96A Windrow Pickup Attachment

For John Deere Model 3975 Pull-Type Forage Harvester

Operator's Manual

Includes installation, operating, adjustment, maintenance, technical,
repair parts and safety instructions for the 96A Windrow Pickup Attachment.

Please retain this document for future reference.

RCI Engineering LLC
RC024281 13Aug09
www.RCIengineering.com

New Attachments for Agricultural Equipment
Warranty Statement

RCI Engineering LLC, hereinafter referred to as RCI, warrants new RCI attachments, to the Original Retail Purchaser to be free from defects in material and workmanship for a period of one (1) year from the date of sale.

RCI warranty includes:

Genuine RCI parts costs required to repair or replace equipment at the selling dealer's business location.

RCI MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESSED OR IMPLIED (INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE), EXCEPT AS EXPRESSLY STATED IN THIS WARRANTY STATEMENT.

RCI WARRANTY DOES NOT INCLUDE:

1. Transportation to the selling dealer's business location or, at the option of the Original Retail Purchaser, the cost of a service call.
2. Freight costs above standard shipping costs for the replacement parts.
3. Labor to make the repair or installation of the failed component.
4. Used equipment.
5. Components covered by their own non-RCI warranties, such as tires and trade accessories.
6. Repairs or adjustments caused by: improper use; non-intended use; failure to follow recommended maintenance procedures; use of unauthorized attachments; accident or other casualty.
7. Liability for incidental or consequential damages of any type, including, but not limited to lost profits or expenses of acquiring replacement equipment or damage to machines to which the attachment is installed.

No agent, employee, or representative of RCI has any authority to bind RCI to any warranty except as specifically set forth herein. Any of these limitations excluded by local law shall be deemed deleted from this warranty; all other terms will continue to apply.

96A Windrow Pickup Attachment

Intended Use

For picking up wide windrows of crop with the 3975 Pull-Type Forage Harvester.

Product Highlights

- Effective pickup width is 9 feet 6 inches.
- Tine bar assembly features five tine bars and a center support.
- Gauge wheels are in front to maximize width of effective pickup width while minimizing transport width.
- Easily adjusted gauge wheels for selecting proper pickup height.
- Windguard is standard equipment.
- Allows for faster dry-down of windrowed crops due to wider windrows.

Ordering Information

RC024052 is the bundle number for the 96A windrow pickup. All product features are standard equipment. All spare parts are available from RCI Engineering. See Contact Information page for more information.

Additional Information

It is recommended to also install a tandem axle bundle from RCI Engineering LLC on the PTFH due to the increased weight of this windrow pickup attachment.

It is required to install the header flotation system from John Deere on the 3975 PTFH.

This attachment is only compatible with 3975 PTFH that are equipped with the long tongue option.

It is recommended to a install a AE38859 21-tooth sprocket on the header drive on the Model 3975 Pull-Type Forage Harvester (part available through John Deere).

Specifications

Model	96A
Description	Windrow Pickup Attachment

Dimensions:

Overall Width	118” (3m)
Effective Pickup width	114” (2.9m)
Auger diameter	20” (0.5m)

Standard Features:
Five-bar Spring Tooth Pickup
Open-end Construction
Windguard
Gauge Wheels

Adaptable Harvesters:
John Deere 3975

Table of Contents

Pre-delivery Checklist

After the pickup attachment has been assembled and lubricated and prior to delivery to customer, the attachment needs to be inspected thoroughly to ensure it is in proper working order. The following checklist must be reviewed and each item found to be satisfactorily completed.

- ☐ Windrow Pick-up Attachment has been setup according to the instructions included in this manual.
- ☐ All grease fittings have been lubricated.
- ☐ All guards, shields and safety decals are in place, securely fastened, and operate correctly.
- ☐ All nuts and bolts have been tightened and inspected.
- ☐ Adjustments have been made as described in the Adjustments section of this manual
- ☐ Feedroll filler plates installed and adjusted correctly.
- ☐ Gauge wheels installed and inflated properly.
- ☐ All moving parts operate freely.
- ☐ Proper sprockets installed for proper pickup speed (see "Adjustments" Section)
- ☐ Auger chain tension set properly.
- ☐ All applicable warranty information recorded.

I acknowledge that the pre-delivery service was preformed and the unit is ready for delivery to the customer.

_____	_____	_____
Dealership's Name	Representative	Date
_____	_____	_____
Model Number	Serial Number	Date Sold

Owner's Name and Address

Name_____

Address_____

City, State, Zip _____

Original: Enclose in manual and give to customer at time of delivery.

Copy: Dealership
Copy: RCI Engineering LLC

RCI Engineering LLC
Fax: 920-387-9804
Email: info@rciengineering.com
Mail: 970 Metalcraft Drive, Mayville, WI 53050

Delivery Checklist

The following items must be preformed when delivering the attachment to the customer. Check off each item as it is preformed.

- ☐ Provide the customer with the Operator's Manual and instruct them to read prior to operating the unit.
- ☐ Review and explain all safety information and operating adjustments.
- ☐ Review and explain maintenance and lubrication schedule that is required to ensure proper operation and long life.
- ☐ Show how to properly adjust the feedroll filler plates as instructed in the "Adjustments" section.
- ☐ Make it be known that if the customer can visit or call the dealership to discuss any questions or problems they may encounter.
- ☐ Complete the Owner's registration with the customer, ensure it is completely filled out, and return it to RCI Engineering.

_____
Date Delivered

_____
Signature

Original: Enclose in manual and give to customer at time of delivery.
Copy: Dealership
Copy: RCI Engineering LLC

RCI Engineering LLC
Fax: 920-387-9804
Email: info@rciengineering.com
Mail: 970 Metalcraft Drive, Mayville, WI 53050

Safe Operation of Machine

Operator Authorization
The machine owner *must* provide the operator of the machine this manual and ensure that the operator reads and understands the contents. This *must* be performed before the machine is put into operation.

Safety Alert Symbol

This safety alert symbol is used to alert the operator to the potential for personal injury. Whenever this symbol is noticed in this manual or on the machine, be alert to the situation and read the message near the symbol shown in graphical format. Always be alert for the potential for personal injury.

General Safety Precautions / Accident Prevention
Before operation of the machine <u>each time</u>, check the entire machine for operational safety.

1. BEFORE unclogging, removing material, cleaning, adjusting, servicing, or lubricating, the operator **must**:
    a. Disengage tractor PTO, put the tractor in park, shut off the engine, and remove the key from the ignition.
    b. Wait until all parts have stopped moving.
        i. Take extra precaution that all parts have stopped moving as the cutterhead of the forage harvester can cause parts to continue moving for some time after all power is disengaged.
2. The warning and safety decals on the attachment provide important information to ensure safe operation of the machine. Follow these instructions at all times to remain safe. Replace all such decals if they should become illegible or be missing.
3. Avoid loose fitting clothing. The operator should always wear close-fitting clothing and sturdy footwear.
4. Before operation of the machine, become familiar with all controls of the machine and attachment as well as the function of the unit.
5. Check all guards and shields to make sure they are in place and functional. Replace any defective or missing guards, shields, or components before operation.
6. To transport the pick-up on the road, raise the unit to its highest position.
7. Keep clear of the working and danger area of the machine.
8. Use proper personal protection for eyes, ears, and head to protect against projected objects and noise.
9. Do not modify the machine. Unauthorized modifications may affect the safety and longevity of the machine and voids warranty.
10. Check with local authorities for regulations regarding transportation of the unit on public roads. Ensure that all unit markings are clearly visible before transporting the unit.

Safety Warning Signs

The safety warning signs feature a hazard description panel without text. It is important to properly identify any hazards when working around the attachment.

The signs have a black border and yellow background. Each decal has two boxes of information regarding the hazard.

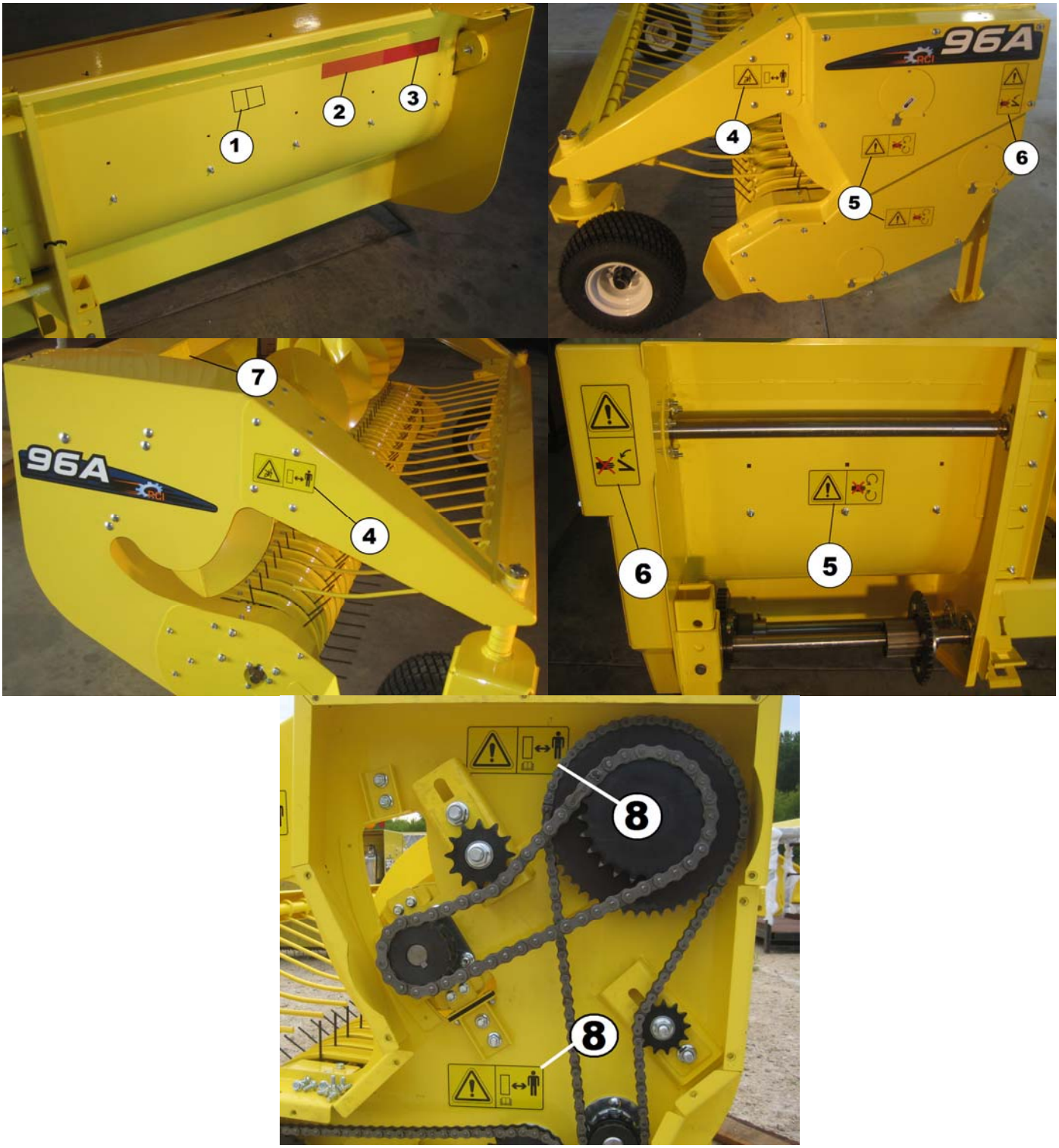
The top or left box of the decal indicates a warning for the hazard. The triangle indicates WARNING. The symbol inside the triangle indicates what the warning pertains to. In some cases, a simple explanation mark is used.

The right or bottom box of the decal indicates an instruction on how to respond to the hazard.

Reference each decal to the operator manual for further explanation of the meaning of the decal and respond accordingly.

Safety Sign Locations

Decal locations are identified in the figures below and referenced on the following pages.



Safety Sign Definitions

Safety Sign 1
This safety sign is a general warning sign instructing the operator to read the Operator's Manual for an explanation of safety signs applicable to the machine.

Figure 1. Safety Sign 1

Safety Sign 2, 3, and 7
These reflective decals are for proper machine marking for transport. Ensure that these decals are clearly visible and clear of debris before transporting unit.

Safety Sign 4
This safety sign is a warning of hand and/or arm entanglement in the auger of the attachment. Keep away from this area during operation to avoid the hazard. Failure to do so may result in serious injury.

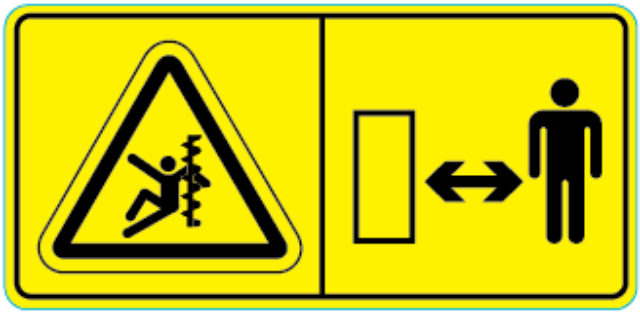


Figure 2. Safety Sign 4

Safety Sign 5
This safety sign is a warning of entanglement of moving parts. Keep all body parts away from moving parts. Failure to do so may result in serious injury.

Figure 3. Safety Sign 5

Safety Sign 6
This safety sign is a warning of a pinch point. Keep clear of this area and do not place any body parts in this area due to the risk of the pinch point. Failure to do so may result in serious injury.

Figure 4. Safety Sign 6

Safety Sign 8
This safety sign is a warning of missing shields, covers, or other components. Keep clear of this area and replace the missing components before operation. Consult the Operator's Manual and parts pages to determine what components are missing and replace accordingly. Failure to do so may result in serious injury.

Figure 5. Safety Sign 7

Mounting Instructions

Installation on the Model 3975 Pull-Type Forage Harvester

1. Attach the swing stop onto the tongue. This block prevents the unit from being pulled into the tongue and minimizes transport width. In the event that the blocks are not available, use the pin on the tongue at the pivot (commonly used as an inside stop when using the Model 3975 Pull-Type Forage Harvester with a 3-Row Wide Corn Head). (See "Using Tongue Stop Bolt" Section of Operator's Manual for the Model 3975 Pull-Type Forage Harvester.)

   The stop straddles the frame in front of the latching mechanism. Tighten all hardware properly. See Figure 6.

2. With harvester attached, move the tongue to the extended position (i.e. header fully out).

3. Move the upper attaching points on the harvester to align with lower attaching clips on the pick-up attachment.

4. Pull harvester into the pick-up unit and secure top in place with two pins, one on right and left side, supplied with the Model 3975 Pull-Type Forage Harvester. Use pin holes closest to the feedroll housing. See Figure 7.

5. Raise the attachment such that the lower attaching points set into the attachment pockets as indicated in Figure 8. Install lower wedges.

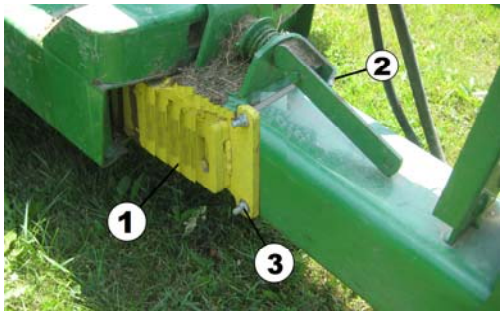


Figure 6. Swing Stop Installation
Key 1 - Stop Key 2 - Bracket
Key 3 - Bolt and Nut (qty 2 each)

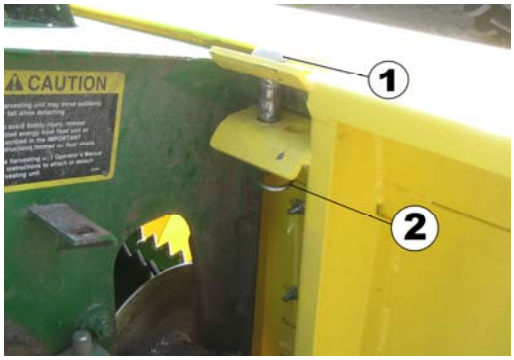


Figure 7. Top Mounts
Key 1 - Pin Key 2 - Clip

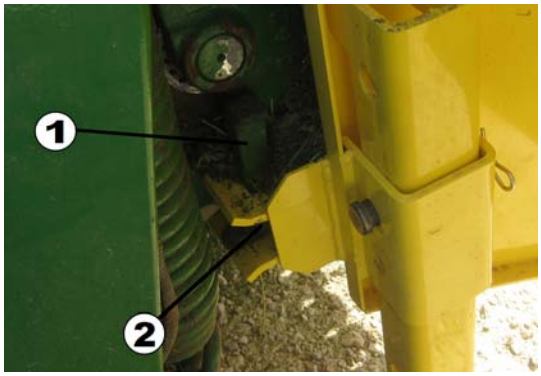


Figure 8. Lower Wedges
Key 1 - Wedge Key 2 - Frame

6. Raise both support stands to the storage position (the bottom set of holes). See Figure 9.

7. Install the harvester unit drive chain around the idler and sprockets. Connect the chain and adjust the idler to allow ¼" to 1" of slack on the backside of the drive chain.

8. Move the warning light from the right side of the forage harvester to the right end of the windrow pickup attachment.

   - remove the light bracket from the support

   - remove the wire harness from the light

   - install the light bracket on the end of the hay pickup as indicated in Figure 10 using existing hardware. The red reflective decal must be facing the rear of the machine.

   - secure the wire harness to the pickup attachment using the clips around the wire harness as indicated in Figure 10.

   - store excess wire harness in tube of frame behind plug.

Note: To remove the pick-up attachment, reverse the procedure above.

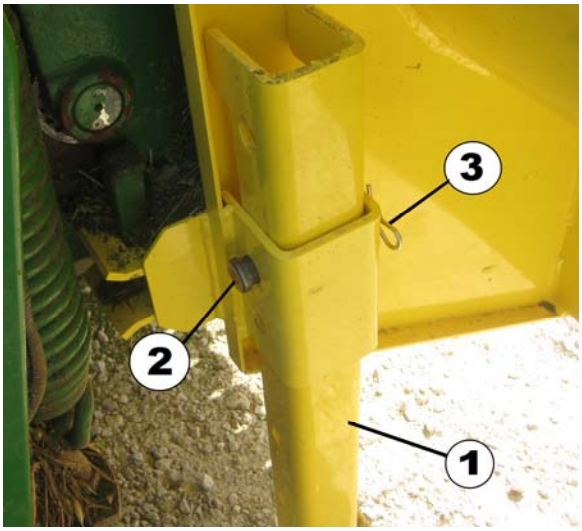


Figure 9. Support Stands

Key 1 - Stand
Key 2 - Pin Key 3 - Clip

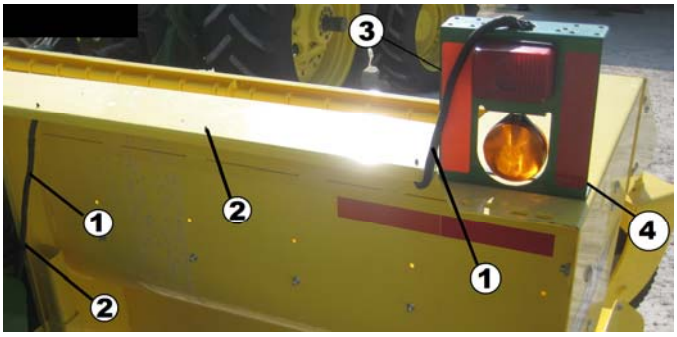


Figure 10. Light Mount

Key 1 - Harness Key 2 - Clip (qty 4)
Key 3 - Bracket Key 4 - Hardware

Field Operation

After the pick-up attachment is attached to the harvester, it should be examined to ensure it is properly mounted. Lubricate the unit to prepare the unit for use in the field. See "Maintenance" section in this manual for more information.

The pick-up is able to pick up material prepared in any direction, however efficiency and speed is optimized by picking up a windrowed crop in the direction of the windrow.

The pick-up should not be operated for extended periods of time while empty.

The pick-up should be run low enough to satisfactorily pick the crop, and high enough to limit the dirt and stones that could be picked up with the crop. With this in mind, generally the gauge wheels should keep the tines about 1” off the ground and always at a height that prevents the times from striking the ground. To adjust the gauge wheels, follow the procedure in the "Adjustments" Section.

Adjustments

IMPORTANT: Before making any adjustments to the windrow pickup attachment, lower head to ground or lock the head cylinder. (See "Locking Head Cylinder" Section of the Model 3975 Pull-Type Forage Harvester Operator's Manual.) Set the park brake of the tractor and shut off the engine. Remove the key from the ignition.

Feed Roll Filler Plates

The feed roll filler plates are provided to ensure proper throat width, the edges of the plates should be flush with the inside of the feed roll side sheets.

To make adjustments, the bolts holding the throat fillers in place must be loosened. Once the mounting bolts are loose the sheets will slide horizontally as they are attached with slotted mounting holes. After positioning in the correct alignment, tighten the bolts to hold the throat fillers in place. See Figure 11.

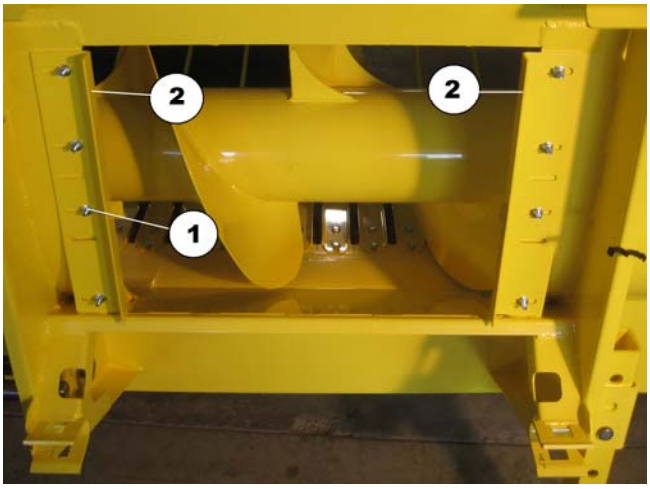


Figure 11. Filler Plate Adjustment
Key 1 - Bolt (qty 8) Key 2 - Plate (qty 2)

Gauge Wheel Adjustment

To adjust the gauge wheels, the unit must be raised to its maximum height. Once raised, shut off the tractor, remove the key, and install the lift stop on the forage harvester. (See "Locking Head Cylinder" Section of the Model 3975 Pull-Type Forage Harvester Operator's Manual.)

Remove the quick release pins securing the wheels in place. Then remove the caster assembly and position the spacers above and below the front frame to ensure proper wheel height. Replace the quick release pin to secure the wheel in place. Repeat on the wheel on the opposite side to set the gauge wheels evenly. See Figure 12.

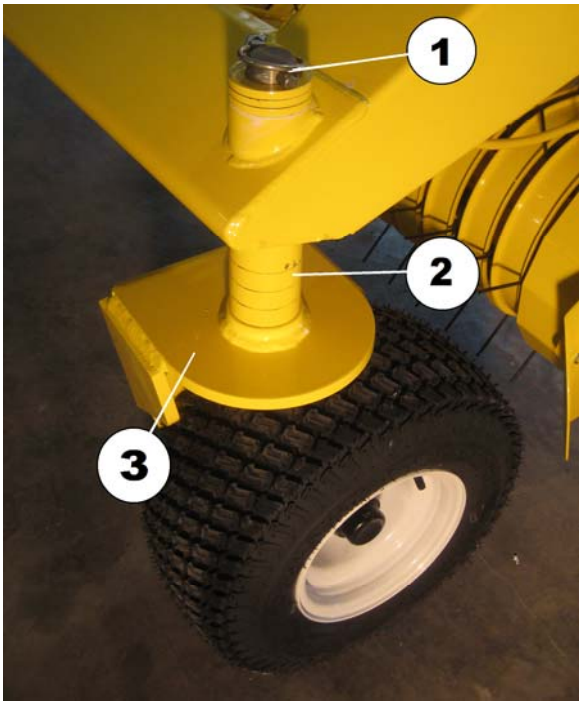


Figure 12. Gauge Wheel Adjustment
Key 1 - Pin Key 2 - Spacer
Key 3 - Gauge Wheel Assembly

Float Pressure Adjustment

The float pressure initial spring setting may need to be adjusted prior to use, depending on field conditions.

See "Adjusting Pickup Float Springs" Section of the Model 3975 Pull-Type Forage Harvester Operator's Manual.

SPECIFICATION: The spring tension adjusting bolt dimension (A) should be 3-1/2" (90 mm) for the 96A Windrow Pickup Attachment. Four (4) springs are used with the attachment.

Set the float pressure. See "Operating Pickup Float System" Section of the Model 3975 Pull-Type Forage Harvester Operator's Manual.

Lift/Lower Rate Adjustment

Adjust the lift/lower rate of the windrow pickup attachment. See "Adjusting Lift or Lowering Rate of Harvesting Unit" Section of the Model 3975 Pull-Type Forage Harvester Operator's Manual.

Windguard Adjustment

The pick-up attachment has a windguard that can be adjusted for crop volumetric flow. In the normal (higher) position, it keeps the crop from flowing over the auger in areas of high crop volumetric flow. At times of low crop flow and high winds it may be desirable to lower the wind guard to keep the wind from blowing the crop off the in-feed table.

To set the windguard to a float function, manually support the windguard and remove the pin from the retained position to allow the windguard to drop into position. Replace the pin in the top hole to prevent the windguard from falling out of position in the event of rough terrain.

To set the windguard to a raised position, remove the pin from the top hole and raise the windguard to align the holes and install the pin.

To remove the windguard from the machine, remove the center support, remove the pin from the left end support, raise the windguard and move it left in the frame to pull out from the right end hole. Reinstall the clip in the storage position of the windguard. See Figure 13.

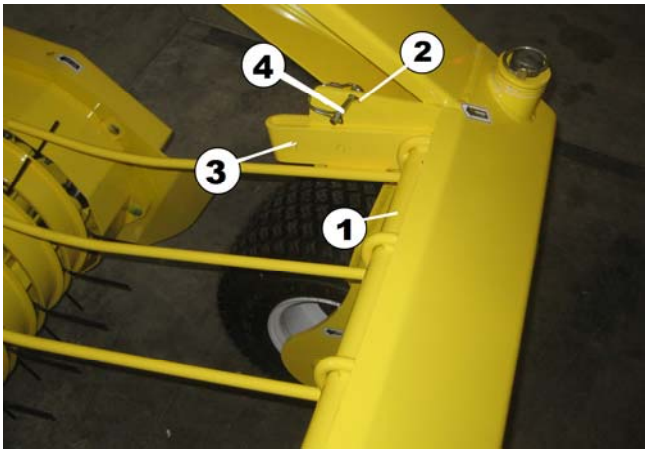


Figure 13. Windguard Adjustment
Key 1 - Windguard Key 2 - Top Hole
Key 3 - Storage Hole Key 4 - Pin

Auger Stripper Adjustment

Single auger strippers are standard equipment on the 96A Windrow Pickup Attachment. These auger strippers are reversible (vertically) to allow for longer life. As the strippers wear, they can be flipped to extend the life.

A second set of strippers can be installed in the upper holes for high volume conditions as needed. See the parts pages in this manual for part numbers.

The bottom auger stripper must have at least 1/8" (3 mm) clearance to the auger flighting. Inspect auger down stops for damage or wear if clearance is less than this distance. The flighting may be flipped to increase the distance if necessary. See Figure 14 for location information.

Cylinder and Auger Speed Adjustments

IMPORTANT: Do not operate the pickup faster than needed to match ground speed as this will result in unnecessary wear.

Changes in sprockets can be made to adjust the component speeds for varying crop conditions and ground speeds.

IMPORTANT: To increase the overall speed of the pickup (most common for faster ground speed), install a AE38859 21-tooth sprocket on the header drive on the Model 3975 Pull-Type Forage Harvester (part available through John Deere).

Several options exist for various auger and cylinder speeds. See Figure 15 for proper selection of sprockets. Sprocket part numbers are available in the parts pages in this manual. Use appropriate sections of chain or remove chain as needed to adjust chain lengths. See Figure 16 for sprocket placement on windrow pickup attachment.

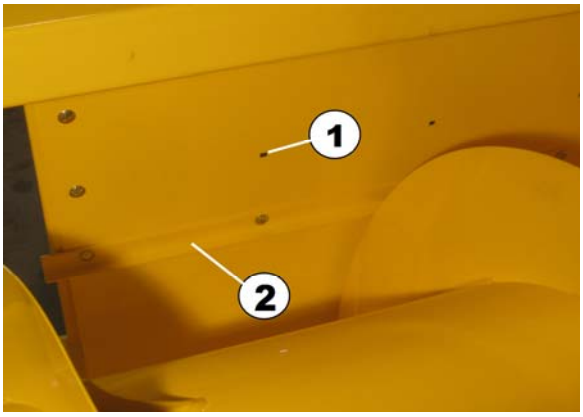


Figure 14. Auger Stripper Placement
Key 1 - Secondary Auger Stripper Holes
Key 2 - Auger Stripper (single)

	Cylinder Speed		Auger Speed	
Speed	Drive (A)	Driven (B)	Drive (A)	Driven (B)
Slow	N/A	N/A	23	17
Medium*	24	32	23	14
Fast	32	32	23	11
* *Speeds as received from factory.*				

Figure 15. Cyl. and Auger Speed Adjust.

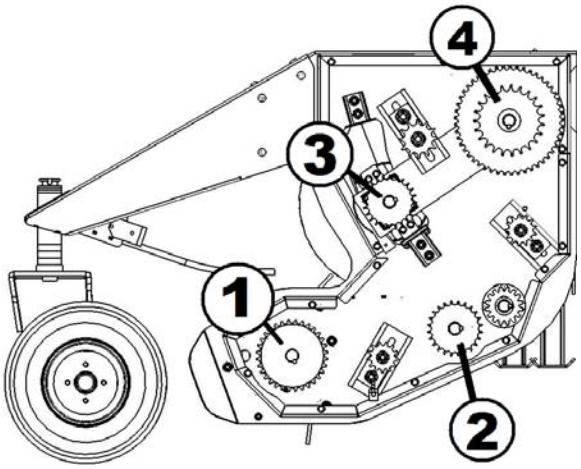


Figure 16. Sprocket Locations
Key 1 - Cyl. Driven Key 2 - Cyl. Drive
Key 3 - Auger Driven Key 4 - Auger Drive

Chain Tension Adjustments

The auger and tine drive chain tensions are adjusted with an idler sprocket. The tension can be inspected through the access panels on the compartment covers.

IMPORTANT: The secondary auger chain (80 Chain) must be kept with less tension than the other chains to allow for movement of the auger from end to end. Failure to follow the specifications below may result in machine damage. It is critical that the tension of new secondary auger chain (80 Chain) must be inspected and/or adjusted before operation, after 10 hours of operation, and again as the chain stretches until it has set.

CYLINDER AND PRIMARY AUGER CHAIN ADJUSTMENT
To adjust cylinder chain and primary auger chain tensions, loosen the appropriate idler sprocket bolt and retainer bolt, moving along the track. Tighten the idler sprocket and retainer bolts to retain the sprocket in place.

SPECIFICATION: Chain tension for the cylinder and primary auger chain should be adjusted to 1/2” to 3/4" (12mm to 19mm) slack on the backside of the chain, opposite the tensioner.

SECONDARY AUGER CHAIN ADJUSTMENT
To adjust cylinder secondary auger chain tension, loosen the appropriate idler sprocket bolt and retainer bolt, moving along the track. Tighten the idler sprocket and retainer bolts to retain the sprocket in place.

SPECIFICATION: Chain tension for the secondary auger chain should be adjusted to 3/4” to 1" (19mm to 25mm) slack on the backside of the chain, opposite the tensioner.

Failure to properly set chain tension may result in machine damage.

See Figure 17 for identification of components.

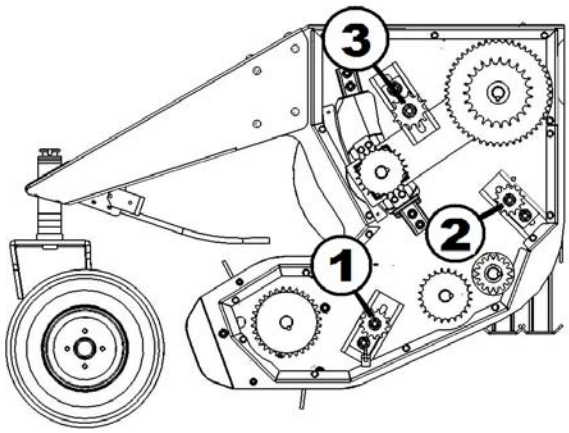


Figure 17. Tensioner Sprockets
Key 1 - Cylinder Chain Tensioner
Key 2 - Primary Auger Chain Tensioner
Key 3 - Secondary Auger Chain Tensioner

Maintenance

Perform general lubrication every 10 hours of operation or before and after intermediate use (before and after seasonal harvests) unless otherwise specified. Severe or unusual conditions may require more frequent lubrication.

All drive chains should be lubricated regularly, a foaming spray-on oil is recommended. Holes are provided for oiling the chains without having to remove covers as needed. See Figure 18. Inspect for chain tension daily and adjust as needed and outlined in the "Adjustments" Section.

The following illustrations show the lubrication points on the unit. Prior to using grease gun, clean the grease fitting. Replace lost and broken grease fittings immediately.

Grease fitting locations:

1. Gauge wheels adjusters at 1 place on each end. See Figure 18.

2. Wheel spindles at 1 place each. See Figure 18.

3. Main Auger Bearing at drive end. See Figure 19. Fitting is accessible through side panel access hole.

4. Main slip clutch has a grease fitting to be greased lightly every 100 hours. See Figure 20.

   IMPORTANT: Do not over grease slip clutch as this can cause changes in performance.

Inspect pickup/cylinder tines and tine bar guards daily for damage. Replace damaged tines immediately to prevent further damage to other tines and the tine bar assembly.

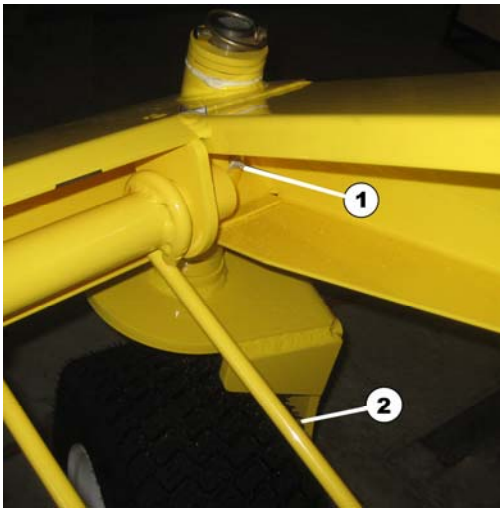


Figure 18. Gauge Wheel Greasing
Key 1 - Pivot Key 2 - Spindle

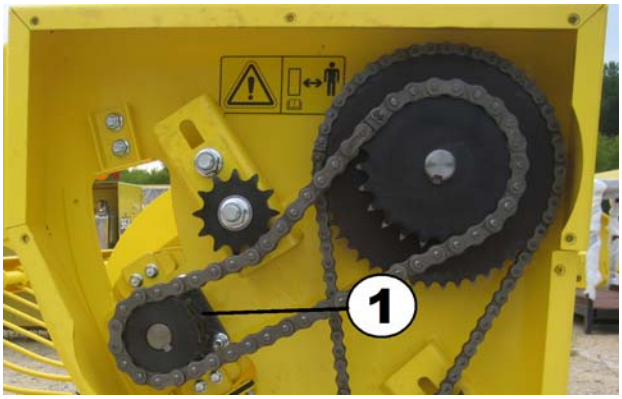


Figure 19. Main Auger Bearing
Key 1 - Grease Fitting

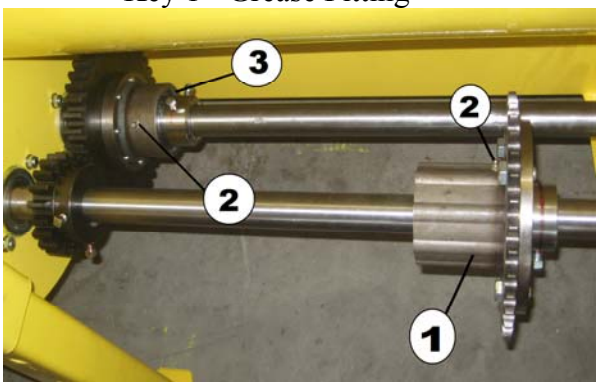


Figure 20. Greasing of Clutches
Key 1 - Main Clutch Key 2 - Fitting
Key 3 - Overrunning Clutch

Service

Cam Bearing Replacement

Left / Right end pickup cam bearing replacement.

1. Remove the cover from the cam track.
2. Remove the first tine bar guard from the end for clearance to work.
3. If working on a right end cam bearing, loosen the bolt retaining the cover tab and move the tab for clearance to the access hole for removal of the bearing retaining bolt. See Figure 21.
4. If working on a left end cam bearing, remove the lower cover over the drives for access to the bolt access hole.
5. Remove the cam bearing bolt.
6. Replace the cam bearing.
7. Reassemble components using red loctite on the cam bearing bolt.

SPECIFICATION:
Cam bearing bolt torque: 46 lb-ft (63 N-m)*
*MUST USE RED LOCTITE

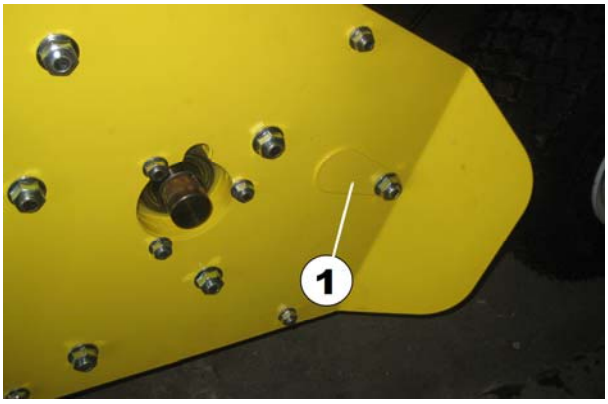


Figure 21. Access Hole Location
Key 1 - Access Hole Cover

Straightening Bent Tines

There should be 3-1/4" (83 mm) gap between the point of tine disappearance and the end of the slot.

If the distance is different, bend the tine back to the original position of 3-1/4" (83 mm). See Figure 22.

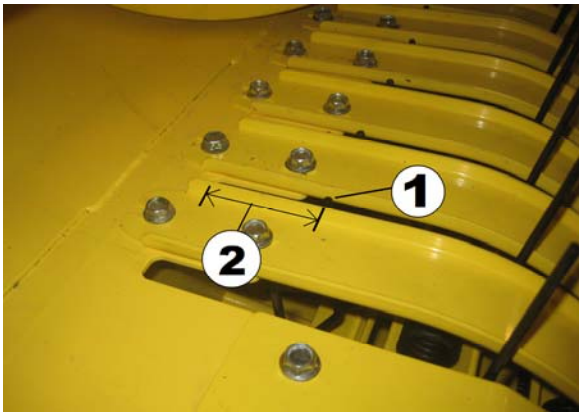


Figure 22. Tine Gap
Key 1 - Tip of Tine
Key 2 - Gap of 3-1/4" (83 mm)

Broken Tine Replacement

Broken tines must be replaced immediately to prevent damage to other components.

To replace a broken tine:

1. Remove the tine guard covering the broken tine.

2. Remove the 3/8" x 1¼" bolt and tine clip holding the broken tine in place.

3. Replace the broken tine with a new part.

4. Secure the tine using the 3/8" x 1¼" bolt, tine clip, and lock nut.

SPECIFICATION:
Tine bolt torque: 28 lb-ft (38 N-m)

IMPORTANT: Install tine clip with cup side towards bolt head (round edge towards tine). Failure to do so may result in premature failure of tine. See Figure 23.

5. Replace the tine guard.

Tine Bar Guard Replacement

Damaged tine bar guards must be replaced immediately to prevent damage to other components.

To replace a damaged tine bar guard, loosen all four retaining bolts. Remove the forward bolt on top and bottom. The guard will now slide forward for removal.

When installing the replacement tine bar guard, note the "T" in the part at the top face and install appropriately.

Note: There is a slight bend on the bottom of the tine bar guard that may aid in proper orientation of the part for assembly.

See Figure 24.

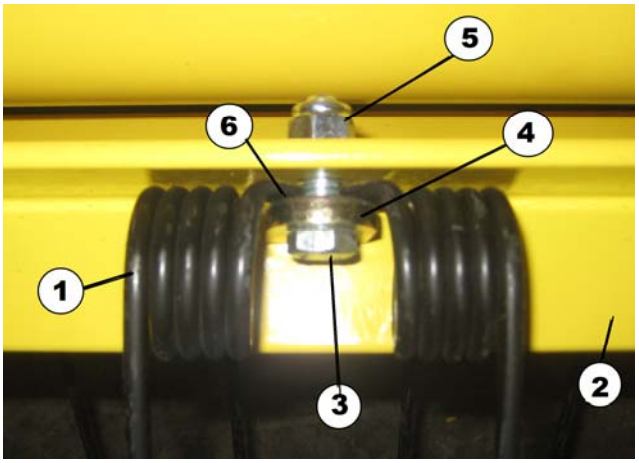


Figure 23. Tine installation
Key 1 - Tine Key 2 - Tine Bar
Key 3 - Bolt Key 4 - Tine Clip
Key 5 - Lock Nut Key 6 - Radius Edge
IMPORTANT: Radius edge towards tine

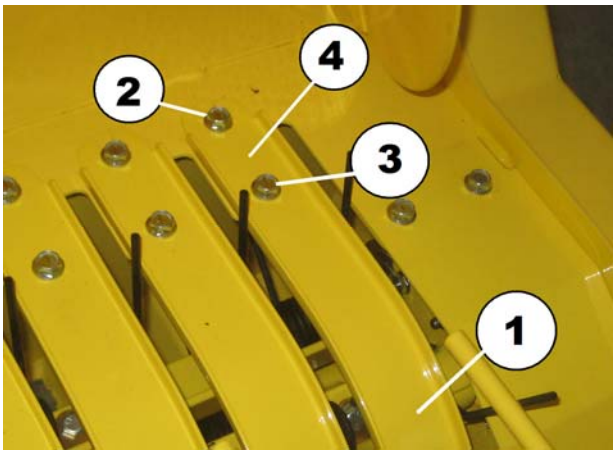


Figure 24. Tine Bar Guard
Key 1 - Guard Key 2 - Rear Bolt
Key 3 - Front Bolt Key 4 - "T" Marking

Gauge Wheel Tire Pressure

Inspect gauge wheel tire pressure and adjust appropriately.

SPECIFICATION: Max 22 psi (152 kPa)

Preparation for Storage

At the end of the season, the following should be done before putting the windrow pickup attachment into storage.

1. Clean the pick-up attachment of all chaff, dirt, excess grease, and any other material that will draw moisture and cause rust.

2. Thoroughly lubricate the pick-up attachment as described in the Maintenance section.

3. Paint all parts where the paint has been removed.

4. Store pickup attachment with both support stands firmly on the ground.

5. Store in a dry place out of the elements, if possible.

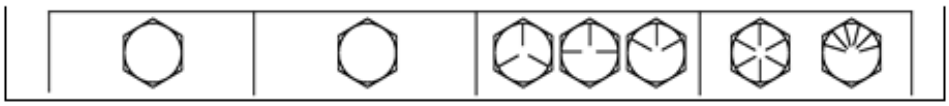
6. Order and replace any parts needed for next season.

Troubleshooting

Problem	Cause	Remedy
Unit is difficult to attach to harvester	Throat fillers do not fit between feed rolls and feed roll housing	Adjust throat fillers, see Adjustments section
Unit will not lower to the ground	Downstop not properly adjusted	Adjust downstop if needed
	Float pressure is too high	Reduce float pressure
Won't float freely	Float spring is too tight	Loosen float springs
	Hydraulics not functioning properly	Inspect for proper connection of controls
Crop is left in the field	Gauge wheels are too low	Adjust gauge wheels up to make the tines lower
	Ground speed too fast	Drive slower
	Pickup tines are bent or missing	Straighten / replace tines
	Float improperly set	Reset float
	Reel and auger speeds too slow	Increase speed
Tines dig into the ground.	Gauge wheels are too high	Adjust gauge wheels
	Float improperly adjusted	Adjust float
	Down stop set	Adjust down stop
Tines do not revolve	Chain is removed	Fix / Replace chain
	Broken cam	Replace cam
Tines bend / break	Ground clearance too low	Adjust float or gauge wheels
	Foreign material inside tine guides	Remove material
Crop is blown out of pickup tines by the wind	Windguard is in raised position	Lower windguard
Crop does not feed smoothly into feed rolls	Tines missing or broken	Straighten or replace tines
	Auger strippers are worn or missing	Replace auger strippers
	Large windrows or fast ground speed	Reduce windrow size and/or ground speed

Bolt and Screw Torque Values

Unified Inch Bolt and Screw Torque Values



Bolt or	SAE Grade 1				SAE Grade 2[a]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
Screw	Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]	
Size	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in
1/4	3.7	33	4.7	42	6	53	7.5	66	9.5	84	12	106	13.5	120	17	150
													N·m	lb-ft	N·m	lb-ft
5/16	7.7	68	9.8	86	12	106	15.5	137	19.5	172	25	221	28	20.5	35	26
									N·m	lb-ft	N·m	lb-ft				
3/8	13.5	120	17.5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
			N·m	lb-ft	N·m	lb-ft	N·m	lb-ft								
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
	N·m	lb-ft														
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	305	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

[a] Grade 2 applies for hex cap screws (not hex bolts) up to 6 in. (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

[b] "Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C zinc flake coating.

[c] "Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B zinc flake coating.

Repair Parts

General Comments

The following pages include information regarding parts for the 96A Windrow Pickup Attachment. Right or left hand parts are determined by sitting in the operator's seat facing forward. The abbreviation "A.R." in the "USED" column indicates "As Required." This is because a different number of the specific component may be needed for proper assembly depending on the tolerance of the individual machine.

All parts listed for the 96A Windrow Pickup Attachment are available from your local John Deere dealer.

Attention: Dealer – Contact RCI directly for all part orders for this attachment. In general, any fabricated component painted yellow is an RCI part and any part that is painted John Deere green is a John Deere part and can be located in the Parts Manual for the machine to which the attachment is installed. Please include a serial number and model of the attachment when placing a parts order. The serial number plate is attached to the Right upright at the mounting plate to the feedroll housing.

Replacement Hardware

All bolts, cap screws, washers and machine screws are standard grade 5 and zinc plated unless markings on the part indicate otherwise.

The use of improper hardware in any location can result in the failure of the component fastened with the hardware or related structures, and can cause personal injury, further damage to the product, or loss of property.

Replacement Parts

Replacement parts may have occasional differences to the parts being replaced. This difference is typically providing the benefit of a design change made after the release of this publication.

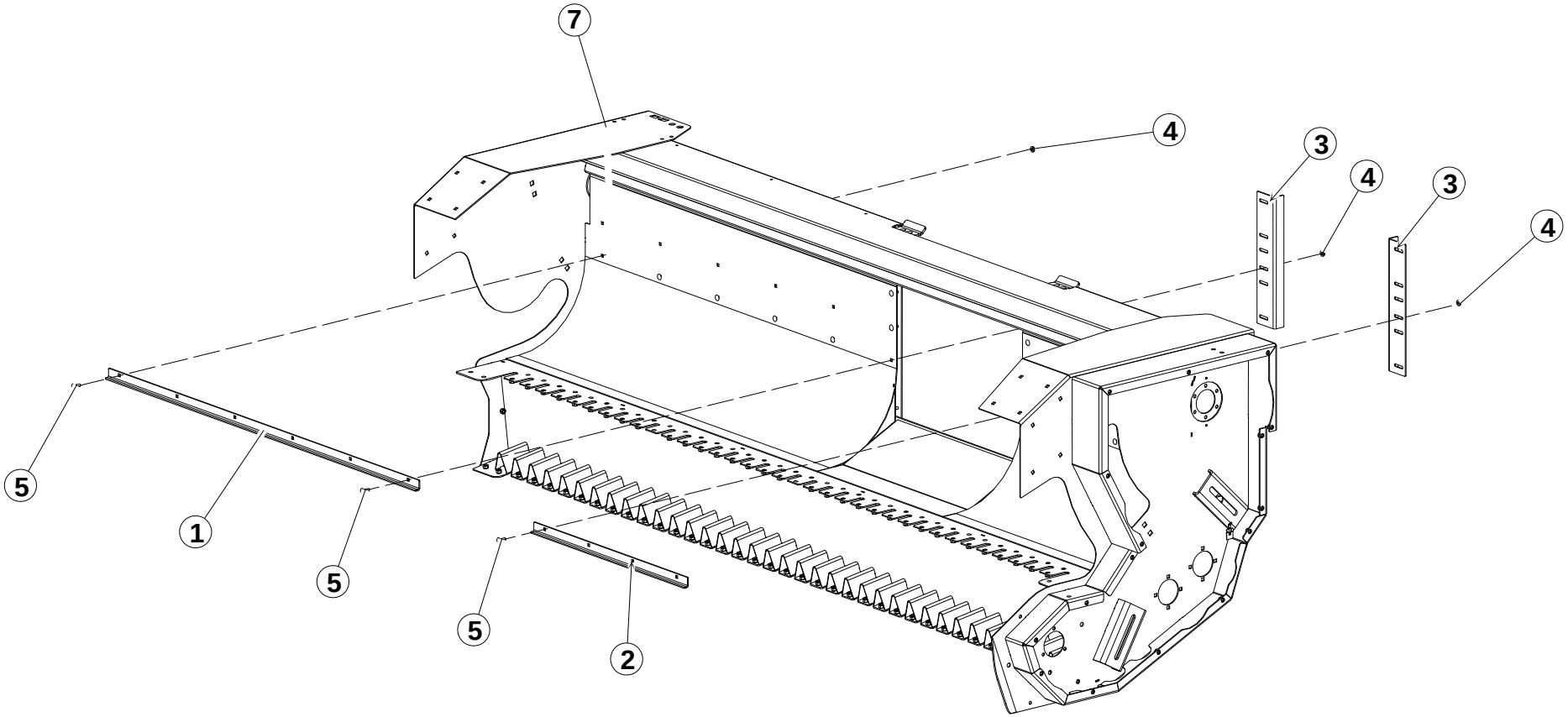
Recommended Spare Parts Listing - Dealer

The following spare parts are recommended for stocking purposes and include common wear items for this attachment.

Part Number	Description	Qty.
RC024101	Plate, Filler	2
RC024111	Stripper, RH	1
RC024110	Stripper, LH	1
RC024182	Guard, Tine Bar	5
RC024115	Assembly, Bearing	1
RC024017	Bearing (Cam)	5
RC024253	Clip, Tine	5
RC024040	Tine, Pickup	10

Alphabetical Parts Index

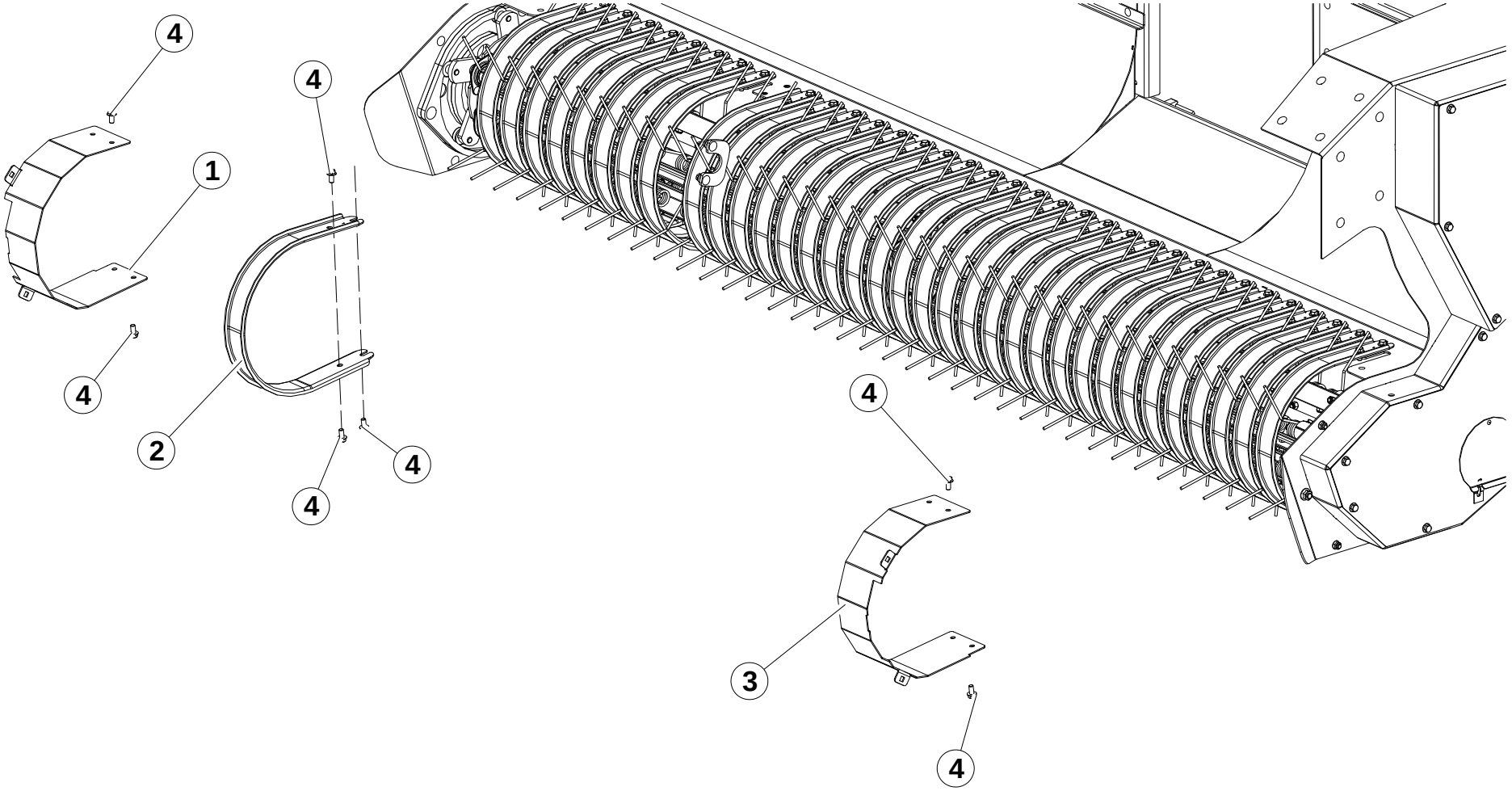
Main Frame



Main Frame

Key	Part Number	Description	Qty	Comments
1	RC024111	Stripper, RH	1	
2	RC024110	Stripper, LH	1	
3	RC024101	Plate, Filler	2	
4	37339	Nut, 5/16 Flange	16	
5	21881	Bolt, 5/16-18 x 1 Carriage	16	
7	RC024044	Frame, Main	1	

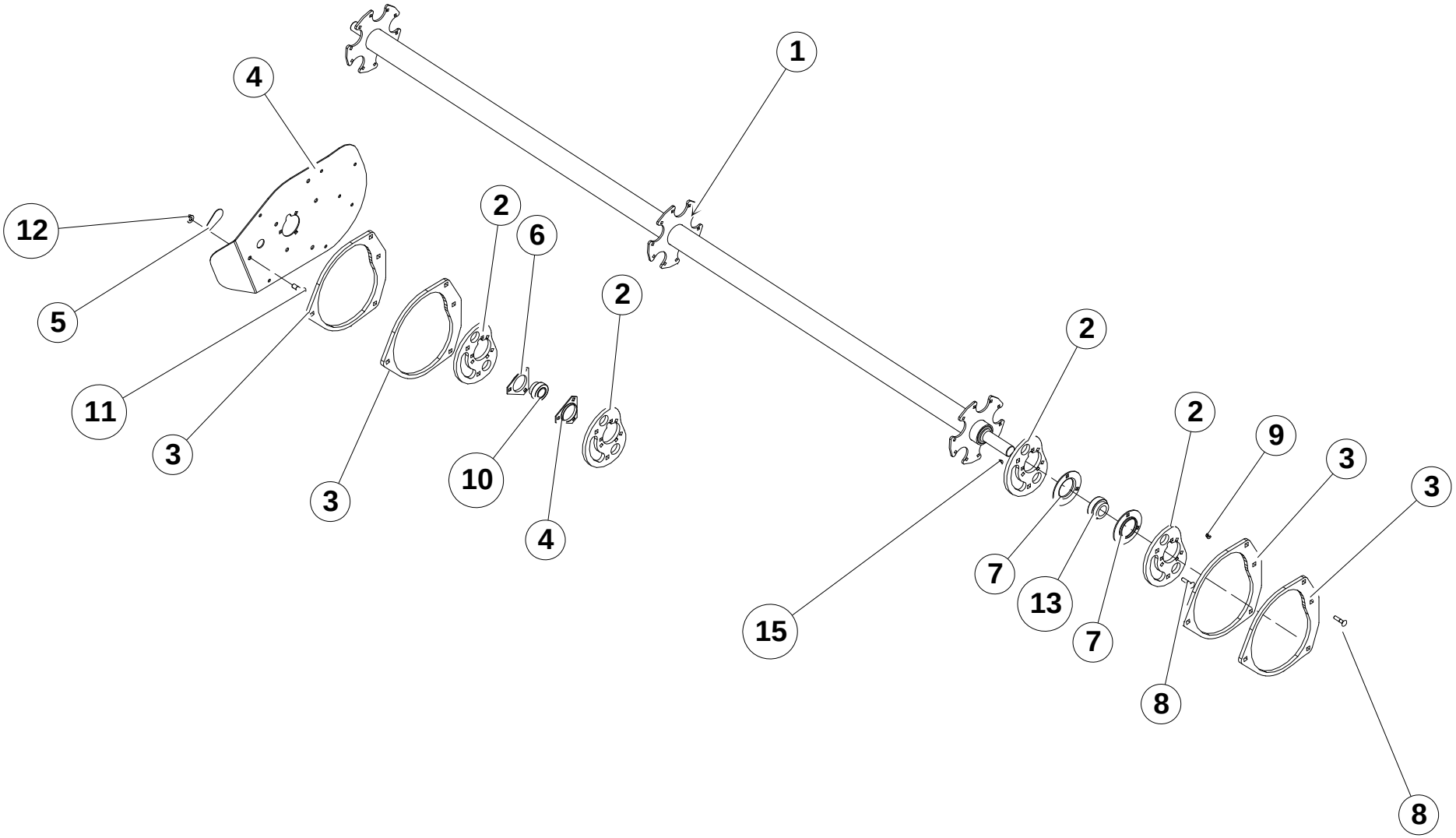
Pickup



Pickup

Key	Part Number	Description	Qty	Comments
1	RC024093	Guard, LH End Tine Bar	1	
2	RC024182	Guard, Tine Bar	35	
3	RC024094	Guard, RH End Tine Bar	1	
4	19929	Bolt, 3/8 x 3/4 Flange	148	
5	21816	Bolt, 3/8 x 3/4 Carriage	4	
6	37341	Nut, 3/8 Flange	4	

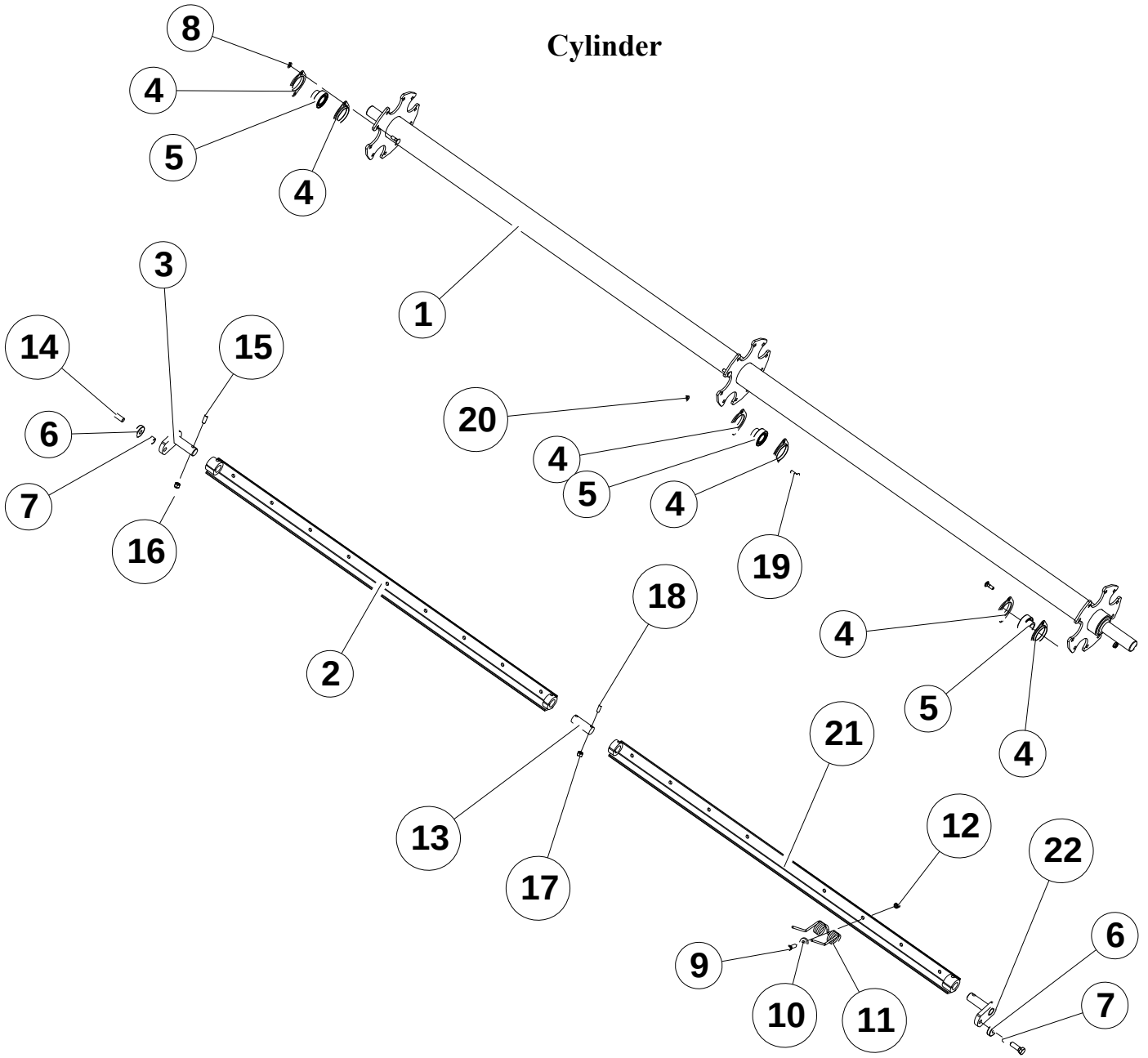
Cam Components



Cam Components

Key	Part Number	Description	Qty	Comments
1	RC024024	Shaft, Pickup	1	
2	RC024041	Track, Inner Cam	4	
3	RC024042	Track, Outer Cam	4	
4	RC024048	Plate, Tine Bar End	1	
5	RC024180	Cover	1	
6	RC024031	Flange, Bearing	2	
7	RC024035	Flange, Bearing	2	
8	21820	Bolt, 3/8 x 1 3/4 Carriage	6	
9	37341	Nut, 3/8 Flange	6	
10	RC024032	Bearing	1	
11	21825	Bolt, 1/2 x 1-3/4 Carriage	12	
12	37345	Nut, 1/2 Flange	12	
13	RC024036	Bearing	1	
-	RC024037	Assembly, Bearing	-	Includes 2 of Key #7 and Key #13
-	RC024034	Assembly, Bearing	-	Includes 2 of Key #6 and Key #10

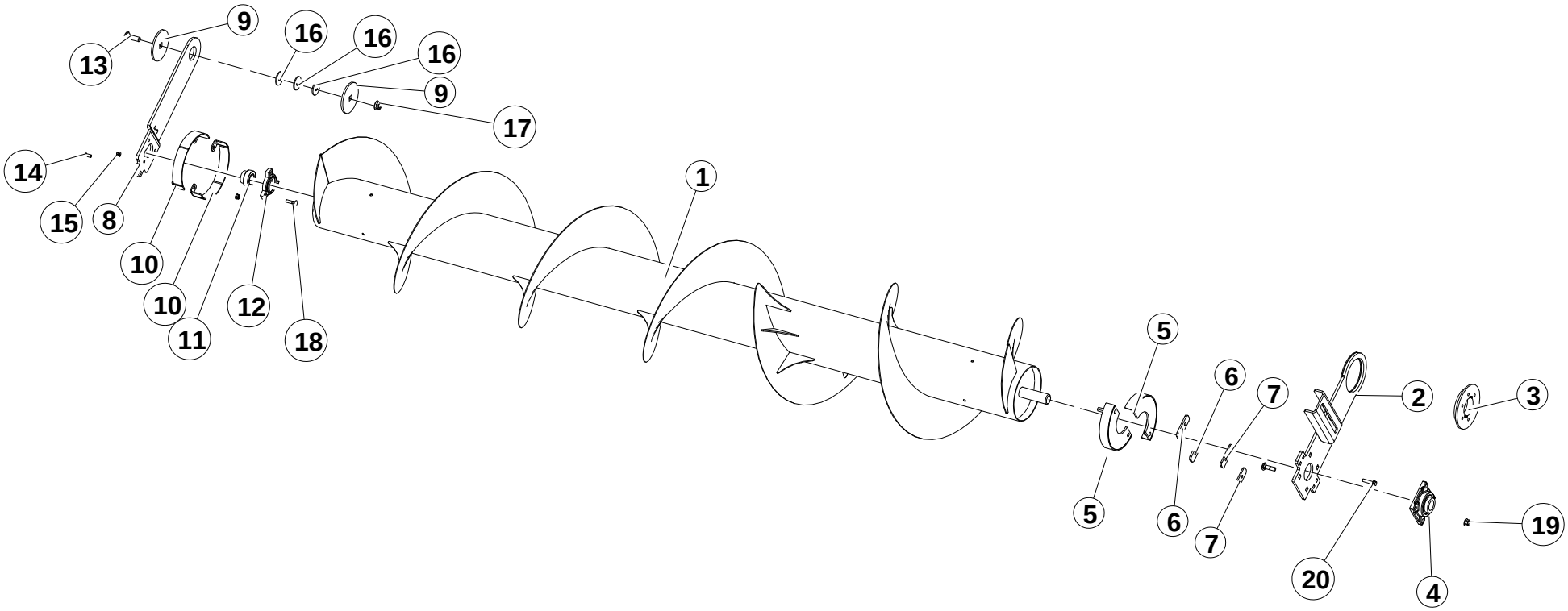
Cylinder



Cylinder

Key	Part Number	Description	Qty	Comments
1	RC024024	Shaft, Pickup	1	
2	RC024006	Bar, RH Tine	5	
3	RC024018	Arm, RH Cam	5	
4	RC024019	Flange, Bearing	15	
5	RC024011	Bearing	15	
6	RC024017	Bearing	10	
7	RC024016	Bushing	10	
8	37339	Nut, 5/16 Flange	30	
9	0137515	Screw, 3/8 x 1-1/4 Cap	90	
10	RC024253	Clip	90	
11	RC024040	Tine, Pickup	90	
12	37024	Nut, 3/8 Nylon Lock	100	
13	RC024007	Shaft, Center Support	5	
14	13209	Screw 1/2 x 1-1/2 Cap	10	
15	13113	Screw, 3/8 x 2 1/2 Cap	10	
17	37021	Nut, 5/16 Nylon Lock	10	
18	13063	Screw, 5/16 x 2-1/2 Cap	10	
19	21811	Bolt, 5/16-18 x 1 Carriage	30	
21	RC024004	Bar, LH Tine	5	
22	RC024014	Arm, LH Cam	5	
-	RC024115	Assembly, Bearing	-	Includes Key #4 and Key #5

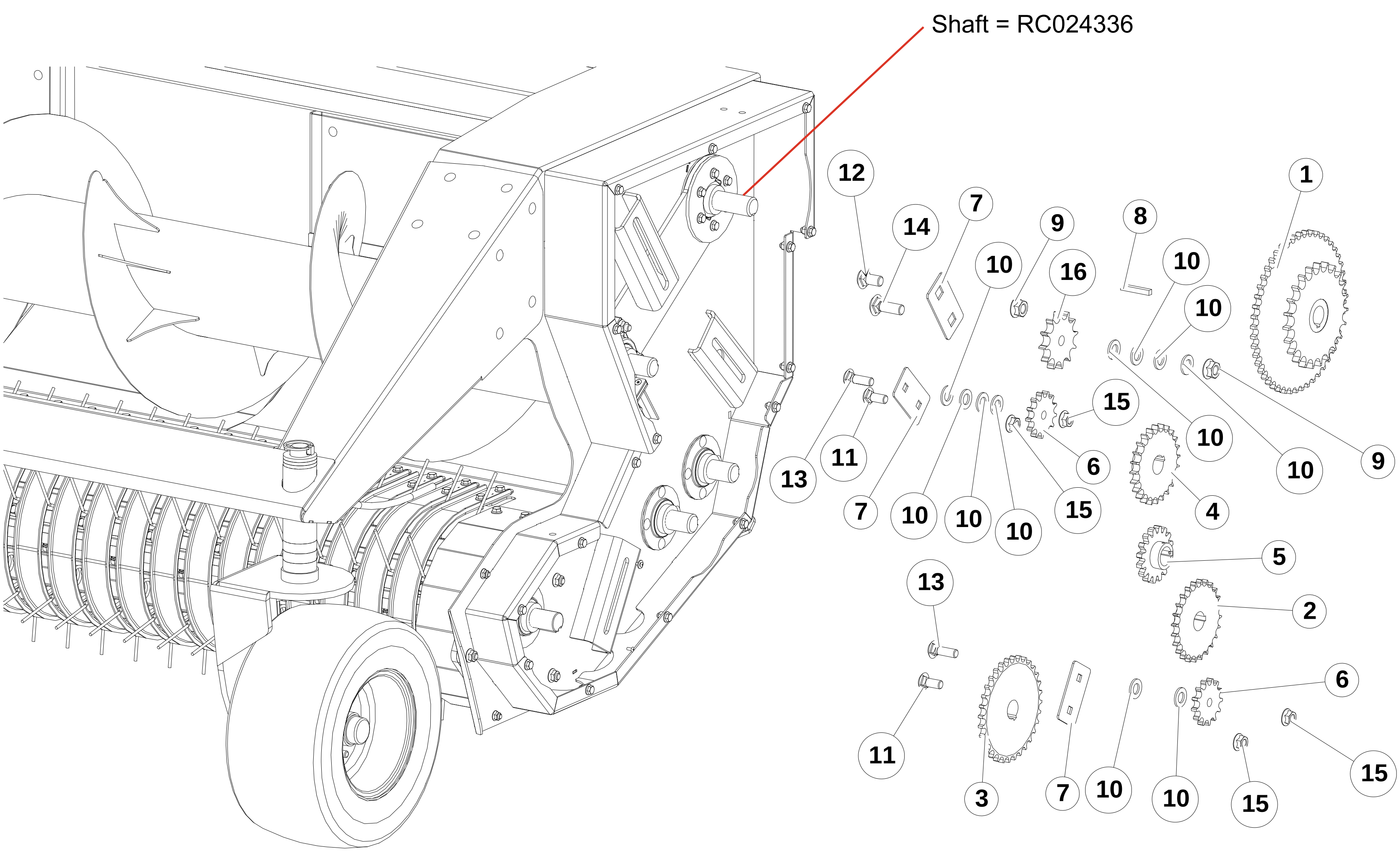
Auger



Auger

Key	Part Number	Description	Qty	Comments
1	RC024057	Auger	1	
2	RC024063	Arm, Pivot	1	
3	RC024136	Hub, Auger Pivot	1	
5	RC024273	Auger, Shield	2	
6	RC024274	Spacer	4	
7	RC024275	Spacer	4	
8	RC024112	Arm, RH Auger	1	
9	RC024113	Retainer	2	
10	RC024054	Guide	2	
11	RC024032	Bearing	1	
12	RC024147	Housing, Bearing	1	
13	21834	Bolt, 5/8-11 x 2 Carriage	1	
14	21817	Bolt, 3/8 x 1 Carriage	4	
15	37341	Nut, 3/8 Flange	7	
16	RC024114	Spacer	3	
17	37349	Nut, 5/8 Flange	1	
18	21819	Bolt, 3/8 x 1 1/2 Carriage	3	
19	37345	Nut, 1/2 Flange	4	
20	19934	Bolt, 3/8 x 1-3/4 Flange	4	
21	RC024145	Housing, Bearing	1	
22	RC024248	Bearing	1	
23	21825	Bolt, 1/2 x 1-3/4 Carriage	4	
-	RC024146	Assembly, Bearing	-	Includes Key 11 and Key 12
-	RC024143	Assembly, Bearing	-	Includes Key 21 and Key 22

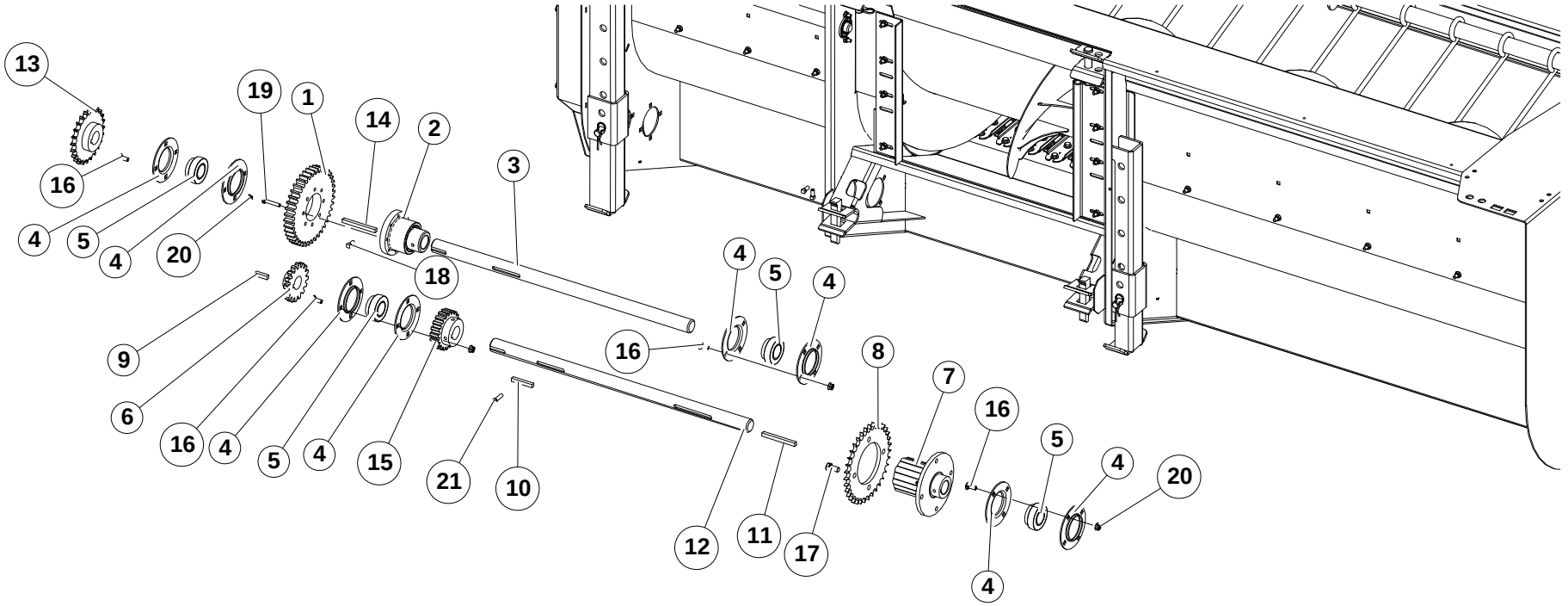
Drives



Drives

Key	Part Number	Description	Qty	Comments
1	RC024139	Sprocket (80-23 & 60-49)	1	
2	RC024129	Sprocket (60-24)	1	
-	RC024200	Sprocket (60-32)	1	Optional for high speed
3	RC024200	Sprocket (60-32)	1	
4	RC024211	Sprocket (80-14)	1	
-	RC024201	Sprocket (80-11)	1	Optional for high speed
-	RC024268	Sprocket (80-17)	1	Optional for slow speed
5	RC024127	Sprocket (60-16)	1	
6	RC024154	Sprocket (60-13)	2	
7	RC024155	Plate, Adjuster	2	
8	0953173	Key, 3/8 x 3/8 x 2-1/2	4	
9	37351	Nut, 3/4 Flange	2	
10	33092	Washer, 3/4 Flat	A/R	As required
11	21833	Bolt, 5/8-11 x 1-1/2 Carriage	2	
12	21900	Bolt, 3/4 x 1-1/2 Carriage	1	
13	21834	Bolt, 5/8-11 x 2 Carriage	1	
14	21902	Bolt, 3/4 x 2-3/4 Carriage	1	
15	37349	Nut, 5/8 Flange	4	
16	RC024156	Plate, Adjuster	1	
16	RC024151	Sprocket (80-12)	1	
17	21836	Bolt, 5/8 x 2-1/2 Carriage	1	
18	33092	Washer, 3/4 Flat	A/R	As required
-	RC024212	Chain, Tine Bar	1	
-	RC024213	Chain, Auger Primary	1	
-	RC024214	Chain, Auger Final	1	
-	RC024215	Connector, 60 Chain	1	
-	RC024217	Connector, 80 Chain	1	
-	RC024216	Link, 60 Chain Half	1	As required
-	RC024218	Link, 80 Chain Half	1	As required

Clutches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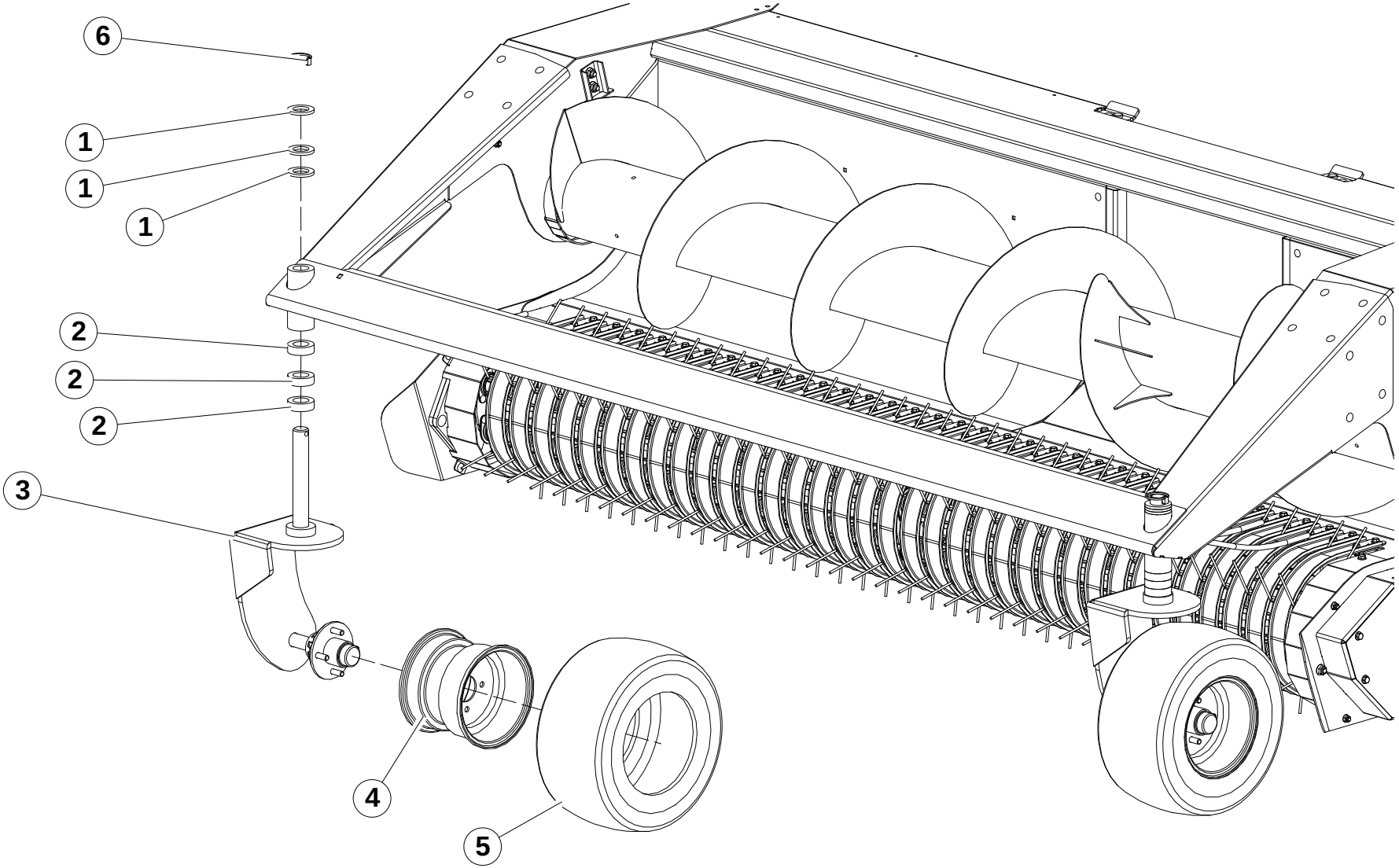
Clutches

Key	Part Number	Description	Qty	Comments
1	RC024183	Gear, Spur (40-tooth)	1	
2	RC024192	Cluth, Overrunning	1	
3	RC024199	Shaft, Secondary	1	
-	RC024193	Key	1	
-	RC024194	Leaf Spring	3	
4	RC024117	Flange Bearing	8	
5	RC024036	Bearing	4	
6	RC024127	Sprocket (60-16)	1	
7	RC024188	Clutch, Radial Pin	1	
-	RC024189	Cam	28	
-	RC024190	Spring, Outer	28	
-	RC024191	Spring, Inner	28	
8	RC024197	Sprocket (60-35)	1	
9	0953173	Key, 3/8 x 3/8 x 1-1/2	2	
10	0953175	Key, 3/8 x 3/8 x 2-1/2	1	
11	0958758	Key, 3/8 x 3/8 x 4	2	
12	RC024118	Shaft, Input	1	
13	RC024129	Sprocket (60-24)	1	
15	RC024123	Gear, Spur (20-tooth)	1	
16	21817	Bolt, 3/8 x 1 Carriage	16	
17	17205	Screw, 1/2 x 1 Cap	4	
18	0172014	Screw, 3/8 X 3/4 Set	4	
19	0121807	Screw, M8-1.25 x 45mm Cap	8	
20	37341	Nut, 3/8 Flange	16	
21	0172017	Screw, 3/8 X 1-1/4 Set	2	
-	RC024116	Assembly, Bearing	-	Includes 2 of Key 4 and Key 5

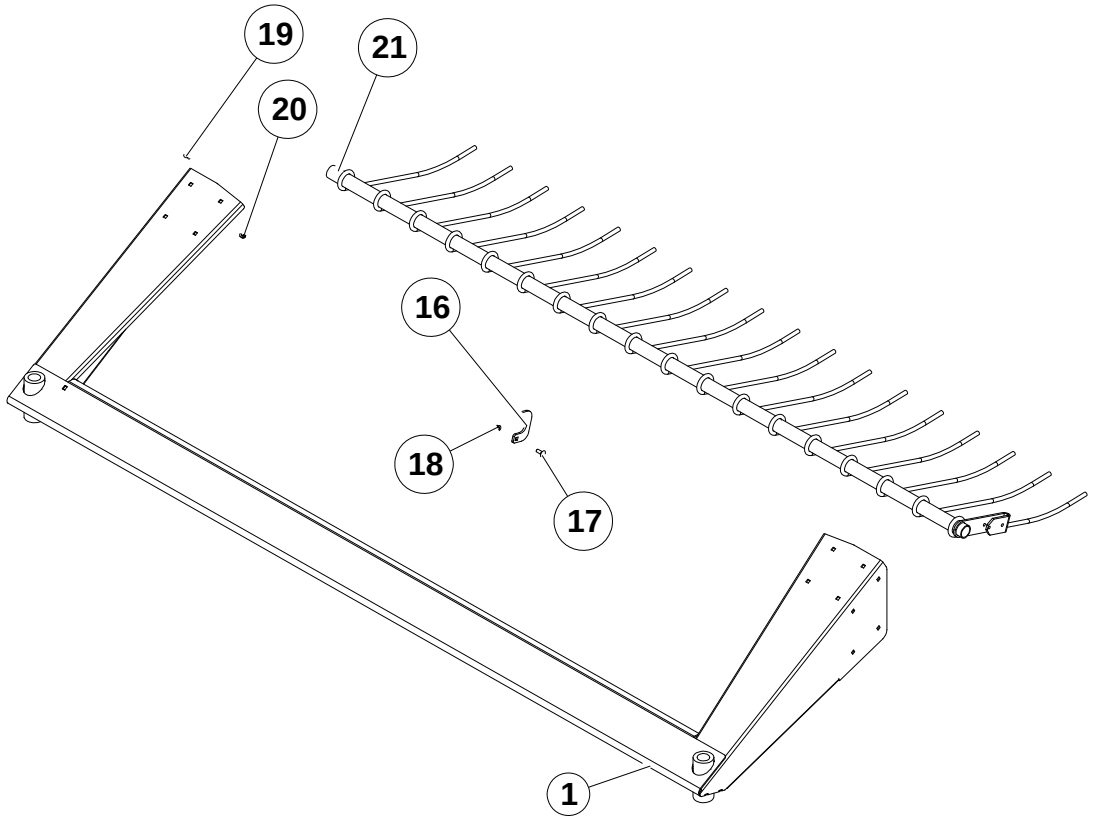
Gauge Wheels

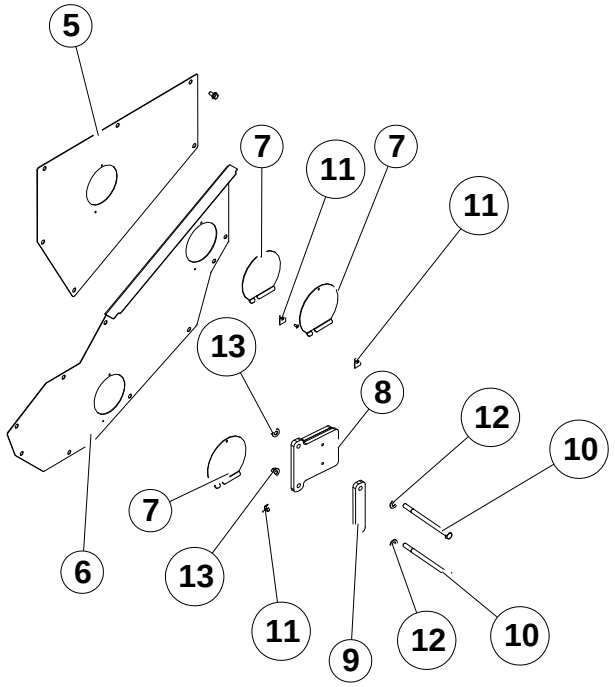


Gauge Wheels

Key	Part Number	Description	Qty	Comments
1	RC024266	Spacer	3	
2	RC024085	Spacer	3	
3	RC024073	Caster	1	
4	RC023083	Rim	1	
5	RC024084	Tire	1	
6	0157330	Pin, Lynch	1	
-	RC024082	Tire Assembly	-	Includes Key #4 and #5

Windguard and Shields

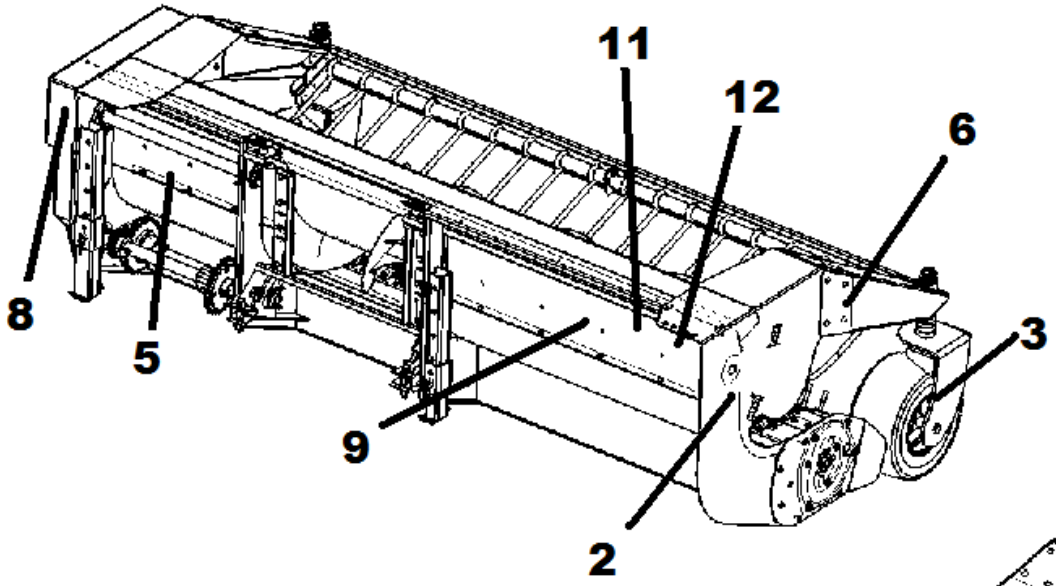


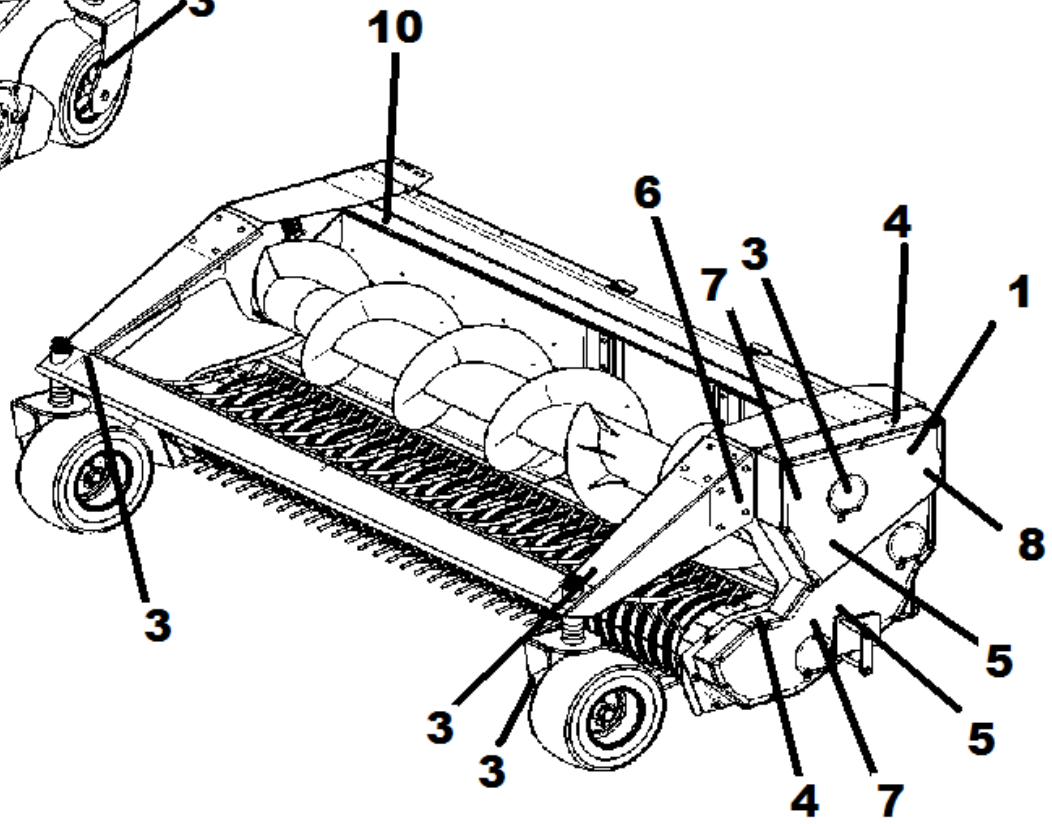


Windguard and Shields

Key	Part Number	Description	Qty	Comments
1	RC024066	Frame, Front	1	
5	RC024178	Shield, Upper	1	
6	RC024177	Shield, Lower	1	
7	RC024179	Cover	3	
8	RC024207	Stop	1	
9	RC024206	Plate	1	
10	13130	Screw, 3/8 x 8-1/2 Cap	2	
11	RC024181	Latch	3	
12	33082	Washer, 3/8 Flat	2	
16	RC024167	Ear, Retaining	1	
17	21817	Bolt, 3/8 x 1 Carriage	2	
18	37341	Nut, 3/8 Flange	20	
19	21816	Bolt, 3/8 x 3/4 Carriage	16	
21	RC024171	Guard, Wind	1	
22	33074	Washer, #10 Flat	3	
23	0155932	Rivet, Button Head 3/16	6	
24	19929	Bolt, 3/8 x 3/4 Flange	16	

Decals





Decals

Key	Part Number	Description	Qty	Comments
1	RC024255	Decal, 96A Left	1	
2	RC024256	Decal, 96A Right	1	
3	RC024257	Decal, Grease	5	
4	RC024258	Decal, Oil	3	
5	RC024259	Decal, Entanglement Hazard	3	
6	RC024260	Decal, Auger Hazard	2	
7	RC024261	Decal, Guard Missing	2	Inside housing
8	RC024262	Decal, Pinch Point Hazard	1	
9	RC024282	Decal, Read OM	1	
10	RC062053	Decal, Amber Reflective	1	
11	RC062070	Decal, Orange Reflective	1	
12	RC062054	Decal, Red Reflective	1	
-	RC024254	Kit, Decal	1	Includes Key 1-8

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Numerical Parts Index

970 Metalcraft Drive ● Mayville, WI 53050 ● 920-387-9804 ● Fax 920-387-9806
www.rciengineering.com