

# Automatic

## ABC5020

### Stationary 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 ABC5020 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.**

Because of the high voltage required to run this mill, a licensed electrician is recommended to hook up this unit's main power supply

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.
6. If equipment discharges into an auger, be sure auger is covered, and that shields are provided between equipment discharge and auger.
7. When installing, a means of positively preventing the application of electrical power to equipment must be included.
8. When installing, be sure to allow adequate room for proper servicing.
9. Install all units according to American National Standard ANSI/NFPA 70, National Electrical Code.
10. All electrical components including motors shall comply with ANSI/NFPA 70, National Electrical Code, and with the requirements of the authority having local jurisdiction.
11. Electric motors integrally equipped with thermal overload protection devices shall be of the manual reset type rather than the automatic time delay reset type, except where automatic reset is essential for functional requirements and no personal hazard is created.

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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.



## 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.

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.

1. **HOPPER GATE.** Open feed gate gradually until you reach the maximum flow of grain that power will handle. If it becomes necessary to stop the machine at any time before hopper is empty, be sure to close the feed door before shutting off power.
2. **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.

**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

# Roller Mill Maintenance & 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.
- **ELECTRIC POWERED UNITS** should be operated at about 600 RPM. Use a pulley ratio of 3 to 1 on 1800 RPM motors.
- **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.
- **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.
- **ADJUSTING FEED ROLLS** from fine to medium or coarse grind by pulling down on the cam adjust handle.
- **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.
- **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.

- **REALIGNING ROLLS...** If rolls should ever come out-of-alignment, (more gap on one side of the roll pair than the other side), they must be realigned to maintain feed consistency. This can be accomplished by first removing the connecting link, (see page 2, item 21), from the quick-adjust chain, and then removing the chain from the sprockets. The rolls can now be brought back into alignment by turning the quick-adjust handle. Check the gap between the rolls with a feeler gage and turn the quick-adjust handle until the gap is equal at both ends of the roll pair. Replace the chain and connecting link previously removed, to complete the procedure.

## • **BELT TENSION**

### Drive Belt

New Belt - - - After 15 minutes of running

First 4 Hours of Service - - - Every Hour

After first 4 hours - - - Every 8 hours service

Roll Drive Belts are tensioned properly when they can be depressed 3/8 inch, in the middle of the longest span, using a force of 7 pounds.

Auger Base Drive Belts are tensioned properly when they can be depressed 1/4 inch, in the middle of the longest span, using a force of 7 pounds.

# Replacement Parts

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

<b>MODEL NO.</b>	<b>SERIAL NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
ABC5020	000000	101-4038	Hinge Plate

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).

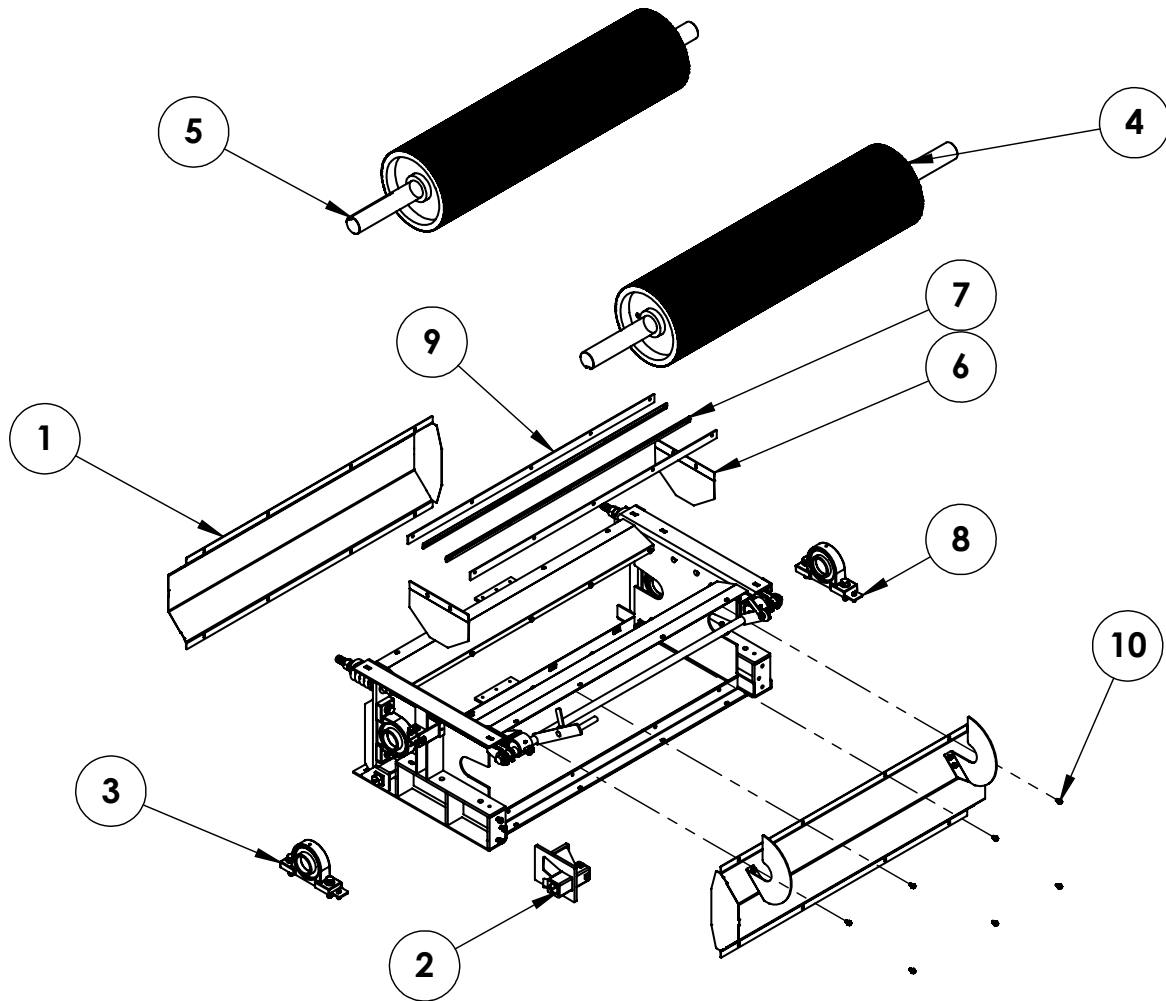
Repair parts can be ordered through your nearest dealer. If there is no dealer in your area, call Automatic Equipment Manufacturing at (402) 385-3051.

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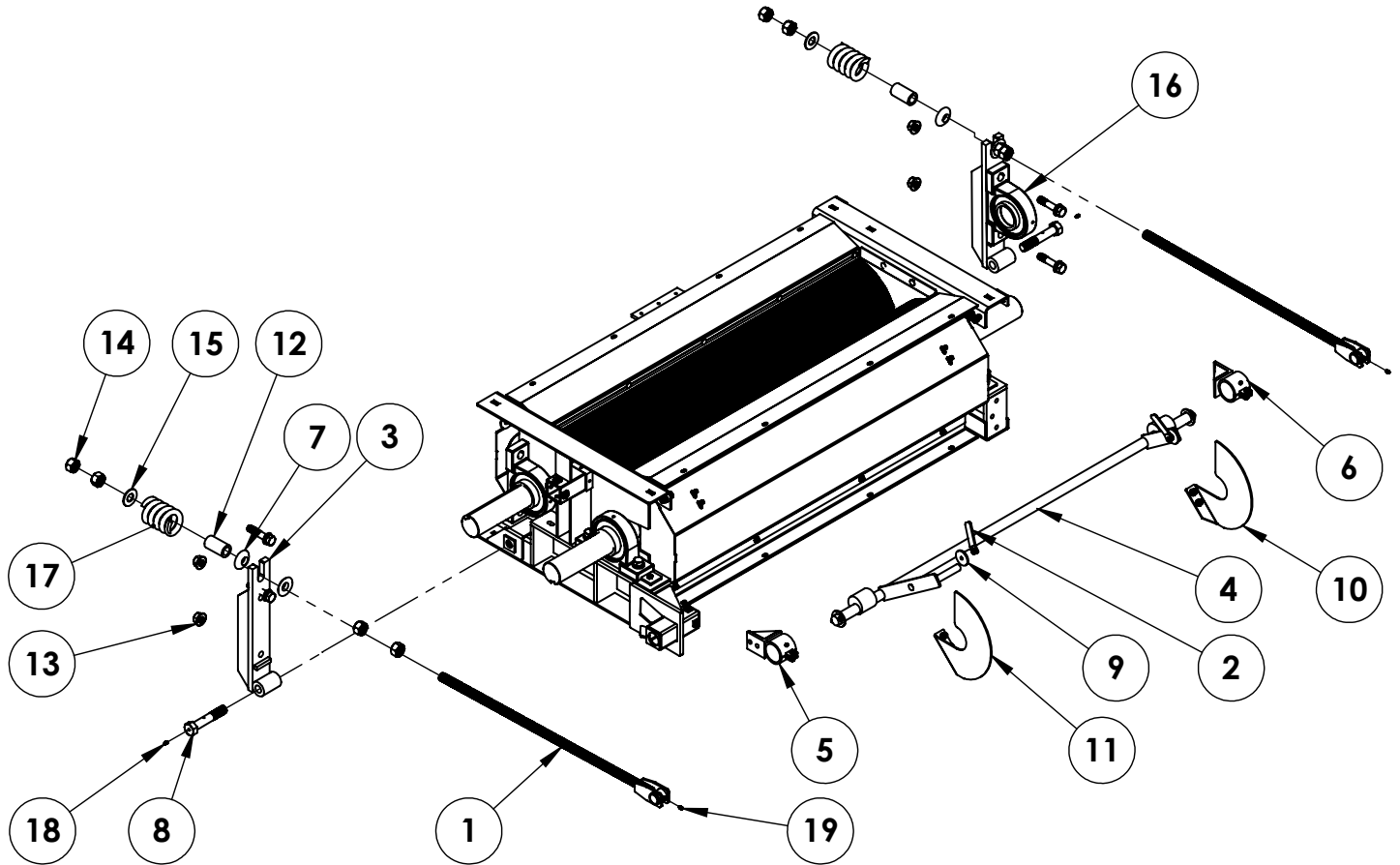


# Basic Assembly



Item No.	Part No.	Description	Qty.
1.....	61-5630.....	Roll Cover, 5000 Basic.....	2
2.....	61-6860.....	Idler Bracket.....	1
3.....	209-0104.....	2-15/16" Pillow Block Bearing.....	4
4.....	71-0703.....	Drive Roll, 4 Cut.....	1
.....	71-0710.....	Drive Roll, 6.5 Cut.....	1
.....	71-0712.....	Drive Roll, 8 Cut.....	1
.....	71-0713.....	Drive Roll, 10 Cut.....	1
.....	71-0714.....	Drive Roll, 12 Cut.....	1
.....	71-0715.....	Drive Roll, 14 Cut.....	1
5.....	71-0704.....	Idler Roll, 4 Cut.....	1
.....	71-0711.....	Idler Roll, 6.5 Cut.....	1
.....	71-0716.....	Idler Roll, 8 Cut.....	1
.....	71-0717.....	Idler Roll, 10 Cut.....	1
.....	71-0718.....	Idler Roll, 12 Cut.....	1
.....	71-0719.....	Idler Roll, 14 Cut.....	1
6.....	101-6195.....	Wear Plate.....	2
7.....	102-6123.....	Baffle Support.....	2
8.....	102-6150.....	Bearing Stop.....	2
9.....	150-0051.....	Roll Baffle Belting.....	2
10.....	201-1031.....	5/16"-18 x 5/8" Whiz Flange Lock Bolt, Grade 5, ZP.....	16

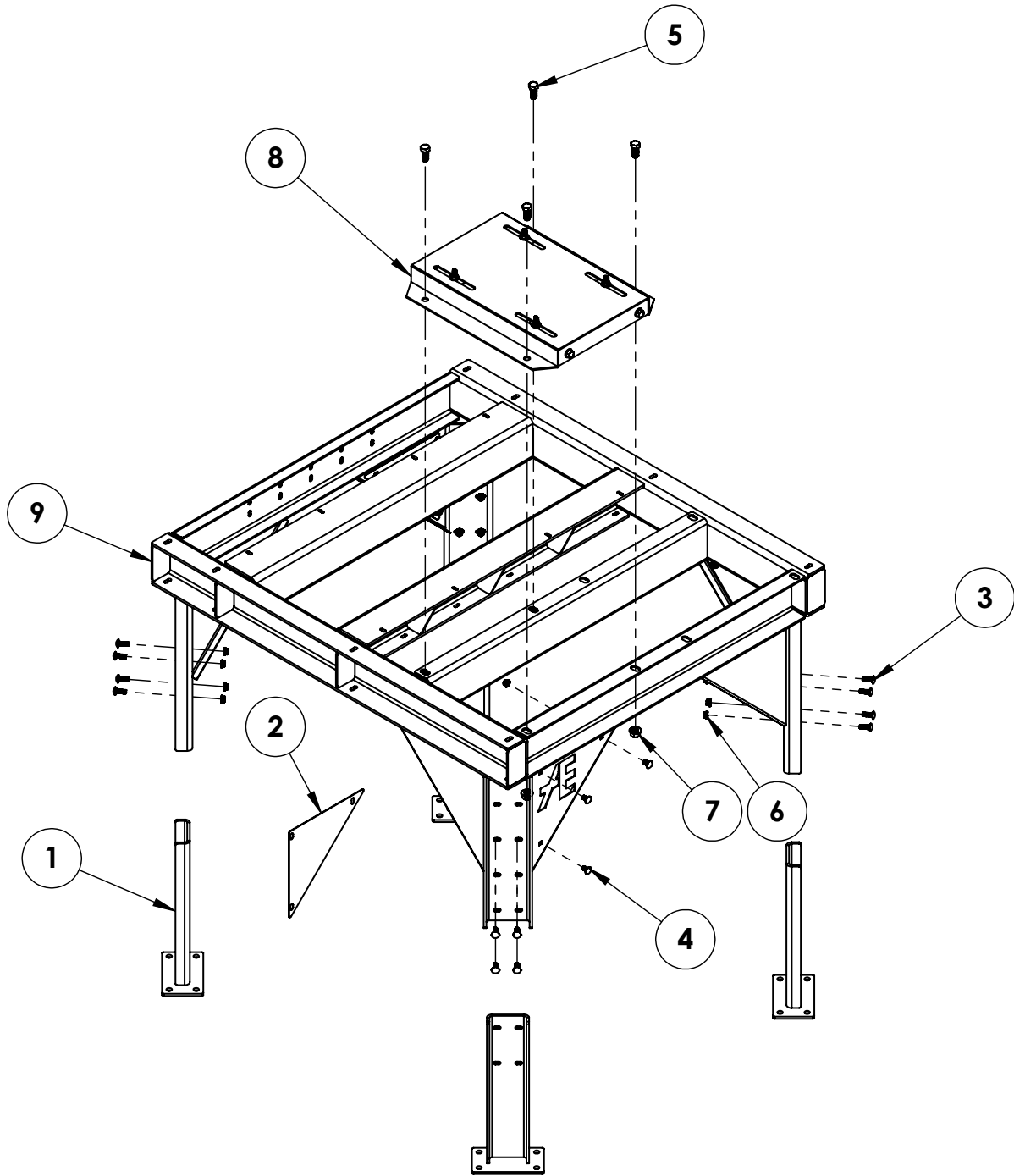
# Basic Roll Adjustment



Item No.	Part No.	Description	Qty.
1.....	61-4550 .....	Cam Adjust Arm.....	2
2.....	61-4554 .....	Cam Adjust Handle.....	2
3.....	61-5631 .....	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.....	202-0074 .....	3/4"-10 Flange Whiz Lock Nut.....	8
14.....	202-0081 .....	1"-8 Hex Nut, Grade 8 .....	8
15.....	203-0017 .....	1" Flat Washer .....	4
16.....	209-0104 .....	2-15/16 Pillow Block Bearing.....	4
17.....	222-0048 .....	3" x 4-7/8" Compression Spring .....	2
18.....	224-0327 .....	1/4"-28 Grease Zerk .....	2
19.....	224-0425 .....	1/4"-28 Self-Tab Straight Zerk .....	4

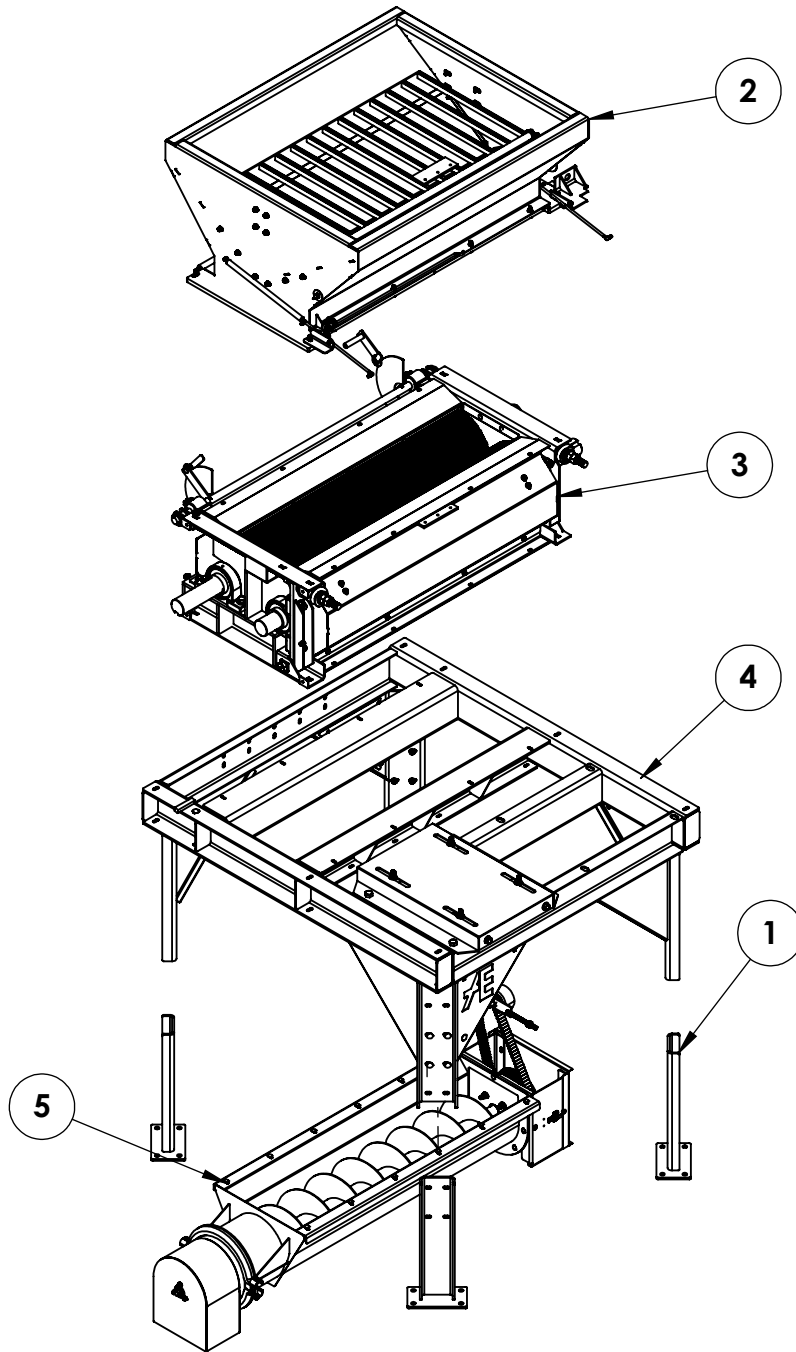


# Frame Assembly



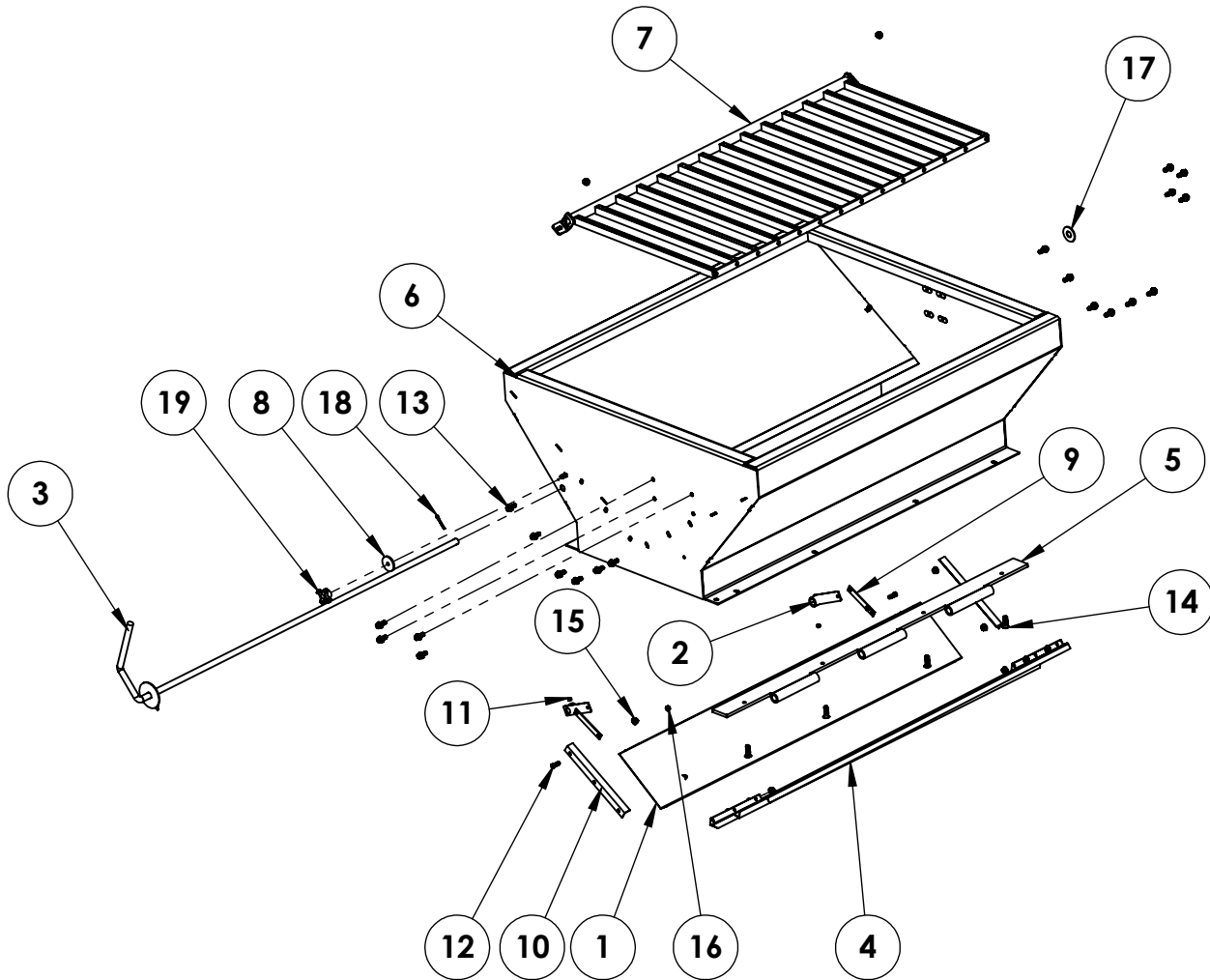
Item No.	Part No.	Description	Qty.
1.....	61-7870.....	Leg.....	4
2.....	101-9035.....	AE Logo Backer Plate.....	3
3.....	201-0012.....	1/2"-13 x 1-1/2" Carriage Bolt, Grade 5, ZP.....	16
4.....	201-0024.....	1/2"-13 x 1" Carriage Bolt, Grade 5.....	9
5.....	201-0514.....	3/4"-10 x 1-3/4" Hex Head Bolt, Grade 5.....	4
6.....	202-0072.....	1/2"-13 Hex Flange Whiz Lock Nut, ZP.....	25
7.....	202-0074.....	3/4"-10 Flange Whiz Lock Nut.....	4
8.....	229-0987.....	405T Frame Motor Mount.....	1
9.....	299-0739.....	Base Frame.....	1

# Mill Assembly



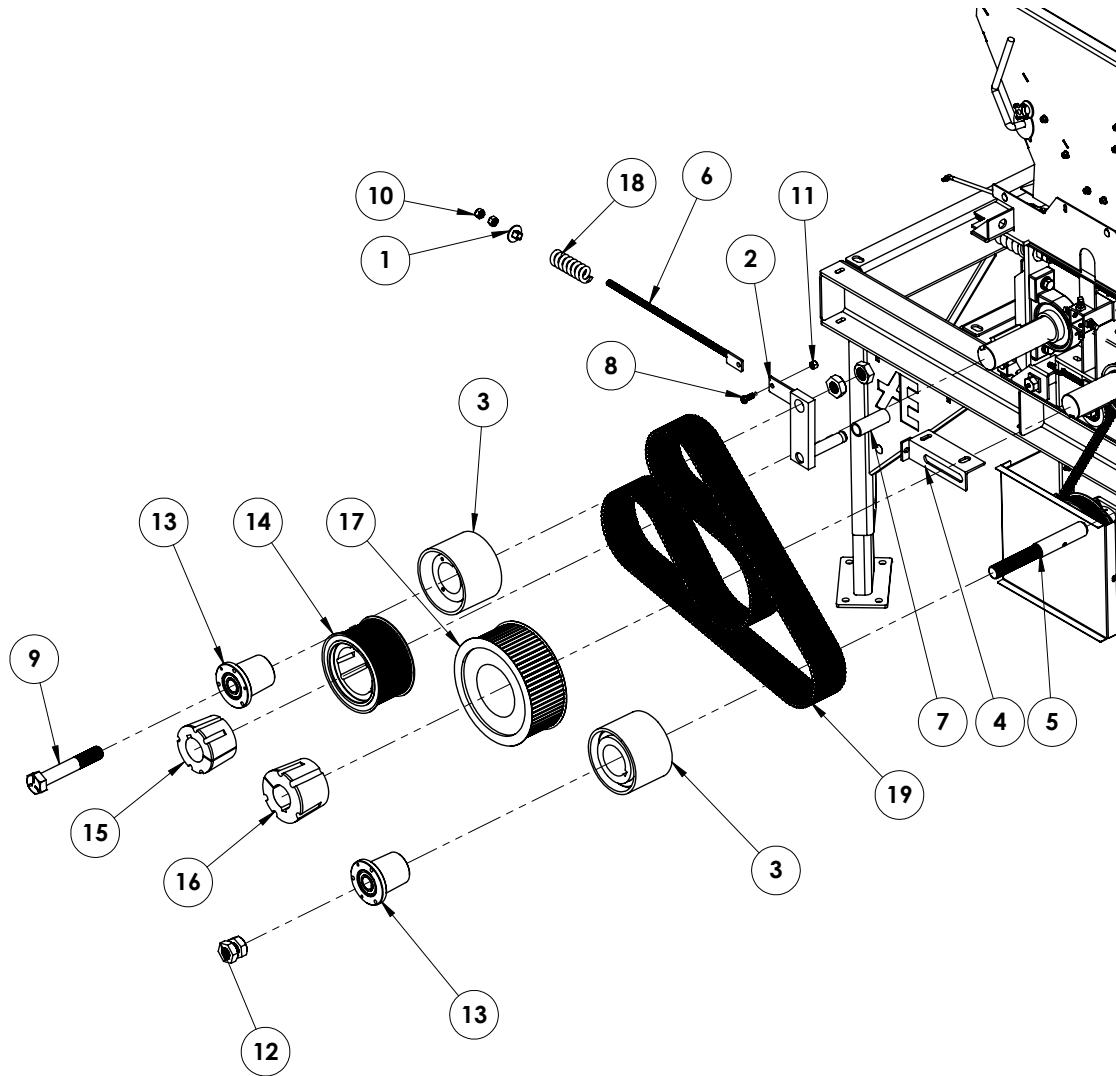
Item No.	Part No.	Description	Qty.
1.....	61-7870.....	Leg .....	4
2.....	72-0370.....	Open Hopper Bar Magnets Assembly .....	1
3.....	93-0615.....	Electric Basic, 4 Cut .....	1
.....	93-0623.....	Electric Basic, 4 x 6.5 Cut .....	1
.....	93-0624.....	Electric Basic, 6.5 Cut .....	1
.....	93-0625.....	Electric Basic, 8 Cut .....	1
.....	93-0626.....	Electric Basic, 10 Cut .....	1
.....	93-0627.....	Electric Basic, 12 Cut .....	1
.....	93-0628.....	Electric Basic, 14 Cut .....	1
4.....	299-0739.....	Base Frame .....	1
5.....	LX5020.....	Discharge Auger Kit.....	1

# Hopper Assembly



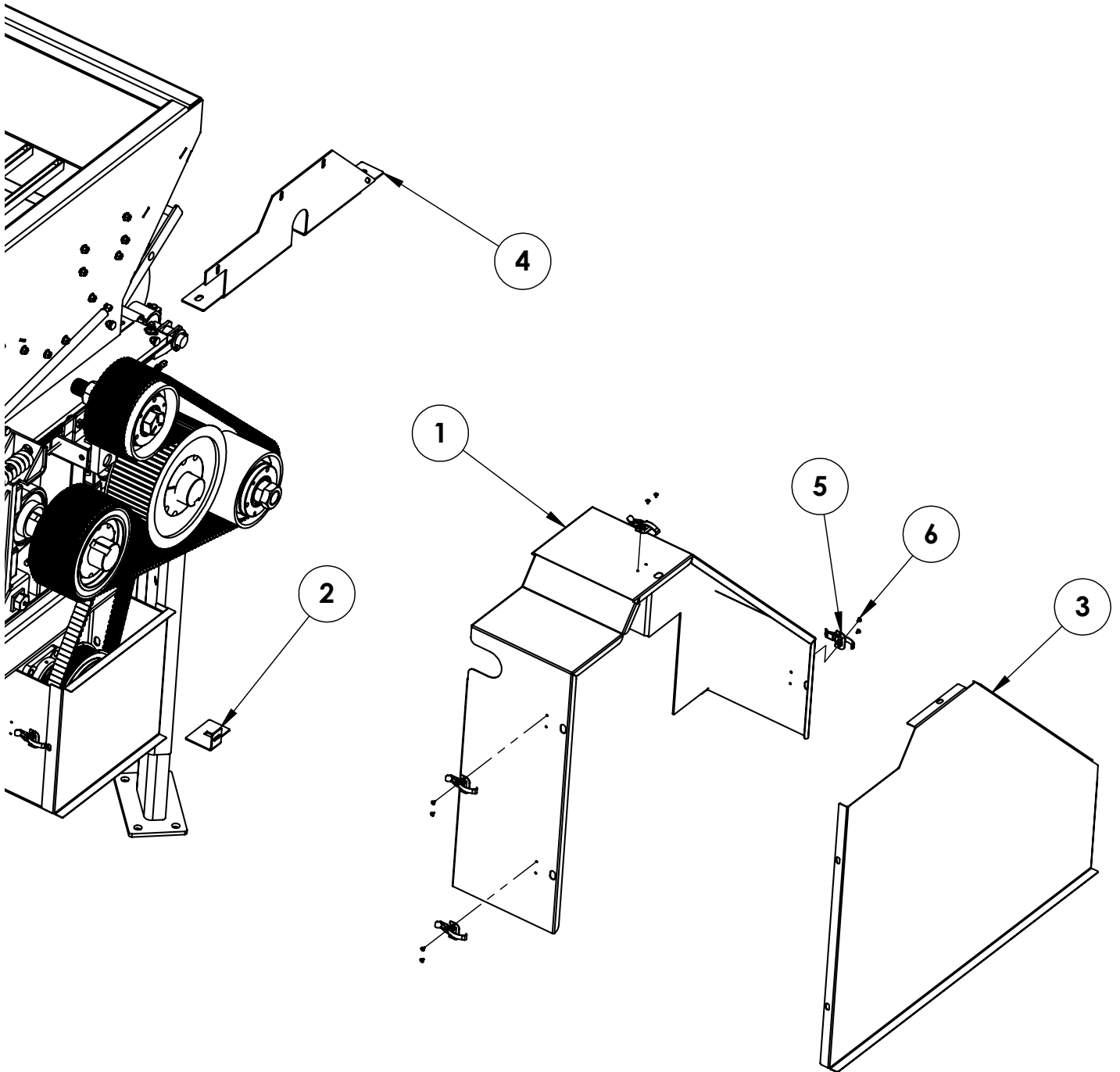
Item No.	Part No.	Description	Qty.
1.....	61-5642	Door.....	1
2.....	61-5643	Door Pivot.....	2
3.....	61-8034	Door Handle.....	1
4.....	61-8035	Bolt On Inner Slope Panel.....	1
5.....	61-8039	Hopper Side Hinge.....	1
6.....	61-8072	Hopper.....	1
7.....	62-4199	Magnetic Grate.....	1
8.....	101-5296	Gate Lock.....	1
9.....	102-6130	Door Flat Link.....	2
10.....	105-1488	Angle, Door Slide Hopper.....	2
11.....	201-0271	5/16"-18 x 3/8" Socket Head Cap Knurl Set.....	2
12.....	201-0469	5/16"-18 x 1" Hex Head Bolt, Grade 5, ZP.....	4
13.....	201-1010	3/8"-16 x 1" Whiz Flange Bolt.....	20
14.....	201-1065	3/8"-16 x 1-1/2" Hex Head Drive Flat Screw, ZP.....	4
15.....	201-0071	3/8"-16 Hex Flange Whiz Lock Nut, ZP.....	18
16.....	202-0097	5/16"-18 Hex Nylon Insert Lock Nut, ZP.....	4
17.....	203-0007	3/4" Flat Washer, ZP.....	1
18.....	229-0038	3/16" x 1-1/2" Cotter Pin.....	1
19.....	290-0410	3/8"-16 Plastic Knob.....	1

# Drive Belt & Sprocket Assembly



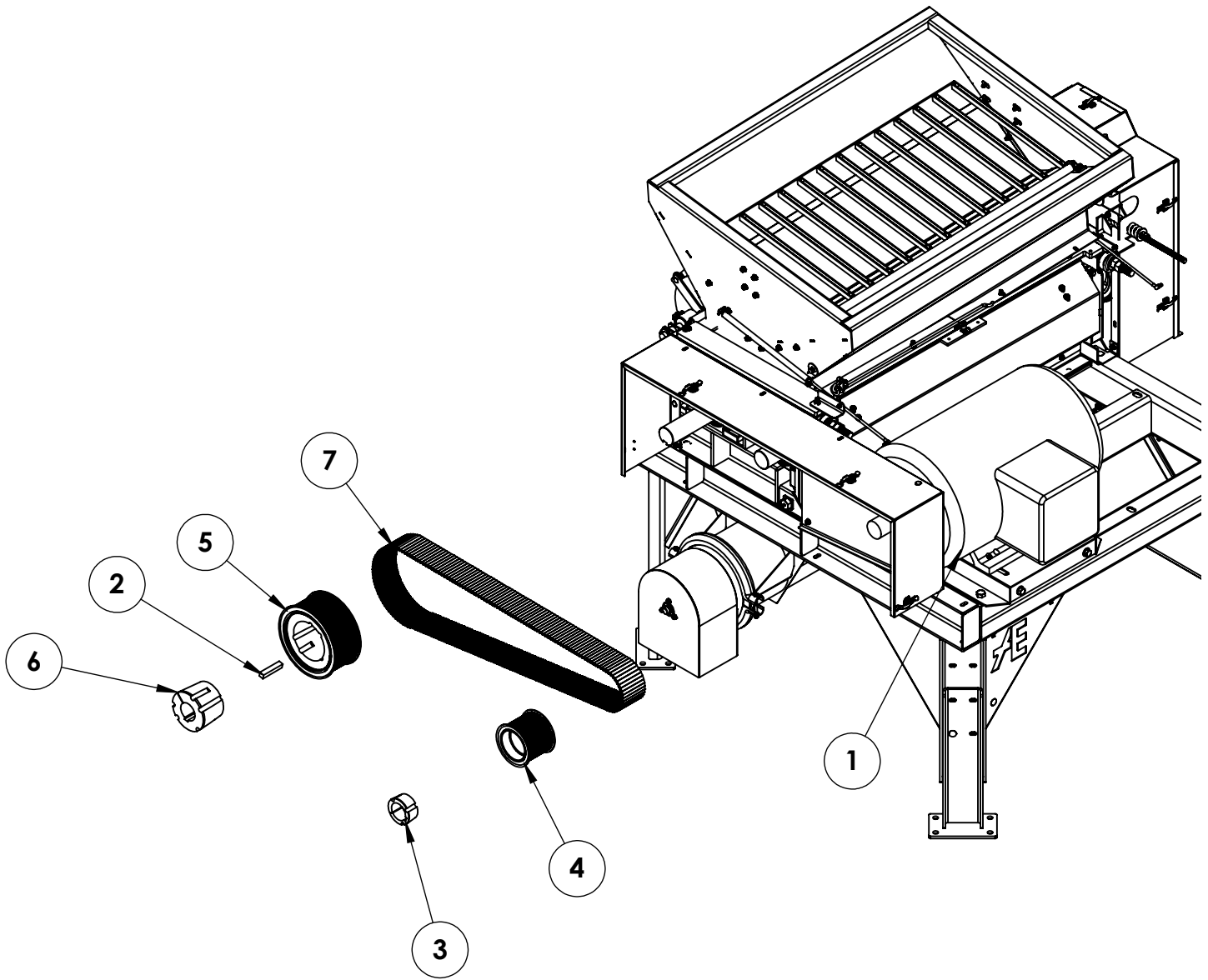
Item No.	Part No.	Description	Qty.
1.....	61-1968.....	Spring Center .....	1
2.....	61-4549.....	Idler Arm Pivot .....	1
3.....	61-4837.....	Idler Roll .....	2
4.....	61-6690.....	Upper Auger Pivot Cylinder Mount .....	1
5.....	61-6862.....	Idler Support Shaft .....	1
6.....	61-7312.....	Idler Tension Rod.....	1
7.....	107-1895.....	Idler Shaft Sleeve .....	1
8.....	201-0011.....	1/2"-13 x 1-1/4" Hex Head Bolt, Grade 5, ZP .....	1
9.....	201-0364.....	1-1/2"-6 x 9" Hex Head Bolt, Grade 5.....	1
10.....	202-0006.....	5/8"-11 Hex Nut, Grade 5, ZP.....	2
11.....	202-0094.....	1/2"-13 Hex Nylon Insert Lock Nut, ZP.....	1
12.....	202-0104.....	1-1/2"-6 Hex Jam Nut .....	4
13.....	205-0223.....	1D2 1-1/2" Idler Bushing .....	2
14.....	205-0297.....	Cog Belt Sprocket, P52-14M-115F.....	1
15.....	205-0332.....	2-15/16" Busing 4040 .....	1
16.....	205-0344.....	2-15/16" PN 4545 x 2-15/126" Bushing.....	1
17.....	205-0393.....	Synchronous Sprocket, 4545, 1.38 Ratio.....	1
	205-0375.....	Synchronous Sprocket, 1.5 Ration.....	1
18.....	222-0078.....	Compression Spring.....	1
19.....	251-0160.....	Cog Belt.....	1

# Belt Shield



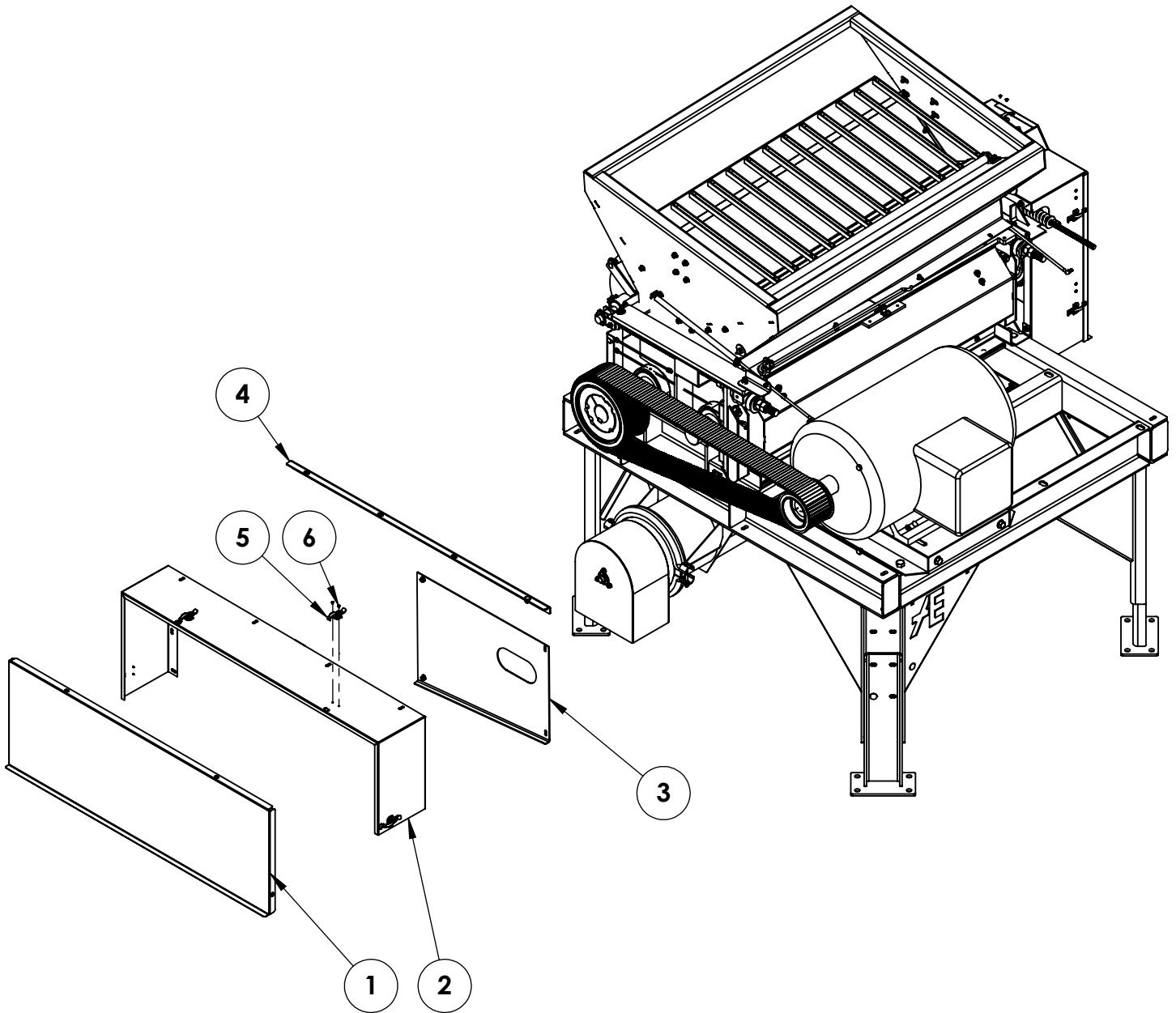
Item No.	Part No.	Description	Qty.
1.....	61-7583 .....	Gearing Shield.....	1
2.....	101-8821 .....	Lower Roll Gearing Shield Mount.....	1
3.....	101-8956 .....	Gearing Side Shield Door.....	1
4.....	101-8960 .....	Gearing Side Upper Back Shield.....	1
5.....	229-0132 .....	Tension Latch .....	4
6.....	229-0988 .....	3/16" x 1/16-1/8" SB6-2 Pop Rivet .....	8

# Motor Belt & Sprocket Assembly



Item No.	Part No.	Description	Qty.
1.....	72-0263(optional).....	100 HP 1800 RPM Motor Kit.....	1
2.....	100-1062.....	3/4" x 3/4" x 4" Key.....	1
3.....	205-0338.....	2-1/8" 3020 Bushing.....	1
4.....	205-0339.....	Cog Belt Sprocket, 36P-14M-115.....	1
5.....	205-0343.....	64 Groove Cog Belt Sprocket.....	1
6.....	205-0344.....	2-15/16" PN 4545 x 2-15/16" Bushing.....	1
7.....	251-0167.....	Polychain Belt, 14MGT-2800-115.....	1

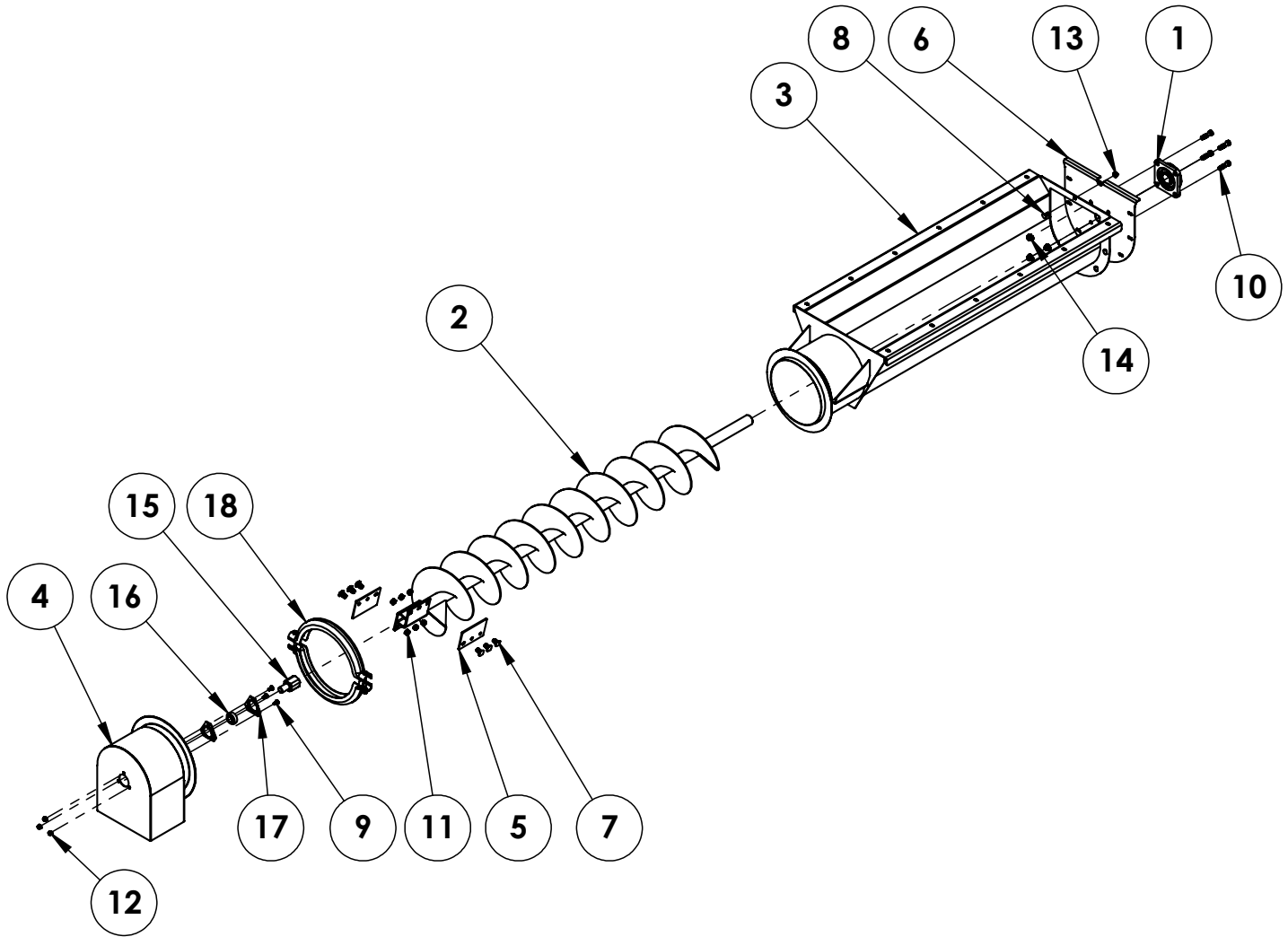
# Motor Drive Shields



Item No.	Part No.	Description	Qty.
1.....	101-8810 .....	Drive Motor Shield Door Plate .....	1
2.....	101-8811 .....	Drive Motor Shield Plate.....	1
3.....	101-8812 .....	Drive Motor Rear Shield Plate .....	1
4.....	101-9781 .....	Shield Stiffener Plate .....	1
5.....	229-0132 .....	Tension Latch .....	4
6.....	229-0988 .....	3/16" x 1/16-1/8" Pop Rivet .....	8

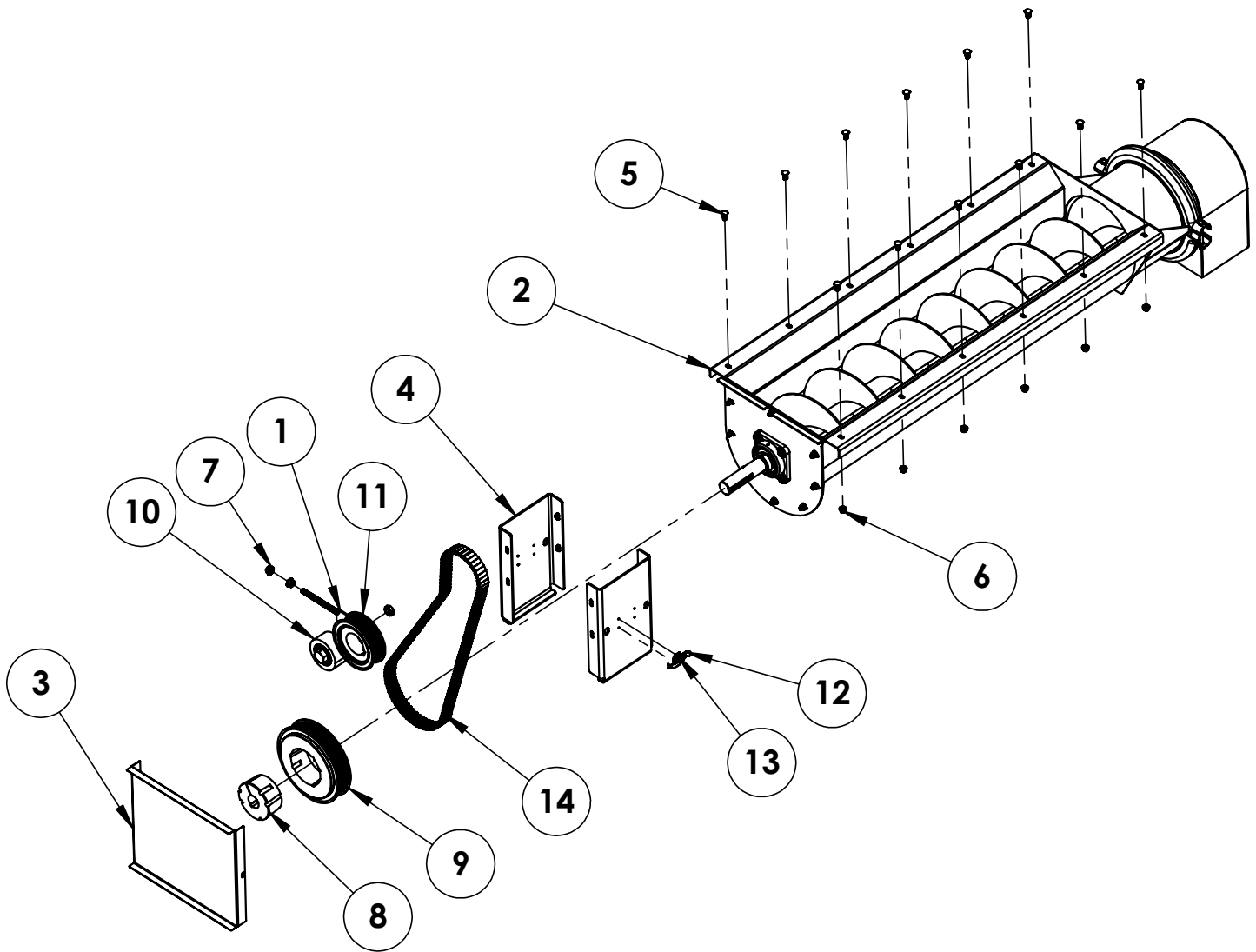


# Discharge Auger



Item No.	Part No.	Description	Qty.
1.....	53-0007 .....	1-3/4" Cast, 4-Hole Bearing.....	1
2.....	61-6719 .....	A B Screw .....	1
3.....	61-7157 .....	Auger Base.....	1
4.....	61-7158 .....	Auger Head Top Plate .....	1
5.....	101-8134 .....	Auger Base Paddle .....	2
6.....	101-8941 .....	Bearing Mount Plate.....	1
7.....	201-0024 .....	1/2"-13 x 1" Carriage Bolt, Grade 5, ZP.....	6
8.....	201-0034 .....	3/8"-16 x 1" Carriage Bolt, Grade 5, ZP.....	8
9.....	201-0119 .....	5/16"-18 x 3/4" Carriage Bolt, Grade 5, ZP.....	3
10.....	201-0283 .....	1/2"-13 x 2" Hex Head Bolt, Grade 5, ZP .....	4
11.....	202-0016 .....	1/2"-13 Hex Center Dimple Lock Nut, ZP .....	6
12.....	202-0070 .....	5/16"-18 Hex Flange Whiz Lock nut, ZP.....	3
13.....	202-0071 .....	3/8"-16 Hex Flange Lock Nut, ZP.....	8
14.....	202-0072 .....	1/2"-13 Hex Flange Lock Nut, ZP.....	4
15.....	207-1099 .....	Square Head Transfer Shaft.....	1
16.....	209-0032 .....	1" Flangette Bearing Insert.....	1
17.....	211-0023 .....	1" Flangette Housing .....	2
18.....	225-0041 .....	12" Clamp Band Set .....	1

# LX5020 Assembly (Optional) Ref. 62-3921



Item No.	Part No.	Description	Qty.
1.....	61-7570 .....	3/4" Bolt Idler Tightner Shaft.....	1
2.....	62-3921 .....	Auger Base.....	1
3.....	101-8954 .....	Shield Door Plate .....	1
4.....	101-8955 .....	Shield Door .....	2
5.....	201-0034 .....	3/8"-16 x 1" Carriage Bolt, Grade 5, ZP.....	12
6.....	202-0071 .....	3/8"-16 Whiz Flange Lock Nut, ZP .....	12
7.....	202-0072 .....	1/2"-13 Hex Flange Whiz Lock Nut, ZP .....	2
8.....	205-0360 .....	1-3/4" 3525 Taperlock Bushing.....	1
9.....	205-0377 .....	Synchronous Sprocket, 14MX56S37-3525 .....	1
10.....	205-0380 .....	4-1/4" x 2" Idler Flat .....	1
11.....	205-0398 .....	2-15/16" Bored and Keyed Synchronous Sprocket .....	1
12.....	229-0132 .....	Tension Latch .....	2
13.....	229-0988 .....	3/16" x 1/16"-1/8" SB6-2 Pop Rivet .....	4
14.....	251-0184 .....	Polychain Belt, 14MGT-1960-37 .....	1

# 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
Abnormal Power Requirement	1. 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 some sticking of dry grain to new rolls, particularly on oats and barley. This condition should not continue after 200-300 bushels of grain has been run.
	2. 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 overfeed rolls and cause an excess building up of grain in roll pocket between rolls.
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.
Excess Vibration	1. Uneven flow of grain into mill.	Eliminate "surging of grain" into mill as much as possible.
	2. Excess RPM	Recommend operation 900 to 1,000 RPM.
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.
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.

## 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.
	2. Low Voltage	On electric motor check line loss for low voltage
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.

# 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.

NINETY DAY - At any time within ninety (90) days 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](http://www.automaticag.com) for our complete line of agricultural equipment.