HINIKER

FLAIL SHREDDER/WINDROWER 20’ WITH HYDRAULIC END TRANSPORT MODEL 5620HH/5621

OPERATOR’S MANUAL

DO NOT USE OR OPERATE THIS EQUIPMENT UNTIL THIS MANUAL HAS BEEN READ AND THOROUGHLY UNDERSTOOD

PART NUMBER 79203635 Rev. A

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79203635 Rev. A **4/14** **Manual/79203635RevA**

TO THE PURCHASER

This product is designed and manufactured to give years of dependable service, when properly maintained and used for the purpose for which it is intended. Never allow anyone to operate this equipment until they fully understand the complete contents of this manual. It is the responsibility of owner's, who do not operate this equipment, to insure the operator is properly instructed and understands the contents of this manual. It is also the owner's responsibility to insure that anyone operating this equipment is mentally and physically capable of so doing.

Important information is contained in this manual to help insure safe and efficient operation.

If you have any questions about this manual, or the equipment discussed therein, contact your HINIKER dealer. Additional copies of this manual may be obtained through your Hiniker dealer.

THIS IS THE SAFETY ALERT SYMBOL. IT ALERTS AN OPERATOR TO INFORMATION CONCERNING PERSONAL SAFETY. ALWAYS OBSERVE, AND HEED, THESE INSTRUCTIONS, OTHERWISE DEATH, OR SERIOUS INJURY CAN RESULT!

All references to LEFT or RIGHT means viewing the equipment from the rear and facing the tractor.

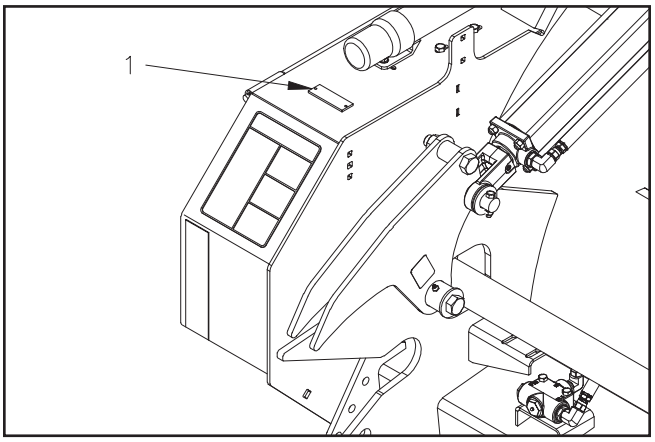
ALWAYS OBTAIN ORIGINAL HINIKER SERVICE PARTS BECAUSE SUBSTITUTE PARTS COULD ADVERSELY AFFECT EQUIPMENT PERFORMANCE AND WARRANTY.

All photos in this manual refer to paragraph(s) proceeding the photo.

A DELIVERY REPORT IS TO BE FILLED OUT BY YOUR HINIKER DEALER WHEN YOU ACCEPT THIS EQUIPMENT. ONE COPY IS TO BE GIVEN TO YOU. DO NOT ACCEPT THIS EQUIPMENT UNTIL YOU ARE SATISFIED ALL ITEMS THEREON HAVE BEEN CHECKED, AND YOU UNDERSTAND THEM.

Check that your dealer has forwarded the HINIKER delivery report copy, along with the machine serial number, because it helps maintain maximum service and warranty benefits. This does not put you on any mailing list and information thereon is not available to others.

Your machine's serial number plate is at (arrow 1).



DWG. NO. 7057

Record the following information for later reference when obtaining service parts:

Purchase Date:_____

Purchaser's Name:_____

Dealer's Name:_____

Machine Serial #:_____

SAFETY

THIS IS THE SAFETY ALERT SYMBOL. IT ALERTS AN OPERATOR TO INFORMATION CONCERNING PERSONAL SAFETY. ALWAYS OBSERVE, AND HEED, THESE SYMBOLS AND INSTRUCTIONS, OTHERWISE DEATH, OR SERIOUS INJURY CAN RESULT!

Operator safety is a principle concern in equipment design and distribution. However, many accidents occur because a few seconds of thought, and a more careful approach to handling, were ignored.

ACCIDENTS CAN BE AVOIDED BY KNOWING, AND FOLLOWING, THE PRECAUTIONS CITED IN THIS MANUAL.

For better viewing, certain photos may show a safety shield open or removed. This equipment should never be operated without factory installed shields in plac**e.**

Replace any decals that are not readable, or missing. Their ordering numbers and proper location are shown in the DECAL LOCATION section of this manual. Keep decals free of dirt, grease, etc.

Throughout this manual, and on all safety related decals, a safety alert symbol, along with the signal word **CAUTION, WARNING** or **DANGER** will be found. These are defined as follows:

CAUTION: A reminder for proper safety practices and directs attention to following them. Decals of this class are yellow and black.

WARNING: A reminder for proper safety practices and what can happen if they are ignored. This has a more serious consequence than CAUTION. Decals of this class are orange and black.

DANGER: Denotes a most serious safety hazard. It is a reminder for observing the stated precautions and what can happen if they are ignored. Decals of this class are red and white.

There are other decals in this manual that pertain to protecting the equipment. They are not directly related to operator safety. These have black letters on a white background to distinguish them from safety decals. They lack the safety alert symbol, but carry the words NOTICE or IMPORTANT defined as follows:

NOTICE: INFORMS THE READER OF SOMETHING THAT CAN CAUSE MINOR MACHINE DAMAGE, OR POOR PERFORMANCE, IF IGNORED.

IMPORTANT: WARNS THE READER OF POTENTIALLY MORE SERIOUS MACHINE DAMAGE, OR POOR PERFORMANCE IF IGNORED.

GENERAL

1. If the Operator's Manual is missing from this equipment, obtain a replacement from your HINIKER dealer. If you sell this equipment, insure the new owner acknowledges receipt of this manual.

2. Read this manual thoroughly. Make sure the operator understands it and knows how to operate this equipment safely. Farm equipment can kill or injure an untrained, or careless, operator.

3. Do not attempt to handle and service this equipment, or direct others to do the same, unless you know how to do it safely.

4. Keep all shields and guards in place.

5. Keep hands, feet, hair and clothing away from moving parts.

6. Disengage PTO, stop tractor engine, set brakes and wait for all motion to stop before adjusting, or servicing, this equipment.

7. Keep off the machine, and insure everyone is clear before starting, actuating hydraulics, and during equipment operation.

8. Do not service, or otherwise handle, a unit in a raised position unless it is securely blocked against unexpected falling.

9. Keep all front flipper shields in place and free swinging.

10. Never operate in areas littered with glass, rocks, metal, etc. Keep cab windows clean to maintain good visibility.

11. Escaping hydraulic/diesel fluid under pressure can penetrate the skin causing serious injury.

DO NOT use your hand to check for leaks. Use a piece of cardboard.

Tighten all connections before pressurizing hydraulic lines.

If fluid is injected into the skin, get medical attention to prevent serious infection.

12. Discipline yourself to always visually inspect this equipment for any excessively worn, damaged, or cracked parts before starting use. Replace these with genuine HINIKER parts.

13. Stalk shredding/windrowing often involves a combustible environment. Carry a fire extinguisher and first aid kit with tractor.

14. OSHA requires farm employers to meet certain safety standards. Become familiar with, and comply with them.

15. Do not alter this equipment to the extent of compromising safety and performance.

16. Do not assume everyone is as safety conscious as yourself.

BEFORE OPERATION

1. Insure unit's PTO assembly is fully engaged with implement driveshaft, tractor PTO and SLIDING COLLARS ARE RETURNED TO THEIR LOCKED POSITIONS.

2. NEVER allow improperly supervised minors, or anyone else, to operate this equipment. It is your responsibility to insure that any operator is mentally and physically capable of so doing.

3. Do not operate the shredder/windrower with a 540 RPM tractor.

4. Do not "jump start" the tractor from along side it. Start tractor only from seat.

5. Lock any swinging tractor drawbar before hooking up. Use a cross retainer in end of the hitch pin.

6. Disengage PTO, stop tractor engine, and remove key before hooking up shredder/windrower PTO.

7. Clear area of people, and debris, before engaging tractor PTO. Be alert for blind areas of operation. Slow down PTO and "feather" into engagement to prevent unnecessary stress on driveline.

8. DO NOT OPEN MACHINE SHIELDS WITH TRACTOR ENGINE RUNNING.

9. Do not stand close to, immediately behind or in front of, a running shredder/windrower.

DURING OPERATION

1. Gradually bring unit up to operating speed and check for any abnormal vibration, or performance. IF ABNORMAL VIBRATION IS PRESENT AT ANY TIME, IMMEDIATELY DISENGAGE PTO, STOP TRACTOR ENGINE, REMOVE KEY AND DETERMINE/CORRECT CAUSE BEFORE PROCEEDING.

2. Clear area of people before folding or unfolding machine.

3. Stop tractor engine, remove key and allow EQUIPMENT TO COME TO A COMPLETE STOP then disengage PTO before:

- Cleaning, unclogging, lubricating, inspecting, or otherwise servicing, any part of this equipment.

- Connecting or disconnecting the shredder/ windrower from the tractor.

- Allowing anyone else near the equipment.

- Dismounting from the tractor seat and parking the equipment.

- Placing any part of your body in dangerous proximity to shredder/windrower.

4. Disengage PTO and wait for all motion to stop before hydraulically folding hitch.

5. When parking this equipment, lower it to full “down” position. Set the tractor brakes and block wheels if on an extreme slope.

TOWING

WARNING: EXTREME MACHINE DAMAGE WILL RESULT. DO NOT TURN ON PTO POWER WITH MACHINE IN END TRANSPORT MODE.

1. When towing on public highways:

- Use a safety towing chain between the trail hitch or end transport hitch and the towing tractor. (The 10,000# safety chain is part number 85501539).

- Use a tractor of sufficient size, and weight, required for field operation.

- Do not tow faster than 25 MPH (40 kph) in end transport or field mode.

- Check local regulations on towing width and warning lights.

2. Never tow machine in field mode down public highways.

3. HINIKER shredders/windrowers are provided with an ASAE SMV (slow moving vehicle) emblem and a mounting socket therefore.

4. At required locations, RED (rear facing) and AMBER (forward facing) reflectors are provided. Insure these do not become defaced or covered with debris.

SERVICE

1. Service information herein is intended for dealers and others correspondingly competent. If you are not experienced and/or capable of handling such service, do not attempt it.

2. Disengage PTO, stop tractor engine, remove key and allow EQUIPMENT TO COME TO A COMPLETE STOP before:

- Cleaning, unclogging, lubricating, inspecting, or otherwise servicing, any part of this equipment.

- Connecting or disconnecting the shredder from the tractor.

- Allowing anyone else near the equipment.

- Placing any part of your body in dangerous proximity to shredder/windrower.

3. Do not service, or otherwise handle, a shredder/windrower in a raised position unless it is securely blocked against unexpected falling.

4. Shredders/windrowers operate in a naturally vibratory environment. Discipline yourself to always visually inspect this equipment for any excessively worn, damaged, or cracked parts before starting. Replace these with genuine HINIKER parts.

5. DO NOT SERVICE END DRIVE BELTS WHEN TRACTOR IS RUNNING!

6. Replace all shields removed for service, and check PTO shield for free rotation, before operating this equipment.

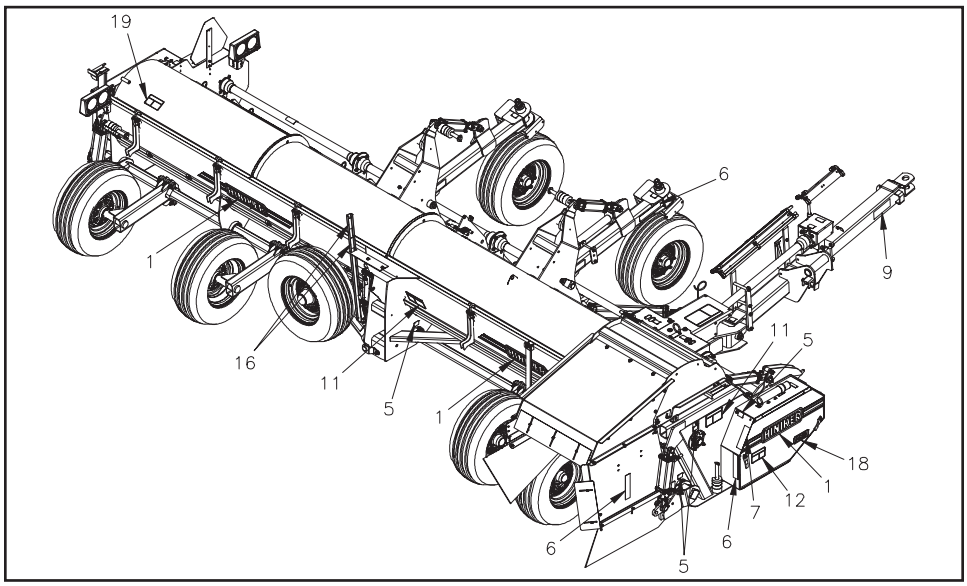
REMEMBER - ACCIDENT PREVENTION IS PART OF YOUR JOB!

DECAL LOCATION

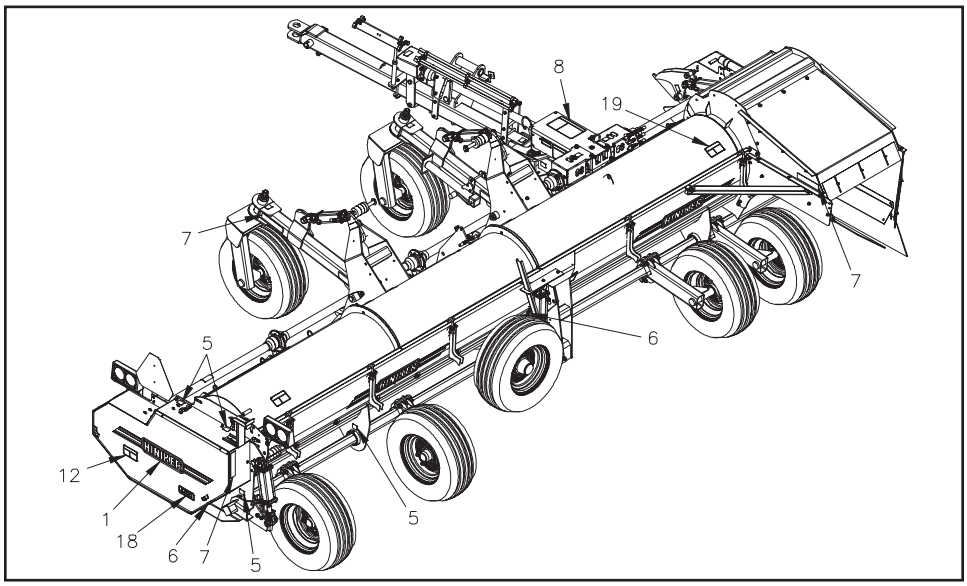
It is an owner's, and dealer's, responsibility to insure clear, complete decals are maintained on equipment, whether operating or offered for sale.

Information herein is provided for proper decal ordering and placement.

Decal surfaces should be free of dirt, grease, etc. Temperatures should be above 50° F. To apply, remove the smaller part of the decal backing paper and apply this part of the exposed adhesive to the desired location. Peel the other part of the backing paper slowly off and smooth out the entire decal.



DWG. NO. 7059



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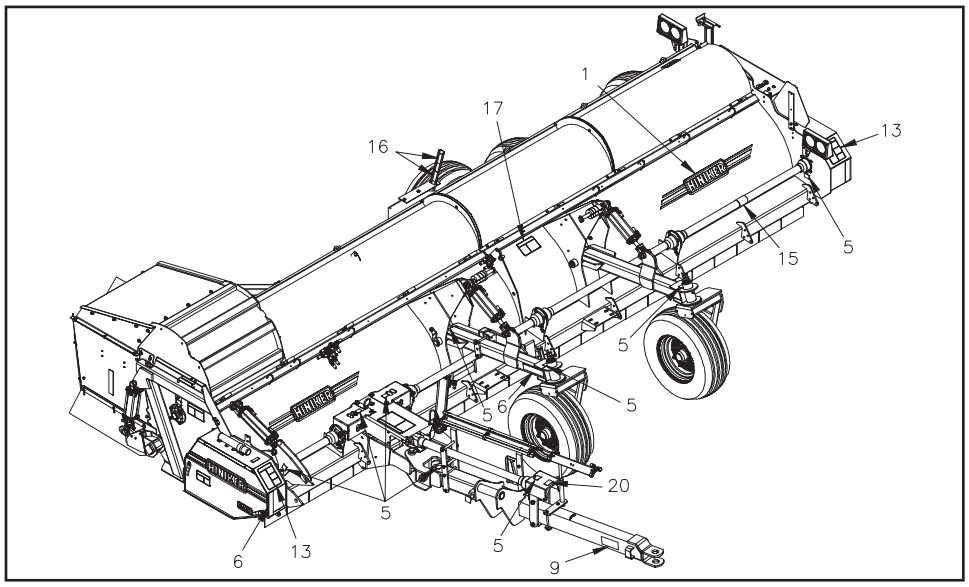

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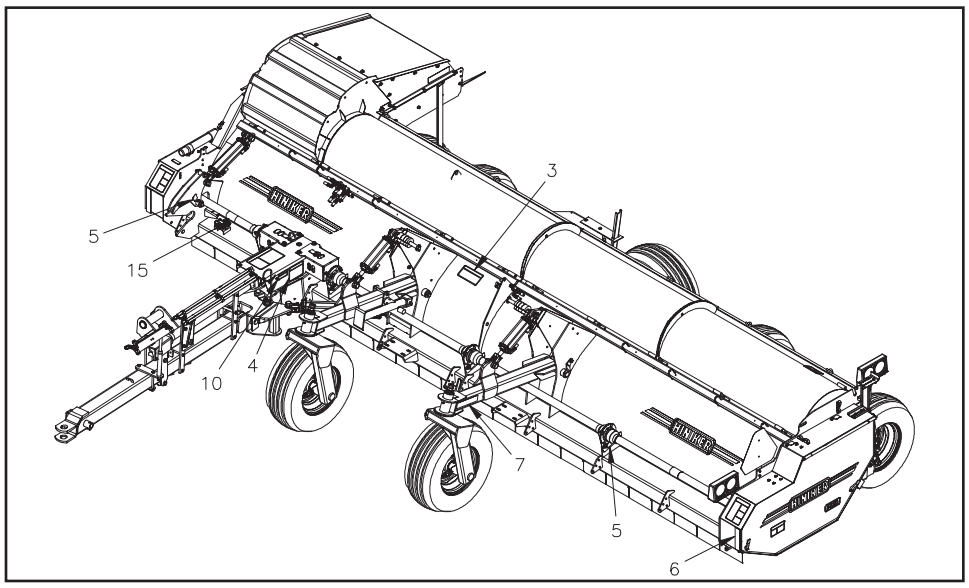

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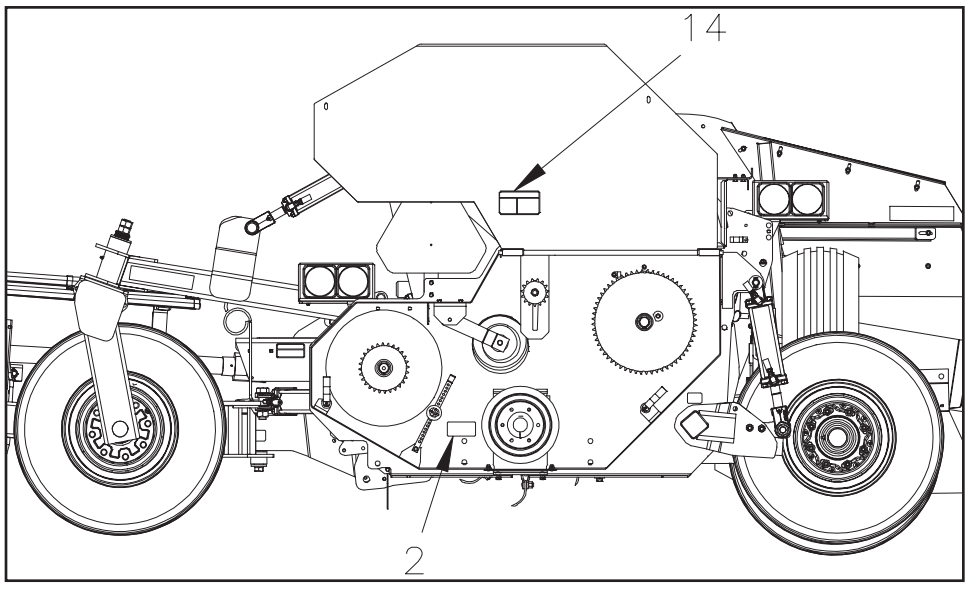


DWG. NO. 7062

FIGURE 1 71505168 LOGO Hiniker

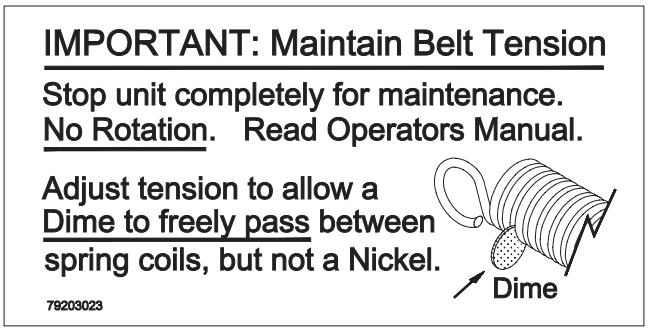


FIGURE 2 79203023 Important: Maintain Belt...

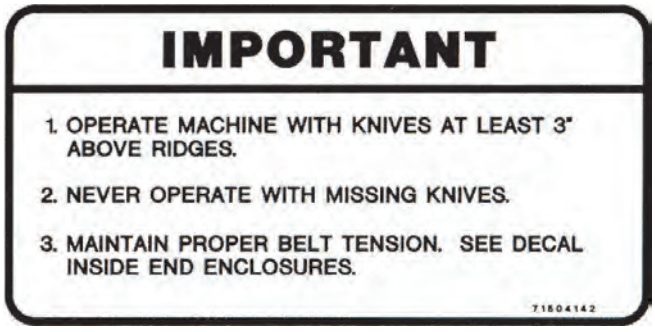


FIGURE 3 71504142 Important: Operate...

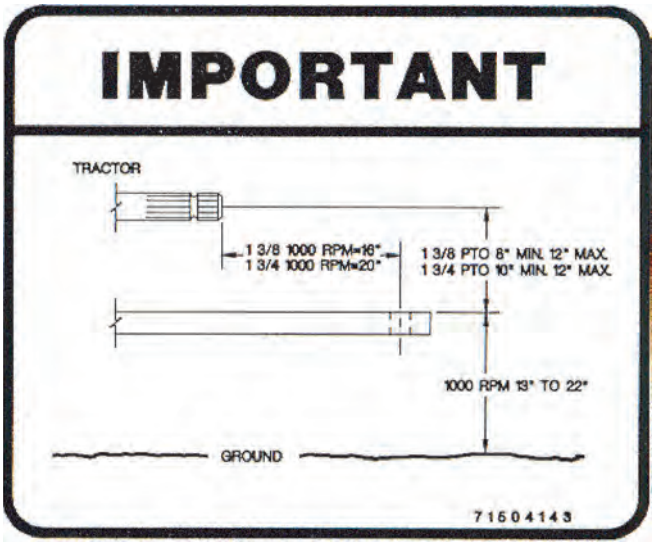


FIGURE 4 71504143 Important: Hitch...

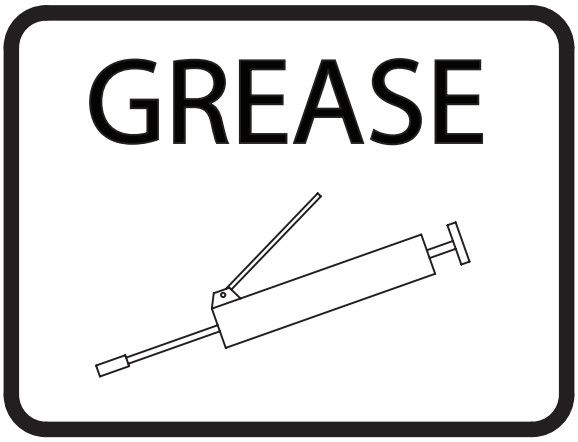


FIGURE 5 779203259 Grease

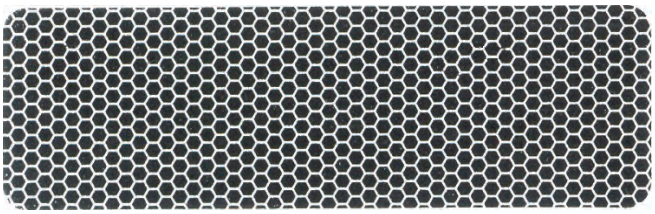


FIGURE 6 850-001-285 Amber Reflector

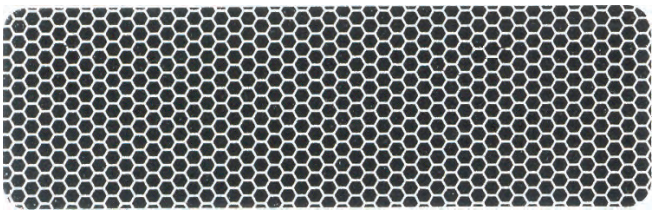


FIGURE 7 850-001-305 Red Reflector

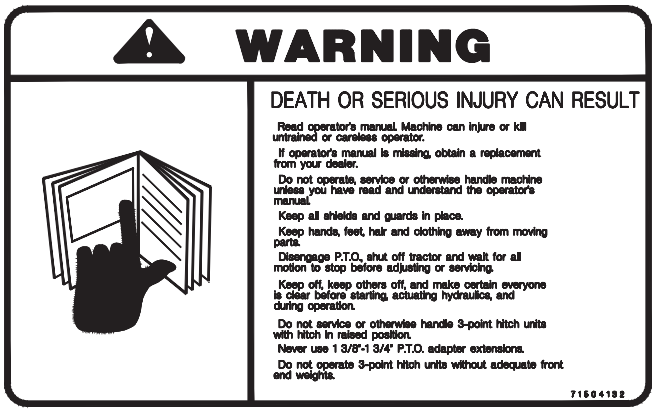


FIGURE 8 71504132 Warning: Read Manual...

FIGURE 9 85501787 Caution: Safety Chain...

FIGURE 10 71504129 Caution: 1000 RPM...

FIGURE 11 71504144 Danger: Keep Clear...

FIGURE 12 71505169 Warning: Look and Listen...

FIGURE 13 71505171 Warning: Keep Hands etc...

FIGURE 14 71505170 Warning: Do Not Operate...

FIGURE 15 520-03138 Danger: Rotating Drive..

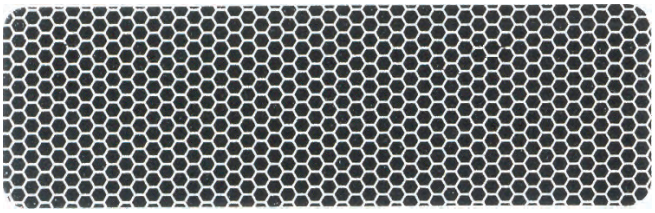


FIGURE 16 7903774 Marker Reflector...

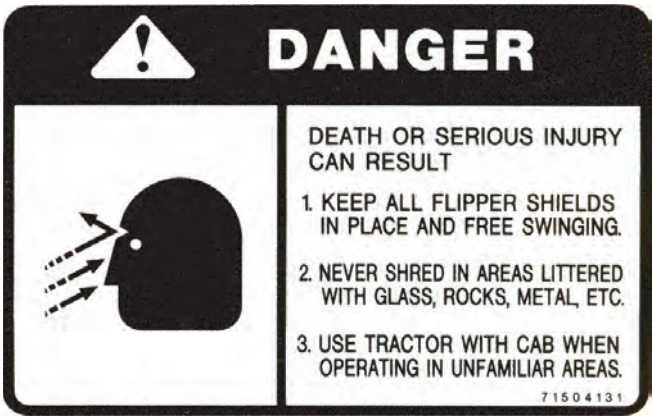


FIGURE 17 71504131 Danger: Keep Flippers...

FIGURE 18 79202646 Logo: 5620

FIGURE 19 71504127 Warning: Look And Listen...

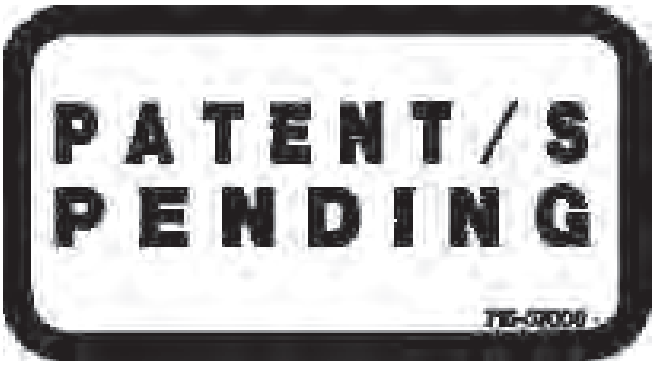


FIGURE 20 715-07000 Patent Pending...

OPERATION

WARNING: EXTREME MACHINE DAMAGE WILL RESULT. DO NOT TURN PTO POWER ON UNTIL HYDRAULIC HITCH IS IN FIELD MODE.

GENERAL

IMPORTANT: THIS MACHINE IS INTENDED AS A DRY RESIDUE MATERIAL SHREDDER-WINDROWER FOR 30" ROW SPACING. IT IS NOT INTENDED AS A PRIMARY HAY (DENSE GREEN MATERIAL) MOWER/CONDITIONER/WINDROWER.

ATTEMPTING TO MOW/CONDITION/WINDROW UNDER MOST "HAY" SITUATIONS MAY RESULT IN SUBSTANTIAL INTERNAL MATERIAL CONGESTION. AGGRAVATION FROM FREQUENT PLUGGING, SHEARBOLT FAILURE, ETC., IS A LIKELY RESULT.

WARNING: DEATH OR SERIOUS INJURY CAN RESULT. BEFORE OPERATING, READ SAFETY-GENERAL, BEFORE OPERATION, DURING OPERATING AND TOWING AT FRONT OF THIS MANUAL.

Always operate tractor at standard 1000 RPM PTO. Use transmission up, or down, shift to vary forward speed. CONSISTENTLY OVERSPEEDING OR UNDERSPEEDING THE PTO WASTES FUEL AND ACCELERATES KNIFE WEAR.

Avoid PTO engagement at full speed because it overstresses the machine's driveline. Engage PTO at slow speed and throttle up to operating speed.

IMPORTANT: FOR END TURNS ACROSS ROWS, SLOW FORWARD SPEED TO MINIMIZE EXCESSIVE BOUNCING AND SCALPING BUT MAINTAIN 1000 PTO RPMS.

CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. SOME TRACTOR MASTER PTO SHIELD'S MAY CONTACT FRONT PTO SHIELD ON TURNS. BE ALERT FOR THIS AND MAXIMIZE TURNING RADII. REPLACE FRONT PTO SHIELD IF IT BECOMES DAMAGED.

TRACTOR-GENERAL

IMPORTANT: TRACTOR PTO MUST HAVE 1000 RPM 1 3/4"-20 SPLINE.

TRACTOR-TRAILING GEOMETRY

IMPORTANT: INSURE TRACTOR PTO, AND DRAWBAR CONFORM TO DIMENSIONS SHOWN IN THE PROCEEDING FIGURE.

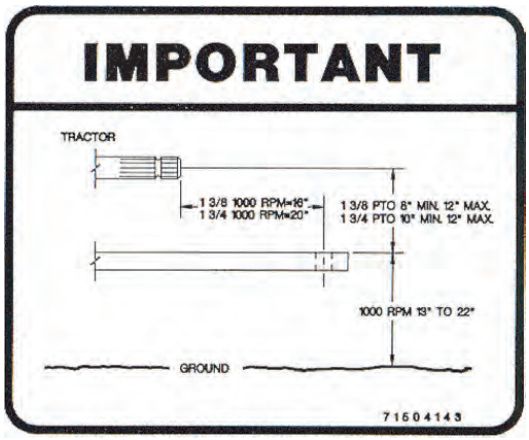


FIGURE 30 DWG. NO. 71504143

PTO's

NOTICE: IT IS CRITICAL TO KNOW WHAT TRACTOR CONFIGURATION IS INVOLVED BEFORE HOOKUP. THE PROPER SHREDDER PTO MUST BE USED. THE TRACTOR'S PTO OUTPUT MUST BE.

1000 RPM	1 3/4"-20 spline

PTO shafts have similar sliding yoke couplers at the tractor and implement ends. IMPLEMENT DRIVESHAFT END IS IDENTIFIED BY AN OVERRUNNING CLUTCH (arrow 1).

Clean implement driveshaft spline of any encrusted dirt or grease and lightly oil it. Slide outer PTO collar (arrow 2) toward its adjacent yoke (arrow 3) and slide PTO over the implement driveshaft spline. Reverse the sliding collar to lock the assemblies together.

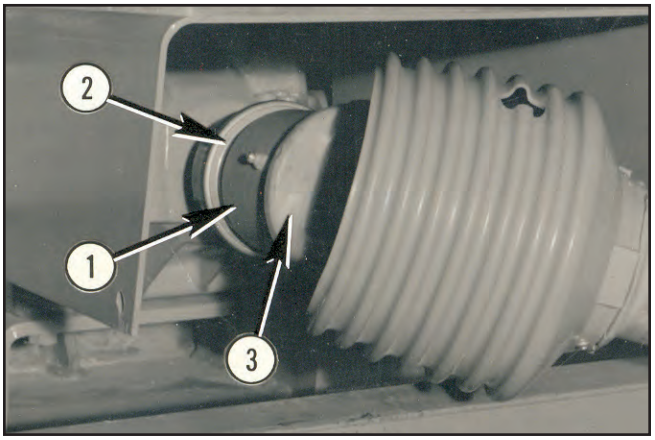


PHOTO NO. 2969A

NOTICE: TO FACILITATE PTO HOOK UPS, CHECK TRACTOR SPLINE FOR BURRS, OR OTHER DAMAGE. IF SHREDDER/WINDROWER'S LOCKING COLLAR IS DIFFICULT TO PROPERLY ENGAGE, CLEAN AND LIGHTLY OIL SPLINE.

The tractor PTO spline engages similar to above. Slide outer collar (arrow 1) toward its adjacent yoke (arrow 2) (see photo 2966A) and slide PTO over the tractor spline. Reverse the sliding collar to lock the assemblies together.

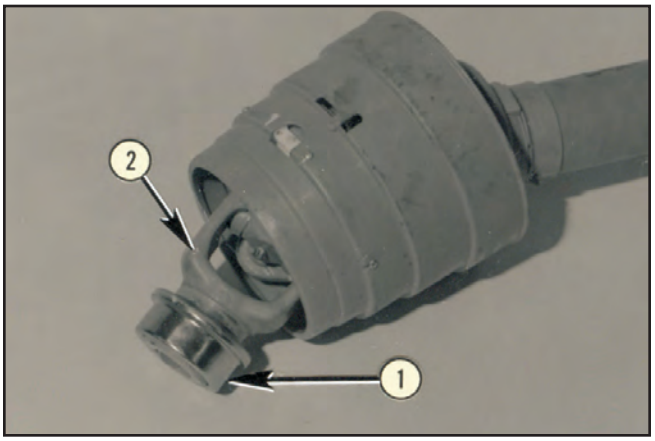


PHOTO NO. 2966A

WARNING: DEATH OR SERIOUS INJURY CAN RESULT. NEVER OPERATE A SHREDDER/WINDROWER UNLESS BOTH ENDS OF THE PTO ARE PROPERLY LOCKED TO THEIR INTENDED SPLINES.

FIGURE 34 DWG. NO. 71504129

DANGER: DEATH OR SERIOUS INJURY CAN RESULT. KEEP AWAY AND KEEP OTHERS AWAY FROM AN OPERATING PTO. DO NOT OPERATE WITHOUT ALL SHIELDS IN PLACE. INSURE PTO SHIELDS FREE WHEEL AND BOTH PTO'S ENDS ARE SECURELY ATTACHED.

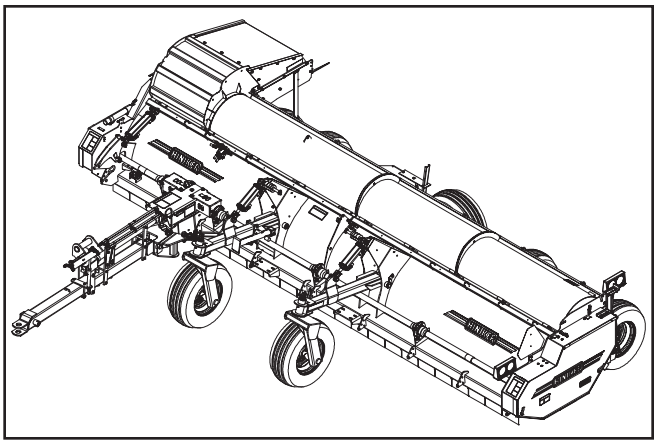
IMPORTANT: NEVER MOVE UNIT UNLESS THE PTO IS PROPERLY HOOKED UP TO BOTH TRACTOR AND SHREDDER/WINDROWER.

MACHINE CONFIGURATION

FIELD MODE

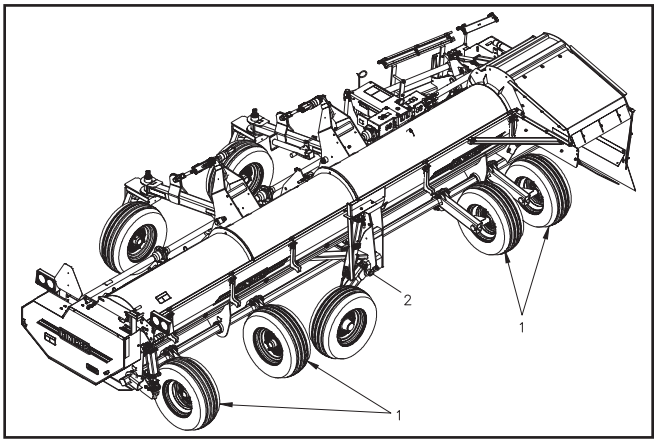
The 5620HH has (2) configurations field mode and end transport mode. The hitch is turned hydraulically to each configuration.

WARNING: EXTREME MACHINE DAMAGE WILL OCCUR. DO NOT TURN PTO POWER ON UNTIL IMPLEMENT HITCH IS IN FIELD MODE. IMPLEMENT AND TRACTOR DRIVELINE WILL BE DAMAGED SEVERELY.



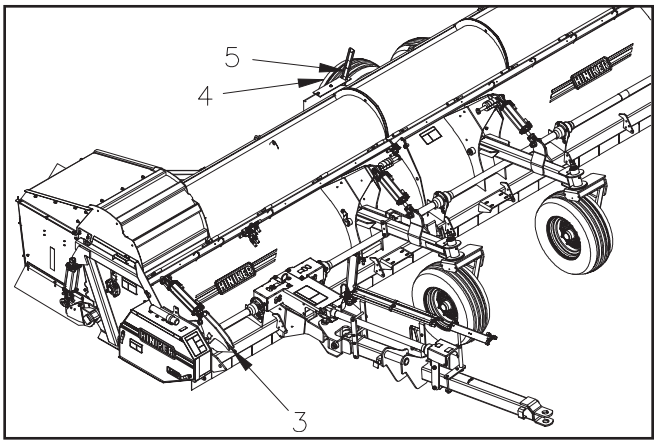
Field Mode DWG. NO. 7063

Field mode is shown in the above illustration. To change machine from end transport to field mode.



DWG. NO. 7064

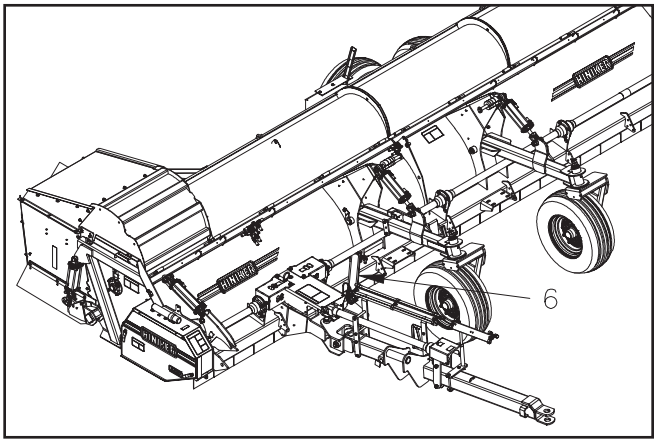
First lower the rock shaft wheels (arrow 1) all the way down which will raise machine all the way up and stabilize it. Unlock rear transport lock (arrow 2) The rear cylinder may need to be fully extended.



DWG. NO. 7065

Using the hydraulic lever, unlock the hitch hooks (arrow 3) and raise the rear end transport tire (arrow 4). The bottom yellow marker decal (arrow 5) will be visible when the rear transport tire is all the way up.

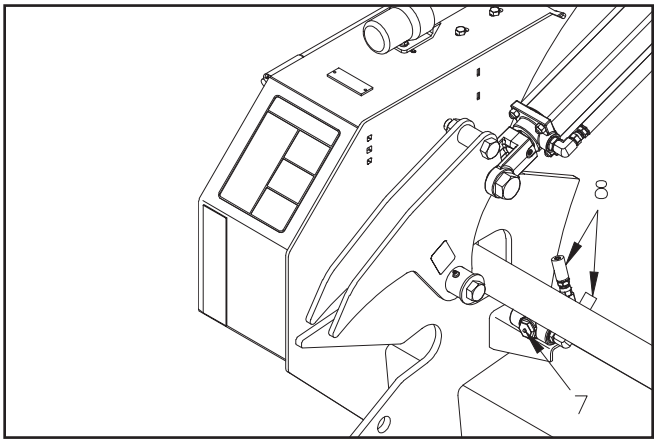
Shift the tractor into neutral.



DWG. NO. 7066

With the tractor in neutral turn the machine using the front hitch angling cylinder (arrow 6).

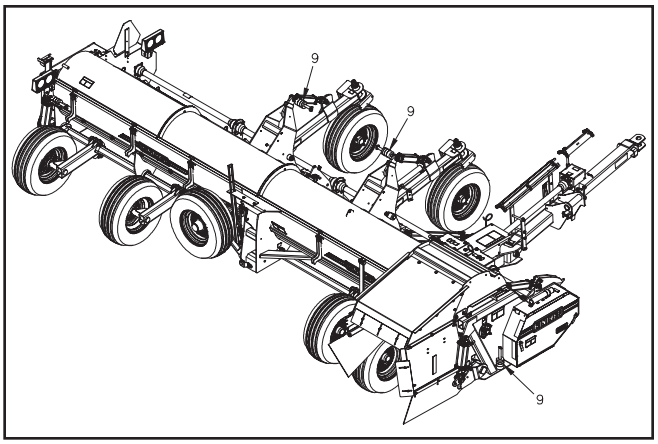
Now lower machine to desired cutting height.



DWG. NO. 7067

If the front caster wheels on the machine will not lower, check and verify the valve plunger is fully extended (arrow 7) if the plunger is not extended cycle machine all the way down and then all the way up. If plunger is still not extended, crack the (2) hydraulic lines to remove any air in system (arrow 8) until oil is visible and plunger extends retighten hydraulic lines.

Now lower machine to desired cutting height.

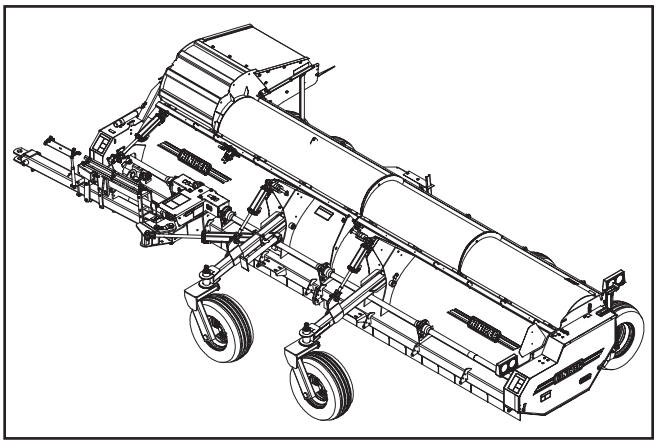


DWG. NO. 7069

There are stop blocks (arrow 9) by both rock shaft cylinders and both front caster wheel cylinders. Use these cylinder stop blocks to hold machine at desired cutting height. Insert cylinder blocks so machine is slightly lower in front then rear. This helps minimize material from being thrown toward tractor.

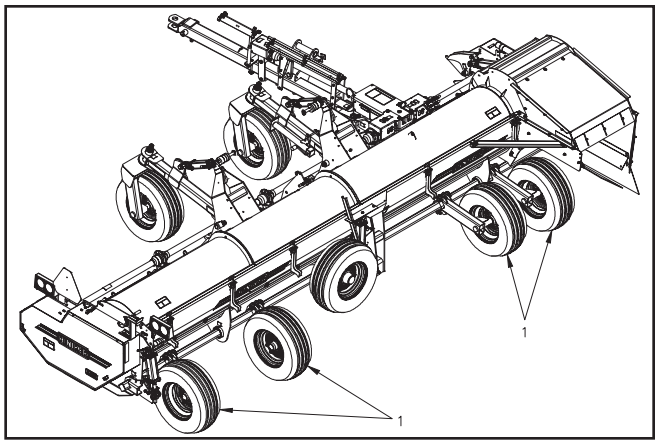
END TRANSPORT MODE

WARNING: EXTREME MACHINE DAMAGE WILL OCCUR. DO NOT TURN PTO POWER ON WITH MACHINE IN END TRANSPORT MODE. IMPLEMENT AND TRACTOR DRIVELINE WILL BE DAMAGED SEVERELY.



End Transport Mode DWG. NO. 7070

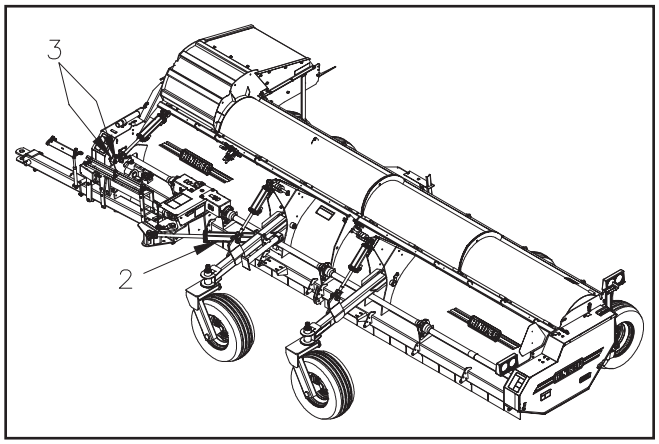
End transport mode is as shown above. To change machine from field to end transport mode:



DWG. NO. 7071

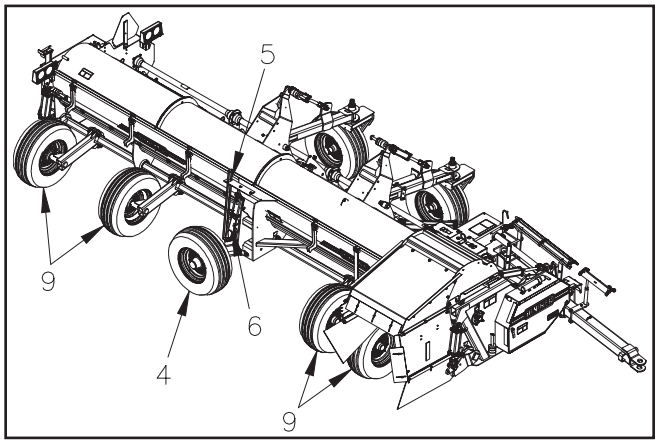
First lower the rock shaft wheels (arrow 1) all the way down which will raise machine all the way up and stabilize it.

Shift the tractor into neutral.



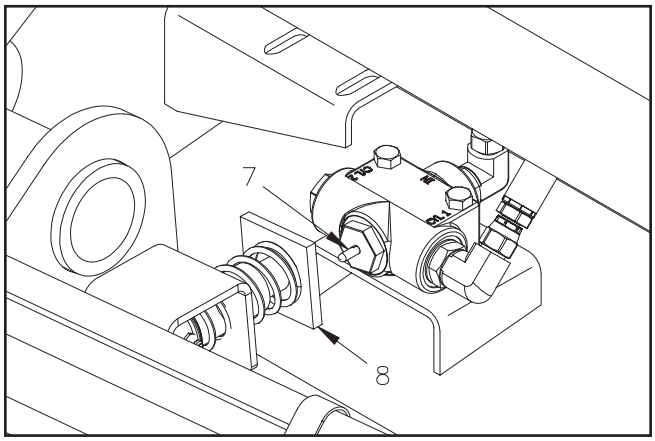
DWG. NO. 7072

With the tractor in neutral turn the machine using the front hitch angling cylinder (arrow 2).



DWG. NO. 7074

Using the tractor hydraulic lever lock the hitch in place by lowering the hydraulic locking arms (arrow 3, drawing 7072) and lower the rear end transport tire (arrow 4) all the way down. The top yellow marker decal (arrow 5) will be visible from the tractor but the bottom one will be hidden. Flip up end transport lock (arrow 6).

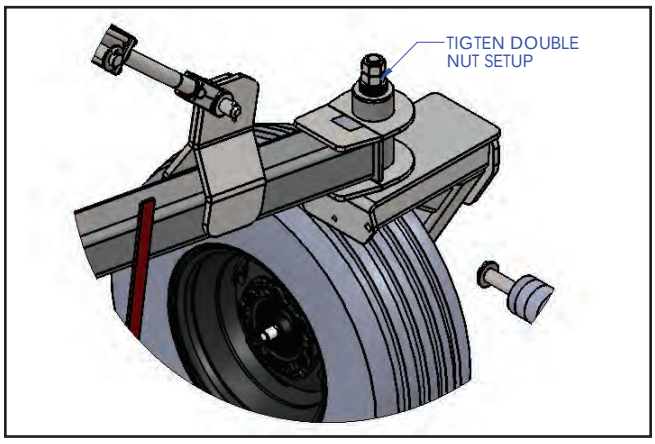


DWG. NO. 7073

Verify the valve plunger (arrow 7) is fully pushed in by the spring loaded shaft (arrow 8) on the hitch.

Now lift the rear rockshaft wheels (arrow 9, drawing 7074) all the way up. Verify there is ample clearance between rock shaft wheels and road surface.

FRONT CASTER WHEEL



DWG. NO. 7113

If the unit is pulled down the road and the front caster wheels act unstable, tighten bottom nut until wheel is hard to pivot and re-tighten top nut.

ROCKSHAFT & WHEELS

The 5620HH has four rockshaft wheels. These can be adjusted to match various wheel spacings.

1. To adjust wheel spacing, put machine in end transport position. This will raise machine all the way up.

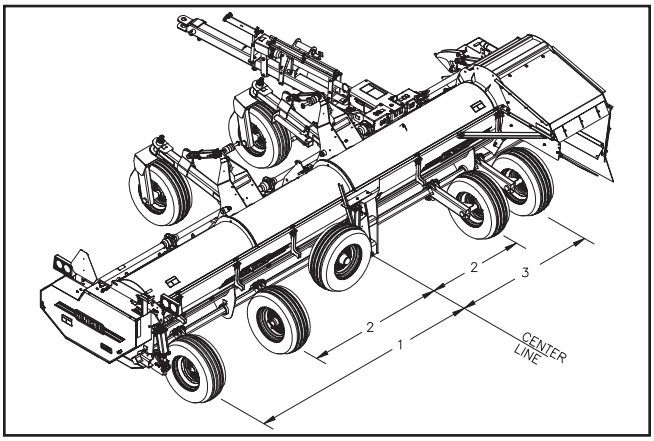
CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. MAKE ADJUSTMENTS ONLY ON A LEVEL SURFACE. SET TRACTOR'S BRAKES AND SHUT OFF THE ENGINE BEFORE PROCEEDING.

2. Loosen the (6) 5/8" leg bolts in each wheel and transversely slide the entire wheel assembly.

The machine is primarily intended for (8) row 30" crop spacing. These are recommended tire CENTER-LINE SPACINGS:

	8 row 30"
LH outer Dimension (1)	113" *
Inner Pair Dimensions (2)	60"
RH outer Dimensions (3)*	88"
* IMPORTANT: IF TIRES LARGER THAN RECOMMENDED ARE USED, REDUCE SPACINGS TO ENSURE MUD AND MACHINE CLEARANCE IS MAINTAINED.	

For other row spacings, adjust the above settings accordingly. Torque up each wheel leg's (6) clamping bolts by uniformly tightening the lower (3) to snug fit. Subsequently, torque, and re-torque top (3) to **146-206 Ft/lbs. (198-279 N/m.)**.



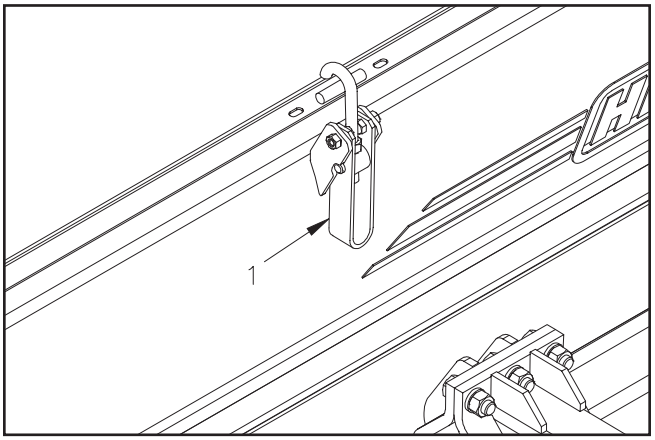
DWG. NO. 7068

AUGER CLEANOUT (FRONT LEVER)

If an auger trough becomes plugged. The rear auger cover needs to be opened

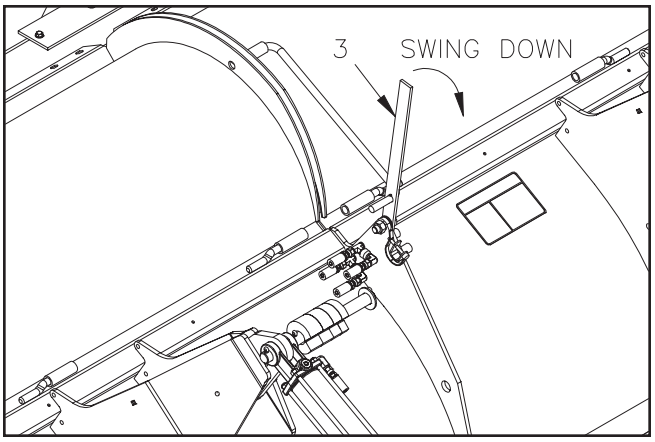
WARNING: DEATH OR SERIOUS INJURY CAN RESULT. DISENGAGE PTO. STOP TRACTOR ENGINE, REMOVE KEY AND ALLOW EQUIPMENT TO COME TO A COMPLETE STOP BEFORE ADJUSTING, CLEANING, UNCLOGGING, LUBRICATING, INSPECTING, OR OTHERWISE SERVICING, ANY PART OF THIS EQUIPMENT.

DWG. NO. 71504127



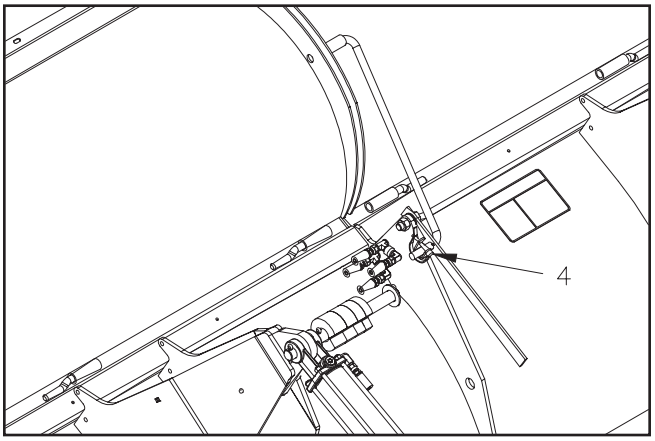
DWG. NO. 6922

Unclamp (4) latches at rear of machine (arrow 1).



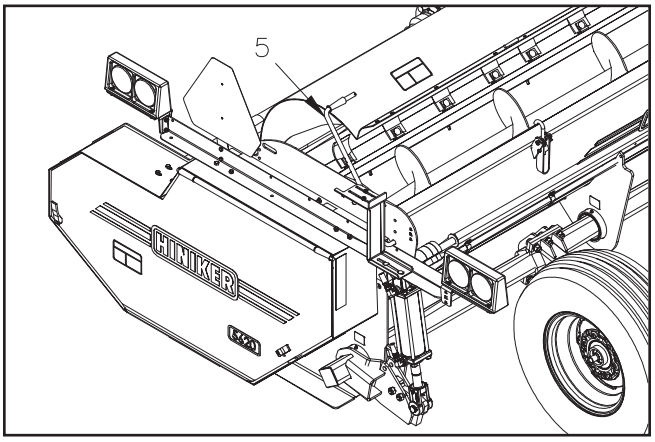
DWG. NO. 6924

At front of unit raise covers with lever provided at (arrow 3).



DWG. NO. 6925

Secure lifting lever with lynch pin (arrow 4).

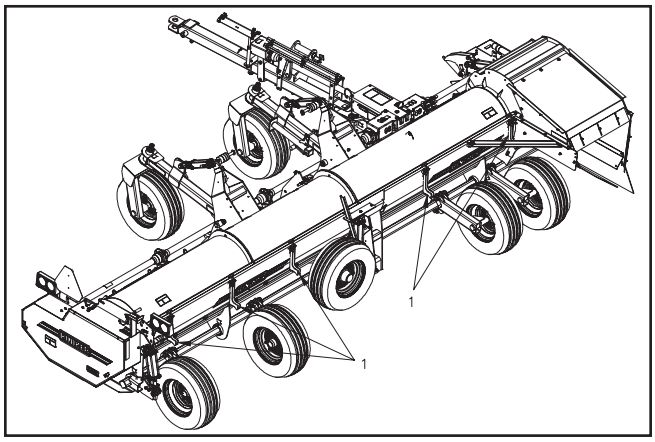


LH End Of Machine DWG. NO. 6926

Insert rod ends (arrow 5) into the appropriate holes. Secure rod with hair pin.

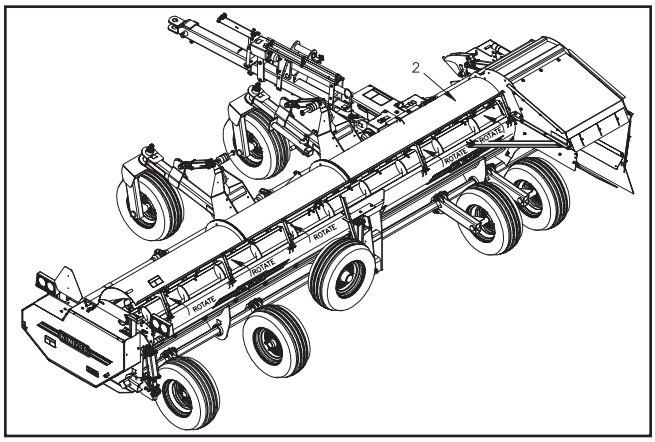
AUGER CLEANOUT (REAR LATCHES)

If an auger becomes clogged during operation the auger covers need to be opened.



DWG. NO. 7075

To open these covers first unlatch the latches (arrow 1) at the back of the machine.



DWG. NO. 7076

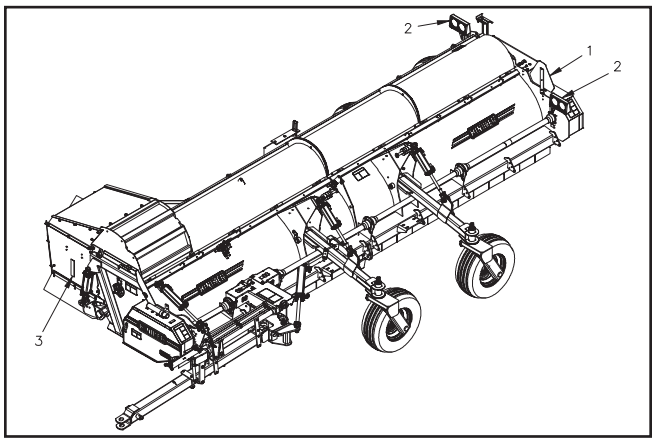
Lift the RH cover up (arrow 2) and simultaneously flip both cover latches up into position. Now lift the middle cover up and simultaneously flip the latch into position. Follow this same sequence for the LH cover assembly. Remove material clogging auger. Reverse the previous steps once all material is removed from auger trough area to close covers

TIRES

HINIKER recommends 9.5Lx15-8 ply (implement), or equivalent, tires for the (4) rockshaft field mode tires. The rear end transport tire is 11Lx15-18 ply or equivalent. The front caster wheel tires are 9.5Lx15-12 ply tires.

END TRANSPORT TOWING

For traveling down roadways the 5620HH machine must be put in end transport configuration. Refer to the “End Transport” portion of machine configuration section for converting the machine from field mode to end transport mode (shown below).



DWG. NO. 7077

WARNING: EXTREME MACHINE DAMAGE WILL OCCUR. DO NOT TURN PTO POWER ON WITH MACHINE IN END TRANSPORT MODE. IMPLEMENT AND TRACTOR DRIVELINE WILL BE DAMAGED SEVERELY.

CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. WHEN TOWING ON PUBLIC HIGHWAYS:

USE A TRACTOR OF SUFFICIENT SIZE, AND WEIGHT, REQUIRED FOR FIELD OPERATION.

DO NOT TOW AT SPEEDS IN EXCESS OF 25 MPH (40 KPH).

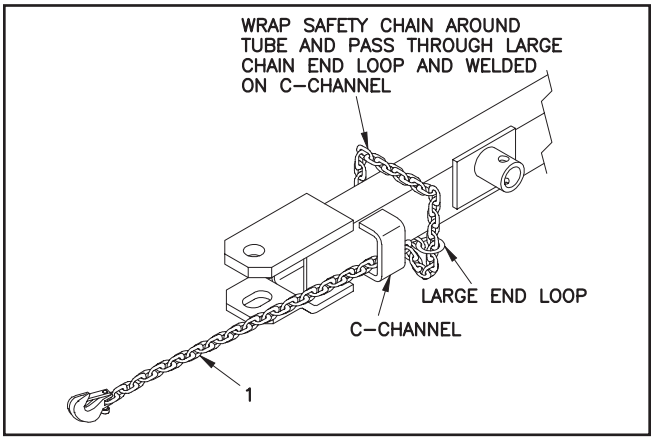
USE A SAFETY TOWING CHAIN BETWEEN TOWING VEHICLE AND SHREDDER/WINDROWER.

MAKE SURE THE SMV EMBLEM (ARROW 1) IS VISIBLE FROM REAR OF MACHINE AS SPECIFIED ABOVE.

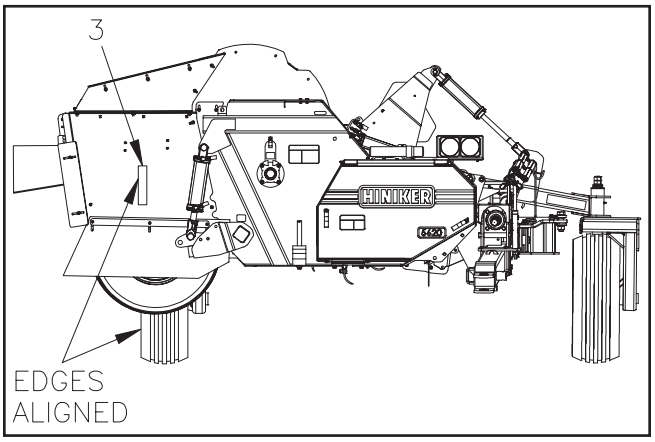
VERIFY BOTH TAIL, TURN, AND WARNING LIGHTS (ARROW 2) ARE WORKING CORRECTLY. THE YELLOW AND RED LIGHT WILL BE VISIBLE FROM REAR OF MACHINE.

CHECK LOCAL REGULATIONS ON TOWING WIDTH AND WARNING LIGHTS.

Make sure safety towing chain is attached between machine and towing vehicle. Wrap the safety chain (arrow 1) around the hitch tube and through large chain end loop and weld on C-channel. Fix chain's forward end to tractor.



DWG. NO. 6236



DWG. NO. 7079

While pulling implement be aware of where the yellow decal on windrower chute (arrow 3) is compared to roadway. This yellow decal is aligned with the rear transport tire. Make sure this is within the road surface at all times, or the rear tire transport tire will be off the road (in the ditch etc.).

HEIGHT ADJUSTMENT

IMPORTANT: INITIALLY START WITH UNIT SET SUBSTANTIALLY HIGHER THAN THE RECOMMENDED MINIMUM KNIFE/ROW CLEARANCE OF 3".

Shred/windrow a short distance and check performance. The higher knife/row clearance may not give satisfactory results; therefore, lower unit and check again. Progressively lower unit until good results are obtained.

DO NOT OPERATE WITH LESS THAN 3" KNIVES CLEARANCE TO HIGHEST GROUND POINT WITHIN TRAVERSED WIDTH.

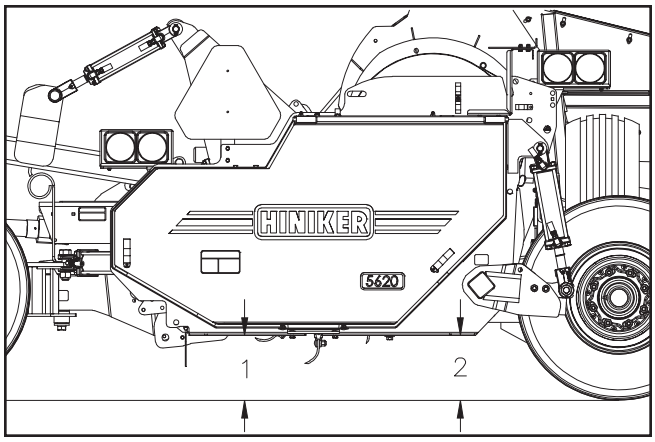
Best retrieval of residue from the windrow in the field requires that the material is LESS FINELY SHREDDED than with conventional shredding only. Thus, the HINIKER shredder/windrower uses lower rotor tip speed than on comparable HINIKER shredders. Sufficiently aggressive suction is provided by configuring only with cup knives.

Obviously, GROUND SPEED is a major determinant of windrow material fineness. Within reasonable limitations, ground speed ought to BALANCE SHREDDING FINENESS AND GROUND CLEAN UP EFFICIENCY. Since terrain, moisture and crop density also enter the equation, it is impossible to suggest ground speed specifics.

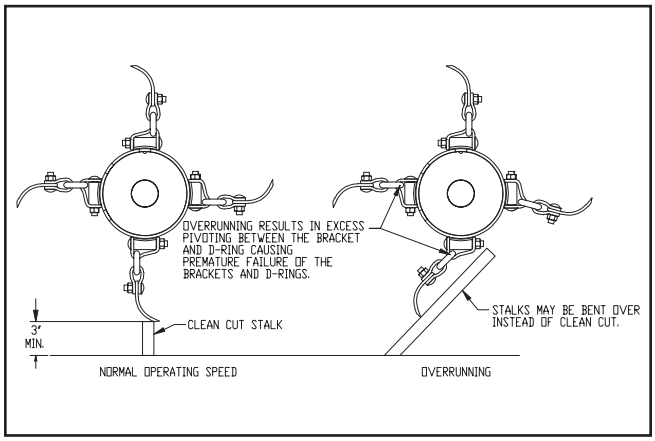
IMPORTANT: "SCALPING" ROWS WASTES FUEL AND RAPIDLY ACCELERATES KNIFE WEAR. THIS IS PARTICULARLY TRUE IN ROCKY FIELDS. IF YOUR FIELD HAS PROTRUDING ROCKS, KEEP UNIT'S HEIGHT SUFFICIENT FOR KNIVES TO CLEAR THEM. THIS UNIT IS NOT INTENDED AS A "ROCK PICKER", OR A "ROTOTILLER".

Operate the unit approximately LEVEL to slightly lower in front. That is, front (arrow 1) of main frame should be lower than rear (arrow 2) as shown in drawing 7080.

DANGER: DEATH OR SERIOUS INJURY CAN RESULT. EXCESSIVE FRONT FRAME/GROUND CLEARANCE CAUSES MORE DEBRIS TO BE THROWN FORWARD UNDER THE TRASH SHIELDS. NEVER STAND NEAR, AND AHEAD OF, A RUNNING MACHINE.



DWG. NO. 7080



DWG. NO. 6414

IMPORTANT: DO NOT OVERRUN THE MACHINE OR RUN THE MACHINE IN OR TOO CLOSE TO THE GROUND. DO NOT TRAVEL AT EXCESSIVE GROUND SPEED FOR YOUR CROP CONDITION OR UNDER SPEED THE PTO. OVERRUNNING THE MACHINE RESULTS IN EXCESSIVE D-RING AND BRACKET WEAR.

Overrunning the machine results in tipping or bouncing back of the knives. This results in pivoting between the D-ring and bracket causing unnecessary D-ring wear which causes premature failure of the D-rings. Damp or heavy crop conditions require much slower ground speed. Stalks that are cut at different lengths or bent over not clean cut are signs of overrunning the machine.

DISCHARGE ADJUSTMENT

The HINIKER 5620HH shredder/windrower permits (2) distinctly different windrow types:

- Conventional “single swath” windrows, or
- ”Double swathed” windrows.

Customer choice depends on quantity of residue encountered. Voluminous material generally should be single swathed. Average material can be double swathed; thus, reducing baling passes by half.

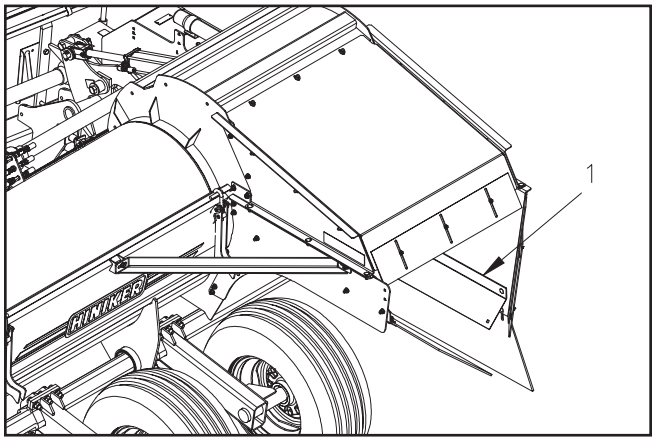
To facilitate this, adjustments are provided in the discharge chute.

Optimum windrow building is HIGHLY DEPENDENT ON SPECIFIC CROP, FORWARD SPEED AND MOISTURE. Generally, only small chute adjustments may be necessary.

A desirable round baler windrow is “boxy” and UP TO ABOUT 3 FT. WIDE. This permits longer pattern tractor weaving; thus, giving a dense bale that is not “barrel shaped”. It is not recommended to try to create windrows as wide as a baler’s pickup.

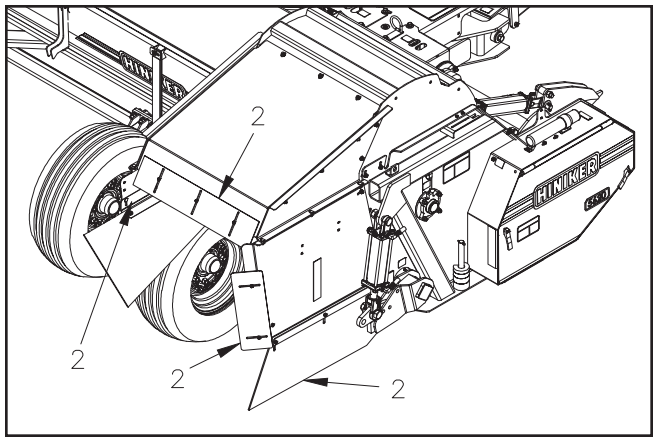
If average crop conditions indicate double swath windrows, each should be laid BESIDE the other. That is, generally not laid one on top of the other. If double swathing results in a single, large “heaped” windrow cross section, it is hard to create dense uniform bales.

The discharge chute has many adjustments in it to make a optimal window.



DWG. NO. 7078

- The RH side plate has a reversible bottom deflector (arrow 1).



DWG. NO. 7081

- The RH and LH side plates have adjustable slotted deflector (arrow 2) that can be adjusted by loosening the carriage bolts that secure them.

- Any of the reversible or adjustable deflectors can be removed if so desired.

STORAGE

The following will insure equipment is in top operating condition at start of next season.

1. Open end shields and thoroughly clean out dirt and trash. Clean out any other trash hanging on unit. Check drive shaft and gearbox bearing seals for trash entanglement.

2. Back off backwrap belt idlers to relax tension on “V” belts. Inspect belts for wear.

3. Clean debris from PTO ends and insure safety shield freely rotates.

4. Relube machine and check gearbox lube level.

5. Clean rust off exposed surfaces and repaint any requiring it.

6. Inspect both rotor assemblies for lost, broken, or worn out knives. Replace these as required.

7. Ensure auger trough is clear of dirt and trash.

8. Check machine for loose hardware and deteriorating parts.

9. Remove auger drive chain and thoroughly wash in diesel fuel or degreaser solvent. Let soak over night in light machine oil before reinstalling.

10. Remove auger drive sprocket shearbolt and spin sprocket to ensure shear flanges are not frozen. Lightly wipe shear arm area on sprocket with grease. Replace shearbolt with head outward. Also lube sprocket bushing with a few drops of oil.

11. Store PTO shaft up on machine and store hydraulic hose tips in hydraulic hose tip holder.

LUBRICATION

HINIKER machines have been factory checked and lubricated. However, it is a good idea to re-check and relubricate a unit prior to first field operation.

Shredders/windrowers operate in an extremely dirty (fine dust) environment. Proper maintenance and lubrication will increase the life of the machine.

IMPORTANT: WIPE ALL ZERKS AND GUN TIPS BEFORE LUBRICATING. ADHERE TO (1) PUMP PER FITTING ON AN WEEKLY INTERVAL ON ALL MACHINE GREASE ZERKS, EXCEPT AS SHOWN.

DO NOT OVER LUBRICATE. OVER LUBRICATION IS A MAJOR CAUSE OF BEARING AND BEARING SEAL FAILURE. USE ONLY ONE PUMP PER FITTING UNLESS OTHERWISE NOTED.

IMPORTANT: PTO MUST BE GREASED (5) PUMPS PER FITTING UNLESS OTHERWISE NOTED.

Arrow 4 - Cross Kit: REQUIRES 15-20 PUMPS.

Replace any damaged fittings. Use a good grade of lithium base grease, except as shown.

Asterisk (*) notations on the lubrication table should be followed.

Gearbox fill (arrow 10), check (arrow 11) and drain plugs (arrow 12): CHECK BY MEASURING 3 7/8" - 4" TO LUBE LEVEL THRU PLUG (10), OR USE CHECK PLUG (11) AT REAR OF GEARBOX. BLOW DEBRIS FROM PLUG (10) AREA BEFORE REMOVING IT. See drawings 7084 and 6934.

Gearbox oil is Mobile SHC 80W90 gear lube.

Auger drive chain (arrow 23) photo 9104C: LIGHTLY OIL WITH NO HEAVIER THAN 10W-30 OIL, OR AEROSOL CHAIN LUBE AT END OF DAY WHEN CHAIN IS HOT. ON FOLLOWING DAY, BEFORE STARTING MACHINE, WIPE OFF EXCESS OIL.

IMPORTANT: DO NOT OVER LUBE CHAIN TO EXTENT OF INDUCING BELT AND SHEAVE OIL CONTAMINATION.

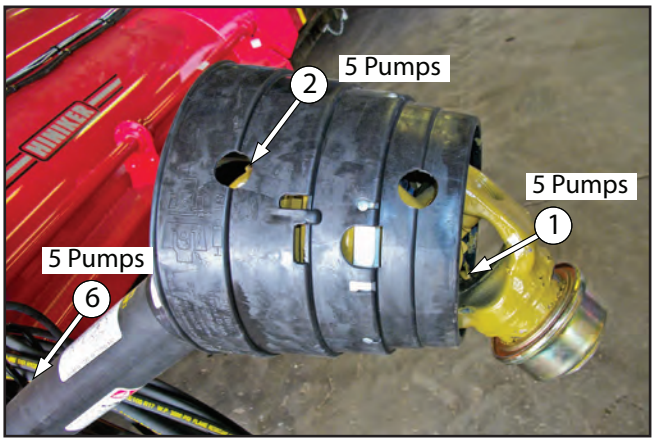
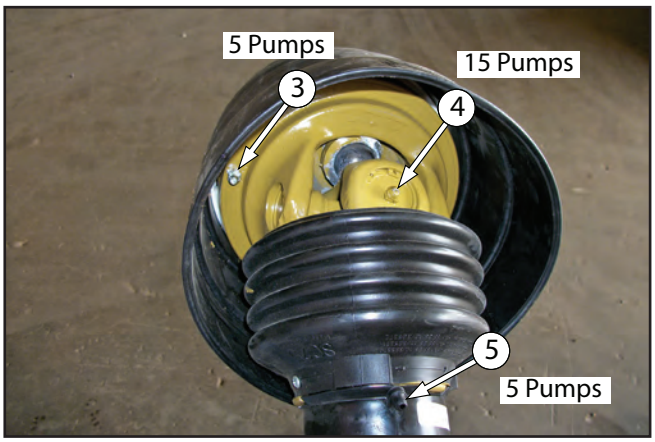


PHOTO NO. 100-1762A



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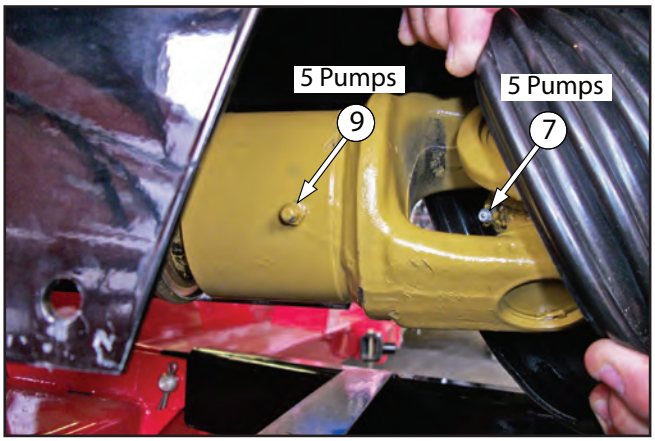

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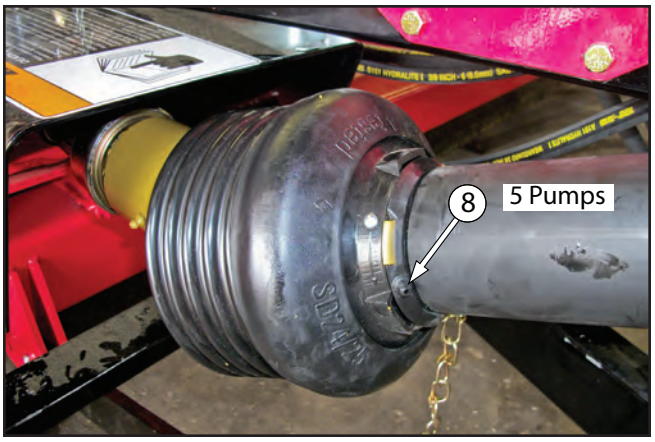

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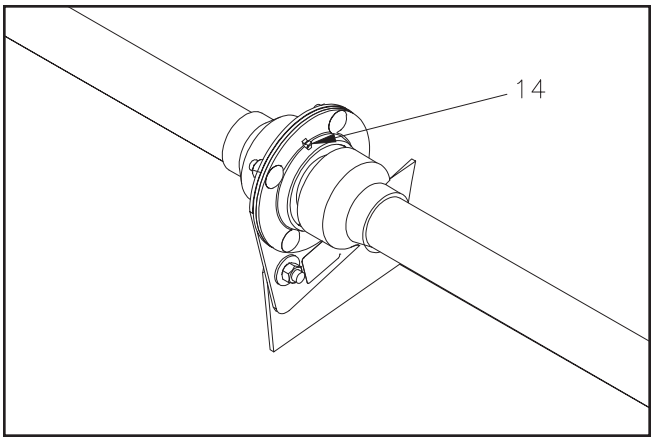
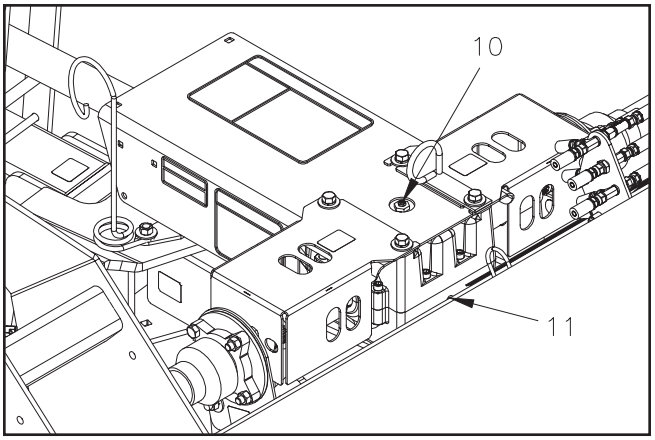


DWG. NO. 6935



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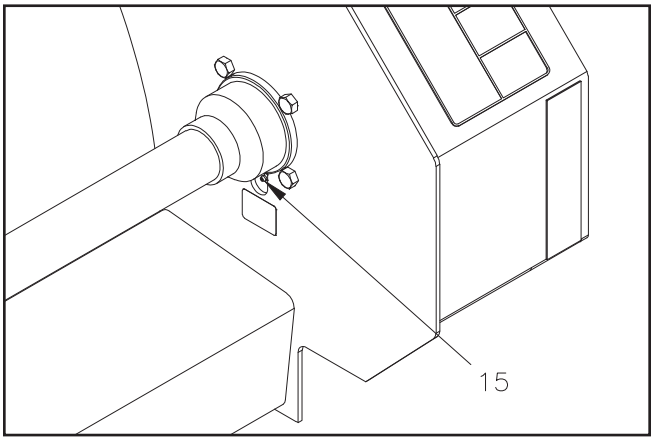

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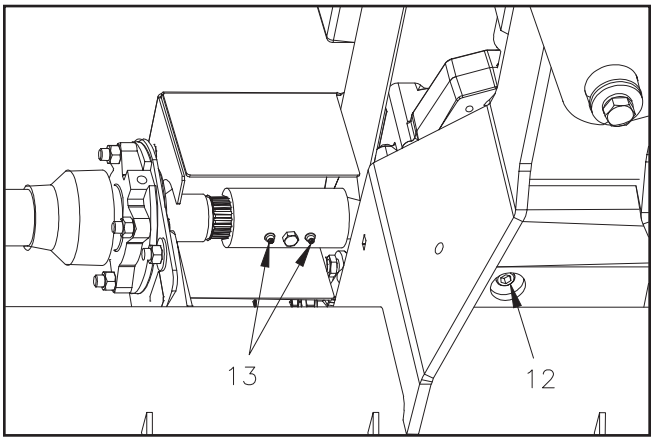

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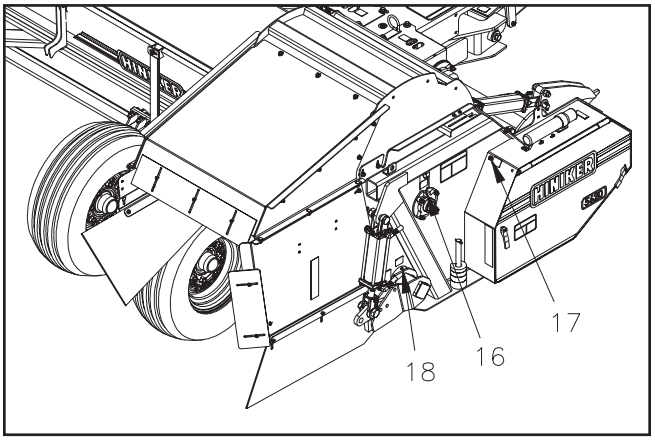

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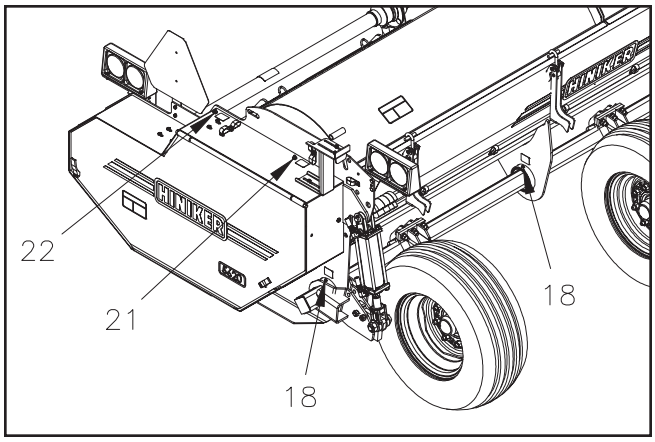

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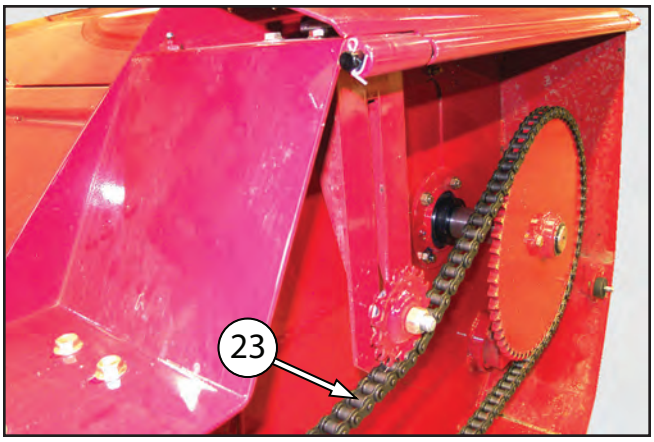
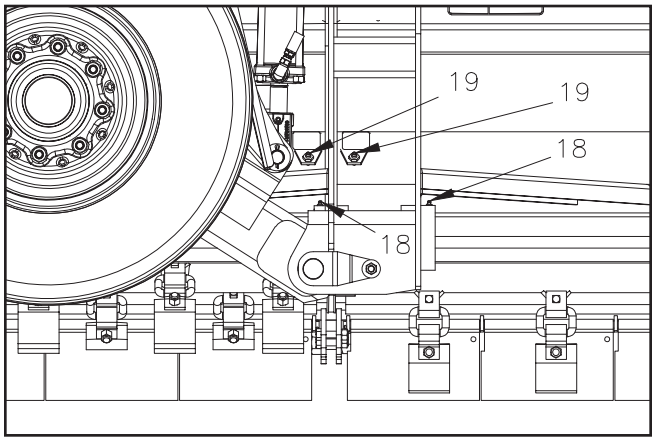


PHOTO NO. 9104C



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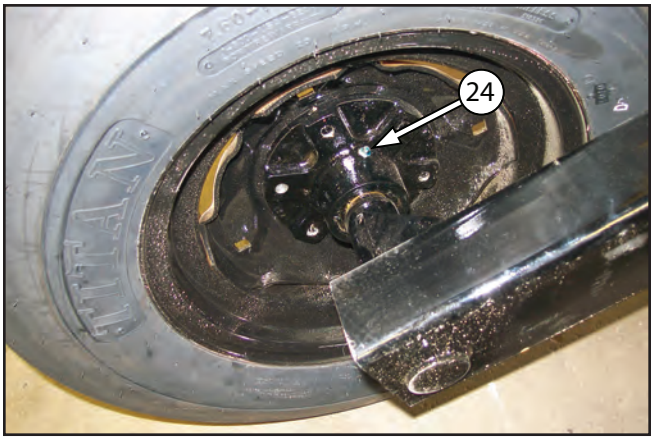
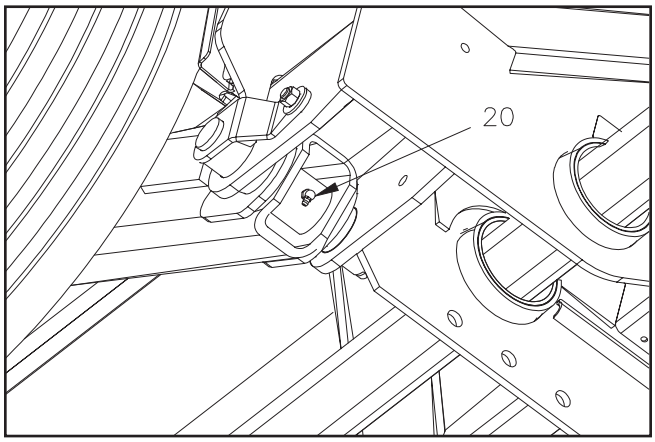


PHOTO NO. 9114A



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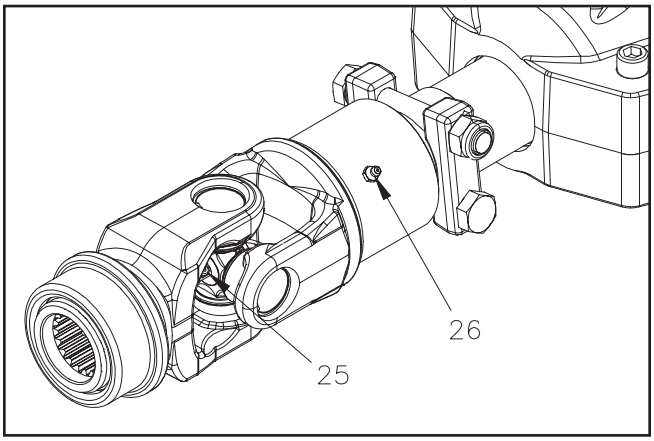
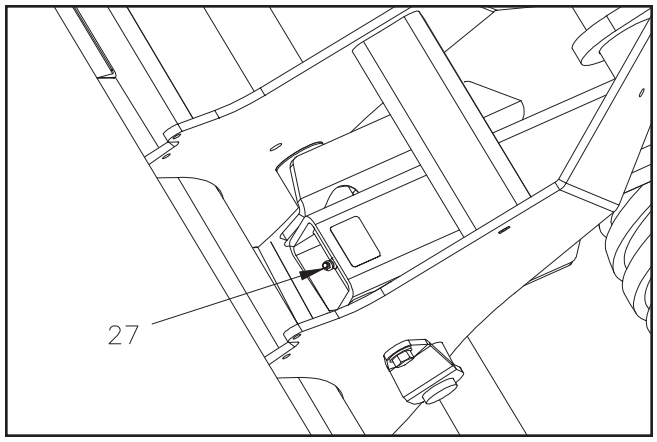


DWG. NO. 6942



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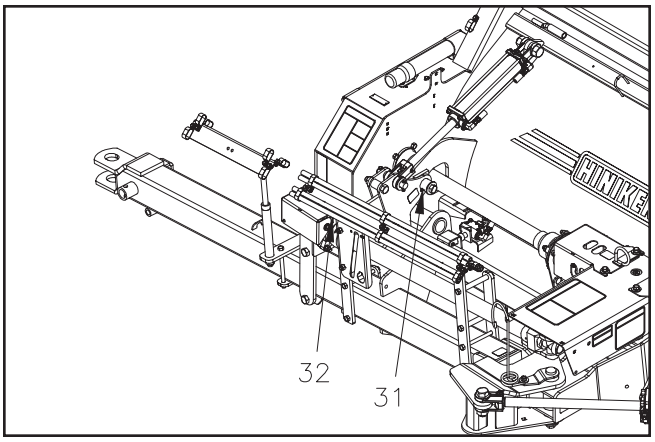

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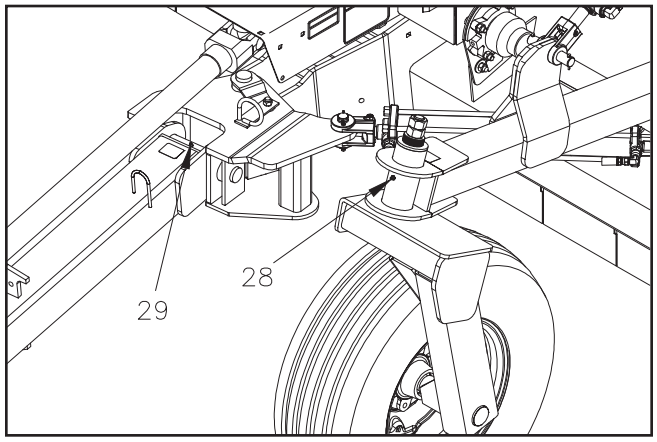

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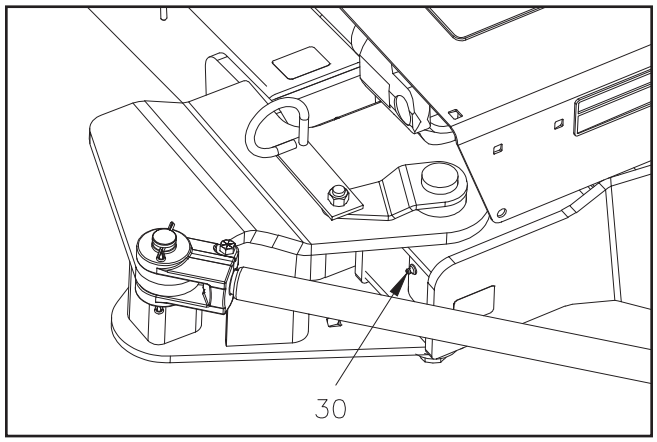


DWG. NO. 6944

LUBRICATION			
ARROW	**IDENTIFICATION**	**NO. OF ZERKS**	**INTERVAL**
1	C.V. PTO Front Cross	1	DAILY
2	C.V. PTO Shield	1	DAILY
3	C.V. PTO Double Yoke	1	DAILY
4	C.V. PTO Rear Cross	1	DAILY*
5	PTO Front Rotating Shield	1	DAILY
6	PTO Sliding Engagement	1	DAILY
7	PTO Rear Center Cross	1	DAILY
8	PTO Rear Rotating Shield	1	DAILY
9	Overrun Clutch	1	DAILY
10	Gearbox Fill Plug	1	SEASONAL*
11	Gearbox Check Plug	1	SEASONAL*
12	Gearbox Drain Plug	1	300 HR.*
13	Cross Shaft Connection	4	WEEKLY
14	Cross Shaft Center Bearings	4	WEEKLY
15	Cross Shaft Outer Bearings	2	WEEKLY
16	R.H. Auger Bearing	1	WEEKLY
17	R.H. Outer Rotor Bearing	1	WEEKLY
18	Rockshaft Bearings	6	WEEKLY
19	Center Rotor Bearings	2	WEEKLY
20	Rear End Transport Pivot	1	WEEKLY
21	L.H. Auger Bearing	1	WEEKLY
22	L.H. Outer Rotor Bearing	1	WEEKLY
23	Auger Drive Chain	1	WEEKLY
24	Wheel Bearings	7	WEEKLY
25	Cross Kit Gearbox Knuckle	1	DAILY
26	Overrunning Clutch Gearbox Knuckle	1	DAILY
27	Caster Wheel Mount Pivot	2	WEEKLY
28	Caster Wheel Main Pivot	2	WEEKLY
29	Main Hitch Vertical Pivot	1	WEEKLY
30	Main Hitch Horizontal Pivot	1	WEEKLY
31	Hitch Lock Pivot	2	WEEKLY
32	Driveline Bearing	1	WEEKLY

* SEE PRIOR SPECIFIC INSTRUCTIONS

TROUBLE SHOOTING

CONDITION	POSSIBLE CAUSE	CORRECTION
Poor shredding.	1. Missing, or broken knives.	1. Inspect and replace. See SERVICE section.
	2. Knives worn out.	2. Same as above.
	3. Under speed PTO.	3. Check tractor for 1000 PTO RPM.
	4. Slipping belts.	4. Check belts backwrap idler adjustment. See SERVICE Section
	5. Worn out belts.	5. Inspect belts for wear or mismatching. Replace only in matched sets.
	6. Shredder bouncing.	6. Deflate tires slightly. Slow down ground speed.
	7. Operating too high.	7. Decrease knives operating height to approximately 3” above rows.
	8. Excessive ground speed.	8. Slowdown.
Excessive knife wear and damage.	1. Operating too low.	1. Raise knives operating height to approximately 3” above rows.
	2. Running too low.	2. Raise knives operating height to approximately 3” above rows, or to clear rocks.
Excessive shearbolt failure.	1. Overloading auger.	1. Slow ground speed.
	2. Tough, damp crop.	2. Let dry.
	3. Wrong shearbolt.	3. Use Grade 8, head out.
	4. Material wedging.	4. Check auger and trough for damage and correct.

CONDITION	POSSIBLE CAUSE	CORRECTION
Entire shredder crosswise "yawing".	1. Wheel not exactly centered on middles.	1. Readjust wheel spacings.
	2. Different tire sizes on same unit.	2. Correct.
Excessive shredder vibration.	1. Missing or broken knives.	1. Inspect and replace. See SERVICE section.
	2. Rock damaged rotor.	2. Replace.
	3. Worn or loose rotor bearings.	3. Inspect and maintain. See SERVICE section.
	4. Loose or misaligned end sheaves.	4. Inspect and maintain. See SERVICE section.
	5. Deteriorated belts.	5. Replace belts.
	6. High tire air pressure.	6. Bleed to tire recommended PSI.
	7. Damaged auger.	7. Inspect and maintain. See SERVICE Section.
Too rapid belt wear.	1. Belts too loose or too tight.	1. Backwrap idler tension no properly maintained. See SERVICE section.
Excessive power required for available tractor.	1. Excessive ground speed.	1. Slow Down
Front caster wheels will not lower.	1. Air in hydraulic lines.	1. Loosen lines on hydraulic control valve, bleed air out.
Caster wheels unstable driving in end transport.	1. Caster brake too loose.	1. Tighten double nut setup on stem of caster wheel.

SERVICE

WARNING: DEATH OR SERIOUS INJURY CAN RESULT. BEFORE SERVICING, READ SAFETY-GENERAL, BEFORE OPERATION, DURING OPERATION AND SERVICE AT FRONT OF THIS MANUAL.

CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. DISENGAGE PTO, STOP TRACTOR ENGINE, SET BRAKES, REMOVE KEY AND ALLOW EQUIPMENT TO COME TO A COMPLETE STOP BEFORE:

CLEANING, UNCLOGGING, LUBRICATING, INSPECTING, OR OTHERWISE SERVICING, ANY PART OF THIS EQUIPMENT.

DO NOT SERVICE OR OTHERWISE HANDLE A HYDRAULIC RAISED UNIT IN A RAISED POSITION UNLESS IT IS SECURELY BLOCKED AGAINST UNEXPECTED FALLING.

DO NOT SERVICE END DRIVE BELTS WHEN TRACTOR IS RUNNING.

REPLACE ALL SHIELDS REMOVED FOR SERVICE BEFORE OPERATING THIS EQUIPMENT.

HARDWARE

Shredder/windrowers operate in an inherently vibratory environment. Discipline yourself to regularly check suspect bolt torques and lost, worn out, or broken parts. Replace these promptly.

TABLE 1 - RECOMMENDED TORQUE VALUES FOR INCH FASTENERS (ZINC PLATING & LUBRICATED)**

Nominal Size	SAE 2 74 000 psi Min Tensile lb - ft		SAE 5 120 000 psi Min Tensile lb - ft		SAE 8 150 000 psi Min Tensile lb - ft	
	Dry	Lubricated	Dry	Lubricated	Dry	Lubricated
1/4-20 1/4-28	6 6	4 5	8 10	6 7	12 14	9 10
5/16-18 5/16-24	11 12	8 9	17 19	13 14	25 25	18 20
3/8-16 3/8-24	20 23	15 17	30 35	23 25	45 50	35 35
7/16-14 7/16-20	30 35	24 25	50 55	35 40	70 80	55 60
1/2-13 1/2-20	50 55	35 40	75 90	55 65	110 120	80 90
9/16-12 9/16-18	70 80	55 60	110 120	80 90	150 170	110 130
5/8-11 5/8-18	100 110	75 85	150 170	110 130	220 240	170 180
3/4-10 3/4-16	175 195	130 145	260 300	200 220	380 420	280 320
7/8-9 7/8-14	165 185	125 140	430 470	320 350	600 660	460 500
1-8 1-12	250 270	190 200	640 700	480 500	900 1000	680 740
1 1/8-7 1 1/8-12	350 400	270 300	800 880	600 660	1280 1440	960 1080
1 1/4-7 1 1/4-12	500 550	380 420	1120 1240	840 920	1820 2000	1360 1500
1 3/8-6 1 3/8-12	660 740	490 560	1460 1680	1100 1260	2380 2720	1780 2040
1 1/2-6 1 /1/2-12	870 980	650 730	1940 2200	1460 1640	3160 3560	2360 2660

HINIKER shredders are EQUIPPED ONLY WITH GRADE 5 BOLTS (3 marks on heads) or higher and generally retained with TYPE B or F LOCK NUTS. Type B lock nuts are PLAIN hex. Type F lock nuts are FLANGED hex.

IMPORTANT: DO NOT REPLACE HARDWARE WITH LOWER GRADE ITEMS.

EXCEPT ON SHEAVES (PAGE 34), AND SHEAR BOLT ALL BOLT TORQUES ARE GRADE 5. HARDWARE OVER, OR UNDER, TORQUING, CAN RESULT IN UNSATISFACTORY DURABILITY.

GRADE 5 BOLT TORQUE VALUES*
See Page 28

It is a good idea to recheck critical bolt torques after the first 2 or 3 hours of operation.

KNIVES

HINIKER shredder rotors are factory dynamically balanced.

WARNING: DEATH OR SERIOUS INJURY CAN RESULT. SHOULD ABNORMAL ROTOR VIBRATION OCCUR AT ANY TIME, IMMEDIATELY DISENGAGE PTO, STOP TRACTOR ENGINE, SET BRAKES, REMOVE KEY AND DETERMINE/CORRECT CAUSE BEFORE PROCEEDING.

Periodically inspect rotor assemblies for broken or missing knives. Immediately replace because they will cause the rotor to run out of balance. HINIKER knives are marketed singularly; however,

IMPORTANT: REPLACE KNIVES IN OPPOSITE (180° APART) SETS. ALSO, REPLACE CORRESPONDING IDENTICAL KNIVES AT OTHER END OF SAME ROTOR HALF.

Shredder/Windrowers are factory shipped with CUP knives.

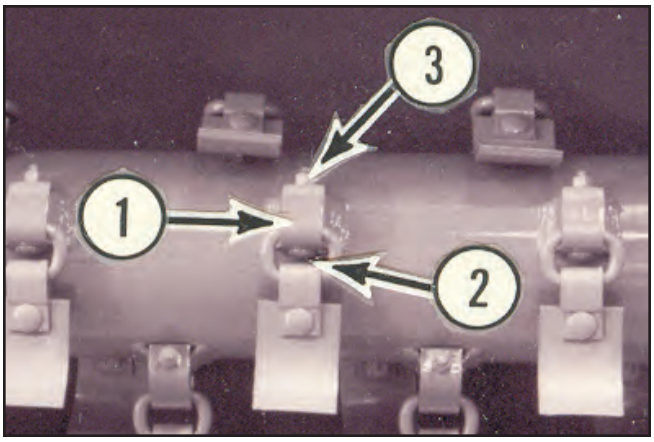


PHOTO NO. 3240

IMPORTANT: WHEN SERVICING KNIVES, ALWAYS DISCARD ANY LOCK NUT THAT HAS BEEN LOOSENED. NEVER REPLACE THESE TYPE B LOCK NUTS WITH ORDINARY NUTS. INSTALL KNIFE HANGERS (ARROW 1) AND MOUNTING BOLTS (ARROW 2) SO CARRIAGE HEADS ALWAYS TRAIL DIRECTION OF ROTOR ROTATION. LOCK NUT (ARROW 3) SHOULD ALWAYS LEAD DIRECTION OF ROTOR ROTATION.

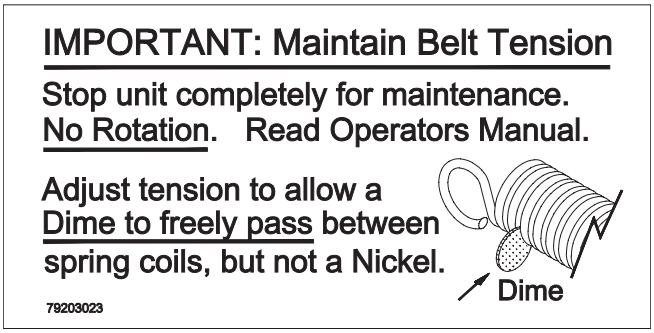
Knife hardware should be torqued to 75-82 ft/lb (102-112 N/m).

BELTS

HINIKER shredder/windrowers are EQUIPPED ONLY WITH PREMIUM GRADE MATCHED BELTS. Do not replace these with “garden variety” belts because their power transmission capability, and durability, may be degraded.

NOTICE: ADEQUATE TENSION IS NECESSARY FOR FULL POWER TRANSMISSION AND SATISFACTORY BELT PERFORMANCE.

This is obtained by following instructions on decal located on end plates inside each end shield.



DWG. NO. 79203023

New belts are initially tensioned by sliding the adjusting bar (arrow 1) through the extension spring (arrow 2). Insert the end of a screwdriver through the washer (arrow 3) into the nearest adjusting bar slot and push down on the screw driver. The spring anchor (arrow 4) will move down and extend the spring tightening the belt. Continue this procedure through successive slots in the adjustment bar until the desired tension is found. There should be enough space to insert a dime between each spring coil but not a nickel. Refer to decal and DWG 79203023.

Roll the belts through a partial revolution to recheck operating tension.

If necessary to remove belts, the auger drive chain must first be removed.

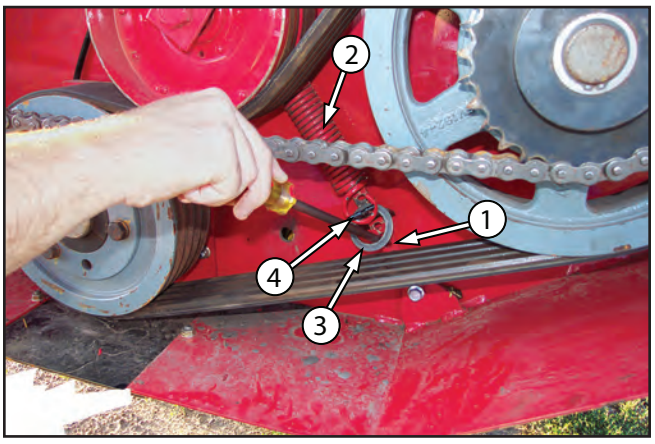


PHOTO NO. DPC2071

Recheck initial belt tension after first hour and first day of operation. Loose belts can “glaze” and contribute to slippage. DO NOT USE BELT DRESSING ON “V” BELTS. This will aggravate poor belt function.

If belts overheat and/or have excessive side wrapper wear, check sheaves alignment. See DWG 3009A on page 34.

When purchasing/installing new belts loosen backwrap idler spring to provide adequate installation slack. NEVER PRY “V” BELTS OVER SHEAVE RIMS!

Replacement belts should only be ordered by specific HINIKER part number. Do not measure around a belts length. The correct belt part number is: 79203641.

AUGER CHAIN AND SHEARBOLT

IMPORTANT: WHENEVER ASSEMBLING AUGER DRIVE CHAIN, ENSURE CLOSED END OF SIDE PLATE CLIP, AT BREAK LINK, LEADS DIRECTION OF CHAIN TRAVEL.

The auger chain is protected by a standard 3/8” x 2 1/2” grade 8 hex bolt (arrow 1) in driven sprocket (arrow 2). The chain is standard # 60 roller chain.

IMPORTANT: THE SHEARBOLT MUST BE INSERTED WITH HEAD OUTWARD. DO NOT USE GRADE 2 OR GRADE 5 REPLACEMENTS.

A bronze bushing (arrow 3) prevents shaft/sprocket seizure. Annually, a few drops of oil here is a good idea.

To properly tension the auger chain, hand reverse driven sprocket (arrow 2). This removes slack from bottom chain run (arrow 4). Hand lower idler sprocket (arrow 5) and torque up its bolt. Slack side of chain should be able to be lifted about 3/4”.

NOTICE: NEW ROLLER CHAIN MAY INITIALLY “STRETCH” DURING ITS SEATING. IT IS A GOOD IDEA TO CHECK THIS AFTER A HALF DAY OF RUNNING.

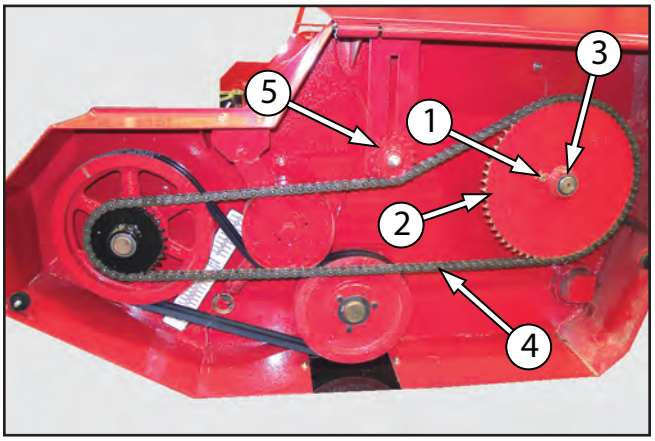


PHOTO NO. 9091A

OUTER ROTOR BEARINGS

All (4) rotor bearings are identical. Each is flange mounted and piloted. They have no eccentric locking collars and are loosened from their shafts by removing (2) 3/8” Allen set screws (arrow 1) from their inner races, see photo 3005B.

Because of high vibration, these set screws are factory retained with an anaerobic threadlock (eg. Locktite 242 (blue) or Perma-Lok HM 118 (red). Removal procedure DIFFERS BETWEEN THE INNER AND OUTER ROTOR BEARINGS.

1. Loosen and remove belts and driven sheave. See photo 3005B.

   If a L.H. rotor bearing is being serviced, removing the auger drive chain facilitates working access.

CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. ROTORS ARE HEAVY AND SUBJECT TO UNEXPECTED MOVEMENT. SECURELY UNDERNEATH BLOCK ROTOR END BEING SERVICED AGAINST DROPPING OR SHIFTING BEFORE THE END BEARING IS REMOVED FROM ITS PILOT HOLE.

2. Remove (4) 3/8” bolts (arrow 2) and the (2) inside antiwrap shields. This allows wrench access to the bearing mounting bolt heads.

3. Loosen outer end zerk hex nut of lube line (arrow 3) and lube line from bearing. Circumferentially polish shaft (arrow 5).

4. Remove (4) 1/2” locknuts (arrow 6) which are factory retained with anaerobic threadlock (eg. Locktite 242 (blue) or Perma-Lok HM 118 (red). Modestly pry plate (arrow 7) outward to start bearing off shaft.

5. A varying quantity of 2” nominal I.D. washers are factory installed between the inner end of bearing and the shoulder on shaft. Because replacement bearings vary in axial dimensions, care must be exercised to FULLY WASHER THE SPACE BETWEEN THE BEARING AND SHAFT SHOULDER.

   Reinstall plate (arrow 7) and bearing (arrow 4) by temporarily snugging up (2) each of their bolts (without anti-wrap shields). Visually check above cited washers to insure no looseness, or substantial axial preload, exists. Two inch nominal I.D. washers are available as part numbers:

Washer	Part Number
1/16” Thick	710-05333
1/8” Thick	710-05332

6. After the washers have been checked, torque bearing mounting bolts and Allen set screws. Torque the Allen screws once, loosen and torque a second time. Reinstall anti-wrap shields and torque support plate bolts. Reattach bearing lube line.

IMPORTANT: WHENEVER THESE LOCK NUTS/BOLTS ARE DISCARDED, ONLY GRADE 5 BOLTS AND TYPE B LOCKNUTS SHOULD BE REINSTALLED. THE ABOVE CITED (OR SIMILAR) ANAEROBIC THREADLOCK SHOULD BE USED IN REASSEMBLY OF BEARING MOUNTING BOLTS AND ALLEN SET SCREWS. TORQUE ALL BEARING MOUNTING BOLTS TO 75-82 Ft/Lbs. (102-112 N/m).

Commercial anaerobic threadlocks have installation instructions, and SAFETY CAUTIONS, on their containers. These should be adhered to.

7. Reinstall and realign previously removed sheave and belts. Reinstall auger drive chain if L.H. bearing was serviced.

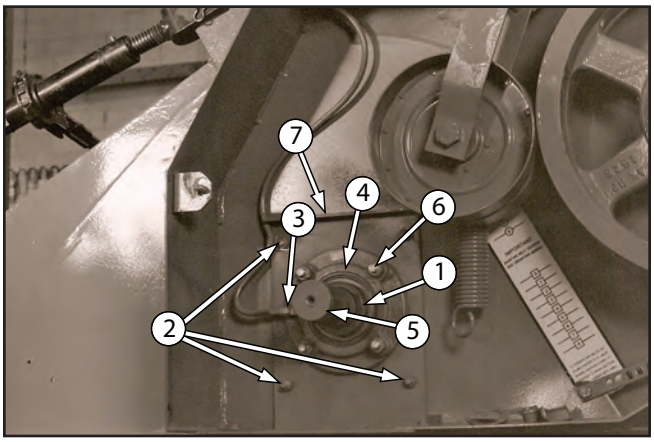


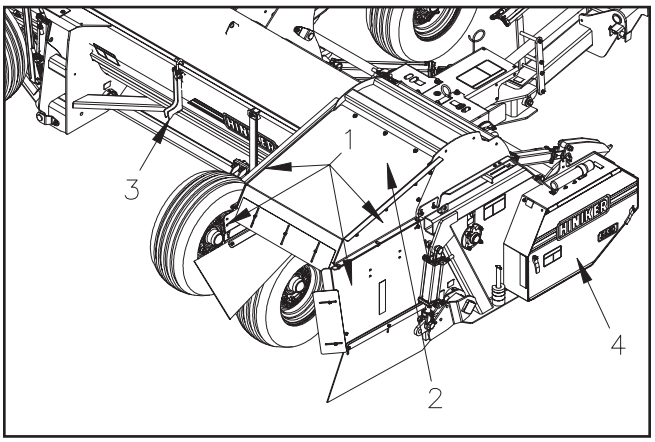
PHOTO NO. 3005B

INNER ROTOR BEARINGS

The entire affected rotor must be removed; thus, the unit must be turned upside down.

WARNING: DEATH OR SERIOUS INJURY CAN RESULT. DO NOT ATTEMPT TO REMOVE A ROTOR FROM UNDERNEATH A MACHINE IN ITS OPERATING POSITION. NEVER ATTEMPT TO REMOVE A ROTOR WITH THE UNIT UPENDED IN A VERTICAL POSITION. IT IS INHERENTLY UNSTABLE.

1. Remove the complete discharge chute (arrow 1) and its top shroud (arrow 2). Ensure all auger covers (arrow 3) are latched and both end enclosures (arrow 4) are secured.



DWG. NO. 7086

2. Remove PTO, and SMV if present.

DANGER: DEATH OR SERIOUS INJURY CAN RESULT. CLEAR PEOPLE FROM WORK AREA WHEN TIPPING UNIT UPSIDE DOWN. DO NOT WORK ON SOFT, OR UNEVEN, GROUND. AVOID HIGH WORK SPEEDS AND "JACKRABBIT" MANEUVERING.

USE HOISTING EQUIPMENT CAPABLE OF SAFELY HANDLING NO LESS THAN 7750 Lbs. (3515 Kg.).

3. Insert a 1" x 4 1/2" bolt thru hitch clevis (arrow 1) and snug up its nut. SECURELY hook a sling chain (arrow 2) around this bolt and raise unit a short distance. See photo 3372.

4. SECURELY BLOCK REAR OF ALL 4 TIRES as at (arrow 3). (This prevents backward machine movement.) Continue raising/rotating machine, with a modest rearward bias, until unit is SLIGHTLY rearward of vertical. See photo 3372.

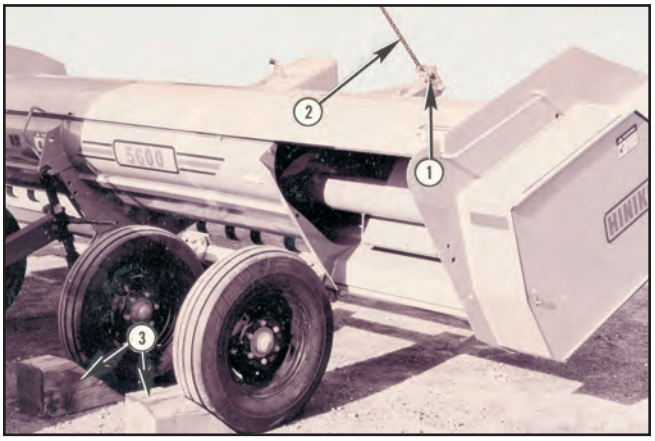


PHOTO NO. 3372

5. Move all (4) blocks previously behind tires TO THE FRONT OF THE TIRES (arrow 1) and SECURELY BLOCK them. (This prevents forward machine movement.) See photo 3373.

6. Slowly slacken hoist and allow unit to rotate backwards to flat ground contact around base machine corners as at (arrow 2).

7. Open concerned end shield (arrow 3) and remove bottom plate (arrow 4). Depending on center rotor bearing to be serviced, remove affected rotor drive belts. If servicing a L.H. center bearing remove the auger drive chain.

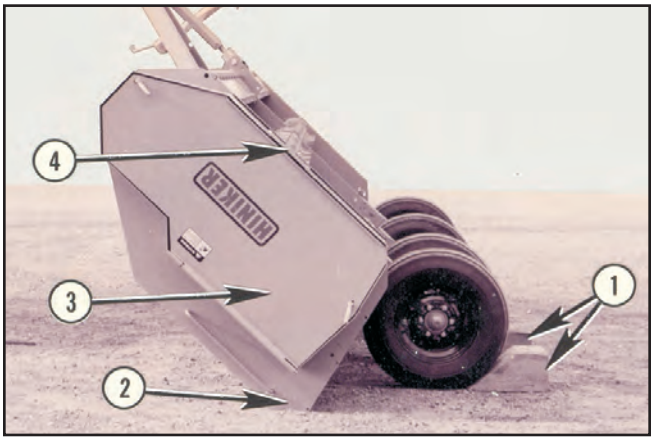


PHOTO NO. 3373

8. Attach sling (arrow 1) hooks through 2 outside "D" rings (arrow 2) on 1 knife row. Snug up hoist, but do not overly tighten it.

IMPORTANT: AVOID USING EITHER ROTOR'S TRANSVERSE CENTERS FOR SHREDDER LIFTING OR OTHER STRUCTURAL REPAIR. POSSIBLE ROTOR DAMAGE CAN OCCUR.

9. Loosen and remove outer bearing from its mounting as shown in photo 3005B, and as described on pages 30 and 31. Loosen and remove (4) 3/8 inch carriage bolts between the bearing mounting plate and the end panel. Remove bearing mounting plate.

10. Remove (4) 3/8" bolts (arrow 3) and center antiwrap shields (arrow 4). This allows access, through the rotor's inner end notches to bearing's inner race Allen set screws. Detach shield (arrow 5) and lube line (arrow 6) from bearing. Refer to photo 3019.

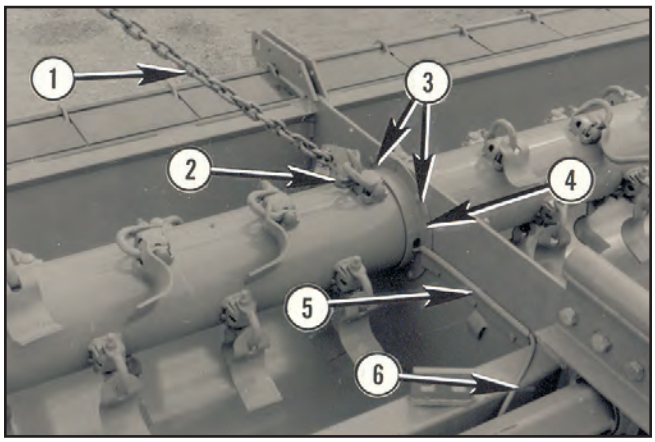


PHOTO NO. 3019

11. Remove (2) 3/8" Allen set screws (arrow 1) on bearing being serviced (item 2). These are factory retained with anaerobic threadlock (eg. Locktite 242 (blue) or Perma-lok HM 118 (red). Refer to photo 3015.

Commercial anaerobic threadlocks have installation instructions, and SAFETY CAUTIONS, on their containers. These should be adhered to.

12. Remove (4) 1/2 bolts (arrow 3) using a thin box, or open end, wrench as in (arrow 4). By axially prying and "jarring" the rotor, edge it and associated bearing free. NOTICE: REMOVING BOLTS IN THIS SEQUENCE PRECLUDES POSSIBLE BEARING HOUSING DAMAGE. See photo 3015.

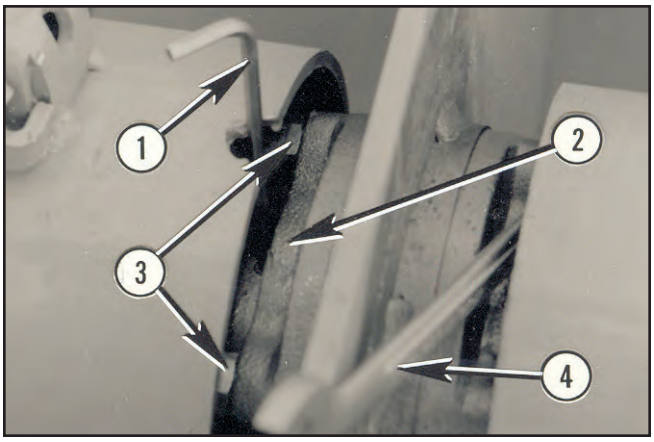


PHOTO NO. 3015

13. Polish around the rotor center stub shaft and reinstall it in replaced bearing. Insure stub shaft shoulder is against bearing inner race. Torque (2) Allen set screws once, loosen and torque them a second time.

IMPORTANT: WHENEVER THESE LOCK NUTS/ BOLTS ARE DISCARDED, ONLY GRADE 5 BOLTS AND TYPE B LOCKNUTS SHOULD BE REINSTALLED. THE ABOVE CITED (OR SIMILAR) ANAEROBIC THREADLOCK SHOULD BE USED IN REASSEMBLY OF MOUNTING BOLTS AND ALLEN SET SCREWS. TORQUE ALL BEARING MOUNTING BOLTS TO (75-82 Ft/lbs. 102-112N/m.).

14. TEMPORARILY reinstall (4) 3/8" bolts through outer bearing mounting plate and snug them up. Do not reinstall outer anti-wrap shields at this time. Check varying quantity of 2 inch nominal I.D. washers between outer bearing's inner race and shoulder of rotor shaft. If these are axially SNUG WITH NO PRELOAD, proceed to completely reinstall outer bearing and anti-wrap shields.

15. If washers are not as stated above, add or subtract washers as needed to outer bearing. Two inch nominal I.D. washers are available as part numbers:

Washer	Part Number
1/16" Thick	710-05333
1/8" Thick	710-05332

Check that all previously removed and/or loosened parts are properly reinstalled.

Remove hoist and reverse above tipping procedure to return the unit to operating position and reinstall previously removed PTO, etc.

SHEAVES ALIGNMENT

It is unnecessary to realign sheaves unless they have been damaged or loosened. Do not realign sheaves unless they are more than + or - 1/16" misaligned.

Photo 3009A and photo 3010B show L.H. sheaves. R.H. sheaves are aligned similarly.

1. Particularity on the auger drive side, it is easiest to align the driven sheave (arrow 2) to the driver sheave (arrow 1). Thus, the auger drive chain need not be removed.

2. Determine misalignment by placing a steel straight edge (arrow 3) across sheaves as shown.

3. Fully relieve belt tension by removing all tension on backwrap idler spring (arrow 4). The spring anchor (arrow 5) can be released by gripping it with locking pliers, pulling outward and simultaneously twisting downward.

4. Refer to photo 3010B for sheave loosening procedure and adjust driven sheave's inner bushing in or out as required for realignment. Then reinstall sheave reversing loosening procedure.

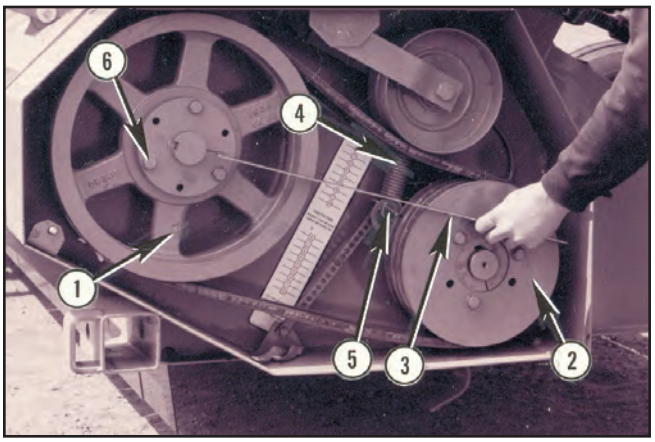


PHOTO NO. 3009A

SHEAVES REMOVAL/INSTALLATION

1. If a driver sheave on the auger drive side is being serviced, it is necessary to loosen auger chain idler and remove chain. That sheave's corresponding driven sprocket must also be removed. This sprocket is retained with a Woodruff key and snap ring.

2. Loosen backwrap idler (arrow 1) and remove belts.

3. Loosen and remove 1/2" bolts from UNTHREADED holes (arrow 2).

4. Insert these bolts into THREADED holes (arrow 3). Start with the bolt furthest from the inner bushing's slot (arrow 4) and gradually alternately torque bolts in a uniform pattern. Continue torquing in small increments until the tapered surfaces disengage. The same procedure is used if a driven sheave (arrow 5) is to be removed. Both sheaves disengage away from machine.

NOTICE: EXCESSIVE AND/OR UNEQUAL BOLT TORQUES CAN BREAK THE INNER BUSHING'S FLANGE.

5. The inner bushings are retained with 3/8" Allen set screws over their keyways. Remove the set screw to enable removal of the inner bushing.

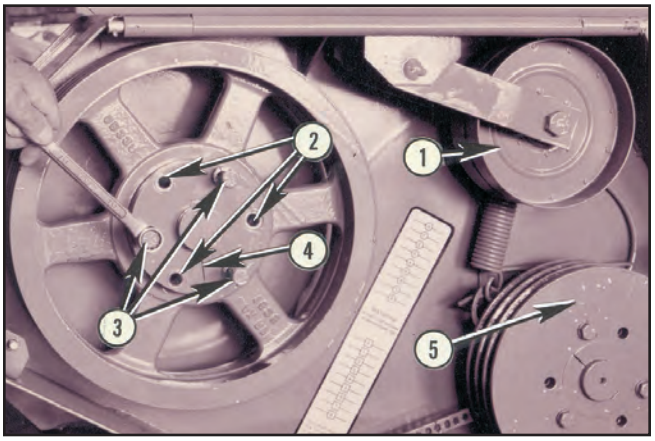


PHOTO NO. 3010B

6. For installation, insure the tapered mating surfaces of the inner bushing and sheave are free of dirt, paint, rust, metal chips and LUBRICANT.

IMPORTANT: DO NOT USE LUBRICANTS, ANTI SEIZE, AND/OR EXCESSIVE BOLT TORQUES WHEN ASSEMBLING Q.D. SHEAVES. THESE CAN BREAK THE ASSEMBLY.

7. Insure Woodruff key is in place before sliding inner bushing on shaft. Align (in/out) the Allen set screw hole of the bushing being installed with existing witness marks on its shaft and torque the set screw.

8. Align UNTHREADED bolt holes in sheave with THREADED bolt holes in mating bushing. Insert bolts and lockwashers in these UNTHREADED holes and tighten about (2) turns each.

9. Alternately torque these bolts, in a uniform pattern, until the tapers are seated (approximate 1/2 bolt torque). Check for sheave alignment and possible wobble. Correct if necessary.

IMPORTANT: SHEAVE BOLTS ARE TORQUED TO 60 FT/LBS. (81 N/m)

10. Continue bolt torquing until above values occur, or NO LESS THAN 1/8" HUB FLANGE TO SHEAVE CLEARANCE EXISTS. There will always be a gap in the inner bushing hub when proper procedure is followed.

NOTICE: INDIVIDUAL BOLT TORQUES SHOULD BE ACHIEVED NO MORE THAN (2) TIMES IN THE TIGHTENING CYCLE.

11. Reinstall belts and reposition backwrap idler.

DRIVE SHAFTS BEARINGS

The Driveshaft bearings have set screws. Servicing these bearings requires removing the driver sheave. On the L.H. side, it also requires removing the auger driver sprocket. Reference is made to the prior heading SHEAVE REMOVAL/INSTALLATION (page 34).

Loosen the bolts holding the center bearing holder and the outboard bearing. The outboard bearing may be taken out of the machine along with the shaft. The center bearing must be driven off the shaft before either can be removed from the machine. Strip paint and rust and emery the shaft, if necessary to move the center bearing.

WHEEL BEARINGS & SEALS

HINIKER shredders/windrowers are equipped with O.D. riding triplex (3 labyrinths) seals. They also have a replaceable seal riding ring (arrow 6) and zerk relube in the hub. This system is highly effective when properly installed and maintained. Refer to photo 3011.

IMPORTANT: WHEEL SEAL AND RIDING RING MUST BE INSTALLED IN THE RIGHT DIRECTION, PROPERLY PRELUBED AND THE HUB FULLY PACKED WITH LUBE. IGNORING PROCEDURES BELOW WILL RESULT IN PREMATURE CONTAMINATION AND FAILURE.

1. Remove hub, inboard bearing cone (arrow 1), outboard bearing cone (arrow 2) and seal (arrow 3) from spindle. Thoroughly clean hub's interior grease cavity, both bearing cups (arrow 4), cones, hub cap (arrow 5) and preload hardware.

2. Discard old seal (arrow 3) and inspect bearings for deterioration. Replace both cups and cones if necessary. Generally, seal riding ring (arrow 6) should be replaced when doing wheel hub maintenance.

IMPORTANT: PRESS SEAL RIDING RING INTO HUB WITH INTERIOR EDGE FLANGE TOWARD INBOARD BEARING CUP. MANUALLY WORK LUBE INWARD BETWEEN (3) SEAL LABYRINTHS BEFORE INSTALLING. CAREFULLY START NEW SEAL (ARROW 3) ONTO SPINDLE WITH BEARING CONE (ARROW 1). INSURE SEAL IS NOT CROOKED AND IS INSTALLED WITH ITS SHARP EDGED INSIDE FLANGE TOWARD THE OUTBOARD SPINDLE END. THE OPPOSITE (SMOOTH) SEAL FACE IS USUALLY MARKED "OUTSIDE". THIS MUST ALWAYS FACE THE SPINDLE'S INBOARD END, OTHERWISE THE SEAL WILL NOT FUNCTION CORRECTLY.

4. Install hub, outboard bearing cone (arrow 2), end washer and adjusting nut.

   For a 6-bolt hub torque to 50 Ft. Lbs. while rotating hub . Back off nut 1 full turn. Torque slotted nut to 17 1/2 Ft. Lbs. while rotating hub. Back off to assemble in next available hole.

   For a 8-bolt hub torque to 75 Ft. Lbs. while rotating hub . Back off nut 1 full turn. Torque slotted nut to 27 Ft. Lbs. while rotating hub. Back off to assemble in next available hole.

5. Use zerk to fully lube hub cavity and bearings, while rotating hub, and until lube emerges through outboard bearing. Pack hub cap (arrow 5) with lube and drive it home. Continue lubing hub until lube emerges around seal's outside diameter.

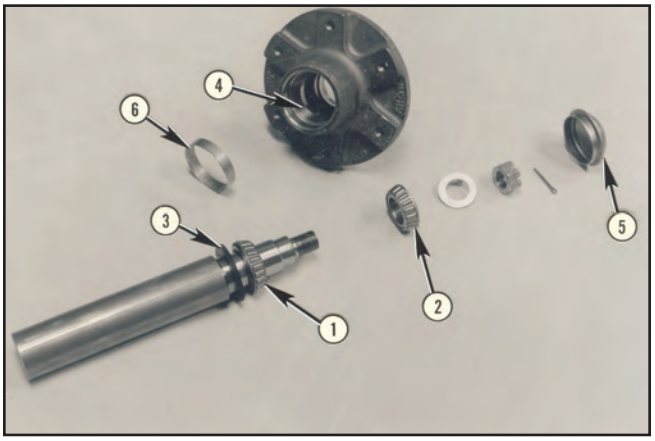


PHOTO NO. 3011

GEARBOX

The shredder/windrower is equipped with a 1.00:1.00 ratio gearbox. The gearbox can best be worked on as follows:

1. Detach drive knuckle at gearbox input spline.

2. Remove the right drive shaft shield. Loosen and remove right outboard drive shaft bearing flange bolts. Loosen and remove right center bearing plate bolts, this can be done without removing the driver sheave by slacking off the backwrap idler and removing belts. This permits sliding the entire right drive shaft assembly rightward; thus, allowing room to slide the gearbox loose from its L.H. spline coupling.

3. Remove the (2) left 1/2" bolts nearest the gearbox holding the left cross shaft shield.

4. Remove gearbox/PTO input shield.

5. Remove the bottom (4) 1/2" gearbox mounting bolts and slide the gearbox rightward sufficient to uncouple it from its left splined coupler. Then slide the gearbox forward to remove it for placing on a workbench.

6. Remove the gearbox drain plug and discard the lube.

The gearbox has no shims because preload and backlash are factory set. To service this box proceed as follows: Refer to photo 3008 and drawing 6088 on page 37.

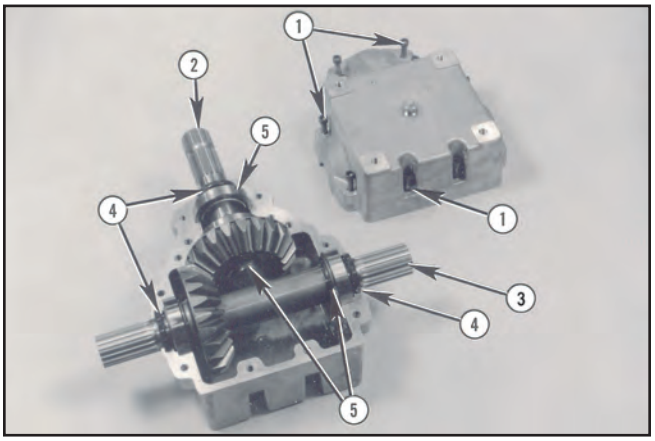


PHOTO NO. 3008

1. Remove (12) 3/8" socket head bolts (arrow 1) photo 3008 holding the 2 halves together. Tap input shaft (arrow 2) with a soft hammer, while holding the output shaft (arrow 3) off the work table.

   Be careful to not damage the case's mating surfaces by prying them apart.

2. The input and output shafts and gears are precision fitted. Do not separate them by prying on an individual set. Lift them apart together.

3. Remove old anaerobic sealant and complete necessary maintenance. Whenever a gearbox is opened, all (3) oil seals (arrow 4) should be replaced. Lube the seal's inside diameters before reinstalling and insure their spring garters are toward the gearbox's inside.

4. Clean gearbox of all dirt and metal particles. Inspect all removed parts for wear. Replace any bearing showing signs of pitting, inability to rotate freely and discoloration. Clean any bearings to be reused and coat with gear lube. Replace gears showing pitting, breaks or deformation. Replace input and through shafts having spline wear or deformation.

Note: Gears must be replaced as sets. Gears are pressed on the shafts at the factory and <u>cannot</u> be replaced in the field.

5. Whenever shafts are disassembled, make sure the same thickness snap rings (arrow 5) are used to maintain backlash and preload. Currently the gearbox (P/N 51700216) uses (1) external snap ring on the input shaft. For reassembly, capture bearings and seals in appropriate machined areas. Tap gently with a soft hammer to seat, being careful to not damage seals.

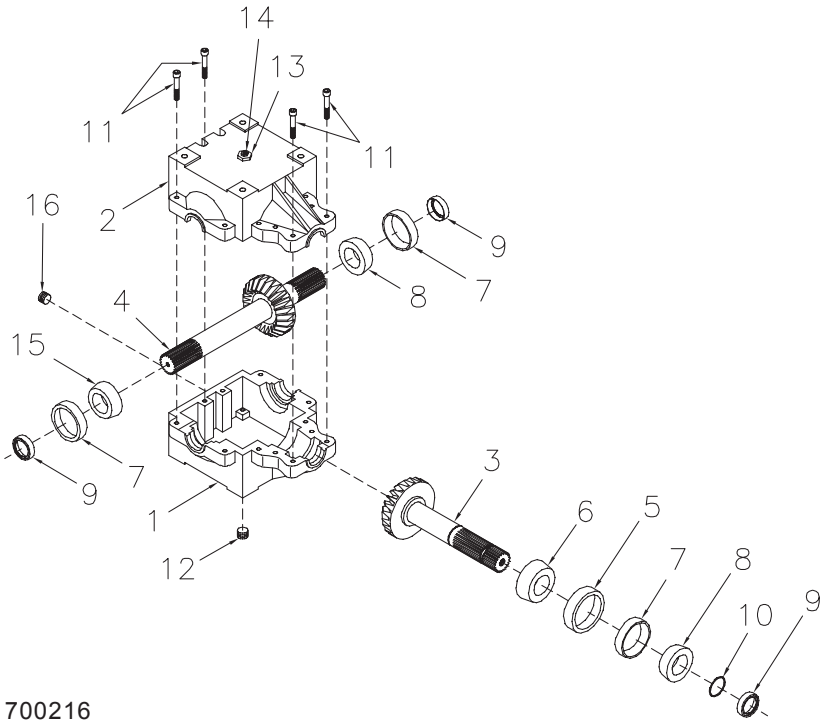
6. After both shafts have been reseated, apply anaerobic sealant (eg. Locktite 518 (red) or Perma-Lok HH 190 (dark purple) or Permatex silicone sealant 765-1344/1485) to housing top half and reseat it on bottom half. Apply pressure, or tap lightly, until top half is firmly in place. Replace, and retorque the (12) previously removed socket head bolts.

Commercial anaerobic sealants have installation and SAFETY CAUTIONS on their containers. These should be adhered to.

Reinstall gearbox in reverse order of removal. Ensure mounting bolts have their lock washers installed and they are brought to full torque.

Ensure drain plug is installed. Fill gearbox to level specified in LUBRICATION, page 21 with 80W90 gear lube.

1000 RPM GEARBOX ASSEMBLY



Gearbox Assembly 51700216 DWG. NO. 6088

REF. NO.	PART NUMBER	DESCRIPTION	QTY.	REF. NO.	PART NUMBER	DESCRIPTION	QTY.
1	400-17205	Casting (Tapped Holes)	1	9	650-06056	Seal (1 3/4 Shaft)	3
2	400-17206	Casting (Thru Holes)	1	10	702-05093	Retaining Ring (1 3/4 Shaft)	1
3	50106488	Pinion Shaft/Gear	1	11	950-011-032	Socket Head Cap Screw 3/8-16 x 2 1/4	12
4	50106489	Cross Shaft/Gear	1	12	203-51156	Plug, 1/2 NPT Sock Head Hex	1
5	601-05002	Bearing Cup (Large)	1	13	203-51074	Bushing, 1/2 NPT - 1/8 NPT	1
6	601-02075	Bearing Cone (Large)	1	14	203-50308	Pressure Relief	1
7	601-05001	Bearing Cup (Small)	3	15	601-02001	Bearing Cone 625580	1
8	601-03003	Bearing Cone (Small)	2	16	79201412	Plain Plug 1/4 NPT #200300	1

AUGER

1. To extract and service the auger, open all auger covers fully forward.

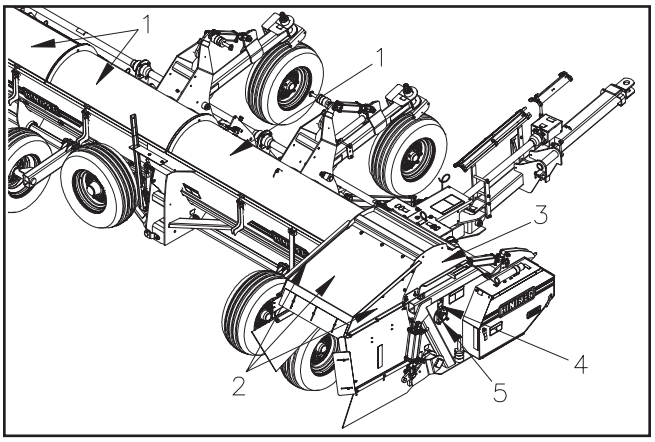
2. Remove top portion of chute (arrow 2).

3. Unbolt fixed hood over chute area (arrow 3) from body weldment and rotate forward.

4. Securely hook a double chain hoist around the auger assembly. Use a spreader bar to obtain about 6' chain spread. NO MORE THAN SNUG UP the hoist.

CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. DO NOT ATTEMPT TO "MANHANDLE" THE AUGER WITHOUT PROPER EQUIPMENT. THE AUGER ASSEMBLY WEIGHS 525 lbs. (238 Kg.).

5. Remove R.H. cover plate (arrow 4) and R.H. flange bearing (arrow 5), as shown in drawing 7104.



DWG. NO. 7104

6. Loosen drive chain idler, break and remove drive chain.

7. Remove shearbolt (arrow 6) and remove driven sprocket (arrow 7) and shear plate. Remove L.H. cover plate and L.H. bearing.

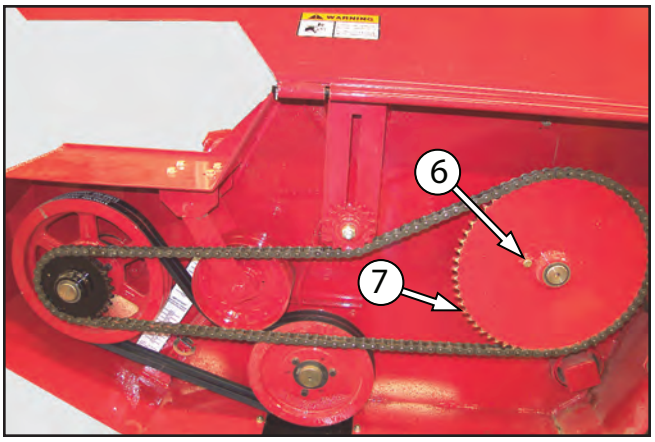


PHOTO NO. 9115G

8. Shift auger assembly as far to drive side as possible. Start snugging up hoist chains to raise the auger's R.H. end until it is free. Extract auger's L.H. end and safely deposit it.

SPROCKET ALIGNMENT

It is unnecessary to realign sprockets unless their shafts have been shifted. Do not realign sprockets unless they are more than + or - 1/4" misaligned. See photo 9119A.

1. Determine misalignment by placing a steel straight edge ACROSS driven sprocket (arrow 1) to driver sprocket (arrow 2). The larger sprocket is the measuring datum.

2. Both sprockets are retained with snap rings on shaft shoulders; thus, REALIGNMENT REQUIRES SHAFT SHIFTING. This is different than for sheave alignment. Driver shaft (arrow 3) manipulation is difficult; thus, align sprockets by shifting auger driven shaft (arrow 4).

3. Loosen set screws on BOTH auger shaft end bearings. With a LEAD HAMMER, OR WOOD BLOCK, on either end, transversely drive the auger assembly as required to achieve sprocket alignment.

4. After sprocket alignment, reassemble loosened and removed parts and relock bearing set screws.

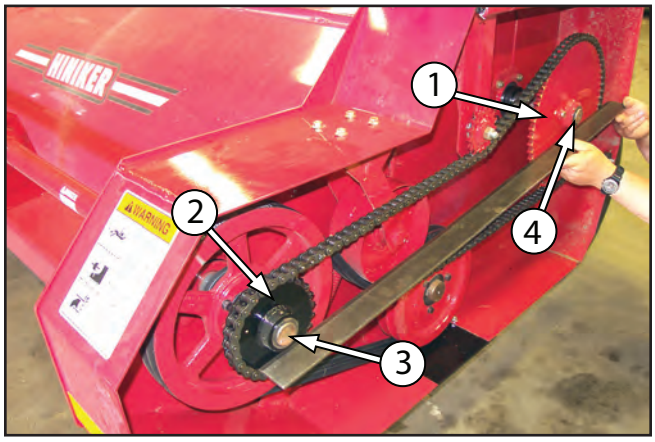


PHOTO NO. 9119A

ASSEMBLY

RECOMMENDED TORQUE VALUES

The torque values given in Table 1 are valid for standard zinc coated and lubricated fasteners assembled in rigid joints.

Fasteners which are waxed or phosphate coated or cadmium coated or specially lubricated should be torqued to lubricated torque values below.

A ±20 percent tolerance is to be used when a single value torque is specified.

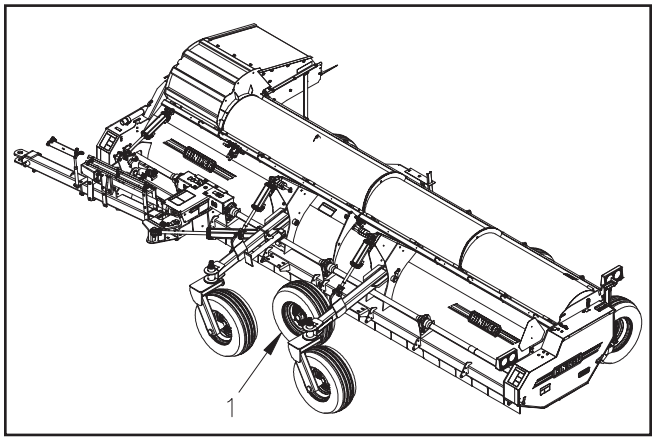
TABLE 1 - RECOMMENDED TORQUE VALUES FOR INCH FASTENERS (ZINC PLATING & LUBRICATED)**

Nominal Size	SAE 2 74 000 psi Min Tensile lb - ft		SAE 5 120 000 psi Min Tensile lb - ft		SAE 8 150 000 psi Min Tensile lb - ft	
	Dry	Lubricated	Dry	Lubricated	Dry	Lubricated
1/4-20 1/4-28	6 6	4 5	8 10	6 7	12 14	9 10
5/16-18 5/16-24	11 12	8 9	17 19	13 14	25 25	18 20
3/8-16 3/8-24	20 23	15 17	30 35	23 25	45 50	35 35
7/16-14 7/16-20	30 35	24 25	50 55	35 40	70 80	55 60
1/2-13 1/2-20	50 55	35 40	75 90	55 65	110 120	80 90
9/16-12 9/16-18	70 80	55 60	110 120	80 90	150 170	110 130
5/8-11 5/8-18	100 110	75 85	150 170	110 130	220 240	170 180
3/4-10 3/4-16	175 195	130 145	260 300	200 220	380 420	280 320
7/8-9 7/8-14	165 185	125 140	430 470	320 350	600 660	460 500
1-8 1-12	250 270	190 200	640 700	480 500	900 1000	680 740
1 1/8-7 1 1/8-12	350 400	270 300	800 880	600 660	1280 1440	960 1080
1 1/4-7 1 1/4-12	500 550	380 420	1120 1240	840 920	1820 2000	1360 1500
1 3/8-6 1 3/8-12	660 740	490 560	1460 1680	1100 1260	2380 2720	1780 2040
1 1/2-6 1 /1/2-12	870 980	650 730	1940 2200	1460 1640	3160 3560	2360 2660

** Machine Design Fastener and Joint Reference Issue.

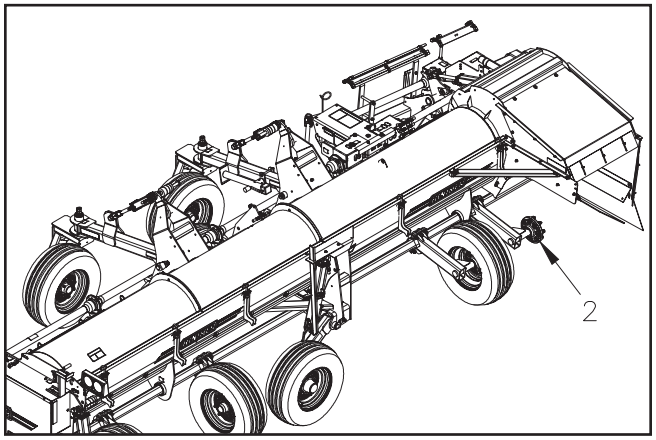
OFFLOADING (5621)

The 5621 machine can be offloaded directly off the truck in end transport mode. Carefully pull 5621 off truck bed and pull to desired storage location. The shipping transport tire needs to be removed and assembled onto the wheel leg that is missing a tire on the rear rock shaft.



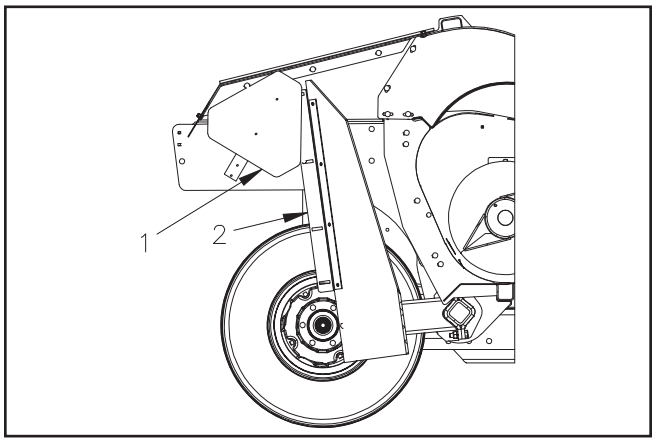
DWG. NO. 7088

Hook machine to tractor. Insert hydraulic coupler into tractor and hydraulically raise front caster wheels or raise front with forklift. Unbolt front shipping wheel and spindle (arrow 1) from machine. Remove tire and rim assembly from hub and spindle weldment.



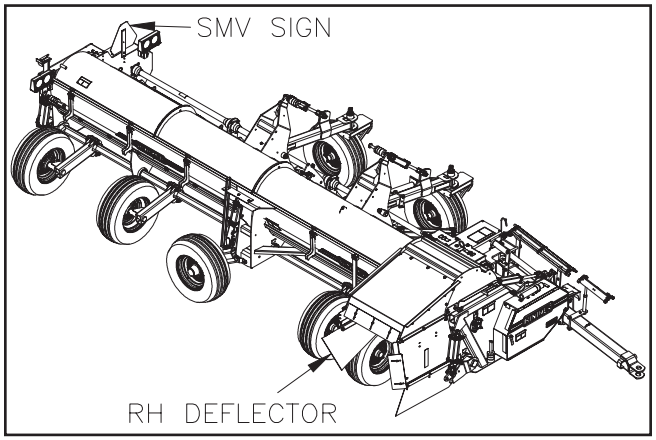
DWG. NO. 7090

Assemble removed tire and rim assembly onto wheel leg hub (arrow 2) on the rear rock shaft of machine.



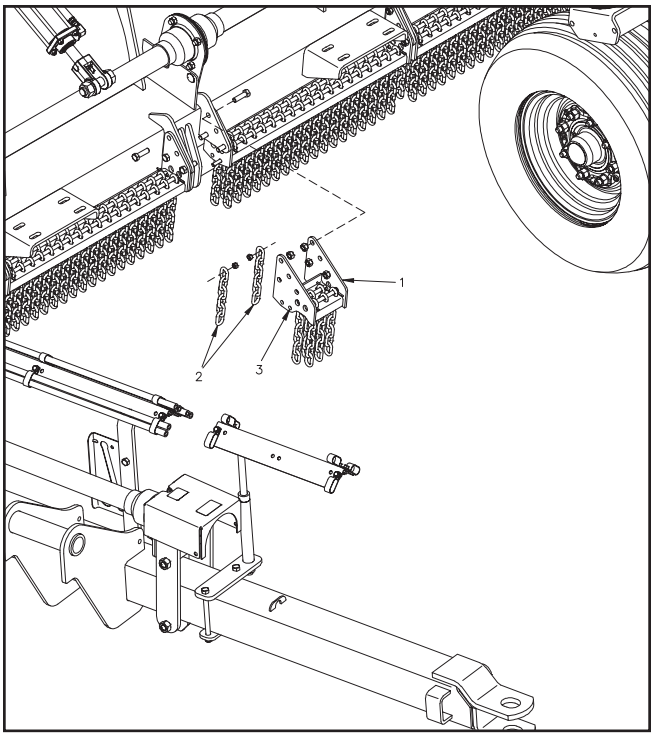
DWG. NO. 7103

Unbolt SMV sign (arrow 1) and RH deflector assembly (arrow 2) from chute area.



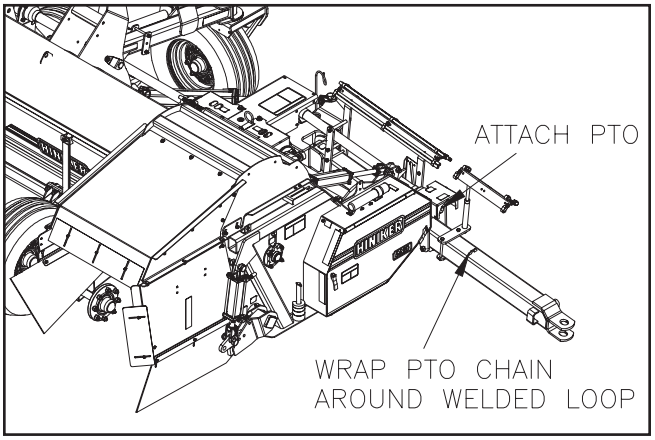
DWG. NO. 7087

Reassemble these components on the machine in the correct location, refer to drawing.



DWG. NO. 7112

Attach center chain guard (arrow 1) (if equipped) where shipping wheel was removed. Attach loose chains (arrow 2) on either side of chain guard to front bottom hole (arrow 3) using 3/8 hardware.



DWG. NO. 7089

Attach PTO to drive shaft splined end on hitch. Wrap PTO chain around welded loop on hitch.

Machine is now ready for operation when PTO is attached.

IMPORTANT: TRACTOR MUST HAVE 1 3/4-20 SPLINE.

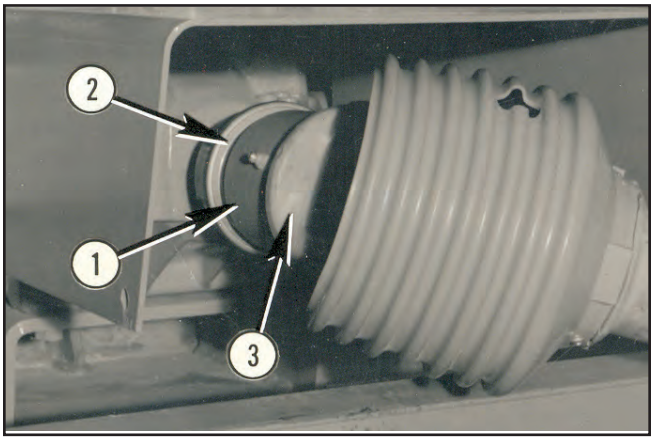


FIGURE 105 PHOTO NO. 2969A

All PTO's have similar sliding yoke couplers at tractor and implement ends. IMPLEMENT END IS IDENTIFIED BY AN OVERRUNNING CLUTCH (ARROW 1). See photo 2969A.

Clean implement driveshaft spline of any encrusted dirt or grease and lightly oil it. Slide outer PTO collar (arrow 2) toward its adjacent yoke (arrow 3) and slide PTO over the implement driveshaft spline. Reverse the sliding collar to lock the assemblies together.

WARNING: EXTREME MACHINE DAMAGE WILL OCCUR. DO NOT TURN PTO POWER ON WITH MACHINE IN END TRANSPORT MODE. IMPLEMENT AND TRACTOR DRIVELINE WILL BE DAMAGED SEVERELY.

OFFLOADING (5620HH)

DANGER: DEATH OR SERIOUS INJURY CAN RESULT. USE EQUIPMENT CAPABLE OF SAFELY HANDLING NO LESS THAN 8,000 Lbs. (3628 KG.).

DANGER: DEATH OR SERIOUS INJURY CAN RESULT. CLEAR PEOPLE FROM CARRIER AND OFFLOADING AREA. DO NOT OFFLOAD ON SOFT, OR UNEVEN GROUND. AVOID HIGH WORK SPEEDS AND MANEUVERING.

HINIKER shredders are shipped vertical with self contained storage and handling dunnage. They may be offloaded with a forklift.

For forklift offloading, (2) fork pockets (arrow 1), spaced 45” apart, are provided. The forklift may approach the machine from either the front or rear. Set forks centerlines and position forklift as close as possible to shipping package. Lift off carrier and deposit on a firm, clear and level work area.

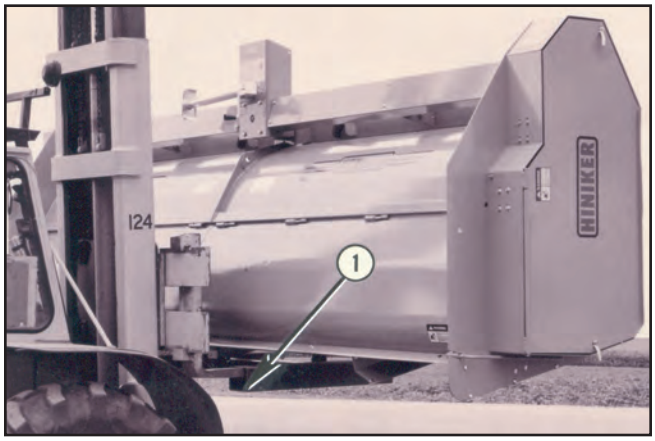
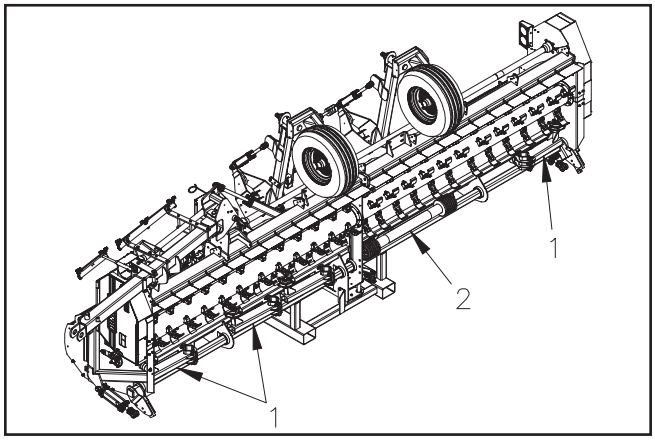


PHOTO NO. 3365

The chute and tire assemblies are shipped separate from the base machine.



DWG. NO. 7094

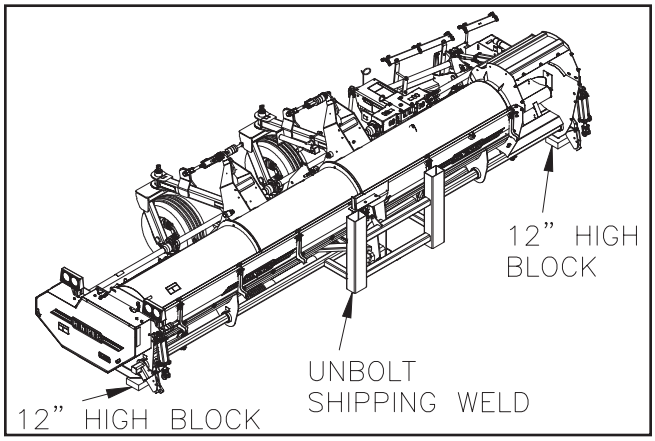
1. Remove (4) field wheel legs and (1) rear end transport wheel leg (arrow 1) and PTO (arrow 2) from base machine.

2. Prepare to tilt the machine onto front caster wheels by hooking an approximately 5FT long chain around the welded lugs at the center of machine. Securely place approximately 12” tall solid blocks under the end panels near the rear of machine.

3. Allow a small amount of slack in the chain and slowly tip the unit forward until its downward force is being supported by the chain.

IMPORTANT: GROSSLY LOOSE CHAIN SLACK CAN ALLOW MACHINE TO FALL WITH POTENTIALLY DAMAGING FORCE.

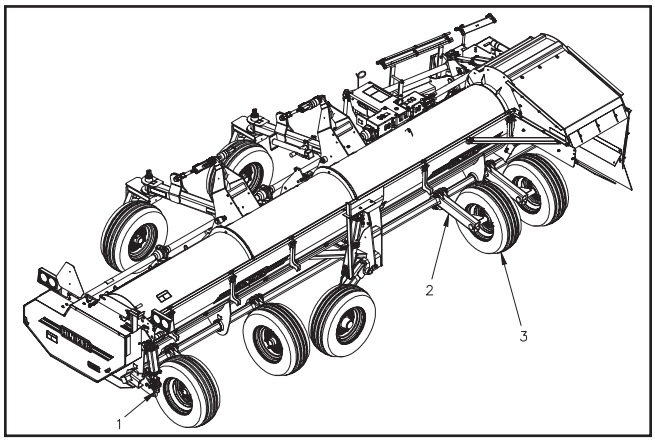
4. Slowly lower machine onto front caster wheels.



DWG. NO. 7095

5. Unbolt shipping weldment by loosing 3/4 hardware securing weldment to base machine.

6. Remove hardware bag and SMV sign from underneath LH drive cover.



DWG. NO. 7096

7. Secure lift cylinder rods (arrow 1) to rockshaft lugs on both ends of machine.

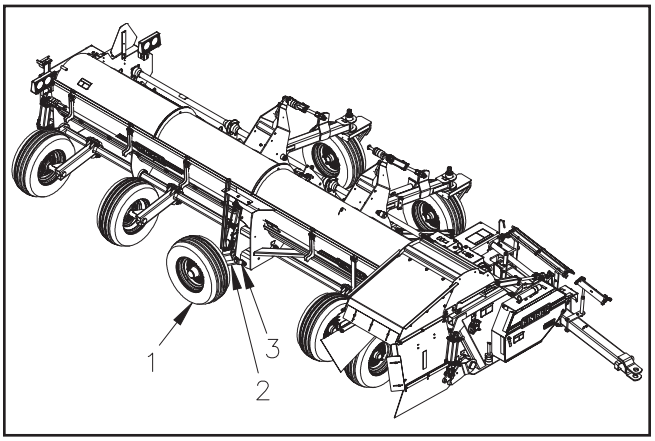
8. Attach (4) wheel leg welds (arrow 2) to rockshaft, in their approximate field location, loosely using provided 5/8 hardware.

9. All tire and wheel assemblies have offset rims. Typically the deepest side goes toward the wheel leg assembly. This places its loaded center line between the hub bearings.

10. Attach the tire and rim assemblies (arrow 3) to wheel hubs using provided hardware. Verify tire pressure on rockshaft wheel tires. 11Lx15 18-ply tires should have 80 PSI. If they are 9.5L x 15 tires should have 35 PSI. Torque up wheel bolts to proper torque.

11. Slide wheel leg assemblies until tire center line matches approximately with customers desired row spacing. Refer to chart and drawing on page 15 for measurements.

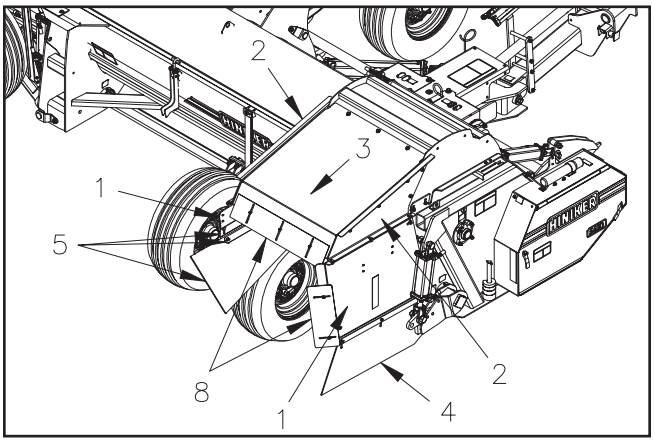
12. Torque up 5/8 hardware securing wheel legs to rockshaft.



DWG. NO. 7097

13. Secure 8-bolt end transport tire (arrow 1) to rear wheel assembly (arrow 2). Remove rear transport pivot pin (arrow 3). Attach rear end transport wheel leg with tire to machine by inserting pivot pin and securing with provided hardware. Attach cylinder clevis to lugs or wheel leg. Verify end transport tire is inflated to 80 PSI.

14. Locate chute components and hardware bag under LH drive shield for assembly.



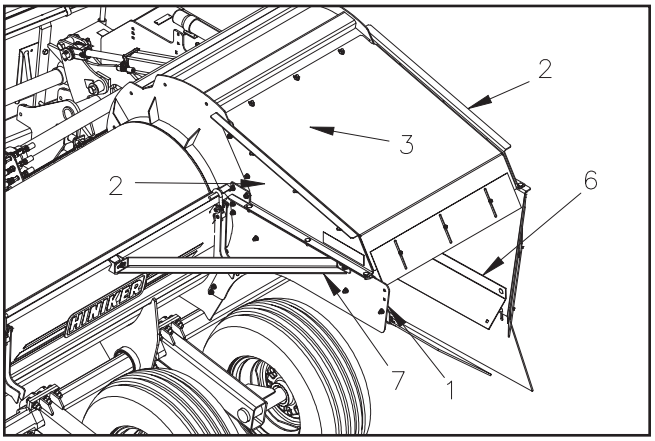
DWG. NO. 7091

15. Attach LH and RH lower chute panels (arrow 1) using provided 3/8 hardware. Assemble LH and RH chute extensions (arrow 2) onto lower panels using 3/8 hardware. Secure both extensions to machine.

16. Assemble top cover (arrow 3) and secure to chute extensions and fixed hood using 3/8 hardware.

17. Next attach RH poly deflector (arrow 4) with back up strap using 3/8 hardware

18. Now attach LH poly deflector (arrow 5) with back up strap and mounting panel to shredder chute using 3/8 hardware.



DWG. NO. 7093

19. Attach RH internal deflector (arrow 6) using 3/8 hardware.

20. Next attach diagonal chute gusset (arrow 7) using 3/8 hardware.

21. Attach RH and top slotted deflectors (arrow 8) using 5/16 hardware.

22. Attach SMV sign between lights at required location. Refer to drawing 7077 on page 17. Unbolt light assembly at rear of end panel. Rotate 180° and bolt to inside of end panel. Make sure red and yellow light will be visible from rear of machine in end transport.

23. Attach tractor to implement hitch. Insert hydraulic couplers into tractor. Attach 1 3/4-20 PTO to both tractor and implement. Overrunning clutch on PTO (photo 2969A page 42) will be attached to implement. Wrap PTO chain around welded on loop of hitch (drawing 7089 page 42).

24. Refer to operation section of manual for instructions on how to convert newly assembled machine from end transport to field mode. Fold and unfold machine in an open area multiple times until operator is comfortable with machine.

WARNING: EXTREME MACHINE DAMAGE WILL RESULT. DO NOT TURN PTO ON UNTIL IMPLEMENT IS IN FIELD MODE. IMPLEMENT AND TRACTOR DRIVELINE WILL BE DAMAGED SEVERELY.

PREDELIVERY

Refer to DELIVERY check list, on warranty registration form and routinely perform all relevant checks thereon.

Refer to OPERATION pages 11 thru 20. Ensure PTO, wheel setting, etc. are configured to customer's stated requirements.

SPECIFICATIONS

Field Overall Width	260”
Field Overall Length	212”
Standard Knife Type	1/4” x 3” Cup
Rotor Speed	1525 RPM
Number Knives	96
Cross Auger Speed	467 RPM
Cross Auger Shearbolt	3/8-16 x 2 1/2 Grade 8
R.H. Delivery C/L to Machine C/L	104” (Adjustable)
Delivery Adjustments	Lateral & Vertical
1 3/4” (1000) 20 Spline PTO	Optional
Constant Velocity PTO	Standard
Premium Matched “C” End Drive Belts	6
15” x 8”, 6 Bolt Rims Rockshaft (5620HH) 15” x 8”, 8 Bolt Rims Rockshaft (5621)	4
15” x 8”, 6 Bolt Rims Front Caster Wheel (5620HH) 15” x 8”, 8 Bolt Rims Front Caster Wheel (5621)	2
15” x 8”, 8 Bolt Rims Rear End Transport (All Models)	1
Recommended Tires Rockshaft	9.5L x 15-8Ply (5620HH) (35 PSI) 11L x 15-18Ply (5621) (35 PSI)
Recommended Front Caster Wheel Tires	9.5L x 15-12Ply (5620HH) (35 PSI) 11L x 15-18Ply (5621) (35 PSI)
Recommended Rear End Transport Tire	11L x 15-18Ply (All Models) (80 PSI)
Approximate Field Weight (W/Tires & Jack)	7750 lbs./3515 kg.

HINIKER WARRANTY

The only warranty Hiniker Company (Hiniker) gives and the only warranty the dealer is authorized to give is as follows:

We warranty new products sold by Hiniker or authorized Hiniker dealers to be in accordance with our published specifications or those specifications agreed to by us in writing at time of sale. Our obligation and liability under this warranty is expressly limited to repairing or replacing, at our option, within one year after date of retail delivery, to the original purchaser, any product not meeting the specification. **WE MAKE NO OTHER WARRANTY, EXPRESS OR IMPLIED AND MAKE NO WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR ANY PARTICULAR PURPOSE.** Our obligation under this warranty shall not include any transportation charges or costs or any liability for direct, indirect or consequential damage or delay. If requested by Hiniker Company, products or parts for which a warranty claim is made are to be returned freight prepaid to our factory. Any improper use, operation beyond rated capacity, substitution of parts not approved by Hiniker Company, or any alteration or repair by others in such manner as in our judgement affects the product materially and adversely shall void this warranty. **NO EMPLOYEE OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY IN ANY WAY OR GRANT ANY OTHER WARRANTY.**

HINIKER reserves the right to make improvement changes on any of our products without notice.

HINIKER does not warrant the following:

1. Used products

2. Any product that has been repaired modified or altered in a way not approved by Hiniker Company.

3. Depreciation or damage caused by normal wear, lack of reasonable and proper maintenance, failure to follow Operator Manual Instructions, misuse, lack of proper protection during storage, or accident.

4. Parts replacement and service necessitated by normal wear or maintenance including, but not limited to, belts, cutting parts, and ground engaging parts.

5. Damage or breakage caused by rocks.

A DELIVERY REPORT FORM and warranty registration form must be filled out and received by HINIKER COMPANY to initiate the warranty coverage. Failure to complete the forms will void the warranty.

HINIKER COMPANY
58766 240TH ST.
P. O. Box 3407
MANKATO, MN 56002-3407
PHONE (507) 625-6621
FAX (507) 625-5883
www.hiniker.com