

NOTHUM

By **Fortifi**

Operating Instructions & Parts List for the ACS 115V, 115V CANADA, 230V



Automatic Coating System Manual# 106833

Issued: May 19, 2018

TMC# 811

Nothum Food Processing Systems.
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Operating Instructions in other languages are available on request. Additional copies of Operating Instructions are available by calling or writing your Regional Manager, or by contacting:

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3039 East Pythain Street
Springfield, Missouri 65802 USA
Telephone: +1-417-831-2816
Website: nothum.com

The Information Provided In These Operating Instructions Is
Important To Your Health, Comfort And Safety.

For Safe And Proper Operation, Read This Entire Manual
Before Using This Equipment.

Phone: +1-417-831-2816

<http://nothum.com>



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Original Instructions

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Section 1

Safety and Ergonomics

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The information provided in these operating instructions is important to your health, comfort and safety. For safe and proper operation, read this entire manual before using this equipment.



Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain this product. Protect yourself, others and equipment by observing all safety information. Failure to comply with instructions could result in personal injury and/or damage to the equipment. Any use in applications other than those for which the equipment was designed and built may result in equipment damage and/or serious injuries.

Retain this manual for future reference. Be thoroughly familiar with the controls and proper use of this equipment.

SIGNAL WORD PANELS



Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

(The signal word Danger is in white letters on a safety red background)



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

(The signal word WARNING is in black letters on a safety orange background)



Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

(The signal word CAUTION is in black letters on a safety yellow background)



Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

(The signal word NOTICE is in italicized, white letters on a safety blue background)

The signal word definitions provided, comply with the American National Standard for Product Safety Information in Product Manuals, Instructions, and Other Collateral Materials (ANSI Z535.6-2011).

This technical manual is printed in black and white.

SAFETY SYMBOLS



The safety alert symbol indicates a potential personal injury hazard. It is not used for messages related to property damage. The safety alert symbol may be used alone or in conjunction with a signal word in a signal word panel



Danger of electrical shock



Danger of Hand Entanglement - Drive Chain



Danger of Hand Entanglement - Roller Shaft



Read Operator's Manual



Two Person Lift

Symbols are harmonized with ANSI Z535.4 and ISO 3864-2 standards. Warning symbols are presented on a safety yellow background. Mandatory action symbols are presented on a safety blue background.

This technical manual is printed in black and white.

SAFETY RECOMMENDATIONS AND WARNINGS

WARNING

Labels must be in place and readable at all times. Nothum will replace any label that becomes unreadable, free of charge.

The manufacturer assumes no liability for any unauthorized changes in operating procedures or for unauthorized changes or modifications made to the design of the machine or any factory-installed safety equipment, whether these changes are made by the owner of this equipment, by his employees, or by service providers not previously approved by Nothum.

Use only replacement parts manufactured by Nothum. Use of substitute parts will void the warranty and may cause injury to operators and damage to equipment.

All maintenance procedures should be performed by qualified personnel.

WARNING

To avoid personal injury, guards must be in place while operating the machine.

Never operate without guards in place.



Moving machine parts and pinch points.
Never operate without discharge tray in place.

Sprocket and Chain

To avoid personal injury, guards must be in place while operating the machine.

WARNING

Never attempt to repair a wirebelt that has been previously repaired or has damage in more than one place. A belt with these properties could have small pieces break off into the product long before the next failure is noticed.

WARNING

To avoid personal injury, always disconnect the power cord before performing any adjustments, disassembly/assembly, troubleshooting or cleaning.



All electrical repairs should be completed by a qualified electrician or approved service provider.

SAFETY RECOMMENDATIONS AND WARNINGS (CONTINUED)



Heavy lifting can cause injury. Use two-man lift.



Place frame assembly on a flat, level surface that can support 200 pounds.



Do not over tighten screws in plastic components. Damage may occur.



All sprockets must be in alignment with the wirebelting.



Make sure wirebelt is installed in the proper direction.

SAFETY RECOMMENDATIONS AND WARNINGS (CONTINUED)

NOTICE

Make sure wirebelt is installed in the proper direction. If wirebelt edgeloop is installed improperly, damage to the wirebelt may result.

NOTICE

The recommended cleaning solution for the Optimax® Automatic Batter-Breader is eXtra® Heavy Duty Cleaner.



eXtra® Heavy Duty Cleaner, (PN:184332), is a concentrated cleaner and degreaser for food processing equipment. Contact Nothum for details.

NOTICE

Do not machine wash drive guard covers or batter tanks. Excessive heat generated by machine washing can damage parts.

Do not submerge frame and motor assembly as damage to motor could result. Clean with damp cloth or sponge only.

ERGONOMIC FEATURES

The Nothum ACS eliminates manual application of batter and breading.

NOISE LEVEL

With normal use, the Nothum ACS noise emission value is less than 70 dB(a).

Section 2

Designated Use

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Designated Use	2-1
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DESIGNATED USE

The Nothum Automatic Coating System (ACS) provides the food service industry with a compact, economical and reliable batter-breading machine that consistently applies batter and/or breading to virtually all types of foods.

MACHINE FUNCTION

The Nothum ACS applies a full range of batters and breadings to foods. Products are conveyed through the batter and then through the breading for an even, consistent coating.

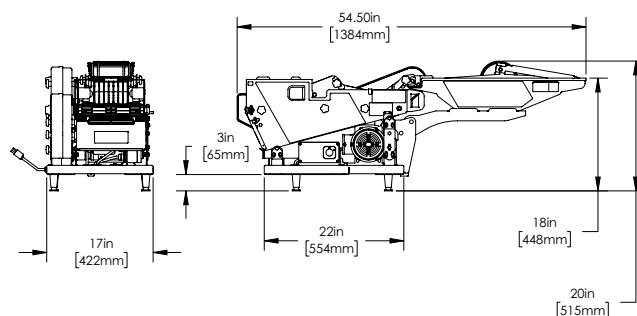
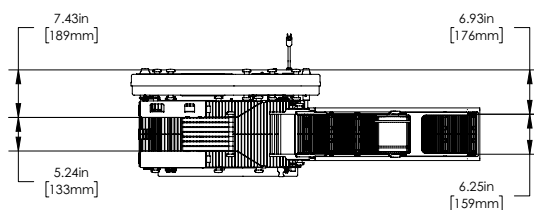
MACHINE SPECIFICATIONS - ACS 115V

The Nothum Automatic Coating System has been tested and meets the requirements of the National Sanitation Foundation (NSF), Intertek (ETL) Canada & U.S.A., and bears the official markings of these agencies.

Weight

	ACS 115V
Total Machine	120 lbs. (55 kg)
Frame	67 lbs. (31 kg)
Breader Conveyor	36 lbs. (16 kg)
Batter Conveyor	10 lbs. (5 kg)
Batter Tank	2 lbs. (1 kg)
Bracker	5 lbs. (3 kg)

Overall Size



Speeds

Batter Conveyor	20 ft./min. (6.1 m/min)
Breading Conveyor	34 1/2 ft./min. (10.5 m/min)
Usable Belt Width	6 in. (152 mm)

Power Requirements

Power Source 115 VAC/ 1 Phase/ 60 Hz 2.4 A 276 WATTS

Capacity

Batter Capacity	6 qt. (5,7 l)
Breading Capacity	6-18 lbs. (2,7 to 8,1 Kg)

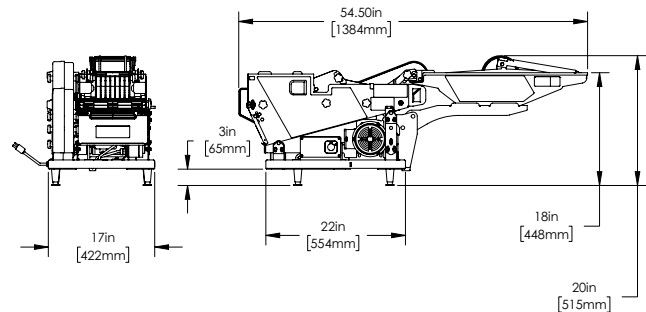
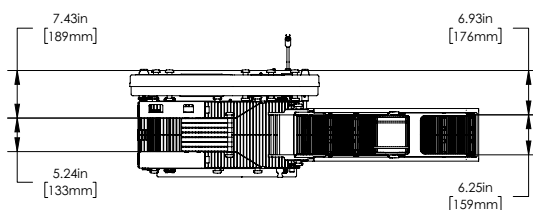
MACHINE SPECIFICATIONS - ACS 230V

The Nothum ACS has been tested and meets the requirements of the National Sanitation Foundation (NSF) and CE, and bears the official markings of these agencies.

Weight

	ACS 230V
Total Machine	120 lbs. (55kg)
Frame	67 lbs. (31 kg)
Breader Conveyor	36 lbs. (16 kg)
Batter Conveyor	10 lbs. (5 kg)
Batter Tank	2 lbs. (1 kg)
Bracket	5 lbs (3 kg)

Overall Size



Speeds

Batter Conveyor	20 ft./min. (6.1 m/min)
Breading Conveyor	34 1/2 ft./min. (10.5 m/min)
Usable Belt Width	6 in. (152 mm)

Power Requirements

Power Source 230 VAC/ 1 Phase/ 50 Hz 1.39 A 320 WATTS

Capacity

Batter Capacity	6 qt. (5,7 l)
Breading Capacity	6-18 lbs. (2,7 to 8,1 Kg)

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Section 3

Unpacking and Installation

CONTENTS OF THIS SECTION

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Unpacking	3-3
Installation Instructions	3-6
Pre-operational Checkout	3-11

NOTE

BEFORE YOU BEGIN INSTALLATION

Check the contents of the box to make sure that all parts are included. If any items are missing, or you notice any damage, contact Nothum at +1-417-831-2816 or contact your local distributor.

NOTE

In the event you have questions about the installation, use, care or service of this product, contact our customer service department at Nothum at +1-417-831-2816 or contact your local distributor.

CONTENTS

Shown below are the typical contents found inside the shipping carton.



Batter Conveyor: Boxed individually, inside shipping carton.



Breather Conveyor: Installed on frame for shipping purposes.

UNPACKING

Step 1: Remove all components from the foam trays, packaging and shipping containers.

Breader Conveyor Components and manual are shipped in the upper foam tray.



Removing Batter Conveyor from packaging



Heavy lifting may cause injury! Remove the breader conveyors from the frame assembly before removing the frame assembly from the shipping container base.



Step 2: Release the locking latch and spacer lock.



Locking Latch



Spacer Lock

UNPACKING (CONTINUED)



Heavy lifting can cause injury. Use two-man lift.

Place frame assembly on a flat, level surface that can support 250+ pounds.



Step 3: Remove discharge tray



Discharge Tray

Step 4: Lift breader conveyor off of the bottom pan.



Breder Conveyor

Bottom Pan

UNPACKING (CONTINUED)



Heavy lifting can cause injury. Use two-man lift.

Place frame assembly on a flat, level surface that can support 250+ pounds.



Step 5: Remove bottom pan off of the frame.



Bottom Pan

Step 6: Remove the frame assembly from the shipping container base and set it on a flat, level surface that can support 250+ pounds.



Shipping Container Base



INSTALLATION INSTRUCTIONS



Place frame assembly on a flat, level surface that can support 250+ pounds.

Step 1: Make sure that the locking latch is in the position shown.

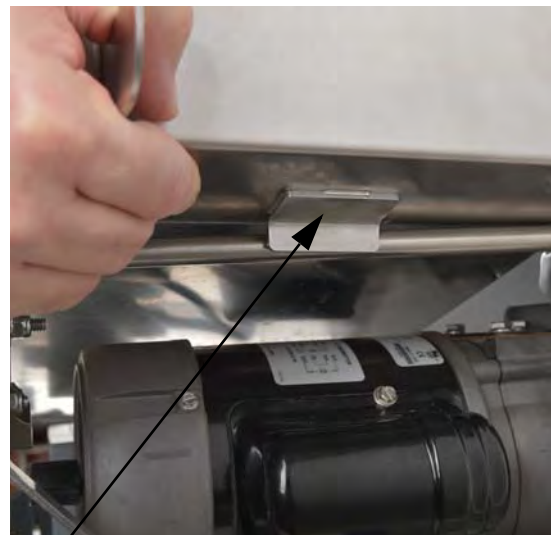


Locking Latch

Step 2: Set bottom pan onto frame with tab located as shown.



Bottom Pan



Tab

INSTALLATION INSTRUCTIONS (CONTINUED)

Step 3: Set the breader conveyor onto the bottom pan.



Breder Conveyor

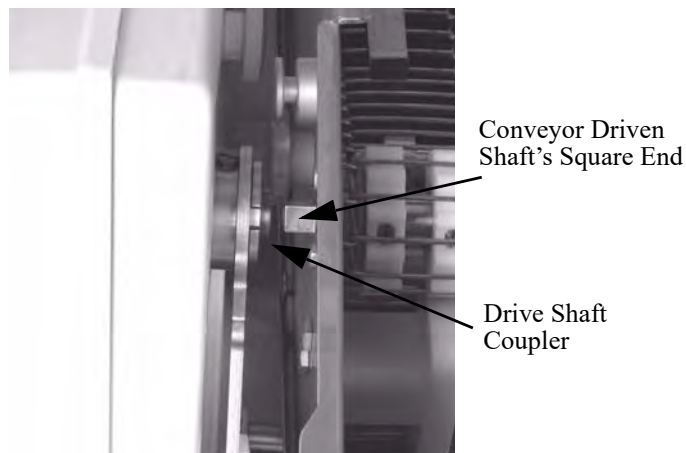
Step 4: Position the front of the breader conveyor to align with the drive shaft coupler.



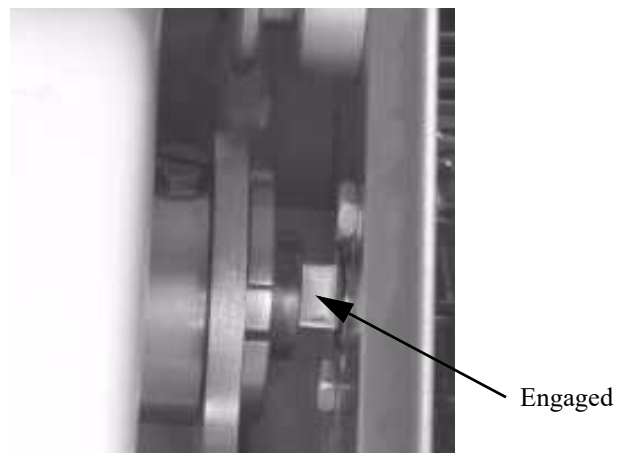
Drive Shaft Coupler

INSTALLATION INSTRUCTIONS (CONTINUED)

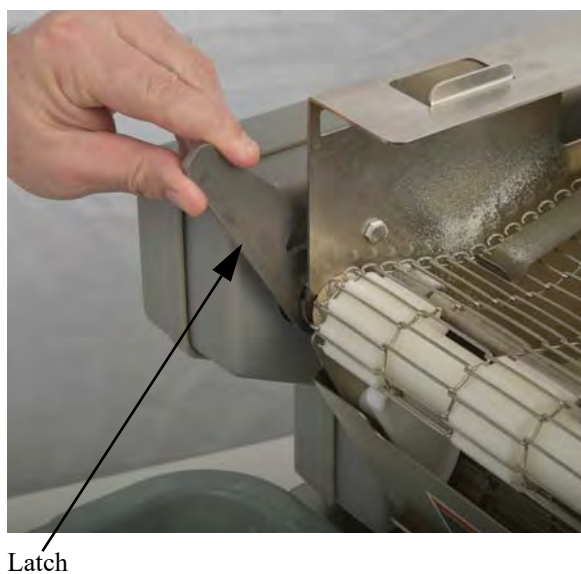
Step 5: Rotate the breader conveyor driven shaft square end so that it aligns with the square of the drive shaft coupler.



Step 6: Push the breader conveyor's driven shaft into the drive shaft coupler until engaged.



Step 7: Rotate latch into position.



Step 8: Rotate spacer lock into position.

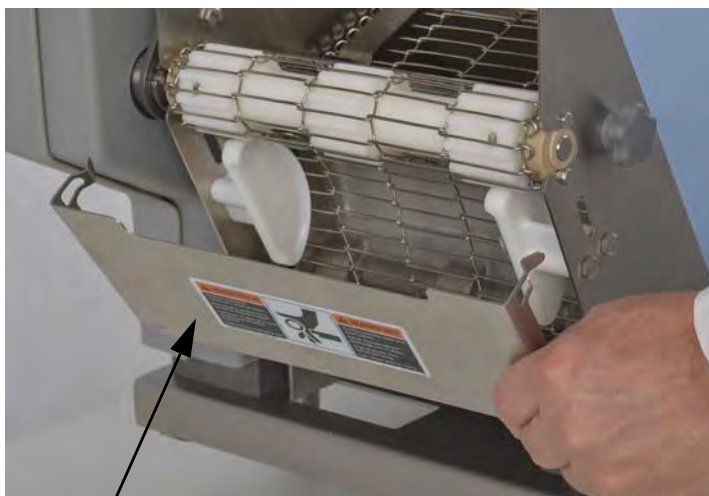


INSTALLATION INSTRUCTIONS (CONTINUED)

Step 9: Assemble by installing:

Discharge Tray

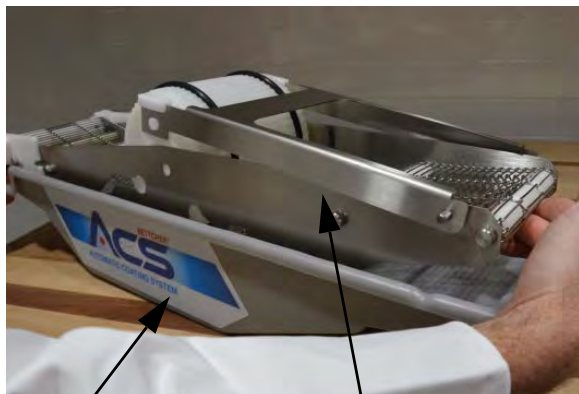
- Position the bottom edge of discharge tray onto the bottom pan. Rotate discharge tray upward until it snaps into the breeder conveyor side rails.



Discharge Tray

INSTALLATION INSTRUCTIONS (CONTINUED)

Step 10: Place the batter conveyor assembly into the batter tank.



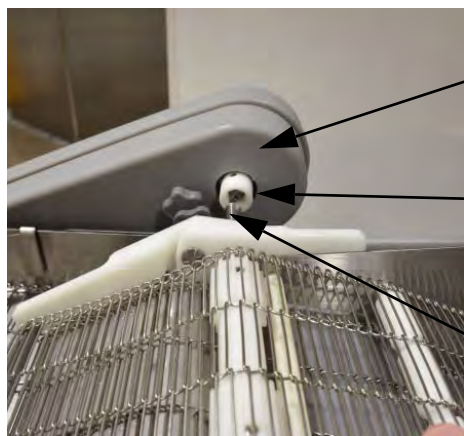
Batter Tank

Batter Conveyor Assembly

Step 11: Install the batter conveyor assembly and tank on the breadier conveyor.



Step 12: Align the conveyor driven shaft with the bearing guide sleeve on the frame assembly.



Frame Assembly

Bearing Guide Sleeve

Conveyor Driven Shaft

Step 13: Unit ready for pre-operational checkout.



PRE-OPERATIONAL CHECKOUT

Step 1: Turn the power switch to **OFF**.

Step 2: Plug in the power cord.

Step 3: Turn the power switch to **ON**.

Step 4: Verify that the batter and breader conveyors are operating smoothly. The machine is now ready for adding the batter and breading as described in the operating instructions.



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Section 4

Instructions for Operation

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Loading the Batter Tank	4-3
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To avoid personal injury, guards must be in place while operating the machine.



Never operate without guards in place.

Moving machine parts and pinch points.
Never operate without discharge tray in place.

Sprocket and Chain

To avoid personal injury, guards must be in place while operating the machine.

LOADING THE BREADING

Step 1: Turn the machine **ON**.

Step 2: Scoop the breading into the breader conveyor assembly.

Step 3: Continue to fill the breader conveyor assembly, with the conveyor running, until the breading depth is even with fill slot.

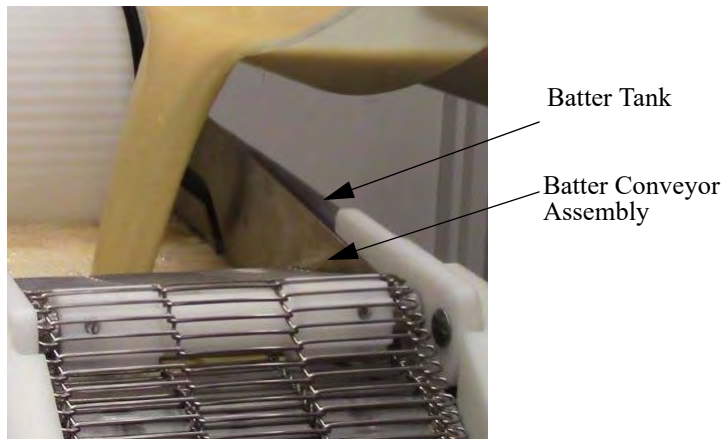


Fill Slot

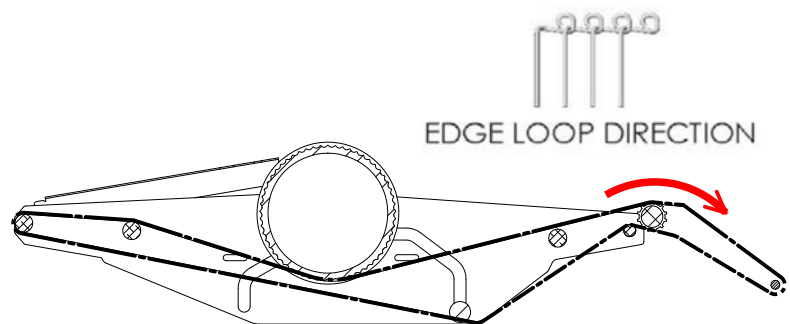
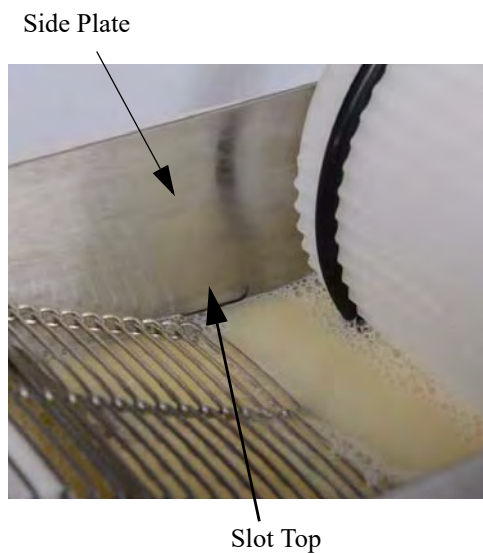
LOADING THE BATTER

Step 1: Turn the machine **OFF**.

Step 2: Fill the batter conveyor assembly with batter.



Step 3: Stop filling when the batter reaches the top of the slots in both side plates of the batter conveyor assembly.



PRODUCT COATING OPERATION

Step 1: Turn the machine **ON**.

NOTE

Always place the product in the center of the conveyor. For best results, leave some space between each piece of product.

Step 2: Place the product on the center of the batter conveyor assembly. The product is coated with batter as it passes under the wheel.



Step 3: The product will be coated with breading as it goes through the throat guides and under the paddle assembly. The product will exit at the front end of the breader.

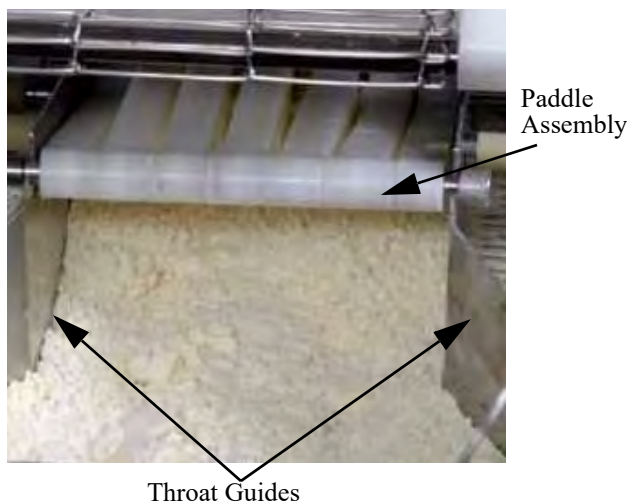


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Section 5A

Maintenance Batter Conveyor Assembly

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WARNING



All maintenance procedures should be performed by qualified personnel.

The information provided in these operating instructions is important to your health, comfort and safety. For safe and proper operation, read this entire manual before using this equipment.

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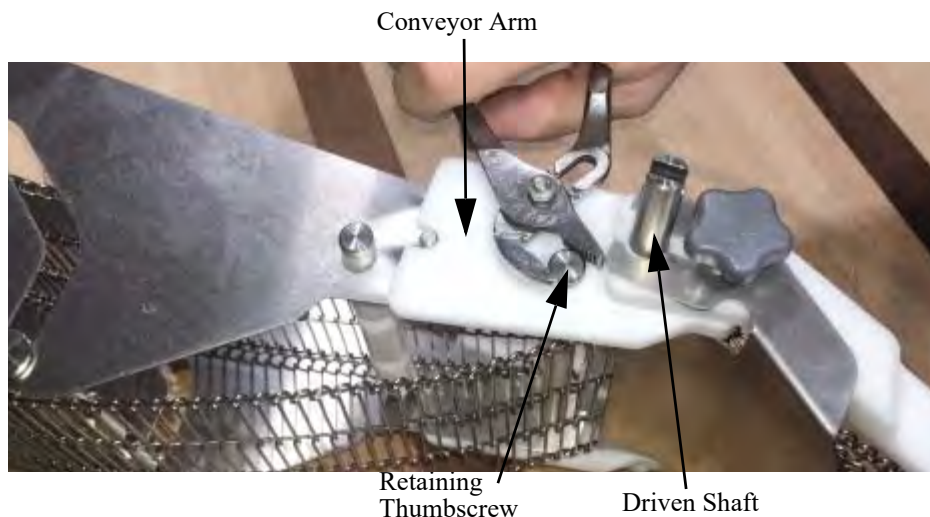
WARNING

Never attempt to repair a wirebelt that has been previously repaired or has damage in more than one place. A belt with these properties could have small pieces break off into the product long before the next failure is noticed.

BATTER CONVEYOR ARM REPLACEMENT

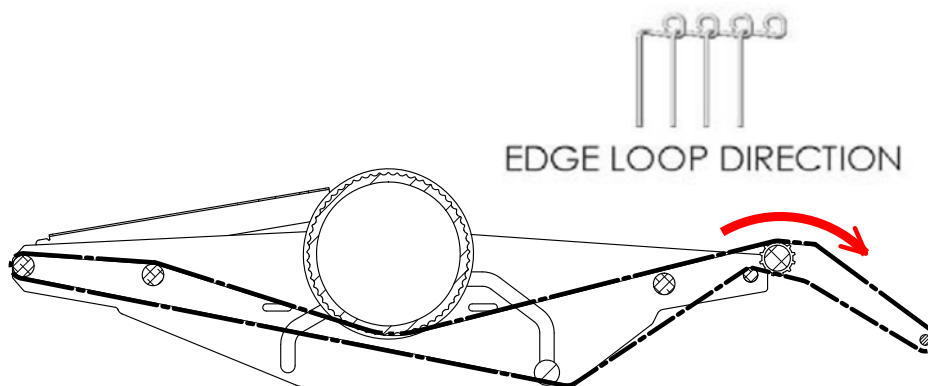
Step 1: Remove the retaining thumbscrew from one side of the batter conveyor arm and lift it off of the driven shaft.

Step 2: Install the new conveyor arm and tighten the retaining thumbscrews. Replace the conveyor arm on the opposite side, using the same procedure. **See the belt path label to ensure proper tracking.*



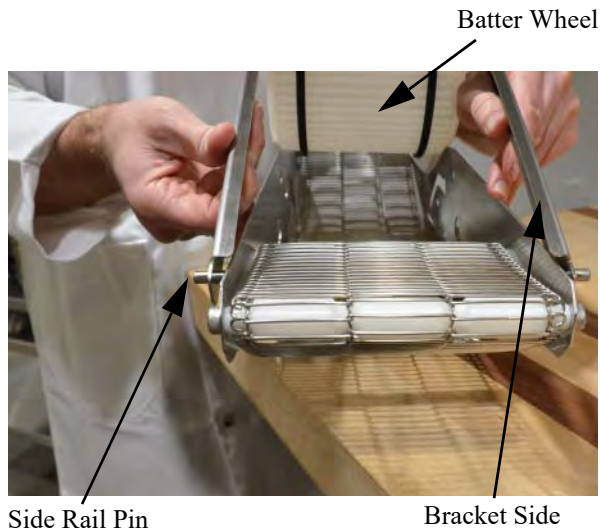
NOTICE

If the wirebelt is installed improperly, damage to the wirebelt may result. Refer to the wirebelt replacement instructions in this section of the manual.

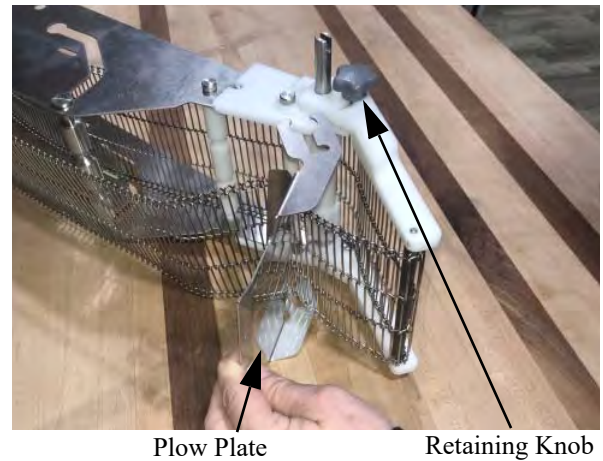


BATTER CONVEYOR WIREBELT REPLACEMENT

Step 1: Remove the batter wheel by slightly spreading the bracket sides from the side rail pins.



Step 2: Place the batter conveyor assembly on its side. Loosen the retaining knobs and remove the plow plate.



Step 3: Remove wirebelt from the assembly.

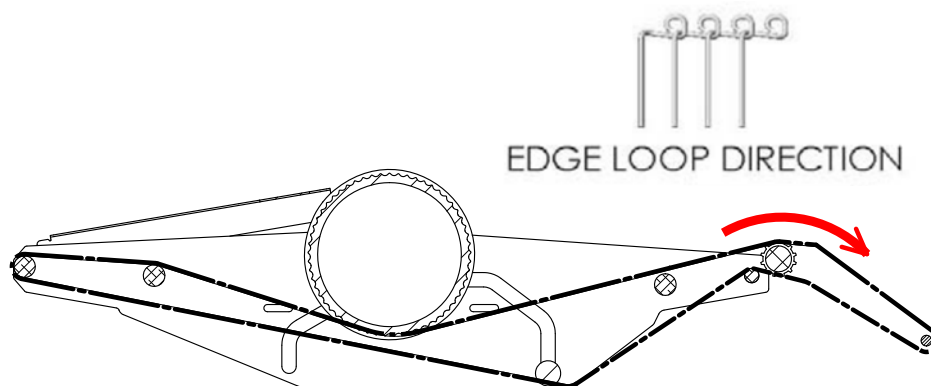
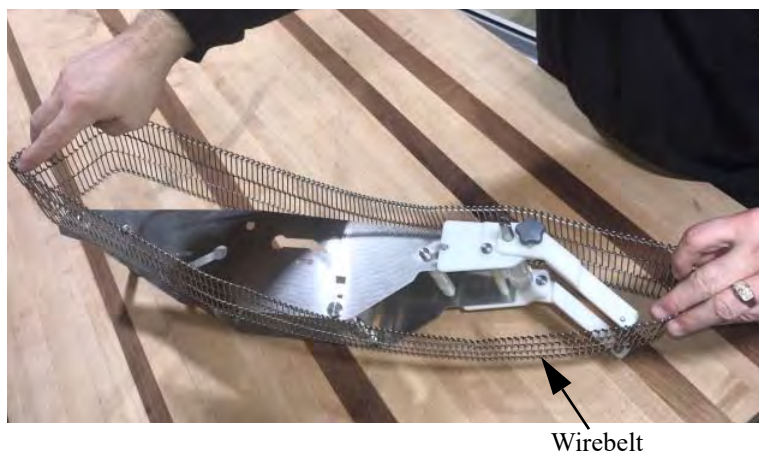


BATTER CONVEYOR WIREBELT REPLACEMENT (CONTINUED)

NOTICE

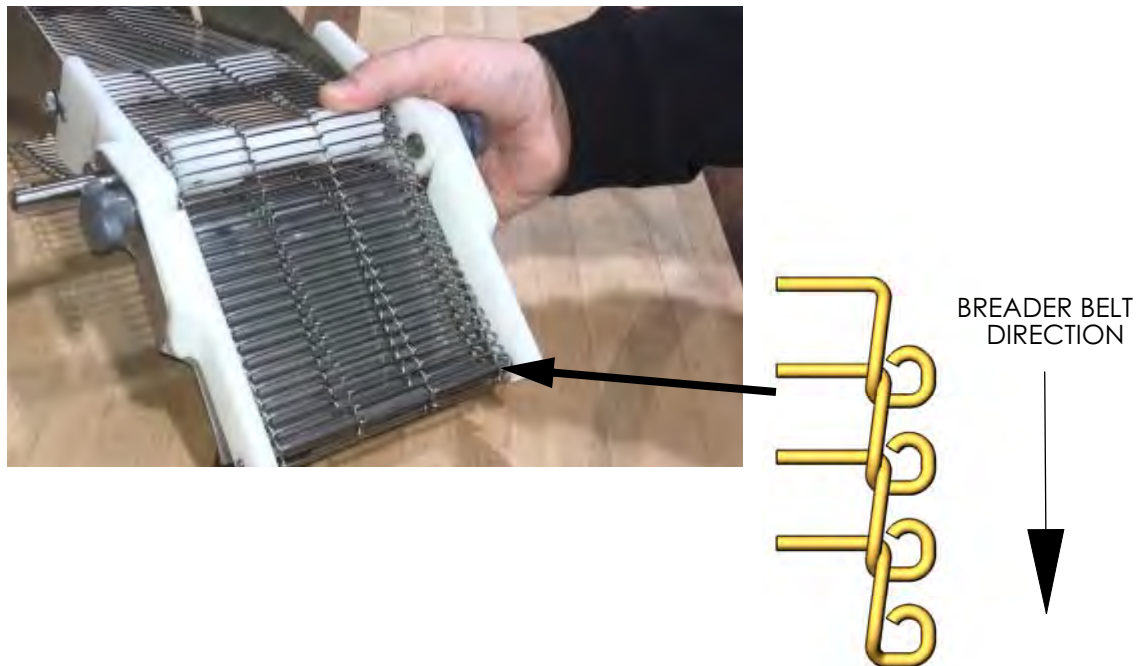
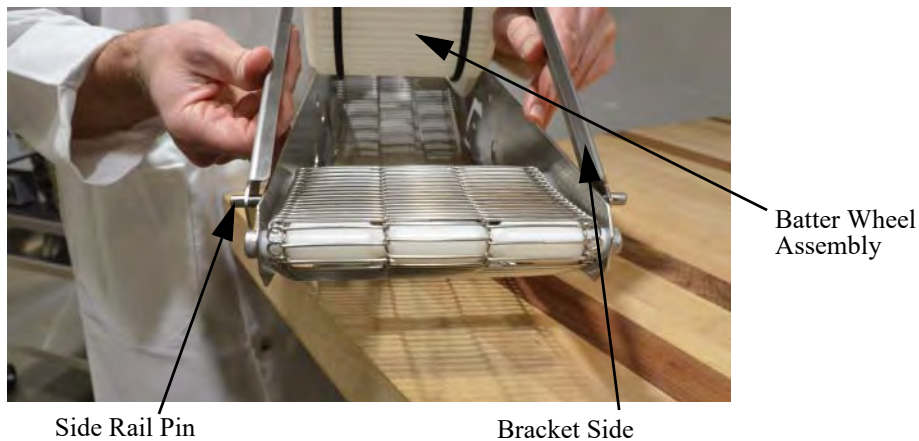
If the wirebelt is installed improperly, damage to the wirebelt may result.

Step 4: Place the new wirebelt onto the assembly. Make certain the edge loops are facing the direction of travel. **See the belt path view.*



BATTER CONVEYOR WIREBELT REPLACEMENT (CONTINUED)

Step 5: Insert the batter wheel assembly into the batter conveyor by slightly spreading the bracket sides apart and onto the side rail pins. Make certain that the wirebelt edge loop flats are in the directions shown.



NOTICE

If wirebelt is installed improperly, damage to the wirebelt may result.

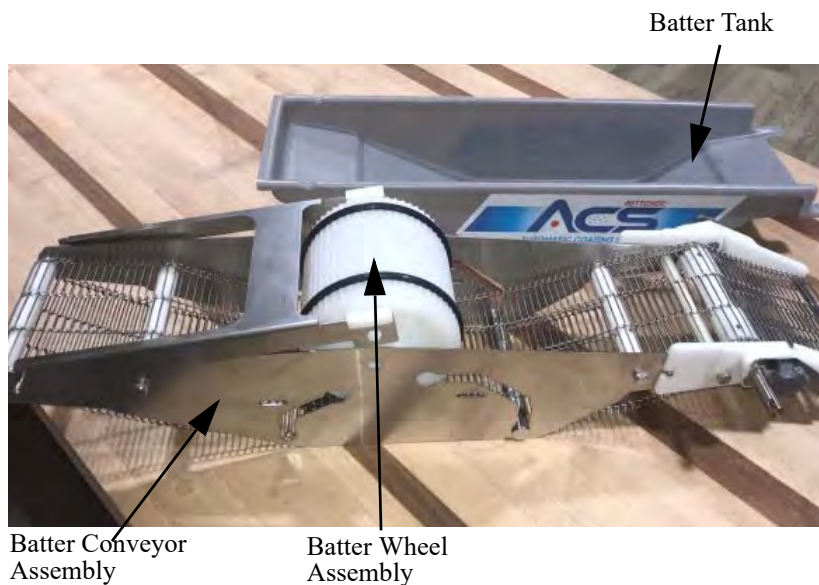
BATTER CONVEYOR WIREBELT REPLACEMENT (CONTINUED)

Step 6: Install the batter conveyor assembly into the batter tank.



BATTER CONVEYOR DRIVEN SHAFT REPLACEMENT

Step 1: Remove the batter conveyor assembly from the batter tank and clean it, before attempting to remove the batter conveyor driven shaft components from the conveyor. **See cleaning instructions, Section 6.*

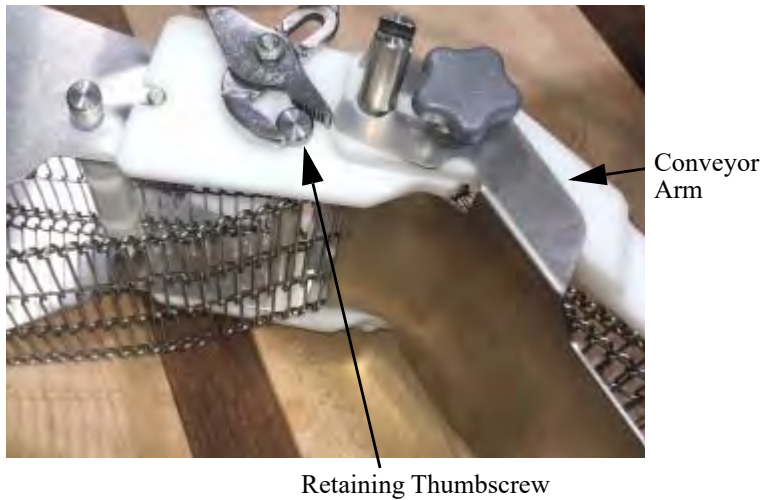


Step 2: Remove the batter wheel assembly by slightly spreading the bracket sides from the side rail pins.

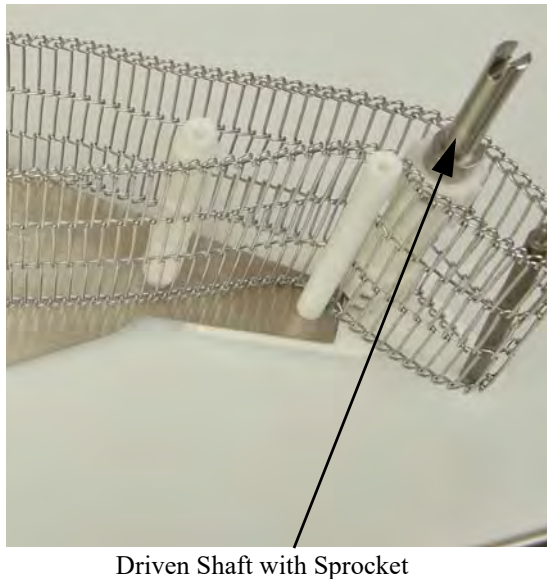


BATTER CONVEYOR DRIVEN SHAFT REPLACEMENT (CONTINUED)

Step 3: Place the batter conveyor assembly on its side. Remove the retaining thumbscrew from one side of the conveyor and slide the batter conveyor arm off of the shaft.

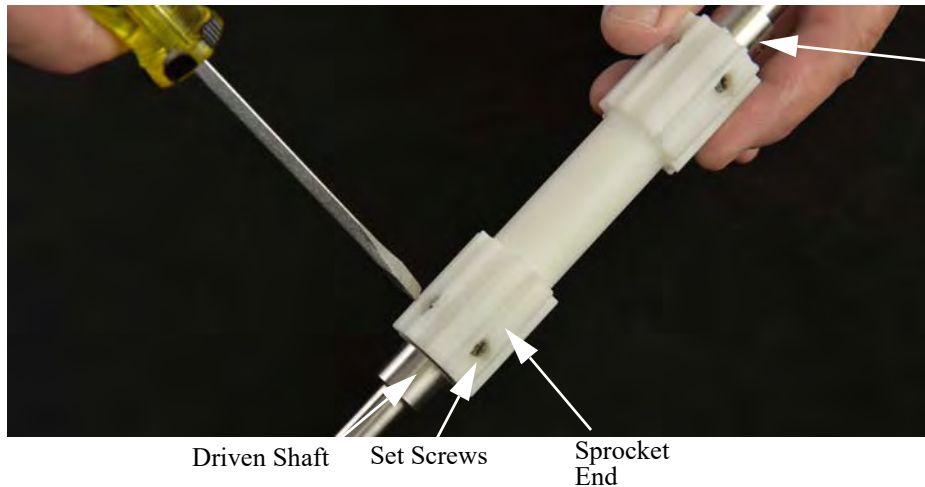


Step 4: Slide the driven shaft with sprockets out from the wirebelting.



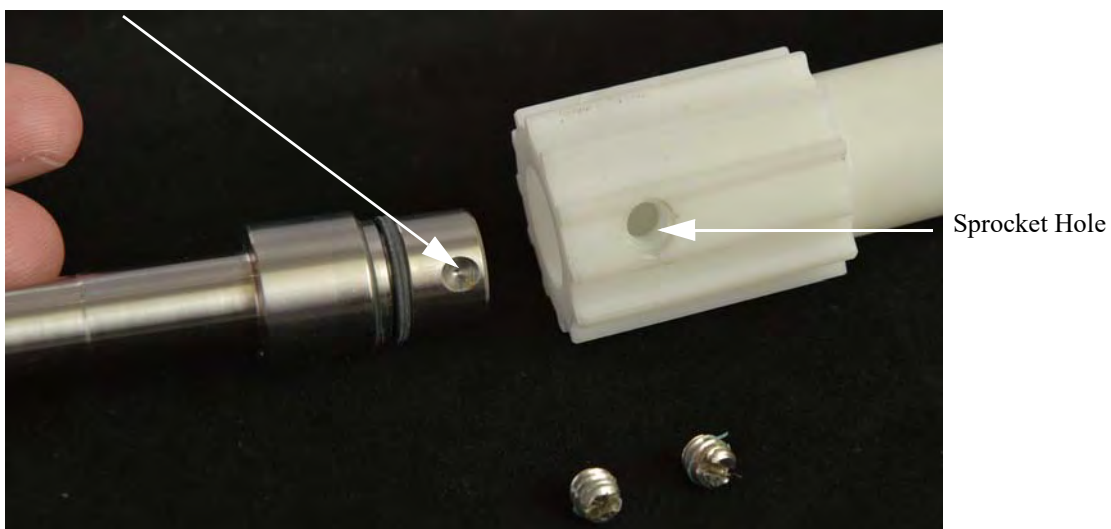
BATTER CONVEYOR DRIVEN SHAFT REPLACEMENT (CONTINUED)

Step 5: Loosen the set screws on the sprocket end and remove the driven shaft.



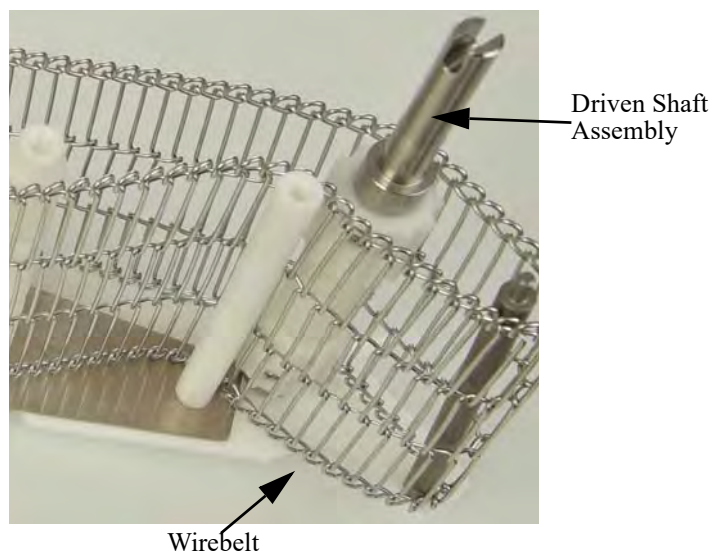
Step 6: Insert the new driven shaft into the sprocket end, aligning the sprocket hole with the orientation dimple on the driven shaft. Tighten set screws.

Orientation Dimple



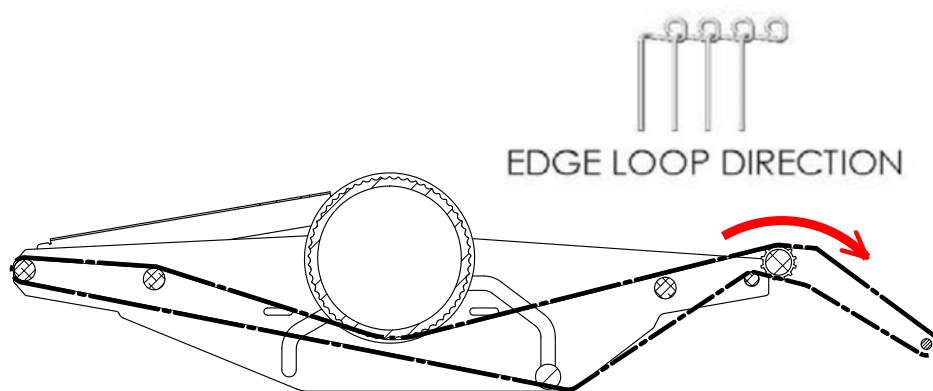
BATTER CONVEYOR DRIVEN SHAFT REPLACEMENT (CONTINUED)

Step 7: Install the completed driven shaft assembly into the conveyor assembly. Make sure the driven shaft assembly is installed facing the proper direction. Confirm the driven shaft assembly is inside of the wirebelt.



NOTICE

If wirebelt is installed improperly, damage to the wirebelt may result.

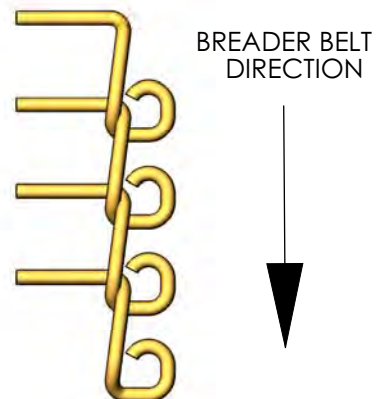


BATTER CONVEYOR DRIVEN SHAFT REPLACEMENT (CONTINUED)

Step 8: Align and reinstall conveyor arm and thumbscrew. Tighten thumbscrew.



Step 9: Rotate the driven shaft by hand to ensure that it turns freely.



NOTICE

If wirebelt is installed improperly, damage to the wirebelt may result.

BATTER CONVEYOR DRIVEN SHAFT REPLACEMENT (CONTINUED)

Step 10: Install the batter conveyor assembly into the batter tank.



BATTER TANK ALIGNMENT

Step 1: If the batter tank driven shaft doesn't seem to engage the drive shaft properly, simply try sliding the batter tank either forward or backwards until the alignment improves.



NOTICE

If further adjustment is required, please contact Nothum at +1-417-831-2816.

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Section 5B

Maintenance Breader Conveyor Assembly

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WARNING



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Use only replacement parts manufactured by Nothum. Use of substitute parts will void the warranty and may cause injury to operators and damage the equipment.

WARNING

Never attempt to repair a wirebelt that has been previously repaired or has damage in more than one place. A belt with these properties could have small pieces break off into the product long before the next failure is noticed.

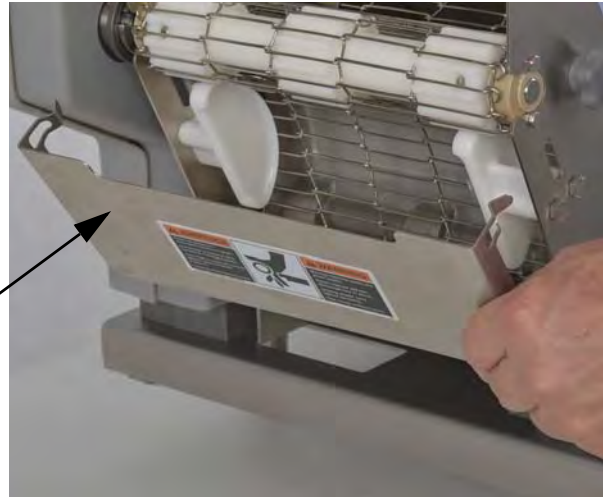
BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT

Step 1: Disassemble breader conveyor by removing:

Discharge Tray

- Pull the top of the discharge tray away from the breader assembly releasing the tray from the breader holes.

Discharge Tray



Breader Conveyor Assembly

- Remove breader conveyor assembly off of bottom pan.

Bottom Pan

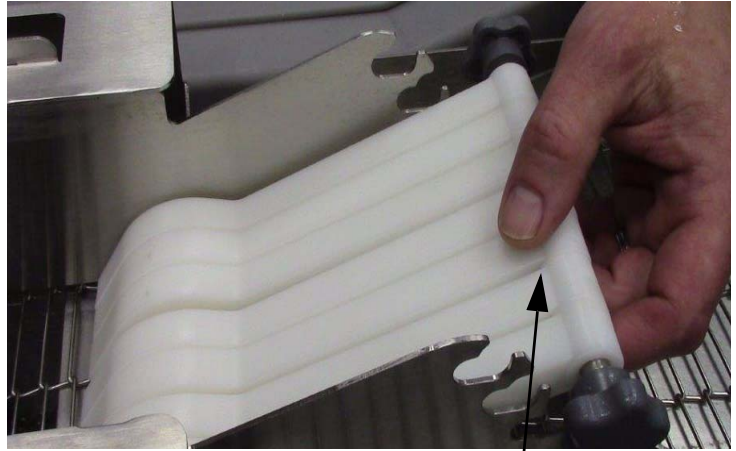
Breader Conveyor Assembly



BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)

Paddle Assembly

- Remove paddle assembly.



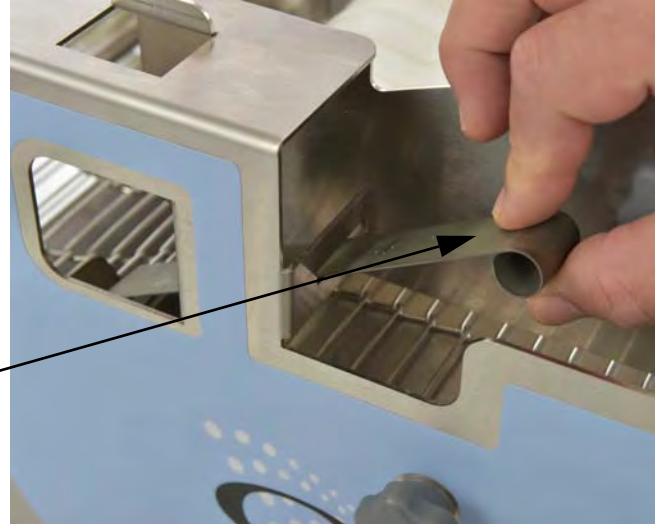
Paddle Assembly

BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)

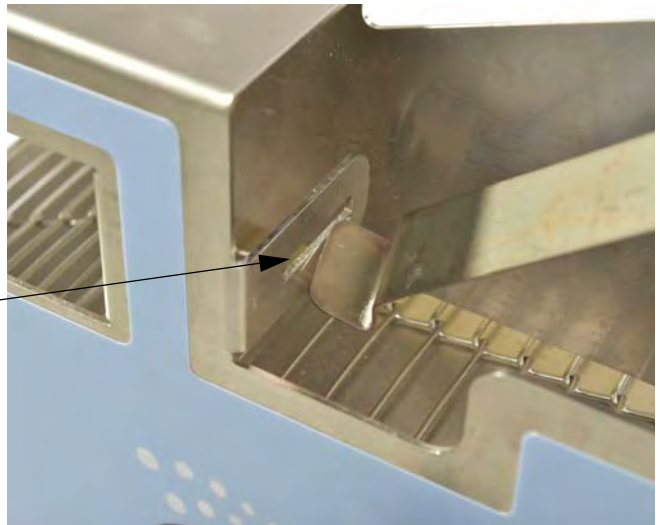
Vibrator Springs

- Remove vibrator springs from slots.

Vibrator Spring



Slot



BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)

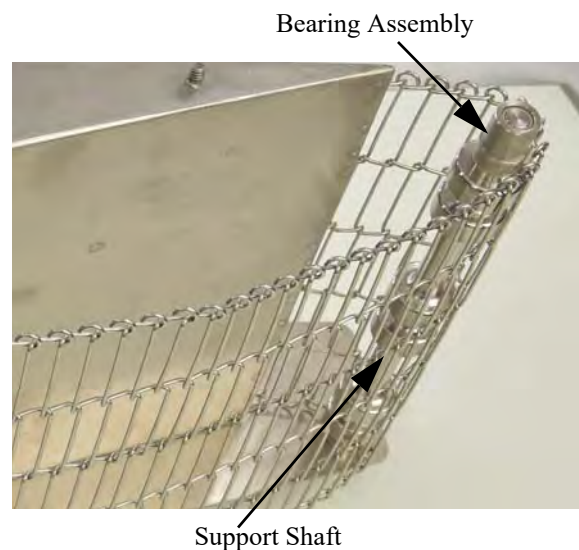
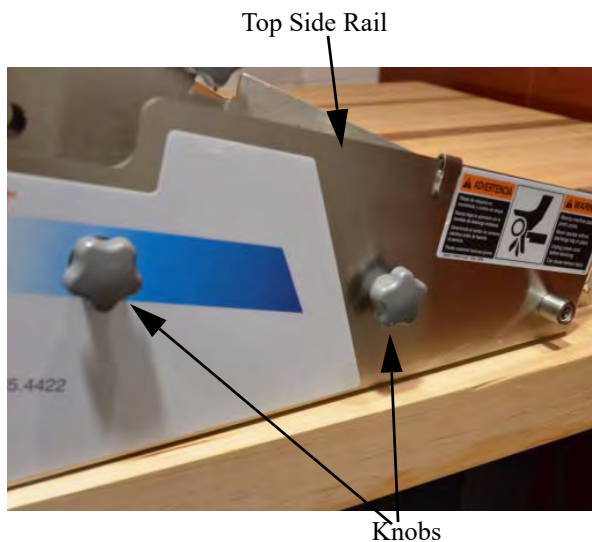
NOTE

When removing the side rail, lift from the front of the side rail and work your way to the rear.

NOTE

Make sure that the bearing assemblies remain on the support shaft.

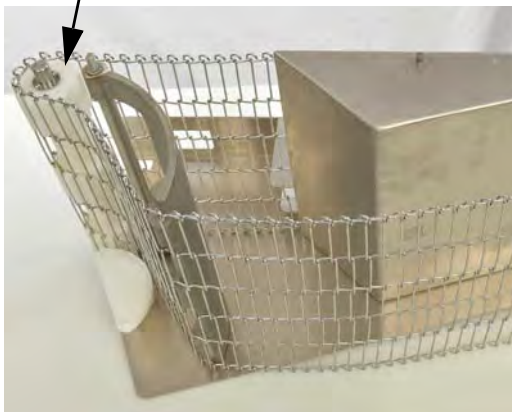
Step 2: Remove the (3) knobs from one side of the breader conveyor. Lift the side rail off of the breader conveyor. ****Make sure that the bearing assemblies remain on the support shaft.***



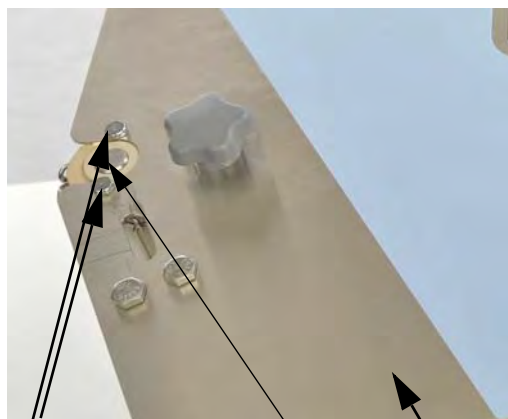
BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)

Step 3: Remove the sprocket assembly from the breader conveyor assembly.

Sprocket Assembly



Step 4: Remove the bearings from the side rails by removing the retaining screws, using a 5/16" wrench or nut driver. Install the new bearings, using the same retaining screws. **Do not overtighten.*

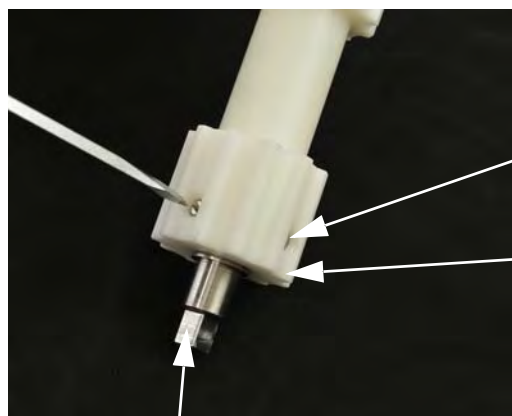


Retaining Screws

Bearing

Side Rail

Step 5: Using a flat blade screw driver, loosen the sprocket set screws and remove the driven shaft from the sprocket assembly end.



Set Screw

Sprocket
Assembly

Driven Shaft End

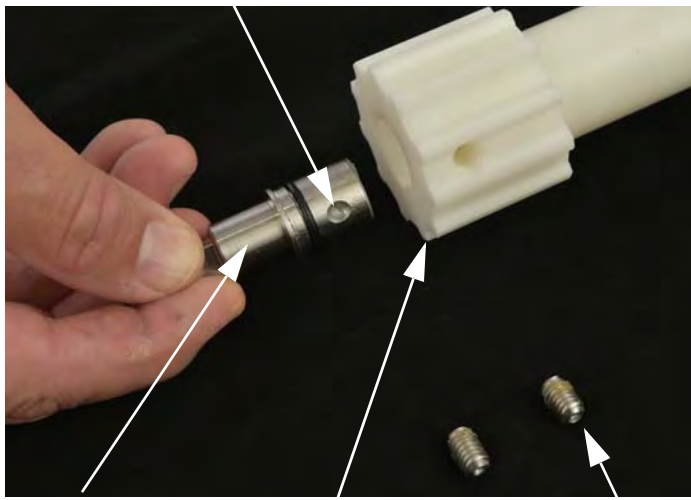
BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)



Do not over tighten screws in plastic components. Damage may occur.

Step 6: Slide the new driven shaft end into the sprocket assembly, positioning the sprocket hole over the orientation dimple. Install the set screws into the sprocket assembly and tighten.

Orientation Dimple



Driven Shaft
End

Sprocket Assembly

Set Screw

BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)

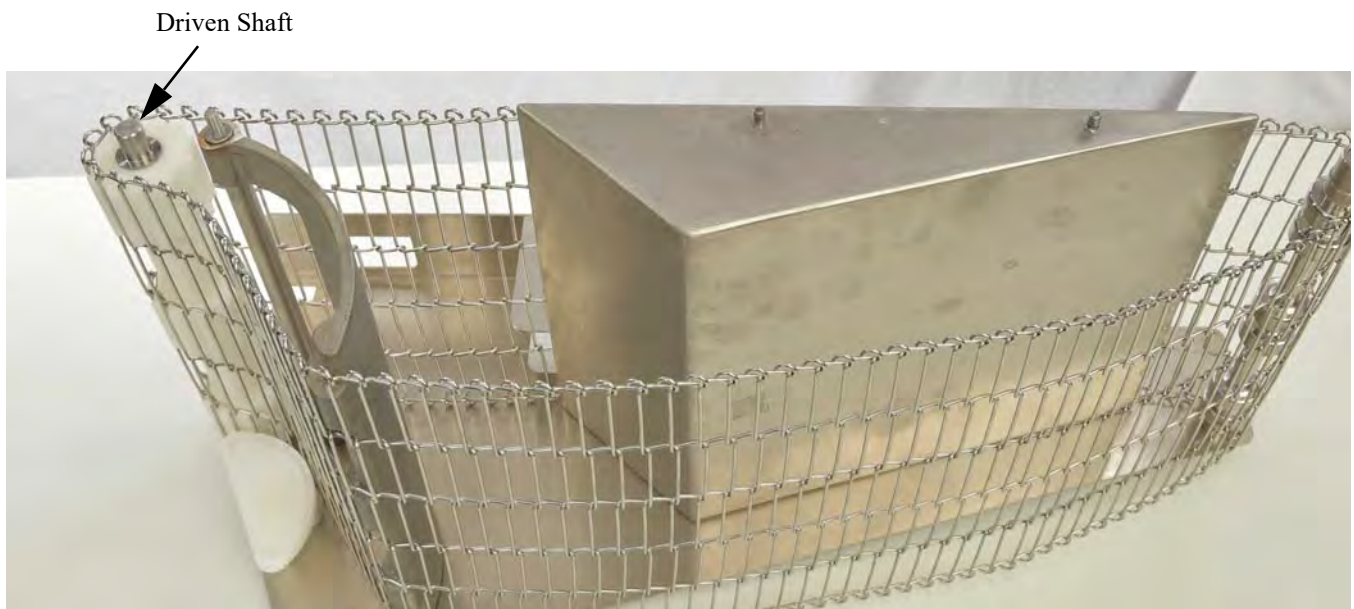
NOTE

The driven shaft will only fit properly one way. If it doesn't install properly, turn it over and try again.



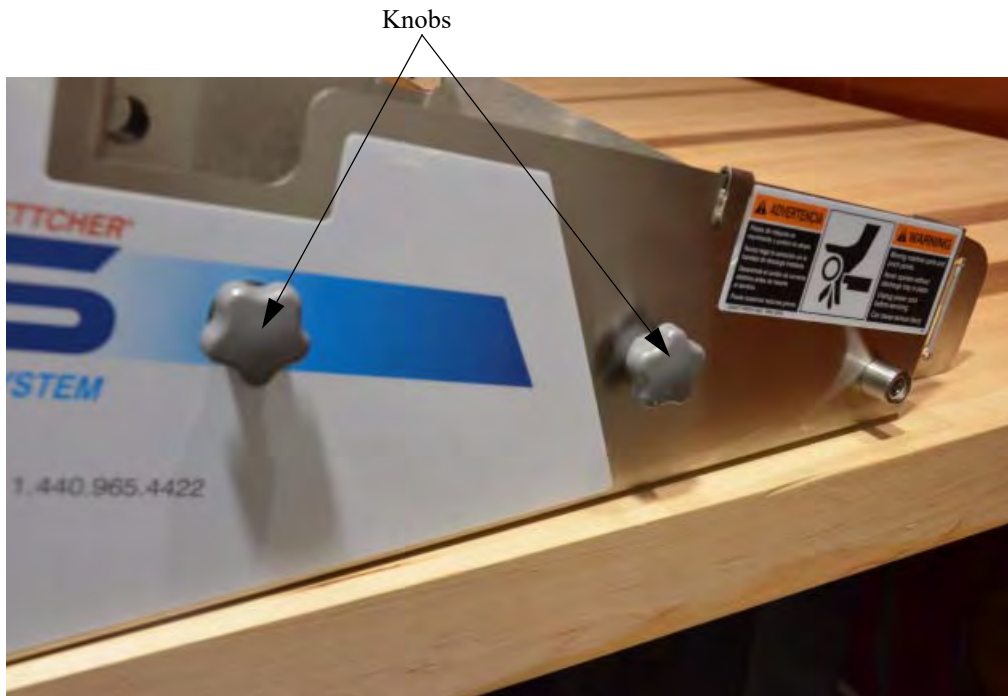
All sprockets must be in alignment with the wirebelting.

Step 7: Reinstall the driven shaft. Align the sprockets with the wirebelting.



BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)

Step 8: Reinstall the breader side rail and (3) knobs, installing from the front end of the side rail and working your way towards the rear. **Make sure all components are located and aligned prior to tightening the knobs.*



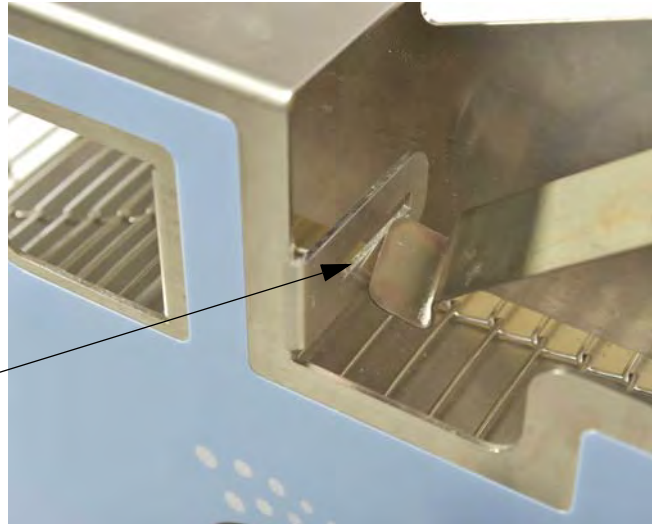
BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)

Step 9: Reassemble by installing:

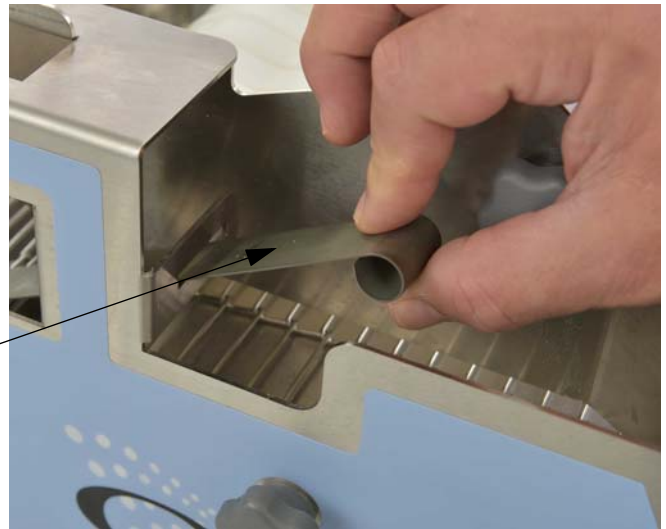
Vibrator Springs

- Install vibrator springs into slots.

Slot



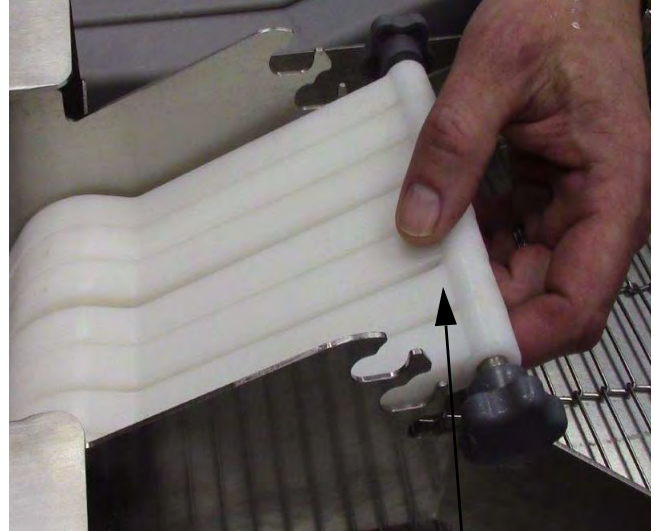
Vibrator Spring



BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)

Paddle Assembly

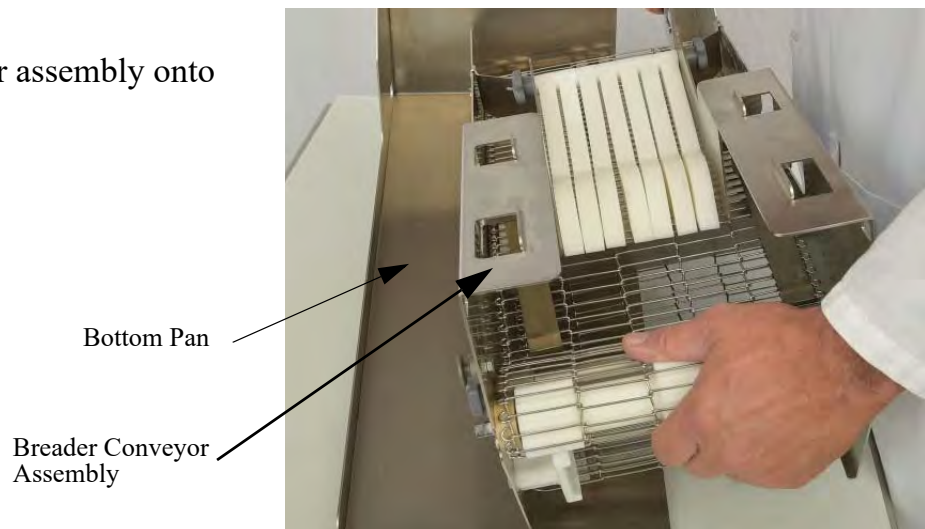
- Install paddle assembly.



Paddle Assembly

Breader Conveyor

- Install breader conveyor assembly onto bottom pan.



Bottom Pan

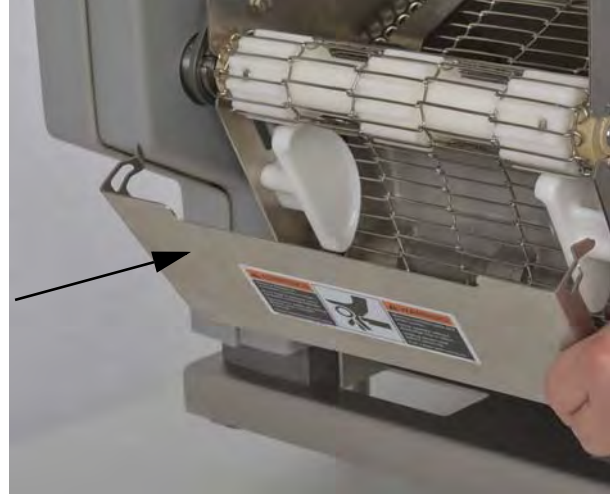
Breader Conveyor
Assembly

BREADER CONVEYOR BEARINGS AND DRIVEN SHAFT (CONTINUED)

Discharge Tray

- Position the bottom edge of discharge tray onto the bottom pan. Rotate discharge tray upward until it snaps into the breeder conveyor side rails.

Discharge Tray



WIREBELT REPLACEMENT

Step 1: Disassemble breader conveyor by removing:

Discharge Tray

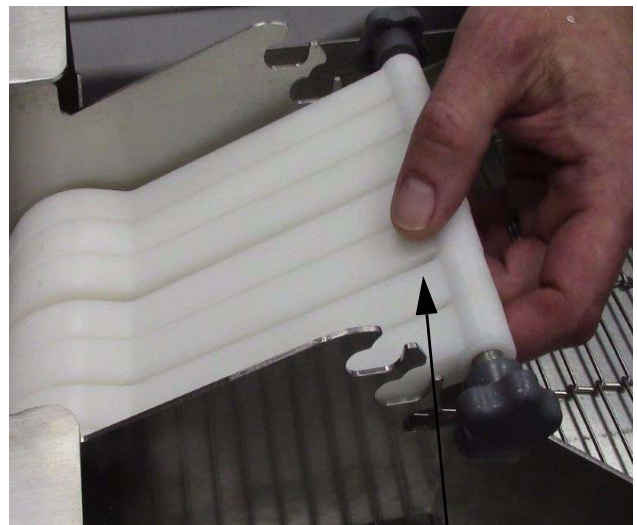
- Pull the top of the discharge tray away from the breader assembly releasing the tray from the breader holes.

Discharge Tray



Paddle Assembly

- Remove paddle assembly.



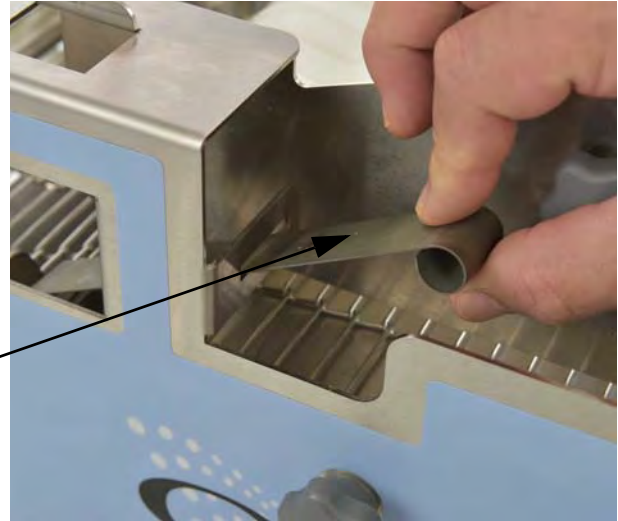
Paddles Assembly

WIREBELT REPLACEMENT (CONTINUED)

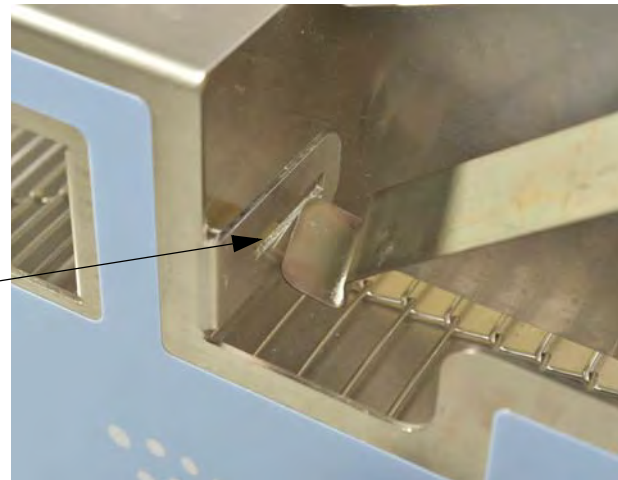
Vibrator Springs

- Remove vibrator springs from slots.

Vibrator Spring



Slot



WIREBELT REPLACEMENT (CONTINUED)

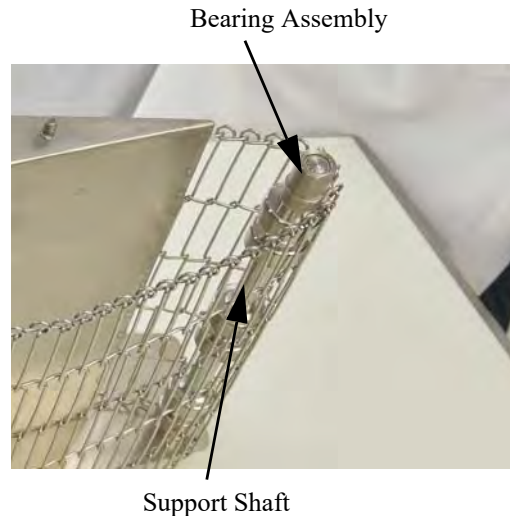
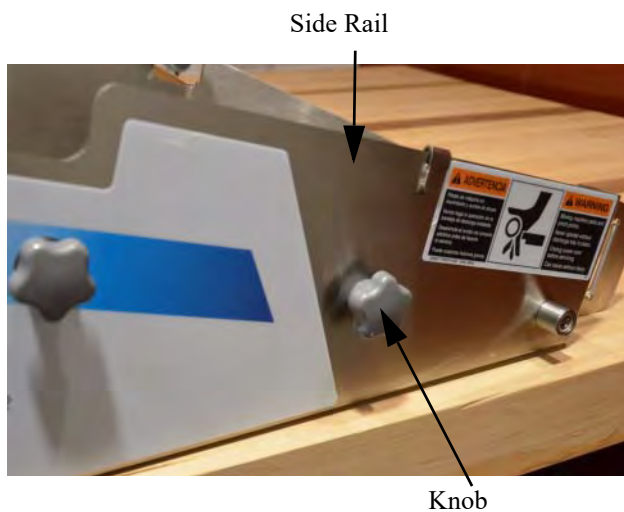
NOTE

When removing the side rail, lift from the front of the side rail and work your way to the rear.

NOTE

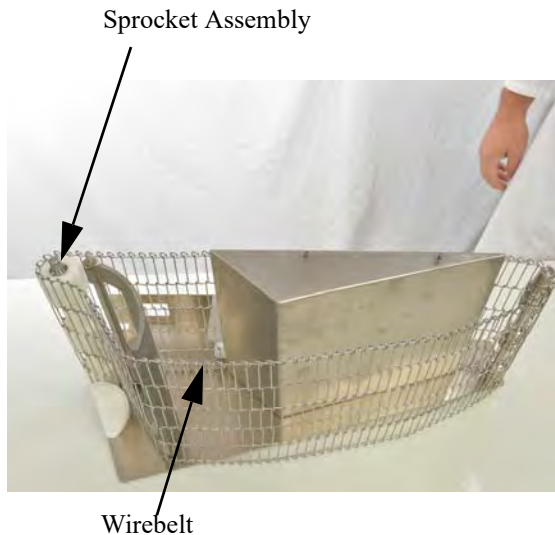
Make sure that the bearing assemblies remain on the support shaft.

Step 2: Remove the (3) knobs from one side of the breader conveyor. Lift the side rail off of the breader conveyor. **Make sure that the bearing on the support shaft assembly remains intact.*



WIREBELT REPLACEMENT (CONTINUED)

Step 3: Remove the sprocket assembly and wirebelt from the breeder conveyor assembly.



Make sure wirebelt is installed in the proper direction.

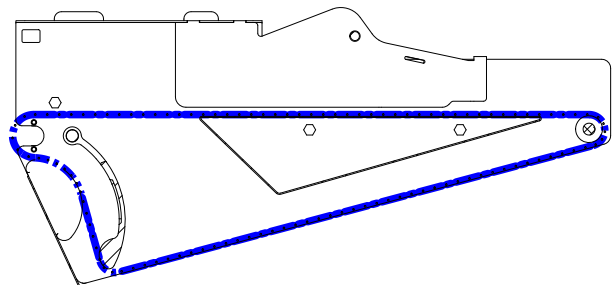
Sprocket Assembly will only fit properly one way. If it doesn't install properly, turn it over and try again.

All sprockets must be in alignment with the wirebelting.

Step 4: Install the new wirebelt and sprocket assembly, making sure the wirebelt is installed behind the idler block. **See the belt path label to ensure proper tracking.*

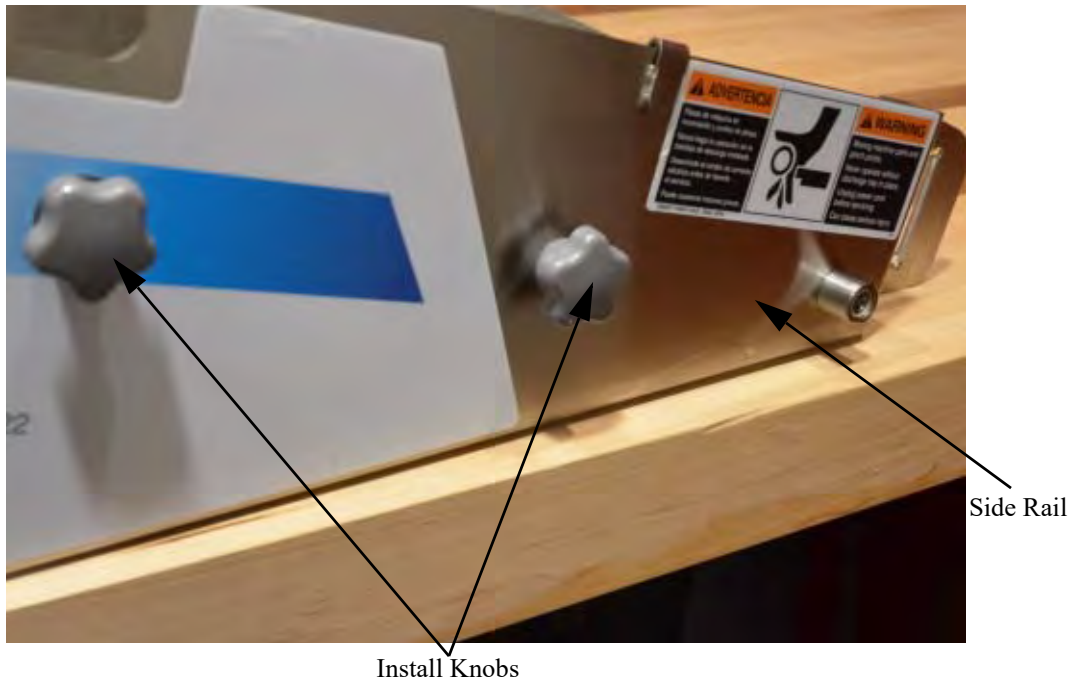


Idler Block



WIREBELT REPLACEMENT (CONTINUED)

Step 5: Reinstall the breader side rail and (3) knobs, installing from the front end of the side rail and working your way towards the rear. **Make sure all components are located and aligned prior to tightening the knobs.*



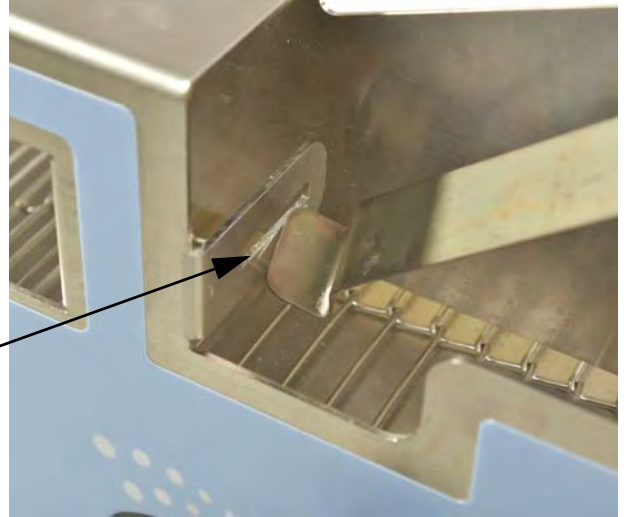
WIREBELT REPLACEMENT (CONTINUED)

Step 6: Reassemble by installing:

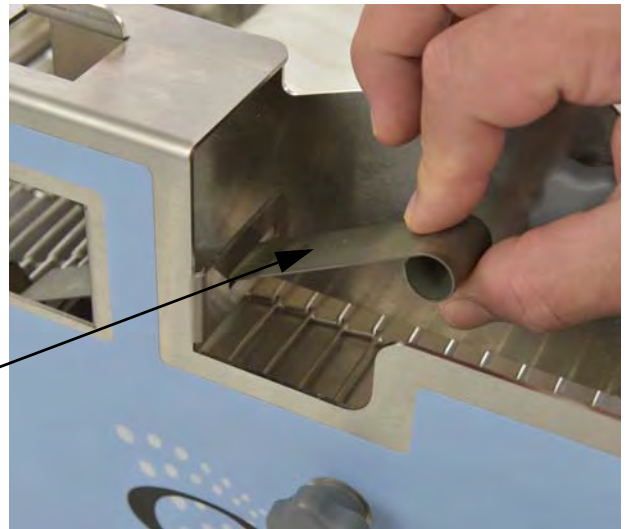
Vibrator Springs (3)

- Install vibrator springs into slots.

Slot



Vibrator Spring



WIREBELT REPLACEMENT (CONTINUED)

Paddle Assembly

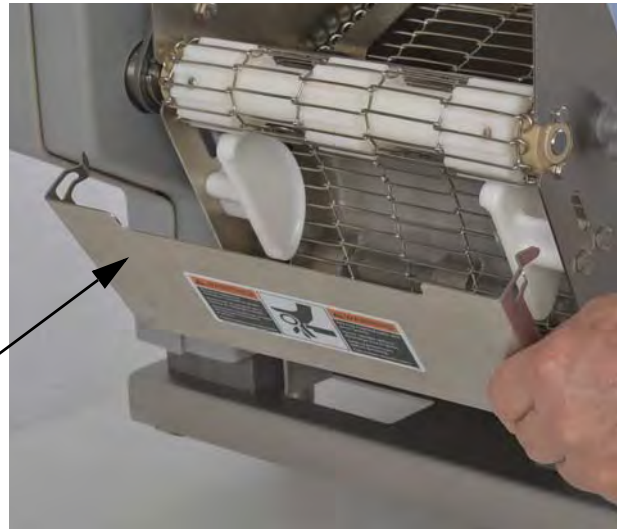
- Install paddle assembly.



Paddle Assembly

Discharge Tray

- Position the bottom edge of discharge tray onto the bottom pan. Rotate discharge tray upward until it snaps into the breader conveyor side rails.



Discharge Tray

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Section 5C

Maintenance Frame Assembly

CONTENTS OF THIS SECTION

Safety Recommendations and Warnings	5C-2
Batter Drive Shaft/Bearing Replacement	5C-5
Breeder Drive Shaft/Bearing Replacement	5C-11
Drive Chain Replacement	5C-23
Gear Motor Replacement	5C-26
On/Off Switch Replacement - ACS 115V	5C-31
Power Cord Replacement - ACS 115V	5C-35
On/Off Push Button Switch Replacement - ACS 230V	5C-42
Power Cord replacement - ACS 230V	5C-46

SAFETY RECOMMENDATIONS AND WARNINGS

 WARNING



All maintenance procedures should be performed by qualified personnel.

The information provided in these operating instructions is important to your health, comfort and safety. For safe and proper operation, read this entire manual before using this equipment.

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain this product. Protect yourself, others and equipment by observing all safety information. Failure to comply with instructions could result in personal injury and/or damage to the equipment. Any use in applications other than those for which the equipment was designed and built may result in equipment damage and/or serious injuries.

Retain this manual for future reference. Be thoroughly familiar with the controls and proper use of this equipment.

The manufacturer assumes no liability for any unauthorized changes in operating procedures or for unauthorized changes or modifications made to the design of the machine or any factory-installed safety equipment, whether these changes are made by the owner of this equipment, by his employees, or by service providers not previously approved by Nothum.

Use only replacement parts manufactured by Nothum. Use of substitute parts will void the warranty and may cause injury to operators and damage the equipment.

 WARNING



Electrical shock may occur! Always disconnect unit from power supply prior to servicing.

All electrical repairs should be completed by a qualified electrician or approved service provider.

SAFETY RECOMMENDATIONS AND WARNINGS (CONTINUED)



To avoid personal injury, guards must be in place while operating the machine.



Never operate without guards in place.

Moving machine parts and pinch points.
Never operate without discharge tray in place.

Sprocket and Chain

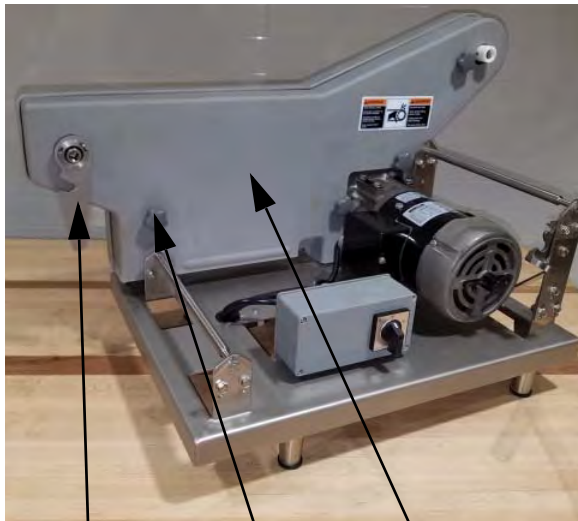
To avoid personal injury, guards must be in place while operating the machine.

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BATTER DRIVE SHAFT/BEARING REPLACEMENT

Step 1: Disassemble the frame assembly by removing:

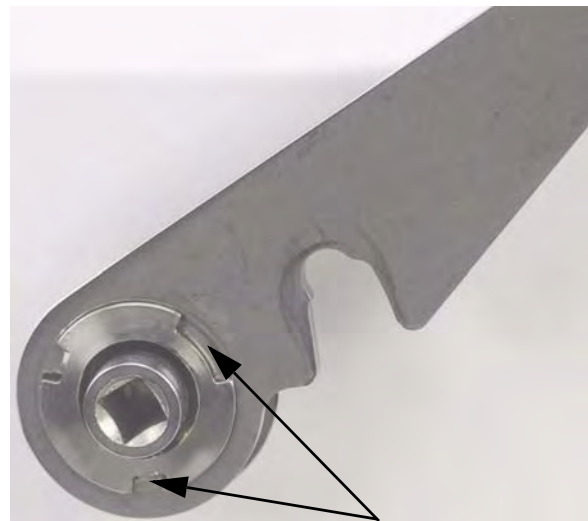
- knobs
- locking latch (remove by aligning the tabs with the groove)
- drive guard covers



Locking Latch

Knob

Drive Guard Cover



Latch Alignment

Align Tabs With Groove



BATTER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 2: Loosen the (4) motor mounting bolts and lift up the gear motor to loosen the drive chain. Slightly tighten one motor mounting bolt to position the gear motor in the upper most position.

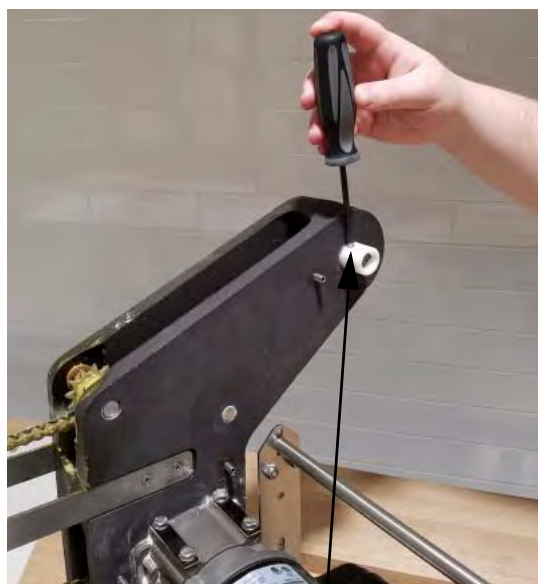


Motor Mounting Bolt

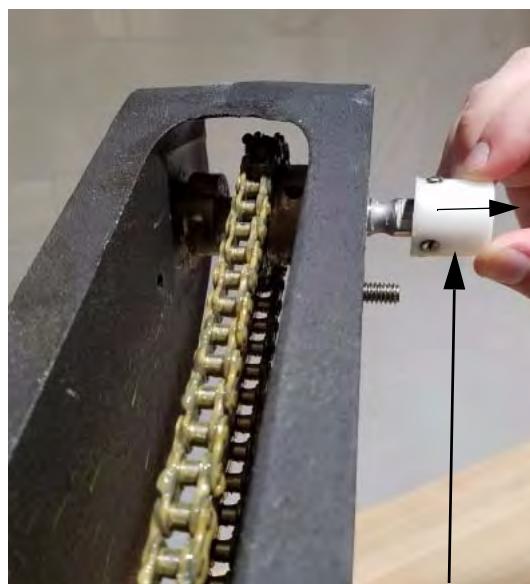
Gear Motor

Drive Chain

Step 3: Remove the guide sleeve by loosening the four guide sleeve set screws.



Set Screw

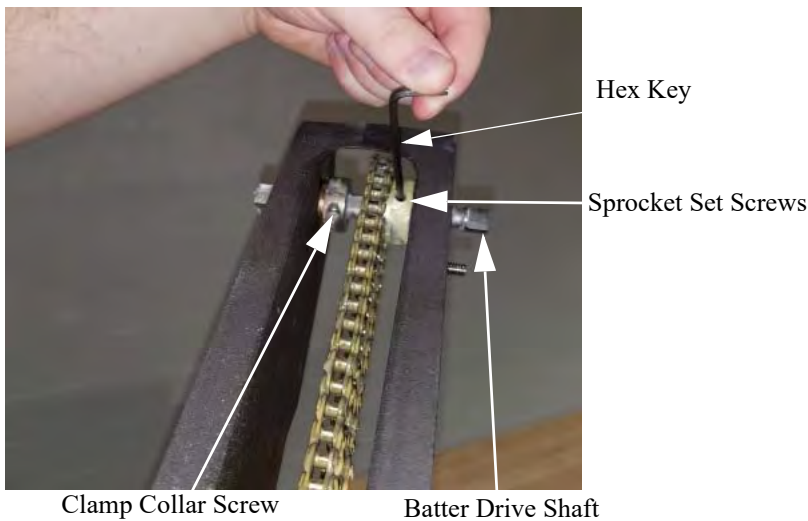


Guide Sleeve

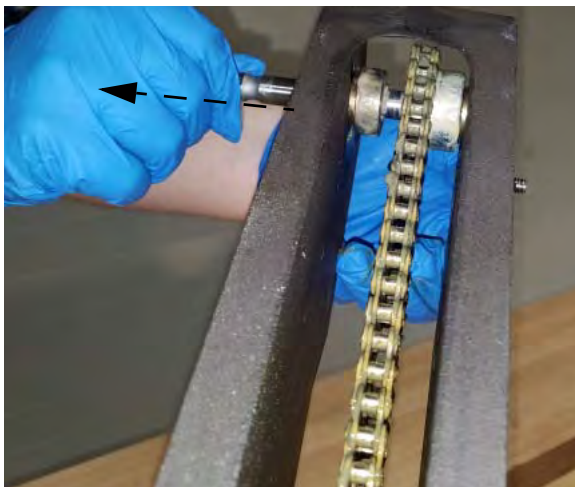
BATTER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 4: Using a 9/64" hex key, loosen the clamp collar screw and slide the collar away from the bearing.

Step 5: Using a 1/8" hex key, loosen the 2 drive sprocket set screws so that the batter drive shaft rotates freely inside the drive sprocket.



Step 6: Hold the drive sprocket and clamp collar while pulling the drive shaft out of the drive tower.



BATTER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 7: Using a hammer and punch, remove the old bearings. Install the new bearings.

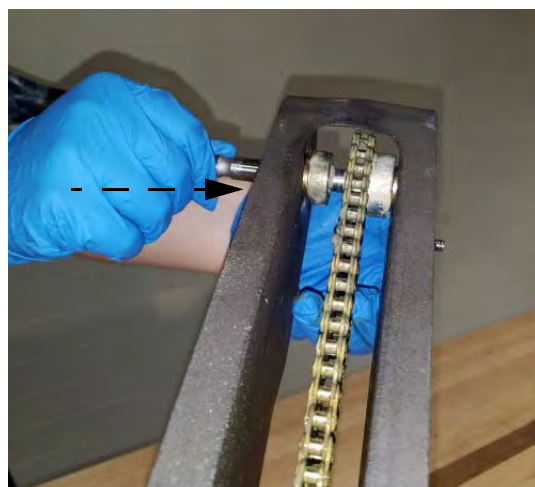


Remove



Install

Step 8: Slide the shaft through the frame and one bearing.



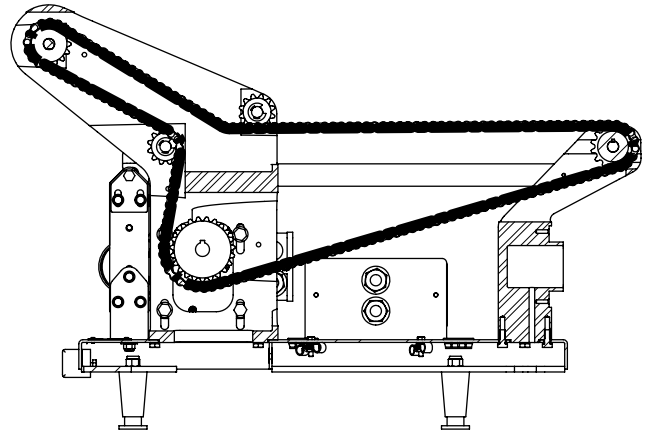
BATTER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 9: Install the drive sprocket and clamp collar on the drive shaft. Make sure the chain is positioned on the drive sprocket. **Refer to the chain path view below.*



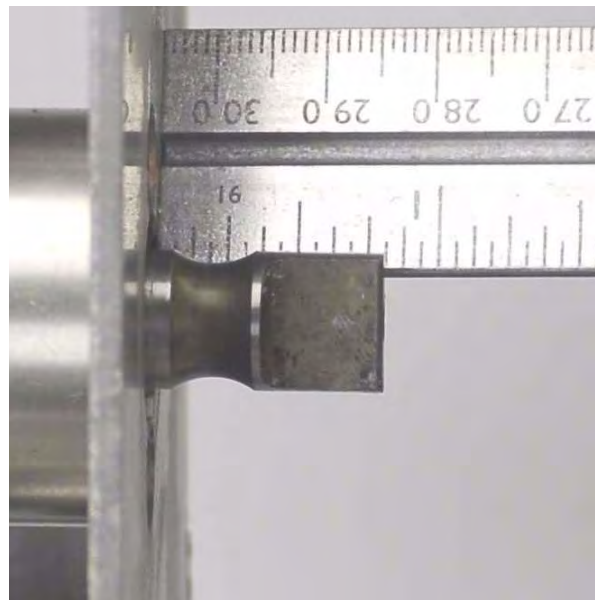
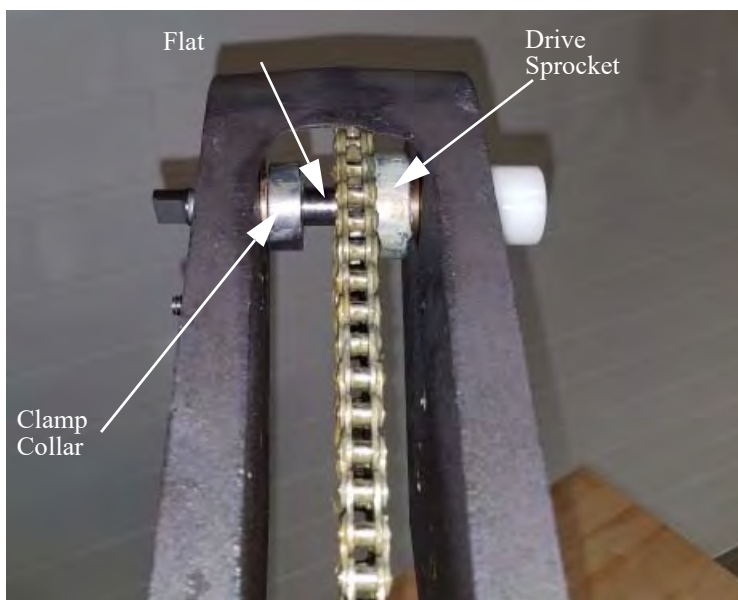
Clamp Collar

Drive Sprocket



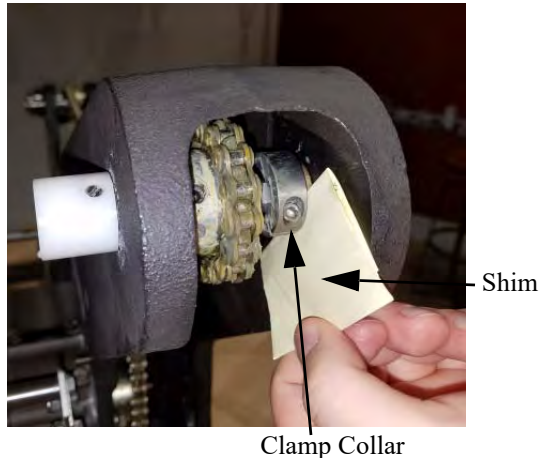
Step 10: Slide the drive sprocket against the bearing. Before tightening the sprocket set screws, check that the drive shaft is extended from the side of the frame approximately 13/16".

IMPORTANT: *Make sure one of the sprocket set screws tighten on the flat part of the drive shaft.*



BATTER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

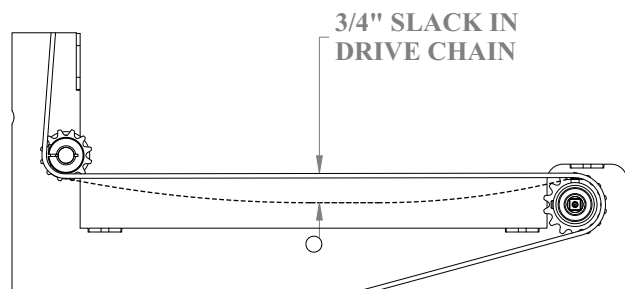
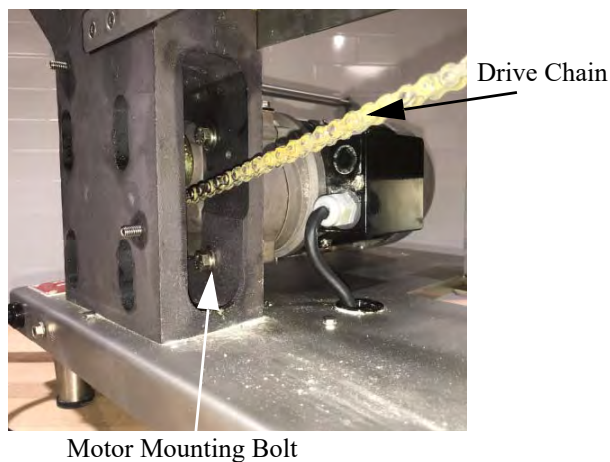
Step 11: Use a small piece of paper to create a shim. Place the shim between the clamp collar and the side bearing. Slide the collar against the paper shim. Tighten the clamp collar screw then remove the paper shim.



Step 12: The shaft assembly adjustment is correct if the shaft can be turned by hand and side to side movement is less than 1/64 of an inch (.4mm). Reinstall the guide sleeve.



Step 13: Adjust the drive chain tension by allowing the weight of the motor to tension the drive chain. To avoid over tensioning the drive chain, make sure the drive chain has 3/4" slack as shown. Tighten the 4 motor mounting bolts.

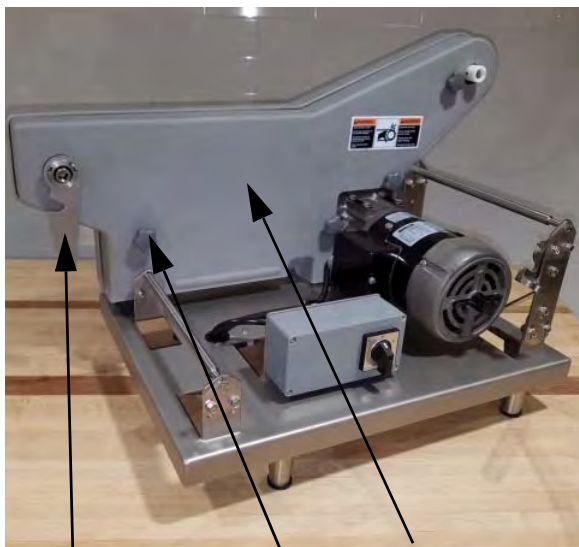


Step 14: Reinstall the drive guard covers, knobs, and locking latch. **For installation instructions, see Section 3 of this manual.*

BREADER DRIVE SHAFT/BEARING REPLACEMENT

Step 1: Disassemble the frame assembly by removing:

- knobs
- locking latch (remove by aligning the tabs with the groove)
- drive guard covers



Locking Latch

Knobs

Drive Guard Covers

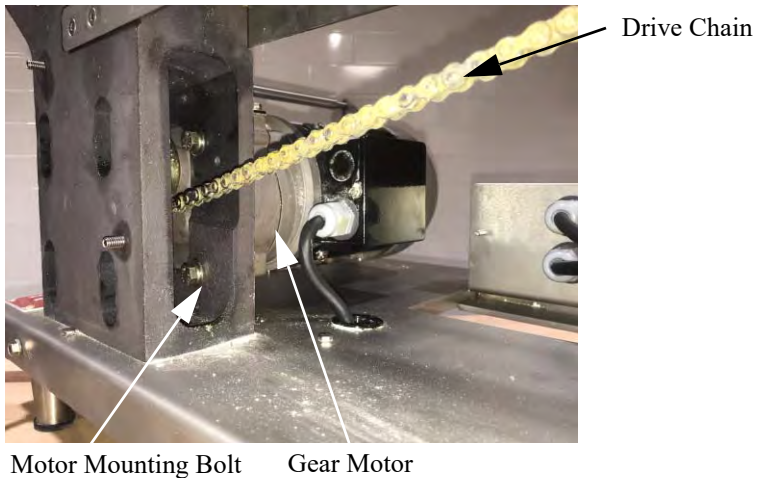


Latch Alignment

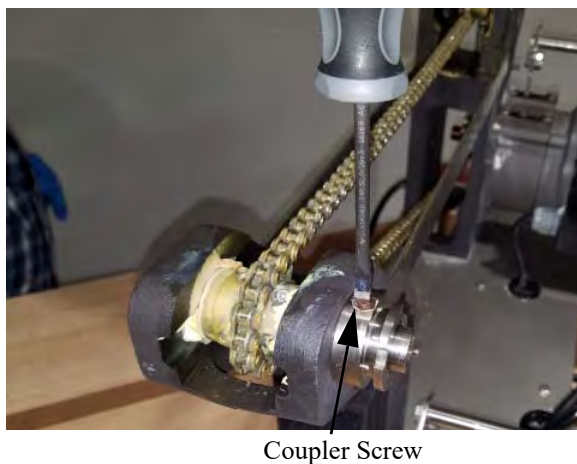


BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 2: Loosen the (4) motor mounting bolts and lift up the gear motor to loosen the drive chain. Slightly tighten one motor mounting bolt to position the gear motor in the upper most position.



Step 3: Using a 5/16" wrench or flat tip screw driver, remove the coupler screw from the locking housing and remove the coupler.

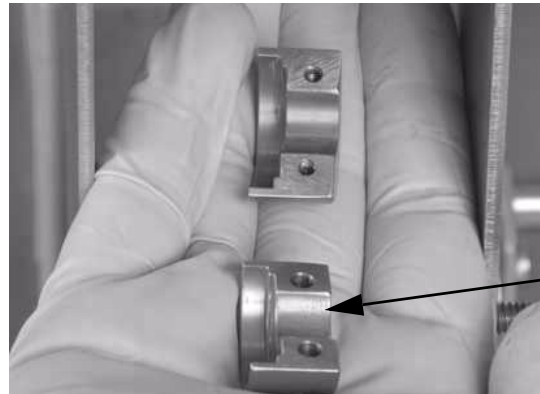


BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 4: Using a 7/64" hex key, remove the 2 screws from the split clamp and remove both clamp halves. Remove the retaining ring underneath.



Screw



Split Clamp Half



Retaining Ring

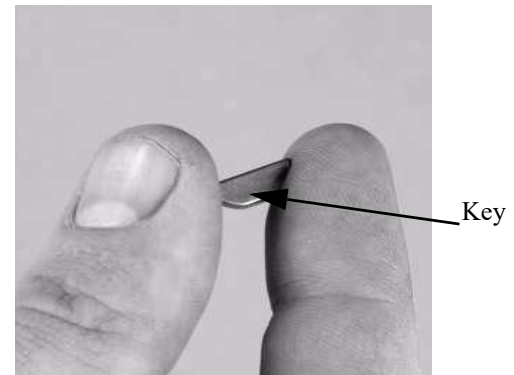
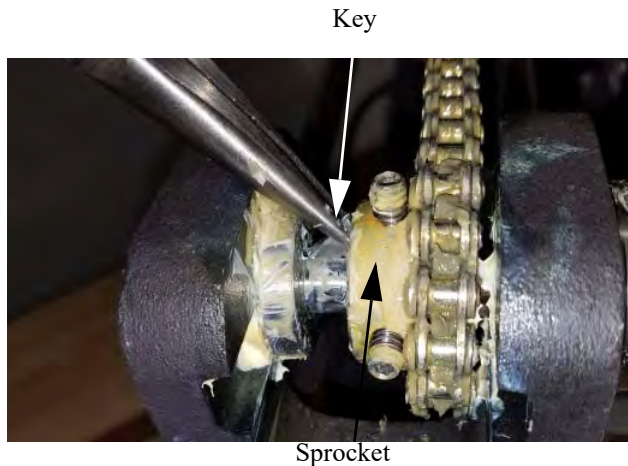
Step 5: Using a 1/8" hex key, loosen the 2 sprocket set screws.



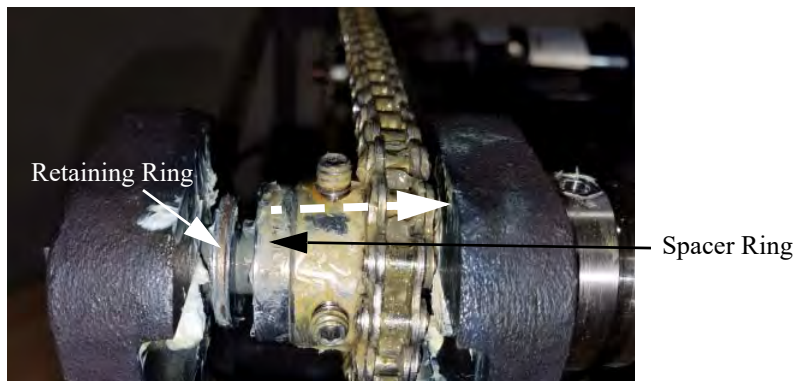
Sprocket Set Screw

BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 6: Slide the sprocket over to expose the sprocket key and remove the key.



Step 7: Slide the spacer ring towards the sprocket to expose the retaining ring. Remove the retaining ring.



Step 8: Slide the drive shaft out of the bearing assemblies. While sliding the old shaft out, be certain to hold onto the loose components on the shaft (thrust bearings, thrust washer, spacer ring and drive sprocket) to prevent loss.



BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 9: Using a hammer and punch, remove the old bearings.

Step 10: Install the new bearings.



NOTICE

When installing the screws, use thread locker (Loctite 242 or equivalent).

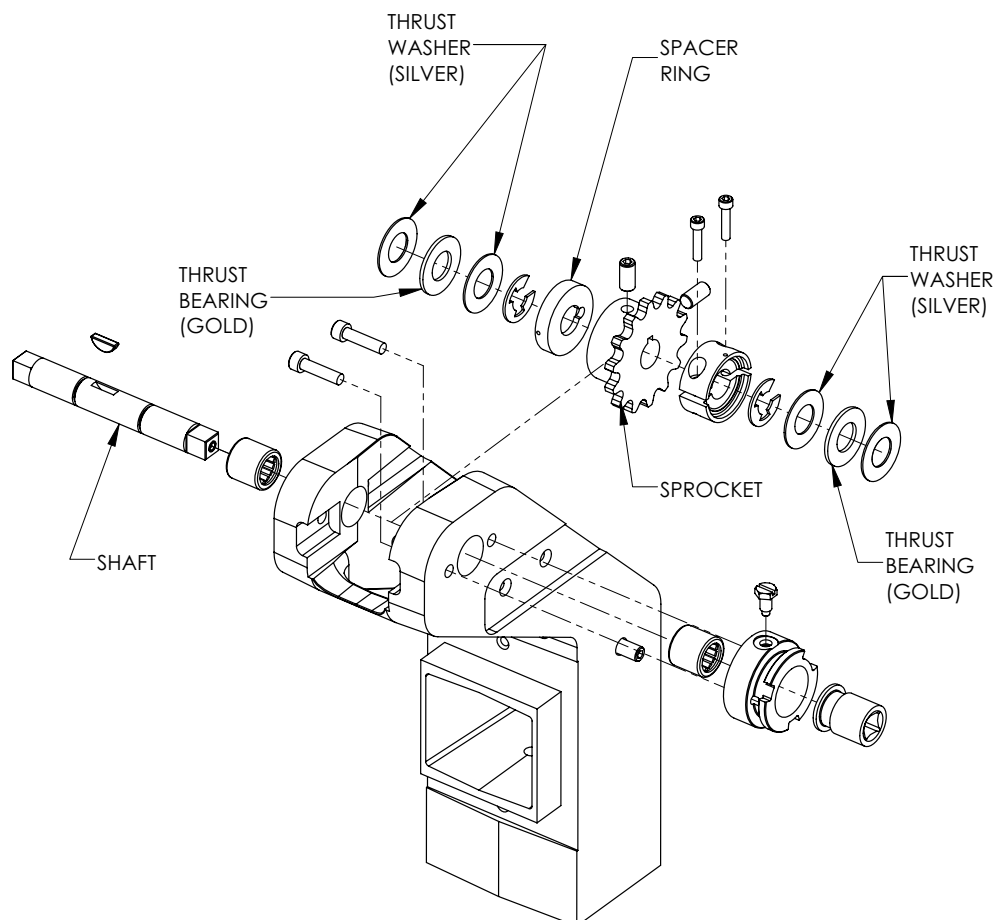
Step 11: Insert the drive shaft into the left side of the locking housing and bearing.



Drive Shaft

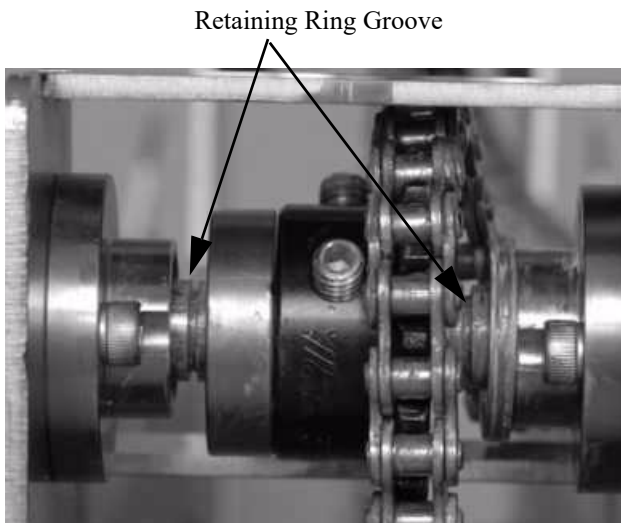
BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 12: While inserting the drive shaft, slip thrust washers (silver), thrust bearings (gold), spacer ring and sprocket over the exposed end of the shaft. If any of these components require replacement, do so before moving on to the next step.



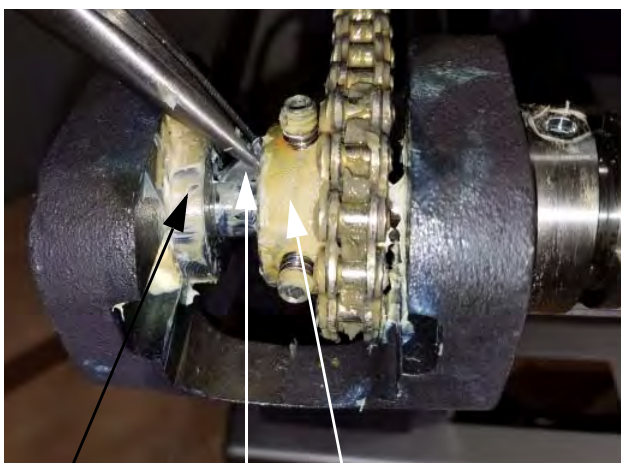
BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 13: **Make certain the drive chain is correctly looped over the sprocket, then push the drive shaft through so that both retaining ring grooves are visible.*



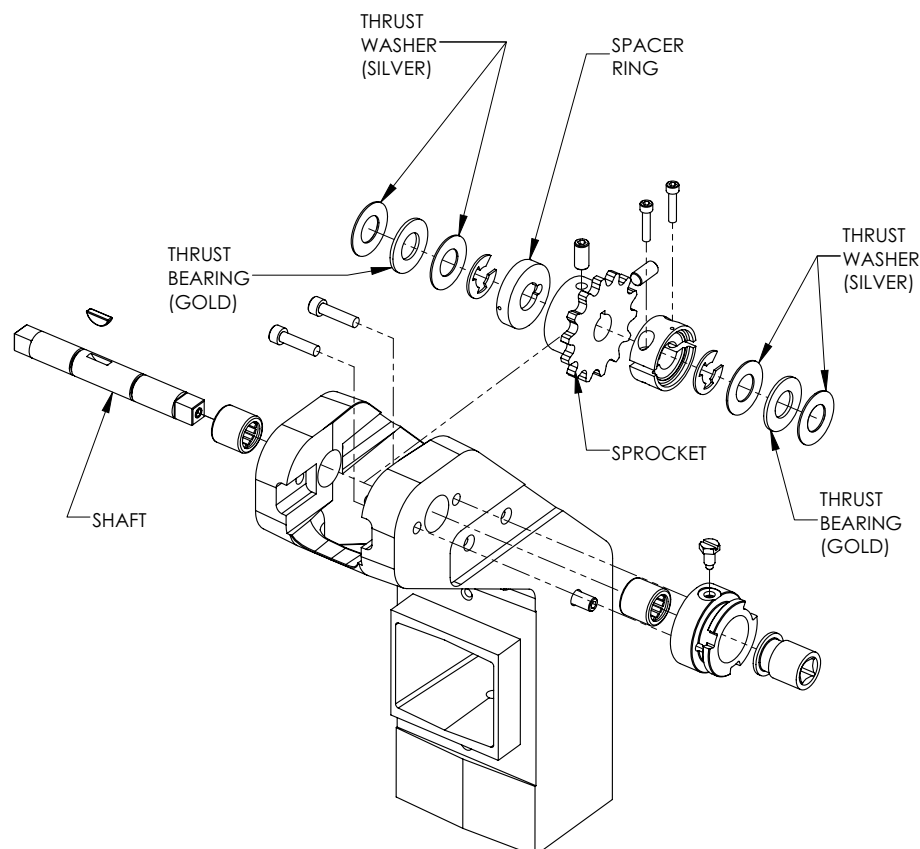
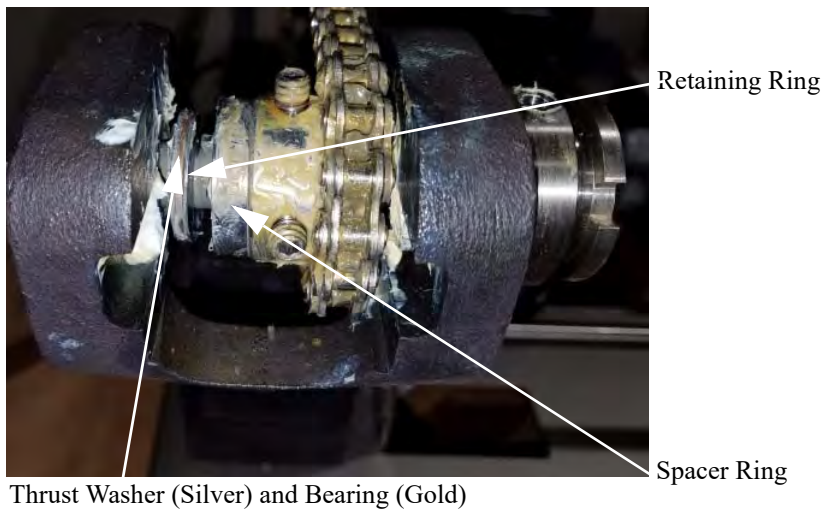
Step 14: Slide the sprocket and the spacer ring away from each other, exposing the key slot.

Step 15: Install the sprocket key into the **left** most key slot of the drive shaft.



BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 16: Slide the spacer ring towards the sprocket to expose the retaining ring groove. Be sure that the thrust washers (silver) and the thrust bearing (gold) are properly installed (See diagram below). Install the retaining ring.



BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 17: Slide the spacer ring to the left side until it stops on the retaining ring.



Spacer Ring to the left

Step 18: Slide the sprocket to the left until it stops on the spacer ring. Make sure that the sprocket's keyway lines up with the key in the shaft. Tighten the set screws. Install the retaining ring into the groove.



Sprocket Set Screw

Step 19: Install the split collar halves around the shaft. Slide the split collar against the retaining ring. Apply thread locker (Loctite 242 or equivalent) to the 2 screws. Tighten the screws, using a 5/64" hex key. Once assembled, the collar must rest against the retaining ring on the right side of the shaft. **Do not rest it against the sprocket.*

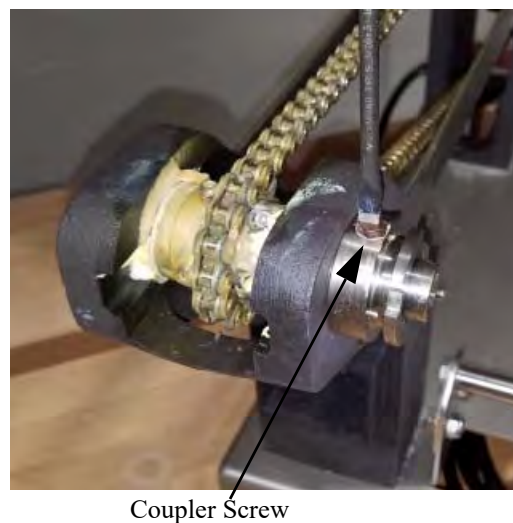


Split Collar

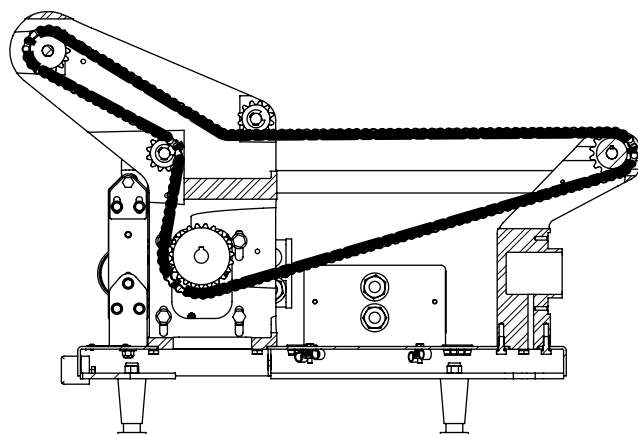
Retaining Ring

BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 20: Reinstall coupler and coupler screw.



Step 21: Ensure that the drive chain is routed around the sprockets as shown in the diagram.

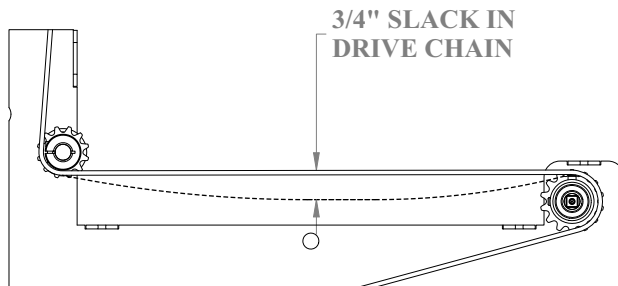


BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 22: Adjust the drive chain tension by allowing the weight of the motor to tension the drive chain. To avoid over tensioning the drive chain, make sure the drive chain has 3/4" slack as shown. Tighten the (4) motor mounting bolts.



Step 23: Verify the drive chain tension by pressing down on the chain as shown. Drive chain deflection should be 3/4 of an inch.

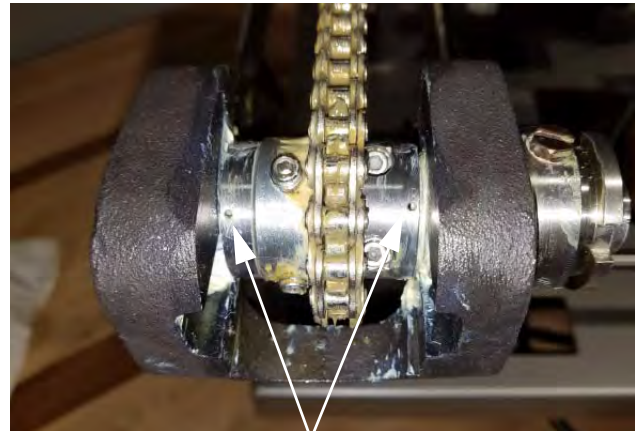


BREADER DRIVE SHAFT/BEARING REPLACEMENT (CONTINUED)

Step 24: Grease the breader drive shaft by using the grease gun (PN: 501417) to pump the grease into the grease fittings in the drive shaft and into the fill ports in the spacer ring and split collar. Regrease the bearings every six months.



Grease Fitting



Fill Ports

Step 25: Reinstall the drive guard covers, knobs, and locking latch. **For installation instructions, see Section 3 of this manual.*

DRIVE CHAIN REPLACEMENT

Step 1: Disassemble the frame assembly by removing:

- knobs
- locking latch (remove by aligning the tabs with the groove)
- drive guard covers



Locking Latch Knobs Drive Guard Covers



Latch Alignment



DRIVE CHAIN REPLACEMENT (CONTINUED)

Step 2: Loosen the (4) motor mounting bolts and lift up the gear motor to loosen the drive chain. Slightly tighten one motor mounting bolt to position the gear motor in the upper most position.



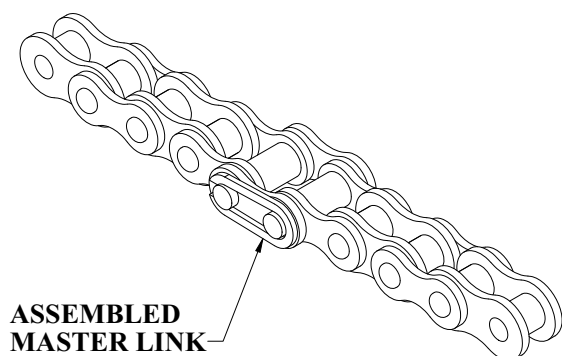
Motor Mounting Screw



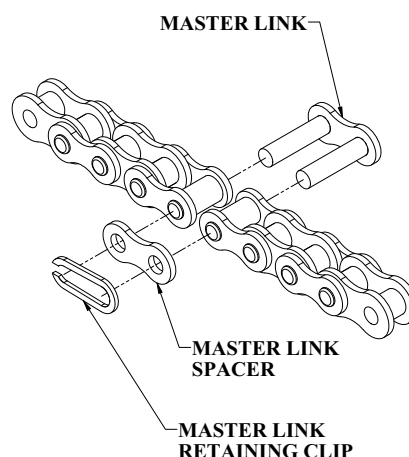
Drive Chain

Upper Most Position

Step 3: Remove the master link retaining clip, master link spacer and slide the master link out.



ASSEMBLED MASTER LINK

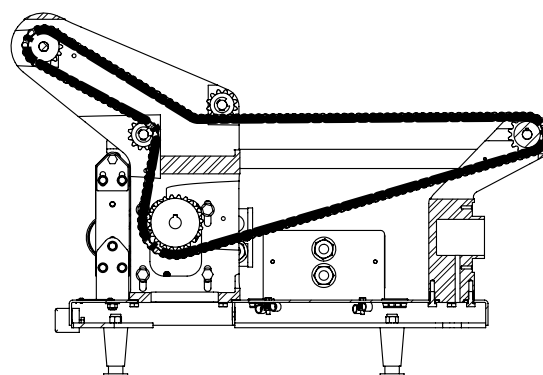


MASTER LINK

MASTER LINK SPACER

MASTER LINK RETAINING CLIP

Step 4: Remove the old drive chain. Install the new drive chain around the sprockets as shown. Reinstall the master link.

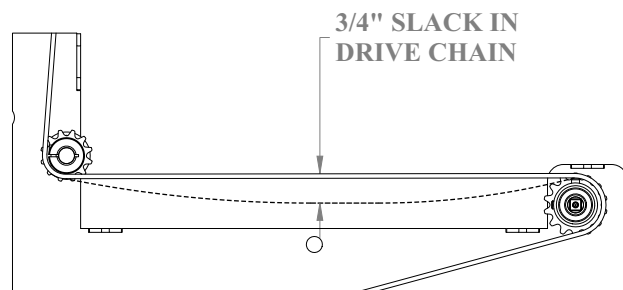


DRIVE CHAIN REPLACEMENT (CONTINUED)

NOTICE

Verify that the drive chain path is correct.

Step 5: Adjust the drive chain tension by allowing the weight of the motor to tension the drive chain. To avoid over tensioning the drive chain, make sure the drive chain has 3/4" slack as shown. Tighten the (4) motor mounting bolts.



Step 6: Reinstall the drive guard covers, knobs, and locking latch. **For installation instructions, see Section 3 of this manual.*

GEAR MOTOR REPLACEMENT

WARNING

Electrical shock may occur! Always disconnect unit from power supply prior to servicing.



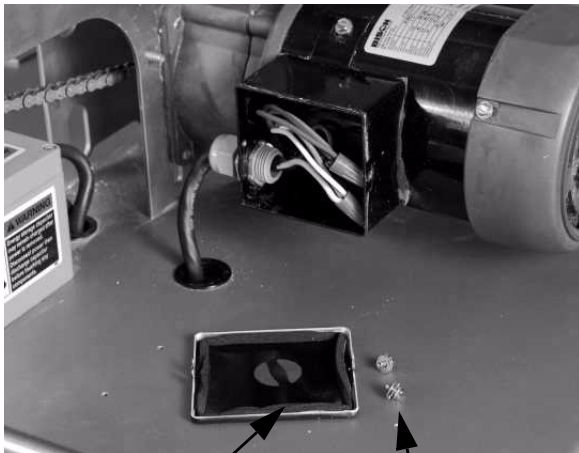
All electrical repairs should be completed by a qualified electrician or approved service provider.

Step 1: Disassemble the frame assembly by removing:

- knobs
- locking latch (remove by aligning the tabs with the groove)
- drive guard covers

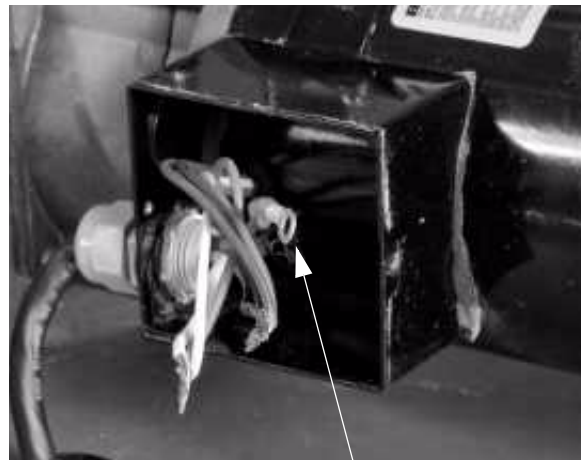
Step 2: Using a screw driver or a 1/4" nut driver, remove the motor junction box cover by loosening the screws on each side.

Step 3: Remove the screw and washer that secure the green ground wire to the motor housing.



Junction Box
Cover

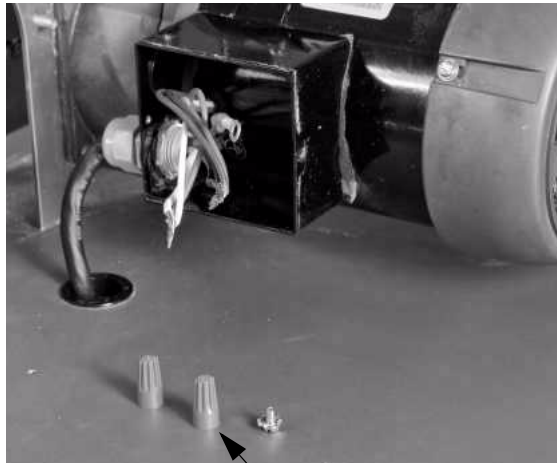
Screws



Green Ground Wire

GEAR MOTOR REPLACEMENT (CONTINUED)

Step 4: Remove and save the wire nuts connecting the motor cord wire to the motor wires. *See the electrical schematics in Section 7.*



Wire Nuts

Step 5: Remove and save the locknuts that hold the connectors into the junction box. Pull the motor cord and connector from the junction box.



Motor Cord

Lock Nut

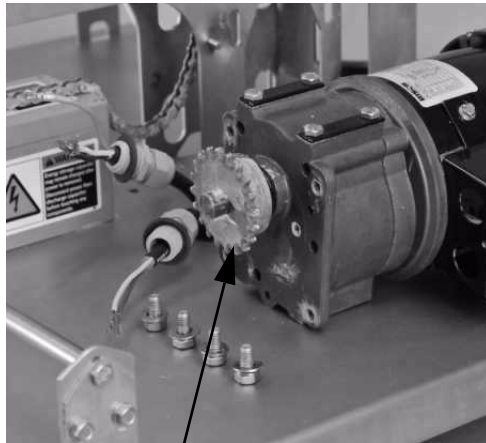
Step 6: Remove the gear motor by removing the mounting screws and washers that attach it to the frame. When removing, raise the motor high enough to slacken and unhook the drive chain from the motor sprocket. **Save the gear motor mounting screws for reassembly.*



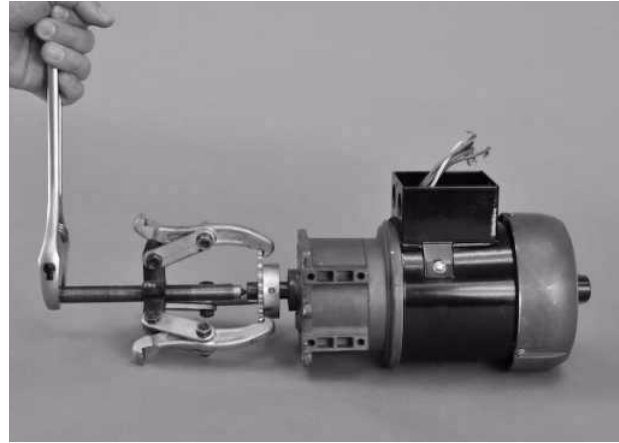
Motor Mounting Screw

GEAR MOTOR REPLACEMENT (CONTINUED)

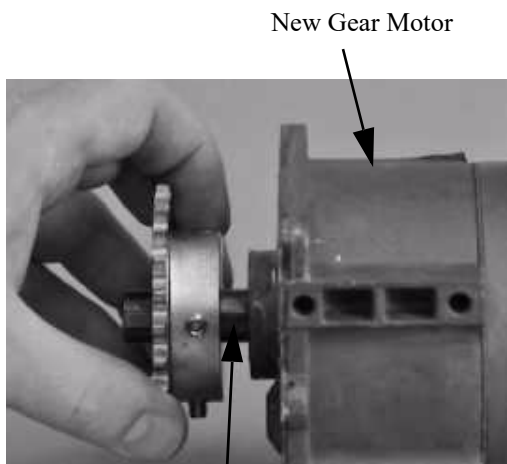
Step 7: Loosen the 2 set screws located in the gear motor drive sprocket. Remove the gear motor drive sprocket from the shaft. **This sprocket is keyed to the gear motor shaft and may require a gear puller to remove.*



Gear Motor Drive Sprocket



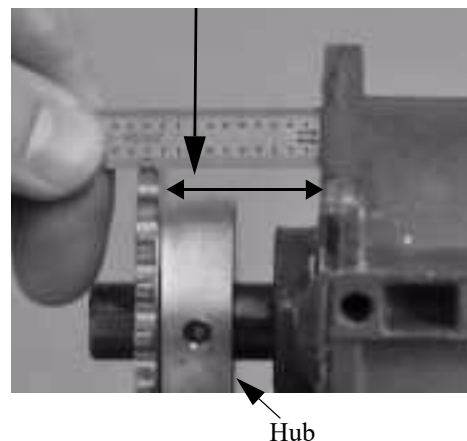
Step 8: Install the gear motor drive sprocket onto the new motor. Install with the sprocket hub facing the gear motor. Align the sprocket keyway with the gear motor shaft key.



Gear Motor Shaft Key

Step 9: Position the inside edge of the gear motor drive sprocket 11/16 on an inch (17.5mm) from the motor housing and tighten the set screws.

1-3/8" Center of Teeth



Hub

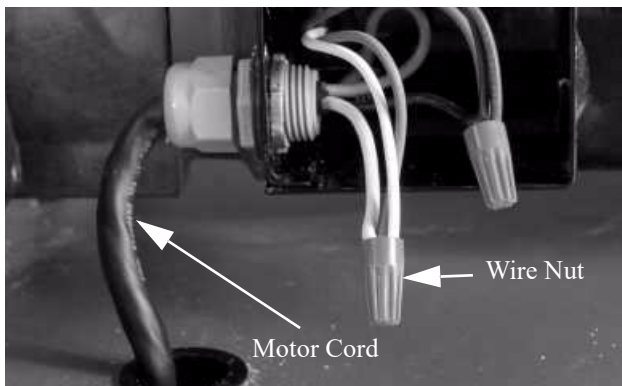
GEAR MOTOR REPLACEMENT (CONTINUED)

Step 10: Remove the new motor junction box cover by loosening the screws on each side. Insert the motor cord and strain relief into the bottom hole in the motor junction box and secure it with a lock nut. Fasten the ground (green) wire to the motor housing inside the junction box with the provided screw and washer.

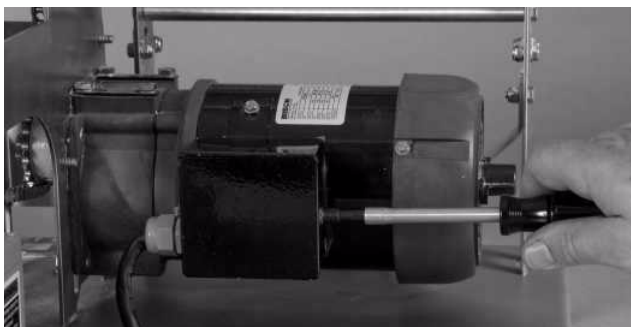


Motor Cord installed in the bottom hole of junction box

Step 11: Connect the motor switch cord wires together, using the wire nuts. **See the electrical schematic in Section 7.*

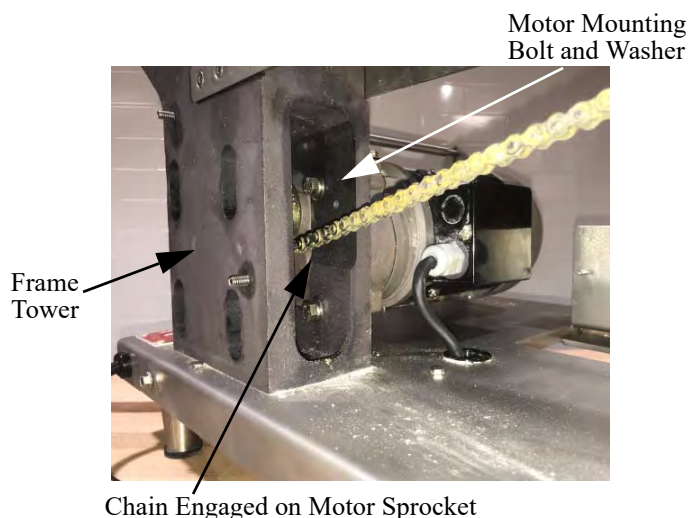
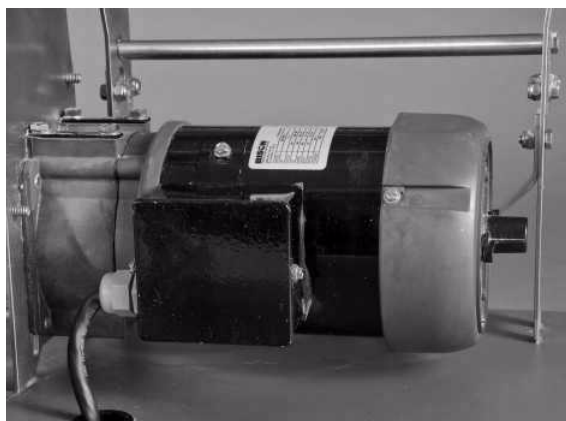


Step 12: Using a screwdriver or a 1/4" nut driver, install the junction box cover, securing it with the shake proof washers and screws provided with the new motor.

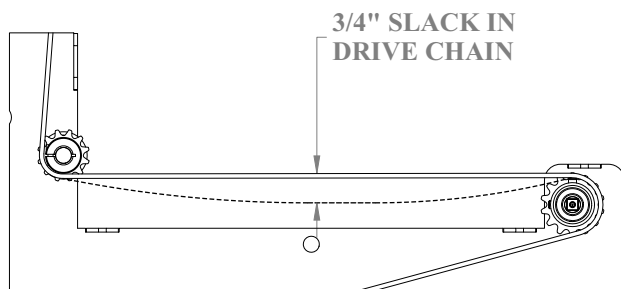


GEAR MOTOR REPLACEMENT (CONTINUED)

Step 13: Set the motor into the frame tower and engage the chain with the motor sprocket. Install the gear motor mounting bolts and washers. **Do not tighten.* Lower the gear motor and allow the weight of the motor to tension the drive chain.



Step 14: Adjust the drive chain tension by allowing the weight of the motor to tension the drive chain. To avoid over tensioning the drive chain, make sure the drive chain has 3/4" slack as shown. Tighten the (4) motor mounting bolts.

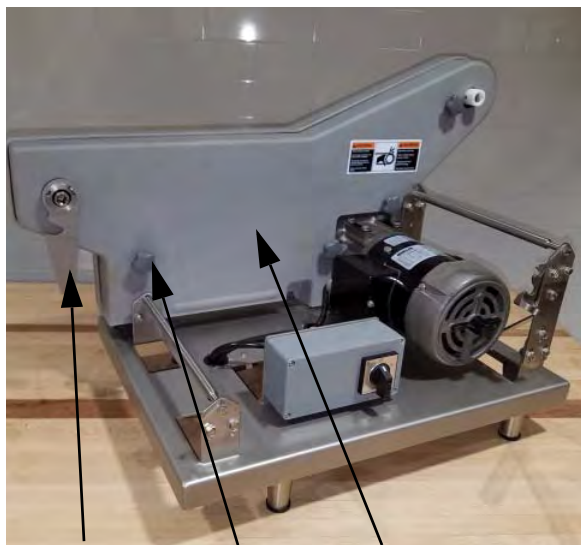


Step 15: Reinstall the drive guard covers, knobs, and locking latch. **For installation instructions, see Section 3 of this manual.*

ON/OFF SWITCH REPLACEMENT - ACS 115V

Step 1: Disassemble frame assembly by removing:

- knobs
- locking latch (remove by aligning the tabs with the groove)
- drive guard covers



Locking Latch Knob Drive Guard Cover



Latch Alignment



ON/OFF SWITCH REPLACEMENT - ACS 115V(CONTINUED)

 WARNING

Electrical shock may occur! Always disconnect unit from power supply prior to servicing.

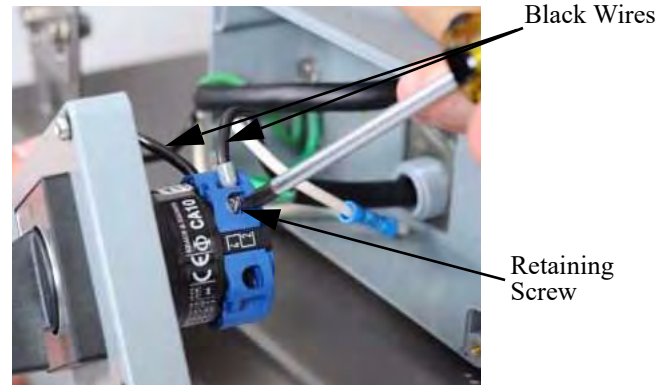


All electrical repairs should be completed by a qualified electrician or approved service provider.

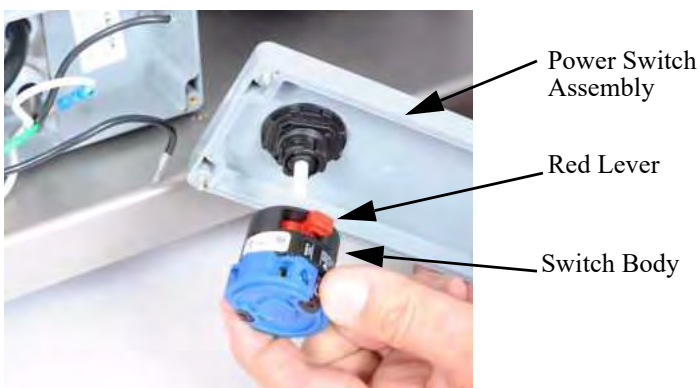
Step 2: Remove the (4) screws that attach the power switch assembly.



Step 3: Pull the power switch out of the power switch box and disconnect the two black wires from the back of the switch by loosening the retaining screws.

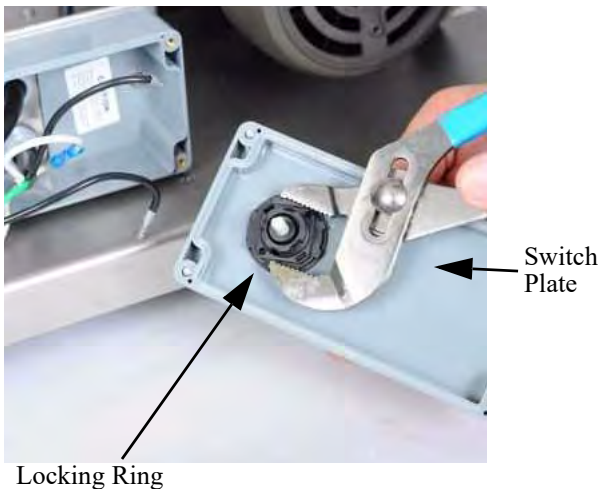


Step 4: Remove the power switch assembly from the switch body by releasing the red lever.

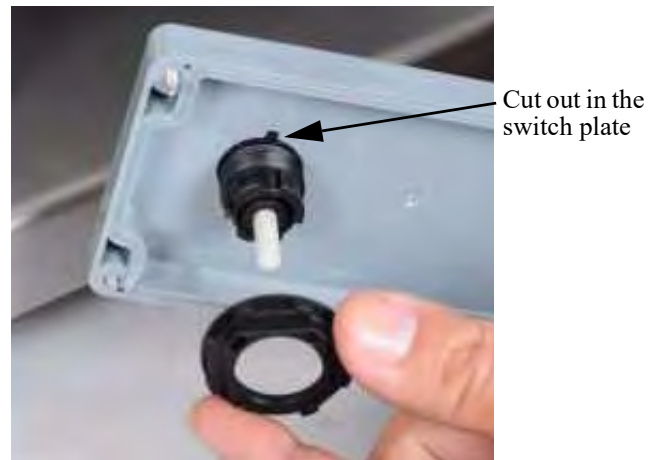


ON/OFF SWITCH REPLACEMENT - ACS 115V (CONTINUED)

Step 5: Remove the switch lever from the switch plate by removing the locking ring on the rear of the switch plate.



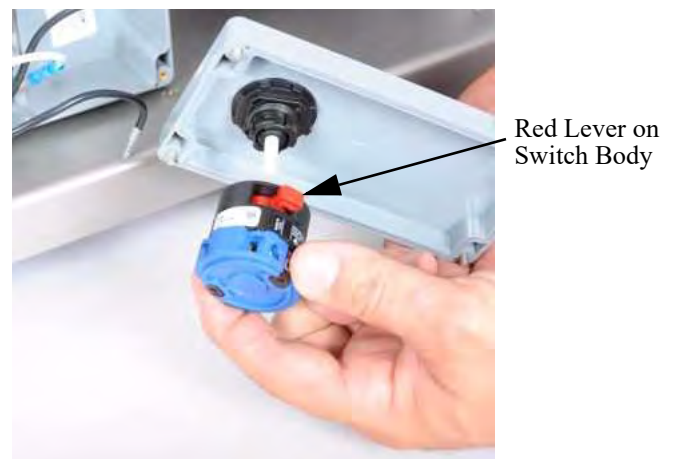
Step 6: Install the new switch lever into the switch plate, aligning the tab on the switch knob with the cut out in the switch plate



Step 7: Install the locking ring and tighten.



Step 8: Install the new switch body and secure it with the red lever.



ON/OFF SWITCH REPLACEMENT - ACS 115V (CONTINUED)

Step 9: Install the two black wires and tighten the retaining screws. *See electrical schematics in Section 7.



Step 10: Install the (4) screws attaching the power switch assembly to the frame.



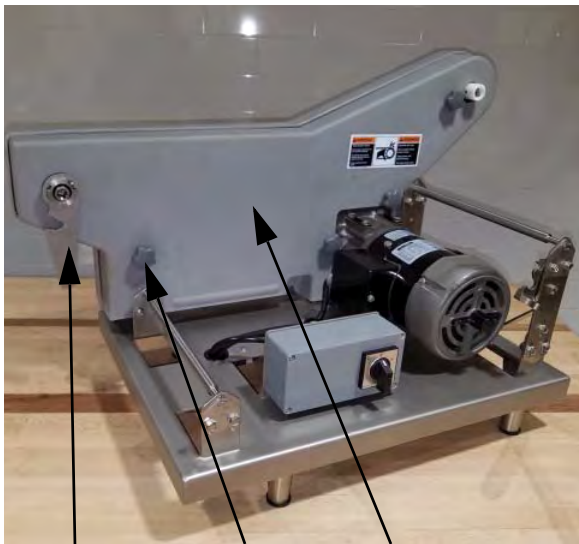
Step 11: Reinstall the drive guard covers, knobs, and locking latch.



POWER CORD REPLACEMENT - ACS 115V

Step 1: Disassemble frame assembly by removing:

- knobs
- locking latch (remove by aligning the tabs with the groove)
- drive guard covers



Locking Latch Knob Drive Guard Cover



Latch Alignment



POWER CORD REPLACEMENT - ACS 115V (CONTINUED)

 WARNING

Electrical shock may occur! Always disconnect unit from power supply prior to servicing.

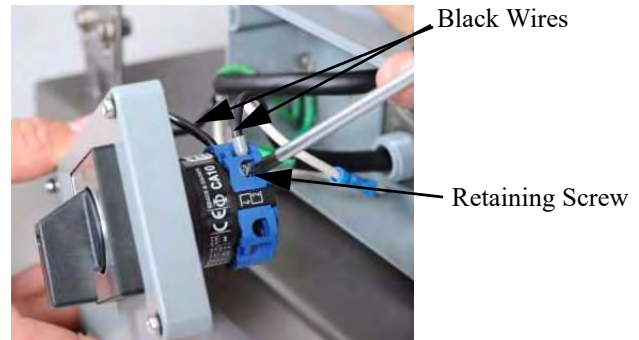


All electrical repairs should be completed by a qualified electrician or approved service provider.

Step 2: Remove the (4) screws that attach the power switch assembly.



Step 3: Pull the power switch out of the power switch box and disconnect the wires from the back of the switch by loosening the retaining screws.



Step 4: Remove the power cord ground wire screw from the inside of the power switch box by using a 5/16" nut driver.



POWER CORD REPLACEMENT - ACS 115V (CONTINUED)

Step 5: The power cord neutral (white) wire is spliced to the motor cord wire (white). Remove the splice by cutting the white wires on either side of the splice. Strip the end of the motor cord's white wire.



Splice

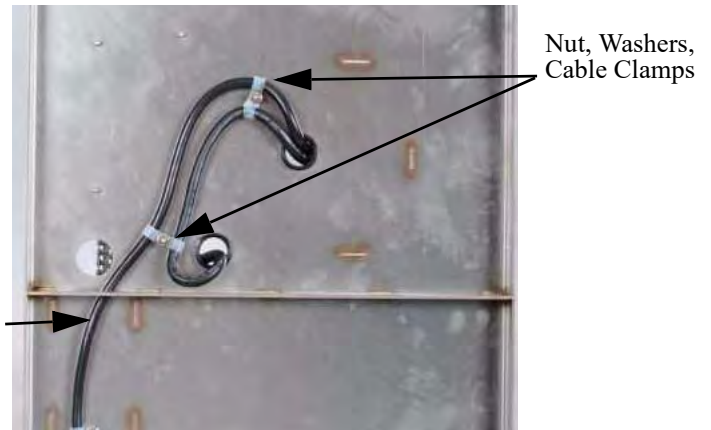
POWER CORD REPLACEMENT - ACS 115V (CONTINUED)

Step 6: Loosen the connector's top cap retaining the power cord. Pull the power cord out of the connector.



Connector's Top Cap

Step 7: Turn the frame on its back, so that the cords are visible. Remove the three nuts, washers and cable clamps that hold the power cord.



Power Cord

Underside Of Frame

Nut, Washers,
Cable Clamps

Step 8: From the underside of the frame, use a screwdriver to push out the power cord strain relief bushing. If the strain relief bushing is not damaged, save for reuse on the new power cord.

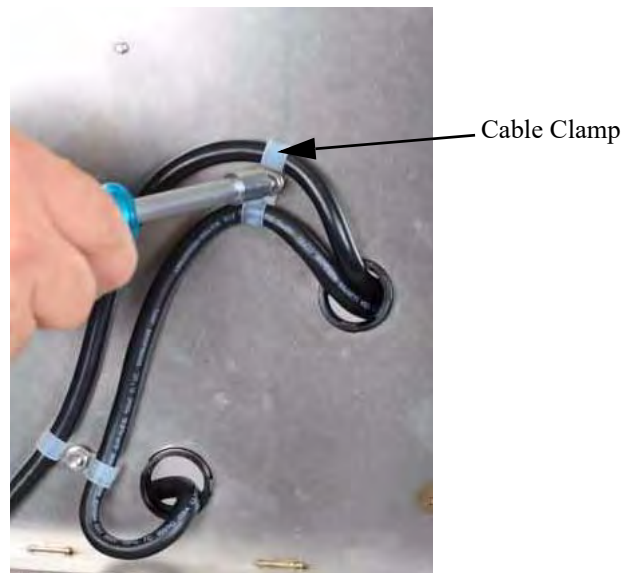


POWER CORD REPLACEMENT - ACS 115V (CONTINUED)

Step 9: Install the new power cord through the openings in the frame and through the opening in the switch box. **See Section 7, Service Parts, Electrical Components-Power Cord for routing. Make sure to pull enough wire into the switch box for splicing.*



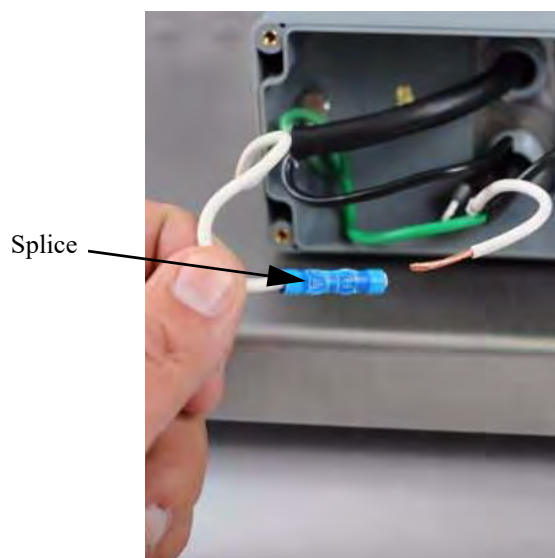
Step 10: Reinstall the nuts, washers and cable clamps under the frame.



Step 11: Install the green ground wire to the back of the switch box using a 5/16" nut driver.

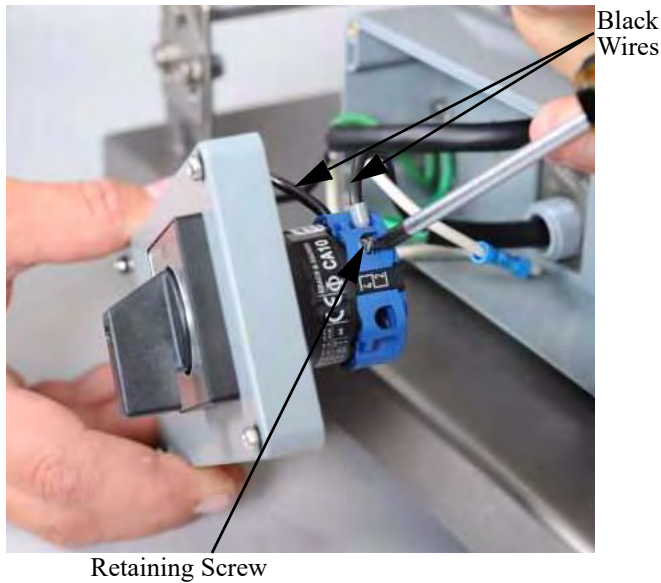


Step 12: Using the splice provided, crimp together the power cord's white wire with the motor cord's white wire.

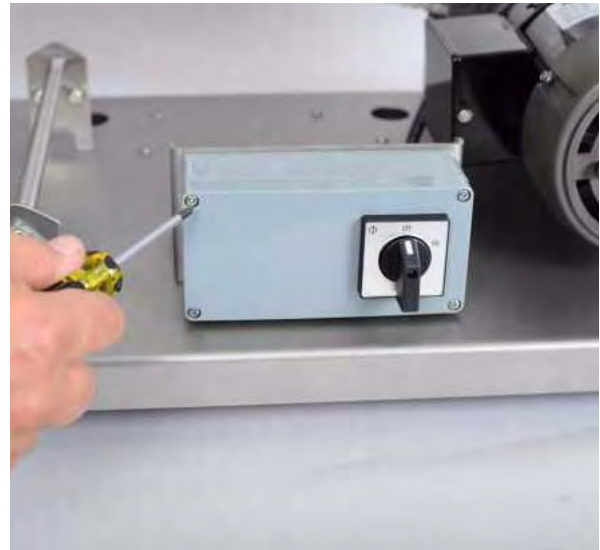


POWER CORD REPLACEMENT - ACS 115V (CONTINUED)

Step 13: Install the black lead wires into switch terminals and tighten the retaining screws.



Step 14: Once all the wires are secure, install the switch plate onto the frame assembly and tighten the screws.



Step 15: Tighten the connector's top cap. **Make sure the outer jacket is completely through the connector.*

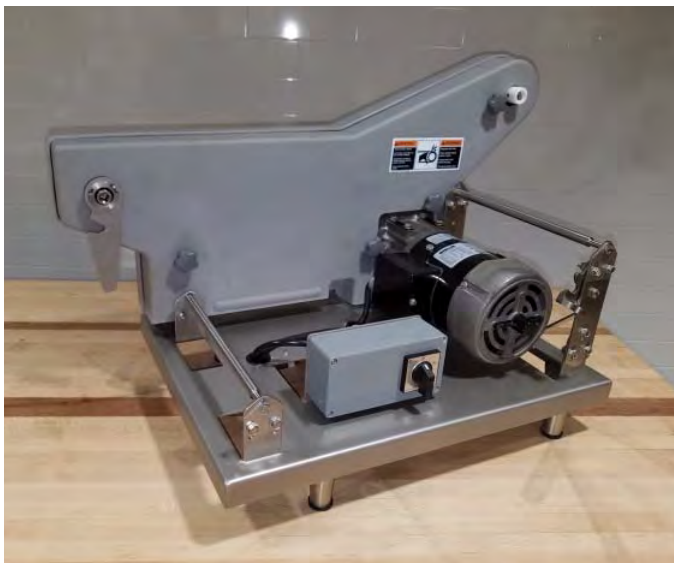


POWER CORD REPLACEMENT - ACS 115V (CONTINUED)

Step 16: Using a pair of pliers, compress the strain relief bushing around the power cord. Insert the strain relief bushing through the opening in the frame.



Step 17: Reinstall the drive guard covers, knobs, and locking latch.



ON/OFF PUSH BUTTON SWITCH REPLACEMENT - ACS 230V

Step 1: Disassemble frame assembly by removing:

- knobs
- locking latch (remove by aligning the tabs with the grooves)
- drive guard covers



Locking Latch

Knobs

Drive Guard Cover



Latch Alignment



ON/OFF PUSH BUTTON SWITCH REPLACEMENT - ACS 230V (CONTINUED)



WARNING

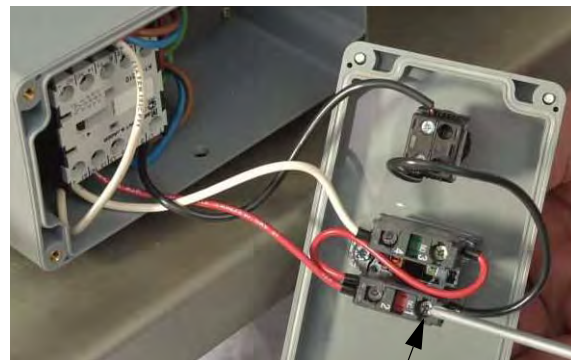
Electrical shock may occur! Always disconnect unit from power supply prior to servicing.



All electrical repairs should be completed by a qualified electrician or approved service provider.

Step 2: Remove the screws that attach the power switch cover.

Step 3: Pull the power switch out of the power switch box and disconnect the wires from the back of the switch by loosening the retaining screws.



Retaining Screw

Step 4: Remove the power switch assembly from the switch body by loosening the switch body screw and releasing the lever.



Switch Body Screw



ON/OFF PUSH BUTTON SWITCH REPLACEMENT - ACS 230V (CONTINUED)

Step 5: Install the new switch into the switch plate.



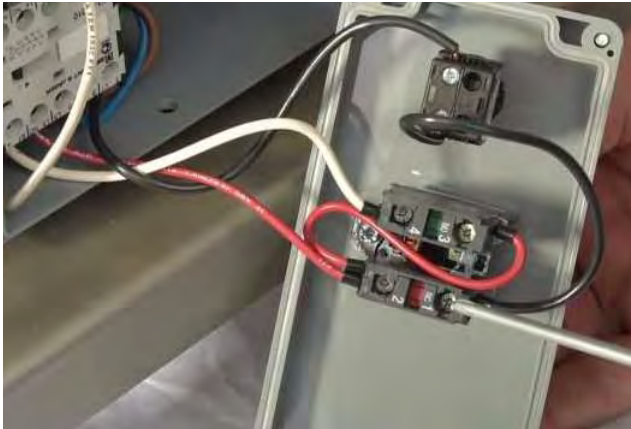
Step 6: Install the new switch body onto the switch and tighten the switch body screw securely.



Switch Body Screw

ON/OFF PUSH BUTTON SWITCH REPLACEMENT - ACS 230V (CONTINUED)

Step 7: Install wires and tighten the retaining screws. **See electrical schematics in Section 7.*



Step 8: Install the two screws attaching the power switch assembly to the frame.



Step 9: Reinstall the drive guard covers, knobs, and locking latch.



POWER CORD REPLACEMENT - ACS 230V

Step 1: Disassemble frame assembly by removing:

- knobs
- locking latch (remove by aligning the tabs with the groove)
- drive guard covers



Locking Latch

Knob

Drive Guard Cover



Latch Alignment



POWER CORD REPLACEMENT - ACS 230V (CONTINUED)



Electrical shock may occur! Always disconnect unit from power supply prior to servicing.



All electrical repairs should be completed by a qualified electrician or approved service provider.

Step 2: Remove the (4) screws that attach the enclosure cover and remove cover.

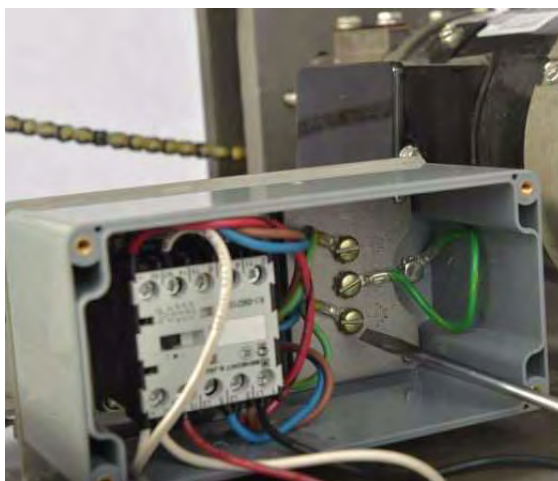


Step 3: Loosen the retaining screws on the contact block to remove the power cord wires from the dropout relay.



Retaining Screws

Step 4: Remove the power switch assembly from the panel.



POWER CORD REPLACEMENT - ACS 230V (CONTINUED)

Step 5: Loosen the connector's top cap retaining the power cord. Pull the power cord out of the connector.



Power Cord Connector's Top Cap

Step 6: Turn the frame on its back, so that the cords are visible. Remove the three nuts, washers and cable clamps that hold the power cord.



Underside Of Frame

Step 7: From the underside of the frame, use a screwdriver to push out the power cord strain relief bushing. If the strain relief bushing is not damaged, save for reuse on the new power cord.

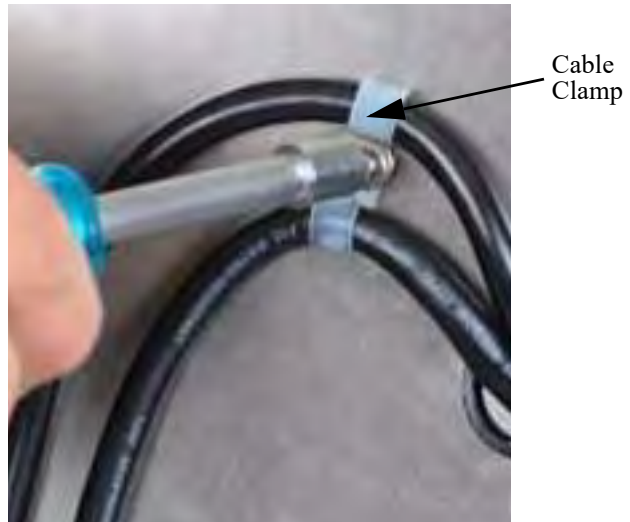


POWER CORD REPLACEMENT - ACS 230V (CONTINUED)

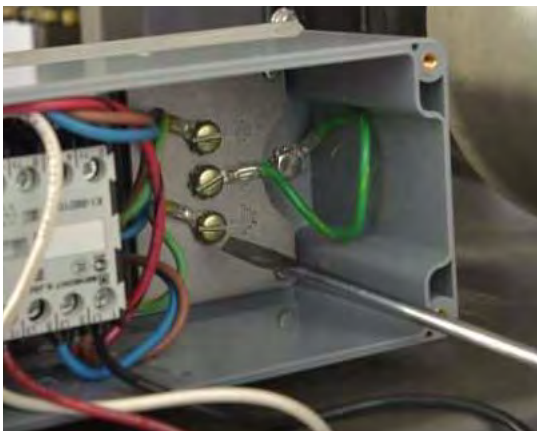
Step 8: Install the new power cord through the openings in the frame and through the opening in the switch box. *See Section 7, Service Parts, Electrical Components-Power Cord for routing. Make sure to pull enough wire into the switch box for splicing.



Step 9: Reinstall the nuts, washers and cable clamps under the frame.

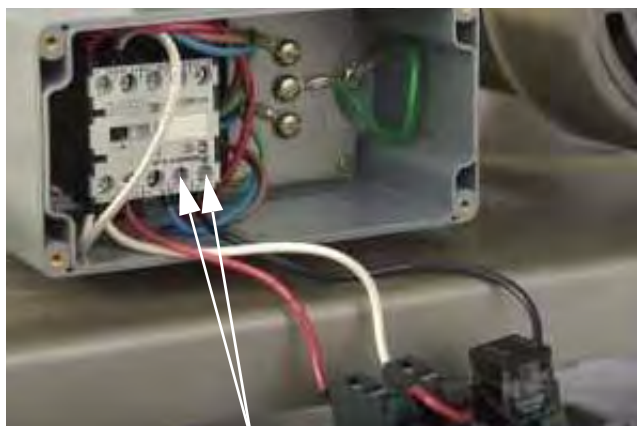


Step 10: Install the green ground wire to the panel.



POWER CORD REPLACEMENT - ACS 230V (CONTINUED)

Step 11: Install the black lead wires into switch terminals and tighten the retaining screws.



Retaining Screws

Step 12: Once all the wires are secure, install the switch plate onto the frame assembly and tighten the screws.



Step 13: Tighten the power cord connector's top cap. **Make sure the outer jacket is completely through the connector.*



Connector's Top Cap

Power Cord

POWER CORD REPLACEMENT - ACS 230V (CONTINUED)

Step 14: Using a pair of pliers, compress the strain relief bushing around the power cord. Insert the strain relief bushing through the opening in the frame.



Step 15: Reinstall the drive guard covers, knobs, and locking latch.



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Section 5D

Maintenance Preventive

CONTENTS OF THIS SECTION

Safety Recommendations and Warnings	5D-1
Preventive Maintenance Checks	5D-2
Daily Preventive Maintenance Chart	5D-2
Monthly Preventive Maintenance Chart	5D-2
Six Month Preventive Maintenance Chart	5D-2

SAFETY RECOMMENDATIONS AND WARNINGS

WARNING



All maintenance procedures should be performed by qualified personnel.

The information provided in these operating instructions is important to your health, comfort and safety. For safe and proper operation, read this entire manual before using this equipment.

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain this product. Protect yourself, others and equipment by observing all safety information. Failure to comply with instructions could result in personal injury and/or damage to the equipment. Any use in applications other than those for which the equipment was designed and built may result in equipment damage and/or serious injuries.

Retain this manual for future reference. Be thoroughly familiar with the controls and proper use of this equipment.

The manufacturer assumes no liability for any unauthorized changes in operating procedures or for unauthorized changes or modifications made to the design of the machine or any factory-installed safety equipment, whether these changes are made by the owner of this equipment, by his employees, or by service providers not previously approved by Nothum.

PREVENTIVE MAINTENANCE CHECKS

Regular maintenance of the machine will keep it running properly and will help extend the operating life. The checks that are recommended and the time intervals of each check are provided in the following table.

Daily Preventive Maintenance Chart

Item to Check	Procedure	Action
Machine inspection and cleaning	Check for signs of equipment damage and refer to cleaning instructions in Section 6.	Repair or replace damaged components. See Section 7 for parts listings.
Knobs on guards and conveyor assemblies	Check for loose or missing knobs.	Retighten or replace knobs as required.
Vibrator springs and paddles	Check components for proper installation and proper position.	Re-install or reposition components.
Wirebelts	Check conveyor wire belts for signs of bending, breakage and excessive wear.	Replace wirebelt.

Monthly Preventive Maintenance Chart

Item to Check	Procedure	Action
Power Cord	Check that the power cord has no visible nicks or cuts in the black outer jacket. Check that the plug end has no damaged or missing prongs.	Refer to the power cord replacement instructions in the frame section of this manual.

Six Month Preventive Maintenance Chart

Item to Check	Procedure	Action
Regrease breader drive shaft and bearings.	Pump grease into fill ports.	Refer to the breader drive shaft/bearing replacement instructions in the frame assembly section of this manual.
Lubrication	Apply food grade spray lubrication to chain.	Refer to Section 7 Service Parts for Lubrication Kit.
Drive Chain Tension	Check that the drive chain slack is 3/4".	Refer to the drive chain replacement instructions in the frame section of this manual.

Section 5E Maintenance Trouble Shooting

CONTENTS OF THIS SECTION

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Trouble Shooting/Fault Detection and Correction	5E-2
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Problem 2: Batter/Breeding coverage is not satisfactory.	5E-2
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SAFETY RECOMMENDATIONS AND WARNINGS



All maintenance procedures should be performed by qualified personnel.

The information provided in these operating instructions is important to your health, comfort and safety. For safe and proper operation, read this entire manual before using this equipment.

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain this product. Protect yourself, others and equipment by observing all safety information. Failure to comply with instructions could result in personal injury and/or damage to the equipment. Any use in applications other than those for which the equipment was designed and built may result in equipment damage and/or serious injuries.

Retain this manual for future reference. Be thoroughly familiar with the controls and proper use of this equipment.

The manufacturer assumes no liability for any unauthorized changes in operating procedures or for unauthorized changes or modifications made to the design of the machine or any factory-installed safety equipment, whether these changes are made by the owner of this equipment, by his employees, or by service providers not previously approved by Nothum.

Use only replacement parts manufactured by Nothum. Use of substitute parts will void the warranty and may cause injury to operators and damage the equipment.

TROUBLE SHOOTING/FAULT DETECTION AND CORRECTION

Problem 1: Breeding is coming off of the end of the conveyor.

Possible Causes	Possible Solutions
Breeding is too wet.	Change breeding material.
Breeder unit is over filled.	Unload breeding material.
Vibrator Springs Missing	Check for Vibrator Spring Placement

Problem 2: Batter/Breeding coverage is not satisfactory.

Possible Causes	Possible Solutions
Batter tank is not properly filled.	Add batter to the batter tank.
Breeder tank is not properly filled.	Add breeding to the breeder conveyor.

Problem 3: Erratic Batter/Breeder Conveyor Product Feed.

Possible Causes	Possible Solutions
Batter conveyor assembly is not properly engaged.	Realign batter conveyor assembly. See installation instructions in Section 3.
Breeder Conveyor belting may need repair.	Refer to the wirebelt replacement instructions in the breeder tank section of this manual.
Batter drive shaft is not rotating.	Refer to the batter drive shaft/bearing replacement instructions in the frame assembly section of this manual.

TROUBLE SHOOTING/FAULT DETECTION AND CORRECTION (CONTINUED)

Problem 4: Batter Conveyor is not moving.

Possible Causes	Possible Solutions
Batter Conveyor assembly is not properly engaged.	Realign batter conveyor assembly. See installation instructions in Section 3.
Batter Conveyor wirebelt may need repair.	Refer to the batter conveyor wirebelt replacement instructions in the batter tank section of this manual.
Batter drive shaft is not rotating.	Refer to the batter drive shaft/bearing replacement instructions in the frame assembly section of this manual.

Problem 5: Breder Conveyor is not moving.

Possible Causes	Possible Solutions
Breder assembly is not properly engaged.	Re-align breder conveyor assembly. See the installation instructions in Section 3.
Breder conveyor wirebelting may need repair.	Refer to the wirebelt replacement instructions in the breder tank section of this manual.
Breder drive shaft is not rotating.	Refer to breder drive shaft/bearing replacement instructions in the frame assembly section of this manual.
Breder coupler is worn.	Replace the coupler. Refer to Section 7, Breder Drive service parts for the coupler part number.

TROUBLE SHOOTING/FAULT DETECTION AND CORRECTION (CONTINUED)

Problem 6: Motor is making noise (Scraping sound)

Possible Causes	Possible Solutions
Obstructions in front of motor fan area.	Remove all obstructions from in front of fan area.
Damaged Air Shield or fan	Replace motor. All electrical repairs should be made by a qualified electrician or service provider.

Problem 7: Motor is running and machine does not operate

Possible Causes	Possible Solutions
Drive chain is broken.	Replace chain. Refer to the drive chain replacement instructions in the frame assembly section of this manual.
Drive chain tension is not correct.	Chain deflection should be 3/4".
Drive chain links locked up or seized.	Remove Drive Chain (Refer to Section 5C Drive Chain Replacement). • Soak chain in degreaser/solvent. • Wipe off degreaser/solvent. • Lubricate using a food grade lubricant. (Refer to Section 7 Service Parts for Lubrication Kit)

TROUBLE SHOOTING/FAULT DETECTION AND CORRECTION (CONTINUED)

Problem 8: Motor is not running.

Possible Causes	Possible Solutions
Power cord is not plugged in.	Connect power cord to wall outlet.
Power switch is not turned to “ON”.	Turn power switch to “ON”.
The circuit breaker for the wall outlet has been activated.	Have an electrician reset the tripped circuit breaker, then check the wall outlet and repair as needed.
Is the overload on the motor activated? (Canadian Version Only)	Press the overload button on the motor unit. This only applies to Canadian units.
Obstructions in front of motor fan area.	Remove all obstructions from in front of fan area. See cleaning instructions in Section 6 of this manual.

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Section 6

Cleaning

CONTENTS OF THIS SECTION

Cleaning Instructions	2
Batter Assembly - Daily	2
Breader Assembly - Daily	4
Frame Assembly - Every 6 Months	7

WARNING

To avoid personal injury, always disconnect the power cord before performing any adjustments, disassembly / assembly, trouble shooting or cleaning.



NOTICE

The recommended cleaning solution for the Optimax® Batter-Breader Machine is eXtra® Heavy Duty Cleaner.



eXtra® Heavy Duty Cleaner, (PN: 184332), is a concentrated cleaner and degreaser for food processing equipment. Contact Nothum for details.

NOTICE

Do not machine wash drive guard covers or batter tanks. Excessive heat generated by machine washing can damage parts.

Do not submerge frame and motor assembly as damage to motor could result. Clean with damp cloth or sponge only.

NOTICE

Do not submerge or directly spray frame and motor assembly. Damage could occur and may void the warranty. Clean with damp cloth or sponge only. Dry after cleaning.

Do not wash drive components including sprockets and drive chain.

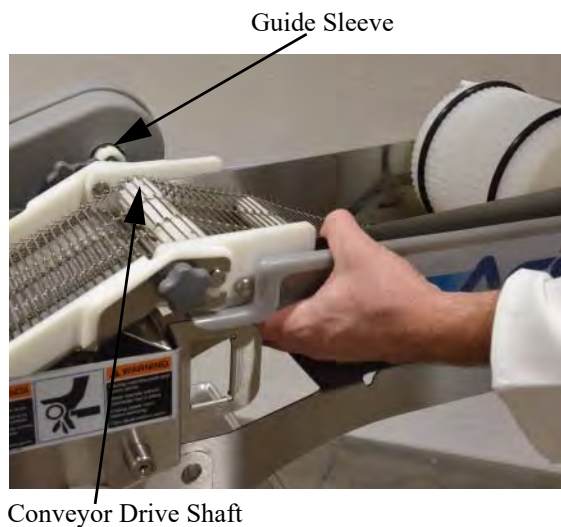
Do not machine wash.

CLEANING INSTRUCTIONS

Batter Assembly - Daily

Step 1: Turn the power switch **OFF**. Unplug power cord.

Step 2: Lift the batter conveyor assembly enough to pull the conveyor drive shaft out of the guide sleeve.



Step 3: Remove the batter conveyor tank assembly.



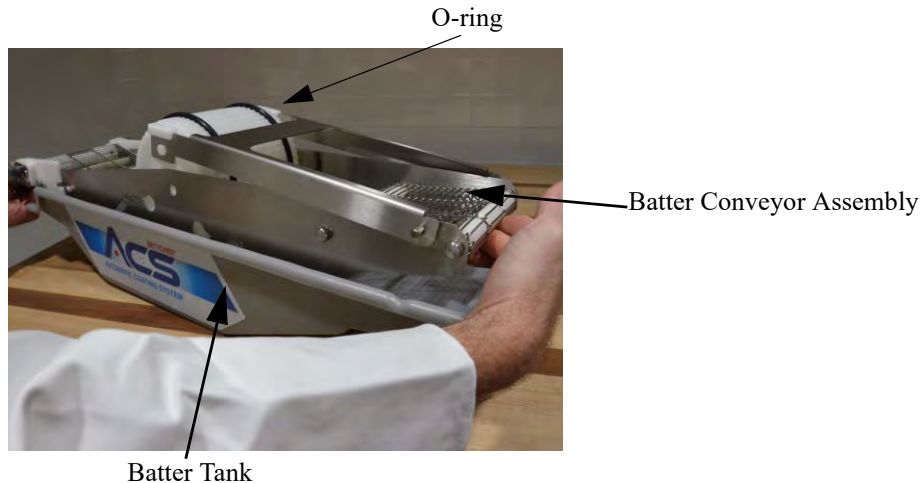
Step 4: Pour batter out of the batter tank.



CLEANING INSTRUCTIONS (CONTINUED)

Batter Assembly - Daily (Continued)

Step 5: Remove the batter conveyor assembly from the batter tank. Machine or hand wash conveyor assembly using Nothum eXtra© Heavy Duty Cleaner. O-rings can be moved towards the center of the batter wheel if needed for cleaning.



Step 6: Hand wash the batter tank and turn upside down to air dry.



Step 7: After the components are dry, place the batter conveyor assembly into the batter tank.



CLEANING INSTRUCTIONS (CONTINUED)

Breader Assembly - Daily

Step 1: Place discharge pan behind breading unit.



Step 2: Loosen knobs and open discharge cover.



Step 3: Empty breading into discharge pan.



Step 4: Close discharge cover and tighten knobs.



CLEANING INSTRUCTIONS (CONTINUED)

Breader Assembly - Daily (Continued)

Step 5: Disassemble breader conveyor by removing the discharge tray. Pull the top of the discharge tray away from the breader assembly releasing the tray from the breader holes.



Discharge Tray

Step 6: Disengage locking latch.



Step 7: Support breader at the front with left hand on the sprocket and right hand at the rear. (Place thumb through the handle with fingers supporting bottom pan.) Remove.



Sprocket



CLEANING INSTRUCTIONS (CONTINUED)

Breader Assembly - Daily (Continued)

NOTICE

The recommended cleaning solution for the Optimax® Batter-Breader Machine is eXtra® Heavy Duty Cleaner.



eXtra® Heavy Duty Cleaner, (PN: 184332), is a concentrated cleaner and degreaser for food processing equipment. Contact Nothum for details at +1-417-831-2816.

Step 8: Machine or hand wash the breader conveyor assembly, bottom pan and discharge tray.



Step 9: After cleaning, reassemble unit. *Refer to Section 3, Installation Instructions.*



CLEANING INSTRUCTIONS (CONTINUED)

Frame Assembly - Every 6 Months

 WARNING

To avoid personal injury, always disconnect the power cord before performing any adjustments, disassembly / assembly, trouble shooting or cleaning.



NOTICE

Do not submerge or directly spray frame and motor assembly. Damage could occur and may void the warranty. Clean with damp cloth or sponge only. Dry after cleaning.

Do not wash drive components including sprockets and drive chain.

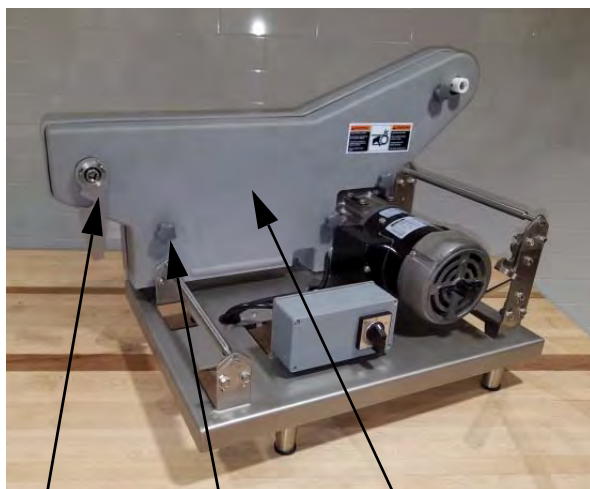
Do not machine wash.

CLEANING INSTRUCTIONS (CONTINUED)

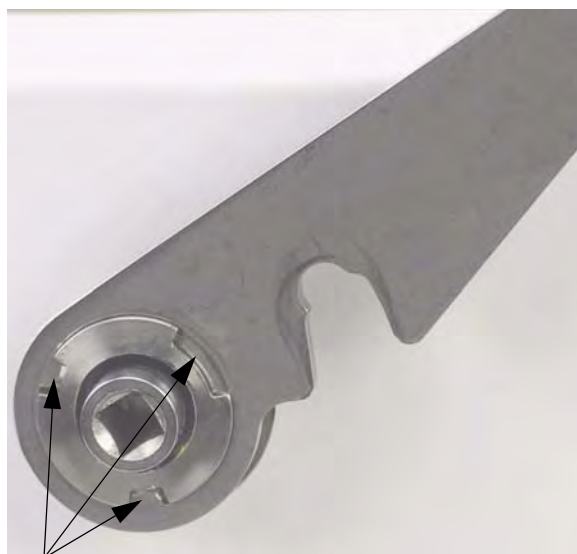
Frame Assembly - Every 6 Months (Continued)

Step 1: Disassemble the frame assembly by removing:

- locking latch (remove by aligning the tabs with the grooves)
- knobs
- drive guard covers



Locking Latch Knob Drive Guard Cover



Tabs and Grooves Latch Alignment

Step 2: Clean both drive guard covers by wiping them with a damp cloth or sponge.



Guard

CLEANING INSTRUCTIONS (CONTINUED)

Frame Assembly - Every 6 Months (Continued)

 WARNING

To avoid personal injury, always disconnect the power cord before performing any adjustments, disassembly / assembly, trouble shooting or cleaning.



NOTICE

Do not wash drive components including sprockets and drive chain

Step 3: Brush off any loose breading material. Use a damp soapy sponge or towel to clean the frame, motor and motor vents. Wipe dry.

IMPORTANT: *Brush and remove any debris from the drive chain. Visibly check the chain for proper lubrication. If the chain appears dry, lubricate with food grade lubricant (Refer to Service Section 7 for Lubrication Kit).*



CLEANING INSTRUCTIONS (CONTINUED)

Frame Assembly - Every 6 Months (Continued)

Step 4: Reinstall the drive guard covers, knobs, and locking latch to the frame.



Step 5: After cleaning, reassemble unit. *Refer to Section 3, Installation Instructions.*



Section 7

Service Parts

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HOW TO ORDER PARTS

Contact our service department by phone, fax or mail.

Nothum Food Processing Systems

3039 East Pythian Street

Springfield, Missouri 65802 USA

Phone: +1-417-831-2816

Website: nothum.com

When ordering parts, please include the following information with your request.

- **Part Number** from parts list.
- **Complete description** of the part as given in the parts list.
- **Model number and serial number** of your machine.

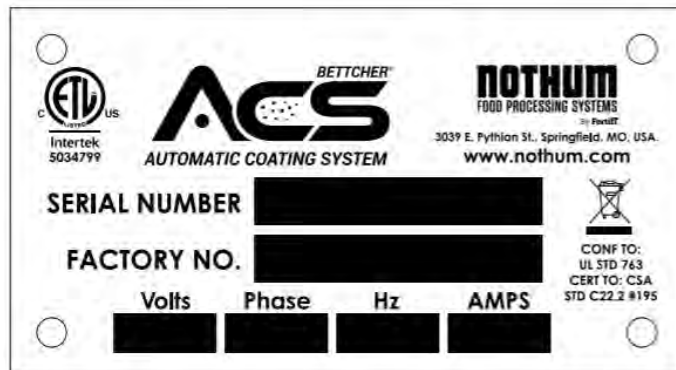
HOW TO ORDER PARTS (CONTINUED)

The model number and serial number are stamped on the red model number plate, located at the rear of the machine frame, directly above where the power cord enters the machine.

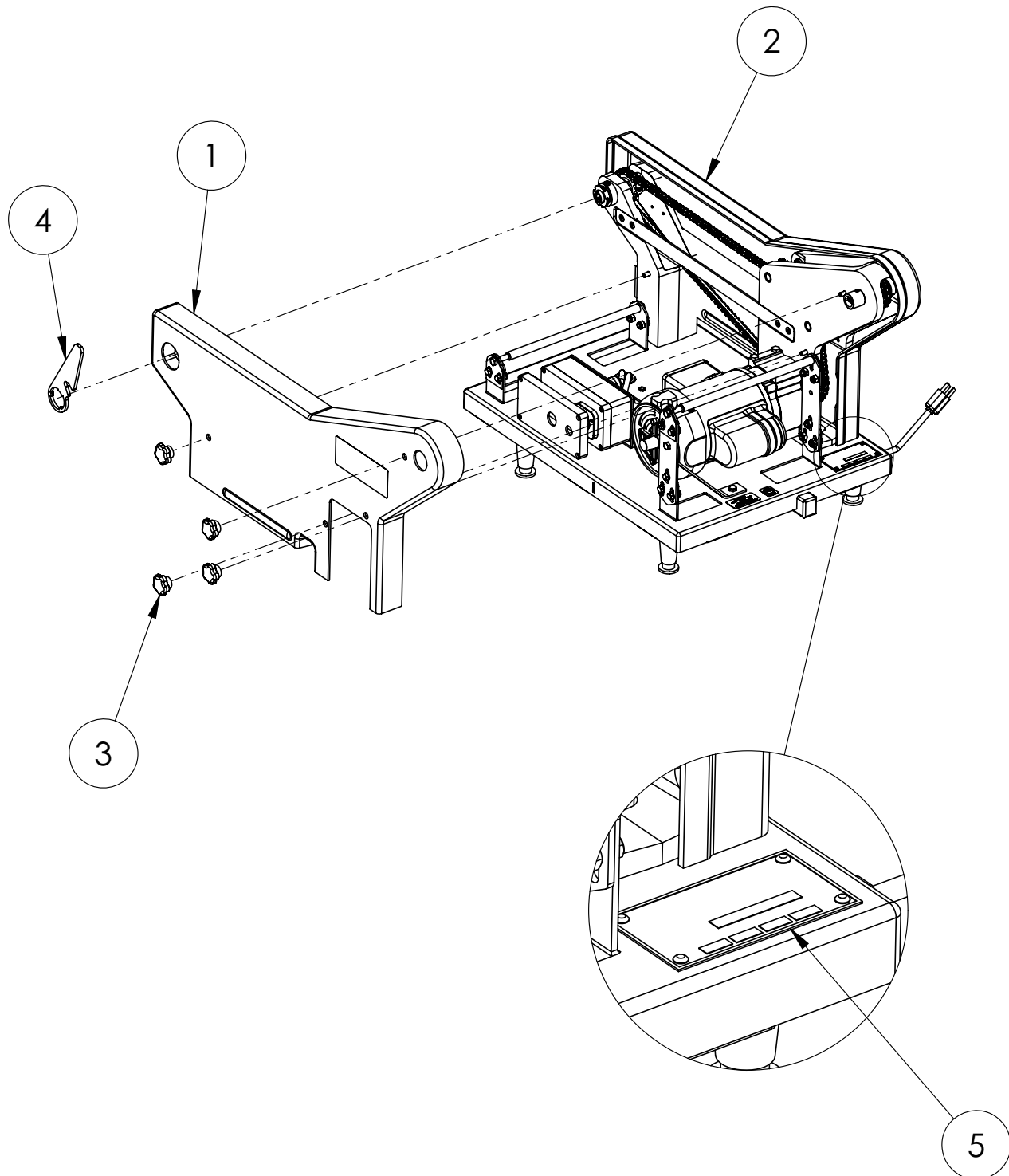
Serial Number Identification

This label contains the following information:

- Model
- Model Type
- Serial Number
- Factory Number
- Operating: Voltage/Phase/Frequency/Current



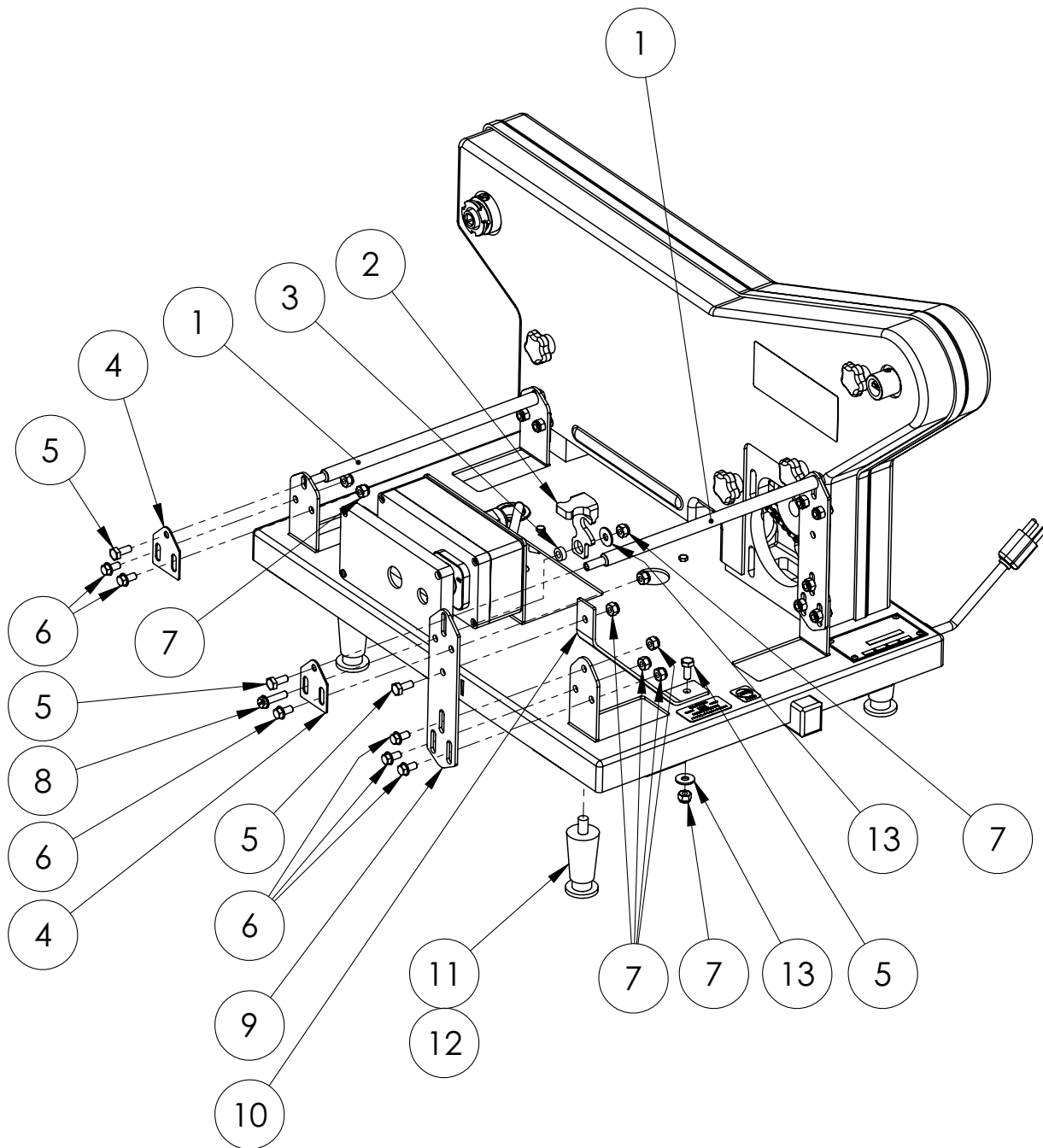
DRIVE GUARD AND SPECIFICATION PLATE



DRIVE GUARD AND SPECIFICATION PLATE (CONTINUED)

Item	Description	Part Number	Quantity
1	ACS GUARD W/LABELS, RH ENGLISH & SPANISH	107079	1
-	ACS GUARD W/LABELS, RH ENGLISH & GERMAN	107080	1
-	ACS GUARD W/LABELS, RH ENGLISH & FRENCH	107082	1
-	ACS GUARD W/LABELS, RH ENGLISH & ITALIAN	107084	1
-	ACS GUARD W/LABELS, RH ENGLISH & PORTUGUESE	107086	1
2	ACS GUARD W/LABELS, LH ENGLISH & SPANISH	107078	1
-	ACS GUARD W/LABELS, LH ENGLISH & GERMAN	107081	
-	ACS GUARD W/LABELS, LH ENGLISH & FRENCH	107083	
-	ACS GUARD W/LABELS, LH ENGLISH & ITALIAN	107085	1
-	ACS GUARD W/LABELS, LH ENGLISH & PORTUGUESE	107087	1
3	KNOB	1310-0058	9
4	LOCKING LATCH	3310-0222	1
5	SPECIFICATION PLATE	1080-0008	1

FRAME ASSEMBLY

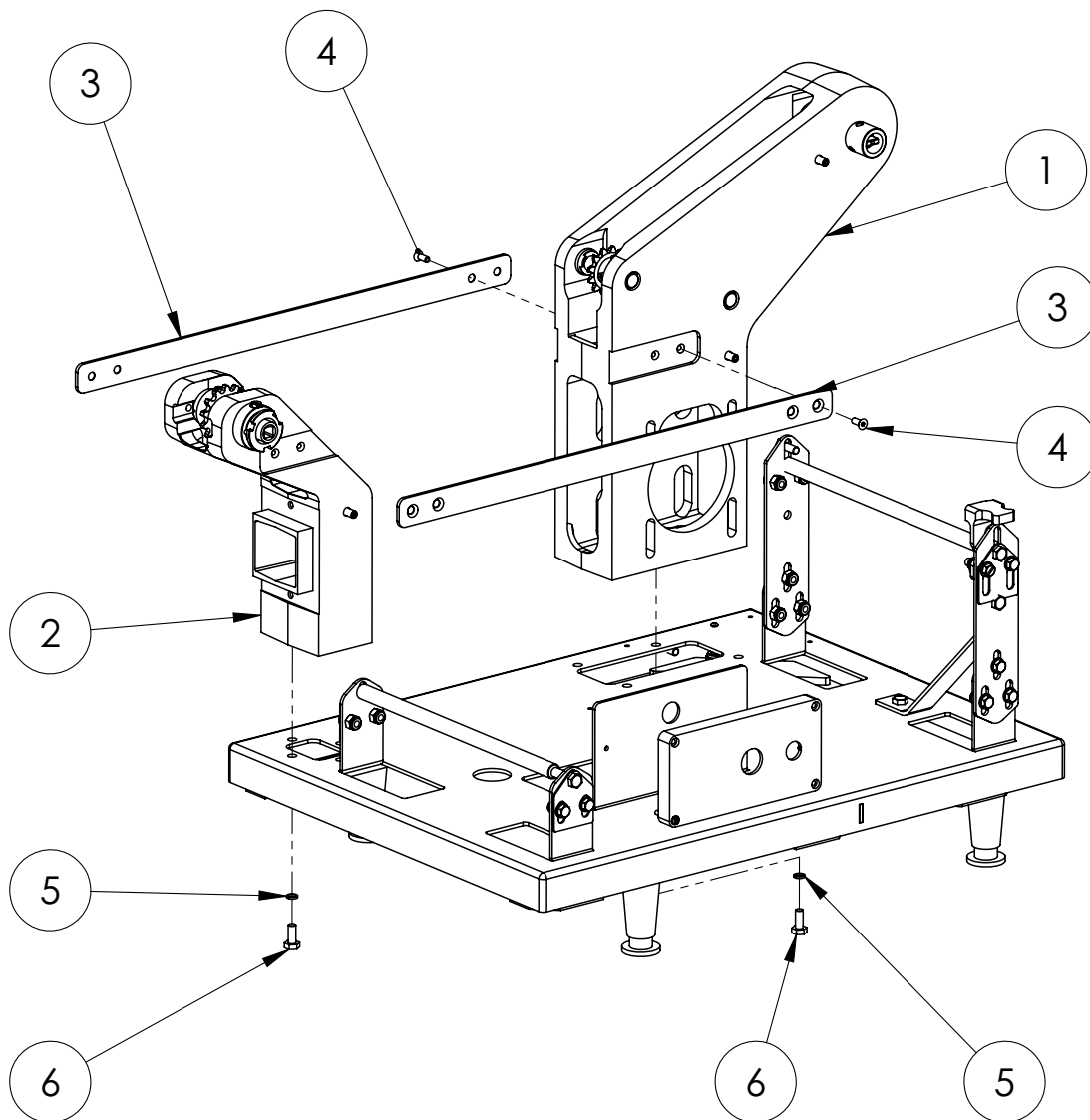


FRAME ASSEMBLY (CONTINUED)

ITEM	Description	Part Number	Quantity
1	Breeder Support Shaft	3190-3519	2
2	Spacer Lock	3210-0645	1
3	Spacer Lock Bushing	3110-0349	1
4	Adjustable Retaining Plate	3040-2101	4
5	Hex Head Screw 1/4-20 x 5/8"	1017-0190	6
6	Hex Washer Head Screw 1/4-20 x 1/2"	1017-0188	13
7	ESNA Nut 1/4-20	1016-0079	16
8	Hex Washer Head Screw 1/4-20 x 1"	123263	1
9	Rear Support	3195-0667	2
10	Support Brace	3040-2099	1
11	Leg Assembly 2-1/2"	7195-0032	4
12	ESNA Nut 3/8-16	1016-0077	4
13	Washer 1/4" Special	1018-0043	2



DRIVE ASSEMBLY

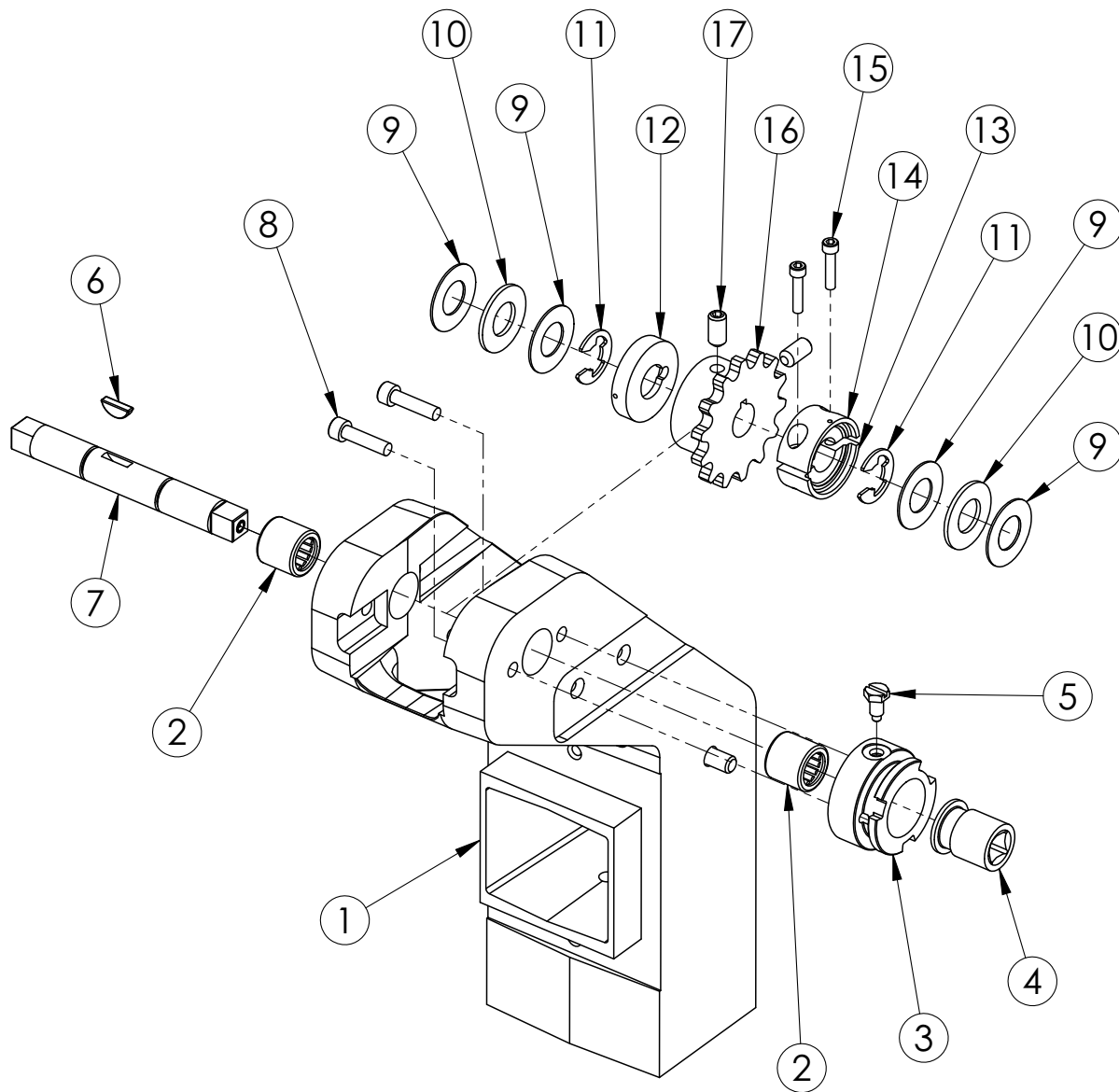




DRIVE ASSEMBLY (CONTINUED)

ITEM	Description	Part Number	Quantity
1	Batter Drive Assembly	106532	1
2	Breader Drive Assembly	102119	1
3	Tower Brace	3040-2100	2
4	Flat Head Screw #10-24 x 1/2"	1017-0197	8
5	Lock Washer 1/4"	1018-0044	8
6	Hex Head screw 1/4-20 x 5/8"	1017-0190	8

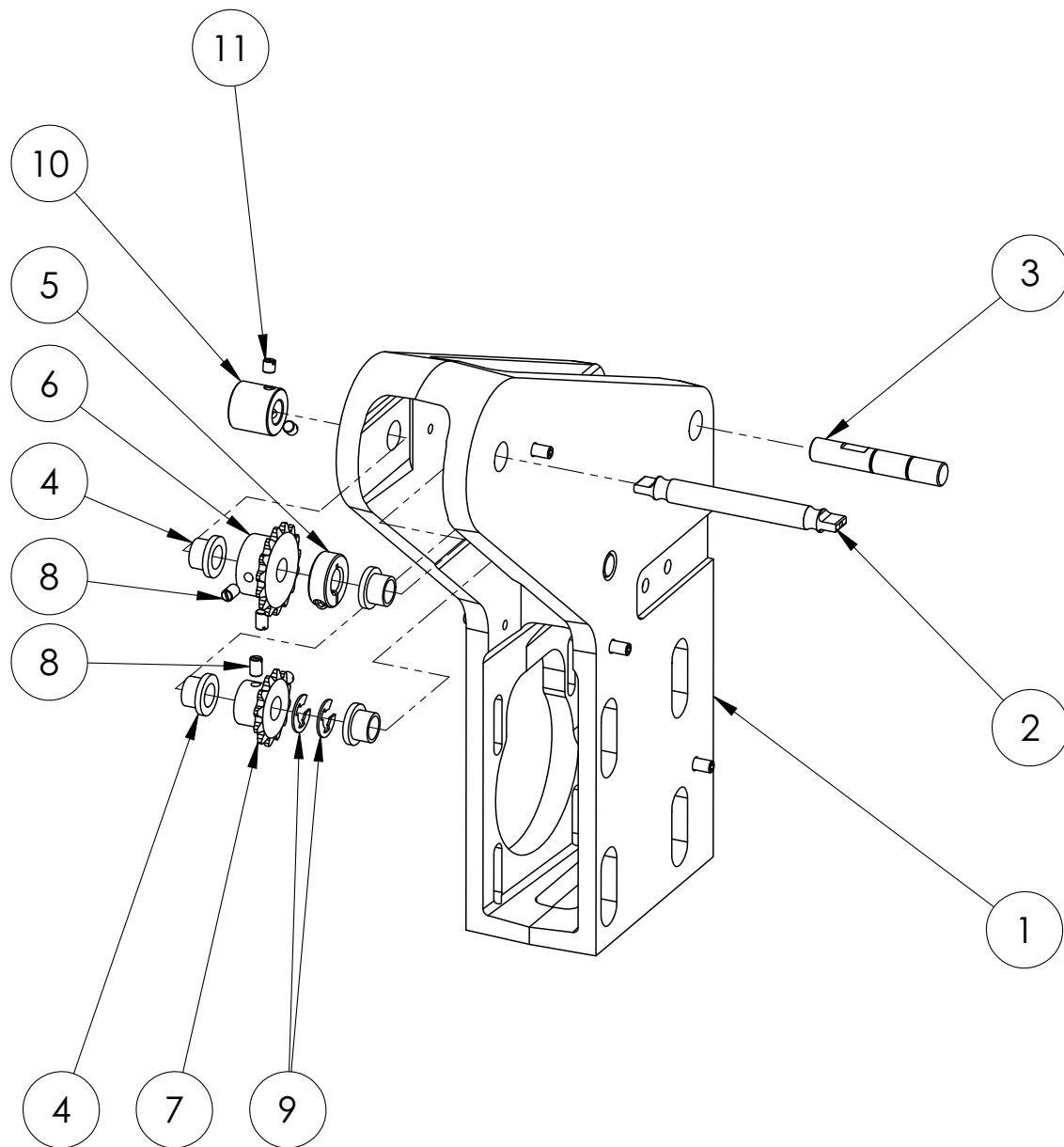
DRIVE ASSEMBLY - BREADER DRIVE



DRIVE ASSEMBLY-BREADER DRIVE (CONTINUED)

Item	Description	Part Number	Quantity
1	Bearing Housing, Front	102239	1
2	Needle Bearing	1070-0071	2
3	Locking Housing	1180-0061	1
4	Drive Shaft Coupling	1180-0062	1
5	Screw	1017-0187	1
6	Woodruff Key	1301-0005	1
7	Drive Shaft	7190-1132	1
8	Cap Screw, #10-24 x 2/3"	1017-0184	2
9	Thrust Washer (Silver)	1018-0042	4
10	Thrust Bearing (Gold)	1070-0072	2
11	Retaining Ring	1245-0039	2
12	Spacer Ring	1210-0000	1
13	Split Collar, Threaded	1033-0020	1
14	Split Collar	1033-0021	1
15	Cap Screw, #6-32 x 5/8"	1017-0185	2
16	Machined Sprocket	1260-0110	1
17	Sprocket Set Screw 1/4-20 x 1/2"	1017-0186	2

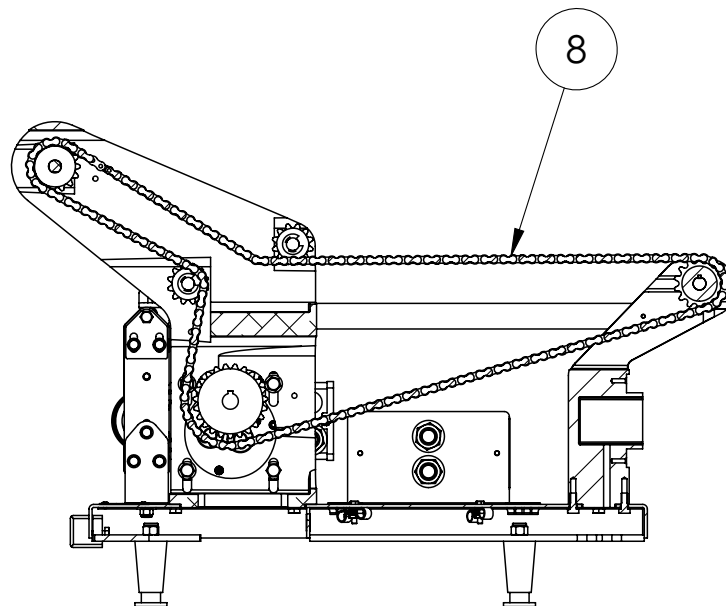
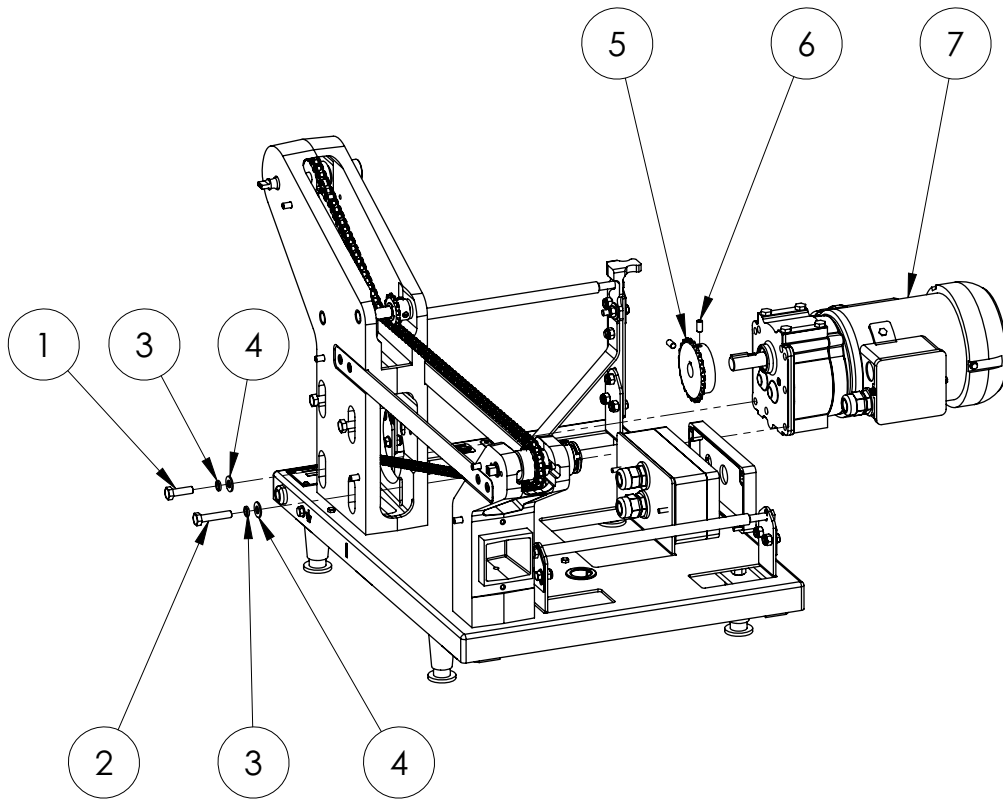
DRIVE ASSEMBLY- BATTER DRIVE



DRIVE ASSEMBLY - BATTER DRIVE (CONTINUED)

Item	Description	Part Number	Quantity
1	Bearing Housing, Rear	106536	1
2	Drive Shaft	1190-0022	1
3	Idler Shaft	1190-0023	3
4	Flange Bearing	1110-0035	8
5	Split Collar	1033-0019	1
6	Sprocket, 15 Tooth	3260-0348	1
7	Sprocket, 12 Tooth	501611	3
8	Sprocket Set Screw 1/4-20 x 3/8"	1017-0181	8
9	Retaining Ring	1245-0039	6
10	Guide Sleeve	3240-0866	1
11	Set screw 1/4-20 x 1/4"	1017-0183	2

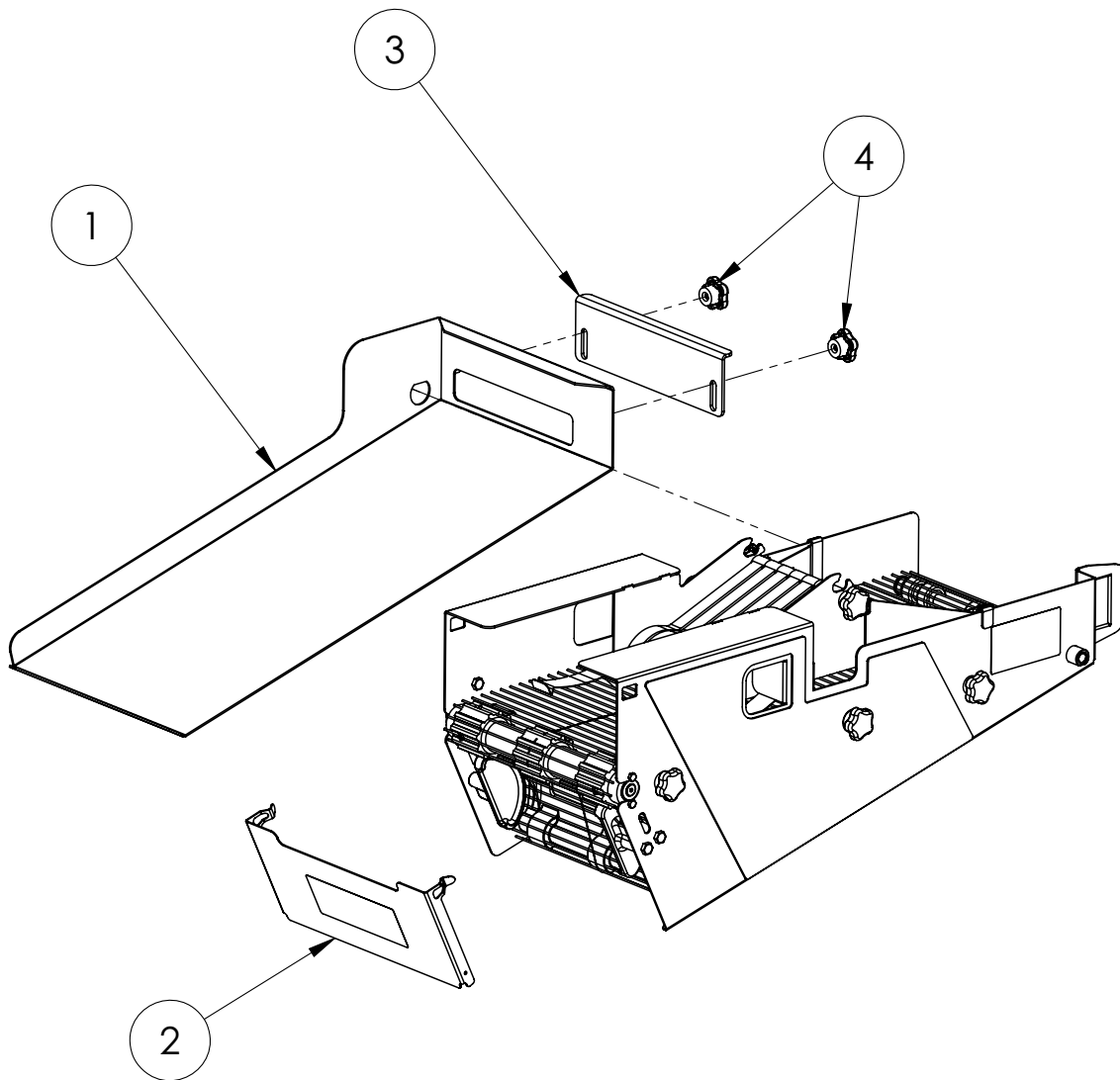
DRIVE ASSEMBLY - DRIVE MOTOR AND CHAIN



DRIVE ASSEMBLY - DRIVE MOTOR AND CHAIN (CONTINUED)

Item	Description	Part Number	Quantity
1	Hex Head Screw 5/16-18 x 1"	1017-0194	2
2	Hex Head Screw 5/16-18 x 1.5"	1017-0195	2
3	Lock Washer 5/16"	1018-0046	4
4	Flat Washer 5/16"	1018-0047	4
5	Sprocket, 23 Tooth, 115V	501616	1
5a	Sprocket, 28 Tooth, 230V	501618	1
6	Set Screw 1/4-20 x 1/2"	1017-0186	2
7	Gear Motor Assembly	501849	1
8	Chain, Long Assembly #35, 3/8 Pitch, 115V	7120-0134	1
8a	Chain, Long Assembly #35, 3/8 Pitch, 230V	7120-0134	1

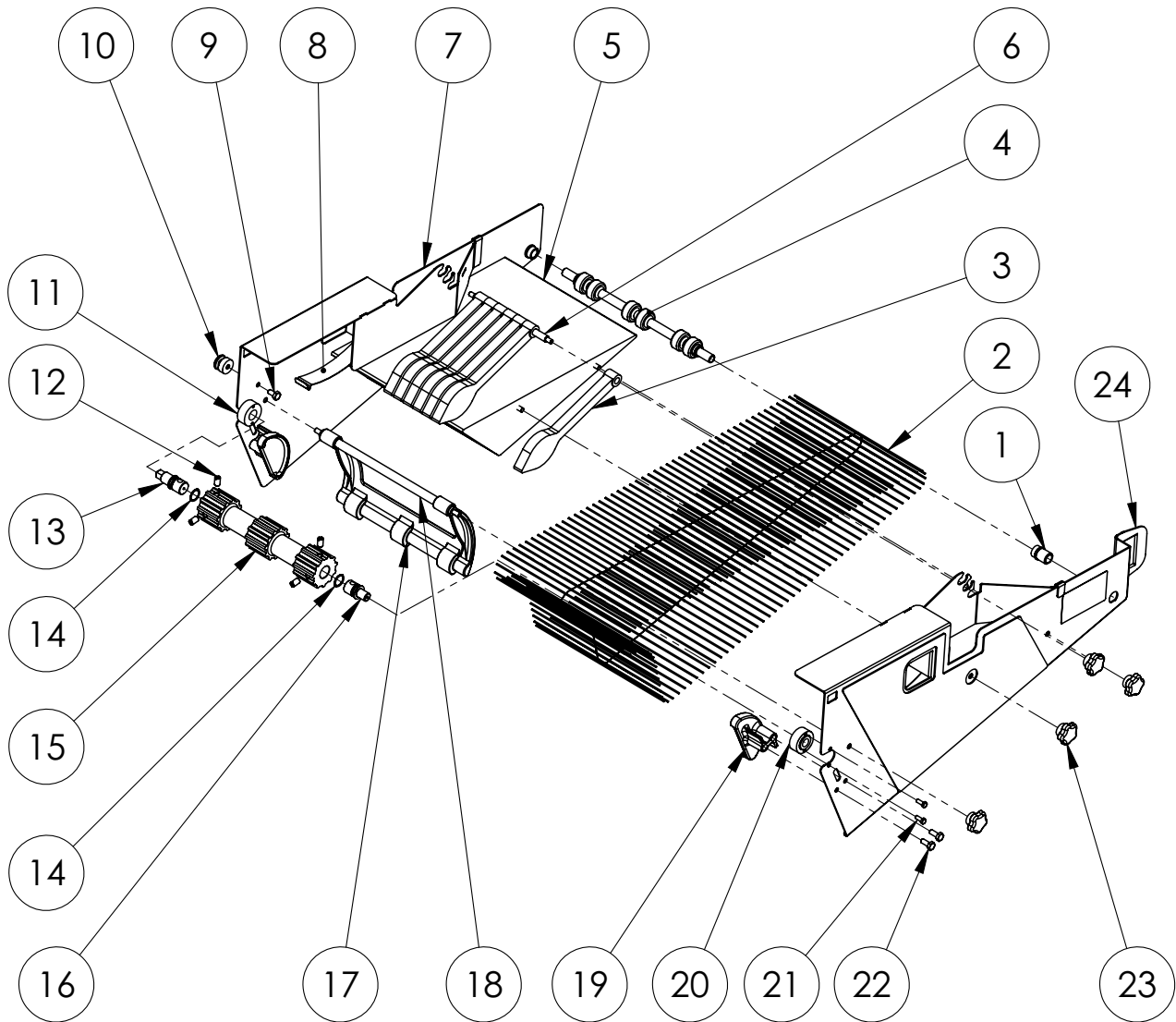
BREADER CONVEYOR - EXTERNAL PARTS



BREADER CONVEYOR - EXTERNAL PARTS (CONTINUED)

Item	Description	Part Number	Quantity
1	Side Rail, LH	5030-0455	1
2	Discharge Tray, No Lip, English/Spanish	501905	1
--	Discharge Tray, No Lip, English/French	103642	1
--	Discharge Tray, No Lip, English/German	107070	1
--	Discharge Tray, No Lip, English/Italian	107071	1
--	Discharge Tray, No Lip, English/Portuguese	107072	1
3	Cover	3090-1655	1
4	Knob	1310-0058	2

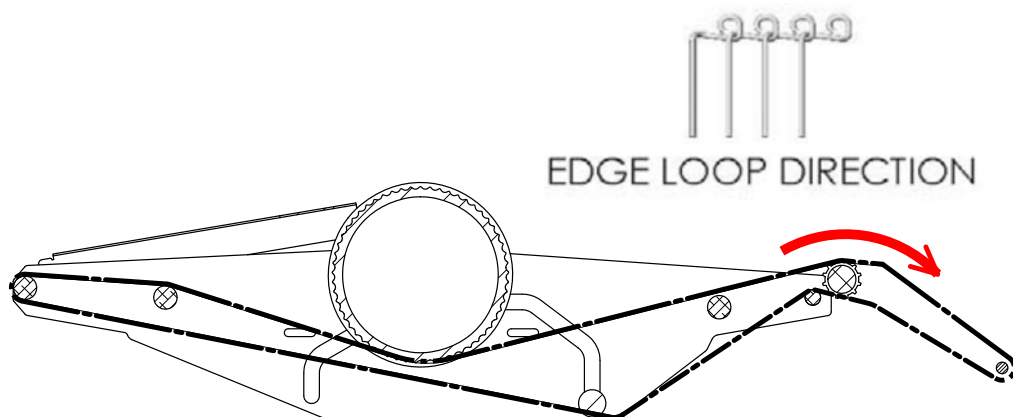
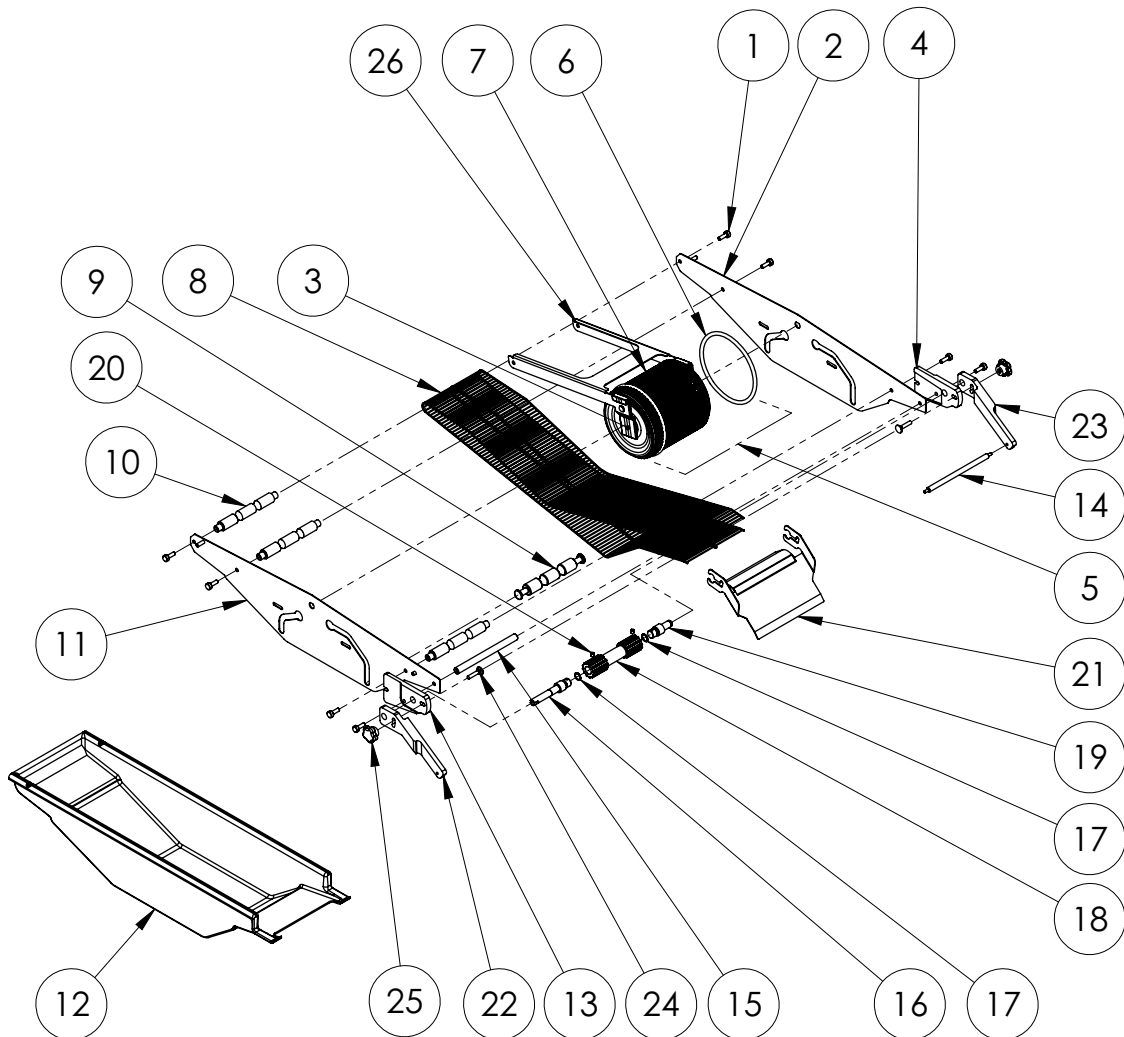
BREADER CONVEYOR - INTERNAL PARTS



BREADER CONVEYOR - INTERNAL PARTS (CONTINUED)

Item	Description	Part Number	Quantity
1	Bearing Assembly (.375 I.D.)	7070-0006	2
2	Kit, Endless Breader Belt	501592	1
3	Long Paddle	3340-0070	7
4	Support Shaft	3190-3517	1
5	Breader Pan	5330-0203	1
6	Paddle Shaft	500800	1
7	Rail, Internal	5030-0459	1
8	Vibrator Spring, HD	1245-0040	2
9	Hex Head Screw 1/4-20 x 1/2"	1017-0191	1
10	Locking Shaft	3190-3515	1
11	Bearing, (5/8" I.D.)	3070-0047	1
12	Set Screw 5/16-18 x 1/2"	1017-0192	4
13	Sprocket Mount, Square End	3190-3520	1
14	O-Ring	1460-0064	2
15	Sprocket, Breader	3260-0349	1
16	Sprocket Mount, Round End	3190-3521	1
17	Deflector	3238-0534	1
18	Shaft, Deflector Mounting	3190-3522	1
19	Idler Block	1240-0019	2
20	Bearing, (1/2" I.D.)	3070-0048	1
21	Hex Head Screw #10-24 x 1/2"	1017-0189	2
22	Hex Head Screw 1/4-20 x 5/8"	1017-0190	2
23	Knob	1310-0058	8
24	Side Rail, RH, English/Spanish	107073	1
--	Side Rail, RH, English/French	107074	1
--	Side Rail, RH, English/German	107075	1
--	Side Rail, RH, English/Italian	107076	1
--	Side Rail, RH, English/Portuguese	107077	1

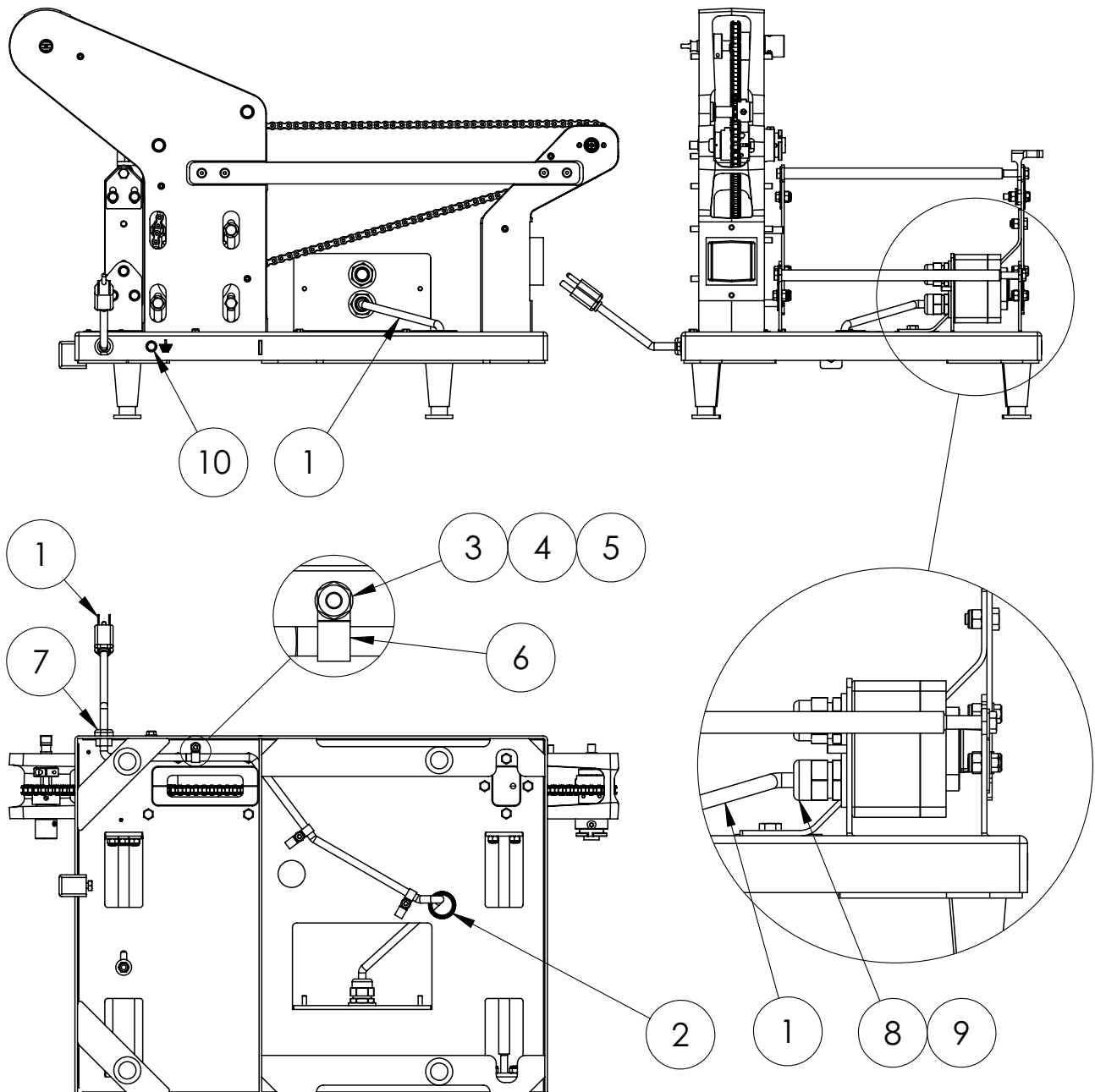
BATTER CONVEYOR COMPONENTS



BATTER CONVEYOR COMPONENTS (CONTINUED)

Item	Description	Part Number	Quantity
1	Thumbscrew, Knurled	3310-0221	8
2	Side Left Hand	5010-2473	1
3	Wheel Mount	1075-0005	2
4	Bearing, Right	500590	1
5	Wheel Assembly with O-Rings	100031	1
6	O-Ring, Black	1460-0069	2
7	Batter Wheel	3160-0732	1
8	Belting - Endless Batter	3022-0175	1
9	Tensioner Bar	3190-3509	2
10	Cross Rod	3190-3513	3
11	Side Right Hand	5010-2472	1
12	Batter Tank	107069	1
13	Bearing, Left	1070-0074	1
14	Roller, Fixed	500545	1
15	Rod	3190-3512	1
16	Batter Shaft, Long, Batter Sprocket	3190-3507	1
17	O-Ring	1460-0062	2
18	Batter Sprocket	3260-0346	1
19	Batter Shaft, Short, batter Sprocket	3190-3506	1
20	Set Screw 1/4-20 x 1/4"	1017-0183	4
21	Plow Plate	3080-0620	1
22	Arm, Left	1490-0001	1
23	Arm, Right	1490-0002	1
24	Screw	1017-0198	2
25	Knob	1310-0058	2
26	Bracket	3040-2103	1

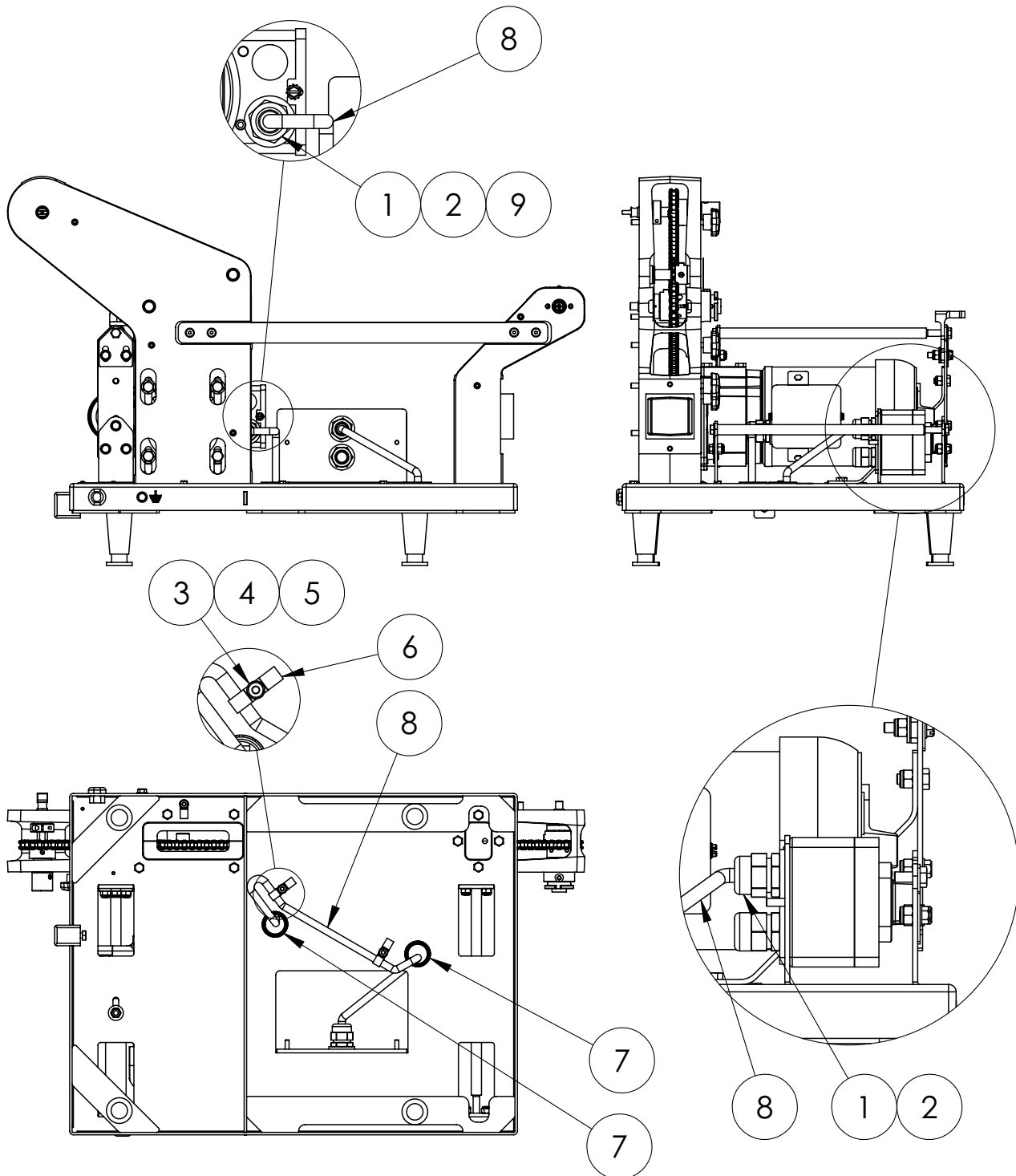
ELECTRICAL COMPONENTS - POWER CORD



ELECTRICAL COMPONENTS - POWER CORD (CONTINUED)

Item	Description	Part Number	Quantity
1	Cordset Power Unit	1511-0169	1
2	Bushing Snap, 5/16	1110-0036	1
3	Nut, #10-24 Standard Hex	1016-0080	3
4	Screw, #10-24 X 3/4"	1017-0196	3
5	Washer, Plain, #10	1018-0049	3
6	Clamp Cable, 3/8	1013-0081	3
7	Bushing, Strain Relief	124746	1
8	Connector, Straight, 1/2	1205-0260	1
9	Seal, 1/2 Conduit	1460-0065	1
10	Hex Washer Head Screw 1/4-20 x 1/2"	1017-0188	1

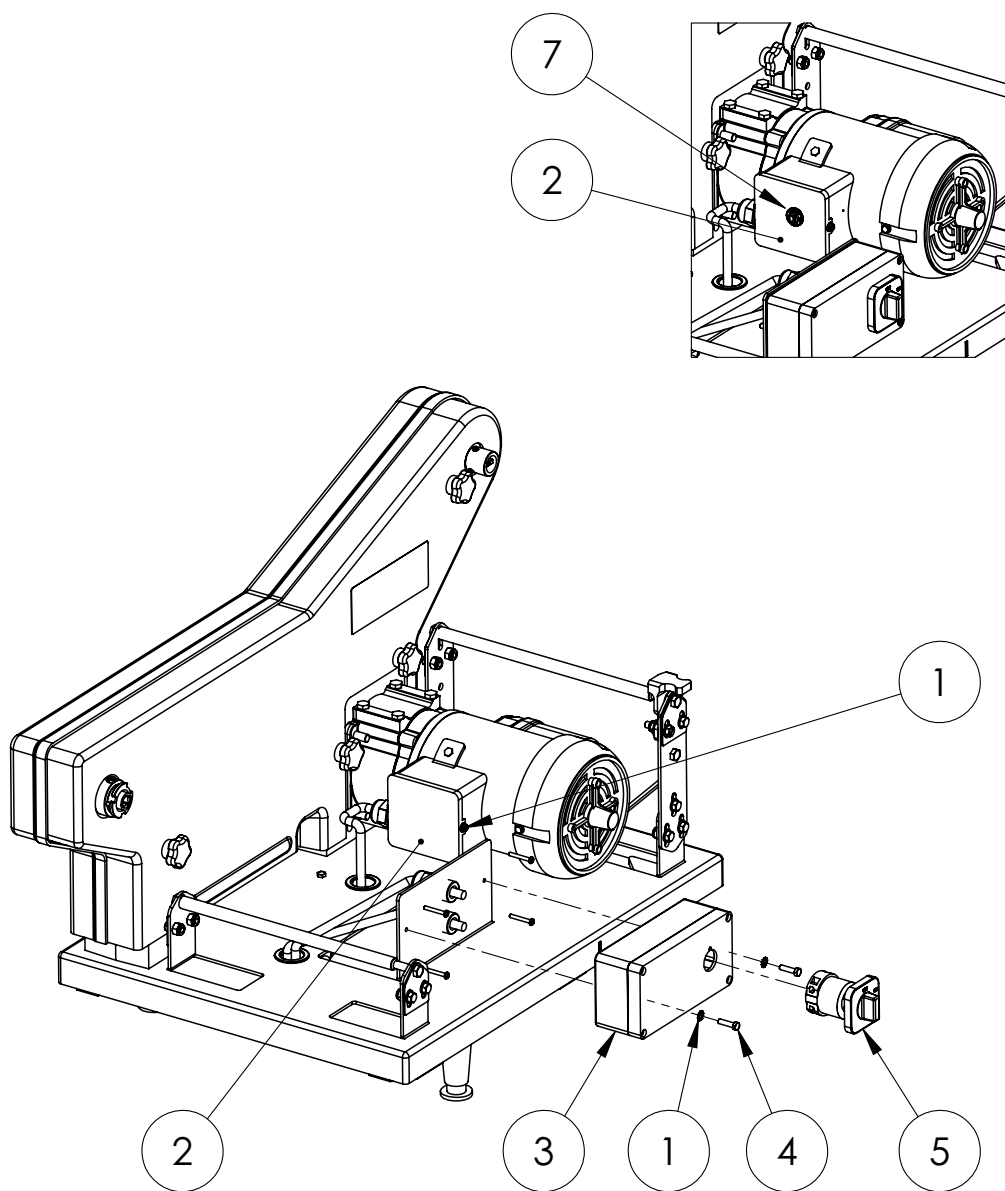
ELECTRICAL COMPONENTS - SWITCH / MOTOR CORD



ELECTRICAL COMPONENTS - SWITCH / MOTOR CORD (CONTINUED)

Item	Description	Part Number	Quantity
1	Connector, Straight, 1/2"	1205-0260	2
2	Seal, 1/2 Conduit	1460-0065	2
3	Nut, #10-24 Standard Hex	1016-0080	2
4	Screw, 10-24 X 3/4"	1017-0196	2
5	Washer, Plain #10	1018-0049	2
6	Cable Clamp	123831	2
7	Bushing, Snap	1110-0036	2
8	Cord, Motor On/Off Switch	3511-0335	1
9	Nut, Lock, 1/2 Conduit	122653	1

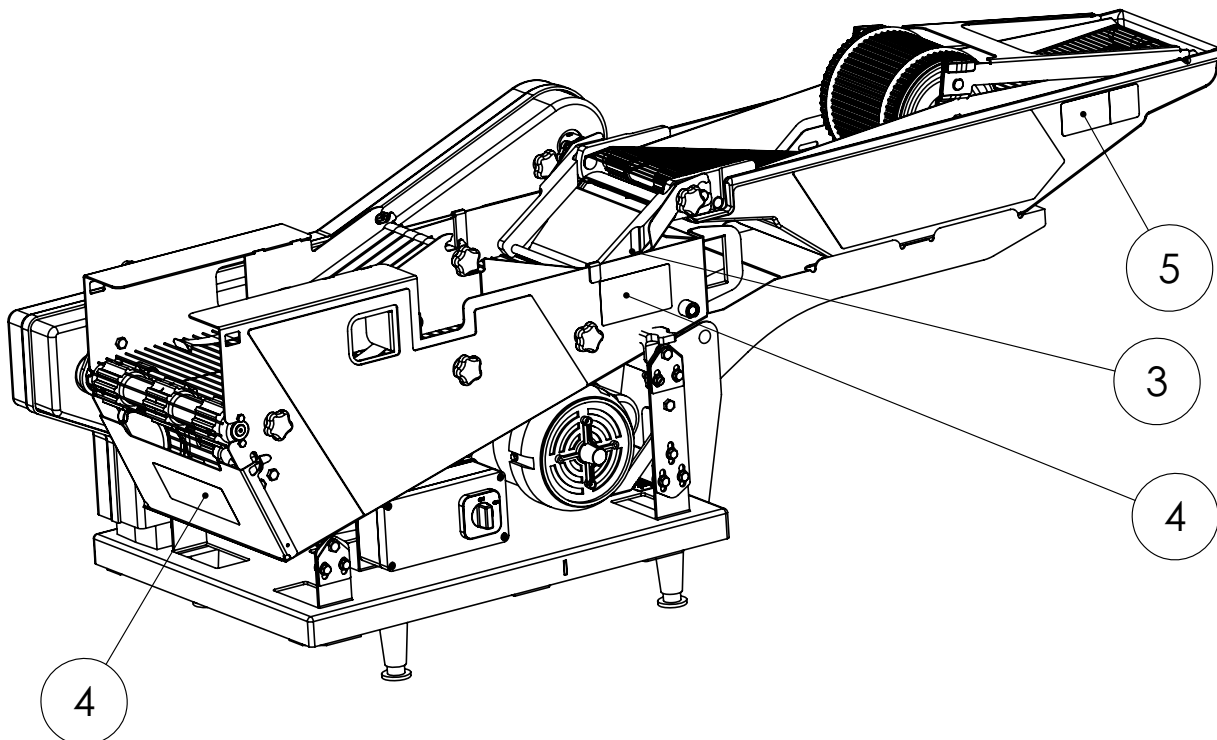
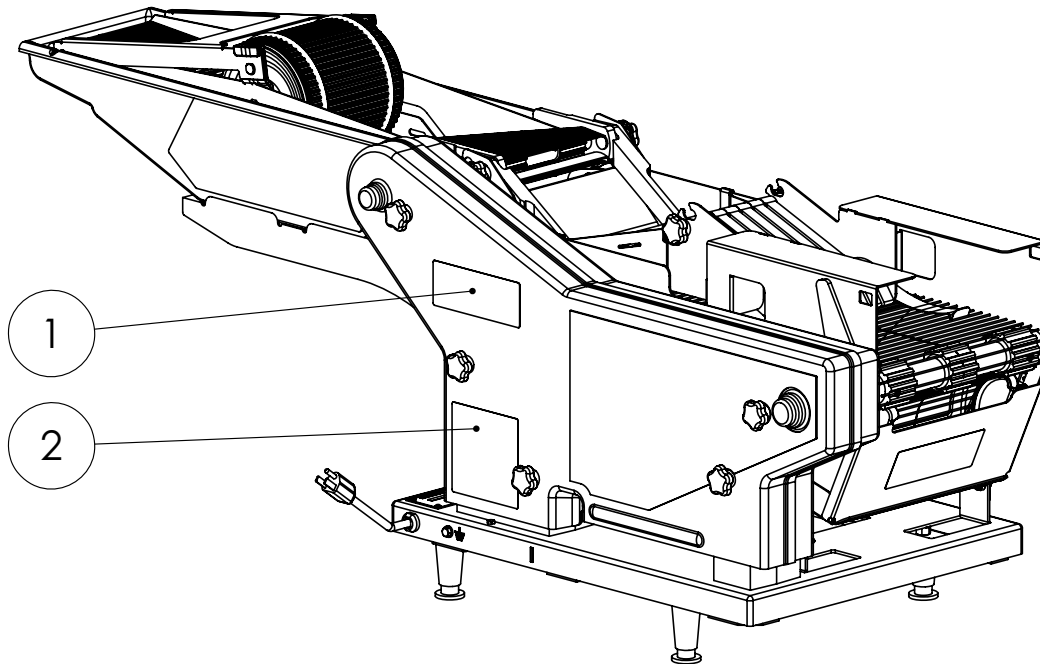
ELECTRICAL COMPONENTS - CAPACITOR AND SWITCH



ELECTRICAL COMPONENTS - CAPACITOR AND SWITCH (CONTINUED)

Item	Description	Part Number	Quantity
1	Washer, External Tooth, #10	1018-0048	3
2	J-Box Cover	500842	1
--	J-Box Cover (CANADA)	3024-0000	1
3	Enclosure, Switch	1510-0885	1
4	Screw, #10-24 x 3/4"	1017-0196	2
5	Switch, 2-position Cam With Plate	1510-0887	1
6	Capacitor (Not Shown)	501066	1
7	Circuit Breaker Assembly (CANADA)	1510-0883	1

SAFETY LABELS



SAFETY LABELS (CONTINUED)

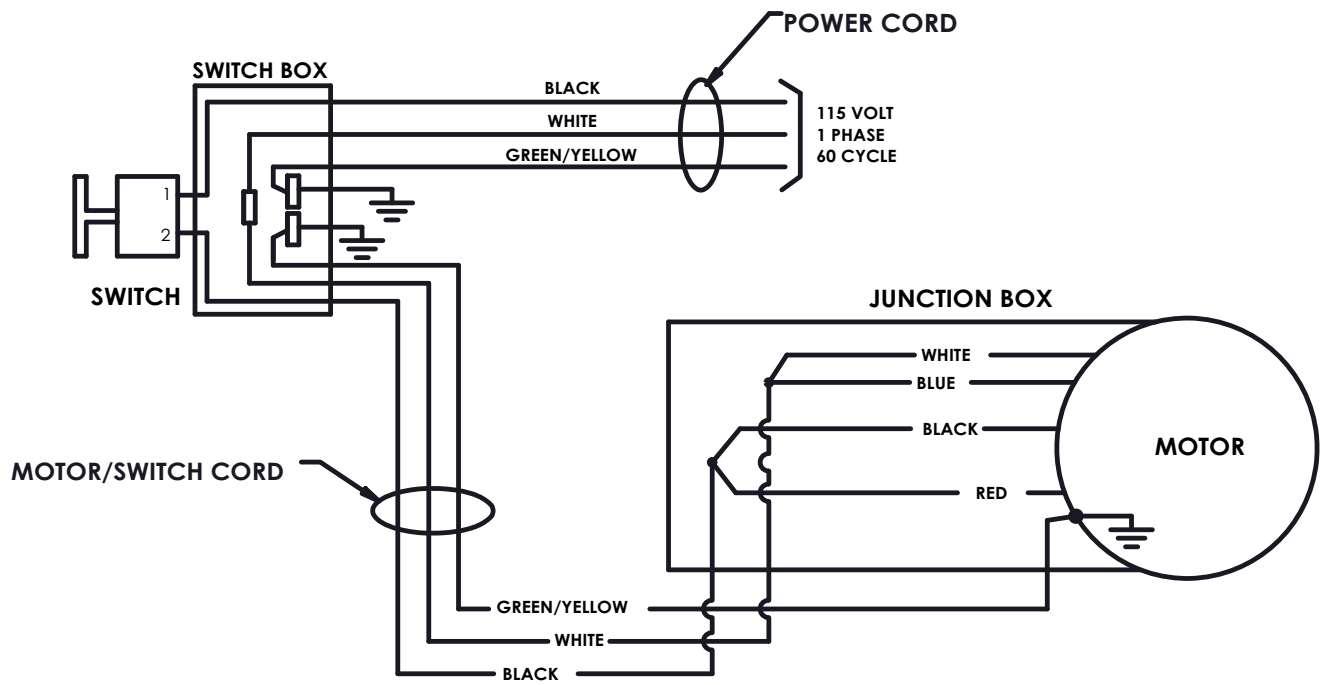
Item	Description	Part Number	Quantity
1	Label, Frame Wash Down	1014-0069	1
2	Label, Chain Hazard	1014-0075	2
3	Label, Washing Caution	1500-0196	1
4	Label, Pinch Hazard	1014-0071	2
5	Label, Batter Belt Path	1500-0197	1

OPTIONAL EQUIPMENT AVAILABLE

Item	Description	Part Number
1	Kit, Endless Breather Belt, Optimax [®]	1022-0315
2	Scraper, Wheel	103611

ELECTRICAL SCHEMATICS

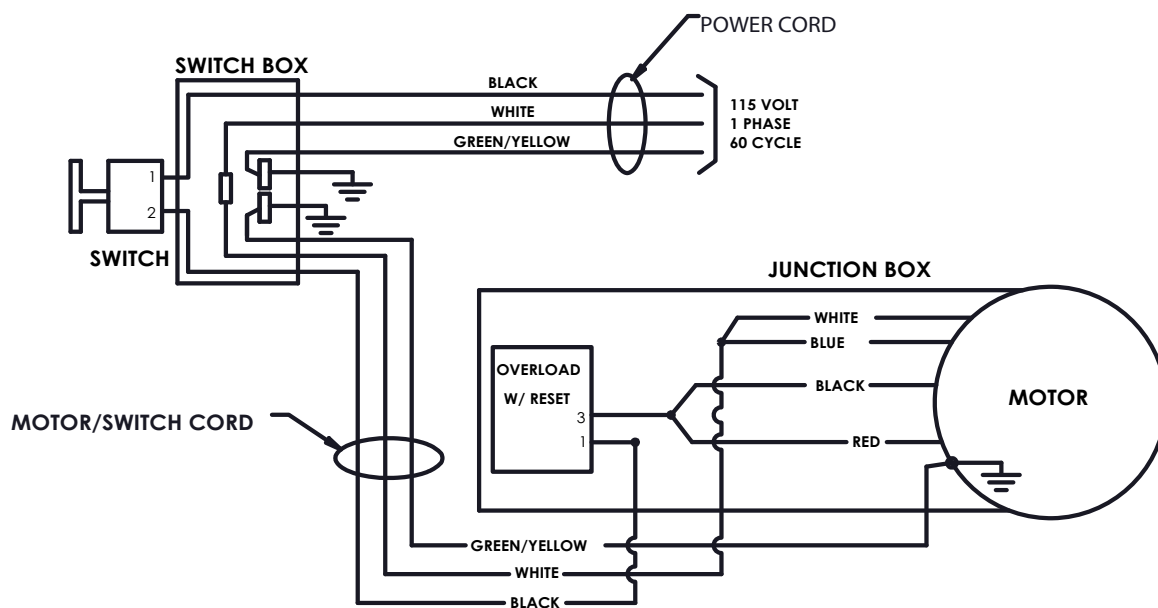
115V/1PH/60Hz Internal Capacitor



**115V/1PH/60Hz
INTERNAL CAPACITOR**

ELECTRICAL SCHEMATICS (CONTINUED)

115V/1PH/60HZ Internal Capacitor (Canadian)

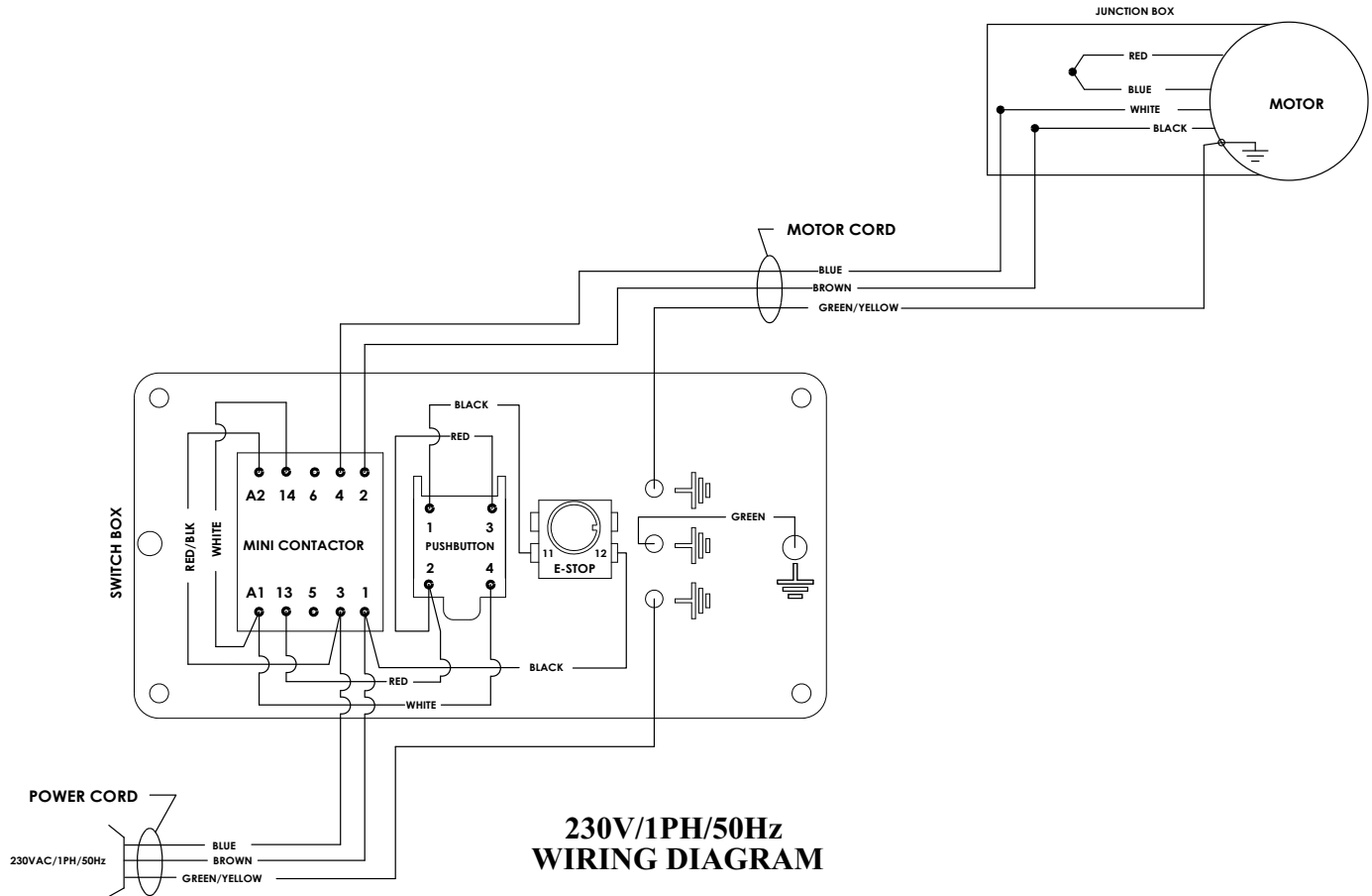


115V/1PH/60Hz (CANADIAN UNITS ONLY)

INTERNAL CAPACITOR

ELECTRICAL SCHEMATICS (CONTINUED)

230V/1PH/50HZ Internal Capacitor



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Section 8

Contact and Document Information

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Service Providers8-3

CONTACT ADDRESS AND PHONE

For additional information, service providers, technical support and spare parts, contact your Regional Manager, Distributor, or Nothum Representative:

Nothum Food Processing Systems
3039 East Pythian Street
Springfield, Missouri 65802 USA
Tel: +1-417-831-2816
Website: nothum.com

Nothum BV
De Stad 10
Oirschot, Netherlands 5688 NX
Tel: +31 85 013 6861

DOCUMENT IDENTIFICATION

Copies of this Operation Instruction may be ordered by quoting the Document ID as listed below:

Document ID:	Manual #106833
Document Description:	Operating Instructions and Spare Parts List For ACS
Issued:	May 19, 2018

SOFTWARE AND DUPLICATION

For more information, contact your local Representative or:

Nothum Food Processing Systems
Administrative Assistant/Engineering Department
3039 East Pythian Street
Springfield, Missouri 65802 USA

