

Automatic

ATG6020

Portable Roller Mill



Operator, Parts & Installation Manual

Introduction

Congratulations! You are now the owner/operator of America's finest roller mill. Please take a few minutes to be sure that you understand the maintenance and operation of this roller mill. Read this operator's manual carefully: you'll get better results and have fewer problems.

After your roller mill has been in operation for a few hours, check for loose bolts, setscrews, belts, etc. All are tight when the roller mill leaves the factory; however, after a break-in period, some items may require additional tightening. Like any other machine, your Automatic roller mill requires proper care and intelligence in operation. Misuse and neglect will only cause unnecessary expense and dissatisfaction.

This manual is written as a guide for owners and operators of the Automatic ATG6020 model roller mill. Read it carefully and follow the suggestions made. Keep this manual in a convenient place for quick, easy reference, and use it whenever questions arise.

Fill in the following information now for future reference and convenience. Always give this information to your dealer when ordering new parts. If at any time it becomes necessary for you to write directly to Automatic Equipment Manufacturing Company for additional information, give the model and serial number of your machine, and as much descriptive information as possible. It will enable us to more thoroughly and quickly expedite your order.

Model No. _____ **Serial No.** _____

Date of Purchase _____

Name and Address of Dealer _____

Dealer/Operator Pre-Use Inspection Checklist

Although everything is in working order when the roller mill leaves the factory, some components may get out of adjustment in transit. The following inspection must be made prior to operation. Check each item listed and make adjustments if necessary. Refer to the corresponding sections of the manual to determine the correct settings for individual items.

- Check all belts for proper tension and alignment.
- Check to make sure the set screws in all pulleys and bearings are tight.
- Check all grease line connections and lines for damage during shipment.
- Make a general check for bolts that may have vibrated loose during shipment.
- Check greased bearings for proper lubrication.
- Check to make sure all shields and guards are in place.
- After operating the roller mill for the first few times, go through this checklist again. Some bolts, setscrews and belts may require additional adjustment during this break-in period.

Safety

DO NOT OPERATE OR USE THIS EQUIPMENT UNTIL THE FOLLOWING OPERATING AND SAFETY INSTRUCTIONS HAVE BEEN READ AND UNDERSTOOD. FAILURE TO UNDERSTAND AND PRACTICE GOOD SAFETY PROCEDURES COULD RESULT IN PERSONAL INJURY OR DEATH.

All farm machinery is inherently dangerous to children and to persons unfamiliar with its general operation. Children should not be permitted in areas where machinery of this nature is operating.

Since mills contain numerous moving parts, some of which may not always be visible to the operator, they can be extremely dangerous. Steps should be taken to assure the safety of the operator, and any other people in the area. Automatic Equipment strongly recommends that no person be permitted to operate this mill without a thorough understanding of how the machine works and the precautions to be observed.

The operator of this machine should be a responsible adult who is familiar with farm machinery, and trained in its operation. **REMEMBER!** Your best insurance against accidents is a careful and responsible operator. A careless operator is a liability to himself and those who work with him.

Because of the dry, highly flammable material associated with this machine, **FIRE FIGHTING EQUIPMENT SHOULD BE READILY AVAILABLE DURING THE OPERATION OF THIS MACHINE.**

Before operating this equipment, be sure to read and understand this operator's manual. If there is any portion of the manual, or any phase of the roller mill's operation you do not understand, be sure to contact your local Automatic dealer or Automatic Equipment, Pender, Nebraska. 402-385-3051.





SAFETY PRECAUTIONS - BEFORE OPERATION

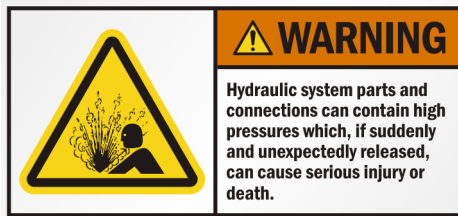
1. Keep the mill in good repair. Good maintenance is your responsibility. A poorly maintained machine is an invitation for trouble. Always use proper tools when servicing your mill.
2. **DO NOT** start, operate, or attempt repair work on the mill until you carefully read and thoroughly understand this operator's manual.
3. Be sure all shields are in place and all bolts are tight throughout the mill.
4. Be sure the rolls and drive belts are properly adjusted and in good condition. (See Operation Section)
5. Be sure there are no tools or other foreign objects lying on or in the machine.

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Safety

SAFETY PRECAUTIONS - DURING OPERATION

1. **DO NOT** wear loose-fitting clothing that may catch in moving parts.
2. Children should not be permitted in areas where machinery of this nature is operating.
3. **DO NOT** operate this machine until you are sure everyone is clear of the area.
4. **NEVER** leave the mill running unattended.
5. Always keep hands, feet, and clothing away from moving parts.
6.  **DANGER** Keep hands and feet out of the hopper when machine is in operation. Never remove safety grates, or use your hands or feet to dislodge any obstruction from the mill. Never try to push or force feed grain or snow that may be bridged or laying in the hopper.
7. **NEVER** sit or stand on the mill while it is in operation.
8. **NEVER** adjust or service the unit while it is in operation.
9. **NEVER** open shields, mill access doors or clean out doors while the mill is in operation.
10.  **DANGER** Avoid contact between the discharge conveyor and overhead electrical lines. Failure to heed warnings will result in serious personal injury or death.
11. Hydraulic fluid can cause serious burns. Hydraulic fluid escaping under pressure can have enough force to penetrate the skin and may also infect a minor cut or opening in the skin. If injured by escaping fluid, see a doctor at once. Make sure all connections are tight and that hoses are in good condition.



SAFETY PRECAUTIONS - SERVICE AND REPAIR

1. **SAFETY SHUTDOWN PROCEDURE:** Working on the mill when it is operating is expressly prohibited. Never clean, adjust, lubricate, or otherwise service this machine until the following steps have been taken.
 - A. Disengage the power source.
 - B. Lock all switches.
 - C. Wait until all mechanical motion has stopped on the mill.Only when these precautions have been taken, should you proceed in the adjustment or servicing of the mill. Failure to follow the above procedure could lead to death or serious personal injury.
2. Keep the mill in good repair. Good maintenance is your responsibility. A poorly maintained machine is an invitation for trouble. Always use proper tools when servicing machine, making certain that they are removed from the unit when services or repairs have been completed.
3. All mills are equipped with shielding to protect the operator from injury. **For purposes of clarity only**, some illustrations in this manual may show the mill with the shields removed or missing. Although shields may be opened or removed for servicing and repair of the mill, they **MUST** always be closed or replaced before operation resumes.



WHENEVER THE ROLLER MILL IS TO BE TRANSPORTED ON A PUBLIC THOROUGHFARE PLEASE OBSERVE THESE INSTRUCTIONS

1. Check clearances carefully before towing the roller mill over/under bridges and into buildings.
2. Always place the machine in the transport position.
3. For daytime and nighttime, accessory lighting and reflective devices should be used for adequate warning to operators of other vehicles.
4. Drive at a reasonable speed to maintain complete control of the machine at all times.
5. When transporting on the highway, it is recommended that a safety chain be used with the tractor and roller mill.

ROLLER MILL MAINTENANCE AND OPERATION

Automatic Grain roller mills are manufactured from the best materials and workmanship available - each has been tested and properly adjusted at the factory before shipping. Simple adjustments and minimum maintenance have been emphasized. Reasonable care and operation will assure many years of trouble-free service.

- BE SURE roller mill is mounted on a firm base. The machine should be level while operating so the grain will flow evenly across the rolls. This will eliminate unnecessary strain on roll bearings and shafts, and also do a better job of rolling.
- IT IS IMPORTANT that all units be checked after the first few hours of service to insure that all set screws, lock collars, and other hardware has remained secure. This operation should be performed periodically as part of general maintenance on your roller mill.
- ROLLER TENSION SPRINGS on floating roll are set at the factory to maintain just the right amount of pressure. **NEVER** readjust compression spring tension. These springs prevent stoppage, allowing foreign objects such as nails, bolts, etc. to pass between rolls. On all of our mills, magnets are available and recommended, as they separate pieces of iron and steel from the feed. Saving the life of just one animal will pay for several magnet installations.

Your roller mill is designed to eliminate complicated adjustments. There are only two (2) major points of adjustment for any small grain or shelled corn - roller spacing and hopper control gate.

- HOPPER GATE CONTROL. Your roller mill will not start with grain between rolls. Always start roller and bring rolls to full RPM before opening feed gate. Make sure feed gate in hopper is closed before putting grain in hopper. If grain is released to rolls before they are turning, grain will pile up and it will be necessary to clean out between rolls and run remaining kernels through by hand before starting.
- ROLLER SPACING. This depends upon the type of grain to be rolled. Different grain varies in size, shape, toughness and moisture content. This is also true of the same kind of grain from different localities. For this reason, it is impossible for us to tell you how to set the rolls. Do not over-roll hard or dry grains, as this will cause dusting. Remember, proper adjustment keeps dust at a minimum, even when rolling the driest grain.

The closest roll setting is preset at the factory and as a rule and should not require additional adjustment. However, for certain types or conditions of rolling, some "fine tuning" may be required.

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IMPORTANT - Check to make sure the roll teeth do not come in contact with each other by turning the mill by hand after each adjustment.

- **DON'T OVERCROWD THE ROLLS** - keep a ribbon of grain going between the rolls, and you'll do a better job of rolling. This is especially true of oats and barley. It is not necessary to completely flatten the kernel. The grain becomes easy to digest when the hard coat or hull is broken open, exposing the nutrients to the digestive juices.
- **ON PTO UNITS** - Grade 5 shear bolts should be used at all times in the shear plate of the PTO assembly.
- **ALWAYS** - ease the PTO in slowly with tractor idling, then increase RPM gradually to full throttle, 900 to 1,000 RPM. Always maintain full tractor throttle and PTO speed while operating mill.
NEVER OPERATE WITH PTO SPEED IN EXCESS OF 1,000 RPM
- **TRACTOR HITCH** - The hitch of the roller mill is designed to attach to any SAE-ASAE standardized tractor draw bar. Adjust the draw bar so that it is 13" - 20" above the ground. Extend or shorten the tractor draw bar so that the horizontal distance from the end of the tractor power take-off shaft to the center of the hitch pin hole is 16" for 1,000 RPM. Lock the draw bar in its crossbar, parallel with the center line of the tractor. Place locking pins on each side of the draw bar. If the tractor has an offset draw bar, the offset should be down for PTO work.



THE TRACTOR HITCH POINT MUST BE PROPERLY ADJUSTED. AN IMPROPERLY LOCATED HITCH POINT MAY CAUSE DAMAGE TO THE POWER TAKE-OFF WHICH MAY LEAD TO PERSONAL INJURY.



NEVER ATTEMPT TO LUBRICATE, ADJUST OR OTHERWISE SERVICE THIS MACHINE UNTIL THE PTO HAS BEEN DISENGAGED, THE TRACTOR ENGINE HAS BEEN TURNED OFF AND ALL MOTION HAS BEEN STOPPED. LISTEN, AS WELL AS LOOK, FOR MOTION BEFORE PROCEEDING



- **BEARINGS** - All pillow block and cast flange bearings are sealed and as a general rule, require no lubrication. However, the bearing manufacturer does furnish grease zerks and recommends the bearings be re-greased before one-third (1/3) of the bearings' calculated life elapses. Usually just a pump or two of grease per bearing before start up each harvest or after the unit has not been used for a month or more will be sufficient.

IMPORTANT - DO NOT OVER GREASE. Over greasing can cause damage to the bearing seal.

- **WHEEL BEARINGS** - Trailer wheel bearings should be cleaned and repacked with grease on a yearly basis.
- **PTO Cross bearings** should be greased daily. Telescoping sections of the PTO should be greased yearly.

WARNINGS

- **HYDRAULICS** - The motors on the mill have a speed limitation of 16 gpm. Going above that flow rating by bypassing the flow controller on the mill could damage or destroy the motor's geroler.

Operation Instructions

Start Up Instructions

1. Attach the tractor to the mill and lock the hitch pin
2. Attach the PTO to the tractor.
3. Attach the hydraulic lines to the tractor.
4. Start the tractor hydraulics
5. Adjust the ball valve to the appropriate position for open or closed system hydraulics.
6. Remove the safety pin on the intake auger and remove auger from the transport cradle using the appropriate levers.
7. Remove the pin from the cradle and lower the cradle to the ground.
8. Lower the intake auger to the ground and adjust the placement as needed.
9. Adjust the discharge auger or conveyor placement as desired using the appropriate lever.
10. Engage the PTO and slowly accelerate. Do not exceed 1000 RPM at the PTO.
11. Open the hopper intake gate slightly.
12. Adjust the flow controllers to half speed to start intake auger.
13. Start the flow of grain from the source.
14. Make adjustments to the intake flow using the flow controllers and the hopper intake gate lever.
 - a. FLOW CONTROL ADJUSTMENT - Slowly adjust the valve control lever down to speed up output or up to slow down output.
 - b. HOPPER GATE ADJUSTMENT - Open the hopper gate gradually. Adjust until the maximum flow of grain, that the tractor can handle, is reached. If it becomes necessary to stop the machine at any time before the hopper is empty, be sure to close the hopper gate before shutting off the power.
15. Check the particle size of the end product to ensure product quality. Adjust the roll spacing to create the desired particle size.
 - a. ROLLER SPACING ADJUSTMENT - Slowly adjust the cam adjust lever on the driver's side of the mill basic. The farther up the lever is the finer the end particle size and the farther down the lever is the coarser the end particle size.

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Operation Instructions

Shut Down Instructions

1. Stop the flow of grain from the source.
2. Empty the intake auger.
3. Empty the hopper.
4. Shut the hopper intake gate.
 - a. The mill will **NOT** start with grain in the rolls so make sure the hopper intake gate is shut completely to avoid excess grain getting in between the rolls.
5. Shut off the flow controller.
 - a. The valve control lever will be upright when in the off position.
6. Shut off the PTO.
7. Return the intake and discharge to the stored position using the appropriate levers.
8. Shut off the tractor hydraulics.
9. Unhook hydraulics, PTO, and mill from the tractor if needed.

Replacement Parts

When ordering parts for your mill, please state your needs with the following information:

MODEL NO.	SERIAL NO.	PART NO.	DESCRIPTION
ATG6020	000000	101-8821	Lower Shield Mount

When you order in this way, you can be certain the correct part will be delivered in the shortest time possible.

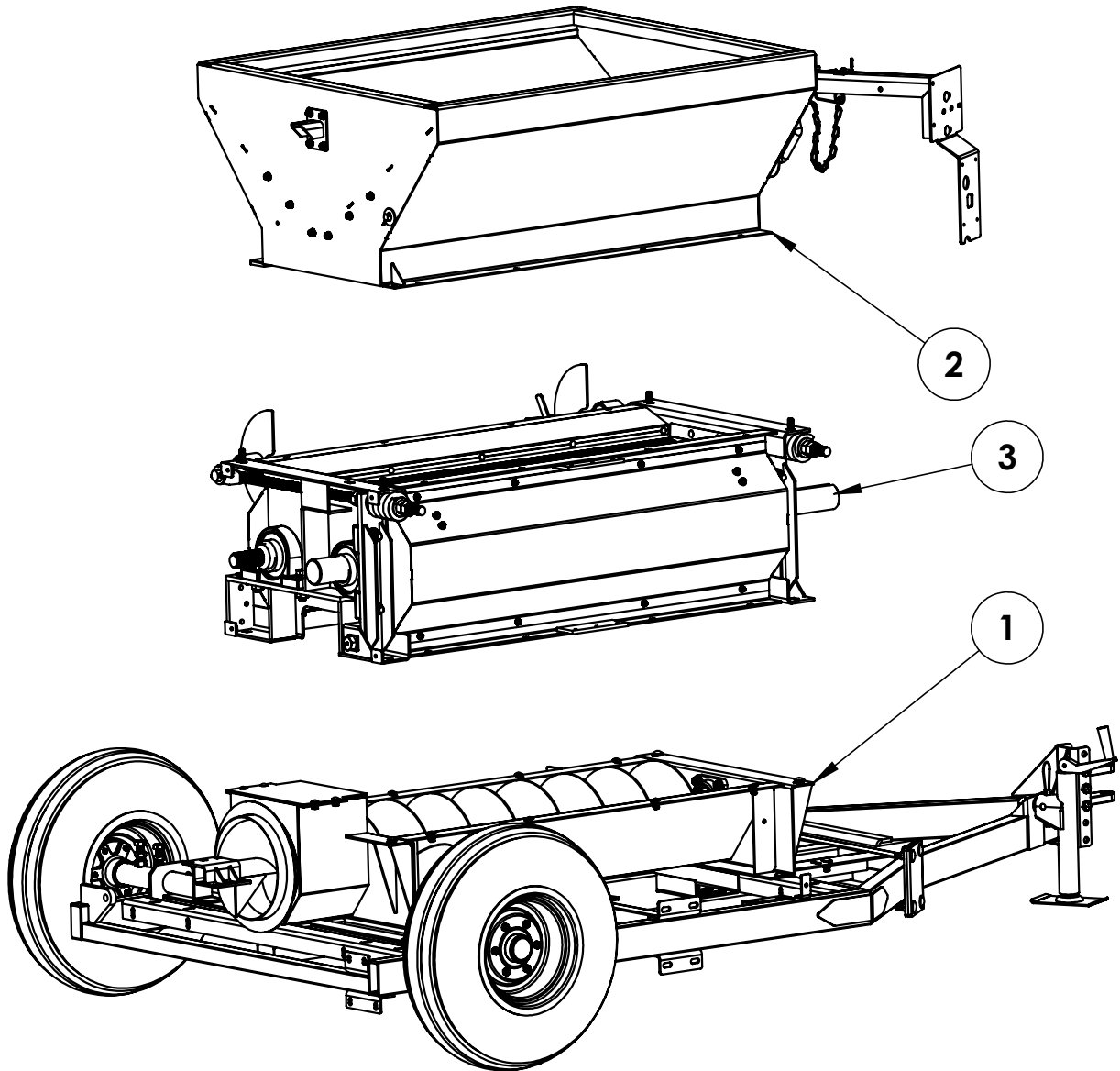
IMPORTANT: Use only genuine factory replacement parts on your mill. Do not substitute homemade or non-typical parts. If a bolt is lost or in need of replacement, for your safety and the preservation of your mill, be sure to use a replacement bolt of the same grade (Usually Grade 5).

Repair parts can be ordered through your nearest dealer. If there is no dealer in your area, call Automatic Equipment Manufacturing at (402) 385-3051.

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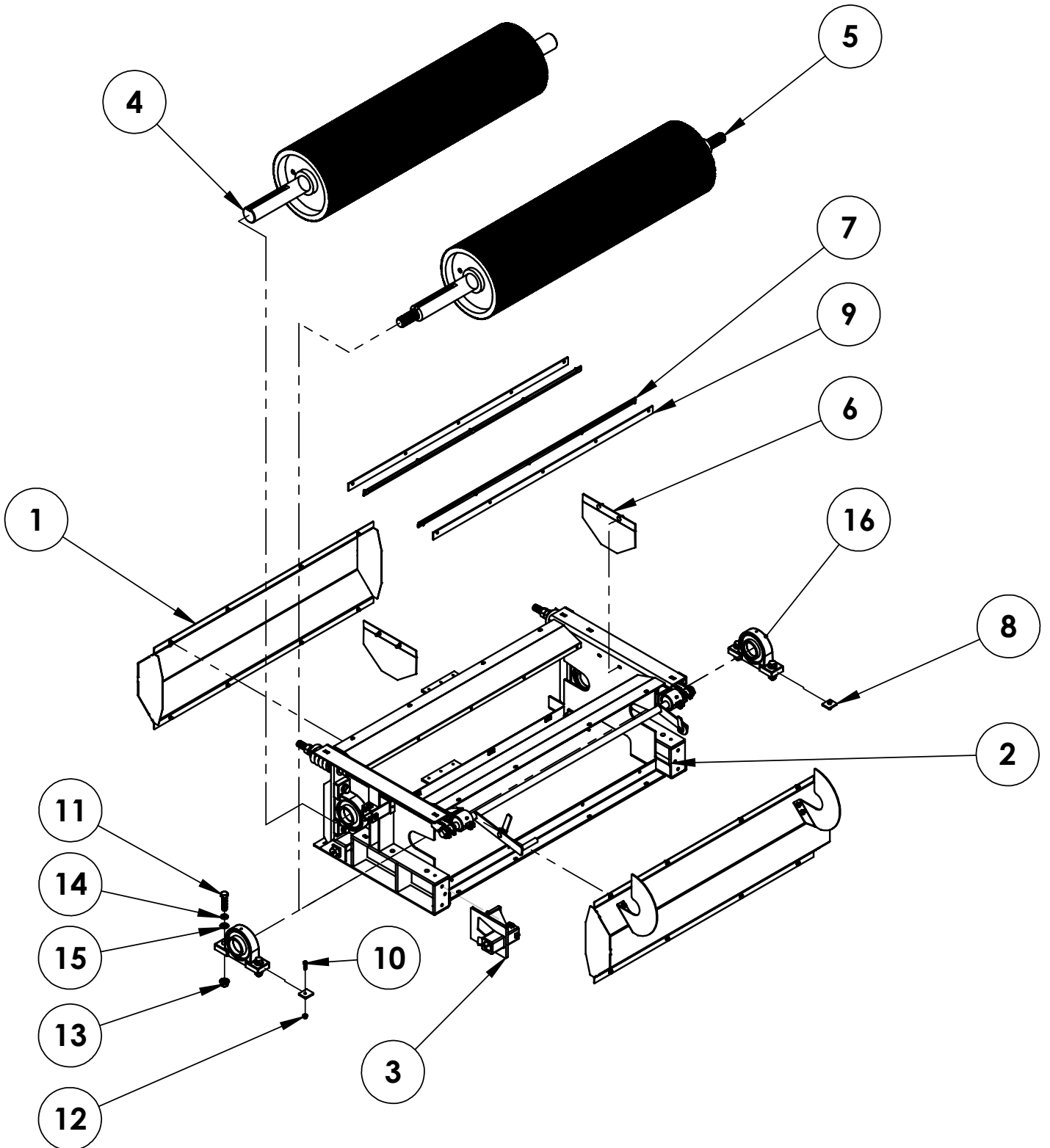
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Mill Assembly



Item No.	Part No.	Description	Qty.
1.....	72-0334	6000 Mill Longer Trailer with Auger Base	1
2.....	72-0344	6000 Mill Open Hopper Assembly	1
3.....	93-0594	6000 Basic, 4 Cut	1
.....	93-0614	6000 Basic, 4 x 6.5 Cut	1
.....	93-0595	6000 Basic, 6.5 Cut	1
.....	93-0637	6000 Basic, 6.5 x 8 Cut	1
.....	93-0596	6000 Basic, 8 Cut	1
.....	93-0597	6000 Basic, 10 Cut	1
.....	93-0634	6000 Basic, 12 Cut	1
.....	93-0598	6000 Basic, 14 Cut	1

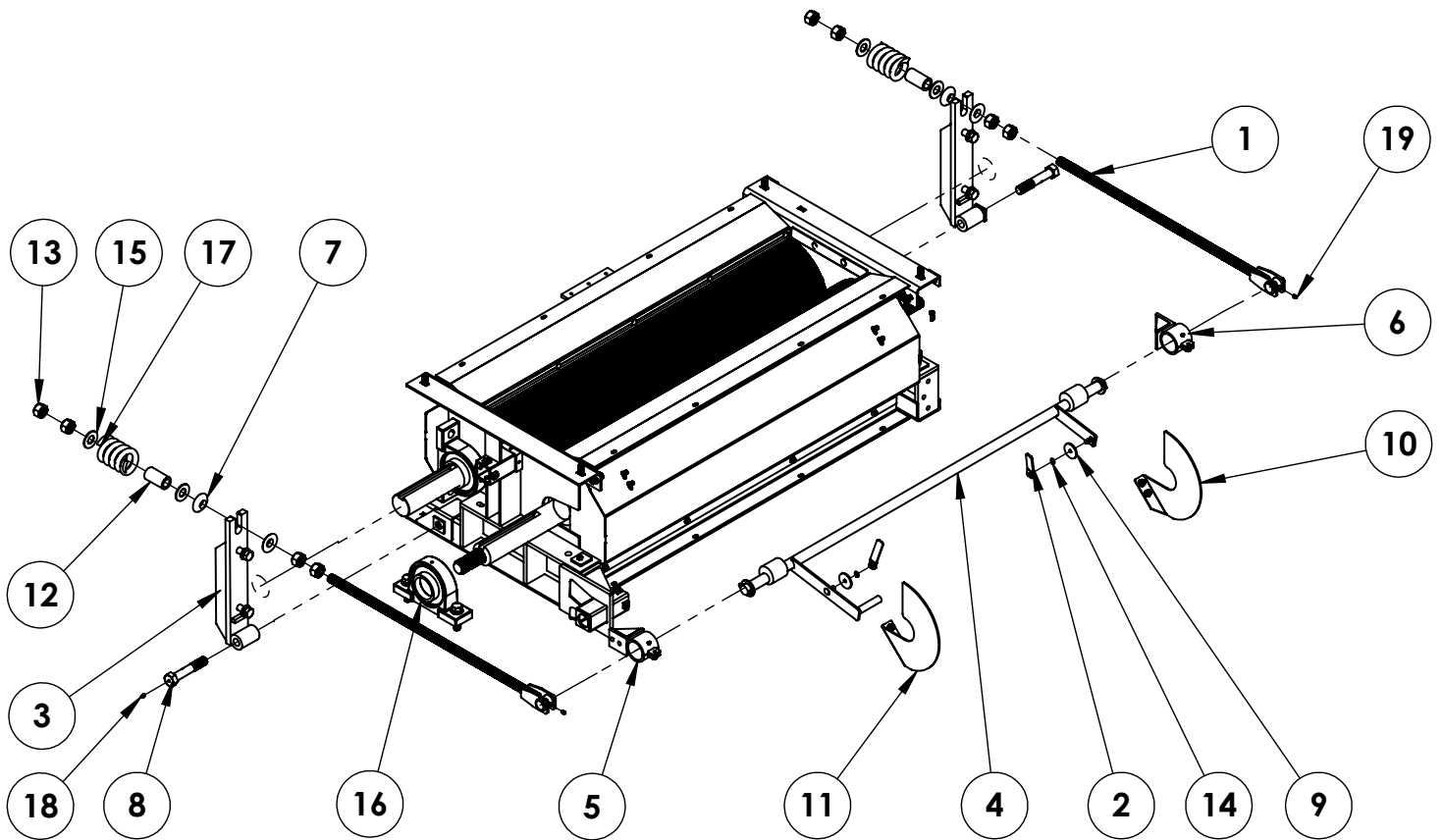
Basic Assembly



Basic Assembly Cont.

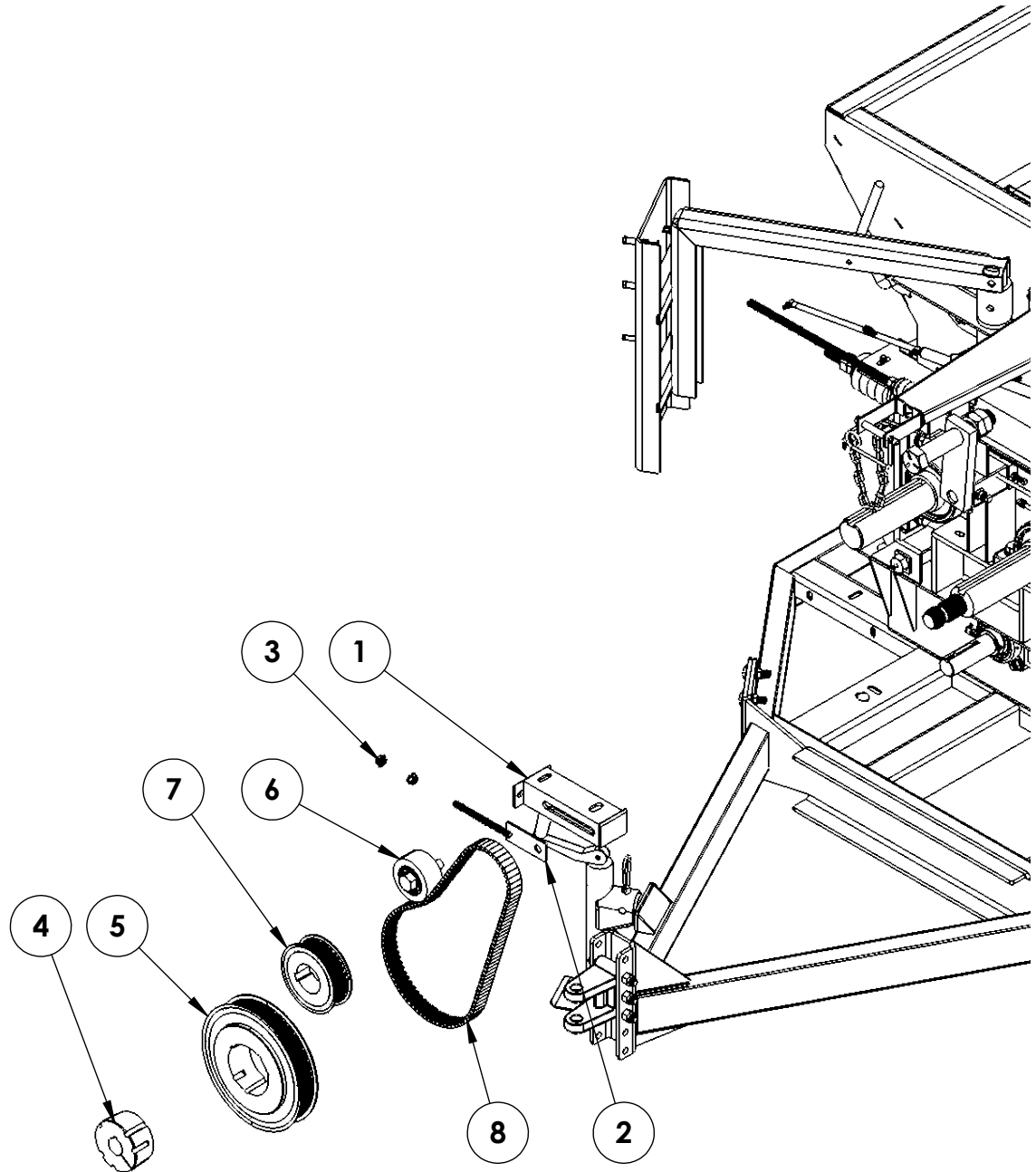
Item No.	Part No.	Description	Qty.
1.....	61-5630	Mill Basic Roll Cover	2
2.....	61-5638	Mill Basic Frame	1
3.....	61-6860	Mill Idler Bracket	1
4.....	71-0661	Mill Idler Roll, 4 Cut	1
.....	71-0662	Mill Idler Roll, 6.5 Cut	1
.....	71-0663	Mill Idler Roll, 8 Cut	1
.....	71-0664	Mill Idler Roll, 10 Cut	1
.....	71-0727	Mill Idler Roll, 12 Cut	1
.....	71-0665	Mill Idler Roll, 14 Cut	1
5.....	71-0700	Mill Drive Roll, 4 Cut.....	1
.....	71-0722	Mill Drive Roll, 6.5 Cut.....	1
.....	71-0723	Mill Drive Roll, 8 Cut.....	1
.....	71-0724	Mill Drive Roll, 10 Cut.....	1
.....	71-0726	Mill Drive Roll, 12 Cut.....	1
.....	71-0725	Mill Drive Roll, 14 Cut.....	1
6.....	101-6195	Wear Plate	2
7.....	102-6123	Baffle Support Flat.....	2
8.....	102-6150	Bearing Stop.....	2
9.....	150-0051	Roll Baffle Belting	2
10.....	201-0368	3/8"-16 x 1-1/4" Hex Head Bolt, Grade 5, ZP	2
11.....	201-0382	3/4"-10 x 3" Hex Head Bolt, Grade 8	4
12.....	202-0071	3/8"-16 Hex Flange Whiz Lock Nut, ZP	2
13.....	202-0074	3/4"-10 Flange Whiz Lock Nut, ZP	4
14.....	203-0014	3/4" Lock Washer, ZP	4
15.....	203-0064	3/4" SAE Flat Washer, ZP	4
16.....	209-0104	2-15/16" Pillow Block Bearing w/ Zerk.....	4

Basic Roll Adjustment Assembly



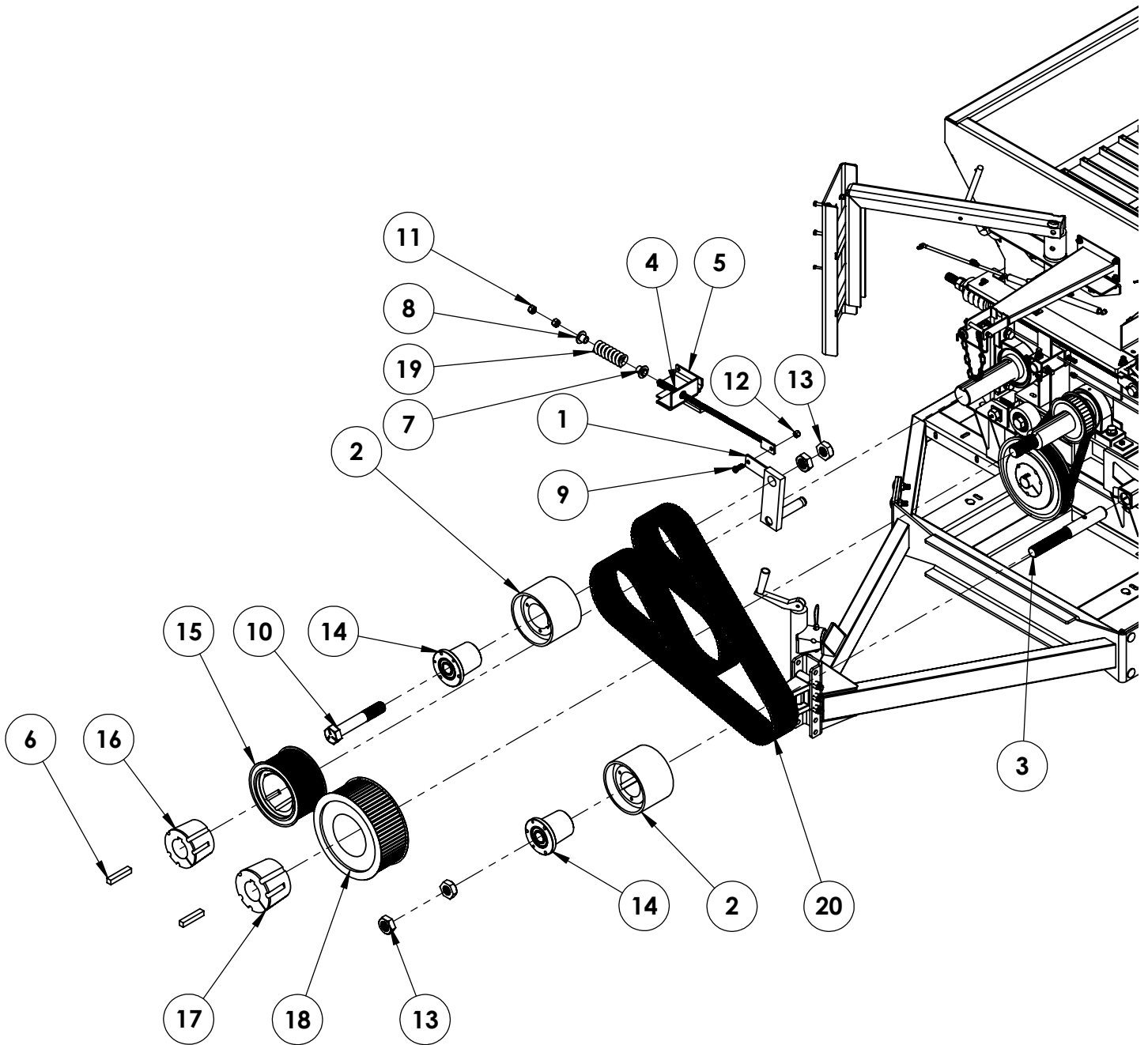
Item No.	Part No.	Description	Qty.
1.....	61-4550.....	Cam Adjust Arm.....	2
2.....	61-4554.....	Cam Adjust Handle.....	2
3.....	61-5631.....	Basic Bearing Support Pivot.....	2
4.....	61-5670.....	Cam Adjust.....	1
5.....	61-5702.....	Front Cam Adjust Journal.....	1
6.....	61-5703.....	Rear Cam Adjust Journal.....	1
7.....	100-1267.....	Cam Adjust Rocker.....	4
8.....	100-1384.....	1"-8 x 5-1/2" Hex Head Bolt, Grade 5 w/ 1/4"-28 Zerk.....	2
9.....	101-5296.....	Hopper Gate Lock.....	2
10.....	101-5350.....	Right Adjustment Plate.....	1
11.....	101-5351.....	Left Adjustment Plate.....	1
12.....	107-2457.....	Spring Spacer Tube.....	2
13.....	202-0081.....	1"-8 Hex Nut, Grade 8.....	8
14.....	203-0010.....	3/8" Lock Washer, ZP.....	2
15.....	203-0017.....	1" Flat Washer.....	4
16.....	209-0104.....	Pillow Block Bearing w/ Zerk, 2-15/16".....	4
17.....	222-0048.....	3" x 4-7/8" Compression Spring.....	2
18.....	224-0327.....	1/2"-28 Grease Zerk.....	2
19.....	224-0425.....	1/4"-28 Straight Self Tapping Zerk.....	4

Auger Base Belt & Sprocket Assembly



Item No.	Part No.	Description	Qty.
1.....	61-7569	3/4" Idler Tightener Mount	1
2.....	61-7570	3/4" Bolt Idler Tightener Shaft.....	1
3.....	202-0072	1/2"-13 Hex Flange Whiz Lock Nut, ZP	12
4.....	205-0360	1-3/4" 3525 Taperlock Bushing.....	1
5.....	205-0379	Synchronous Sprocket, 14MX67S37-3525	1
6.....	205-0380	4-1/4" x 2" Flat Idler	1
7.....	205-0398	Polychain Sprocket, 14MX-35S-37	1
8.....	251-0183	Synchrochain Carbon Belt.....	1

Drive Belt & Sprocket Assembly

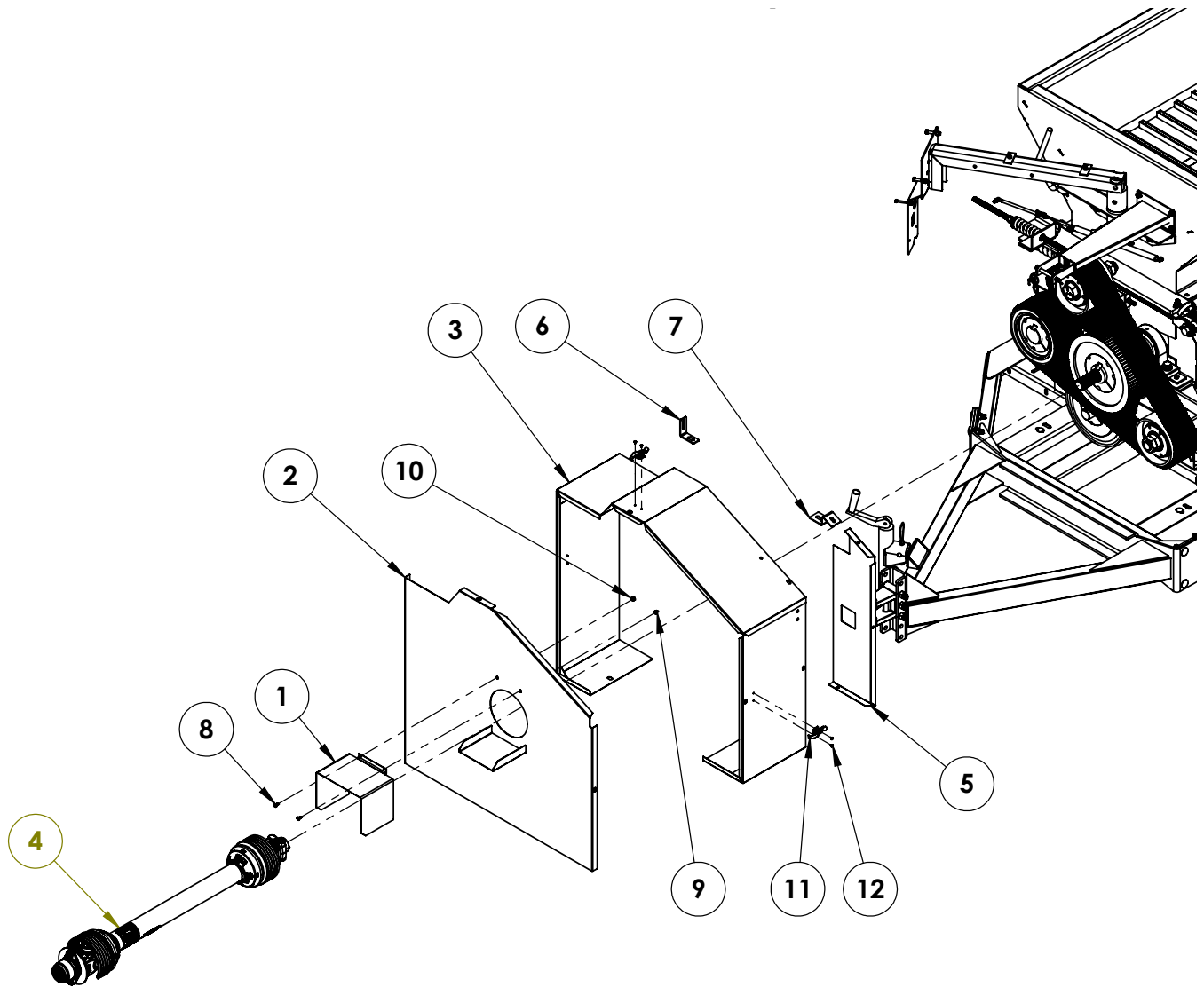


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Drive Belt & Sprocket Assembly Cont.

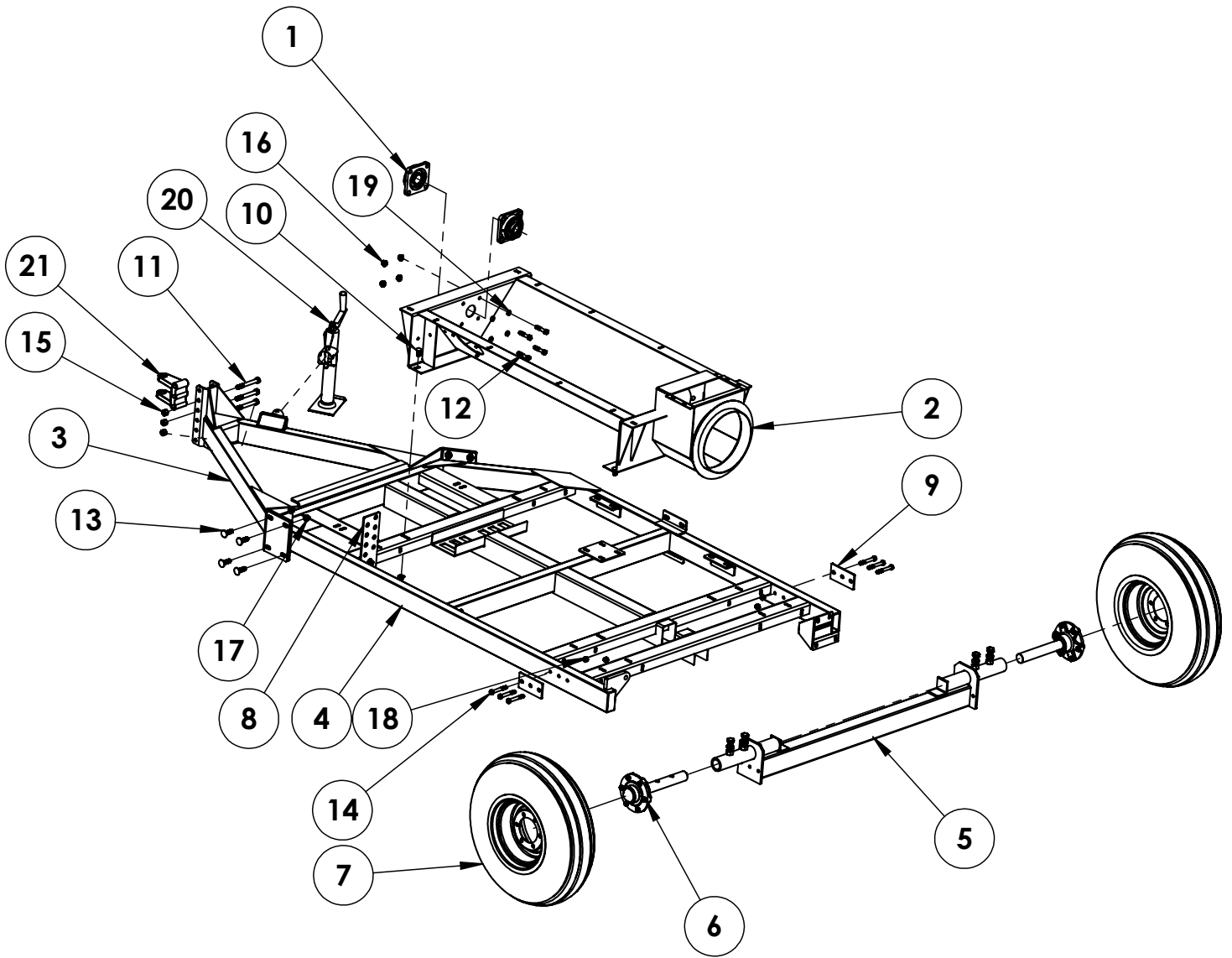
Item No.	Part No.	Description	Qty.
1.....	61-4549	Belt Drive Pivot Idler Arm	1
2.....	61-4837	Idler Roll	2
3.....	61-6862	Idler Support Shaft	1
4.....	61-7312	Idler Tension Rod.....	1
5.....	61-8040	Spring Tightener Bracket.....	1
6.....	100-1062	3/4" x 3/4" 4" Key	2
7.....	100-1391	Spring Center Bushing	1
8.....	107-3519	Spring Center Bushing	1
9.....	201-0011	1/2"-13 x 1-1/4" Hex Head Bolt, Grade 5, ZP	1
10.....	201-0364	1-1/2"-6 x 9" Hex Head Bolt, Grade 5.....	1
11.....	202-0006	5/8"-11 Hex Nut	2
12.....	202-0094	1/2"-13 Hex Nylon Insert Lock Nut, ZP.....	1
13.....	202-0104	1-1/2"-6 Hex Jam Nut	4
14.....	205-0223	Idler Bushing	2
15.....	205-0297	Cog Belt Sprocket	1
16.....	205-0332	2-15/16" Bushing, 78594215	1
17.....	205-0344	4445 Bushing, 2-15/16", 1.5 Drive ratio.....	1
18.....	205-0393	Synchronous Sprocket, 1.38 Ratio.....	1
19.....	222-0078	Compression Spring.....	1
20.....	251-0160	Cog Belt.....	1

Front Shield Assembly



Item No.	Part No.	Description	Qty.
1.....	61-1543	Front Chain Drive PTO Shield	1
2.....	61-7976	6000 Mill Front Shield Door	1
3.....	61-7977	6000 Mill Front Shield.....	1
4.....	83-1197	1-3/4" Tractor PTO Kit, Plastic Guard.....	1
.....	83-1199	1-3/8" Tractor PTO Kit, Plastic Guard.....	1
5.....	101-7499	6000 Mill Front Shield Rear Filler Plate	1
6.....	101-7834	Front Shield L Bracket	1
7.....	101-7835	Front Shield Z Bracket.....	1
8.....	201-0112	1/4"-20 x 1/2" Slot Truss Head Screw	2
9.....	202-0069.....	1/4"-20 Hex Flange Whiz Lock Nut, ZP	2
10.....	203-0008	1/4" Lock Washer, ZP	2
11.....	229-0132	Tension Latch	3
12.....	229-0988	3/16" x 1/16"-1/8" SB6-2 Pop Rivet	6

Trailer Frame Assembly

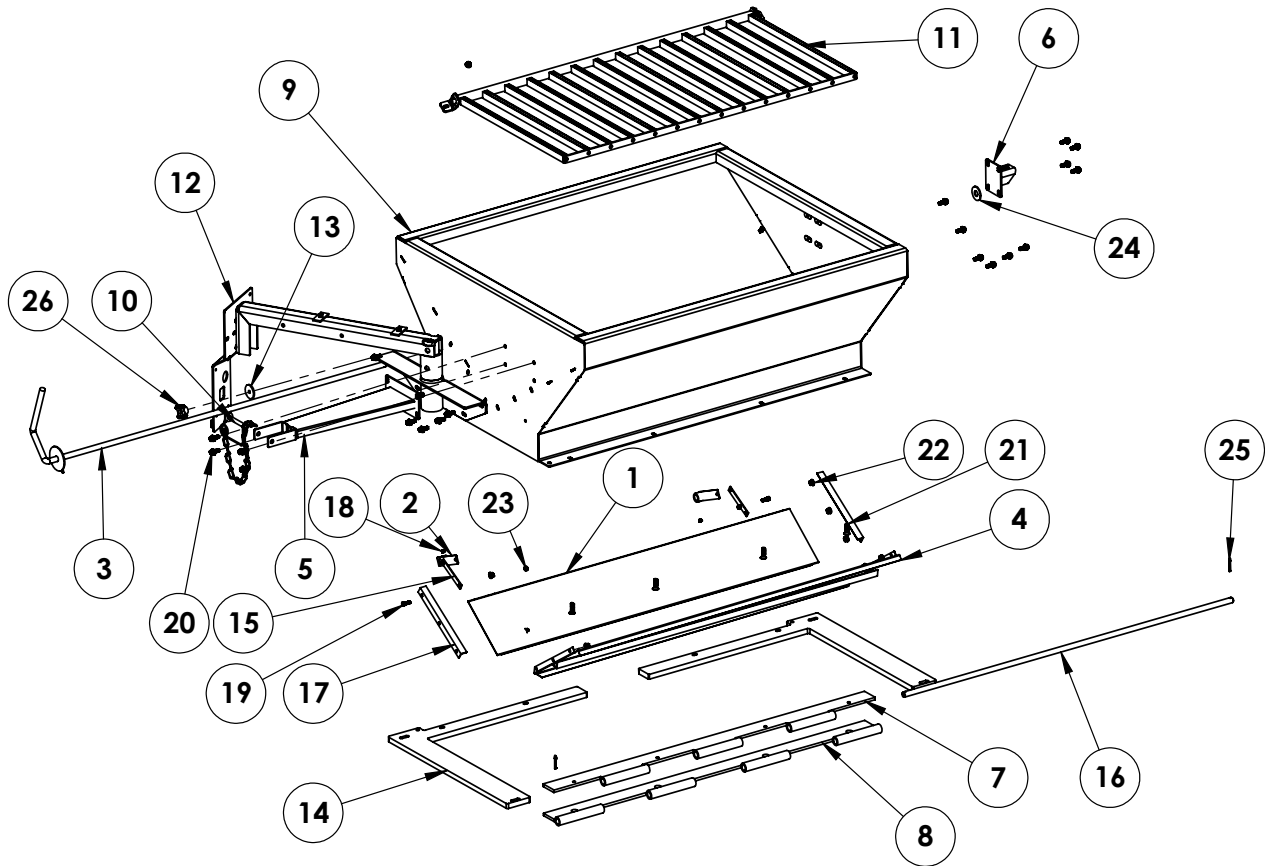


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Trailer Frame Assembly

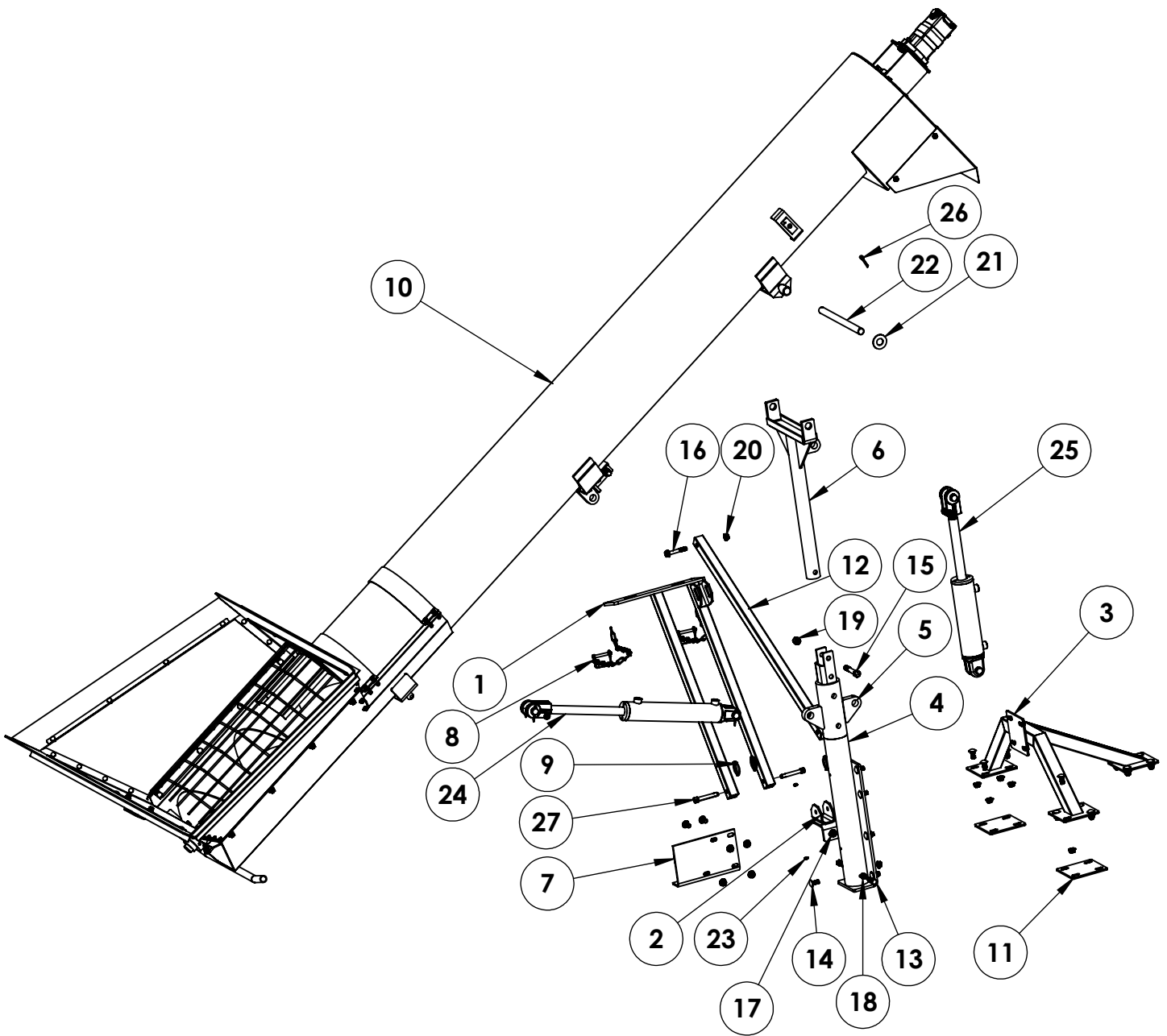
Item No.	Part No.	Description	Qty.
1.....	53-0007	1-3/4" Cast Bearing, 4-Hole.....	2
2.....	61-6613	6000 Mill Auger Base	1
3.....	61-8015	Tongue.....	1
4.....	61-8016	Trailer Frame	1
5.....	61-8181	Axle Mount	1
6.....	62-1524	6 on 6 Hub and Spindle Assembly	2
7.....	62-1806	6 Bolt Wheel/11L15 8 Ply Tire Assembly	2
8.....	101-10062	Hydraulic Hose Block Plate	1
9.....	101-10225	Outer Axle Stiffener Plate	2
10.....	201-0058	1/2"-13 x 1-1/4" Carriage Bolt, Grade 5, ZP	5
11.....	201-0075	5/8"-11 x 5" Hex Head Bolt, Grade 5, ZP.....	3
12.....	201-0153	1/2"-13 x 2-1/2" Hex Head Bolt, Grade 5, ZP	4
13.....	201-0293	5/8"-11 x 2" Carriage Head Bolt, Grade 5, ZP	8
14.....	201-0369	1/2"-13 x 3-1/2" Hex Head Bolt, Grade 5, ZP	6
15.....	202-0064	5/8"-11 Hex Nylon Insert Lock Nut, ZP	3
16.....	202-0072	1/2"-13 Hex Flange Whiz Lock Nut, ZP	9
17.....	202-0073	5/8"-11 Whiz Flange Lock Nut, ZP.....	8
18.....	202-0094	1/2"-13 Hex Nylon Insert Lock Nut, ZP.....	6
19.....	203-0012	1/2" Lock Washer, ZP	4
20.....	229-0120	Low Profile Trailer Jack	1
21.....	229-1087	Adjustable Clevis Pin 1040724.....	1

Hopper Assembly



Item No.	Part No.	Description	Qty.
1.....	61-5642	Intake Hopper Door	1
2.....	61-5643	Hopper Door Pivot.....	2
3.....	61-8034	Hopper Door Handle	1
4.....	61-8035	Bolt On Inner Slope Panel.....	1
5.....	61-8036	PTO Holder.....	1
6.....	61-8037	Discharge Rack Attachment	1
7.....	61-8039	Hopper Side Hinge	1
8.....	61-8041	Basic Side Hinge	1
9.....	61-8072	Hopper.....	1
10.....	62-0960	1/2" x 3-1/2" Snap Link Pin and Chain	1
11.....	62-4199	Magnetic Grate Assembly	1
12.....	62-4205	Hydraulic Controls Mount	1
13.....	101-5296	Hopper Gate Lock	1
14.....	101-9866	Hopper Spacer Plate	2
15.....	102-6130	Hopper Door Link	2
16.....	104-1025	Auger Pivot Rod	1
17.....	105-1488	Hopper Door Slide.....	2
18.....	201-0271	5/16"-18 x 3/8" Socket Head Cap Knurl Set	2
19.....	201-0469	5/16"-18 x 1" Hex Head Bolt, Grade 5, ZP	4
20.....	201-1010	3/8"-16 x 1" Whiz Flange Bolt.....	20
21.....	201-1065	3/8"-16 x 1-1/2" Hex Drive Flat Head Screw, ZP	4
22.....	202-0071	3/8"-16 Whiz Flange Lock Nut, ZP	18
23.....	202-0097	5/16"-18 Hex Nylon Insert Lock Nut, ZP.....	4
24.....	203-0007	3/4" Flat Washer, ZP.....	1
25.....	229-0038	3/16" x 1-1/2" Cotter Pin	2
26.....	290-0410	3/8"-16 Plastic Knob	1

Intake Auger Component Assembly

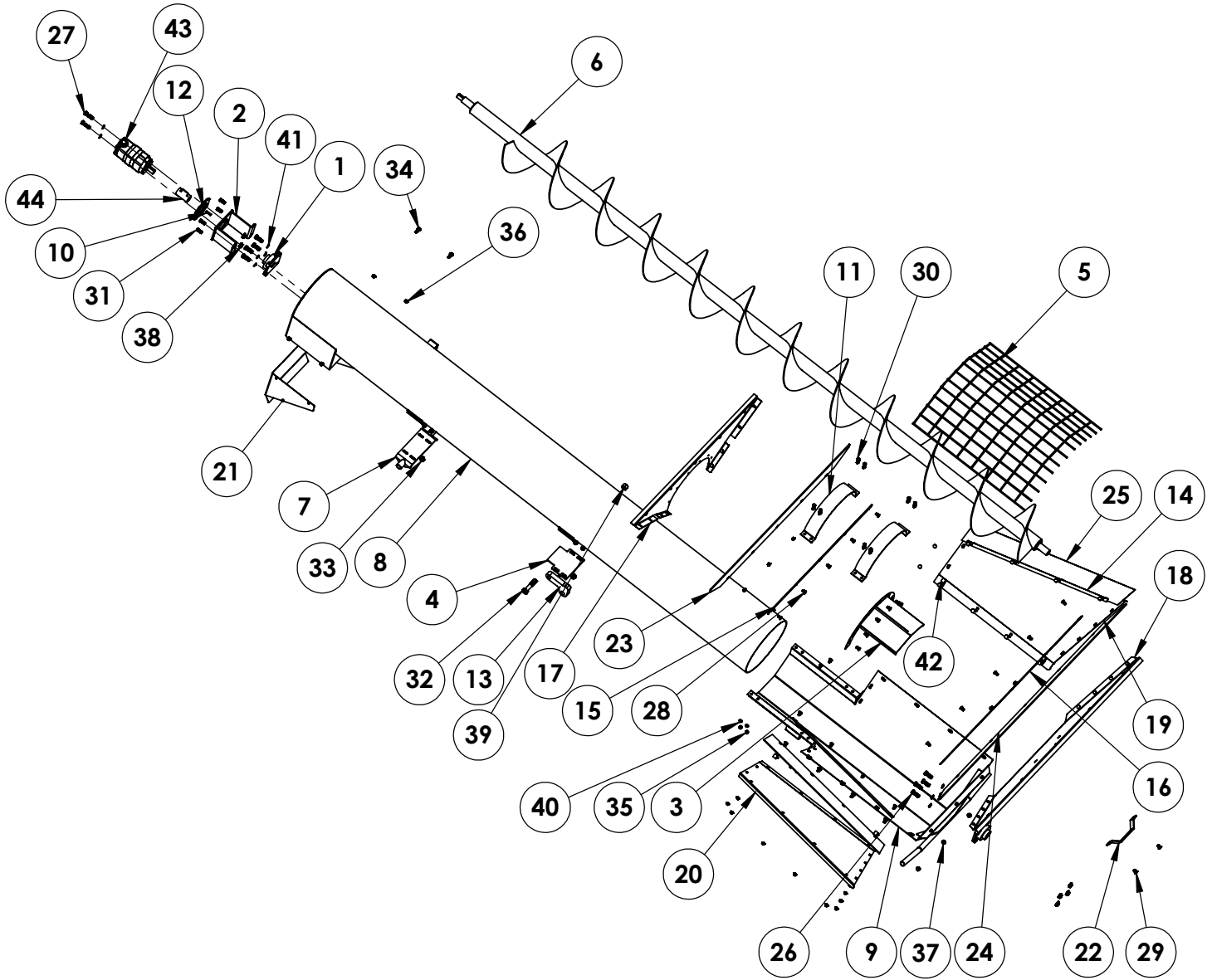


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Intake Auger Component Assembly Cont.

Item No.	Part No.	Description	Qty.
1.....	61-8023.....	Transport Rack.....	1
2.....	61-8024.....	Front Transport Mount.....	1
3.....	61-8025.....	Auger Support Frame.....	1
4.....	61-8029.....	Pivot Mount.....	1
5.....	61-8030.....	Lower Support Pivot.....	1
6.....	61-8031.....	Upper Support Pivot.....	1
7.....	61-8081.....	Back Transport Rack Mount.....	1
8.....	62-0955.....	Lock Pin Assembly.....	2
9.....	62-3213.....	Quick Pin.....	3
10.....	62-4202.....	14" Large Hopper Long Loading Auger.....	1
11.....	101-9816.....	1/4" x 6" x 6" Slotted Attachment Plate.....	2
12.....	107-3970.....	Transport Rack Secondary Tube.....	1
13.....	201-0013.....	1/2"-13 x 2" Hex Head Bolt, Grade 5, ZP.....	2
14.....	201-0058.....	1/2"-13 x 1-1/4" Carriage Bolt, Grade 5, ZP.....	24
15.....	201-0528.....	5/8"-11 x 4" Hex Head Bolt, Grade 5.....	1
16.....	201-0888.....	1/2"-13 x 3" Hex Head Bolt w/ Flange.....	1
17.....	201-1049.....	1/2"-13 x 1-1/2" Whiz Flange Bolt, Grade 5, ZP.....	2
18.....	202-0005.....	1/2"-13 Hex Nut, ZP.....	2
19.....	202-0064.....	5/8"-11 Hex Nylon Insert Lock Nut, ZP.....	1
20.....	202-0072.....	1/2"-13 Hex Flange Whiz Lock Nut, ZP.....	27
21.....	203-0017.....	1" Flat Washer.....	2
22.....	207-0441.....	Carrier Shaft.....	1
23.....	224-0425.....	1/4"-28 Self-Tap Straight Zerk.....	2
24.....	227-0140.....	2-1/2" Bore x 12" Stroke Cylinder w/ Holding Valves.....	1
25.....	227-0142.....	3" Bore x 8" Stroke Cylinder w/ Holding Valves.....	1
26.....	229-0057.....	1/4" x 2" Cotter Pin.....	2
27.....	229-0520.....	1/2" x 2-5/8" Pin.....	3

Intake Auger Assembly

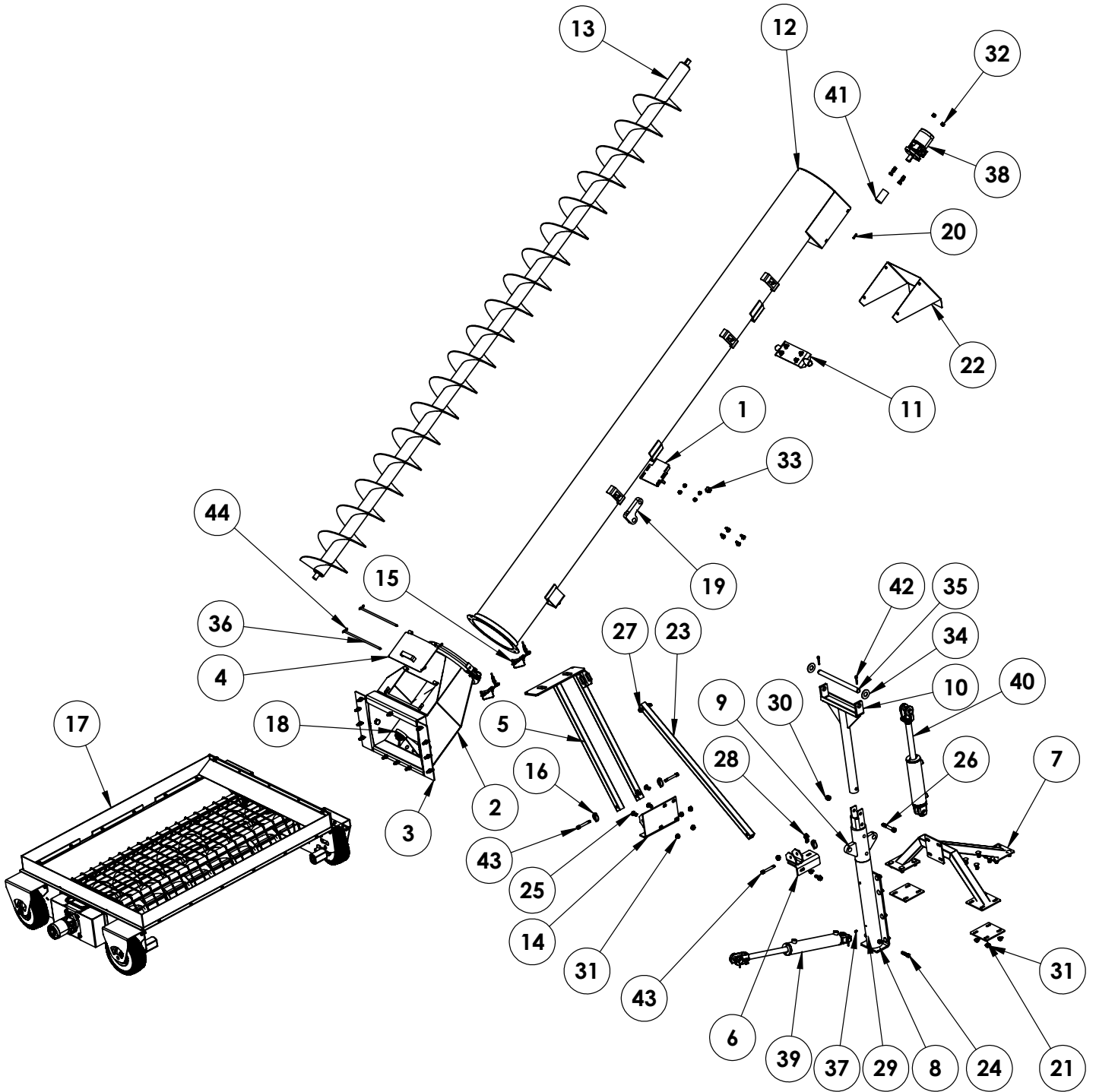


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Intake Auger Assembly Cont.

Item No.	Part No.	Description	Qty.
1	53-0001	1-3/8" Flange Bearing	2
2	61-5717	Motor Mount	1
3	61-5749	14" Intake Assist	1
4	61-7792	Swing Under Lift Mount	1
5	61-8004	14" Intake Auger Large Hopper Grate	1
6	61-8014	14" Loading Auger Screw	1
7	61-8032	Intake Pivot Attachment	1
8	61-8099	14" Loading Auger	1
9	61-8100	14" Intake Hopper Base	1
10	100-0292	1/4" x 1/4" 1-1/4" Key	1
11	101-6265	Hopper Mount Clamp	2
12	101-6568	Hydraulic Motor Spacer Plate	1
13	101-9355	Auger Lift Plate	1
14	101-9782	Belting Retainer Side Plate	2
15	101-9783	Belting Retainer Front Plate	1
16	101-9784	Belting Retainer Rear Plate	1
17	101-9805	Front Plate	1
18	101-9806	Rear Plate	1
19	101-9807	Right Hand Plate	1
20	101-9808	Left Hand Plate	1
21	101-10021	Deflector Plate	1
22	102-6238	Hopper Lift Handle	1
23	150-0109	Front Belting	1
24	150-0110	Rear Belting	1
25	150-0111	Side Belting	2
26	201-0051	1/2"-13 x 1-1/2" Hex Head Bolt, Grade 5	8
27	201-0068	1/2"-13 x 1-3/4" Hex Head Bolt Grade 5, ZP	2
28	201-0119	5/16"-18 x 3/4" Carriage Bolt, Grade 5, ZP	40
29	201-0284	3/8"-16 x 3/4" Carriage Bolt, Grade 5, ZP	13
30	201-0440	3/8"-16 x 1-1/2" Hex Head Bolt, Grade 5, ZP	8
31	201-0443	3/8"-16 x 1" Hex Head Bolt, Grad 5, ZP	4
32	201-0847	3/4"-10 x 3-1/2" Hex Head Bolt, Grade 5, ZP	1
33	201-1010	3/8"-16 x 1" Whiz Flange Bolt	8
34	201-1015	5/16"-18 x 1" Whiz Flange Bolt	4
35	202-0003	3/8-16 Hex Nut, ZP	8
36	202-0070	5/16"-18 Whiz Flange Lock Nut, ZP	44
37	202-0071	3/8"-16 Whiz Flange Lock Nut, ZP	25
38	202-0072	1/2"-13 Hex Flange Whiz Lock Nut, ZP	10
39	202-0107	3/4"-10 Hex Nylon Insert Lock Nut, ZP	1
40	203-0010	3/8" Lock Washer, ZP	8
41	203-0012	1/2" Lock Washer, ZP	10
42	225-0008	1/2" EMT Snap Strap	4
43	227-0099	Large Frame MO210C01J00A0 Hydraulic Motor	1
44	229-0032	1" Bore Shaft Coupler	1

Swing Under Auger Assembly

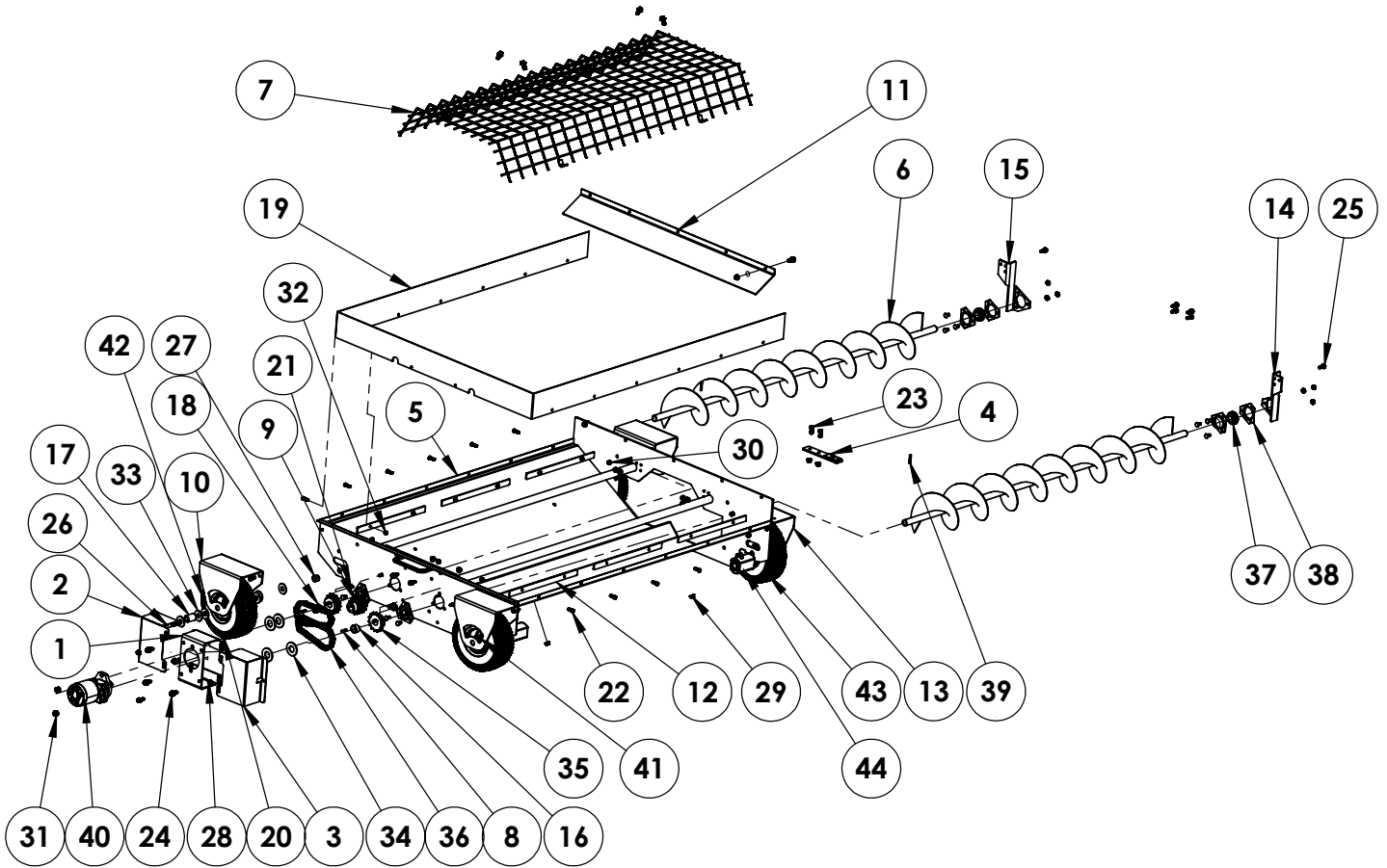


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Swing Under Auger Assembly Cont.

Item No.	Part No.	Description	Qty.
1	61-7792	Swing Under Lift Mount	1
2	61-7805	12" Lower Auger Pivot	1
3	61-7806	Auger Pivot Mount	1
4	61-7836	Swing Under Door	1
5	61-8023	Auger Transport Rack	1
6	61-8024	Front Transport Mount	1
7	61-8025	Intake Auger Support Frame	1
8	61-8029	Intake Auger Pivot Mount	1
9	61-8030	Lower Intake Folding Support Pivot	1
10	61-8031	Upper Intake Folding Support Pivot	1
11	61-8032	Intake Pivot Attachment	1
12	61-8050	Swing Under Loading Tube	1
13	61-8052	Loading Auger Screw	1
14	61-8081	Back Transport Rack Mount	1
15	61-0955	Lock Pin Assembly	2
16	62-3213	Quick Pin	3
17	62-4161	Swing Under Hopper	1
18	62-4188	1" Shaft Pedestal Bearing	1
19	62-4189	Auger Lift Plate	1
20	100-0292	1/4" x 1/4" x 1-1/4" Key	1
21	101-9816	1/4" x 6" x 6" Slotted Attachment Plate	2
22	101-9887	Loading Auger Deflector Plate	1
23	107-3970	Auger Transport Rack Secondary Tube	1
24	201-0013	1/2"-13 x 2" Hex Head Bolt, Grade 5, ZP	2
25	201-0058	1/2"-13 x 1-1/4" Carriage Bolt, Grade 5, ZP	24
26	201-0528	5/8"-11 x 4" Hex Head Bolt, Grade 5	1
27	201-0888	1/2"-13 x 3" Hex Head Bolt w/ Flange	1
28	201-1049	1/2"-13 x 1-1/2" Whiz Flange Bolt, Grade 5, ZP	2
29	202-0005	1/2"-13 Hex Nut, ZP	2
30	202-0064	5/8"-11 Hex Nylon Insert Lock Nut, ZP	1
31	202-0072	1/2"-13 Hex Flange Whiz Lock Nut, ZP	27
32	202-0094	1/2"-13 Hex Nylon Insert Lock Nut, ZP	2
33	202-0107	3/4"-10 Hex Nylon Insert Lock Nut, ZP	3
34	203-0017	1" Flat Washer	2
35	207-0441	Auger Carrier Shaft	1
36	207-1123	Swing Under Transition Lid Hold Down Pin	2
37	224-0425	1/4"-28 Self-Tap Straight Zerk	2
38	227-0137	2" Hydraulic MTR Parker Bolt	1
39	227-0140	2-1/2" Bore x 12" Stroke Cylinder w/ Holding Valves	1
40	227-0142	3" Bore x 8" Stroke Cylinder w/ Holding Valves	1
41	229-0032	1" Bore Shaft Coupler	1
42	229-0057	1/4" x 2" Cotter Pin	2
43	229-0520	1/2" x 2-5/8" Eff. Pin	3
44	229-1064	3/32 Cotter, 1/4"-1/2" Hairpin, ZP	4

Swing Under Hopper Assembly

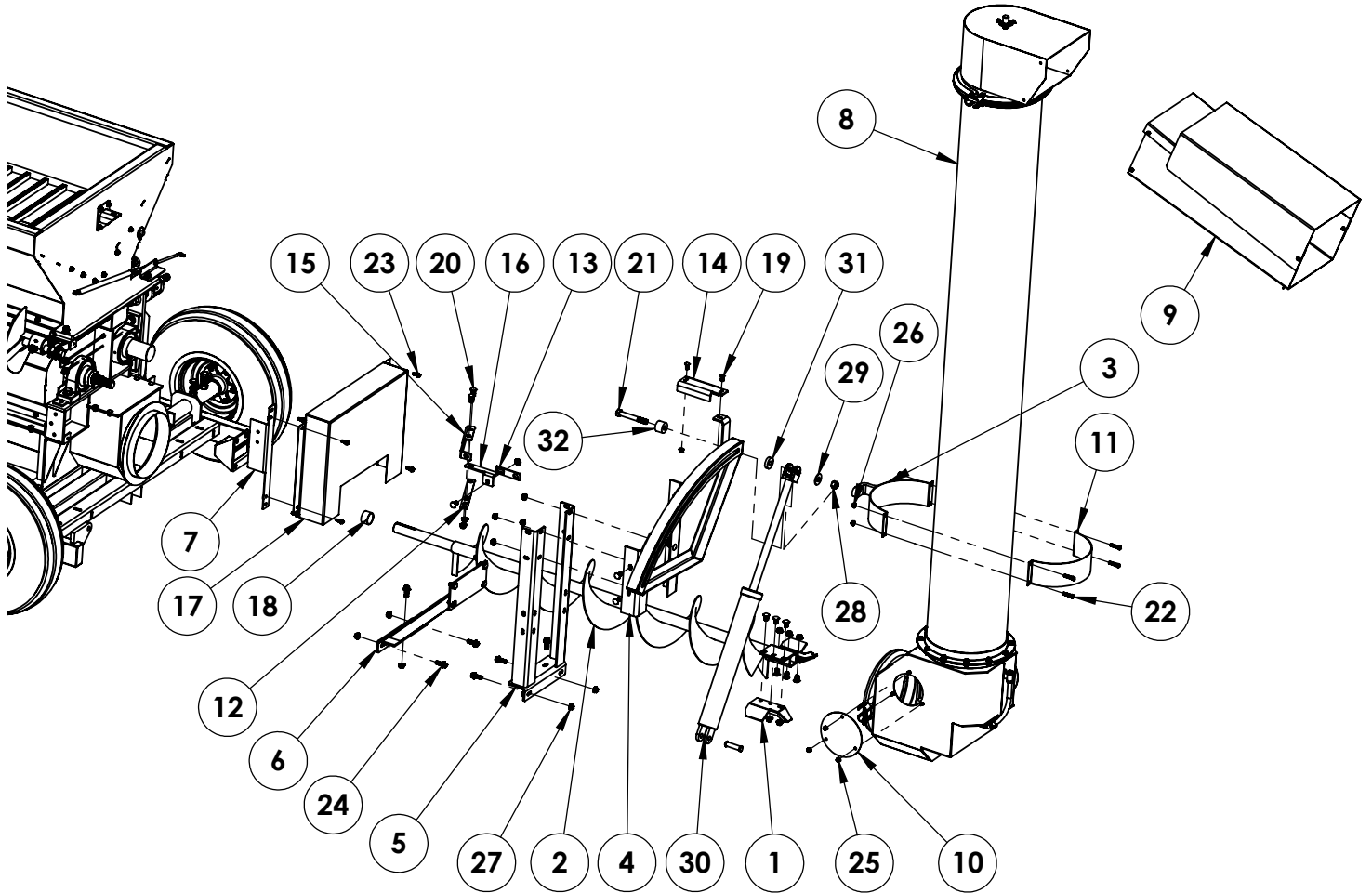


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Swing Under Hopper Assembly Cont.

Item No.	Part No.	Description	Qty.
1.....	61-7809.....	Swing Under Motor Mount.....	1
2.....	61-7823.....	Swing Under Gear Cover, Left Hand.....	1
3.....	61-7824.....	Swing Under Gear Cover, Right Hand.....	1
4.....	61-7848.....	Swing Under Hydraulic Wheel Mount.....	1
5.....	61-7940.....	Swing Under Hopper.....	1
6.....	61-7945.....	66-1/2" Swing Under Hopper, 7" Auger.....	2
7.....	61-7996.....	Swing Under Safety Mesh.....	1
8.....	100-0225.....	1/4" x 1/4" x 1" Key.....	2
9.....	100-1381.....	#50 x 12 Tooth, 1" Bore Triple Keyed Sprocket.....	1
10.....	101-9678.....	Swing Under Tire Bracket Plate.....	3
11.....	101-9691.....	10 GA x 6.11 x 44.00 Swing Under Plate.....	1
12.....	101-9692.....	7 GA x 1" x 16" Belt Clamping Bar Plat w/ Holes.....	7
13.....	101-9694.....	Swing Under Tire Bracket Plate w/ Holes.....	1
14.....	101-9761.....	Hanger Bearing Support Plate, Left.....	1
15.....	101-9762.....	Hanger Bearing Support Plate, Right.....	1
16.....	107-3863.....	1-1/4" O.D. x 12 GA Wall x .690" Large Spacer Tube.....	1
17.....	107-3882.....	Swing Under Hopper Spacer.....	2
18.....	107-3883.....	1-1/4" O.D. x 12 GA Wall x 1.00" Large Spacer Tube.....	1
19.....	150-0104.....	Rubber Belting.....	1
20.....	201-0068.....	1/2"-13 x 1-3/4" Hex Head Bolt, Grade 5, ZP.....	2
21.....	201-0119.....	5/16"-18 x 3/4" Carriage Bolt, Grade 5, ZP.....	12
22.....	201-0120.....	5/16"-18 x 1" Hex Head Bolt, Grade 5, ZP.....	14
23.....	201-0443.....	3/8"-16 x 1" Hex Head Bolt, Grade 5, ZP.....	14
24.....	201-1010.....	3/8"-16 x 1" Whiz Flange Bolt.....	10
25.....	201-1015.....	5/16"-18 x 1" Whiz Flange Bolt.....	10
26.....	201-1036.....	5/8"-11 x 7" Hex Head Bolt, Grade 5, ZP.....	2
27.....	202-0064.....	5/8"-11 Hex Nylon Insert Lock Nut, ZP.....	2
28.....	202-0070.....	5/16"-18 Whiz Flange Lock Nut, ZP.....	20
29.....	202-0071.....	3/8"-16 Whiz Flange Lock Nut, ZP.....	12
30.....	202-0090.....	3/8"-16 Hex Nylon Insert Lock Nut, ZP.....	12
31.....	202-0094.....	1/2"-13 Hex Nylon Insert Lock Nut, ZP.....	2
32.....	202-0097.....	5/16"-18 Hex Nylon Insert Lock Nut, ZP.....	14
33.....	203-0006.....	5/8" FFlat Washer, ZP.....	12
34.....	203-0017.....	1" Flat Washer.....	4
35.....	204-0213.....	#50 x 15 Tooth 1" Bore Hardened Teeth Sprocket.....	2
36.....	206-0249.....	50 x 186 Pitch Chain Including Convenience Link.....	2
37.....	209-0032.....	1" Flangette Bearing Insert.....	4
38.....	211-0023.....	1" Flangette Housing.....	8
39.....	220-0033.....	1/4" x 1-3/8" Spring Pin.....	2
40.....	227-0138.....	2" Parker Bolt Hydraulic Material.....	1
41.....	229-1107.....	Two-Piece Clamp-On Shaft Collar w/ Keyway.....	2
42.....	250-0292.....	4.10/3.50/4 Flat-Free Tire.....	2
43.....	250-0295.....	4.10/3.50/4 w/ Keyed 3/4" Bore Flat-Free Tire.....	2
44.....	294-1105.....	Electric Hopper Walker Kit.....	1

Discharge Assembly

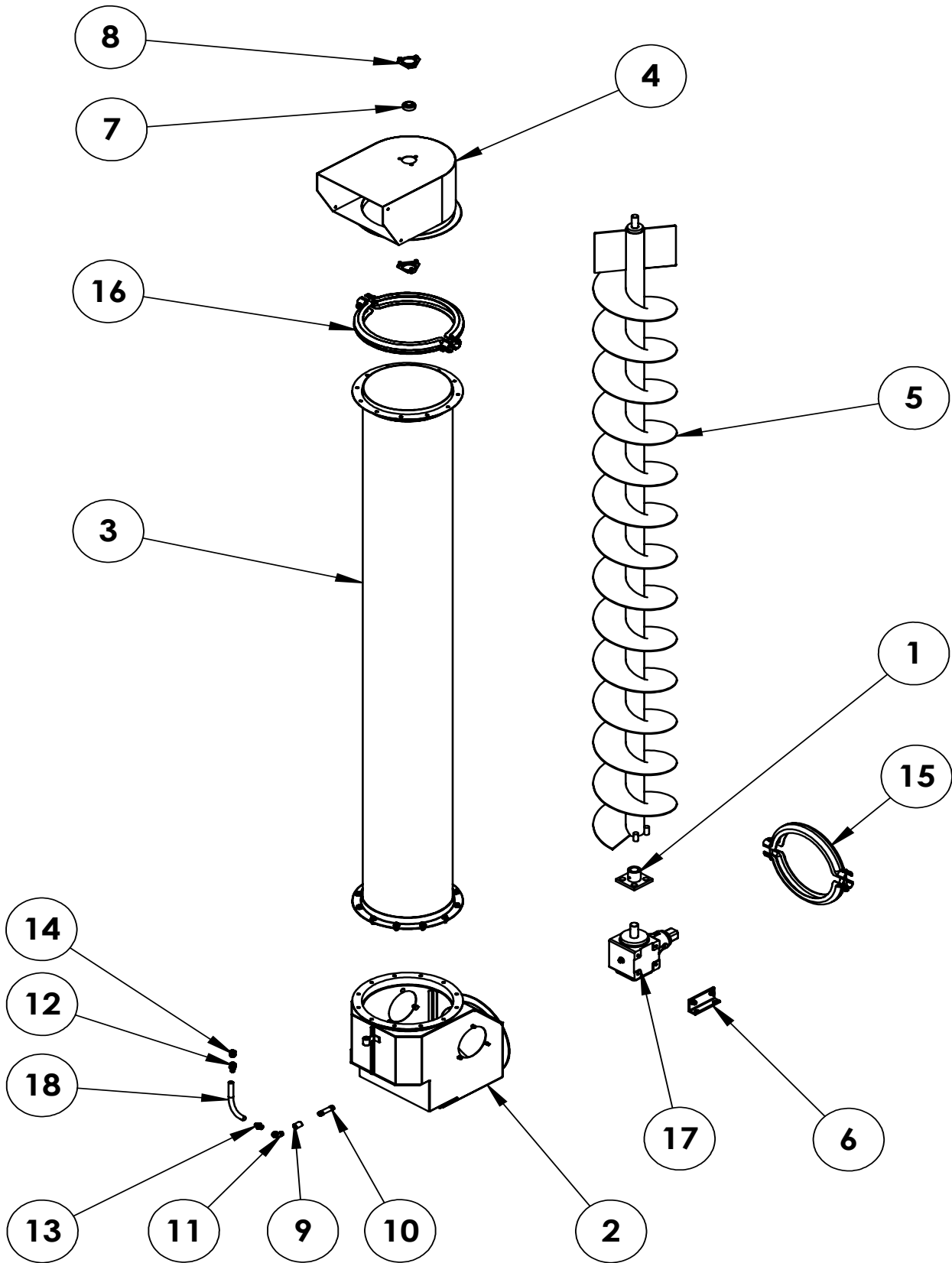


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Discharge Assembly Cont.

Item No.	Part No.	Description	Qty.
1	61-6718	Auger Flipper	2
2	61-6719	Auger Base Screw	1
3	61-7844	Upper Auger Cylinder Pivot Mount	1
4	61-8017	Rolled Channel Guide	1
5	61-8018	Channel Guide Upright Mount	1
6	61-8019	Channel Guide Lower Support	1
7	61-8022	Rear Grease Bank	1
8	62-3700	11' Discharge Auger Assembly	1
	62-4158	13' Discharge Auger Assembly	1
9	63-3692	14" Discharge Auger Spout Kit	1
10	101-2306	Clean Out Door Cover	2
11	101-7472	14" Tube Clamp	1
12	101-9580	Long Adjustable Brace	1
13	101-9582	Short Adjustable Brace	1
14	101-9831	Channel Guide Upper Attachment Plate	1
15	101-9832	Channel Guide Brace Long Plate	1
16	101-9833	Channel Guide Brace Short Plate	1
17	101-9840	Rear Shield Plate	1
18	107-3971	Base Auger Spacer Tube	1
19	201-0034	3/8"-16 x 1" Carriage Bolt, Grade 5, ZP	2
20	201-0058	1/2"-13 x 1-1/4" Carriage Bolt, Grade 5, ZP	7
21	201-0400	3/4"-10 x 5-1/2" Hex Head Bolt, Grade 5, ZP	1
22	201-0404	3/8"-16 x 1-3/4" Hex Head Bolt, Grade 5, ZP	4
23	201-1015	5/16"-18 x 1" Whiz Flange Bolt	6
24	201-1049	1/2"-13 x 1-1/2" Whiz Flange Bolt, Grade 5, ZP	6
25	202-0070	5/16"-18 Hex Flange Whiz Lock Nut, ZP	6
26	202-0071	3/8"-16 Hex Flange Whiz Lock Nut, ZP	4
27	202-0072	1/2"-13 Hex Flange Whiz Lock Nut, ZP	19
28	202-0107	3/4"-10 Hex Nylon Insert Lock Nut, ZP	1
29	203-0007	3/4" Flat Washer, ZP	1
30	227-0134	2-3/4" Bore x 20" Stroke Cylinder	1
31	290-0601	2" OD x 25/32" ID x 1/2" Nylon	1
32	290-0602	1-15/16" OD x 25/32" ID x 1-3/8" Nylon	1

Discharge Auger Assembly (11 ft. & 13 ft.)

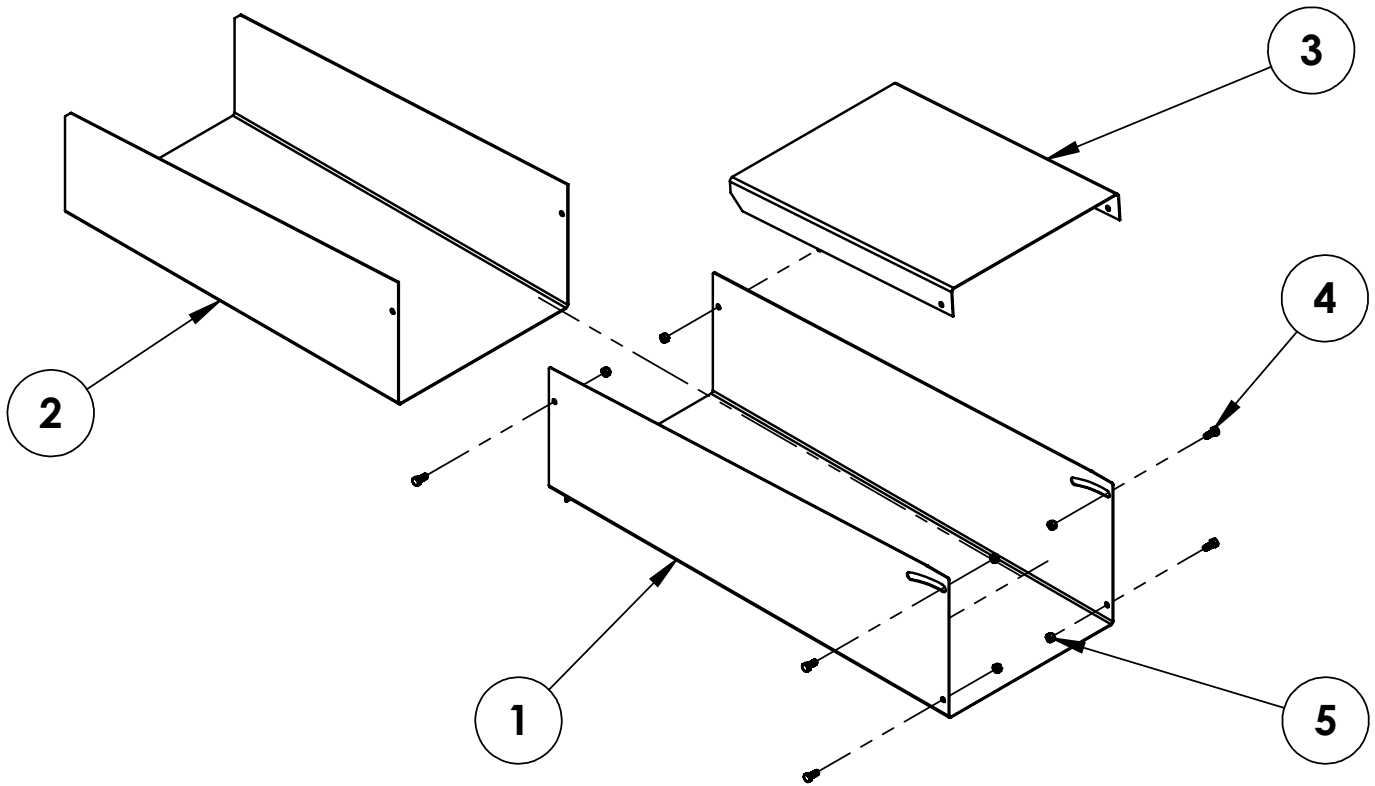


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Discharge Auger Assembly Cont. (11 ft. & 13 ft.)

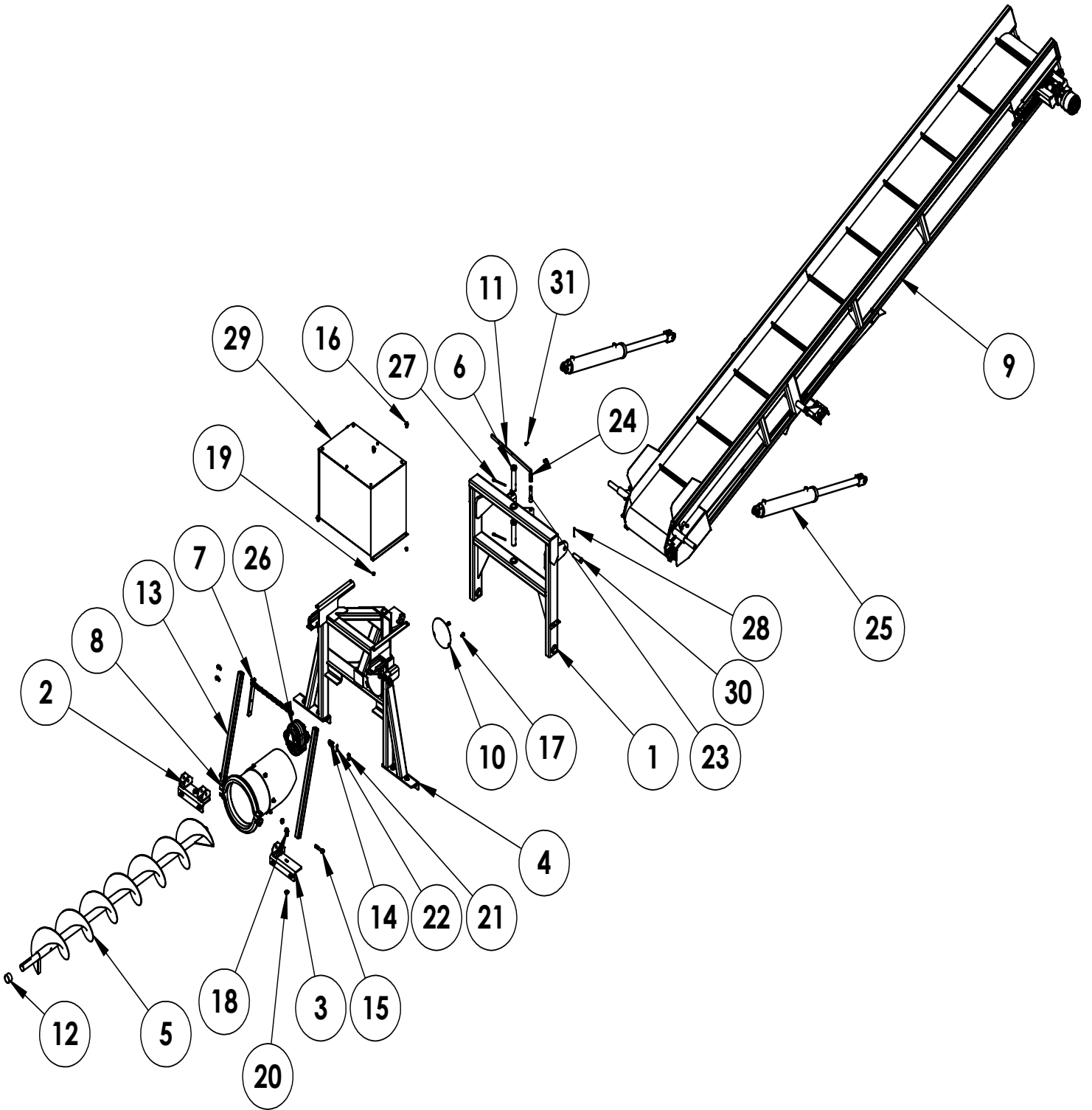
Item No.	Part No.	Description	Qty.
1.....	61-1890	Capped Driven End Adapter.....	1
2.....	61-6638	12"-14" Discharge Elbow.....	1
3.....	61-6666	14" Discharge Tube	1
.....	61-7933	13', 14" Discharge Tube	1
4.....	61-6668	14" Discharge Auger Head	1
5.....	61-6673	14" Discharge Auger Screw.....	1
.....	61-7932	13', 14" Discharge Auger Screw.....	1
6.....	105-0942	Gearbox Support	1
7.....	209-0032	1" Flangette Bearing Insert.....	1
8.....	211-0023	1" Flangette Housing	2
9.....	224-0315	0.38 Pipe Coupler.....	1
10.....	224-0316	3/8" x 3" Nipple	1
11.....	224-0570	3/8" NPT x 45° Street Elbow.....	1
12.....	224-0695	1/2" x 1/2" Hose Barb	1
13.....	224-0696	3/8" NPT x 1/2" Hose Barb	1
14.....	224-0749	1/2" NPT Vent Plug.....	1
15.....	225-0041	12" Clamp Band Set	1
16.....	225-0060	14" Clamp Band Set	1
17.....	228-0011	Discharge Auger Gearbox.....	1
18.....	253-0257	1/2" OD Clear Plastic Hose, 11"	1

Downspout Kit



Item No.	Part No.	Description	Qty.
1.....	61-6685.....	14" Lower Spout.....	1
2.....	101-7482.....	14" Spout Extension.....	1
3.....	101-7483.....	14" Spout Splash Sheet.....	1
4.....	201-0003.....	5/16"-18 x 3/4" Hex Head Bolt, Grade 5, ZP.....	6
5.....	202-0015.....	5/16"-18 Hex Lock Nut, Center Dimple, ZP.....	6

Conveyor Discharge Kit (18" Wide)

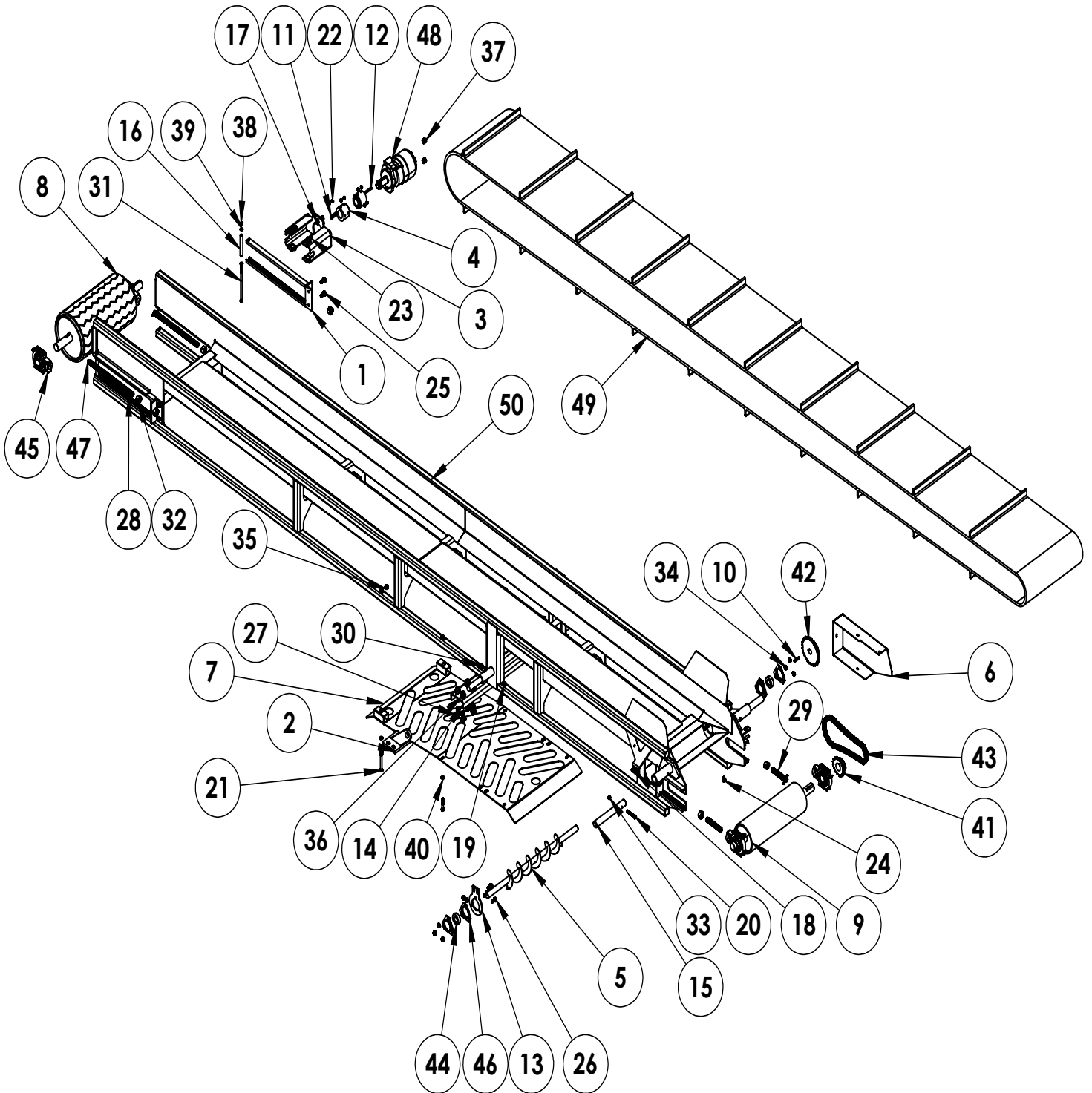


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Conveyor Discharge Kit Cont. (18" Wide)

Item No.	Part No.	Description	Qty.
1	61-8169	Conveyor Pivot Mount	1
2	61-8174	Transport Rack and Conveyor Mount	1
3	61-8175	Conveyor Mount, Driver Side	1
4	61-8239	Conveyor Mount, Mill Side	1
5	61-8241	Auger Screw	1
6	62-4078	Conveyor Pivot Pin	2
7	62-4230	Hydraulic PTO Pump Torque Arm	1
8	62-4231	12" Conveyor End Cap	1
9	62-4245	18" Wide x 15' Long Conveyor	1
10	101-10218	Hydraulic PTO Pump Shaft Cover Plate	1
11	101-10303	Conveyor Latch Pin Lever Plate	1
12	107-3971	Base Auger Spacer Tube	1
13	107-4017	Conveyor Mount Rear Support Tube	2
14	201-0758	3/8"-16 x 1-3/4" x 3/4" U-Bolt, Grade 5, ZP	1
15	201-0888	1/2"-13 x 3" Hex Head Bolt w/ Flange	4
16	201-1010	3/8"-16 x 1" Whiz Flange Bolt	6
17	201-1015	5/16"-18 x 1" Whiz Flange Bolt	2
18	201-1049	1/2"-13 x 1-1/2" Whiz Flange Bolt, Grade 5, ZP	14
19	202-0071	3/8"-16 Hex Flange Whiz Lock Nut, ZP	4
20	202-0072	1/2"-13 Hex Flange Whiz Lock Nut, ZP	18
21	202-0090	3/8"-16 Hex Nylon Insert Lock Nut, ZP	2
22	203-0003	3/8" Flat Washer, ZP	2
23	207-1188	Conveyor Latch Pivot Stop Pin	1
24	222-0183	0.97" OD x 0.81" ID x 2" L Compression Spring	1
25	227-0135	3-1/2" Bore x 20" Stroke Cylinder	2
26	227-0147	1-3/8" x 21 Spline PTO Drive 3.6 In ³ /Rev Hyd. Pump	1
27	229-0933	1/4" DIA x 3-1/2" Cotter Pin, ZP	2
28	229-1006	5/32" x 2" Cotter Pin	2
29	229-1125	30 Gallon Modified Hydraulic Reservoir	1
30	229-1141	1" DIA x 2-15-16" EFF Pin, ZP	2
31	229-1142	1/4" DIA x 7/8" EFF Pin w/ Retaining Ring, ZP	2

Conveyor Assembly (18" Wide x 15" Long)

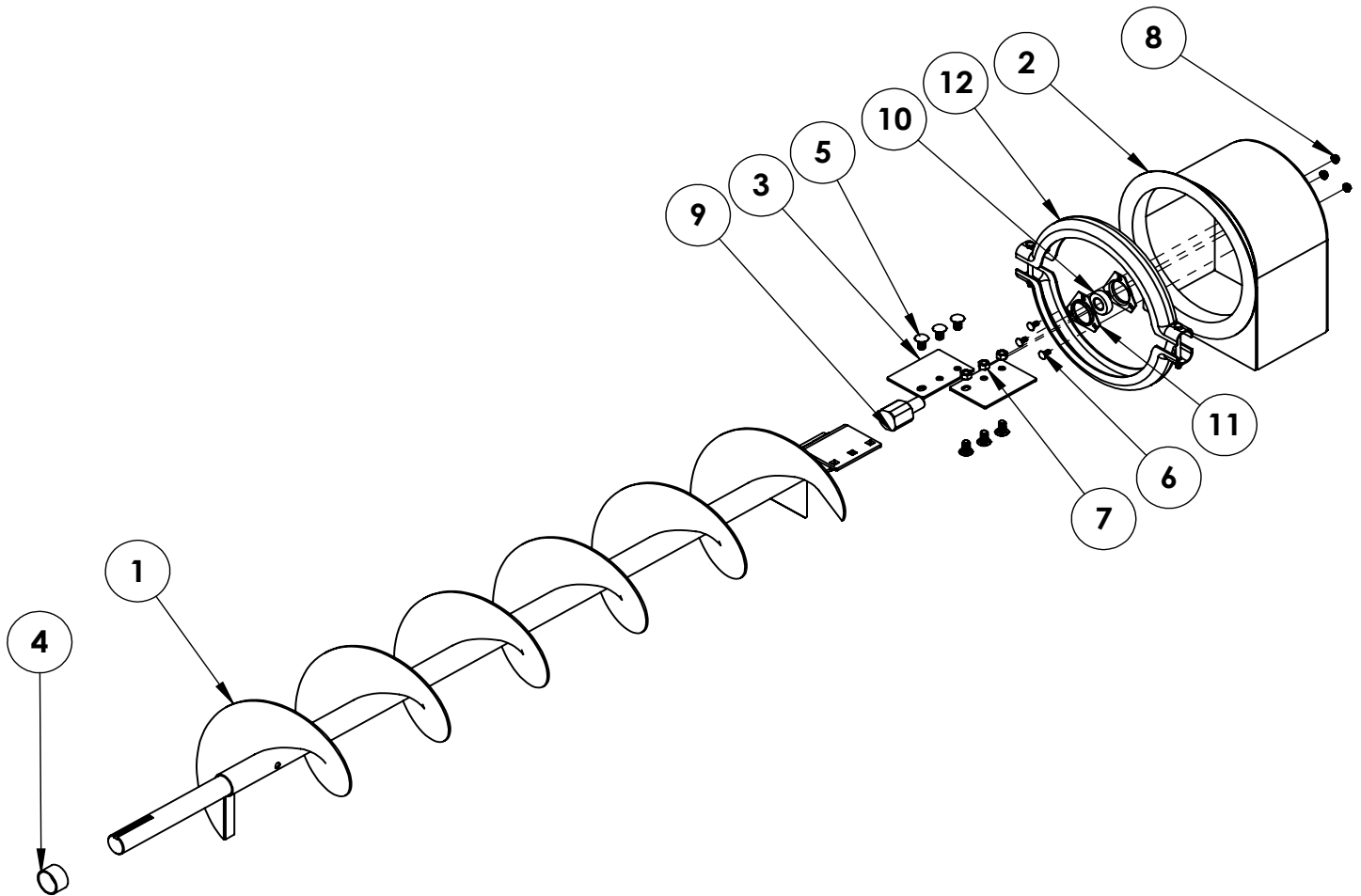


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Conveyor Assembly Cont. (18" Wide x 15" Long)

Item No.	Part No.	Description	Qty.
1	61-7922	Upper Take UP Bearing Bracket	2
2	61-7926	Lift Cylinder Upper Mounting Bracket	2
3	61-8093	Conveyor Hydraulic Motor Mount	1
4	61-8107	1-1/4" to 1-7/16" Shaft Coupler	1
5	61-8177	28-3/4" Left Hand Auger	1
6	61-8178	Guard	1
7	61-8179	Belt Guide	1
8	62-4186	Head Pulley	1
9	62-4187	Tail Pulley	1
10	100-0059	1/4" x 1/4" x 1-1/2" Key	1
11	100-0224	3/8" x 3/8" x 2" Key	2
12	100-0545	1/4" x 1/4" x 2" Key	1
13	101-9655	Scraper Auger Bearing Mounting Bracket	1
14	101-10206	Cylinder Mount Plate	1
15	104-1036	Conveyor Lifting Pivot Rod	2
16	107-3885	5/8" OD x .120" W x 4.328" Tube	2
17	201-0068	1/2"-13 x 1-3/4" Hex Head Bolt, Grade 5, ZP	2
18	201-0121	5/16"-18 x 1" Carriage Bolt, Grade 5, ZP	2
19	201-0332	3/8"-16 x 2-1/4" Hex Head Bolt, Grade 5, ZP	4
20	201-0414	5/16"-18 x 2-1/2" Hex Head Bolt, Grade 5, ZP	2
21	201-0618	3/8"-16 x 4" Hex Head Bolt, Grade 5, ZP	2
22	201-0699	1/4"-20 x 1/2" Knurled Set Screw, ZP	8
23	201-0846	1/4"-20 x 3/4" Socket Head Cap Screw	4
24	201-0927	1/4"-20 x 5/8" Serrated Cap Screw	4
25	201-1010	3/8"-16 x 1" Whiz Flange Bolt	4
26	201-1043	5/16"-18 x 1" Whiz Flange Bolt, Grade 5, FT, ZP	3
27	201-1049	1/2"-13 x 1-1/2" Whiz Flange Bolt, Grade 5, ZP	8
28	201-1053	3/4"-10 x 14" Rod, FT	2
29	201-1055	3/4"-10 x 4-1/2" Rod, FT	2
30	201-1056	1/2"-13 x 2-1/2" Whiz Flange Bolt, Grade 5, ZP	4
31	201-1059	5/16"-18 x 7" Hex Head Bolt, Grade 5, ZP	2
32	202-0007	3/4"-10 Hex Nut, ZP	8
33	202-0015	5/16"-18 Hex Center Dimple Lock Nut, ZP	2
34	202-0070	5/16"-18 Whiz Flange Lock Nut, ZP	8
35	202-0071	3/8"-16 Hex Flange Whiz Lock Nut, ZP	10
36	202-0072	1/2"-13 Hex Flange Whiz Lock Nut, ZP	12
37	202-0094	1/2"-13 Hex Nylon Insert Lock Nut, ZP	2
38	202-0097	5/16"-18 Hex Nylon Insert Lock Nut, ZP	2
39	203-0002	5/16" Flat Washer, ZP	4
40	203-0003	3/8" Flat Washer, ZP	6
41	204-0209	#50 x 17 Tooth, 1-7/16" Bore Sprocket	1
42	204-0210	#50 x 26 Tooth, 1" Bore Sprocket	1
43	206-0019	#50 x 49 Pitch Chain + Convenience Link + Offset Link	1
44	209-0032	1" Flangette Bearing Insert	2
45	209-0172	1-7/16" Take-Up Bearing	4
46	211-0023	1" Flangette Housing	4
47	220-0005	1/4" x 1-3/4" Spring Pin	4
48	227-0149	Hydraulic Motor, 2 Bolt, Parker	1
49	251-0198	18" x 31'-5" 2 Ply Cross Cleat x BB Belt	1
50	229-0802	18" W x 15' Long Non Folding Conveyor	1

No Discharge Auger Assembly



Item No.	Part No.	Description	Qty.
1.....	61-6719	Auger Base Screw.....	1
2.....	61-7158	12" Auger Base Head	1
3.....	101-8134	Auger Base Paddle	2
4.....	107-3971	Base Auger Spacer Tuber	1
5.....	201-0024	1/2"-13 x 1" Carriage Bolt, Grade 5	6
6.....	201-0119	5/16"-18" x 3/4" Carriage Bolt, Grade 5	3
7.....	202-0016	1/2"-13 Hex Center Dimpled Lock Nut	6
8.....	202-0070	5/16"-18 Hex Flange Whiz Lock Nut, ZP	3
9.....	207-1099	Square Head Transfer Shafter	1
10.....	209-0032	1" Flangette Bearing Insert.....	1
11.....	211-0023	1" Flangette Housing.....	2
12.....	225-0041	12" Clamp Band Set.....	1

Swing Intake & Discharge Hydraulic Assembly

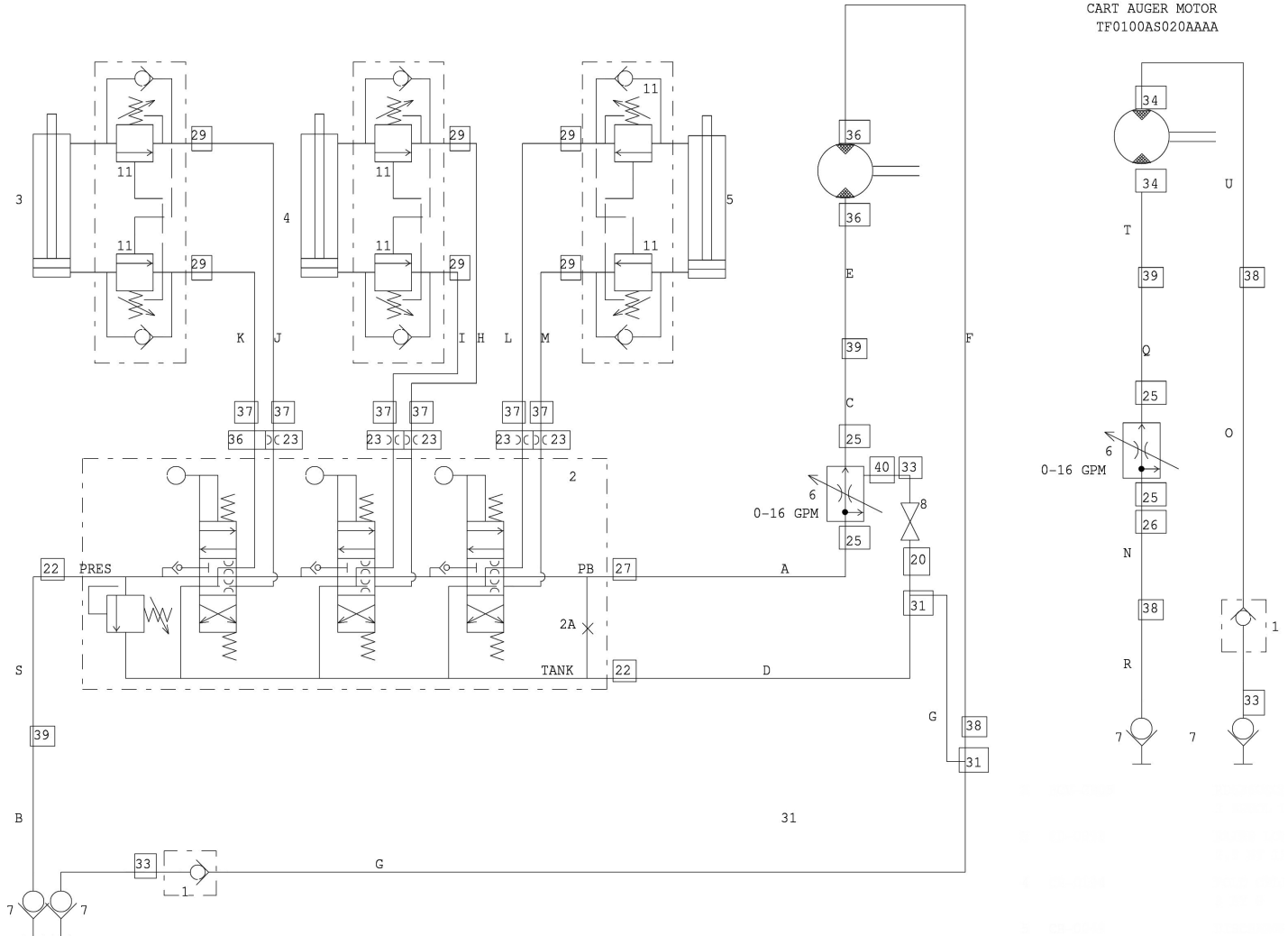
RAISE LOWER
CD0096
SAE42512 W. CB. VALVES
2.5 BY 12

FOLD
CB-0194
SAE43008 W. CB VALVES
3 BY 8

REAR DISCHARGE PIVOT
CB-0049
F275200CSSTCC WITH CBVALVES
2.75 BY 20

FEED auger motor
TF0130AS020AAAA

CART AUGER MOTOR
TF0100AS020AAAA



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Swing Intake & Discharge Hydraulic Assembly Cont.

Item No.	Part No.	Description	Qty.
A	253-0340	17" JIC Straight to Long 90° Hydraulic Hose	1
B & R	253-0341	132" JIC Straight to Straight Hydraulic Hose	2
C	253-0342	100" JIC Straight to Long 90° Hydraulic Hose	1
D	253-0343	25" JIC Straight to Short 90° Hydraulic Hose	1
E	253-0344	162" JIC Straight to Long 90° Hydraulic Hose	1
F	253-0345	162" JIC Straight to Short 90° Hydraulic Hose	1
G	253-0346	84" JIC Straight to Short 90° Hydraulic Hose	1
H - K	253-0353	197" JIC Straight to Short 90° Hydraulic Hose	4
L - M	253-0354	179" JIC Straight to Short 90° Hydraulic Hose	2
N	253-0347	103" JIC Straight to Short 90° Hydraulic Hose	1
O - P	253-0348	132" JIC Straight to Straight Hydraulic Hose	2
Q	253-0349	108" JIC Straight to Straight Hydraulic Hose	1
S	253-0350	83" JIC Straight to Short 90° Hydraulic Hose	1
T	253-0351	336" JIC Straight to Long 90° Hydraulic Hose	1
U	253-0352	336" JIC Straight to Short 90° Hydraulic Hose	1
1	229-1055	NPTF 3/4" Female-ANSI Standard Check Valve	2
2A	229-1052	#12 SAE Power Beyond Plug Valve	1
6	229-1069	3000 PSI, 30 GPM Flow Control Valve	2
7	229-1056	Standard Couplings w/Poppet Quick Disconnect Valve	4
8	229-1071	1/2" NPT Block Body Ball Valve	1
20	224-0740	3/4"-16 Male JIC to 1/2"-14 Male Pipe Adapter	1
22	224-0728	3-4"-16 Male JIC to 1-1/16"-12 Male O-Ring Adapter	2
23	229-1060	3/4"-16 Male JIC to 7/8"-14 Male O-Ring Orifice Fitting	5
25	224-0731	3/4"-16 Male JIC to 3/4"-14 Male Pipe, 90° Elbow, Adpt	5
26	224-0732	3/4"-16 Male JIC to 3/4"-16 Female JIC Swivel Adapter	1
27	224-0729	3/4"-16 Male JIC to 1-1/16"-12 Male O-Ring Adapter	1
29	224-0744	9-16"-18 Male JIC to 9/16"-18 Male O-Ring, 90° Elbow	6
31	224-0730	3/4"-16 M JIC to 3/4"-16 F JIC Swivel to 3/4"-16 M JIC	2
33	224-0738	3/4"-14 Male Pipe to 1/2"-14 Male Pipe, Straight	2
34	224-0742	3/4"-16 Male JIC to 7/8"-14 Male O-Ring, 45° Elbow	2
36	224-0739	3/4"-16 male JIC to 7/8"-14 Male O-Ring	3
37	224-0791	2406-8-6 Adapter	6
38	224-0794	2700LN-08-08 Bulkhead Union Adapter	3
39	224-0795	2701LN-08-08 Bulkhead Union x 90° Adapter	3
40	224-0796	3/4"-14 Male NPTF 12"-14 NPTF Hex Rdcr Bushing	1
N/A	225-0069	1/2" Hose Clamp (Not Shown)	13
N/A	225-0070	1/4" Hose Clamp (Not Shown)	5

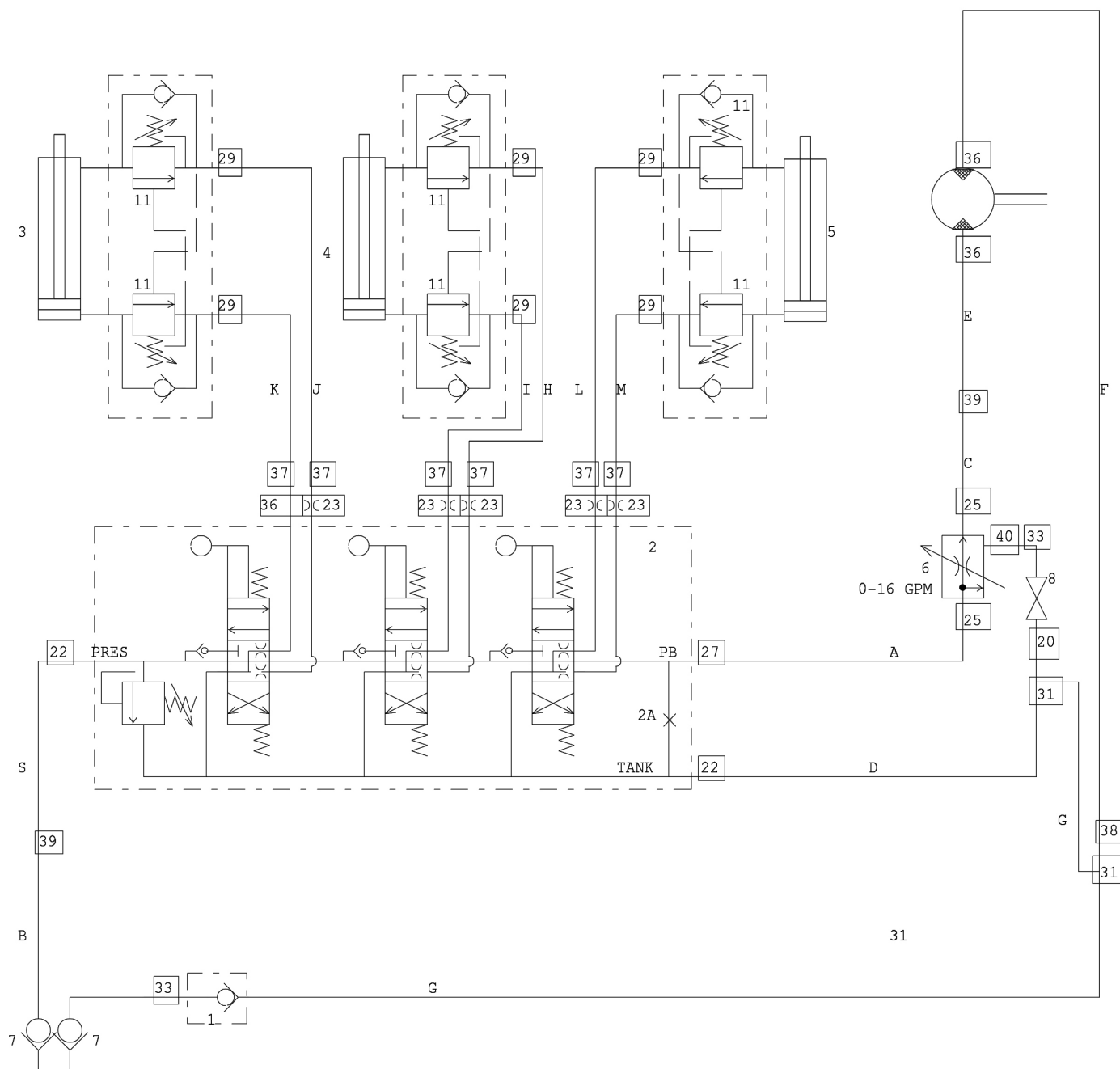
Standard Intake & Discharge Hydraulic Assembly

RAISE LOWER
CD0096
SAE42512 W. CB. VALVES
2.5 BY 12

FOLD
CB-0194
SAE43008 W. CB VALVES
3 BY 8

REAR DISCHARGE PIVOT
CB-0049
F275200CSSTCC WITH CBVALVES
2.75 BY 20

FEED auger motor
TF0130AS020AAAA

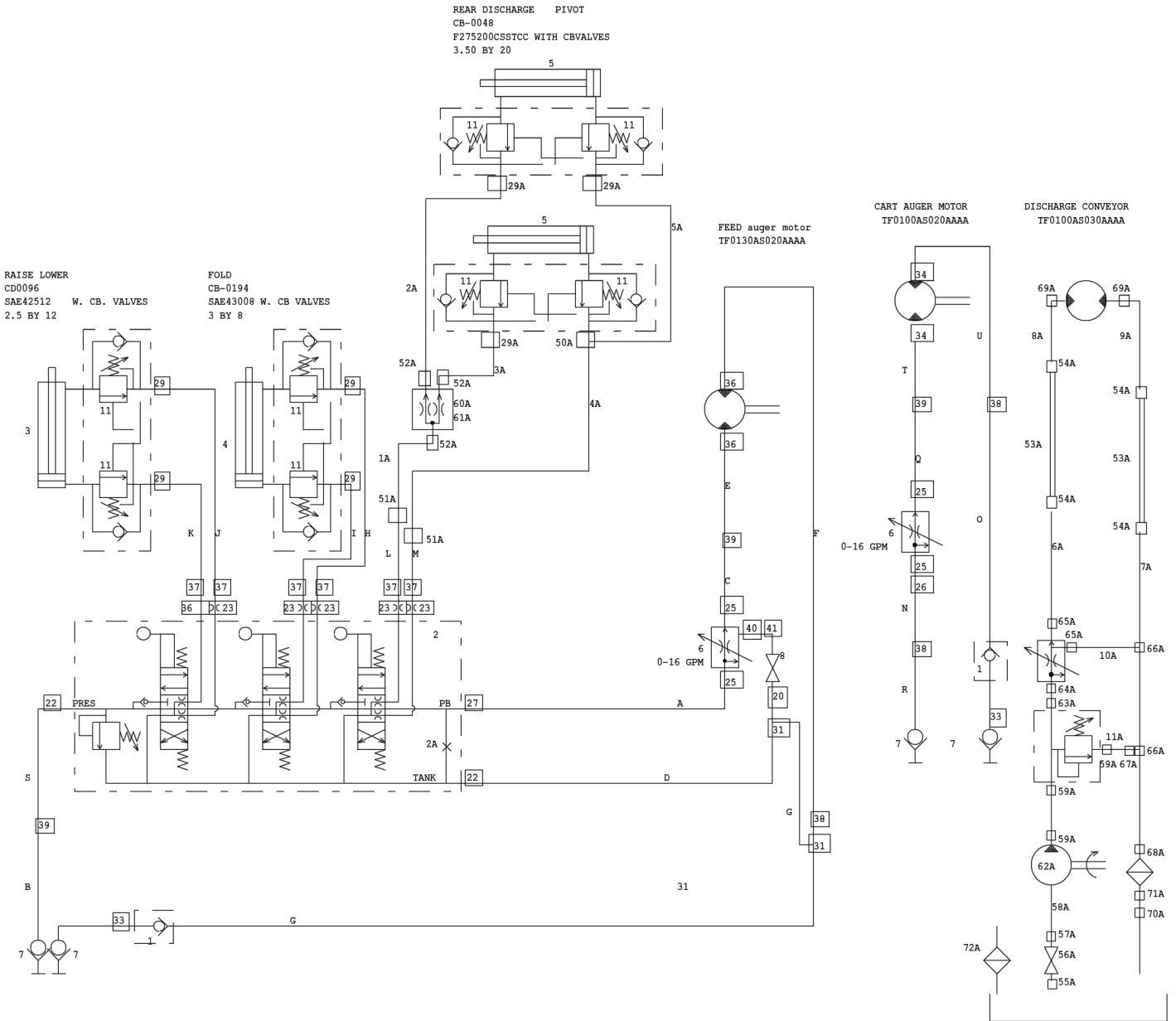


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Standard Intake & Discharge Hydraulic Assembly Cont.

Item No.	Part No.	Description	Qty.
A	253-0340	17" JIC Straight to Long 90° Hydraulic Hose	1
B	253-0341	132" JIC Straight to Straight Hydraulic Hose	1
C	253-0342	100" JIC Straight to Long 90° Hydraulic Hose	1
D	253-0343	25" JIC Straight to Short 90° Hydraulic Hose	1
E	253-0344	162" JIC Straight to Long 90° Hydraulic Hose	1
F	253-0345	162" JIC Straight to Short 90° Hydraulic Hose	1
G	253-0346	84" JIC Straight to Short 90° Hydraulic Hose	1
H - K	253-0353	197" JIC Straight to Short 90° Hydraulic Hose	4
L - M	253-0354	179" JIC Straight to Short 90° Hydraulic Hose	2
P	253-0348	132" JIC Straight to Straight Hydraulic Hose	1
S	253-0350	83" JIC Straight to Short 90° Hydraulic Hose	1
1	229-1055	NPTF 3/4" Female-ANSI Standard Check Valve	1
2A	229-1052	Power Beyond Plug, #12 SAE	1
6	229-1069	3000 PSI, 30 GPM Flow Control Valve	1
7	229-1056	Standard Couplings w/ Poppet Quick Disconnect Valve	2
8	229-1071	1/2" NPT Block Body Ball Valve	1
20	224-0740	3/4"-16 Male JIC to 1/2"-14 Male Pipe Adapter	1
22	224-0728	3-4"-16 Male JIC to 1-1/16"-12 Male O-Ring Adapter	2
23	229-1060	3/4"-16 Male JIC to 7/8"-14 Male O-Ring Orifice Fitting	5
25	224-0731	3/4"-16 Male JIC to 3/4"-14 Male Pipe, 90° Elbow, Adpt	3
27	224-0729	3/4"-16 Male JIC to 1/16"-12 Male O-Ring, 90° Elbow	1
29	224-0744	9-16"-18 Male JIC to 9/16"-18 Male O-Ring, 90° Elbow	6
31	224-0730	3/4"-16 M JIC to 3/4"-16 F JIC to 3/4"-16 M JIC	2
33	224-0738	3/4"-14 Male Pipe to 1/2"-14 Male Pipe, Straight	1
36	224-0739	3/4"-16 male JIC to 7/8"-14 Male O-Ring	3
37	224-0791	2406-8-6 Adapter	6
38	224-0794	2700LN-08-08 Bulkhead Union Adapter	1
39	224-0795	2701LN-08-08 Bulkhead Union x 90° Adapter	2
40	224-0796	3/4"-14 M NPTF-N to 1/2"-14 F NPTF Hex Rdcr Bush	1
N/A	225-0069(Not Shown)	1/2" Hose Clamp	7
N/A	225-0070(Not Shown)	1/4" Hose Clamp	5

Swing Intake & Conveyor Hydraulic Assembly



continued on pages 44 & 45

Swing Intake & Conveyor Hydraulic Assembly Cont.

Item No.	Part No.	Description	Qty.
A	253-0340	17" JIC Straight to Long 90° Hydraulic Hose	1
B & R	253-0341	132" JIC Straight to Straight Hydraulic Hose	2
C	253-0375	102" JIC Straight to Straight Hydraulic Hose	1
D	253-0343	25" JIC Straight to Short 90° Hydraulic Hose	1
E	253-0377	176" JIC Straight to Short 90° Hydraulic Hose	1
F	253-0376	176" JIC Straight to Long 90° Hydraulic Hose	1
G	253-0346	84" JIC Straight to Short 90° Hydraulic Hose	1
H - K	253-0353	197" JIC Straight to Short 90° Hydraulic Hose	4
L - M	253-0354	179" JIC Straight to Short 90° Hydraulic Hose	2
N	253-0347	103" JIC Straight to Short 90° Hydraulic Hose	1
O - P	253-0348	132" JIC Straight to Straight Hydraulic Hose	2
Q	253-0349	108" JIC Straight to Straight Hydraulic Hose	1
S	253-0350	83" JIC Straight to Short 90° Hydraulic Hose	1
T	253-0351	336" JIC Straight to Long 90° Hydraulic Hose	1
U	253-0352	336" JIC Straight to Short 90° Hydraulic Hose	1
1	229-1055	NPTF 3/4" Female-ANSI Standard Check Valve	2
1A	253-0389	8.5" Straight to Straight Hydraulic Hose	1
2A	229-1052	Power Beyond Plug, #12 SAE	1
2A	253-0390	26" Straight to Straight Hydraulic Hose	1
3A	253-0391	51" Straight to Straight Hydraulic Hose	1
4A	253-0392	32" Straight to Straight Hydraulic Hose	1
5A	253-0393	30.5" Straight to Straight Hydraulic Hose	1
6	229-1069	3000 PSI, 30 GPM Flow Control Valve	2
6A & 7A	253-0394	61" JIC Straight to 90° Hydraulic Hose	2
7	229-1056	Standard Couplings w/ Poppet Quick Disconnect Valve	4
8	229-1071	1/2" NPT Block Body Ball Valve	1
8A & 9A	253-0395	27.5" JIC Straight to Straight Hydraulic Hose	2
10A	253-0396	22" JIC Straight to Straight Hydraulic Hose	1
11A	253-0397	29.5 JIC Straight to Straight Hydraulic Hose	1
20	224-0740	3/4"-16 Male JIC to 1/2"-14 Male Pipe Adapter	1
22	224-0728	3-4"-16 Male JIC to 1-1/16"-12 Male O-Ring Adapter	2
23	224-0739	3/4"-16 male JIC to 7/8"-14 Male O-Ring	5
25	224-0731	3/4"-16 Male JIC to 3/4"-14 Male Pipe, 90° Elbow, Adpt	4
26	224-0732	3/4"-16 Male JIC to 3/4"-16 Female JIC Swivel Adapter	1
27	224-0729	3/4"-16 Male JIC to 1/16"-12 Male O-Ring, 90° Elbow	1
29 & 29A	224-0744	9-16"-18 Male JIC to 9/16"-18 Male O-Ring, 90° Elbow	9

Swing Intake & Conveyor Hydraulic Assembly Cont.

Item No.	Part No.	Description	Qty.
31	224-0730	3/4"-16 M JIC to 3/4"-16 F JIC to 3/4"-16 M JIC	2
33	224-0738	3/4"-14 Male Pipe to 1/2"-14 Male Pipe, Straight	2
34	224-0742	3/4"-16 Male JIC to 7/8"-14 Male O-Ring, 45° Elbow	2
36	224-0841	3/4"-16 Male JIC to 7/8"-14 Male O-Ring Adapter	3
37	224-0791	2406-8-6 Adapter	6
38	224-0794	2700LN-08-08 Bulkhead Union Adapter	3
39	224-0795	2701LN-08-08 Bulkhead Union x 90° Adapter	3
40	224-0796	3/4"-14 M NPTF-N to 1/2"-14 F NPTF Hex Rdcr Bush	1
41	224-0812	1/2" NPT to Male 1/2" NPT, 90° Elbow Coupling	1
50A	224-0832	9/16"-18 M JIC to 9/16"-18 M O-Ring to 9/16"-18 M JIC	1
51A	224-0777	Bulkhead Union Adapter	2
52A	224-0792	6400-6-6 Adapter	3
53A	253-0388	1" Pipe Assembly by 160RB-8FT	2
54A	224-0833	1-1/16"-12 Male JIC to 1-5/16"-12 Male O-Ring Adpt	4
55A	224-0157	1" NPT Close Nipple	1
56A	224-0834	1" NPT Ball Valve, Brass	1
57A	224-0835	1"-11 1/2" Male Pipe to 1" Hose Barb Adapter	1
58A	253-0398	GMV Return Line and Suction Hose, 21" Long	1
59A	224-0769	6801-12-12 Adapter	3
60A	229-1136	Flow Divider/Combiner, Rexroth	1
61A	229-1137	Flow Divider Cartridge, Rexroth	1
63A	224-0836	1-1/16"-12 Male O-Ring to 3/4"-14 Female Pipe, Swvl	1
64A	224-0775	2404-12-12 Adapter	1
65A	224-0774	2501-12-12 Adapter	2
66A	224-0736	1-1/16"-12 MJIC; 1-1/16-12 FJIC; 1-1/16"-12 MJIC	2
67A	224-0837	1-1/16"-12 MJIC to 1-1/16"-12 FJIC Swivel, 90°	1
68A	224-0838	1-1/16"-12 Male JIC to 1-1/4"-11 1/2" Male Pipe	1
69A	224-0839	1-1/16"-12 MJIC to 7/8"-14 M O-Ring x 45° Elbow	2
70A	224-0334	1-1/4" NPT Close Nipple	1
71A	224-0840	1-1/4" NPT x 90° Street Elbow	1
72A	224-0842	1" NPT FPC Breather Cap	1
73A	229-1138	Prince Flow Divider, RD1975-16	3
74A	229-1139	Prince Relief Valve, RV-1H	1
75A	224-0831	1-1/4" NPT Spin-On Filter Assembly	1
N/A	225-0069(Not Shown)	1/2" Hose Clamp	10
N/A	225-0070(Not Shown)	1/4" Hose Clamp	4
N/A	225-0073(Not Shown)	1-1/2" T-Bolt Clamp	2
N/A	225-0074(Not Shown)	Plastic Insert for 225-0069	3
N/A	229-1116(Not Shown)	Dual 1" Pipe Weld-On Clamp, TW31315-PP	2

Troubleshooting

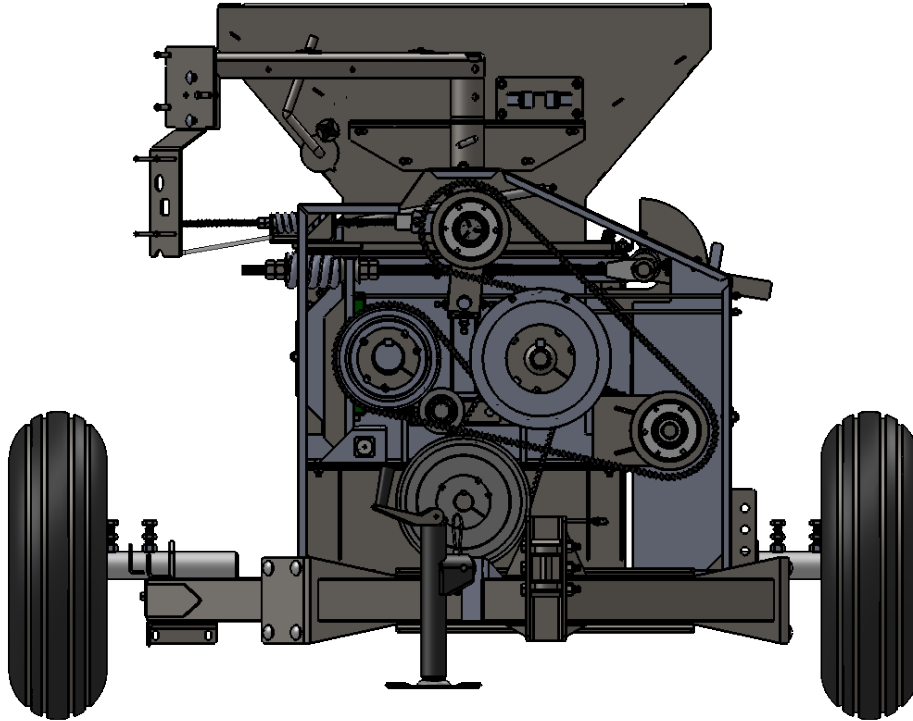
This section is a condensed chart to help you remedy problems if unsatisfactory operation occurs. If you are unable to determine and correct the trouble, consult your authorized dealer.

TROUBLE	CAUSE	REMEDY
Shearing Bolt in PTO	1. Starting mill with grain between rolls.	Always run mill a short time to clean out mill. Close grain control gate above rolls before stopping mill.
	2. Low RPM.	Run full throttle at all times. PTO will easily shear under load below this speed.
	3. Overload on mills.	Running damp, high moisture grain can cause "sticking to the rolls", and cause an abnormal power requirement on new mills. There sometimes can be sticking of dry grain to new rolls, particularly on oats and barley. This condition should not continue after 2,000 - 3,000 bushels of grain have been run.
	4. Opening grain control gate too fast and too far open.	Always open gate slowly and open only as far as necessary to keep rolls "hungry". Don't over feed rolls and cause an excess building up of grain in roll pocket between rolls.
Intake Auger Speed Control Ineffective	1. Hydraulic hoses reversed at auger motor and/or tractor.	Switch hoses.
Intake Auger Runs Backward	1. Hydraulic hoses reversed at tractor.	Switch hoses.
Excessive Roll Wear	1. Overfeeding with excess grain continually sliding off top of rolls creates friction and excessive roll wear.	Keep rolls "hungry". Adjust control gate to feed in only amount of grain rolls will take away. Usually overfeeding is not the cause for roll wear on deep-grooved rollers.
	2. Crushing abrasive materials other than grain.	Mills are designed to be used only on grain or similar textured materials.
	3. Foreign matter, such as metal, going between rolls.	We recommend a magnetic trap to remove steel or iron from the grain.
	4. Gravel in grain.	Sand and small gravel is difficult to remove from grain because of similar sizes as grain. Larger gravel and small rocks can be removed by screening with wire hardware cloth on frame mounted in hopper.
	5. Large Rock in Mill	When machine is off check for rocks on a regular basis and remove.
Heating of PTO	1. Extreme angle of operation.	Do not operate over 15° out of line.
	2. Failure to grease.	Manufacturer recommends greasing.
Excess Vibration	1. Overextended PTO	Shorten distance between the mill and tractor.
	2. Extreme angle of PTO	Do not operate over 15° out of line.
	3. Uneven flow of grain into mill.	Eliminate "surging of grain" into mill as much as possible.
Whole Grain Coming Through Mill	1. Improper setting of rolls.	Rolls should be set closer together to crimp all grain being processed.
	2. Over feeding.	Grain control gate opened so wide rolls will not take all grain and builds up above rolls. This can cause some whole grain to go over top and not between rolls.
	3. Uneven size kernels.	This could be reason for a few small, poorly developed whole kernels going through mill. It is better to not set mill to crack these if in doing so you would "over-roll" the majority of the kernels.
	4. Large Foreign Object	Too large of an object is run through the rolls causing the pillow lock sheer bolt to shear. Can be fixed by loosening bearing and replacing block and bolt in proper position. Retighten bearing against block.

Troubleshooting cont'd

Mill is Hard to Start	1. Grain between rolls.	When grain is between rolls, separate rolls to allow grain to fall through or turn rolls backwards and scoop out grain by hand. The best remedy is to make a practice of closing gate before stopping mill so no grain is left between rolls.
Grain too Fine or Dusting of Grain	1. Over rolling.	Open control gate to allow more grain to feed into rollers or readjust spacing of rolls.
	2. Rolling mixed grain.	If mixed grains of different sizes are run together, to crack or crimp the small grain, the rolls "over roll" or pulverize larger kernels in mixed grain. As a general rule, all grains should be rolled separately and then mixed after rolling.
	3. Failure to reset rolls for different varieties of grain.	Always reset rolls every time a different grain is to be processed.
	4. Very dry grain, particularly when hard.	Open rolls wider than normal to eliminate over-rolling. On extreme cases, grain can be tempered by sprinkling a small amount of water over grain to be rolled and let stand 8 to 12 hours. This is generally done in small holding bin or wagon. The amount of moisture used depends on dryness of grain.
Belt Breakage or Slippage	1. Overloading roller mill.	Decrease load on roller mill by reducing intake rate.
	2. Belts too loose or too tight.	Tighten as per recommendation.
	3. Using new belts and old belts together.	Always replace with a complete, new matched set.

Front Belt Replacement



1. Release any tension in the upper idler spring so you have play in the upper idler
2. Put the belt on the mill in the orientation shown above.
3. Start tightening the nuts on the upper idler down onto the spring.
4. Compress the spring down to 5 inches.
5. Run the mill briefly to seat the belt.
6. Recheck the spring length to make sure it is still 5 inches.
7. Run the mill to check the belt alignment.
8. If the belt needs the alignment adjusted, the adjustment will be done by the lower idler pulley.
9. This may require to take off the front shield off to watch the alignment better and get to the adjustments easier.
IF YOU DO THIS BE CAREFUL NOT TO GET ANYTHING CAUGHT IN THE BELTS OR PULLEYS. THIS IS DANGEROUS AND CAN CAUSE SERIOUS INJURIES.
10. Loosen the bolt on the back of the lower idler shaft and the jam nuts on the lower idler shaft.
 1. The upper bolt will move the belt away from the mill.
 2. The lower and outside bolts will move the belt towards the mill.
 3. The lower bolt moves the belt more aggressively (about 3 times as much) then the side bolt.
11. Retighten the back bolt and jam nuts on the lower idler and replace the shields.

Warranty

TO BE VALID, THE WARRANTY CARD MUST BE COMPLETED IN ITS ENTIRETY BY AN AUTHORIZED DISTRIBUTOR OR DEALER AND SENT TO AUTOMATIC EQUIPMENT MANUFACTURING COMPANY, P.O. BOX 430, PENDER, NEBRASKA 68047. FAILURE TO DO SO WILL VOID THIS WARRANTY.

The manufacturer warrants all AUTOMATIC roller mills to be free from defects in material and workmanship under the normal use and service for which the machine was intended.

ONE YEAR WARRANTY - At any time within one (1) year from date of delivery to the original purchaser, the manufacturer will furnish replacement parts or repair material for any portion of the roller mill found to be defective. Such replacement part or repair material shall be furnished without cost to the owner or the user through an authorized dealer, or F.O.B. factory at manufacturer's option. Automatic liability under this warranty must be for part or parts but not for such labor charges involved for removing and replacing defective parts. The warranty repair period for equipment used for commercial or rental purposes is limited to thirty days. All rolls are guaranteed for life against breakage.

This warranty does not apply to any part of an Automatic roller mill which has been subject to misuse, neglect, alteration, accident, or damage caused by fire, flood, or other damage beyond control of the manufacturer. IN NO EVENT SHALL THE OWNER BE ENTITLED TO RECOVER FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES SUCH AS, BUT NOT LIMITED TO, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE OR COST OF RENTAL OR REPLACEMENT EQUIPMENT. No responsibility is assumed for delays or failure caused by strikes, Government regulations, or other circumstances beyond the control of the manufacturer or authorized dealer or distributor. Further, tires and tubes are warranted directly by the respective manufacturer only and not by Automatic Equipment Manufacturing Company.

Automatic Equipment Manufacturing Company assumes no liability for damages that might be inflicted on the operator, spectator or general public who might be in the general area while the machine is in operation, or for any cause whatsoever.

Removal of original serial number voids this warranty in its entirety..

It is a continuing policy of Automatic Equipment Manufacturing Company to make improvements. The company reserves the right to make these improvements without incurring any obligation to add them to machines already in the field. Many years of research combined with experience gained through close contact with operators have been drawn upon in designing your mill.

Automatic

Please visit us at www.automaticag.com for our complete line of agricultural equipment.