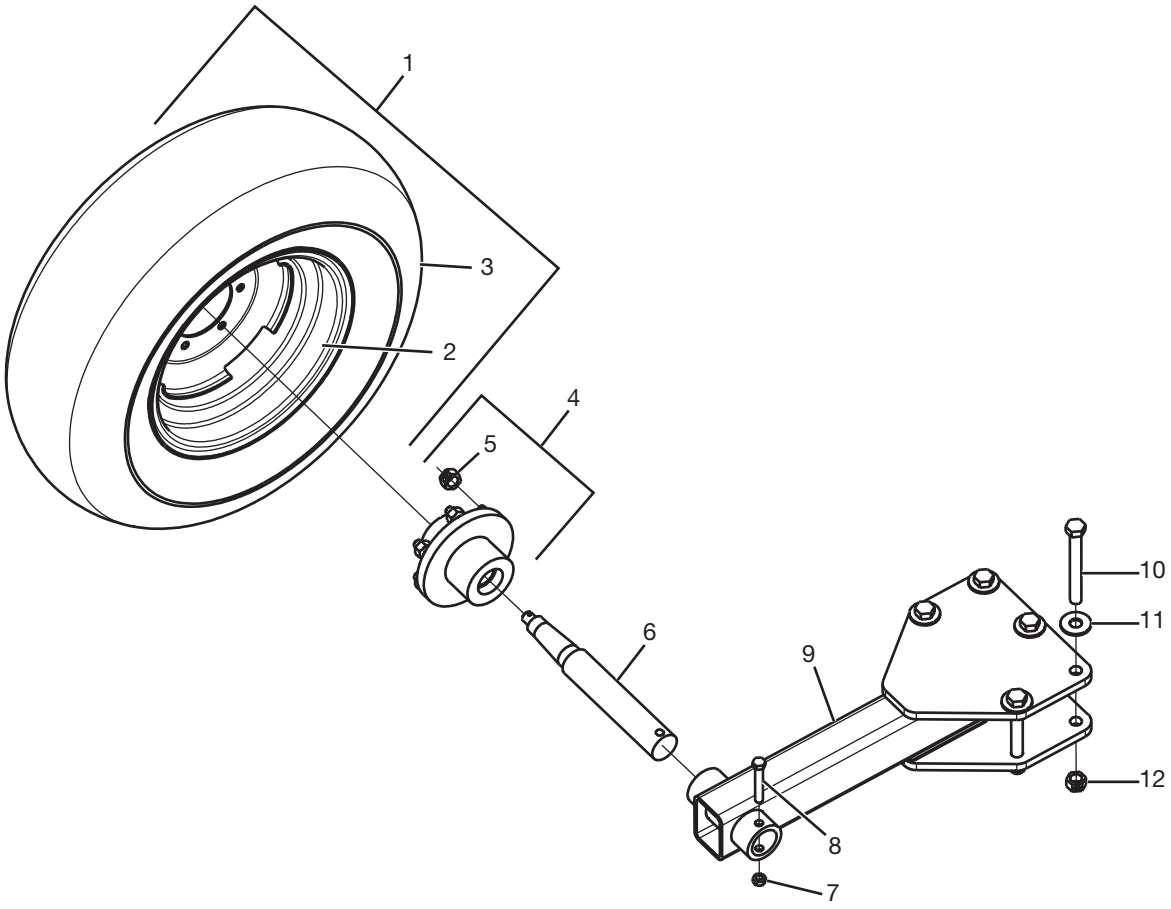
#	QTY.	PART #	DESCRIPTION
1	1	8042	CYLINDER, 3" X 8" REPHASING (Left Side Shown)
1a	1	8043	CYLINDER, 3-1/4" X 8" REPHASING
2	4	N11952	ELBOW, 90 DEG - 8MJIC - 8MOR
3	8	4458	BOLT, 3/4" X 6-1/2" GR. 5
4	2	N34898	ARM, WINDROW LIFT CYLINDER
5	8	4071	WASHER, 3/4" FLAT
6	8	4056	NUT, LOCK 3/4
7	12	4012	BOLT, 1/2" X 1-1/4" GRADE 5
8	2	N34956	BUSHING, WHEEL
9	6	4068	WASHER, FLAT 1/2" SAE
10	6	4054	NUT, LOCK 1/2" TOP
11	2	N34900	BUSHING, WHEEL PIVOT
12	2	4093	PIN, 3/8" X 2.75"
13	2	4089	CLIP, HAIRPIN .093 X 1-5/8"
14	2	N19768	CYLINDER STOP 9" - UNIVERSAL

Center Bushing



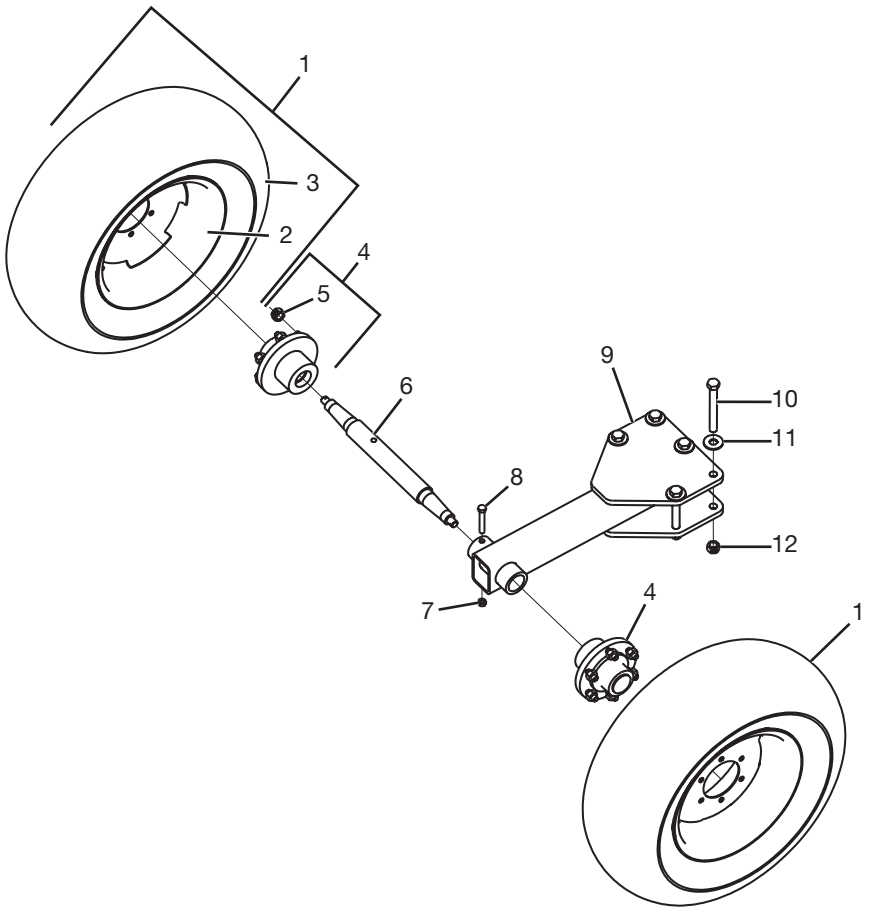
#	QTY.	PART #	DESCRIPTION
1	6	4054	NUT, LOCK 1/2" TOP
2	6	4068	WASHER, FLAT 1/2" SAE
3	1	N34956	BUSHING, WHEEL
4	1	N34900	BUSHING, WHEEL PIVOT
5	6	4013	BOLT, 1/2" X 1-1/2" GRADE 5

Wheel, Assist Assembly (N34860)



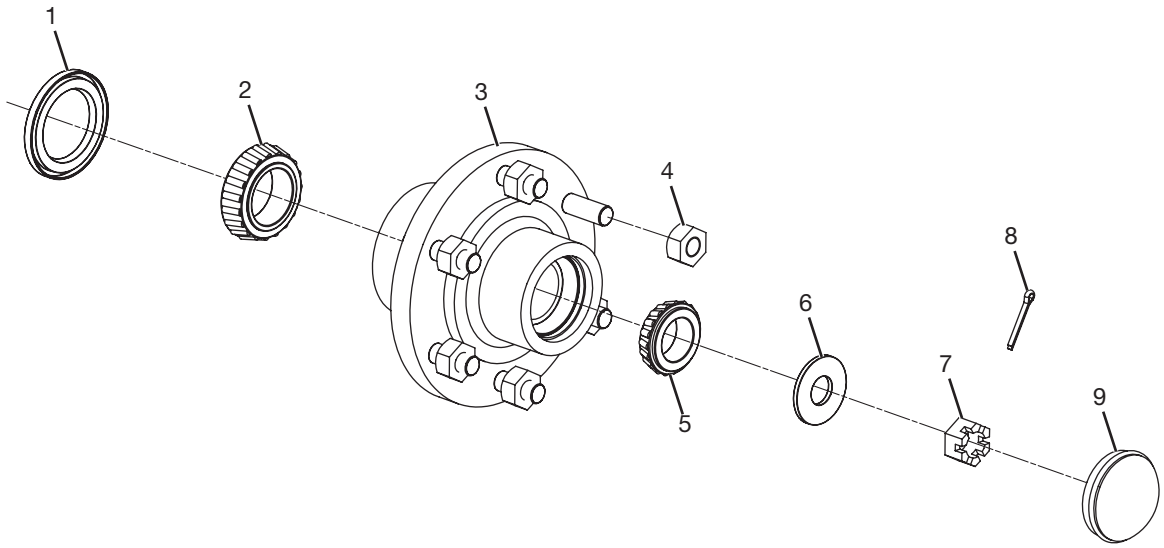
#	QTY.	PART #	DESCRIPTION
1	1	N22459	WHEEL, 11L-15 HIWAY D RATING (INCLUDES ITEMS 2 AND 3)
2	1	N22460	RIM, 15 X 8 LB - 8" WIDE
3	1	N22461	TIRE, 11L15 - 10 PLY
4	1	N23778	HUB, 6 BOL T 6" PAT W/STUDS
5	6	N23764	NUT, LUG 9/16-18UNF (INCLUDED W/N23778)
6	1	N25199	SPINDLE, GBL
7	1	4054	NUT, LOCK 1/ 2" TOP
8	1	4467	BOLT, 1/2" X 3-1/4" GRADE 5
9	1	N34896	WLDMT, WHEEL STRUT SHWD
10	5	4458	BOLT, 3/4" X 6-1/2" GR. 5
11	5	4071	WASHER, 3/4" FLAT
12	5	4056	NUT, LOCK 3/4

Wheel, Dual Assembly (20' Model only) (N34946)



#	QTY.	PART #	DESCRIPTION
1	2	N22459	WHEEL, 11L-15 HIWAY D RATING (INCLUDES ITEMS 2 AND 3)
2	2	N22460	RIM, 15 X 8 LB - 8" WIDE
3	2	N22461	TIRE, 11L15 - 10 PLY
4	2	N23778	HUB, 6 BOL T 6" PAT W/STUDS
5	12	N23764	NUT, LUG 9/16-18UNF (INCLUDED W/N23778)
6	1	N34975	SPINDLE, PT 2 X 22-5/8
7	1	4054	NUT, LOCK 1/ 2" TOP
8	1	4467	BOLT, 1/2" X 3-1/4" GRADE 5
9	1	N34896	WLDMT, WHEEL STRUT SHWD
10	5	4458	BOLT, 3/4" X 6-1/2" GR. 5
11	5	4071	WASHER, 3/4" FLAT
12	5	4056	NUT, LOCK 3/4

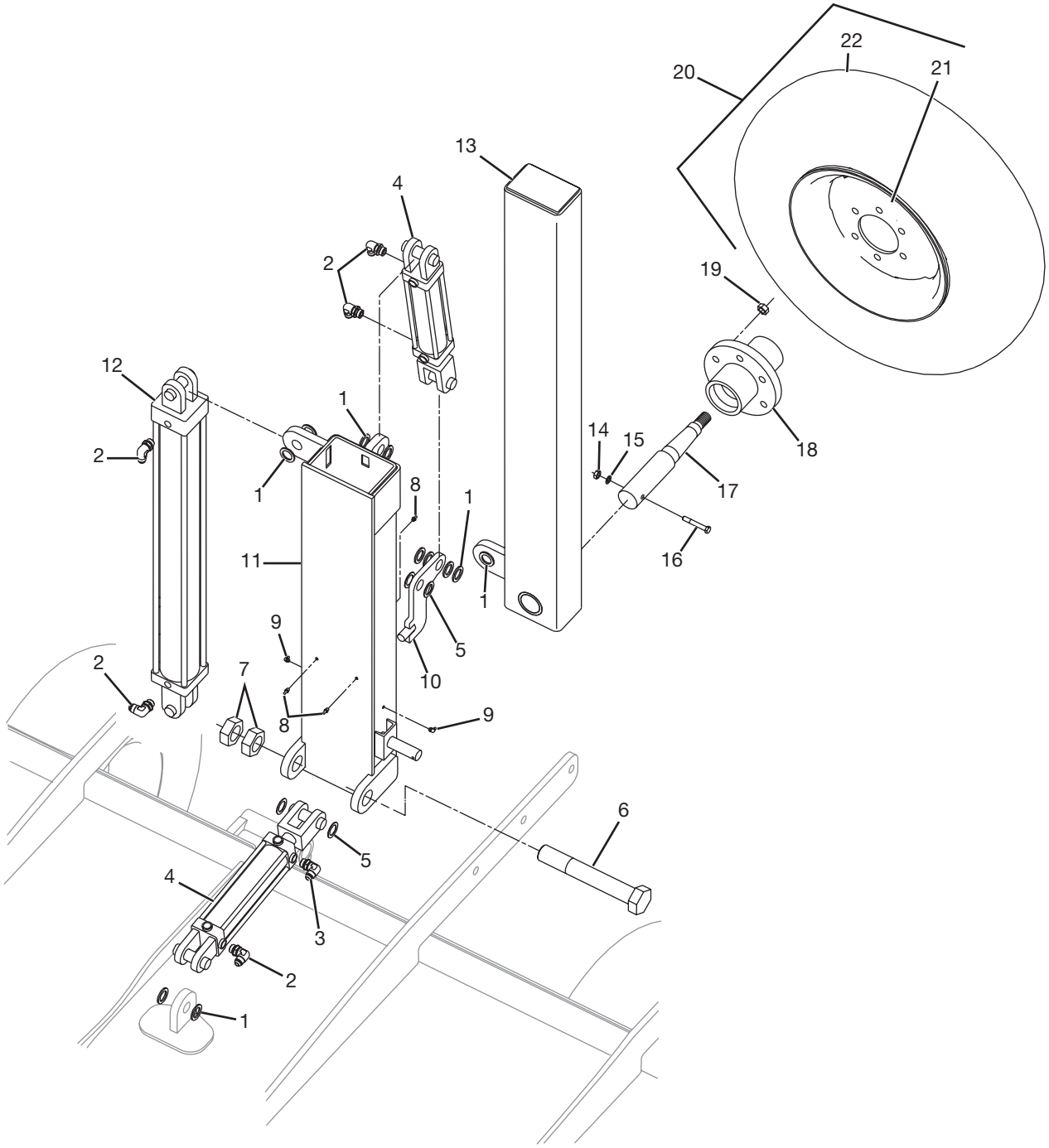
6 Bolt Hub (N23778)



To order complete hub, use part number N23778.

#	QTY.	PART #	DESCRIPTION
1	1	8082-04	SEAL, GREASE (6-BOLT HUB)
2	1	8082-03	CONE, BEARING (LARGE)
3	1	N23676	HUB, 6-BOLT STUD CASTING ONLY
4	6	N23764	NUT, LUG 9/16"-18 UNF
5	1	8082-06	CONE, BEARING (SMALL)
6	1	8082-07	WASHER, SPINDLE
7	1	8082-08	NUT, CASTLE SPINDLE (3/4"-16 UNF)
8	1	8082-09	PIN, COTTER (3/16" X 1-1/2")
9	1	8082-10	CAP, END (6-BOLT HUB)

20' Curb Side Transport Wheel Assembly

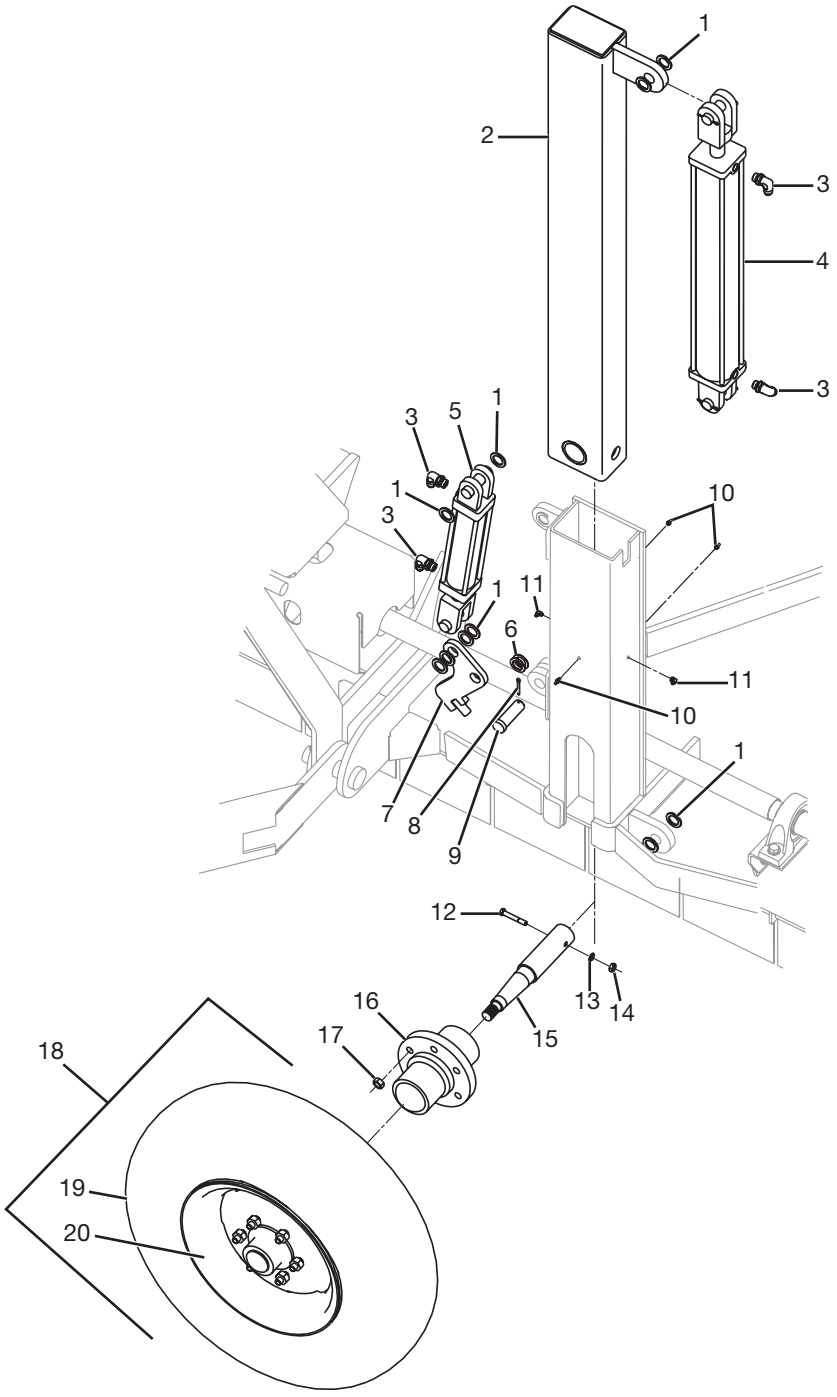


NOTE: See “Hydraulics” on page 78 for the complete hydraulic system.

20' Curb Side Transport Wheel Assembly

#	QTY.	PART #	DESCRIPTION
1	12	4158	WASHER, 1" ID THICK SPACER
2	5	N11952	ELBOW, 90 DEG - 08MJIC - 08MOR
3	1	N28663	ELBOW, 90 -8MJIC -8MOR .0310R
4	2	N34443	CYLINDER, HYDRAULIC 2" X 8"
5	4	4157	WASHER, 1" ID THIN SPACER
6	1	N34480	BOLT, 1-1/2 X 10 GRD 8
7	2	N24541	NUT, JAM 1-1/2 PLATED
8	3	4105	GREASE-ZERK
9	2	4107	GREASE-ZERK, 90° ELBOW
10	1	N34479	LOCK, PIN TRANSPORT
11	1	N34433	TUBE, WELDMENT PIVOT TRANS
12	1	N34444	CYLINDER, HYDRAULIC 3" x 30"
13	1	N34430	TUBE, REAR TRANS
14	1	4052	NUT, LOCK 3/8"
15	1	4065	WASHER, 3/8 LOCK
16	1	4007	BOLT, 3/8" X 3" GRADE 5
17	1	8076-01	SPINDLE, REAR TRANSPORT AXLE (2" X 15")
18	1	N23778	HUB, 6 BOLT 6" PAT W/STUDS
19	6	N23764	NUT, LUG 9/16-18UNF
20	1	N22796	TIRE, 9.5L-15 FARM HIGHWAY
21	1	8073	RIM, 15" X 6 LB
22	1	N34738	TIRE, 9.5L-15 FARM HIGHWAY

20' Street Side Transport Wheel Assembly



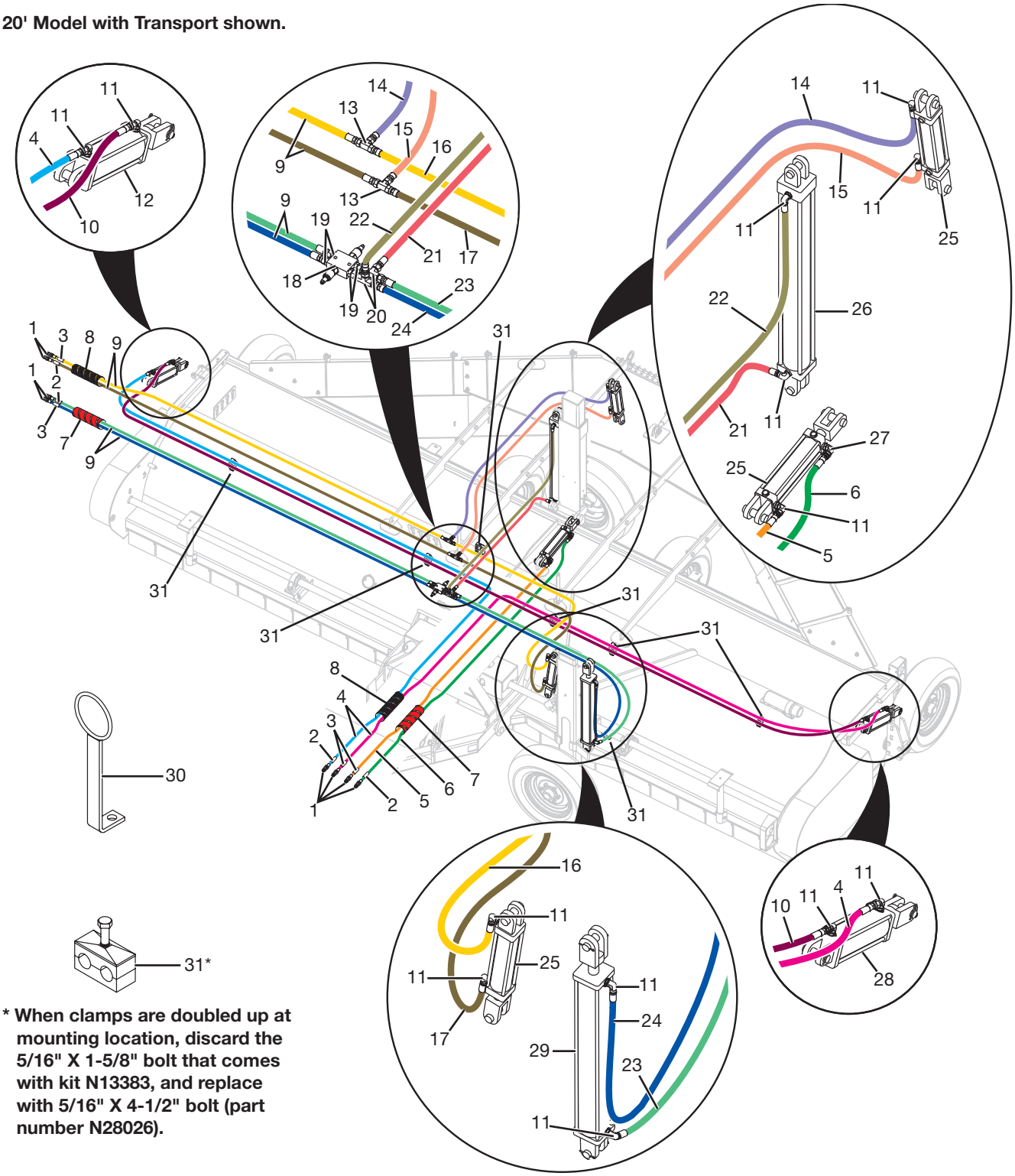
NOTE: See “Hydraulics” on page 78 for the complete hydraulic system.

20' Street Side Transport Wheel Assembly

#	QTY.	PART #	DESCRIPTION
1	10	4158	WASHER, 1" ID THICK SPACER
2	1	N34469	STRUT, HYD TRANSPORT LEG
3	4	N11952	ELBOW, 90 DEG - 08MJIC - 08MOR
4	1	N24091	CYLINDER, 3" X 24"
5	1	N34443	CYLINDER, HYDRAULIC 2" X 8"
6	2	4157	WASHER, 1" ID THIN SPACER
7	1	N34479	LOCK, PIN TRANSPORT
8	1	4325	PIN, COTTER 3/16" X 1-1/2"
9	1	4315	PIN, 1" X 2-1/2"
10	3	4105	GREASE-ZERK
11	2	4107	GREASE-ZERK, 90° ELBOW
12	1	4007	BOLT, 3/8" X 3" GRADE 5
13	1	4065	WASHER, 3/8 LOCK
14	1	4052	NUT, LOCK 3/8"
15	1	N34540	SPINDLE, TRANSPORT 2" X 15"
16	1	N23778	HUB, 6 BOLT 6" PAT W/STUDS
17	6	N23764	NUT, LUG 9/16-18UNF
18	1	N22796	WHEEL, 9.5L-15 FARM HIGHWAY
19	1	N34738	TIRE, 9.5L-15 FARM HIGHWAY
20	1	8073	RIM, 15" X 6 LB

Hydraulics

20' Model with Transport shown.



*** When clamps are doubled up at mounting location, discard the 5/16" X 1-5/8" bolt that comes with kit N13383, and replace with 5/16" X 4-1/2" bolt (part number N28026).**

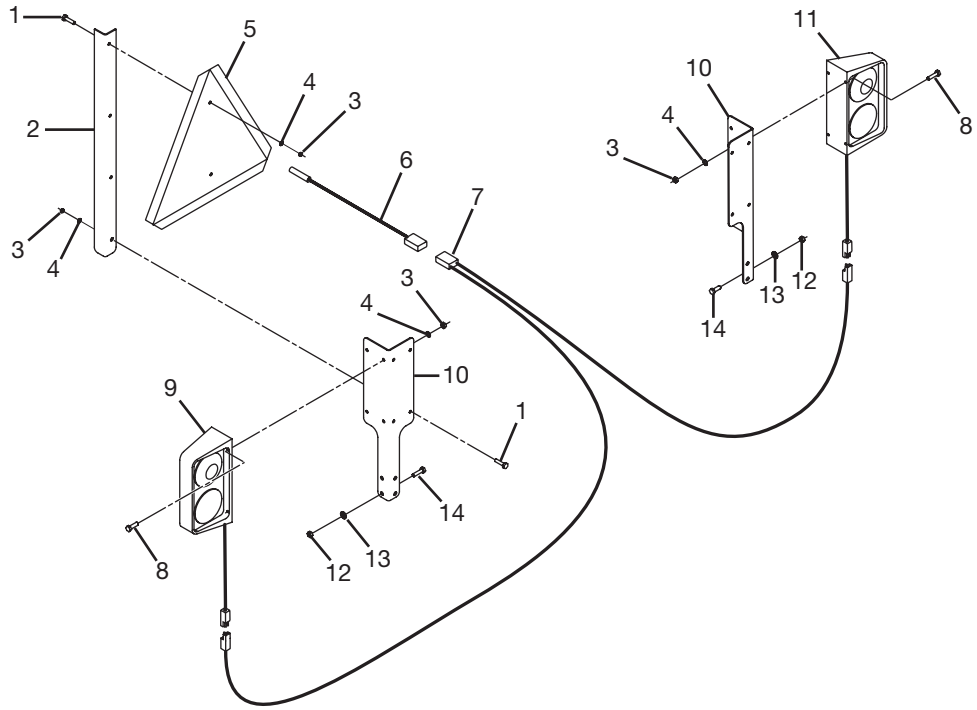
Refer also to Hydraulic Schematic on page 92.

Hydraulics

#	QTY.	PART #	DESCRIPTION
1	8	N11825	COUPLER, 1/2" MALE PIONEER
2	4	N24823	DECAL, TANK
3	4	N24822	DECAL, PRESSURE
4	2	N34574	HOSE, 1/2" HYD 252" -8MP-8FJIC
5	1	N34572	HOSE, 1/2" HYD 140" -8FJIC-8MP
6	1	N34573	HOSE, 1/2" HYD 152" -8FJIC-8MP
7	2	N32884	WRAP, HOSE - RED
8	2	N32882	WRAP, HOSE - BLACK
9	4	N34576	HOSE, 1/2" HYD 240" -8FJIC-8MP
10	1	N34613	HOSE, 1/2" HYD 228" -8FJIC B.E. (15')
	1	N34575	HOSE, 1/2" HYD 288" -8FJIC B.E. (20')
11	13	N11952	ELBOW, 90 DEG - 8MJIC - 8MOR
12	1	8043	CYLINDER, 3-1/4" X 8" REPHASING
13	2	N17001	TEE, 8MJIC-8MJIC-8MJIC
14	1	N34579	HOSE, 1/2" HYD 86" -8FJIC B.E.
15	1	N34577	HOSE, 1/2" HYD 74" -8FJIC B.E.
16	1	N34580	HOSE, 1/2" HYD 68" -8FJIC B.E.
17	1	N34578	HOSE, 1/2" HYD 57" - 8FJIC B.E.
18	1	N34564	VALVE, CROSS OVER 2000PSI
19	4	N24647	ADAPTER, -8MJIC -6MOR
20	2	N20549	TEE, 8MJIC-8FJIC-8MJIC SWVL
21	1	N34581	HOSE, 1/2" HYD 50" -8FJIC B.E.
22	1	N34598	HOSE, 1/2" HYD 64" -8FJIC B.E
23	1	N34582	HOSE, 1/2" HYD 102" - 8FJIC B.E.
24	1	N34583	HOSE, 1/2" HYD 129" -8FJIC B.E.
25	3	N34443	CYLINDER, HYDRAULIC 2" X 8"
26	1	N34444	CYLINDER, HYDRAULIC 3" x 30"
27	1	N28663	ELBOW, 90 -8MJIC -8MOR .0310R
28	1	8042	CYLINDER, 3" X 8" REPHASING
29	1	N24091	CYLINDER, 3" X 24"
30	1	N13652	BRACKET, HOSE
31*	Varies	N13383	CLAMP, DBL. 1/2" SUPP. HOSE

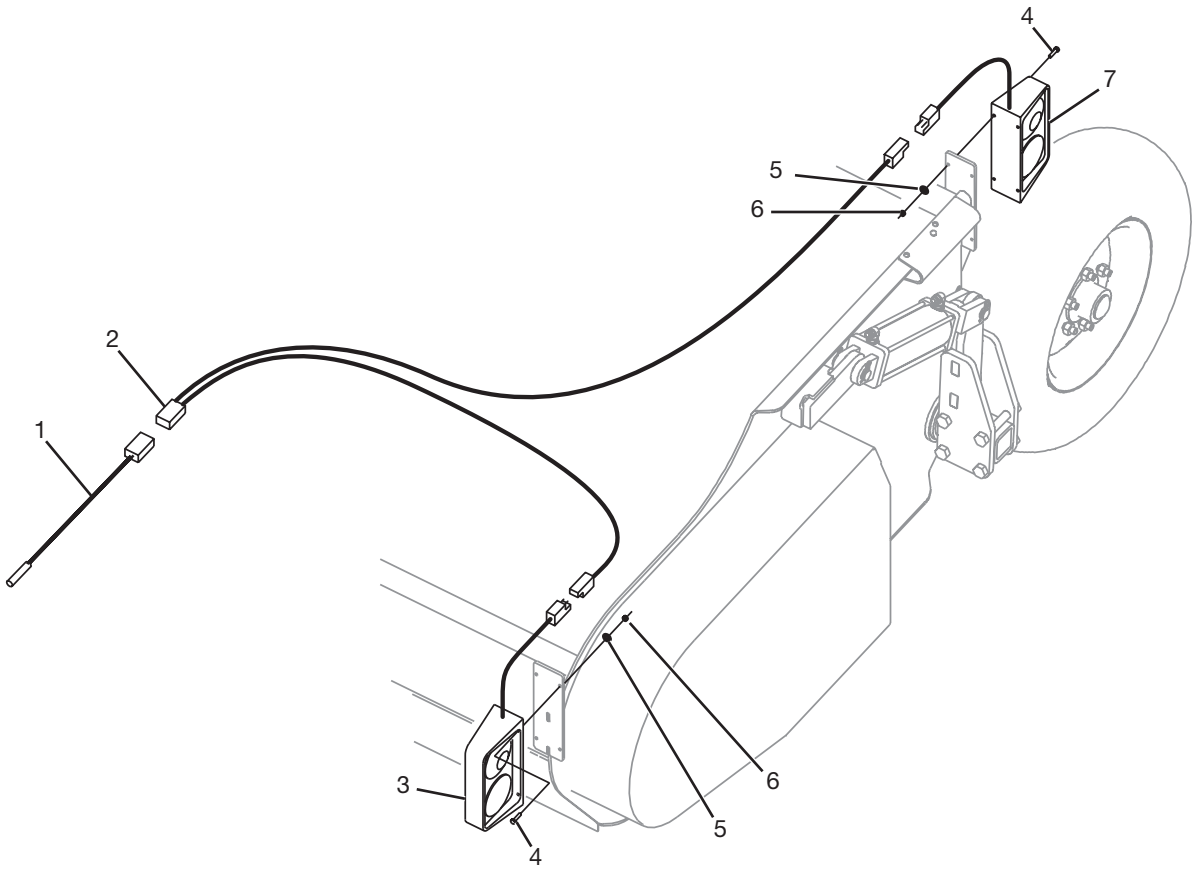
*** When clamps are doubled up at mounting location, discard the 5/16" X 1-5/8" bolt that comes with kit N13383, and replace with 5/16" X 4-1/2" bolt (part number N28026).**
Refer also to Hydraulic Schematic on page 92.

Light Kit and Slow Moving Vehicle Plate - 15' and 20' without Transport



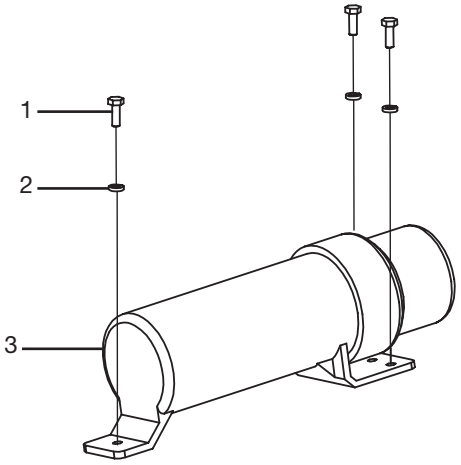
#	QTY.	PART #	DESCRIPTION
1	4	4340	BOLT, 1/4" X 3/4"
2	1	N18546	BRACKET, SLOW MOVING VEHICLE
3	12	4050	NUT, 1/4" LOCK
4	12	3183	WASHER, FLAT 1/4"
5	1	N18549	EMBLEM, SLOW MOVING VEHICLE W/PLATE
6	1	N16285	HARNESS, BRAIDED TONGUE
7	1	N16286	HARNESS, REAR WISHBONE BRAIDED
8	8	4000	BOLT, 1/4" X 1" GRADE 5
9	1	N16289	LIGHT, LEFT
10	2	N16182	MOUNT, LIGHT
11	1	N16290	LIGHT, RIGHT
12	4	4052	NUT, LOCK 3/8"
13	4	4064	WASHER, FLAT 3/8"
14	4	4195	BOLT, 3/8" X 1" GRADE 5

Light Kit - 20' with Transport



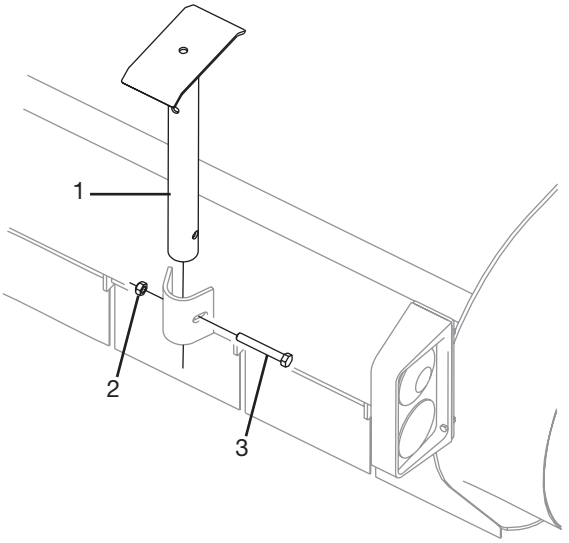
#	QTY.	PART #	DESCRIPTION
1	1	N16285	HARNESS, BRAIDED TONGUE
2	1	N16286	HARNESS, REAR WISHBONE BRAIDED
3	1	N16289	LIGHT, LEFT
4	8	4000	BOLT, 1/4" X 1" GRADE 5
5	8	3183	WASHER, FLAT 1/4"
6	8	4050	NUT, 1/4" LOCK
7	1	N16290	LIGHT, RIGHT

Manual Holder



#	QTY.	PART #	DESCRIPTION
1	3	4340	BOLT, 1/4" X 3/4" GRADE 5
2	3	4231	WASHER, LOCK 1/4"
3	1	N19600	HOLDER, 01-315A STND. MANUAL

Jack Stand



#	QTY.	PART #	DESCRIPTION
1	2	9011	JACK, STORAGE STAND
2	2	4054	NUT, LOCK 1/2" TOP
3	2	4154	BOLT, 1/2" X 3-1/2" GRADE 5

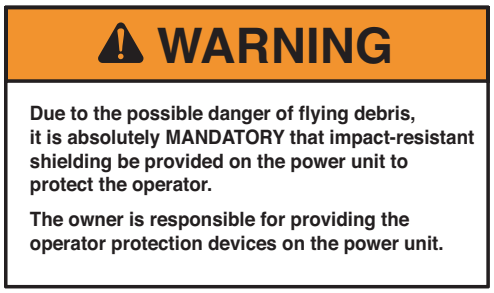
Machine Decals and Signs

NOTE: *All safety related decals are also shown in the Safety Instructions Section along with their location on the machine. See "Safety Decal Locations" on page 9.*

Check and replace any worn, torn, hard to read or missing decals on your machine.

NOTE: *To order a complete Windrow Crop Shredder Decal Kit use part number N34593 for 15' and 20' models, and N34591 for the 20' w/Transport model.*

Part No. N17013



Part No. 4256

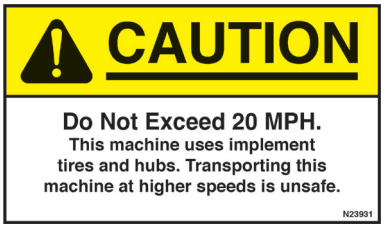
Part No. 4334

Part No. 4189

Part No. N22763

Part No. 4135

Part No. N23931



Part No. 203264

Machine Decals and Signs (Cont'd)

Part No. 4335

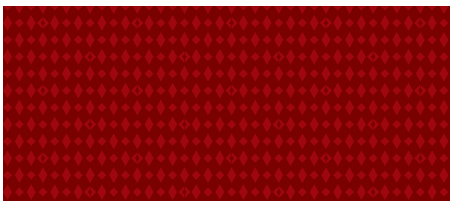
CAUTION

EXTREMELY IMPORTANT!

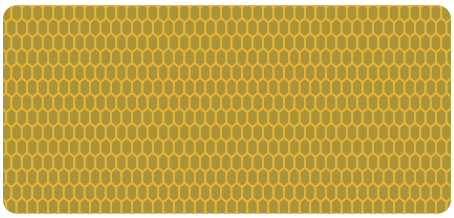
- BE SURE THE PTO SHAFT DOES NOT BOTTOM OUT OR TELESCOPE TOO FAR APART BEFORE USING THIS SHREDDER.
- PERIODICALLY CHECK ALL BOLTS INCLUDING GEARBOX FOR TIGHTNESS.
- GREASE ALL BEARINGS (AND ROTOR COUPLERS ON 24 & 30 FT.) EVERY 8 HOURS.
- DO NOT CONTINUE TO OPERATE THIS SHREDDER IF IT BECOMES "OUT OF BALANCE." STOP IMMEDIATELY, DETERMINE AND FIX THE PROBLEM OR CONTACT YOUR DEALER OR LOFTNESS BEFORE CONTINUING OPERATION.
- READ AND FOLLOW ALL INFORMATION PROVIDED IN THE OPERATOR'S MANUAL. IF YOU DO NOT HAVE AN OPERATOR'S MANUAL, ONE WILL BE PROVIDED TO YOU AT NO CHARGE. CALL OR WRITE TO:
  LOFTNESS SPECIALIZED FARM EQUIPMENT
  S. HIGHWAY 4 - BOX 337
  HECTOR, MN 55342-0337
  320-848-6273

4335

Part No. 4141



Part No. 4140



Part No. 4132

(20' with Transport)

Part No. N18549

(15' and 20' without Transport)

Part No. N23507

Part No. N24823

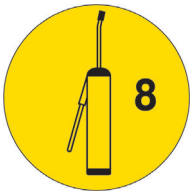
TANK
TANK
TANK
TANK
TANK
TANK
TANK
TANK

Part No. N24822

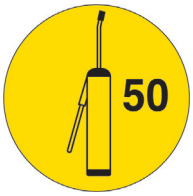
PRESSURE
PRESSURE
PRESSURE
PRESSURE
PRESSURE
PRESSURE
PRESSURE
PRESSURE

NOTE: *Grease point decals N28010, N28012, and N28013 are shown in their locations in the Lubrication section. See "Grease Point Location" on page 36.*

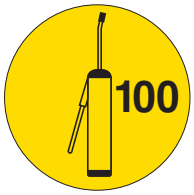
Part No. N28010

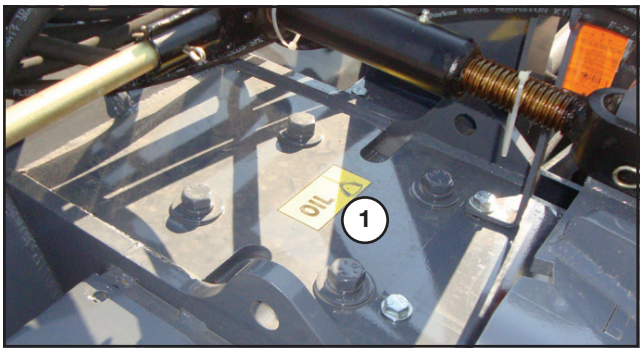


Part No. N28012



Part No. N28013

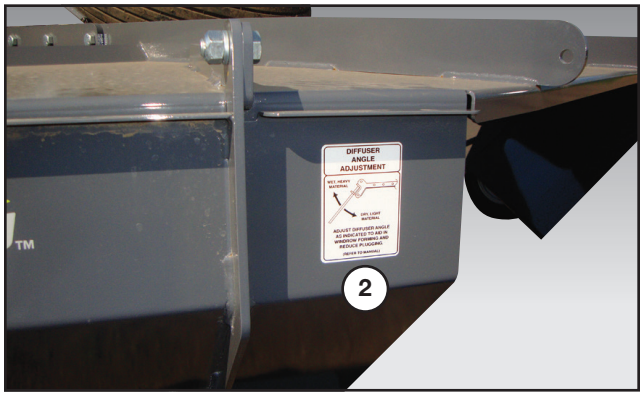




(1)

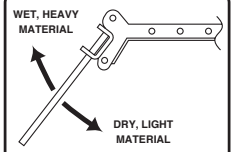
Part No. 4136

Machine Decals and Signs (Cont'd)



2

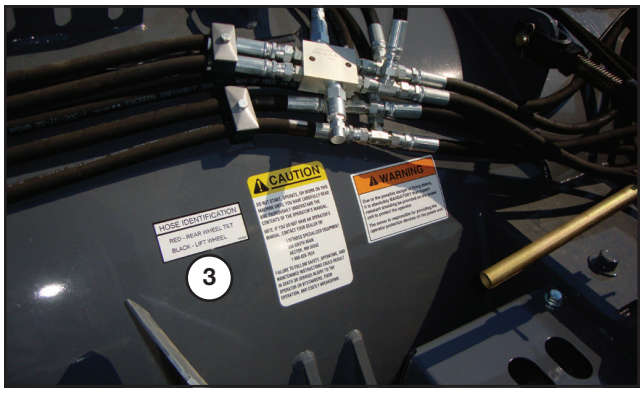
DIFFUSER
ANGLE
ADJUSTMENT



ADJUST DIFFUSER ANGLE
AS INDICATED TO AID IN
WINDROW FORMING AND
REDUCE PLUGGING.

(REFER TO MANUAL)

Part No. N19782



3

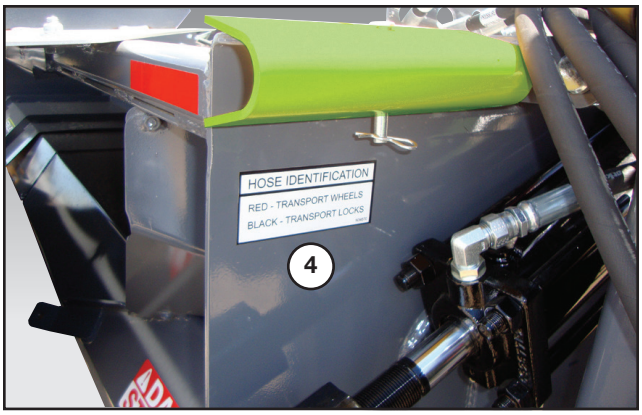
HOSE IDENTIFICATION

RED - REAR WHEEL TILT

BLACK - LIFT WHEEL

N34569

Part No. N34569



4

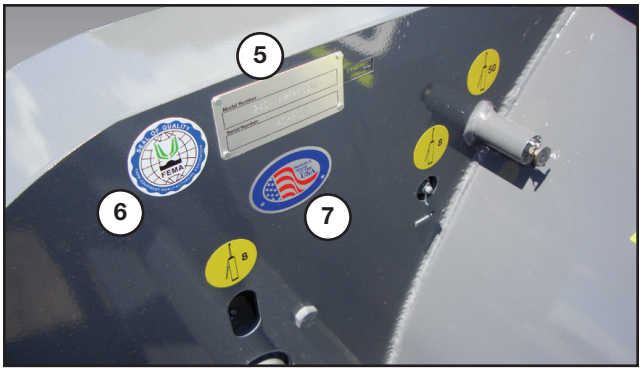
HOSE IDENTIFICATION

RED - TRANSPORT WHEELS

BLACK - TRANSPORT LOCKS

N34570

(20' Model w/Transport only) - Part No. N34570



5

Model Number

Serial Number

Part No. N13721

6

SEAL OF QUALITY
FEMA
FARM EQUIPMENT MANUFACTURERS ASSOCIATION

Part No. 4138

7

PROUDLY
MADE
IN THE
USA

Part No. N13517

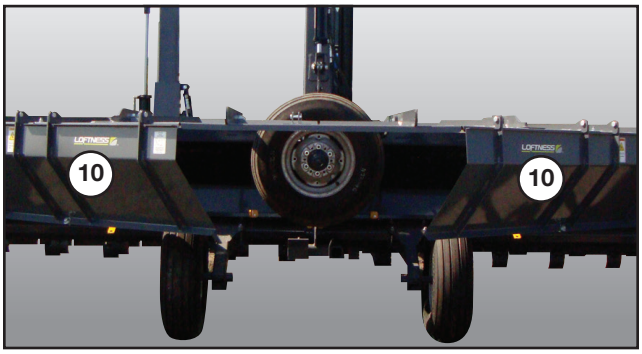
Machine Decals and Signs (Cont'd)

8 LOFTNESS CROPLOGIX RESIDUE MANAGEMENT EQUIPMENT

Part No. N32275

9

Part No. N33104



10 LOFTNESS

(small) - Part No. N26974

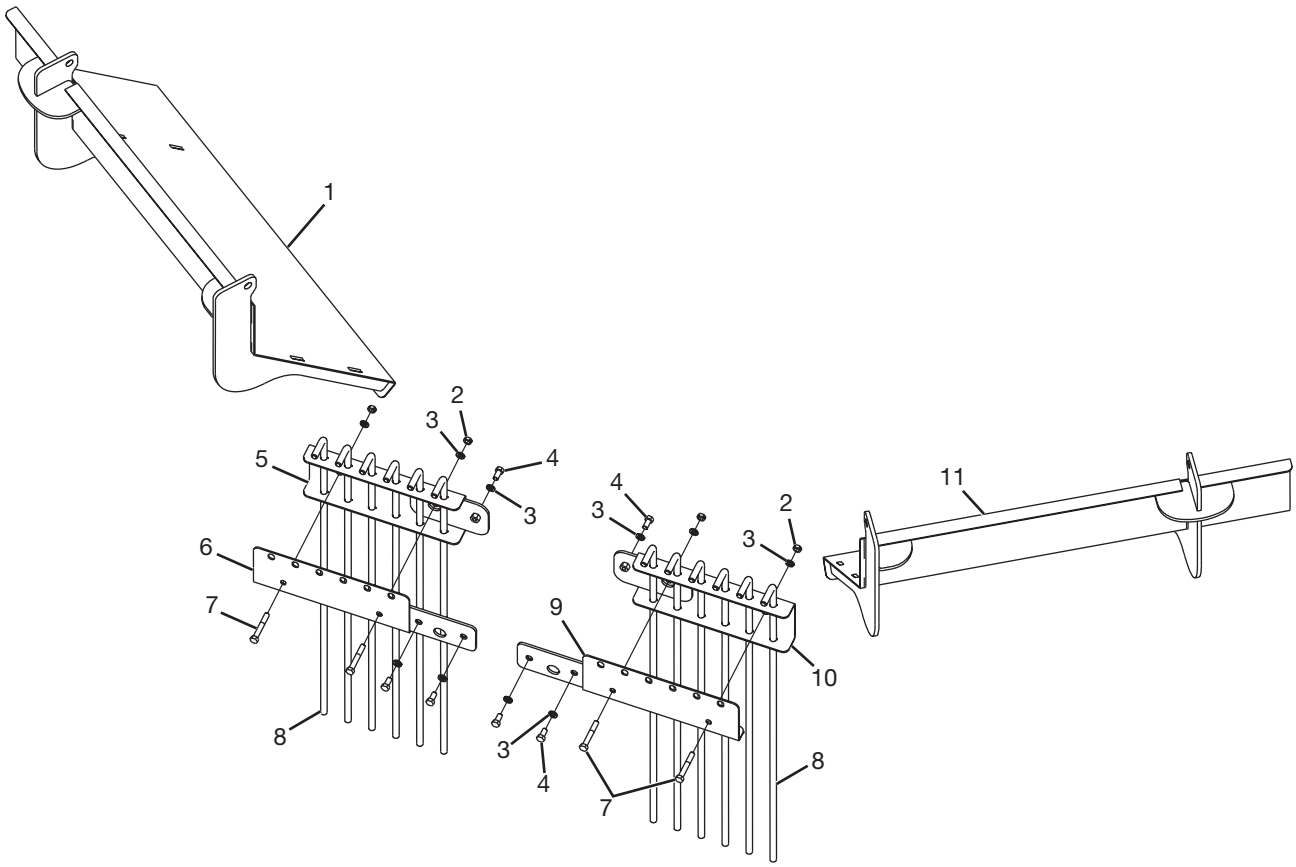
11 LOFTNESS

(medium) - Part No. N26973

12 LOFTNESS

(large) - Part No. N26972

Wing Kit, Wide Windrow (15' - N34949) (20' - N34934)



#	QTY.	PART #	DESCRIPTION
1	1	209251	WING, REAR LH 15 SHW W/DECALS
	1	209254	WING, REAR LH 20 SHW W/DECALS
2	4	4052	NUT, LOCK 3/8"
3	10	4065	WASHER, 3/8 LOCK
4	6	4193	BOLT, 3/8" X 3/4" GRADE 5
5	1	N34931	EXTENSION, LEFT ROD WELDMENT
6	1	N34933	EXTENSION, CLAMP LEFT ROD
7	4	4313	BOLT, 3/8" X 2-1/2" GRADE 5
8	12	N19502	ROD, REAR TAIL - WINDROW
9	1	N34940	EXTENSION, CLAMP RIGHT ROD
10	1	N34939	EXTENSION, RIGHT ROD WELDMENT
11	1	209252	WING, REAR RH 15 SHW W/DECALS
	1	209253	WING, REAR RH 20 SHW W/DECALS

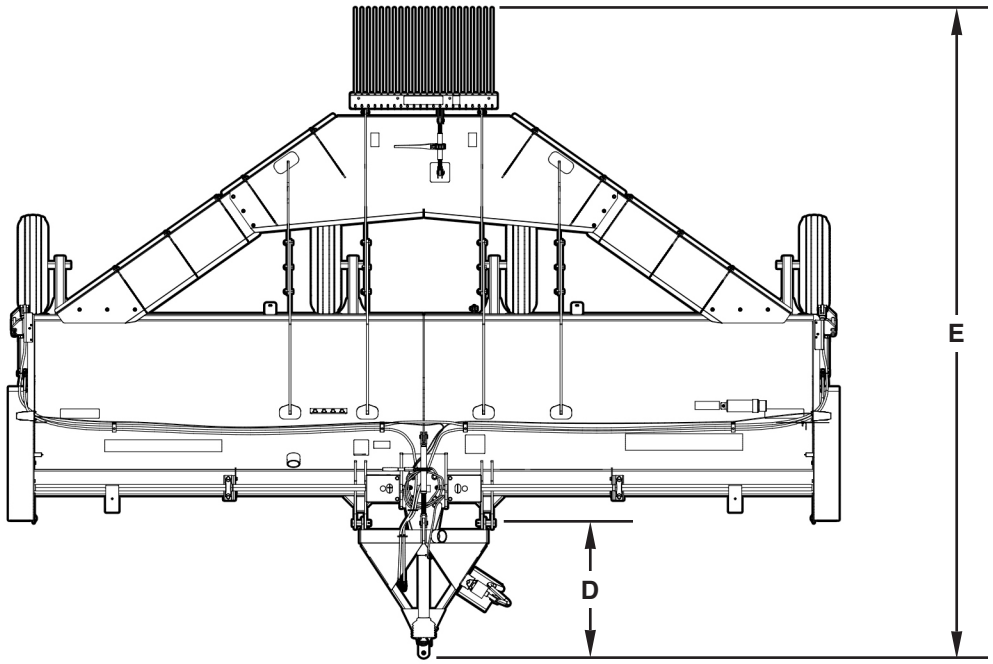

LOFTNESS

Specifications

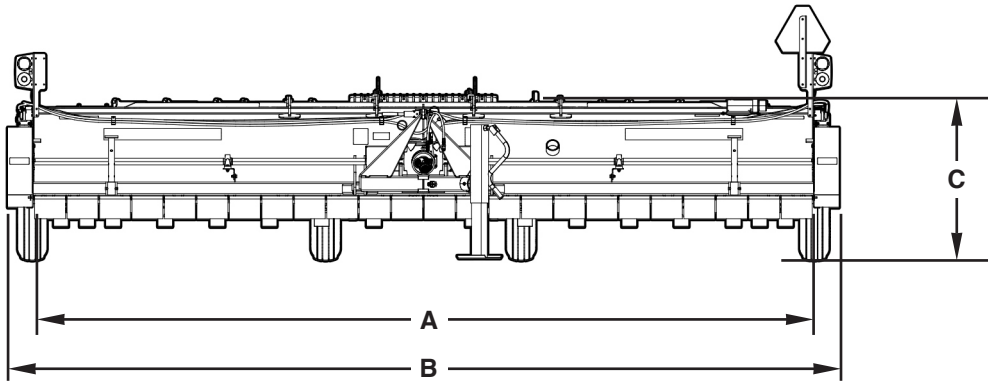
DESCRIPTION	Windrow Shredder
Cutting Width	15' Model - 180 in. (457.2 cm)
	240 in. (609.6 cm)
Knives	15' Model - 48 Cupped and 4 High Residue
	20' Model - 64 Cupped and 4 High Residue
Weight	15' Model - approx. 5,896 lbs. (2674 kg)
	20' Model - approx. 7,000 lbs. (3,175 kg)
	20' Model w/Transport - approx. 7,865 lbs. (3,567.5 kg)
Transport Tongue Weight	20' Model w/Transport only - approx. 765 lbs. (347 kg)
Rotor	1450 RPM Computer Balanced
	7 1/2 in. (19.05 cm) Tube Diameter
	2 3/16 in. (5.55 cm) Shaft Diameter
Drive	1,000 RPM PTO
	Bondioli 280 HP

Dimensions - 15' and 20' Model (without Transport)

TOP



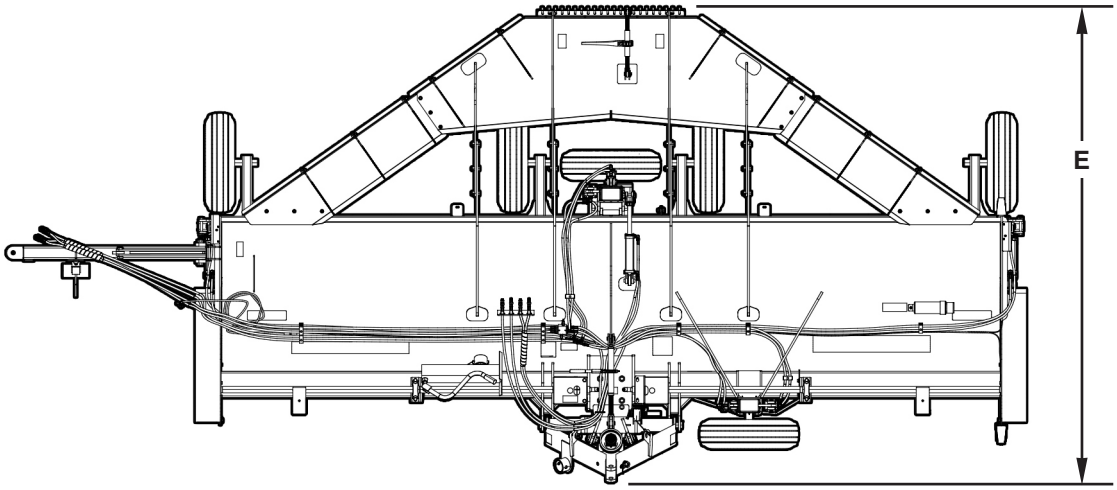
FRONT



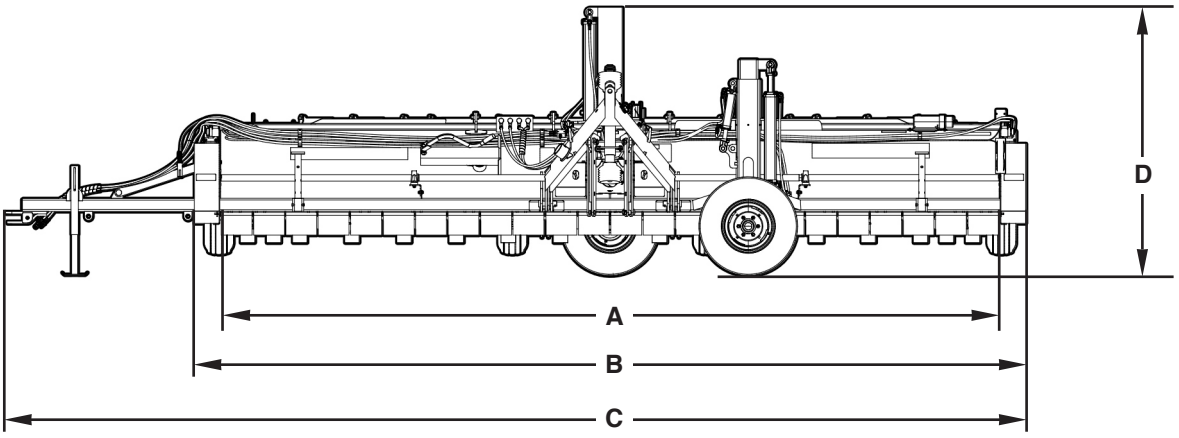
DESCRIPTION	15' Windrow Shredder	20' Windrow Shredder
Cutting Width (A)	180 in. (457.2 cm)	240 in. (609.6 cm)
Overall Width (B)	199 in. (505.46 cm)	259 in. (657.86 cm)
Standard Height (C)	48 in. (121.92 cm)	48 in. (121.92 cm)
Pull-type Hitch Length (D)	40 in. (101.6 cm)	40 in. (101.6 cm)
Total Depth (E)	200 in. (508 cm)	200 in. (508 cm)

Dimensions - 20' Model with Transport

TOP

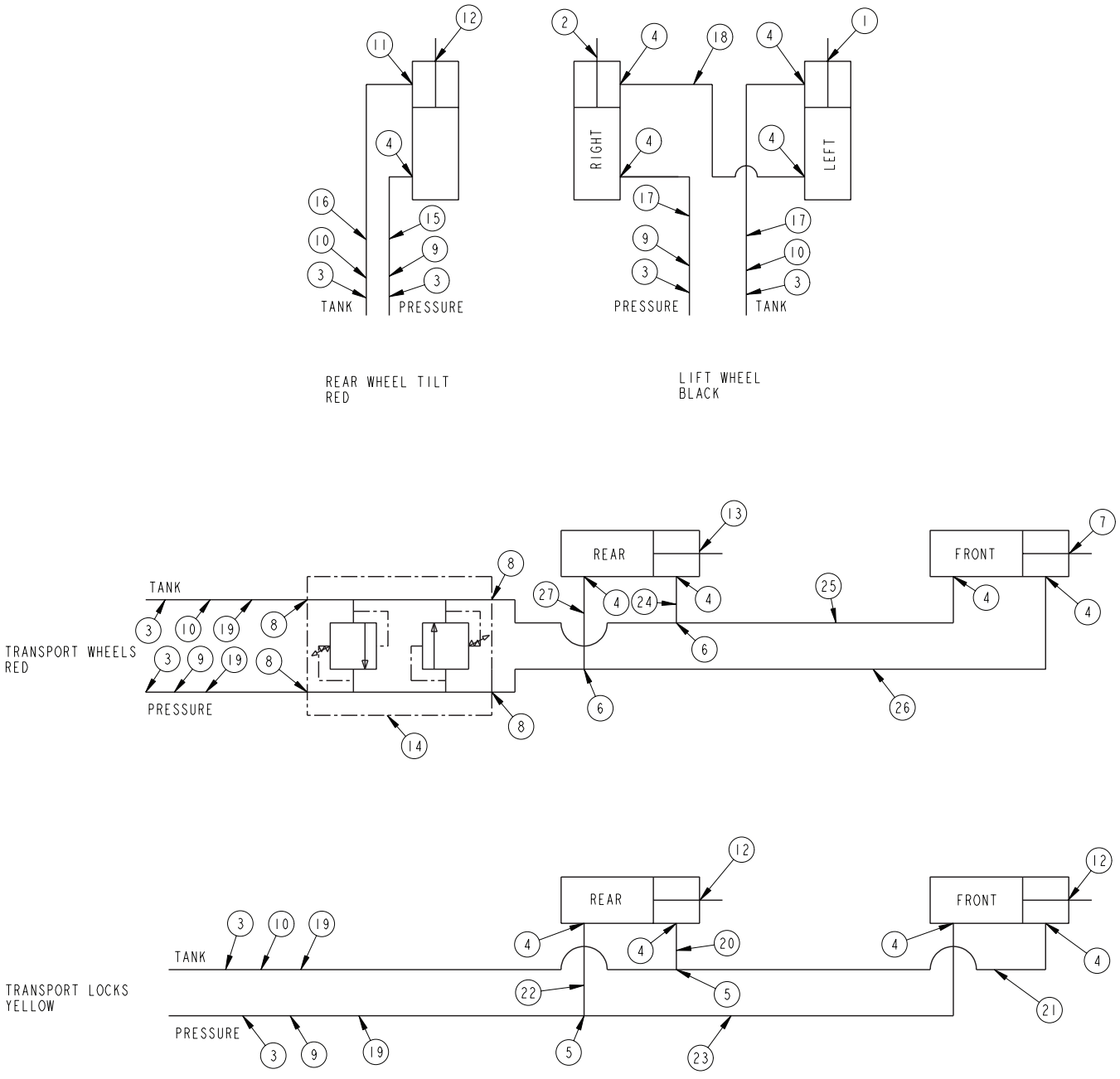


FRONT



DESCRIPTION	20' Windrow Shredder with Transport
Cutting Width (A)	240 in. (609.6 cm)
Overall Width (B)	259 in. (657.86 cm)
Transport Length (C)	311 in. (790 cm)
Transport Height (D)	86 in. (218.4 cm)
Transport Width (E)	144 in. (365.76 cm)

Schematic, Hydraulic



Schematic, Hydraulic

#	QTY.	PART #	DESCRIPTION
1	1	8042	CYLINDER, 3" X 8" REPHASING
2	1	8043	CYLINDER, 3-1/4" X 8" REPHASING
3	8	N11825	COUPLER, 1/2" MALE PIONEER
4	13	N11952	ELBOW, 90 DEG - 08MJIC - 08MOR
5	2	N17001	TEE, 8MJIC-8MJIC-8MJIC
6	2	N20549	TEE, 8MJIC-8FJIC-8MJIC SWVL
7	1	N24091	CYLINDER, 3" X 24"
8	4	N24647	ADAPTER, -8MJIC -6MOR
9	4	N24822	DECAL, PRESSURE
10	4	N24823	DECAL, TANK
11	1	N28663	ELBOW, 90 -8MJIC -8MOR .0310R
12	3	N34443	CYLINDER, HYDRAULIC 2" X 8"
13	1	N34444	CYLINDER, HYDRAULIC 3" x 30"
14	1	N34564	VALVE, CROSS OVER 2000PSI
15	1	N34572	HOSE, 1/2" HYD 140" -8FJIC-8MP
16	1	N34573	HOSE, 1/2" HYD 152" -8FJIC-8MP
17	2	N34574	HOSE, 1/2" HYD 252" -8MP-8FJIC
18	1	N34613	HOSE, 1/2" HYD 228" -8FJIC B.E. (15')
	1	N34575	HOSE, 1/2" HYD 288" -8FJIC B.E. (20')
19	4	N34576	HOSE, 1/2" HYD 240" -8FJIC-8MP
20	1	N34577	HOSE, 1/2" HYD 74" -8FJIC B.E.
21	1	N34578	HOSE, 1/2" HYD 57" - 8FJIC B.E.
22	1	N34579	HOSE, 1/2" HYD 86" -8FJIC B.E.
23	1	N34580	HOSE, 1/2" HYD 68" -8FJIC B.E.
24	1	N34581	HOSE, 1/2" HYD 50" -8FJIC B.E.
25	1	N34582	HOSE, 1/2" HYD 102" - 8FJIC B.E.
26	1	N34583	HOSE, 1/2" HYD 129" -8FJIC B.E.
27	1	N34598	HOSE, 1/2" HYD 64" -8FJIC B.E

Appendix

Torque Specifications

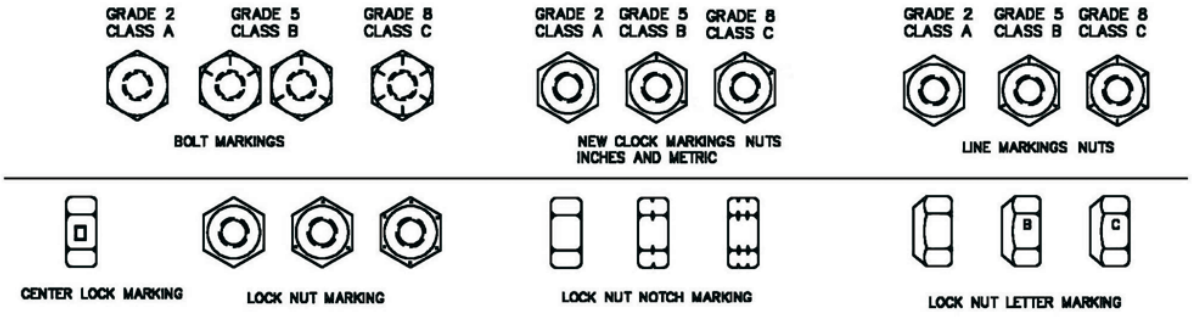
Inches Hardware and Lock Nuts

TORQUE CHARTS

Minimum Hardware Tightening Torques

Normal Assembly Applications
(Standard Hardware and Lock Nuts)

SAE Gr. 2	SAE Grade 5		SAE Grade 8		LOCK NUTS			
Nominal Size	**Unplated or Plated Silver**	**Plated W / ZnCr Gold**	**Unplated or Plated Silver**	**Plated W / ZnCr Gold**	**Unplated or Plated Silver**	**Plated W / ZnCr Gold**	**Grade W / Gr. 5 Bolt**	**Grade W / Gr. 8 Bolt**
1/4	55 in.-lb. (6.2 N•m)	72 in.-lb. (8.1 N•m)	86 in.-lb. (9.7 N•m)	112 in.-lb. (12.6 N•m)	121 in.-lb. (13.6 N•m)	157 in.-lb. (17.7 N•m)	61 in.-lb. (6.9 N•m)	86 in.-lb. (9.8 N•m)
5/16	115 in.-lb. (13 N•m)	149 in.-lb. (17 N•m)	178 in.-lb. (20 N•m)	229 in.-lb. (26 N•m)	250 in.-lb. (28 N•m)	324 in.-lb. (37 N•m)	125 in.-lb. (14 N•m)	176 in.-lb. (20 N•m)
3/8	17 ft.-lb. (23 N•m)	22 ft.-lb. (30 N•m)	26 ft.-lb. (35 N•m)	34 ft.-lb. (46 N•m)	37 ft.-lb. (50 N•m)	48 ft.-lb. (65 N•m)	19 ft.-lb. (26 N•m)	26 ft.-lb. (35 N•m)
7/16	27 ft.-lb. (37 N•m)	35 ft.-lb. (47 N•m)	42 ft.-lb. (57 N•m)	54 ft.-lb. (73 N•m)	59 ft.-lb. (80 N•m)	77 ft.-lb. (104 N•m)	30 ft.-lb. (41 N•m)	42 ft.-lb. (57 N•m)
1/2	42 ft.-lb. (57 N•m)	54 ft.-lb. (73 N•m)	64 ft.-lb. (87 N•m)	83 ft.-lb. (113 N•m)	91 ft.-lb. (123 N•m)	117 ft.-lb. (159 N•m)	45 ft.-lb. (61 N•m)	64 ft.-lb. (88 N•m)
9/16	60 ft.-lb. (81 N•m)	77 ft.-lb. (104 N•m)	92 ft.-lb. (125 N•m)	120 ft.-lb. (163 N•m)	130 ft.-lb. (176) N•m	169 ft.-lb. (229 N•m)	65 ft.-lb. (88 N•m)	92 ft.-lb. (125 N•m)
5/8	83 ft.-lb. (112 N•m)	107 ft.-lb. (145 N•m)	128 ft.-lb. (174 N•m)	165 ft.-lb. (224 N•m)	180 ft.-lb. (244) N•m	233 ft.-lb. (316 N•m)	90 ft.-lb. (122 N•m)	127 ft.-lb. (172 N•m)
3/4	146 ft.-lb. (198 N•m)	189 ft.-lb. (256 N•m)	226 ft.-lb. (306 N•m)	293 ft.-lb. (397 N•m)	319 ft.-lb. (432 N•m)	413 ft.-lb. (560 N•m)	160 ft.-lb. (217 N•m)	226 ft.-lb. (306 N•m)
7/8	142 ft.-lb. (193 N•m)	183 ft.-lb. (248 N•m)	365 ft.-lb. (495 N•m)	473 ft.-lb. (641 N•m)	515 ft.-lb. (698 N•m)	667 ft.-lb. (904 N•m)	258 ft.-lb. (350 N•m)	364 ft.-lb. (494 N•m)
1	213 ft.-lb. (289 N•m)	275 ft.-lb. (373 N•m)	547 ft.-lb. (742 N•m)	708 ft.-lb. (960 N•m)	773 ft.-lb. (1048 N•m)	1000 ft.-lb. (1356 N•m)	386 ft.-lb. (523 N•m)	545 ft.-lb. (739 N•m)



Torque Specifications (Cont'd)

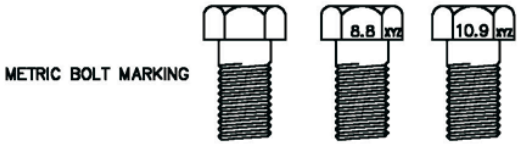
Metric Hardware and Lock Nuts

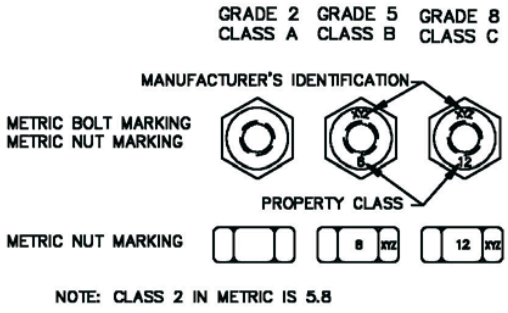
TORQUE CHARTS

Minimum Hardware Tightening Torques

Normal Assembly Applications
(Metric Hardware and Lock Nuts)

	Class 5,8		Class 8,8		Class 10,9		Lock nuts
Nominal Size	**Unplated or Plated Silver**	**Plated W / ZnCr Gold**	**Unplated or Plated Silver**	**Plated W / ZnCr Gold**	**Unplated or Plated Silver**	**Plated W / ZnCr Gold**	**Class 8 W / CL. 8,8 Bolt**
M4	1.7 N•m (15 in.-lb.)	2.2 N•m (19 in.-lb.)	2.6 N•m (23 in.-lb.)	3.4 N•m (30 in.-lb.)	3.7 N•m (33 in.-lb.)	4.8 N•m (42 in.-lb.)	1.8 N•m (16 in.-lb.)
M6	5.8 N•m (51 in.-lb.)	7.6 N•m (67 in.-lb.)	8.9 N•m (79 in.-lb.)	12 N•m (102 in.-lb.)	13 N•m (115 in.-lb.)	17 N•m (150 in.-lb.)	6.3 N•m (56 in.-lb.)
M8	14 N•m (124 in.-lb.)	18 N•m (159 in.-lb.)	22 N•m (195 in.-lb.)	28 N•m (248 in.-lb.)	31 N•m (274 in.-lb.)	40 N•m (354 in.-lb.)	15 N•m (133 in.-lb.)
M10	28 N•m (21 ft.-lb.)	36 N•m (27 ft.-lb.)	43 N•m (32 ft.-lb.)	56 N•m (41 ft.-lb.)	61 N•m (45 ft.-lb.)	79 N•m (58 ft.-lb.)	30 N•m (22 ft.-lb.)
M12	49 N•m (36 ft.-lb.)	63 N•m (46 ft.-lb.)	75 N•m (55 ft.-lb.)	97 N•m (72 ft.-lb.)	107 N•m (79 ft.-lb.)	138 N•m (102 ft.-lb.)	53 N•m (39 ft.-lb.)
M16	121 N•m (89 ft.-lb.)	158 N•m (117 ft.-lb.)	186 N•m (137 ft.-lb.)	240 N•m (177 ft.-lb.)	266 N•m (196 ft.-lb.)	344 N•m (254 ft.-lb.)	131N•m (97 ft.-lb.)
M20	237 N•m (175 ft.-lb.)	307 N•m (226 ft.-lb.)	375 N•m (277 ft.-lb.)	485 N•m (358 ft.-lb.)	519 N•m (383 ft.-lb.)	671 N•m (495 ft.-lb.)	265 N•m (195 ft.-lb.)
M24	411 N•m (303 ft.-lb.)	531 N•m (392 ft.-lb.)	648 N•m (478 ft.-lb.)	839 N•m (619 ft.-lb.)	897 N•m (662 ft.-lb.)	1160 N•m (855 ft.-lb.)	458 N•m (338 ft.-lb.)



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