



FLAIL SHREDDER/WINDROWER 20'
MODEL 5620,5620H,5620HL,
5620HD,5620HLI

OPERATOR'S MANUAL

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

PART NUMBER 79202656 Rev. E

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4/14

Manual/79202656RevE

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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.

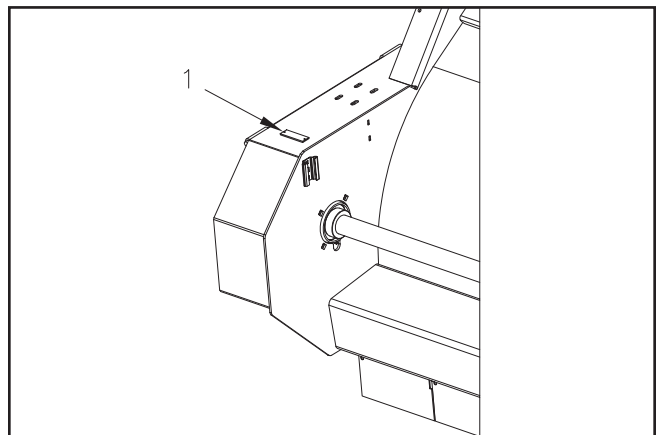
ALWAYS OBTAIN ORIGINAL HINIKER SERVICE PARTS BECAUSE SUBSTITUTE PARTS COULD ADVERSELY AFFECT EQUIPMENT PERFORMANCE AND WARRANTY.

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. 6077

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 place.

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.

4 Safety

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. Use cab tractor if operating in unfamiliar areas. 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 gearbox and tractor shafts 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. 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.
3. When parking this equipment, lower it to full "down" position. Set the tractor brakes and block wheels if on an extreme slope.

TOWING

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 with the PTO detached from the tractor and hooked to the gearbox.
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.
5. When towing in end transport mode insure PTO shaft and hydraulic hoses are secured in the correct holders so they are not damaged during transport.

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.

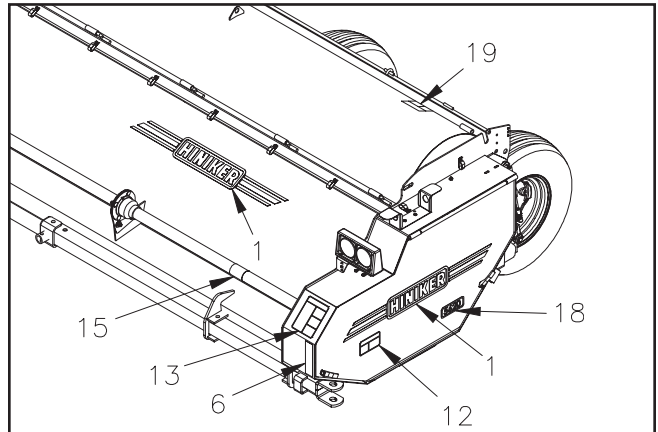
REMEMBER - ACCIDENT PREVENTION IS PART OF YOUR JOB!

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. 7026

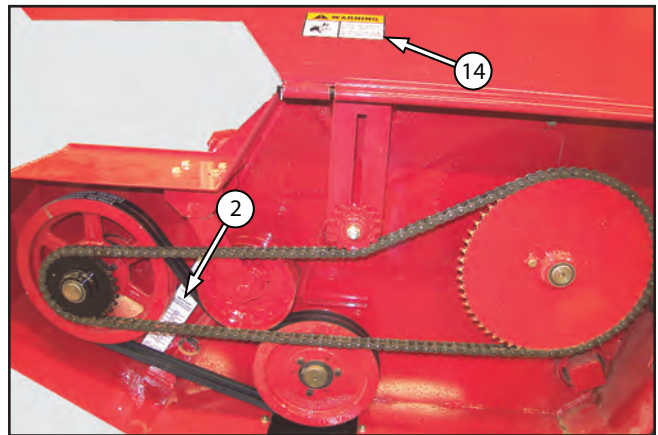
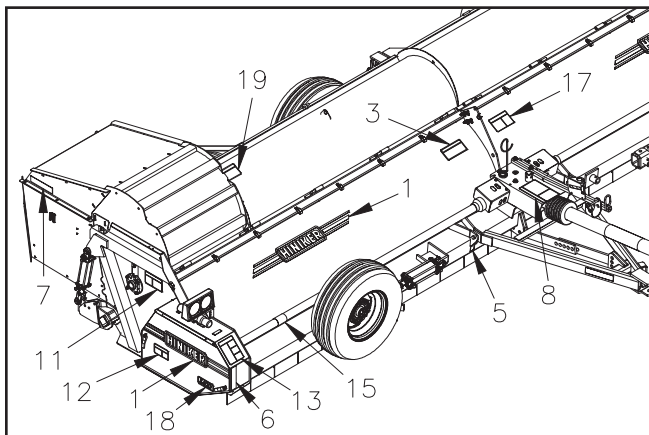


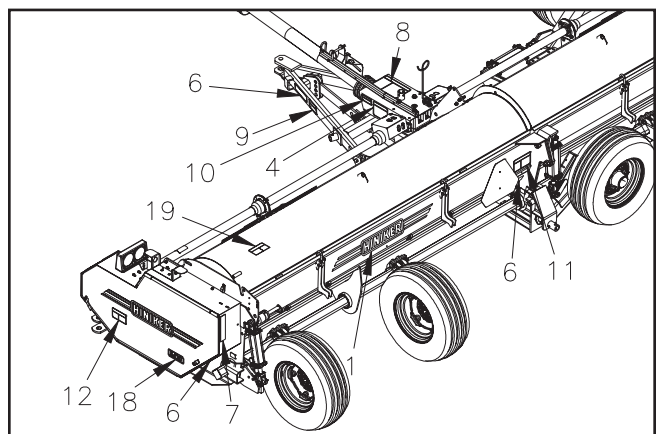
PHOTO NO. 9115E



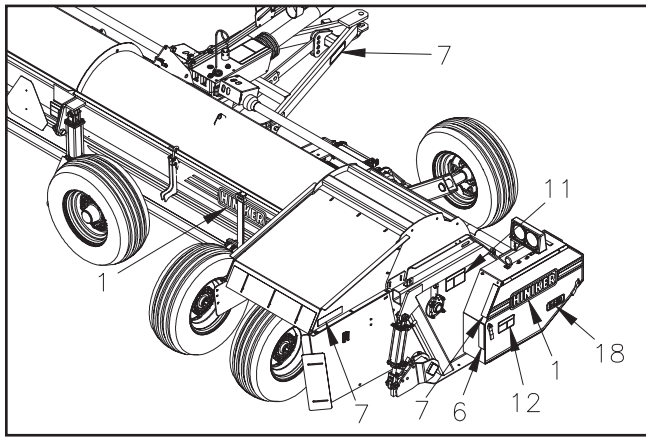
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PHOTO NO. 3528B



DWG. NO. 7027



DWG. NO. 7028



FIGURE 1 71505168 LOGO Hiniker

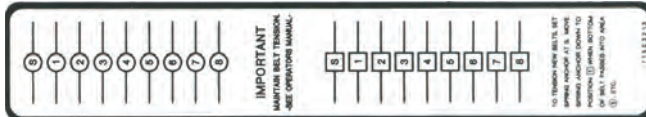


FIGURE 2 71503213 Important: Maintain Belts...

OR

IMPORTANT: Maintain Belt Tension
 Stop unit completely for maintenance.
 No Rotation. Read Operators Manual.

Adjust tension to allow a Dime to freely pass between spring coils, but not a Nickel.

79203023

FIGURE 2 79203023 Important: Maintain Belt...

IMPORTANT

1. OPERATE MACHINE WITH KNIVES AT LEAST 3" ABOVE RIDGES.
2. NEVER OPERATE WITH MISSING KNIVES.
3. MAINTAIN PROPER BELT TENSION. SEE DECAL INSIDE END ENCLOSURES.

71504142

FIGURE 3 71504142 Important: Operate...

IMPORTANT

TRACTOR

1 3/8 1000 RPM=18"
 1 3/4 1000 RPM=20"

1 3/8 PTO 8" MIN. 12" MAX.
 1 3/4 PTO 10" MIN. 12" MAX.

1000 RPM 18" TO 22"

GROUND

71604143

FIGURE 4 71504143 Important: Hitch...



FIGURE 5 715-03174 Lift...

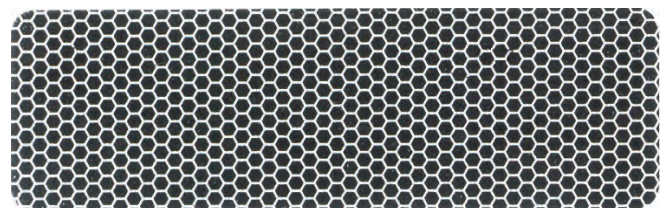


FIGURE 6 850-001-285 Amber Reflector

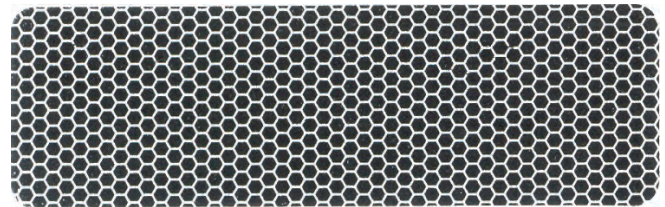


FIGURE 7 850-001-305 Red Reflector

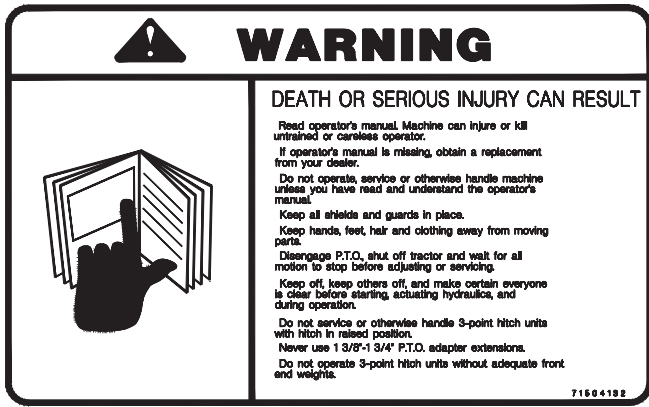


FIGURE 8 71504132 Warning: Read Manual...



FIGURE 12 71505169 Warning: Look and Listen...



FIGURE 9 85501787 Caution: Safety Chain...



FIGURE 10 71504129 Caution: 1000 RPM...



FIGURE 13 71505171 Warning: Keep Hands etc...

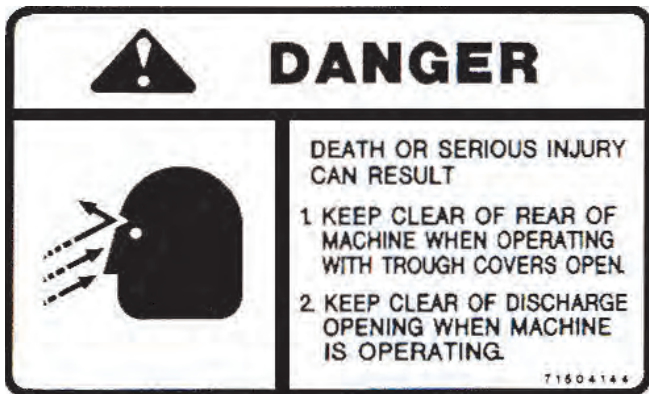


FIGURE 11 71504144 Danger: Keep Clear...



FIGURE 14 71505170 Warning: Do Not Operate...



FIGURE 15 520-03138 Danger: Rotating Drive..



FIGURE 18 79202646

Logo: 5620



FIGURE 19 71504127

Warning: Look And Listen...



FIGURE 16 520-03139

Danger: Shield Missing...

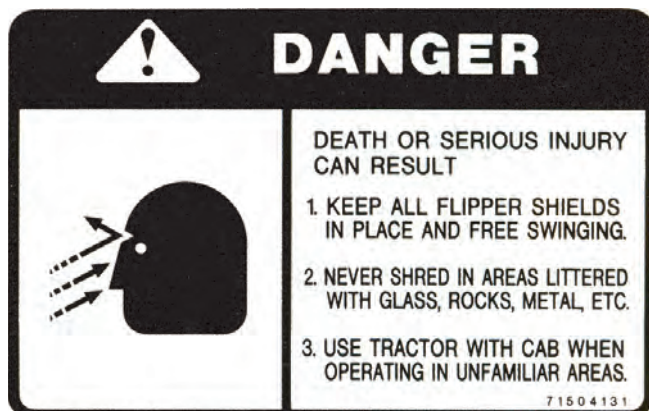


FIGURE 17 71504131

Danger: Keep Flippers...

FIELD PREPARATION



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

TRACTOR-GENERAL

IMPORTANT: IT IS CRITICAL TO KNOW WHAT TRACTOR PTO IS INVOLVED. THE SHREDDER/WINDROWER MUST CONFORM TO IT.

HINIKER shredders/windrowers are available with:

1000 RPM 1 3/8"-21 spline

1000 RPM 1 3/4"-20 spline

REFERENCE: COMPRESSED O.A. LENGTH			
SIZE	RPM	TYPE & PART NO.*	LENGTH
1 3/8"	(1000)	21 Spline Trailing 79202278 *	55"
1 3/4"	(1000)	20 Spline Trailing 79202277 *	55"
* Accessory			



CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. NEVER USE 1 3/8" TO 1 3/4" PTO "ADAPTER" EXTENSIONS.

TRACTOR-TRAILING GEOMETRY

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

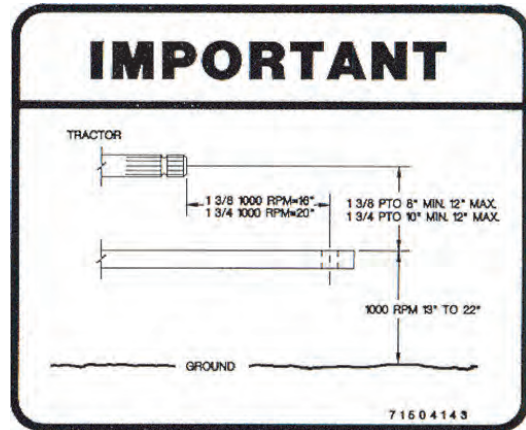


FIGURE 30

DWG. NO. 71504143

IMPORTANT: AFTER TRACTOR HOOKUP, ALWAYS STORE HITCH JACK ON TUBE MOUNT ON TOP OF GEARBOX SHEILD.

TRAILING HITCH

Trailing units have an adjustable hitch height adjustment (arrow 1) photo 9165A or 3555A on page 11 to match various tractor drawbar heights.

IMPORTANT: CORRECT TRAILING HITCH DRAFT LINK LENGTH ADJUSTMENT CANNOT BE MADE UNTIL AFTER THE SHREDDER IS INITIALLY FIELDDED.

The trailing hitch has a 3" opening which allows up to a 2 3/8" thick drawbar.

Raise the unit with hitch jack until the hitch yoke corresponds with the tractor's drawbar.

IMPORTANT: IF TRACTOR DRAWBAR IS LESS THAN 2 1/8" THICK, INSERT 1 OR MORE FLAT WASHERS BETWEEN DRAWBAR TOP AND UNDERNEATH TOP HITCH YOKE. (SUGGESTED WASHER SIZE IS 1 1/16" I.D. X 2 1/2" O.D. X 1/8" THICK.) THIS GREATLY REDUCES HITCH YOKE WEAR. ALWAYS USE A 1" DIAMETER HITCH PIN.

Remove the hitch pin from its storage hole and insert it through the hitch and tractor drawbar.

CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. ALWAYS INSERT THE HITCH PIN POINT DOWN WITH A CROSS LOCKING PIN THROUGH ITS LOWER END.



PHOTO NO. 9165A

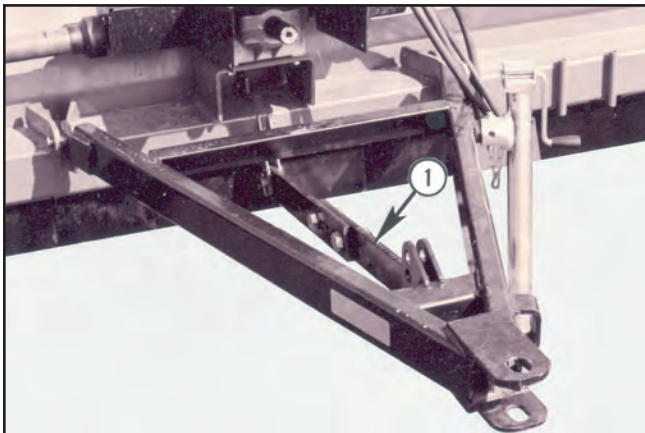


PHOTO NO. 3555A

PTO's

NOTICE: IT IS CRITICAL TO KNOW WHAT TRACTOR CONFIGURATION IS INVOLVED BEFORE HOOKUP. THE PROPER SHREDDER PTO MUST BE USED. DETERMINE THE TRACTOR'S PTO OUTPUT. This will be 1 of 2 choices:

1000 RPM	1 3/8"-21 spline
1000 RPM	1 3/4"-20 spline

See reference table, page 10 for identifying correct PTO.

PTO shafts have similar sliding yoke couplers at the tractor and gearbox ends. GEARBOX ENDS ARE IDENTIFIED BY AN OVERRUNNING CLUTCH (arrow 1).

Clean gearbox 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 gearbox spline as shown in photo 2969A. Reverse the sliding collar to lock the assemblies together.

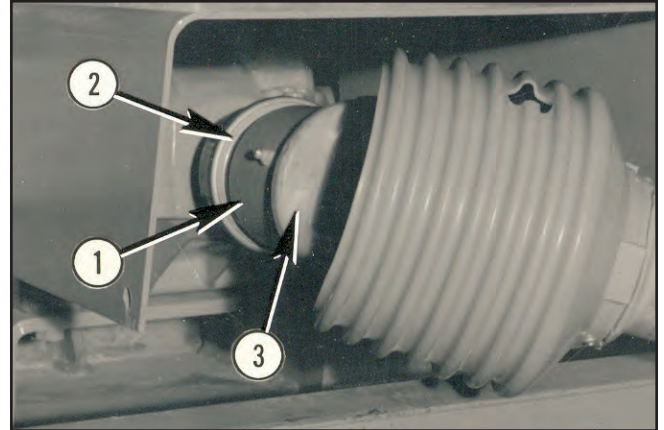


PHOTO NO. 2969A

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.

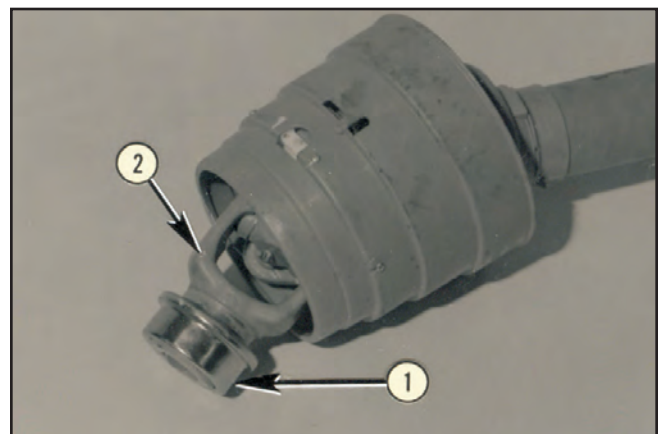


PHOTO NO. 2966A

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

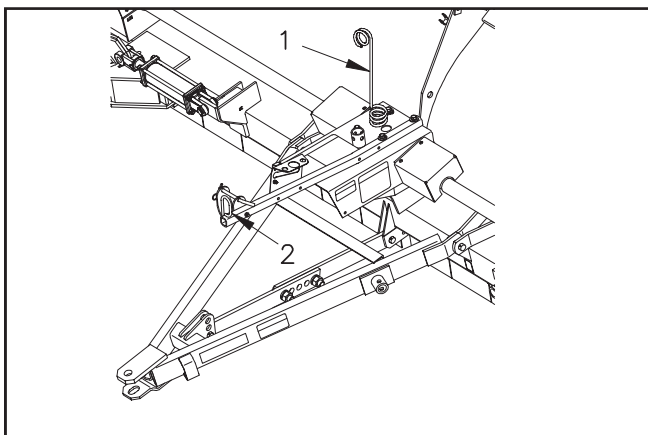
DANGER: DEATH OR SERIOUS INJURY CAN RESULT. KEEP AWAY AND KEEP OTHERS AWAY FROM AN OPERATING PTO. DO NOT OPERATE WITHOUT ALL SHIELDS IN PLACE. INSURE PTO SHIELDS FREE WHEEL AND BOTH PTO'S ENDS ARE SECURELY ATTACHED.

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

WHENEVER MOVING THE MACHINE, ALWAYS MOVE THE HITCH JACK TO PEDESTAL ON TOP OF THE GEARBOX SHIELD.

ROCKSHAFT & WHEELS

If the unit has been delivered without an accessory ratchet jack, or optional hydraulics, install either at this time. See Optional Hydraulics section starting on page 46.



DWG. NO. 6233

If optional hydraulics are used, pass hoses through the hose support ring (arrow 1) and hose loop (arrow 2) then engage hose couplers with tractor's remote hydraulic outlets.

Insert tractor quick couplers to give shredder a DOWNWARD movement when tractor hydraulic lever is moved FORWARD and vice versa.

1. To adjust wheel spacing, raise unit sufficiently to insert approximately 12" high blocks. Secure blocks under each side of the unit at its rear. With ratchet jack or hydraulics lower machine onto these blocks and retract lift sufficiently for tires to clear the ground. Do this with unit hitched to a tractor of adequate size to stabilize it.

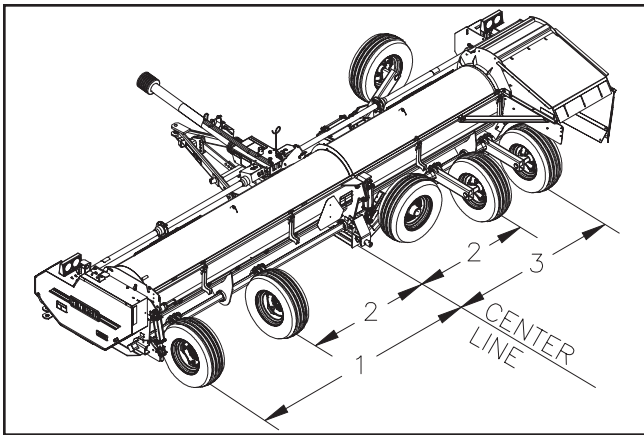
CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. MAKE ADJUSTMENTS ONLY ON A LEVEL SURFACE. SET TRACTOR'S BRAKES AND SHUT OFF THE ENGINE BEFORE PROCEEDING.

3. 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 retorque top 3 to **146-206 Ft/lbs. (198-279 N/m.)**.



DWG. NO. 7029

4. Raise the unit, remove blocks, and lower the machine.

SHREDDING ONLY
5620, 5620H, 5620HL, 5620HD Only

Machines with model numbers indicated above can be used for rear delivery SHREDDING ONLY. That is, not delivery to a R.H. window.



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

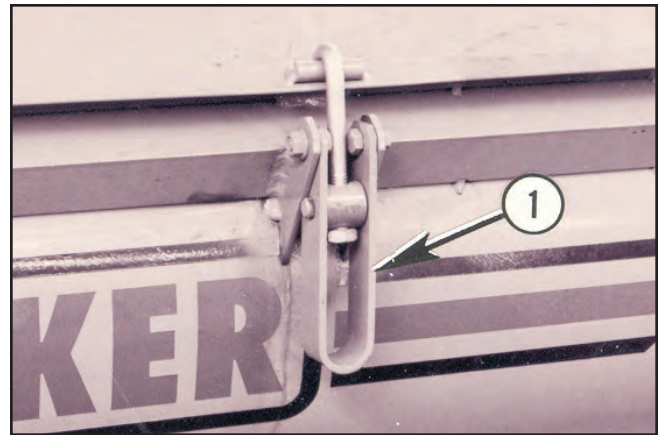
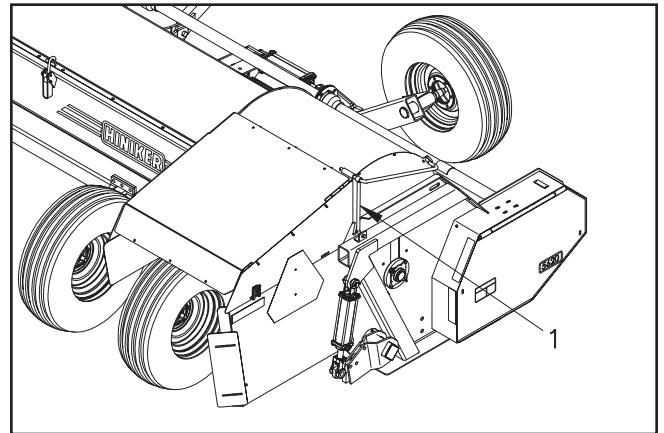


PHOTO NO. 3530

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



On RH End Of Machine

DWG. NO. 6079

Remove hair pin cotter and slide welded rod (arrow 1) out of hole in angle plate. Remove hair pin cotter and slide LH rod out of slot in LH end panel.

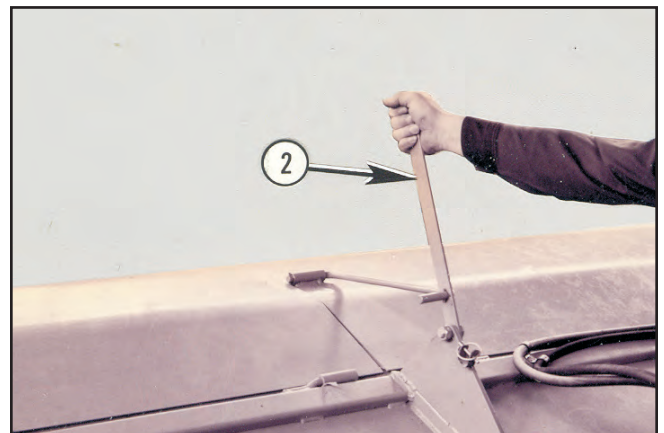


PHOTO NO. 3534

At front of unit raise covers with lever provided at (arrow 2).

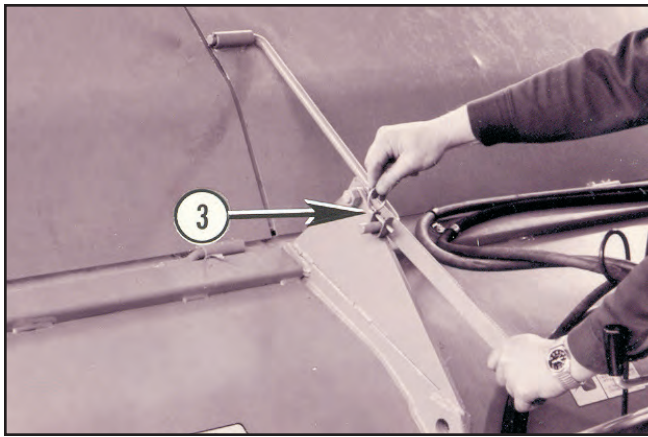
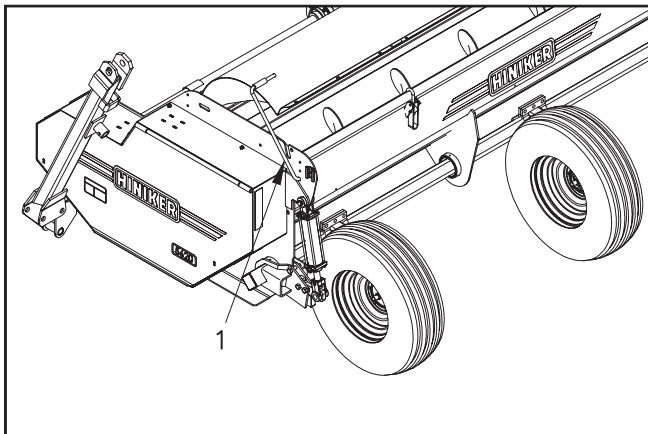


PHOTO NO. 3532

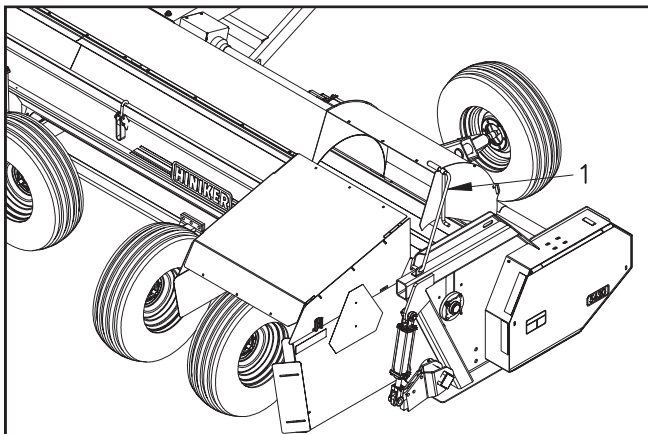
Secure lifting lever with lynch pin (arrow 3).



LH End Of Machine

DWG. NO. 6080

Insert ends of rods (arrow 1) into the appropriate holes. Drawing 6080 shows the left side and drawing 6081 shows the right side. Secure the rods with hair pins.



RH End Of Machine

DWG. NO. 6081

Loosen chain idler (arrow 1). Break chain at side plate clip (arrow 2). Remove and store chain. This disengages the auger from rotation. Retighten idler bolt to prevent idler loss.

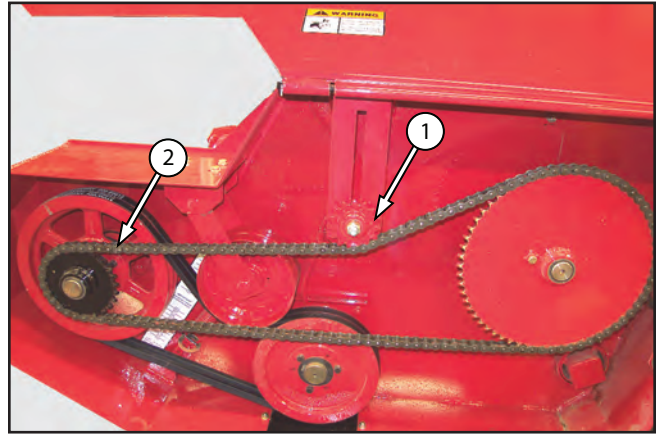


PHOTO NO. 9115A

If changing from SHREDDING ONLY back to conventional SHREDDING/WINDROWING, reverse the above steps.


IMPORTANT: ENSURE AUGER IS CLEAR OF ANY IMPACTED MATERIAL AND FREE TO ROTATE BEFORE HOOKING UP CHAIN DRIVE. ALSO, ENSURE CHAIN IDLER IS PROPERLY ADJUSTED AND ITS BOLT IS FULLY TORQUED.

TIRES

HINIKER recommends aftermarket 9.5L x 15-8PR I1 (implement), or equivalent, tires for the four field mode tires. End transport tires are 9.5L x 15 12 ply, or equivalent tires.

FIELD MODE TOWING

Shredder/Windrowers are furnished with a SMV emblem (arrow 1) and socket as shown in drawing 7030, if it is to be towed on public highways.

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

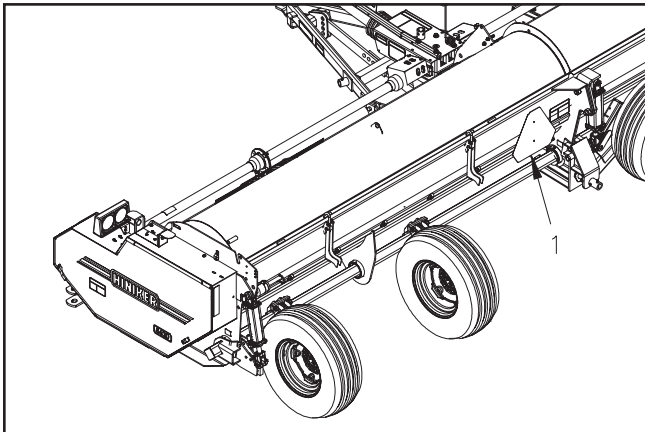
USE A TRACTOR OF SUFFICIENT SIZE, AND WEIGHT, REQUIRED FOR FIELD OPERATION.

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

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

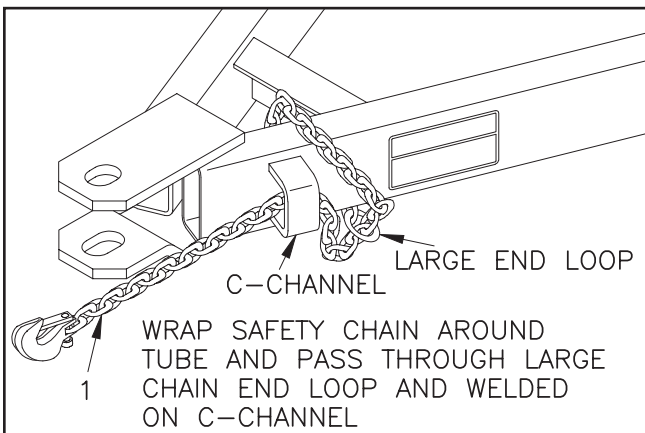
USE THE SMV EMBLEM AS SPECIFIED ABOVE.

TOWING A 5620 MACHINE IN FIELD MODE DOWN PUBLIC HIGHWAYS IS NOT RECOMMEND. CHECK LOCAL REGULATIONS ON TOWING WIDTH AND WARNING LIGHTS.



DWG. NO. 7030

Use a safety towing chain 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.



DWG. NO. 6397

Pass chain forward through aftermarket clevis (arrow 1). Fix chain's forward end (arrow 2) to tractor.

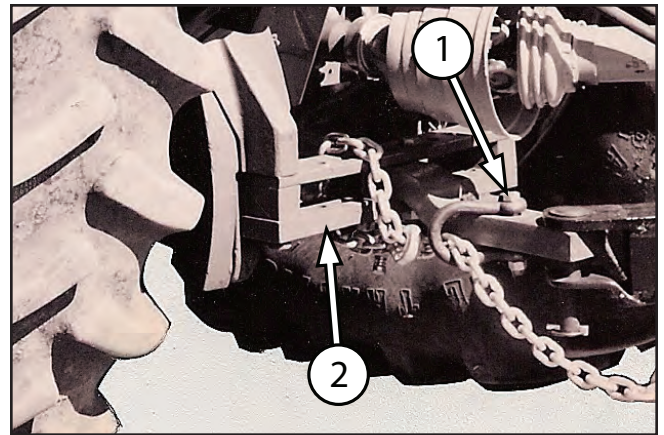


PHOTO NO. 3550B

END TRANSPORT MODE TOWING

Shredder/Windrowers are furnished with a SMV emblem (item 1) and socket, as shown, if it is to be towed on public highways in end transport mode.

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

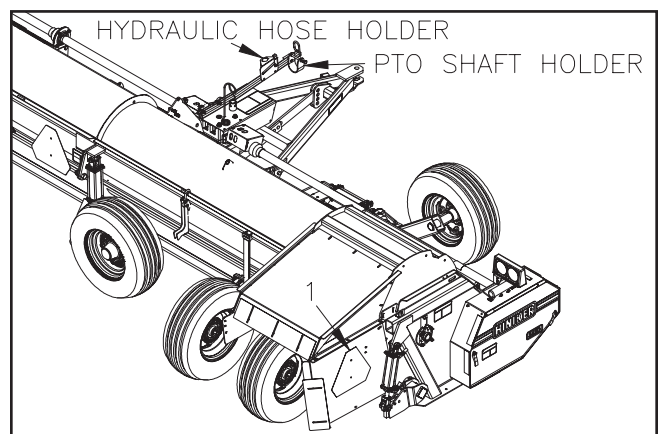
USE A TRACTOR OF SUFFICIENT SIZE, AND WEIGHT, REQUIRED FOR FIELD OPERATION.

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

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

USE THE SMV EMBLEM AS SPECIFIED ABOVE. STORE PTO SHAFT IN PTO HOLDER.

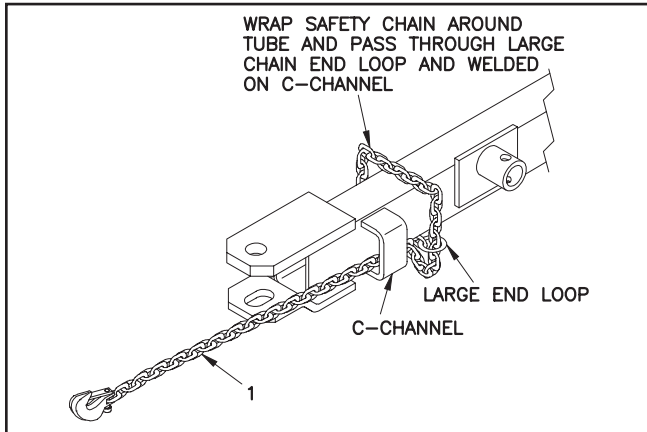
CHECK LOCAL REGULATIONS ON TOWING WIDTH AND WARNING LIGHTS.



DWG. NO. 7031

16 *Field Preparation*

Use a safety towing chain between machine and towing vehicle refer to photo 3550B for proper hook up to tractor. Wrap the safety chain (arrow 1) around the hitch tube and through large chain end loop and weld on C-channel. Pass chain forward through aftermarket clevis (arrow 1 on DWG 3550B). Fix chain's forward end (arrow 2 on DWG 3550B) to tractor.



DWG. NO. 6236

Insure the PTO shaft and hydraulic hoses are secured in the correct holders so they do not get damaged during transport.

OPERATION

IMPORTANT: THIS MACHINE IS INTENDED AS A RESIDUE MATERIAL SHREDDER-WINDROWER. 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.

If aftermarket hydraulics are used, insert quick couplers to give shredder/windrower a **DOWNWARD** movement when tractor hydraulic lever is shoved **FORWARD** and vice versa.

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.

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.**

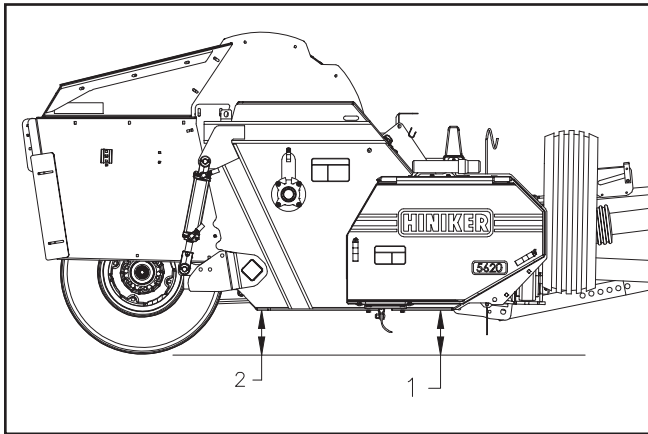
Best retrieval of residue from the windrow in the field requires that the material is **LESS FINELY SHREDDED** than with conventional shredding only. Thus, the HINIKER shredder/windrower uses lower rotor tip speed than on comparable HINIKER shredders. Sufficiently aggressive suction is provided by configuring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

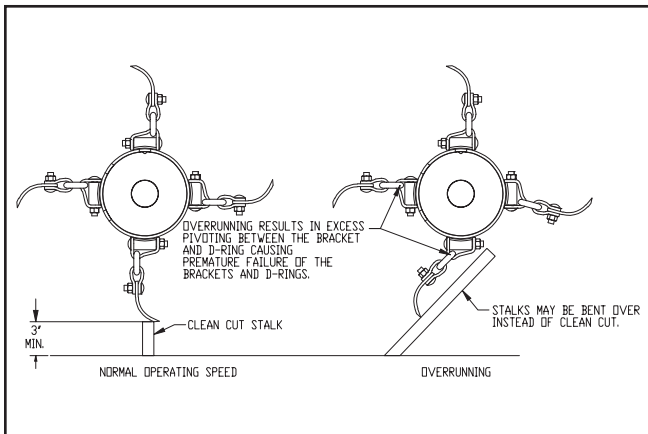
IMPORTANT: “SCALPING” ROWS WASTES FUEL AND RAPIDLY ACCELERATES KNIFE WEAR. THIS IS PARTICULARLY TRUE IN ROCKY FIELDS. IF YOUR FIELD HAS PROTRUDING ROCKS, KEEP UNIT’S HEIGHT SUFFICIENT FOR KNIVES TO CLEAR THEM. THIS UNIT IS NOT INTENDED AS A “ROCK PICKER”, OR A “ROTOTILLER”.

Operate the unit approximately LEVEL. That is, front (arrow 1) of main frame should clear ground about the same as the rear (arrow 2) as shown in drawing 7032.

! 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. 7032



DWG. NO. 6414

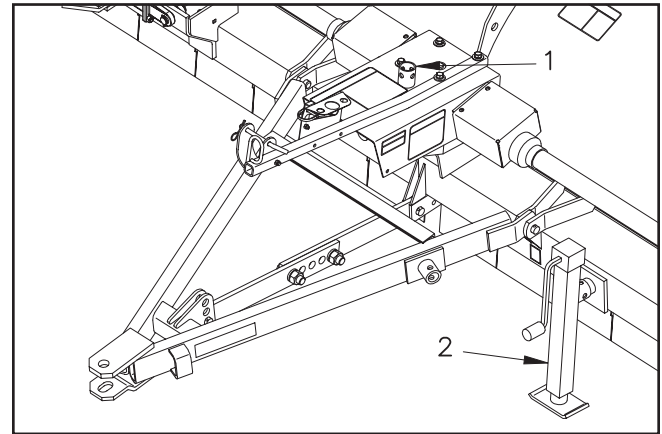
IMPORTANT: DO NOT OVERRUN THE MACHINE OR RUN THE MACHINE IN OR TOO CLOSE TO THE GROUND. DO NOT TRAVEL AT EXCESSIVE GROUND SPEED FOR YOUR CROP CONDITION OR UNDER SPEED THE PTO. OVERRUNNING THE MACHINE RESULTS IN EXCESSIVE D-RING AND BRACKET WEAR.

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.

HITCH HEIGHT ADJUSTMENT

1. Position unit astraddle rows and insure wheels are centered in row middles before making any adjustments. Rotate rockshaft/wheels until knives clear rows by GREATER than 3".



DWG. NO. 6400

With unit attached to tractor, remove hitch jack from storage position on top of gearbox at (arrow 1) and insert on pivot provided on left side of unit at (arrow 2). Adjust jack to remove unit weight from hitch and tractor drawbar. See DWG 6400.

! WARNING: DEATH OR SERIOUS INJURY CAN RESULT. NEVER ATTEMPT TO ADJUST DRAFT LINK WITHOUT FIRST SUPPORTING THE WEIGHT OF SHREDDER WITH HITCH JACK AT PIVOT PROVIDED.

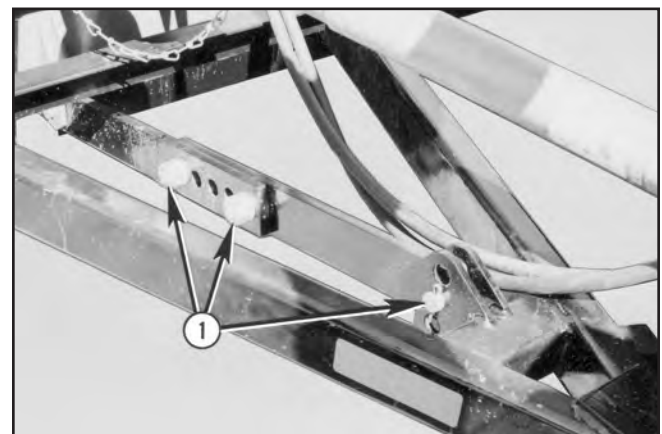


FIGURE 56

PHOTO NO. 3548

If the hitch is one with adjustable bars, at this time remove bolts and or pin adjustment from draft link (See Photo 3548) and proceed to adjust jack in combination with wheel arms to achieve an approximately level unit (See DWG 7032). Reattach draft link and remove hitch jack and return to storage position on top of gearbox.

If your hitch has an adjustable turnbuckle (arrow 1 in DWG 9165A), loosen jam nut on drawbar's underneath draft link and adjust draft link's length until unit is approximately level. (A 1 7/8" across flats wrench is required.)

2. Recheck knives/row clearance and readjust rockshaft/wheels, as well as draft link length, if necessary.
3. Shred a short distance, stop and check stubble to insure knives are properly clearing rows and satisfactory performance is obtained. If necessary, reset rockshaft/wheels and drawbar's underneath draft link.



PHOTO NO. 9165A

DISCHARGE ADJUSTMENT

The HINIKER 5620 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.

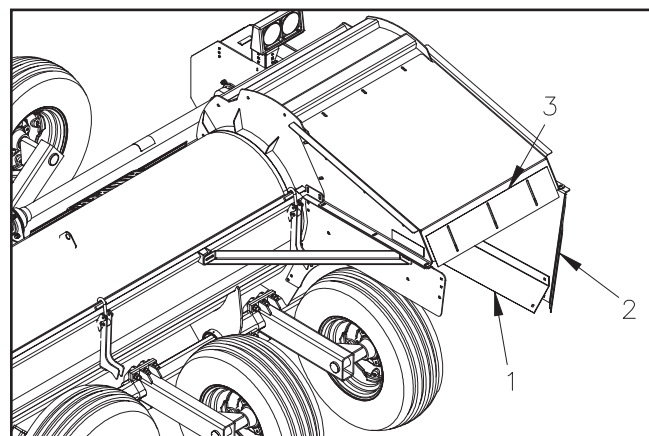
To facilitate this, adjustments are provided in the discharge chute.

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 (3) adjustments on Model 5620.



DWG. NO. 7033

- The RH side plate has a reversible bottom deflector (arrow 1). The deflector can be removed.
- The RH side plate also has an adjustable slotted deflector (arrow 2) that can be adjusted by loosening the (2) 5/16 carriage bolts.
- The top panel has a slotted deflector (arrow 3) that can be adjusted by loosening the (3) 5/16 carriage bolts per deflector.

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 and hydraulic hoses in the correct holders.

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, 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.

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

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

Arrow 4 - C.V. double yoke: **REQUIRES 15 TO 20 PUMPS.** See photo 100-1764A.

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 photo 100-1773A, 100-1783A, and 100-1775A.

Use 80 W 90 gear lube in gearbox.

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.

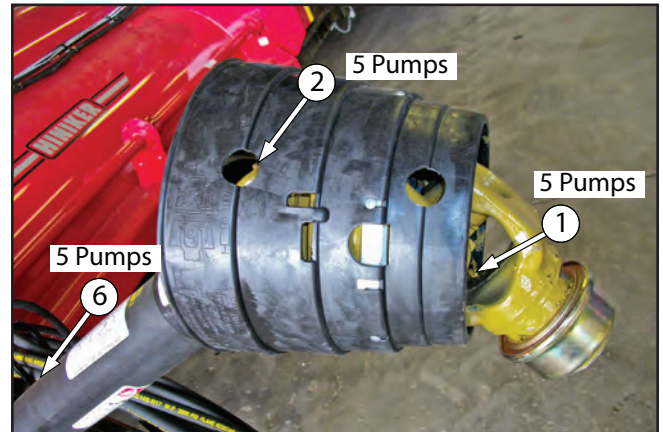


PHOTO NO. 100-1762A

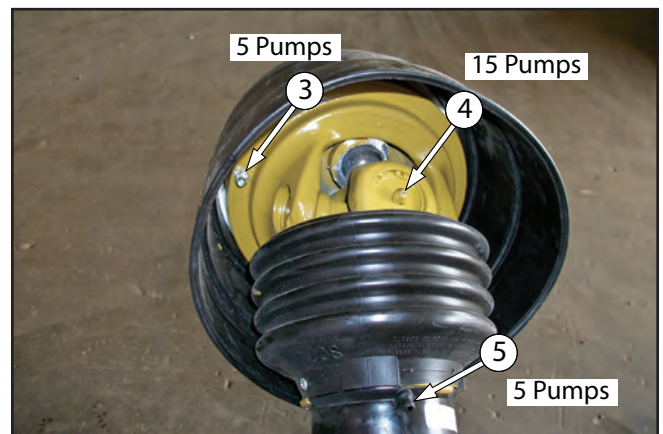


PHOTO NO. 100-1764A

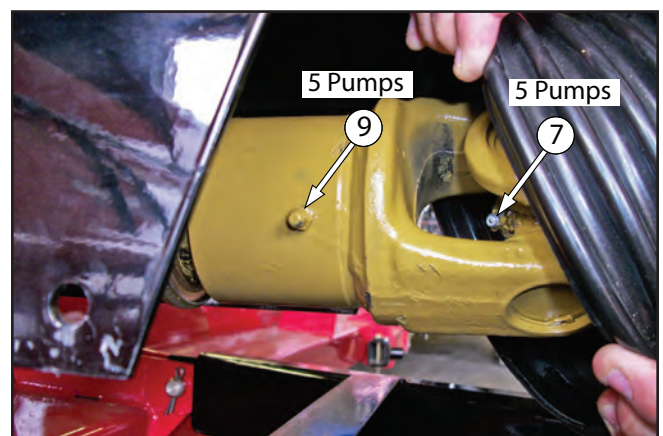


PHOTO NO. 100-177A

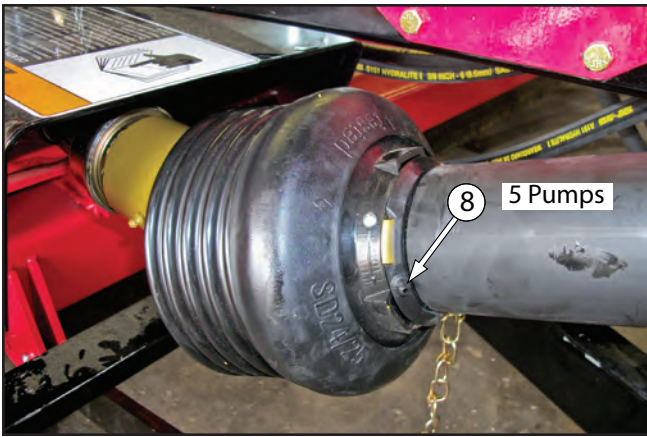


PHOTO NO. 100-1771A

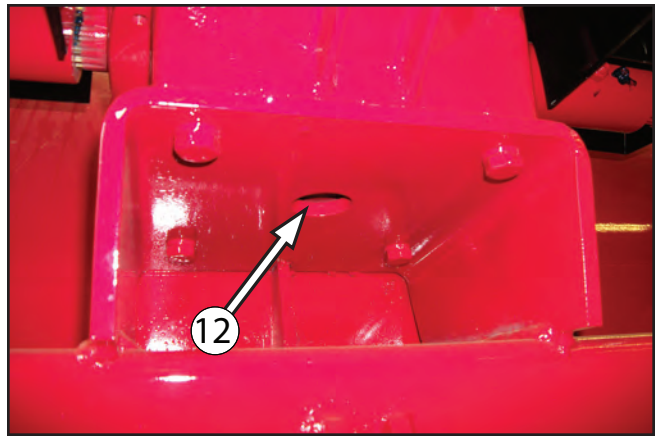


PHOTO NO. 100-1775A

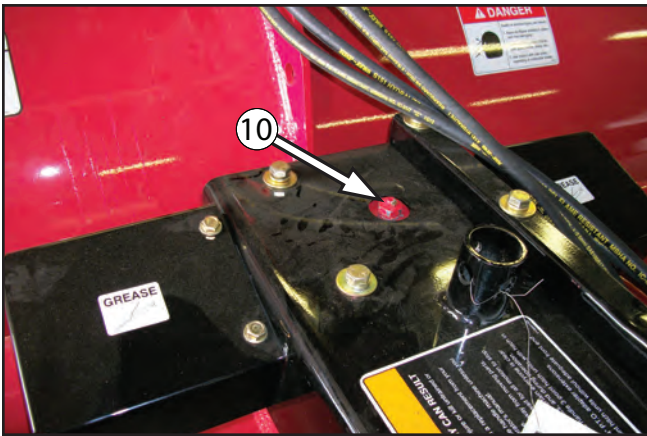


PHOTO NO. 100-1773A

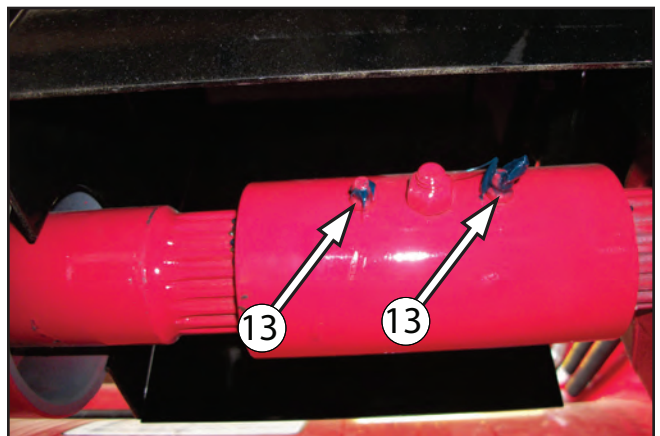


PHOTO NO. 100-1780A

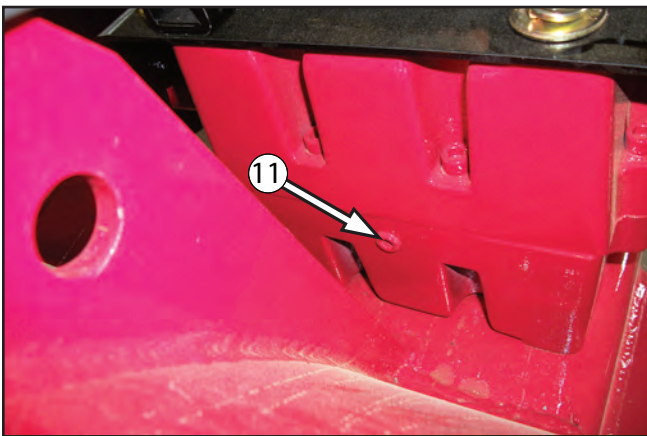


PHOTO NO. 100-1783A

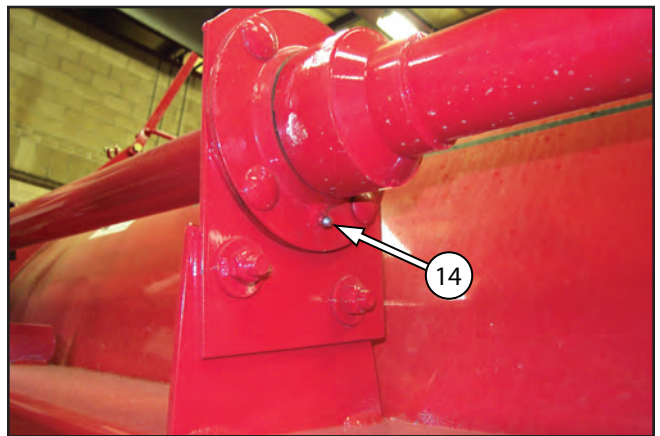


PHOTO NO. 9094A

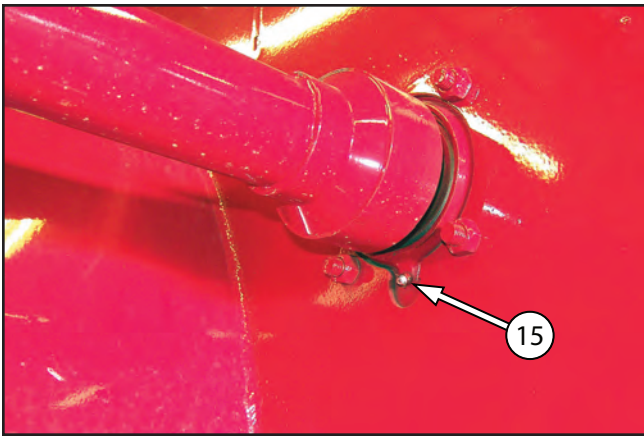


PHOTO NO. 9121A

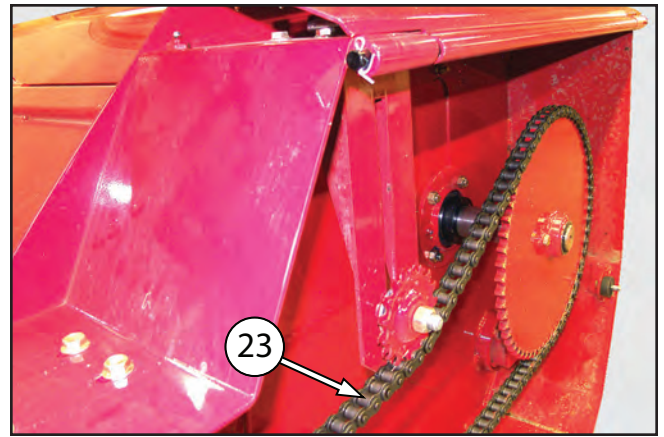
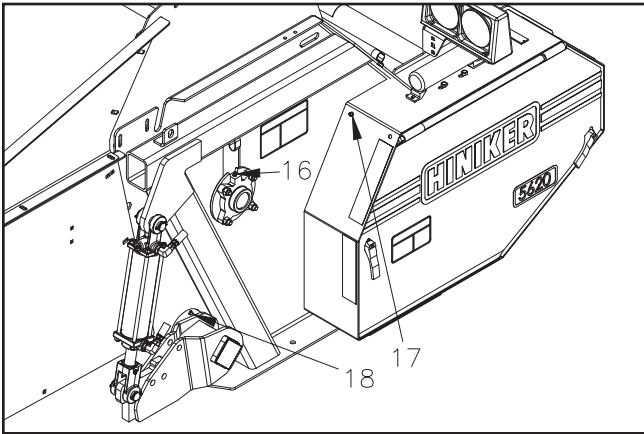


PHOTO NO. 9104C



DWG. NO. 7034

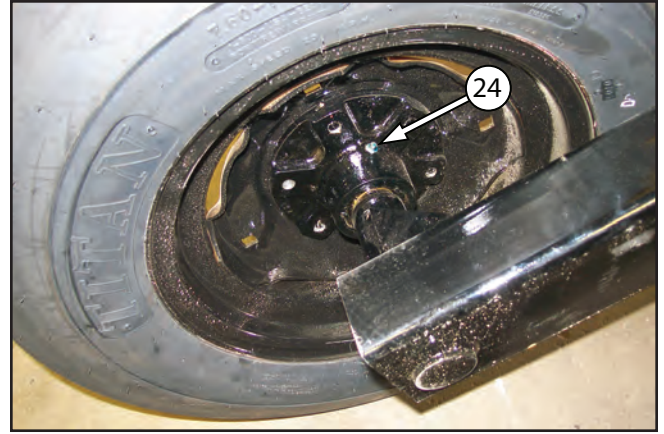
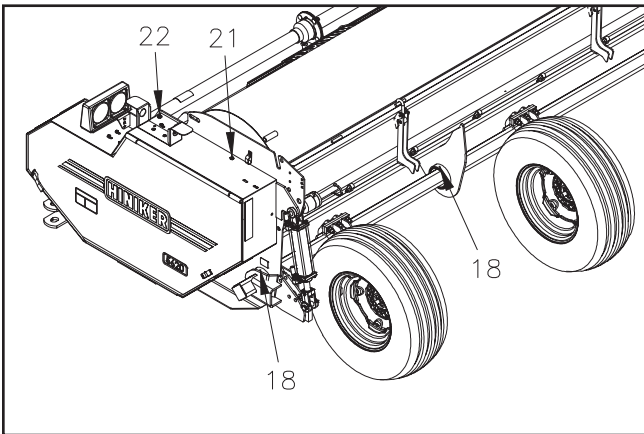
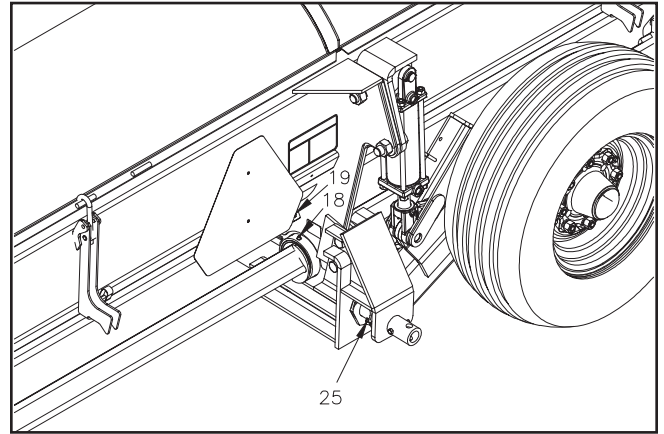


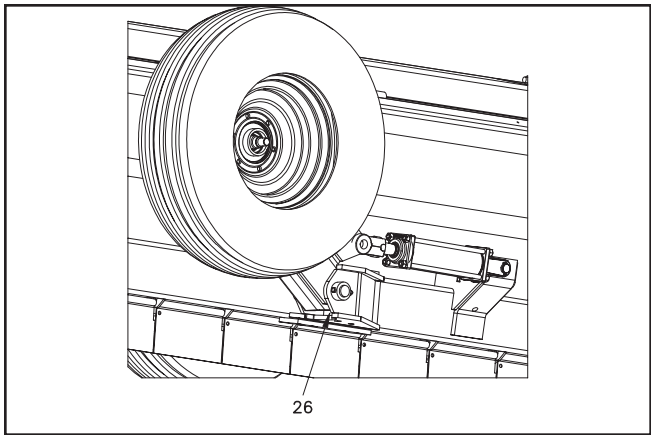
PHOTO NO. 9114A



DWG. NO. 7035



DWG. NO. 7036



DWG. NO. 6086

LUBRICATION			
ARROW	IDENTIFICATION	NO.	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	2	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	5	WEEKLY
19	Center Rotor Bearings	2	WEEKLY
20	Ratchet Jack	2	PERIODIC
21	L.H. Auger Bearing	1	WEEKLY
22	L.H. Outer Rotor Bearing	1	WEEKLY
23	Auger Drive Chain	1	WEEKLY
24	Wheel Bearings (2 End Transport)	6	WEEKLY
25	Left End Transport Pivot	1	WEEKLY
26	Right End Transport Pivot	1	WEEKLY

* SEE PRIOR SPECIFIC INSTRUCTIONS

TROUBLE SHOOTING

CONDITION	POSSIBLE CAUSE	CORRECTION
Poor shredding.	<ol style="list-style-type: none"> 1. Missing, or broken knives. 2. Knives worn out. 3. Under speed PTO. 4. Slipping belts. 5. Worn out belts. 6. Shredder bouncing. 7. Operating too high. 8. Excessive ground speed. 	<ol style="list-style-type: none"> 1. Inspect and replace. See SERVICE section. 2. Same as above. 3. Check tractor for 1000 PTO RPM. 4. Check belts backwrap idler adjustment. See SERVICE Section 5. Inspect belts for wear or mismatching. Replace only in matched sets. 6. Deflate tires slightly. Slow down ground speed. 7. Decrease knives operating height to approximately 3" above rows. 8. Slowdown.
Excessive knife wear and damage.	<ol style="list-style-type: none"> 1. Operating too low. 2. Running too low. 	<ol style="list-style-type: none"> 1. Raise knives operating height to approximately 3" above rows. 2. Raise knives operating height to approximately 3" above rows, or to clear rocks.
Excessive shearbolt failure.	<ol style="list-style-type: none"> 1. Overloading auger. 2. Tough, damp crop. 3. Wrong shearbolt. Shearbolt in backwards. 4. Material wedging. 	<ol style="list-style-type: none"> 1. Slow ground speed. 2. Let dry. 3. Use Grade 8, head out. 4. Check auger and trough for damage and correct.

CONDITION	POSSIBLE CAUSE	CORRECTION
Entire shredder crosswise "yawing".	<ol style="list-style-type: none"> 1. Wheel not exactly centered on middles. 2. Different tire sizes on same unit. 	<ol style="list-style-type: none"> 1. Readjust wheel spacings. 2. Correct.
Excessive shredder vibration.	<ol style="list-style-type: none"> 1. Missing or broken knives. 2. Rock damaged rotor. 3. Worn or loose rotor bearings. 4. Loose or misaligned end sheaves. 5. Deteriorated belts. 6. High tire air pressure. 7. Damaged auger. 	<ol style="list-style-type: none"> 1. Inspect and replace. See SERVICE section. 2. Replace. 3. Inspect and maintain. See SERVICE section. 4. Inspect and maintain. See SERVICE section. 5. Replace belts. 6. Bleed to tire recommended PSI. 7. Inspect and maintain. See SERVICE Section.
Too rapid belt wear.	<ol style="list-style-type: none"> 1. Belts too loose or too tight. 	<ol style="list-style-type: none"> 1. Backwrap idler tension not properly maintained. See SERVICE section.
Excessive power required for available tractor.	<ol style="list-style-type: none"> 1. Excessive ground speed. 	<ol style="list-style-type: none"> 1. Slow Down

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

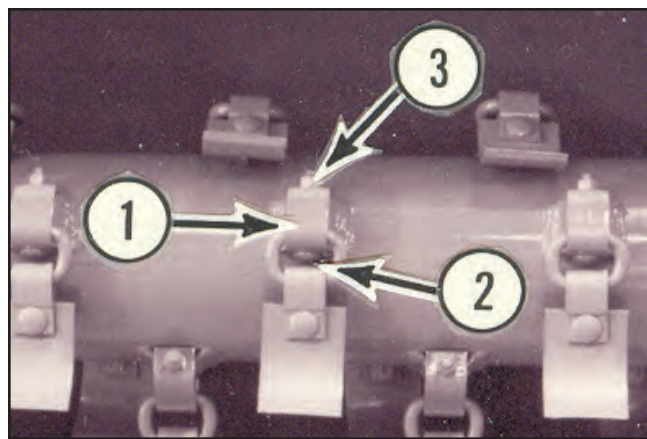


PHOTO NO. 3240

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.

IMPORTANT: Maintain Belt Tension
Stop unit completely for maintenance. No Rotation. Read Operators Manual.

Adjust tension to allow a Dime to freely pass between spring coils, but not a Nickel.

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 re-check operating tension.

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

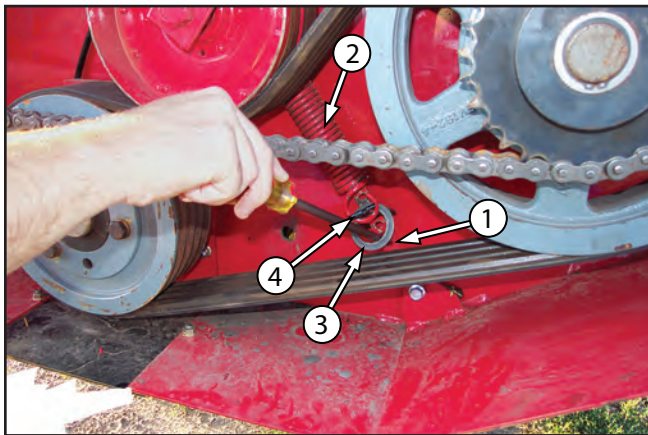


PHOTO NO. DPC2071

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. Refer to parts book on Hiniker website for part number.

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 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.

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

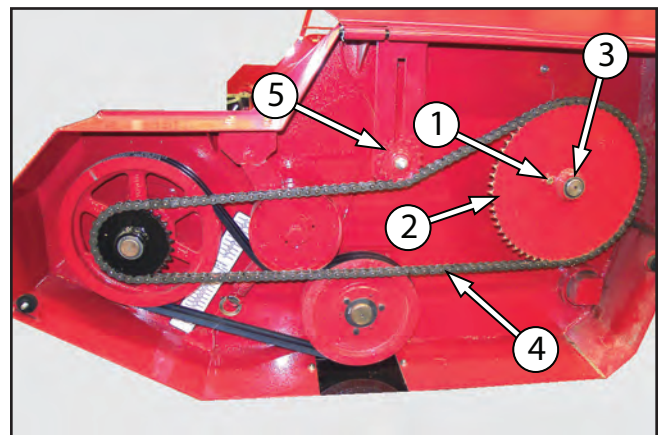


PHOTO NO. 9091A

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 LOCK-NUTS 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.

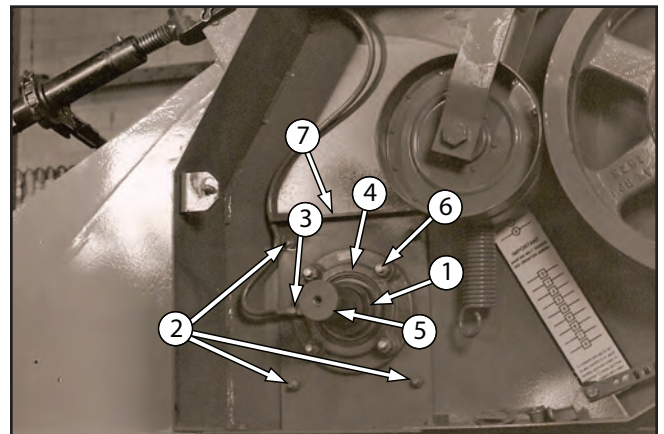


PHOTO NO. 3005B

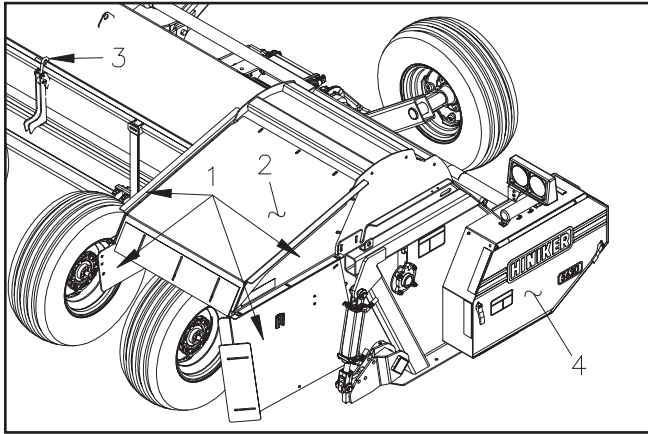
INNER ROTOR BEARINGS

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 both auger covers (arrow 3) are latched and both end enclosures (arrow 4) are secured.



DWG. NO. 7037

2. If a ratchet jack is in use, lock its handle from dropping down as machine is rotated.
3. Remove PTO, hitch, 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 6500 Lbs. (2950 Kg.).

4. 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.
5. 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.

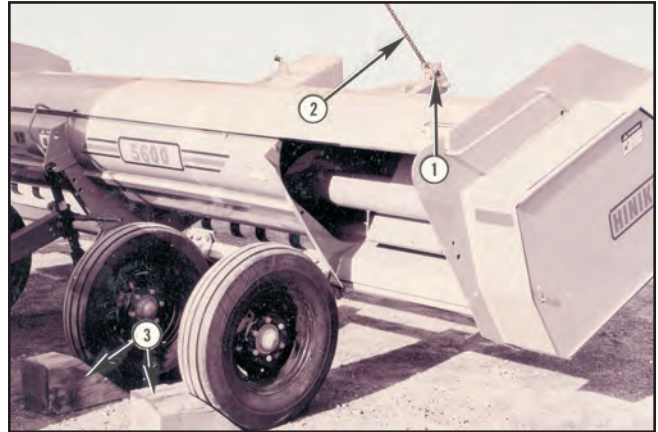


PHOTO NO. 3372

6. 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.
7. Slowly slacken hoist and allow unit to rotate backwards to flat ground contact around base machine corners as at (arrow 2).
8. 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.

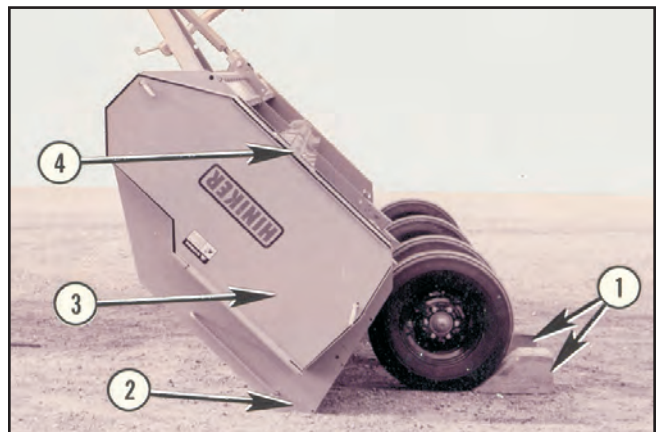


PHOTO NO. 3373

9. 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.

10. 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.

11. 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.

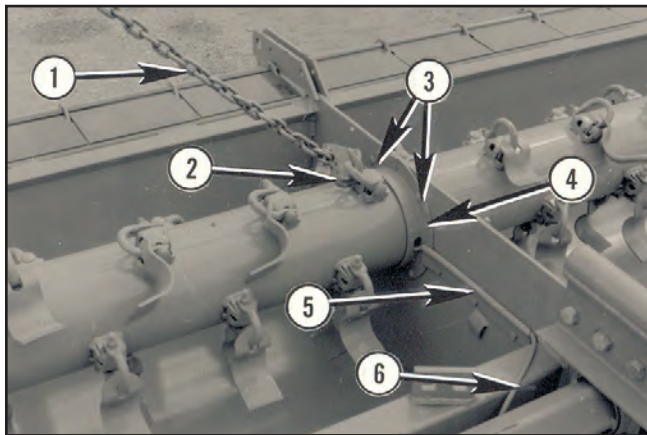


PHOTO NO. 3019

12. Remove (2) 3/8" Allen set screws (arrow 1) on bearing being serviced (item 2). These are factory retained with anaerobic threadlock (eg. Loctite 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.

13. 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.

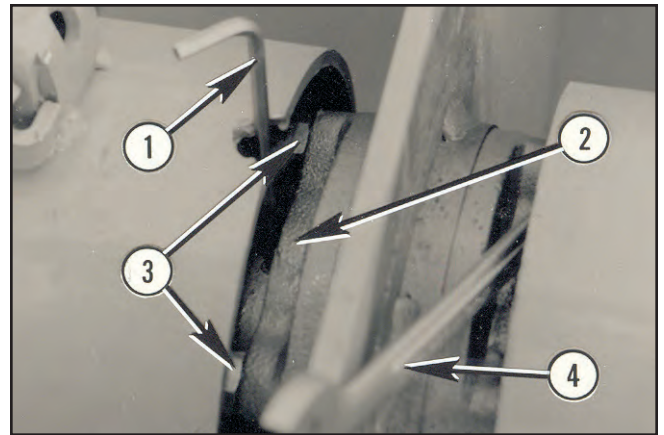


PHOTO NO. 3015

14. 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.).

15. 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.

16. 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 R.H. sheaves. L.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.

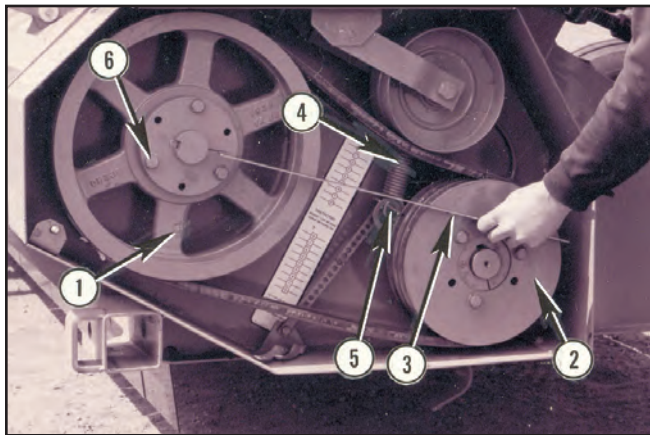


PHOTO NO. 3009A

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 UN-THREADED holes (arrow 2).
4. Insert these bolts in the 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.

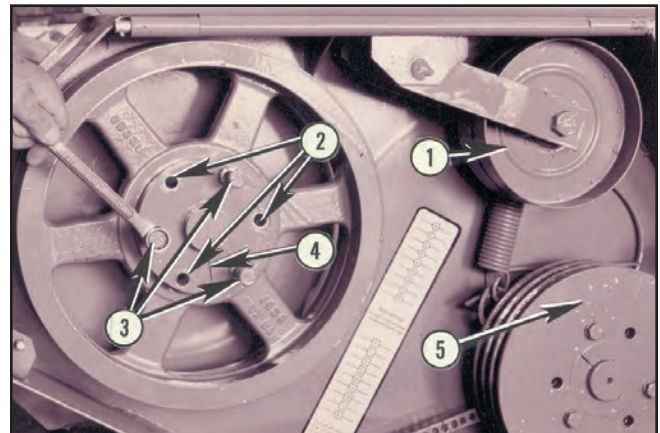


PHOTO NO. 3010B

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.

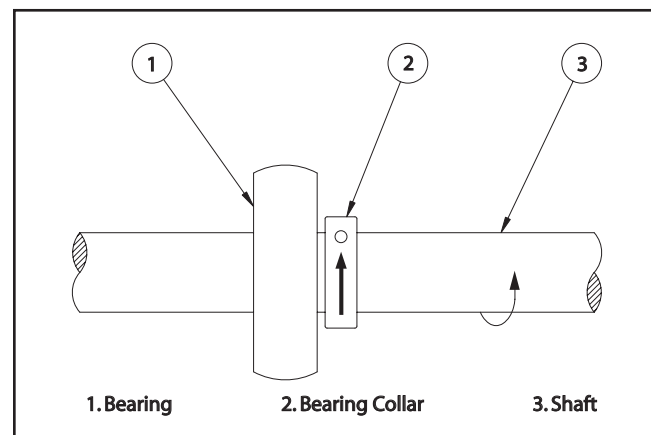
DRIVE SHAFTS BEARINGS

The (4) drive shaft bearings (arrow 1) have eccentric lock collars (arrow 2) or set screws. To loosen these, remove 3/8" Allen set screw in the lock collar.

With a drift, drive collar (arrow 2) OPPOSITE to direction of rotation of shaft (arrow 3). When reinstalling bearing, drive collar (arrow 2) in SAME DIRECTION as rotation of shaft (arrow 3) and retighten set screw. Refer to drawing 2256A.

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. Reverse previous steps to reassemble removes components.



DWG. NO. 2256A

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) WHICH CAN BE SEATED WITH A 3/16" PUNCH OR 1 1/2" I.D. DRIVER. 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. Adjust nut with a HAND WRENCH ONLY. Tighten to 50 Ft-Lbs while rotating hub. Back off slotted nut one turn and retighten to 17 Ft-Lbs. Back off to assemble cotter pin 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.

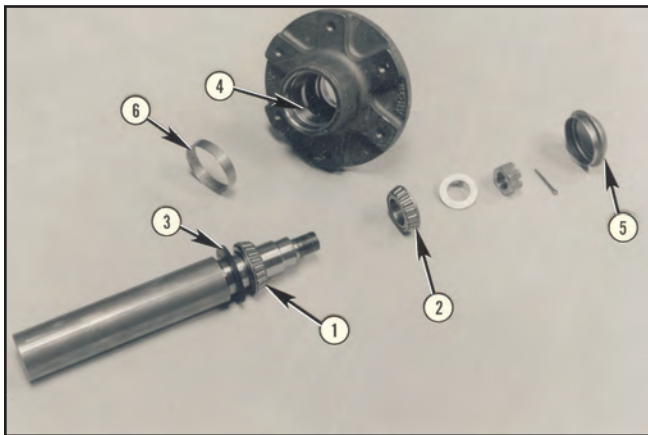


PHOTO NO. 3011

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 tractor PTO at gearbox input spline.

2. Remove the right drive shaft shield. Loosen and remove right outboard drive shaft bearing flange bolts. Loosen and remove (2) 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 3/8" bolts nearest the gearbox holding the left cross shaft shield.
4. Remove the top (4) 1/2" bolts holding the gearbox/PTO input shield and remove this 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.

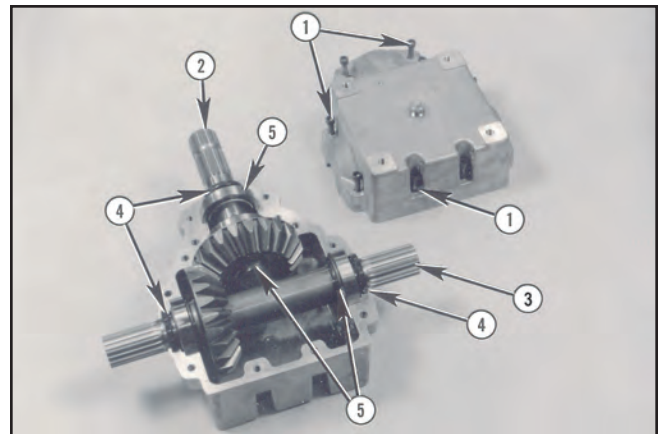


PHOTO NO. 3008

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 cannot 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 resealed, apply anaerobic sealant (eg. Loctite 518 (red) or Perma-Lok HH 190 (dark purple) or Permatex silicone sealant 765-1344/1485) to housing top half and reseal 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 lockwashers installed and they are brought to full torque.

Ensure drain plug is installed. Fill gearbox to level specified in LUBRICATION, page 21 with 80W-90 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

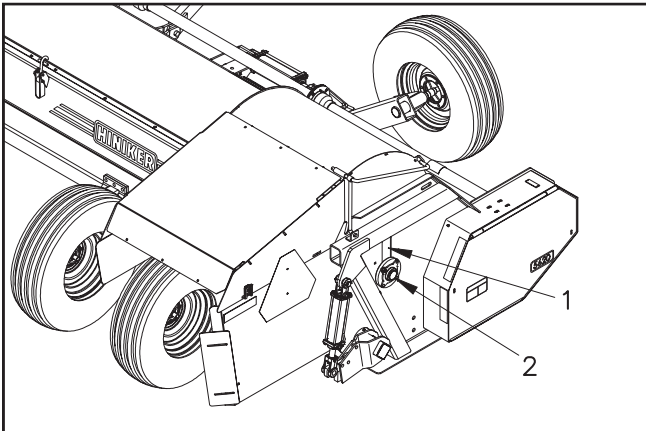
AUGER

1. To extract and service the auger, open both auger covers fully forward.
2. Remove chute top cover with deflectors. On a 5620 HLI unbolt fixed hood and rotate towards front of machine.
3. 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 550 lbs. (250 Kg.).

4. Remove R.H. cover plate (item 1) and R.H. flange bearing (item 2), as shown in drawing 6239.



DWG. NO. 6239

5. Loosen drive chain idler, break and remove drive chain.
6. Remove shearbolt (item 3) and remove driven sprocket (item 4) and shear plate. Remove L.H. cover plate and L.H. bearing.

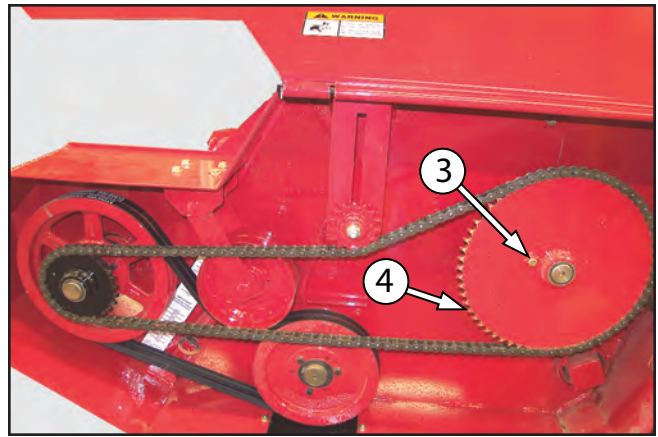


PHOTO NO. 9115D

7. 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 or lock collars 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.

- After sprocket alignment, reassemble loosened and removed parts and relock bearing lock collars.

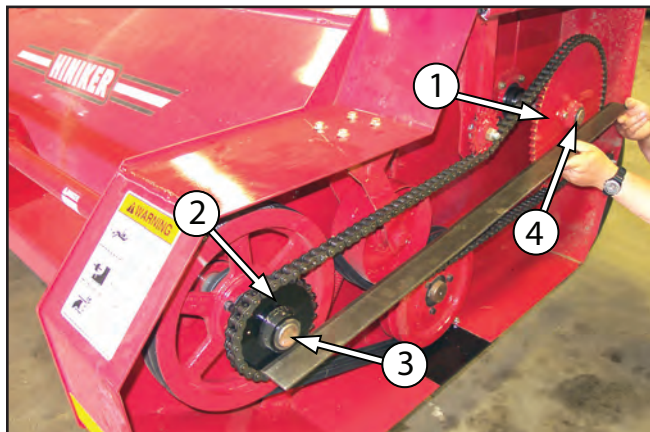
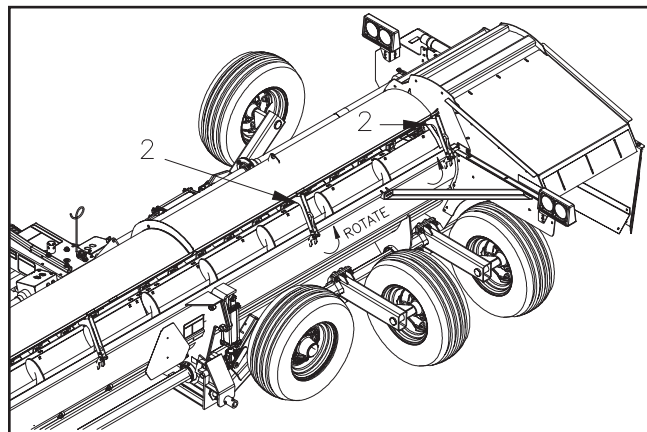


PHOTO NO. 9119A

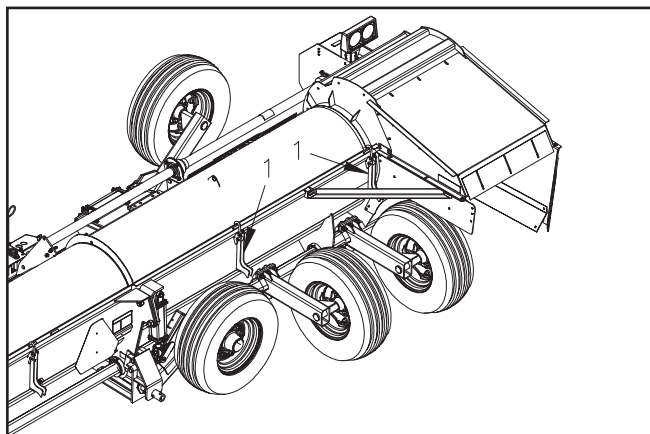
AUGER CLEANOUT (5620HLI ONLY)

If an auger on model 5620HLI becomes clogged during operation. First open the auger covers by unlatching the (4) latches (arrow 1) at the back of the machine.

Lift the right hand cover up and simultaneously flip both cover latches (arrow 2) up into position. Now open the left hand side and rotate the cover latches into position. Reverse steps once all material is removed from auger trough area.



DWG. NO. 7038



DWG. NO. 7039

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.

WARNING: DEATH OR SERIOUS INJURY CAN RESULT. BEFORE ASSEMBLING, READ SAFETY-GENERAL AT FRONT OF THIS MANUAL.

OFFLOADING

DANGER: DEATH OR SERIOUS INJURY CAN RESULT. USE EQUIPMENT CAPABLE OF SAFELY HANDLING NO LESS THAN 6,500 Lbs. (2,948 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 "JACKRABBIT" MANEUVERING.

HINIKER shredders are shipped vertical with self contained storage and handling dunnage. They may be offloaded with a forklift or an overhead chain sling.

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. See photo 3365.

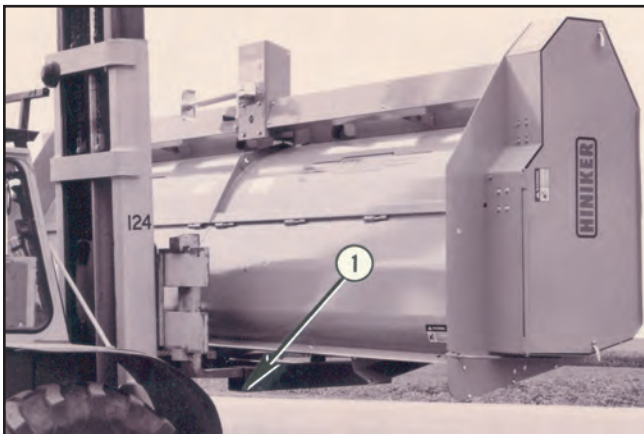


PHOTO NO. 3365

For overhead chain sling offloading, use a chain sling (arrow 1) approximately 5' long on each run. Fix EACH sling chain hock SECURELY around both 1" diameter hitch pins (arrow 2) where shown by decals (arrow 3). Lift off carrier and deposit on a firm, clear and level work area. See photo 3351.

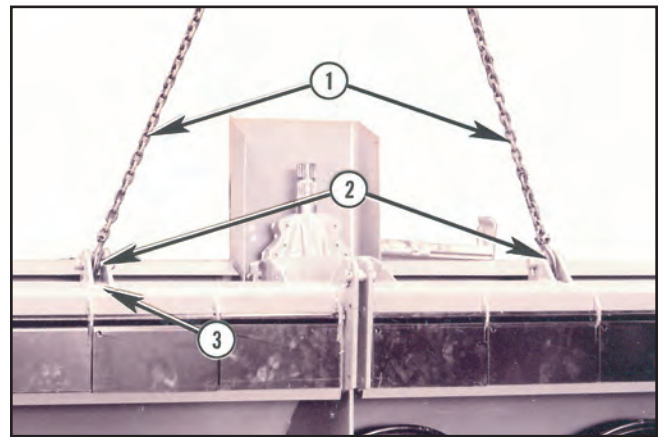


PHOTO NO. 3351

The hitch, chute, and rims are shipped separate from basic machine.

CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. DO NOT ATTEMPT TO "MANHANDLE" THE HITCH WITHOUT PROPER ASSISTANCE. THE HITCH WEIGHS 125 Lbs. (57 Kg.).

1. Remove wheel dunnage, wheels (arrow 1), wheel legs (arrow 2) and PTO (arrow 3).
2. The unit is bolted to the underneath dunnage (arrow 4) with 2 bolts as at (arrow 5). DO NOT UNBOLT THESE UNTIL AFTER THE UNIT HAS BEEN TIPPED DOWN IN THE NEXT STEP.

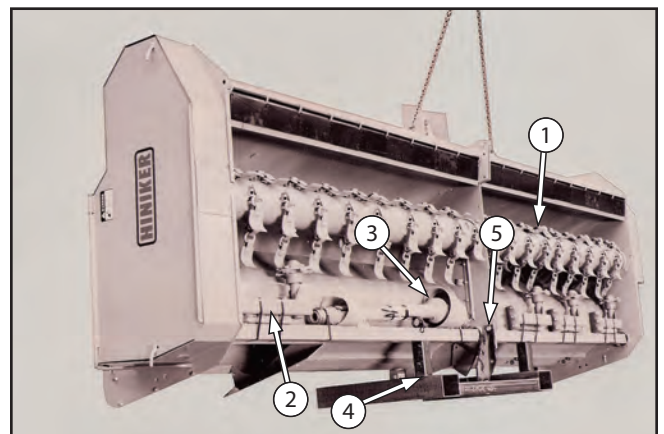


PHOTO NO. 3352A

DANGER: DEATH OR SERIOUS INJURY CAN RESULT. CLEAR PEOPLE FROM ERECTING AREA BEFORE TIPPING SKIDDED UNIT DOWN.

42 Assembly

- Irrespective of the above offloading methods, prepare to tilt the unit down by hooking an approximately 5' long sling chain (arrow 1) SECURELY around both 1" diameter hitch pins (arrow 2). SECURELY place 2 solid blocks approximately 12" high as at (arrow 3) under the machine's each rear corner. See photo 3367.
- Allow a SMALL AMOUNT of slack in the sling chain and slowly tip the unit forward until its downward force is being supported by the sling chain.

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

- After allowing unit to rotate toward the ground, insert a solid block (arrow 4) approximately 12" high under the machine's center. Ensure this block is clear of the flipper shields. Allow unit to rest on the 3 blocks. Do not use hollow concrete for machine blocking and ensure everything is STABLE before unhooking sling chains.

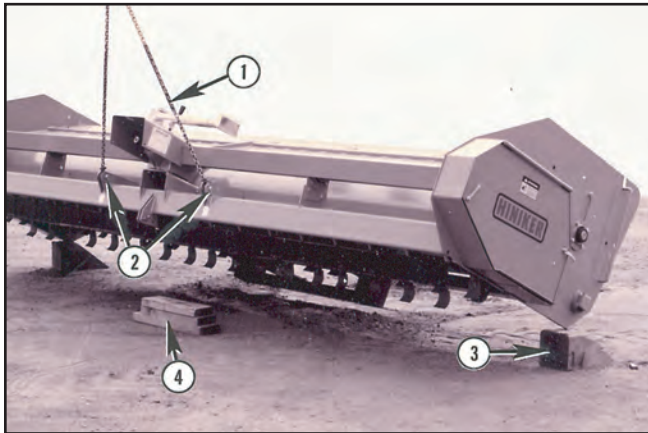


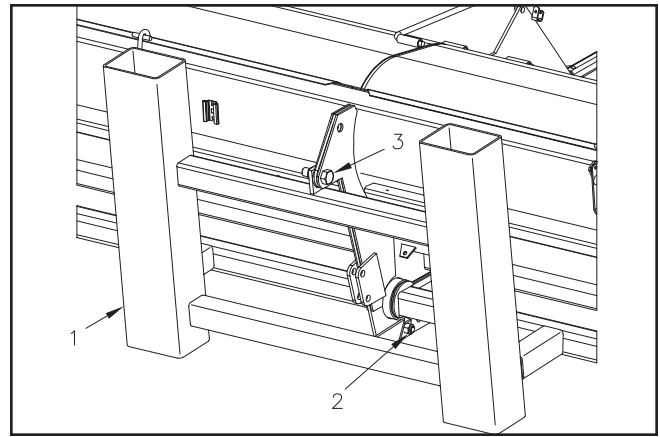
PHOTO NO. 3367

BASIC MACHINE

- Unbolt underneath dunnage (arrow 1) by removing bolt (arrow 2) first. Secondly, remove bolt (arrow 3) and set dunnage aside. See drawing 6089.

CAUTION: DEATH OR SERIOUS INJURY CAN RESULT. DUNNAGE WEIGHS 140 Lbs. (63 Kg.). DO NOT ALLOW IT TO FALL ON YOUR BODY.

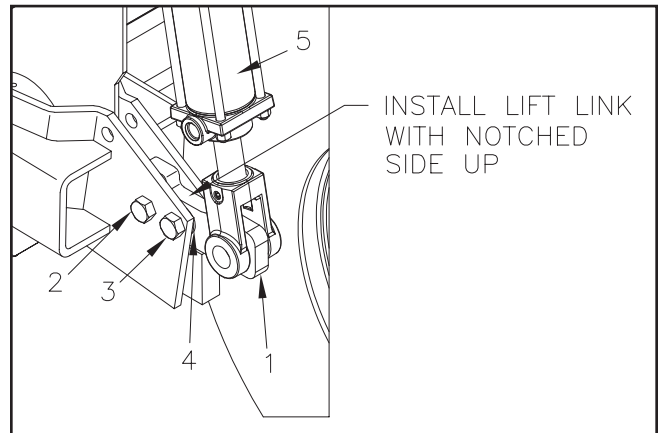
- Remove (2) bolt bags from under the LH end shield. One bag has hardware for the chute, the other bag has components for the main machine. Cut tie straps that secures SMV sign and close the cover.



DWG. NO. 6089

ROCKSHAFT AND WHEEL LEGS

- Withdraw (2) lift links (arrow 1) from bolt bag, along with (4) 5/8" x 2 1/2" bolts and nuts. Install left and right lift links with notched side up. Install one bolt permanently in hole (arrow 2) and the other in hole (arrow 3). Shim links with (1) 5/8" washer on left side (arrow 4) and (1) 5/8" washer on right side of both bolts. See drawing 6240.
- Install either (2) accessory ratchet jacks, or (2) aftermarket hydraulic cylinders (arrow 5). (See OPTIONAL HYDRAULICS SECTION, page 46.)
- Contract either ratchet jacks, or hydraulics, to minimum length. This permits wheel and tire installation.



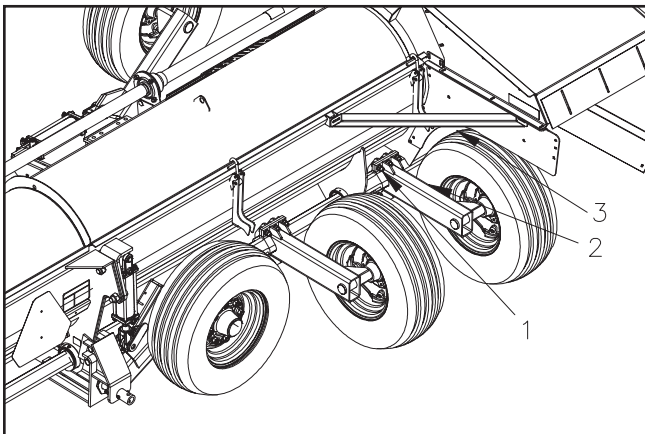
DWG. NO. 6240

- Each wheel leg is clamped to the rockshaft with (6) 5/8" bolts, nuts and lock washers (arrow 1). Install wheel legs in their approximate transverse position; however, do not torque up their bolts. See drawing 7040.

5. The unit is furnished with four 15 x 8 wheels, less tires. The recommended aftermarket tire size is 9.5L x 15 (implement) or equivalent.
6. The wheels are offset, that is, wheel "dish" is greater on one side than the other. Install wheels and tires with the DEEPEST DISH TOWARD the wheel leg as at (arrow 2). This places its loaded centerline between the hub bearings. Torque up the (6) 1/2" wheel bolts on each wheel.
7. Transversely slide each wheel leg and wheel/tire assembly to tire centerlines for customer's expected row spacing. Refer to chart and photo 7029, pages 12-13 for measurements.

IMPORTANT: IF OTHER THAN RECOMMEND OUTBOARD WHEEL SPACINGS, OR TIRE SIZE, ARE USED, ENSURE ADEQUATE MACHINE AND MUD CLEARANCE AS AT (ARROW 3) IS MAINTAINED.

Torque up two left side wheel leg's (12) clamping bolts by uniformly tightening the lower 6 to snug. Then torque, and retorque, top 6 to 146-206 Ft. lbs. (198-279 N/m.).



DWG. NO. 7040

Do the same on the right side wheel legs.

TRAILING HITCH

The trailing hitch bundle consists of the "A" frame hitch (arrow 1) and a lower adjustable draft link (arrow 2).

Remove both base unit draft pins (arrow 3) and position hitch (arrow 1) with thicker hitch clip on top (arrow 4). Insert hitch's rear brackets (arrow 5) between both sets of base unit ears (arrow 6) and reinstall pins (arrow 3). Insure cotters on each end of both pins are spread. See Photo 3555 below.

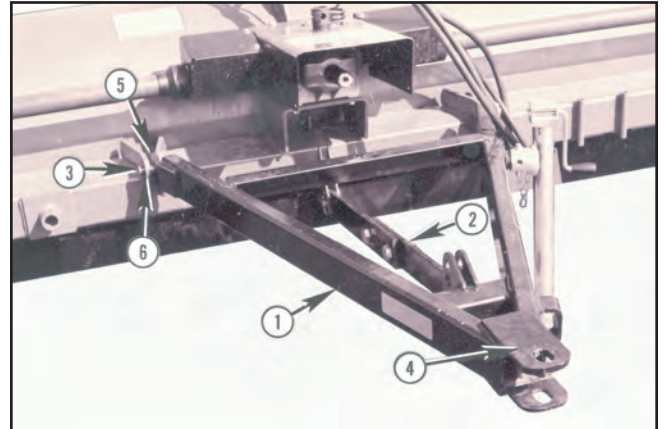


PHOTO NO. 3555

Remove rear draft pin (arrow 1). Install one end of the draft link (arrow 2) between base unit ears (arrow 3) with pin (arrow 1). Install opposite end of draft link (arrow 2) between hitch unit brackets (arrow 4) and install upper draft pin. Insure both pin cotters are spread. Remove the hose carrier and put it aside.

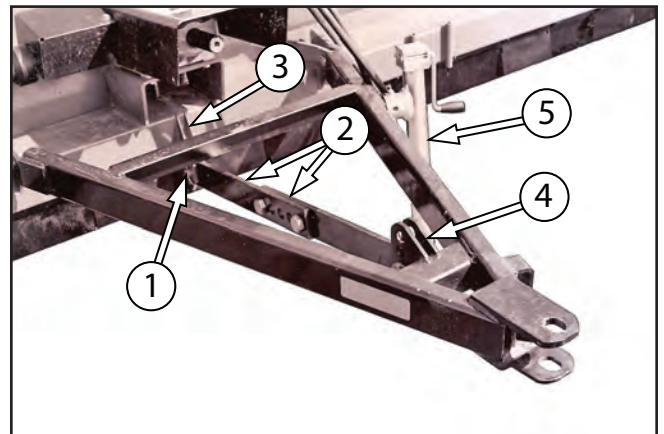


PHOTO NO. 3556A

Adjustable draft link is preset to facilitate an approximate 18 inch draw bar height and yield an acceptable stubble. However, final adjustment to a customers tractor drawbar height, must await actual field operation.

IMPORTANT: AFTER TRACTOR HOOKUP, ALWAYS STORE HITCH JACK ON PEDESTAL AT TOP OF GEARCASE. (arrow 1), Photo DCP0603.

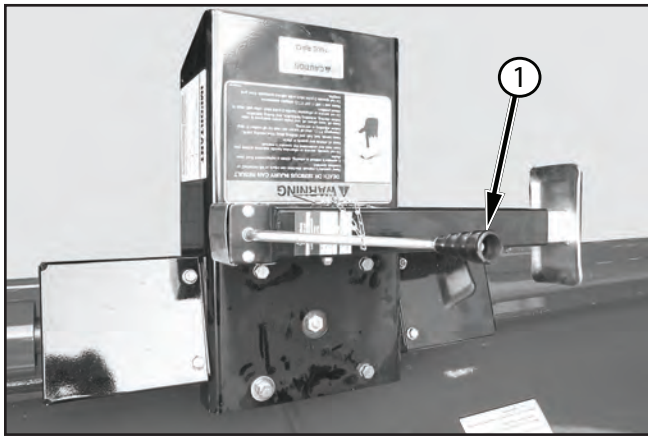


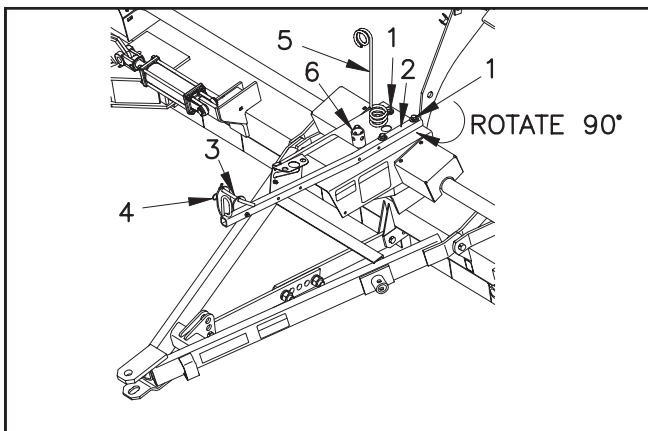
PHOTO NO. DCP0603

Move hitch jack from shipping position on top of gearbox to “use” position (arrow 5) photo 3556A and raise it sufficient to loosen front center block and remove it.

Remove 1/2” bolts (arrow 1) holding PTO shaft holder (arrow 2) on top of gearbox shield. Rotate 90° and install as shown in drawing 6242.

From the bolt bag locate the PTO shaft holder pin and the hair pin cotter.

Insert the PTO shaft holder pin (arrow 3) into the PTO shaft holders top holes. Secure the pin in place with the hair pin cotter (arrow 4). Attach hose carrier (arrow 5) onto the rear bolt on the RH side of the gear box shield. Ensure the flat washer is between the lock washer and the hose carrier.



DWG. NO. 6242

IMPORTANT: AFTER TRACTOR HOOKUP, ALWAYS STORE HITCH JACK ON TUBE MOUNT ON TOP OF GEARBOX SHIELD (ITEM 6).

Hook up the tractor to the machine A-frame hitch. Extend the ratchet jack, or hydraulics, to lower the wheels; thus, raising the machine. Remove both previously inserted rear blocks (Photo 3367, Item 3, page 42).

PTO

It is easiest to install the PTO AFTER completing the trailing hitch installation.

TWO DIFFERENT PTO’s are available and are variably shipped pursuant to dealer’s order:

1 3/8” (1000) 21 spline trailing
(55” Telescoped O.A. length)
Whole goods item 79202278

1 3/4” (1000) 20 spline trailing
(55” Telescoped O.A. length)
Whole goods item 79202277

IMPORTANT: IT IS CRITICAL TO KNOW WHAT TRACTOR CONFIGURATION IS INVOLVED BEFORE HOOKUP. THE PROPER PTO MUST BE USED.

IDENTIFY CORRECT PTO, FOR TRACTOR USED, BY CHECKING FORWARD YOKE SPLINE. DO NOT INTERMIX FRONT AND REAR HALVES BETWEEN DIFFERENT PTO’s.

All PTO’s have similar sliding yoke couplers at tractor and gearbox ends. GEARBOX ENDS ARE IDENTIFIED BY AN OVERRUNNING CLUTCH (ARROW 1). See photo 2969C.

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

Hook snap ring for PTO shield anti rotation chain in hole (arrow 4).

IMPORTANT: NEVER TOW A UNIT IN FIELD MODE UNLESS THE PTO IS PROPERLY HOOKED UP TO BOTH TRACTOR AND SHREDDER/WINDROWER.

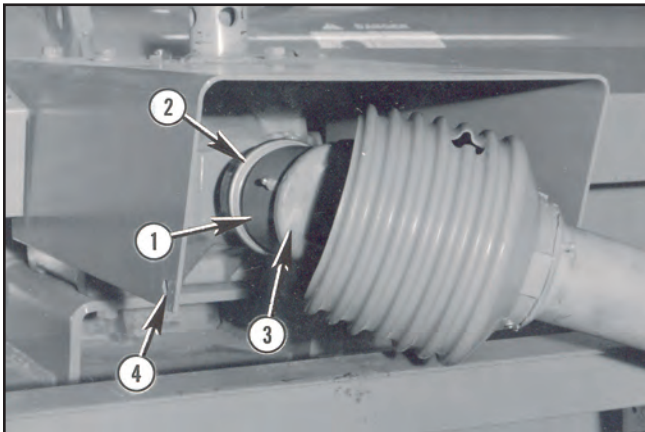


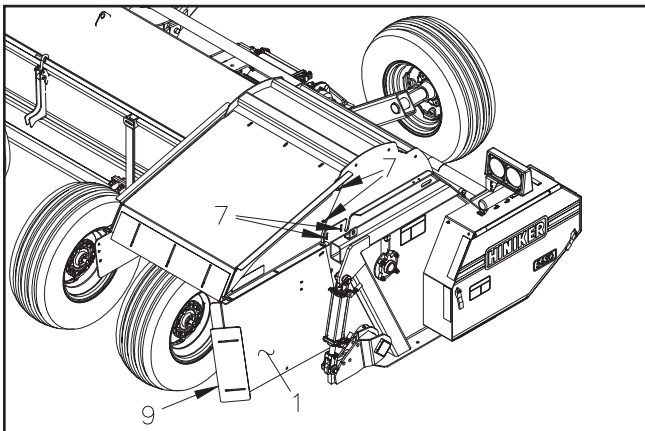
FIGURE 105

PHOTO NO. 2969C

DISCHARGE CHUTE

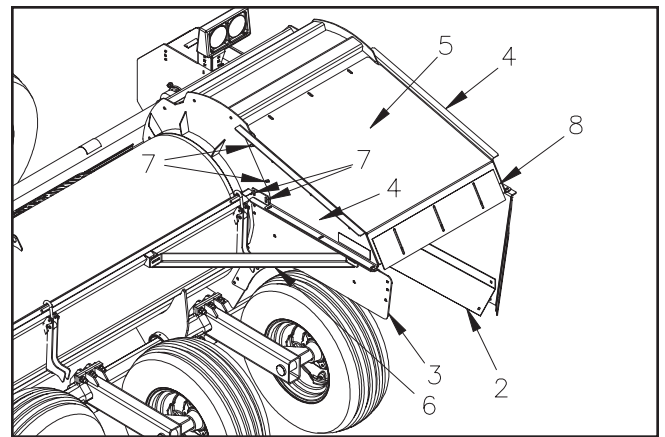
Whenever possible install carriage bolt heads to FACE material flow.

1. Remove the carriage bolts and nuts that secure the windrow panels together. Save this hardware for reuse later. Cut any tie straps or banding holding the panels together.



DWG. NO. 7041

2. Attach the right hand deflector (arrow 1) on the outside of the windrow right end panel using (2) 3/8 carriage bolts and lock nuts through the top two holes of the deflector.



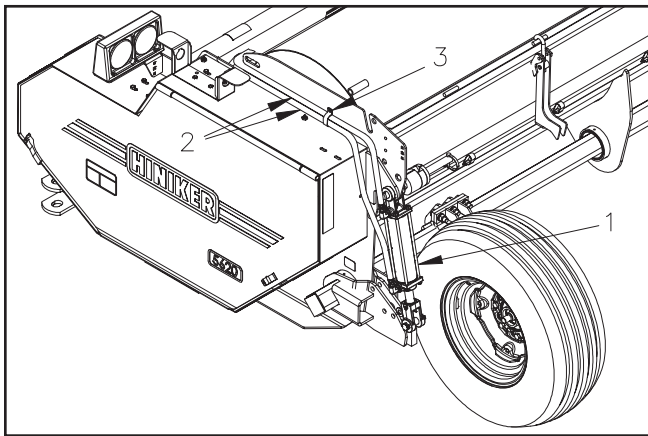
DWG. NO. 7042

3. Attach the right hand lower deflector (arrow 2) on the inside of the right hand deflector. Either the long or short leg can be bolted to the right deflector. Secure this panel with (2) 3/8" carriage bolts and lock nuts.
4. Secure the Left hand deflector (arrow 3) on the outside of the windrow left chute panel using (5) 3/8" carriage bolts and lock nuts.
5. Place the RH and LH chute extensions (arrow 4) on the top of the RH and LH end panels. Using 3/8" carriage bolts and lock nuts.
6. Place the top cover (arrow 5) on inside of left and right chute extensions.
7. Attach chute gusset (arrow 6) using 3/8 hardware.
8. Secure chute to body weldment and cover (arrow 7) using 3/8 hardware.
9. Torque all 3/8" lock nuts at this time.
10. Attach the top adjustable deflectors (arrow 8) to the top cover using 5/16" carriage bolts and lock nuts.
11. Secure the right adjustable deflector (arrow 9) using 5/16" carriage bolts and lock nuts.
12. Verify that all 5/16 inch lock nuts are tight at this time.

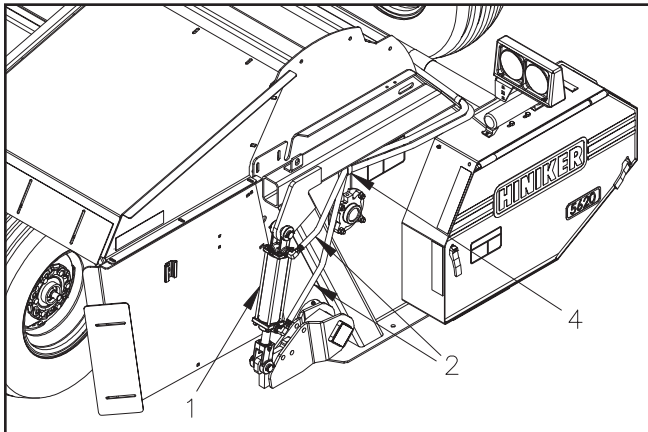
OPTIONAL HYDRAULICS

Hiniker does offer an optional hydraulic lift kit. It contains (2) 2 1/2" x 8" stroke ASAE hydraulic cylinders, hoses, fittings, plastic tie straps and tractor couplers. A hose support is furnished with the trailing hitch.

1. To install remove the plugs from the ports of the (2) 2 1/2 x 8 hydraulic cylinders. Install the 90 degree elbows into both ports of the cylinders. Install the fittings so they are pointing up but angled slightly towards the front of the machine when installed.



DWG. NO. 7043



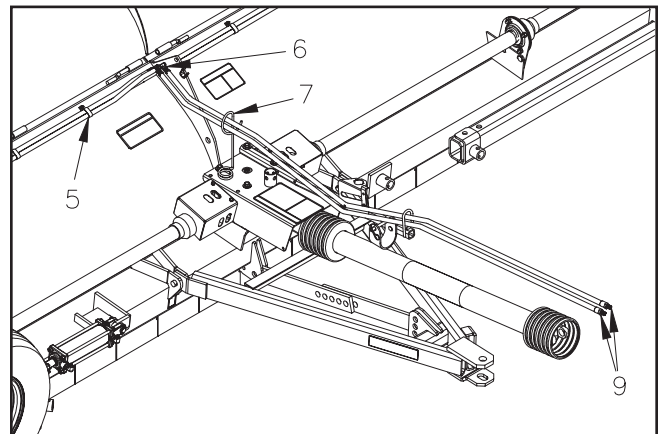
DWG. NO. 7044

2. With machine stabilized on 12" high blocks. Install hydraulic cylinders onto frame of machine with ports pointing out at the locations shown (arrow 1). The base of cylinder will be attached to frame of machine and rod end will be attached to the bolted link on rock shaft.

3. Attach the (4) 3/8 x 180" hoses (arrow 2) to the fittings coming out of the cylinders.
4. Locate the 3/8 x 3/4 bolt and 3/8 lock nut from the parts bag. Secure (2) hoses on left side to the left hand end panel by routing them through a hose clamp. Secure hose clamps to machine, by inserting a 3/8 x 3/4 carriage bolt, from the inside, through the square hole in the end panel (arrow 3).

You will need to open the covers of the machine to install this bolt. Secure the bolt with a 3/8 lock nut.

5. Locate the 5/16 bolt above the auger bearing on the right end panel of the machine (arrow 4). Remove the nut securing the bolt. Secure both hoses to the right hand end panel by routing them through a hose clamp and securing it to the machine using a 5/16 bolt and the removed lock nut.



DWG. NO. 7045

6. There are holes along the right and left front of machine (arrow 5), with which to secure hydraulic hoses to the machine.

Secure (2) hoses per side to the front of the machine by inserting one self tapping screw for every hose clamp to the holes at the front of the machine (arrow 5).

7. From the parts bag locate (2) tee fittings. Connect the hoses from the base ports of the cylinders together using a tee fitting (arrow 6). Connect the hoses from ports on the rod ends together using a tee fitting.

8. Connect the (2) 3/8 x 120" hoses to the tee fittings.
9. Install the hose support (arrow 7), if it is not already, onto the rear bolt on the right hand side of the center gearbox shield. Ensure the flat washer is between the lock washer and the hose support.
10. Route the (2) 3/8 x 120" hoses, through the hose support and the hose loop on the front of the PTO shaft holder, at the front of the machine.
11. Attach the (2) 3/4 ORB male connectors (arrow 9) onto the ends of the (2) 3/8 x 120" hoses.
12. Secure any loose hoses with the provided cable ties.
13. Attach the tractor to the A-frame hitch on the machine. Insert couplers to give the 5620 windrow shredder a downward movement when the tractor hydraulic control is moved forward. The machine should move upward with a rearward movement of the tractor hydraulic control.
14. Cycle the machine up and down several times to make sure all air is purged from the hydraulic hoses and cylinders. Check the hydraulic oil level on the tractor and refill as needed.

PREDELIVERY

Install SMV in its receptacle. After hooking to a tractor, move hitch jack to its storage pedestal above gearbox shield.

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

Refer to FIELD PREPARATION pages 10 thru 16. Ensure PTO, wheel setting, etc. are configured to customer's stated requirements.

Refer to your nearest Hiniker Dealer regarding available hydraulic lift, hydraulic end transport, light kit, and any additional options.

SPECIFICATIONS

Field Overall Width	260"
Field Overall Length	148"
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
1 3/8" (1000) 21 Spline PTO	Optional
Constant Velocity PTO	Standard
Premium Matched "C" End Drive Belts	6
15" x 8", 6 Bolt Rims	4
Recommended Tires (Field Mode)	9.5L x 15-8PR, or Equal
Approximate Field Weight (W/Tires & Jack)	6,200 lbs./2,812 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.

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