



AgriLite Conveyor System

Owner's Manual



2024 V.1 - FOLDING CONVEYOR



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Warning

Do Not Use this piece of Equipment until you have fully read the Owner's Manual, and understand how all of it's functions and features operate. Anyone who intends to use this equipment should first read the owner's manual.



This Owner's Manual ONLY covers the Conveyor System, not the Trailer. Refer to the Owner's Manual from the Trailer Manufacturer for issues regarding usage, maintenance, and warranty.

I. General Maintenance

To keep the AgriLite Conveyor system running properly, it is important that routine maintenance is performed. We recommend doing this at a minimum before and after every season, or more frequently. This includes:

- Greasing Bearings
- Greasing Moving Parts
- Washing thoroughly
- Checking Rollers
- Tracking Belts
- Removing any Fertilizer or residue
- Keeping Wheel Tracks free of debris

Warning

It is important to always turn off the power system that runs the unit before performing any maintenance.

Do not wear loose clothing or hair around moving belts and rollers.

Always wear eye protection around hydraulics.



II. Operation

It is important to familiarize yourself with this Section before using the conveyor system.

Control Panel

The control panel is located on the driver side at the rear of the trailer. The ShurCo Field Light control box is also mounted there. This controls the lights on the back of the trailer, and the top of the spout. **Your trailer marker lights MUST be ON for the Field Lights to have Power.**

Upper Control Panel is located at top of Spout. (Optional)

Remote Control is Optional

Switches

- 1. UnLock/Power On** - The switches are not powered unless the green light is ON. 'Power On' provides power to the Panels, and Remote Control. This switch also activates the air cylinder that locks the folded conveyor down for transport mode.
 - Travel Lock** - This Locks the folded conveyor down for transport, and turns the power off to the panel and remote.



ShurCo

- Field Lights - Output A** - Turns lights On/Off at back of trailer.
- Output B** - Turns light On/Off at top of spout.

These lights are also controlled on the ShurCo Smart 2 Remote.

- 2. Lower Belt - Run** - Turns lower conveyor belt on. **REV** - Reverses the lower belt for front unloading.
- 3. Upper Belt - Run** - Turns the upper conveyor belt on. There is no reverse option on this belt.
- 4. RIGHT** - Swings conveyor to passenger side. **LEFT** - Swings conveyor to driver side.
- 5. UP** - Raises the conveyor. **DOWN** - Lowers the conveyor.
- 6. FOLD** - Folds the conveyor over. **UNFOLD** - Unfolds the conveyor.



Upper Control Panel

Lower Belt - Run

Turns the lower belt on. There is no option to reverse this belt from the Upper Control Panel.

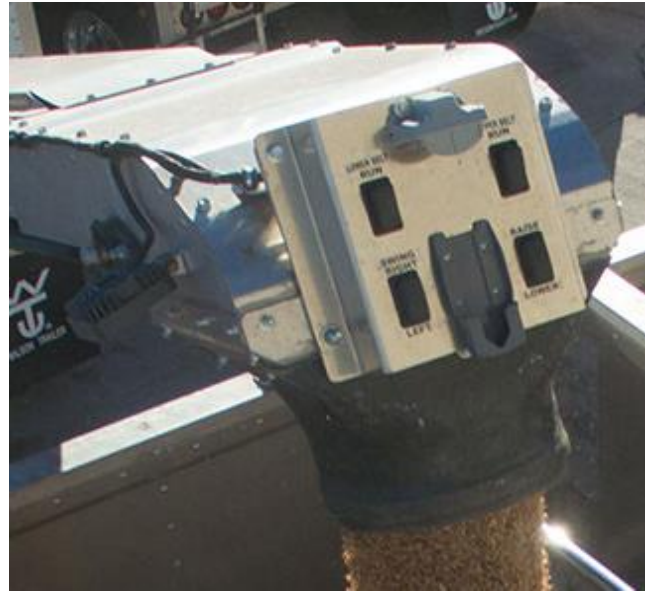
Upper Belt - Run

Turns the upper belt on.

Swing Right Swings to Passenger Side.
Swing Left Swings to Driver Side.

Raise & Lower Moves conveyor up & down.

* *There is no Fold/Unfold option on this panel.*



Pic : **Field Light** is controlled by ShurCo 'Output B' switch, located at back of trailer. **Control Panel Light** is powered by Trailer marker lights.

TroubleShooting

** Air is required to the trailer in order to operate Travel Lock cylinder.

*** Upper Belt switches must be in off position for belt to stop running. If upper switch is left on, you will not be able to turn belt off at Lower Control Panel, or with Remote.

Remote Control

Power The **RED** button provides power to the remote. The 'Power On' switch at the *main control panel MUST be ON in order to power the remote* .

Lower Press & hold to lower conveyor.

Raise Press & hold to raise conveyor.

Left Press & hold to swing towards driver side.

Lower Run Press once to turn belt on. Press again to turn belt off.

Unfold Press & hold to unfold conveyor

Fold Press & hold to fold conveyor

Right Press & hold to swing towards passenger side.

Upper Run Press once to turn belt on. Press again to turn belt off.



Remote comes with Charger

Check range & charge if loosing signal



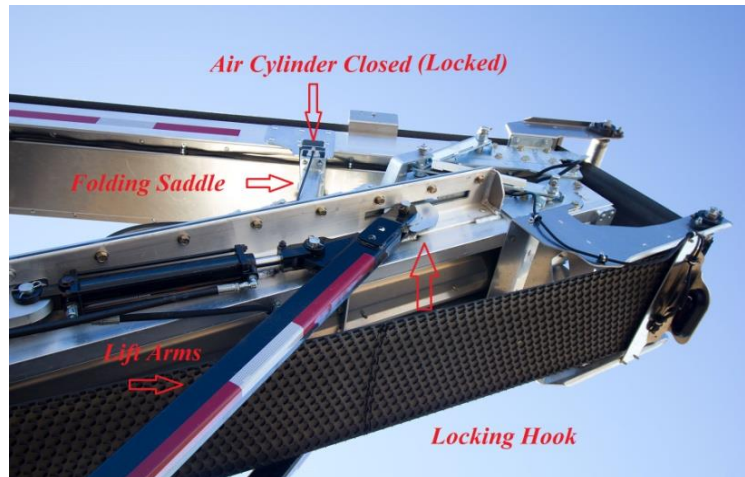
Getting In & Out of Transport/Travel Lock

Always fold over and LOCK conveyor in the Travel Lock position before moving or transporting.

Travel Lock position

- Conveyor is folded over into 'Folding Saddle'
- Locking Hooks are in down position.
- Lift Arms are lowered into Locking Hooks (wheel is tight in Hook)
- 'Travel Lock' switch is engaged. Switches are powered off, and Air Cylinder is Closed

Travel Lock position



Unfolding

1. Turn ON Power to Switches, or UnLock (Air Cylinder will Open (Unlock), releasing the Sliding Lock.)
2. Raise conveyor all the way up, to get Lift Arms out of Locking Hooks.
3. Unfold conveyor. After conveyor is fully unfolded, Locking Hooks will RAISE UP. Both **Hooks need to be up before lowering** conveyor.



Conveyor is Raised all the way UP, when Folding & Unfolding.



Getting In & Out of Transport/Travel Lock Cont.

Folding

1. Raise conveyor all the way UP. (Locking Hooks will lower during folding process. Conveyor will crash into tarp end cap if not raised.)

2. Fold conveyor into the Folding Saddle. After conveyor is folded over, Locking Hooks will come back down for Travel Lock.

Make sure both Locking Hooks come down all the way after Folding into Saddle.

3. Lower the conveyor back down, so that the Lift Arms are tight in the Locking Hooks.

4. Swing the conveyor back to 'center' of trailer, before transporting.

5. Engage switch on Control Panel to 'Travel Lock'. (This will lock the Air Cylinder/Sliding Lock, and turn off the power to the switches. Light will turn off.)



Notice the 4 points to the 'Travel Position'



Adjusting Belts

It is important to regularly check, and if needed, adjust both belts. Keeping belts properly tracking will extend the life of the belt.

What you are looking for: Make sure that the belt is running on the center of the roller, and not off to one side.

TRACKING BELT



This belt is tracking correctly.

Adjusting

If you need to make an adjustment, start with:

Belt tension -- A belt that is too loose will not track properly. Overtightening will shorten belt & bearing life. You want a little slack between the return rollers, so that the belt is not struck tight like a guitar string.

Belts shrink over time as the oil dries up.

?? Is the belt only tracking off when the spline/zipper comes around??

If so, then the rollers are most likely adjusted correctly, but the belt is cut crooked at the spline.

Don't adjust the rollers.

Tightening/Loosening



· Loosen Jam Nut. Adjust both sides equally.
Equal adjustment helps with belt tracking

****Remember to tighten jam nut after adjustment, or slack adjusters will slowly work their way out of adjustment.****

To steer the belt back towards center of the roller...

Think of it like handlebars on a bicycle.

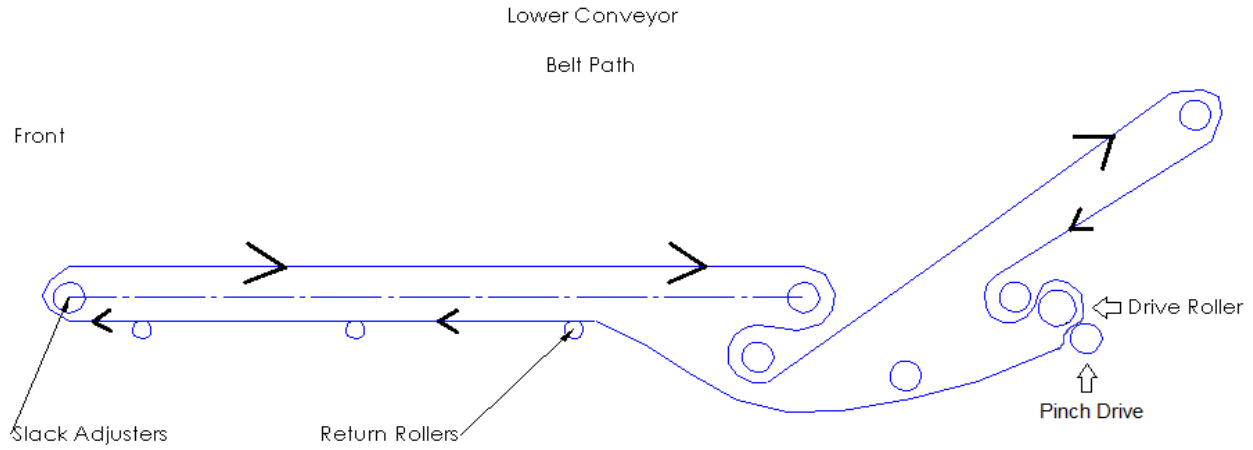


If more than 1 roller needs adjustment, sometimes it is better to reset (center) all of the bearings, and then start from scratch.

Over-adjusting may mess with adjacent rollers that don't need adjustment.

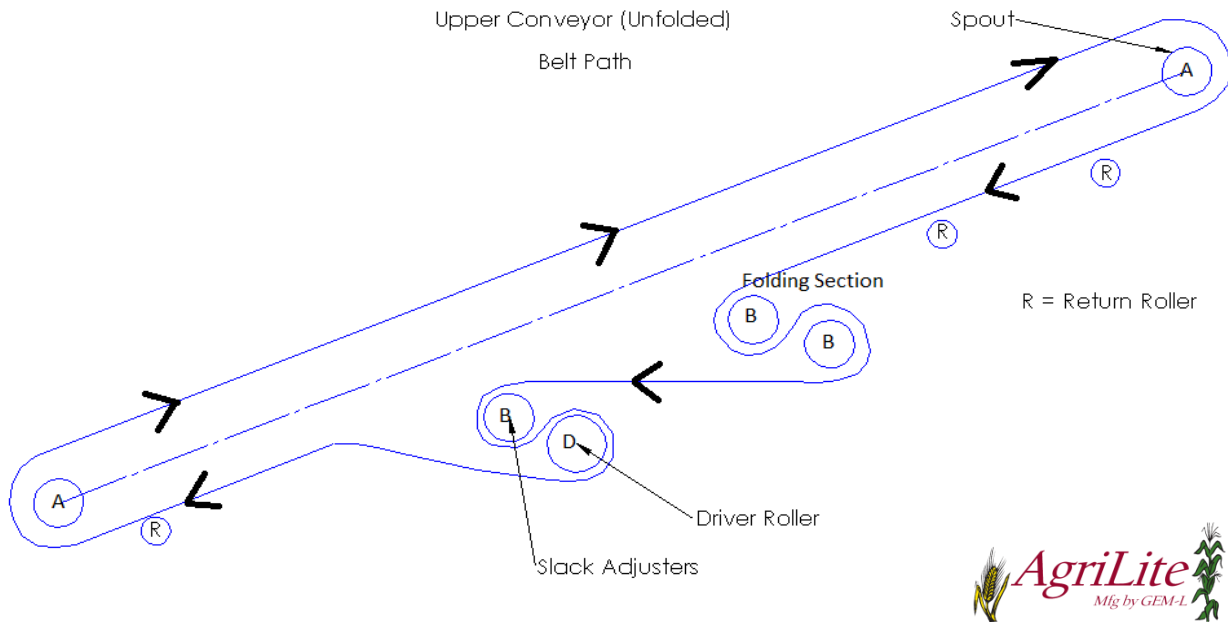
Belt Path & Speeds

Lower Conveyor



Upper Conveyor

4.5 - 5 seconds/revolution



Control Belt Speeds by adjusting RPM's on your Wet Kit Power Unit.

III. Removing Conveyor

Always use caution when removing or installing the conveyor system.

Never walk under conveyor when lifting.

Never put yourself between the conveyor and trailer, where you could get crushed.

Tools needed

Floor Jack	Red Steel Shaft (comes with trailer)	Impact Gun
9/16" Impact		1" 1/8 wrench
1" 1/8 socket	Fork Lift or Loader	Safety Glasses

Position the trailer on level ground before starting the removal process.

Step 1

Preparing Upper Conveyor for removal, before disconnecting Hydraulics.

- Unfold the Upper Conveyor.
- Lower the Upper Conveyor, all the way to the down position.
- Remove the cylinder pin for the Swing Cylinder.
Swing cylinder is next to, or under the turntable, depending on trailer length. Remove pin from the trailer side, so that the cylinder stays with the turntable.
- Fully RETRACT the swing cylinder.

Step 2 (Requires Safety Glasses)

Disconnect hydraulics, electrical connections

Turn off PTO and Power Unit before starting Step 2 Caution: Oil may be HOT!

- Uncouple the (2) Hydraulic Quick Disconnects at the front of the Lower Conveyor
(Located at the Landing Gear on the Passenger Side)
- Uncouple the (4) Hydraulic Quick Disconnects on the Turntable.
((2) on the Driver Side, (2) on the Passenger Side.)
- Unplug the 7way cord, and air supply for the Upper Conveyor.



(Located on Rear Slope Sheet of the trailer, over the Turntable. Place in the Upper Conveyor hopper, so that it comes out with upper conveyor.)



Pic: Landing Gear, Passenger Side

Removing Conveyor Cont.

Step 3

Removing Control Panel

- Unscrew the (2) wing nuts that hold the Main Control Panel in.
(The control panel will come out with the Upper Conveyor. Place the control panel in the hopper of the upper conveyor.)
- Replace the control panel with the Cover Plate, and re-tighten the wing nuts.

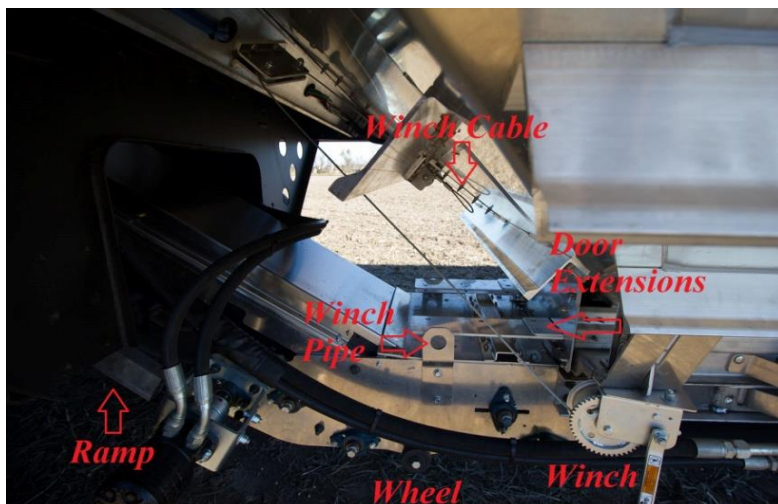
Step 4

Removing Lower Conveyor

Unhook the truck from the trailer and pull away.

If your trailer has door extensions, then the rear door will need to be opened during this step.

- Uncock the winch, and pull the winch cable down.
- Slide the pipe thru the brackets shown in the picture. Place the cable around the pipe, in the center of the brackets. Tighten the cable back up with the winch.



- Place the Floor Jack under the front of the conveyor.

The winch & floor jack are now holding the conveyor in place.

- Remove the (2) Hopper Bolts from each hopper.
(One bolt on each side of every hopper.)
- Slowly lower the winch and floor jack, until the Wheels are on the ground.



The Spout Wheels will ride the Ramp down. Roll the conveyor forward, until the Spout Wheels are ready to fall off of the Ramp.

- Keep rolling the conveyor forward, until the spout clears the subframe. Then drag the conveyor off to the side.



Removing Conveyor Cont.

Step 5

Removing Upper Conveyor

The upper conveyor should be unfolded and lowered all the way down already.

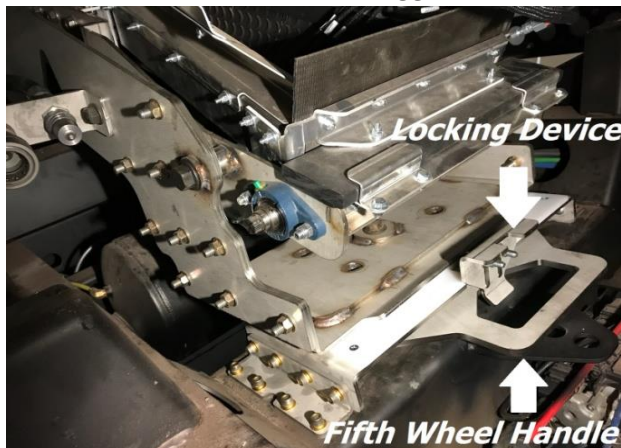
- Slide the Winch Pipe thru the holes in the Turntable, locking the conveyor in the down position.
- Attach the Lifting Strap (*provided*) to the Lift Point (*Red Clevises*).
- Grab the Lifting Strap with your lift (forklift, loader tractor, ect.).

Put a little tension on the lift strap, but do not start to lift yet.

Note: We like to tie a rope around the spout end of the conveyor, before moving to the next step. Use the rope to stabilize the conveyor and keep it from swinging if necessary.

Using a 9/16" Impact, loosen the 2 nuts on the Locking Device. Slide the Locking Device up & PULL the Fifth Wheel Handle to release the jaws.

Make sure no one is between the conveyor and the slope skin of the trailer, as the turntable may shift up after leaving the fifth wheel.



*The pipe will prevent the conveyor from 'raising' as you lift the conveyor out, allowing the turntable to be picked up. **On a NonFolding Conveyor, leave locked in travel (down) position***



Use the clevises and lifting strap provided. The clevises should already be set in the proper holes, to keep turntable level.

- Slide the conveyor out of the fifth wheel jaws before lifting.

Important: Be careful not to damage the airtank or any other trailer parts when coming in & out with the conveyor

- Pull the trailer away after you lift up. **Never walk under the conveyor while it is being lifted.**

It is important to wash the conveyor off between seasons, and before storing. Make sure all of the grease points get greased. This will extend the life of the product.

IV. Installing Conveyor

Always use caution when removing or installing the conveyor system.

Never walk under conveyor when lifting.

Never put yourself between the conveyor and trailer, where you could get crushed.

Tools needed

Floor Jack	Winch Pipe <i>(comes with trailer)</i>	Impact Gun
9/16" Impact		1" 1/8 wrench
1" 1/8 socket	Fork Lift or Loader	Safety Glasses

Installing the conveyor uses the same instructions as removing the conveyor, just in reverse order.

Step 1

- Lift the upper conveyor using the same lifting techniques used on page 12, when removing the upper conveyor.
- Slowly back the trailer into the conveyor. You will need an extra set of eyes to help guide and watch.

Check the 5th Wheel Plate & Jaws - Make sure they are clean and freely moving

Be vigilant of your surroundings, and watch for any clearance issues between the conveyor and the trailer, or surrounding objects.

- Once the trailer is properly positioned, slowly lower & shift the turntable into the fifth wheel jaws in the trailer.

Make sure the turntable is horizontal, to prevent the pickup plate from binding up.

- Push the Fifth Wheel Handle all the way in, locking the jaws closed. Loosen the 2 nuts on the Locking Device, and slide the device all the way down. Re-tighten the nuts. This locks the Handle in the Locked Position.
- Check that the LiftArm Wheels are properly in the tracks before releasing the pressure on the lifting strap.

Check all of the turntable wheels for appropriate contact to the trailer.

Installing Conveyor Cont.

Step 2

Lower Conveyor installation is the same process as removal, in reverse order.

- Place your floor jack under the front of the lower conveyor. Hook up the winch cable using the same procedure found on page 11, Step 4
- Raise the Lower Conveyor into place using the winch and floor jack. Guide the wheels near the spout end up onto the ramps.

Observe Hopper Seals as you are raising, making sure they line up properly.

- Use the Hopper Bolts to line the conveyor up front to back, and tighten nuts. (2 bolts per hopper)
- After tightening all of the Hopper Bolts, release the winch cable, and remove floor jack.



Check the spout area of the lower conveyor to make sure all seals are correctly positioned.

Step 3

- Replace any covers that may have been removed during the removal process.
- Hook up any hydraulic lines, electrical plug ins, and air supply that were unhooked during the removal process. (see page 10-11)

Use caution when operating functions, as there may be air in the hydraulic lines.

- Connect the swing cylinder on the Turntable to the trailer.

Do Not Move trailer until swing cylinder is hooked back up.

After conveyor is installed, make sure to place upper conveyor in the travel/lock position before moving the trailer.

V. Parts

A: Belts

Lower Conveyor

<u>Trailer Length</u>	<u>Part #</u>	<u>Actual Belt Length</u>
Wilson 48'	BLT:KIT-W48LWR	66' 4"
Wilson 45'	BLT:KIT-W45LWR	60' 4"
Wilson 42'	BLT:KIT-W42LWR	62' 8"
Wilson 41'	BLT:KIT-W41LWR	61' 0"
Wilson 40'	BLT:KIT-W40LWR	59' 0"
Wilson 38'6"	BLT:KIT-W386LWR	56' 0"
Wilson 38'	BLT:KIT-W38LWR	55' 0"
Wilson 37'	BLT:KIT-W37LWR	53' 0"
Wilson 36'	BLT:KIT-W36LWR	51' 0"

Upper Conveyor

<u>Trailer Height</u>	<u>Part #</u>	<u>Actual Belt Length</u>
66" walls - Folding	BLT:KIT-W66UPR	51'
72" walls - Folding	BLT:KIT-W72UPR	51' 8"
78" walls - Folding	BLT:KIT-W78UPR	52' 8"
NonFolding Cnv.	BLT:KIT-WNF-UPR	38' 4"

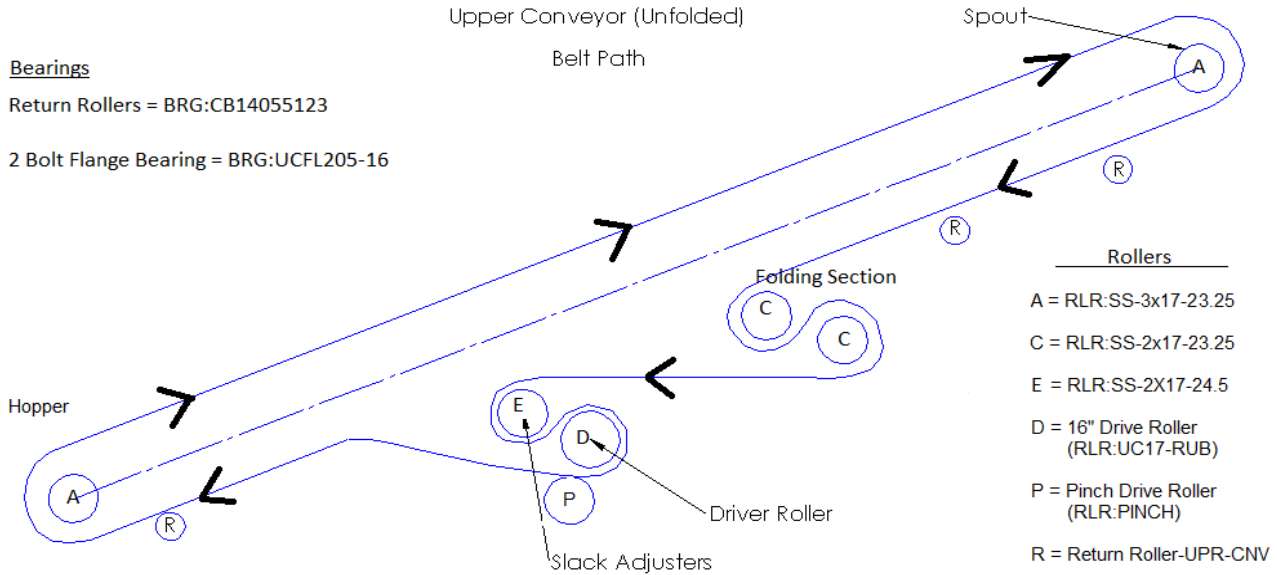
Misc.

<u>Part #</u>	<u>Description</u>
BLT:54553	16" Alligator Stainless Steel Fastener Strip
BLT:1700006-16	16" Spline/Cable
BLT:50053	Retaining Washer/Clips for belt spline

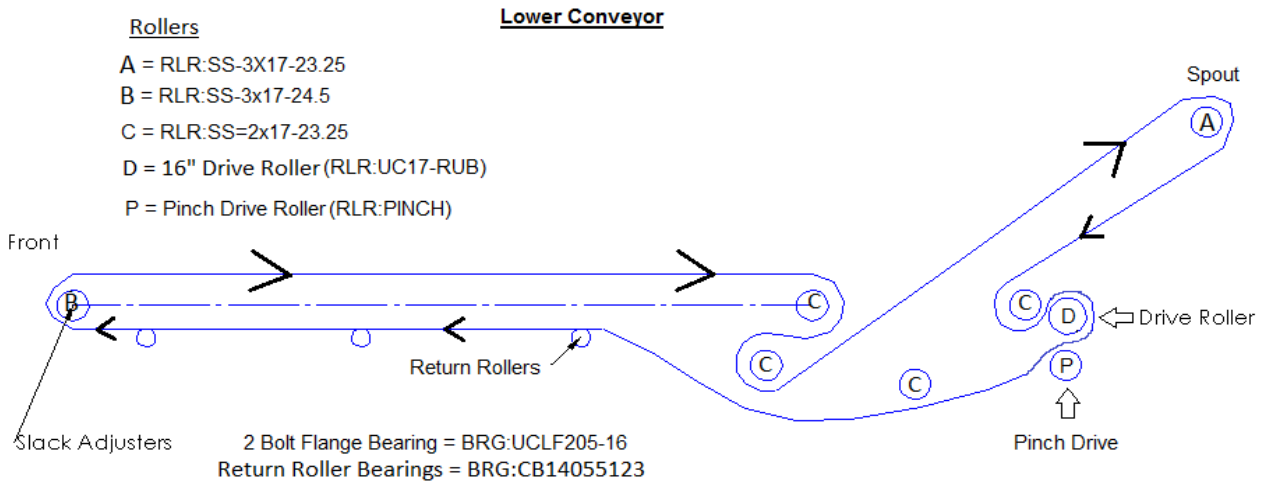


Parts, continued

B: Bearings & Rollers



<u>Part #</u>	<u>Description</u>
MACH: M 2-7	1" Drive Shaft for Drive Rollers
HYD:MISC RC3-1000-250	Motor Coupling
HYD:MISC RG3-H5	Blue Plastic Spacer
KEYWAY	Keyway Stock



VI. Warranty

Limited General Warranty

This warranty applies to all conveyors manufactured by GEM-L, Inc. All goods manufactured by GEM-L, Inc. shall be free from all defects in materials or workmanship under normal use and service. Applied only to the original owner, as evidenced by a completed warranty registration on file at GEM-L, Inc., for a period ending 12 months from the date of delivery.

All claims for defective goods arising under this limited warranty, must be made in writing immediately upon discovery, but in no event, later than 12 months from the date of delivery to the original owner. The warranty registration must be completed and returned to GEM-L, Inc. within 30 days of delivery of the product to the original owner, or all warranties will be null and void.

In the event that a claim shall arise under this limited warranty, GEM-L, Inc. may at its option repair the affected goods, replace the affected goods, or refund an equitable portion of the purchase price of the affected goods. All affected goods shall be held for inspection by GEM-L, Inc. or its representatives, and no claim hereunder shall be payable in connection with repairs made by purchaser prior to GEM-L's inspection, or without GEM-L's prior consent.

- This warranty applies only to parts or components manufactured by GEM-L, which is defective in material or workmanship.
 - This warranty does not cover normal maintenance, service, or adjustments.
- This warranty does not cover depreciation or damage as a result of accident, negligent handling, inadequate maintenance, or improper operation.
- This warranty does not cover damage due to unauthorized modifications or repairs by purchaser, prior to GEM-L inspection and approval.
 - This warranty does not expand, enlarge upon, or alter in any way, the warranties provided by the manufacturers of purchased components.

Please refer to the Wilson and other manufacturer's Owner's Manuals for the applicable warranties.

There are no warranties for used products, or products that have been repaired, altered, modified, overlooked, subjected to misuse, negligence, accident, or ordinary wear and tear.

No claim shall be payable under this limited warranty unless purchaser shall provide GEM-L with the following in writing in a timely manner:

- VIN (Vehicle Identification Number) of affected goods.
- Number of days, weeks, or months affected goods in service.
- Location of affected goods.
- Description and pictures of alleged defect.

This warranty is effective August 1, 2017 and supersedes all previous GEM-L, Inc. warranty policies.

Warranty Form

Conveyor Limited Warranty Registration

Your new Conveyor is covered by a limited warranty.

To initiate the warranty, this form **MUST** be completed and returned to GEM-L within 30 days of delivery.

Trailer Serial Number

Date of Purchase

Dealer - City, State

Customer Name

Phone Number

Street Address / PO Box

City

State

Zip Code

I have read the owners manual, and fully understand the safe operation and proper servicing and maintenance for this product, and the terms of the limited warranty.

Purchaser's Signature

Date

Please mail form to:

GEM-L
48185 Hwy 42
Brandon, SD 57005

GEM-L, Inc.
48185 Hwy 42
Brandon, SD 57005



www.AgriLiteTrailers.com