



LIVE BOTTOM TRAILER

Operations Manual

1-888-995-1200

Troutriverindustries.com

Livebottomparts.com

Livebottom.com

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Introduction



Welcome to Trout River Industries and congratulations on the purchase of your new Trout River Live Bottom trailer. The Trout River Live Bottom trailer is designed to haul and convey a very wide variety of materials via a rounded tub design, exclusive to Trout River Industries. With a 39" all-season multipurpose belt and one of the strongest conveyors on the market, you can haul more variety, with a better payload, and unload fast and efficiently. Please review this manual, feel free to contact us with any questions or concerns.

As always at Trout River Industries, we appreciate your business and look forward to working together in the future. Please feel free to give us a call or drop into see us as you are always welcome at Trout River Industries. In closing, we wish you all the best in the future.

Sincerely,
The Trout River Team

Company Information

Trout River Industries Inc.

Mission Statement:

"Trout River Industries is committed to providing high quality innovative solutions and outstanding customer service."

Our Customer Service Commitment:

Our commitment to our customers is evident in our mission statement. When you purchase a Trout River product your journey with the company does not end there. Our Parts & Service Department is there to assist you with your new or used product. Someone will contact you by phone or in person to introduce your new trailer to you. We answer the phone and are there to assist you with any concerns or problems. If you require parts or information our experienced personnel are there to assist.

Our Team:

Stephen Kennaugh, President

Harvey Stewart, Chief Innovation Officer

Kevin Pineau, Sales Manager

Dwayne Moore, Parts & Warranty Manager

Cory Cahill, After Sales Service Manager

Our Hours of Operation:

Monday to Friday: 8:00 a.m. to 5:00 p.m. (Atlantic)

Phone: (902) 859-1200

Fax: (902) 859-1206

Email: info@troutriverindustries.ca

Parts Request:

Phone: (902) 853-1614

Fax: (902) 859-1206

Email: dwayne@troutriverindustries.ca

Warranty Information

Trout River Limited Warranty Model Year 2027 or later

Introduction

Trout River Industries Inc. (hereinafter called “Trout River”) warrants to the original owner that each new live bottom trailer or truck mounted box (herein called “the unit”) manufactured by it is free from defects in material and workmanship under normal use and services. Loads must be composed of non-abrasive material and not exceed the unit manufacturer’s rated capacity (GVWR) with respect to loading and unloading and carriage of uniformly distributed legal loads. These loads must be properly distributed according to the GAWR of the unit, and secured in a manner which does not subject the unit to strains or impacts greater than normally imposed by lawful use on well-maintained public roads.

Warranty Coverage

The warranty is as follows:

All frame, structural elements and welded parts

5-year warranty

- Years 1 to 3 – 100% (Parts and labour)
- Years 4 and 5 – 50% (Parts and labour)

Conveyor (Failure to provide regular maintenance will void)

24-month pro rated warranty

Third Party Components

Third-party warranty (See below)

In the event of a confirmed defect in material or workmanship covered by this warranty, Trout River at its sole discretion, will do the following:

- Provide for repair of the defective parts when delivered to Trout River’s factory or delivered to a Trout River Service Centre.
- Reimburse the original owner by paying a sum not exceeding the price charged by Trout River for such work or parts.
- Provide for repair of the defect by a qualified service centre when an authorised Trout River Service Centre is not available.
- Supply replacement parts to the original owner, who will install them at their own expense.

Conditions

Warranty is subject to the following conditions:

- Warranty coverage commences from the date of the original purchase of the unit.
- Warranty registration must be submitted within 14 days of delivery to the original owner.
- All suspected defects must be reported immediately (within 2 days) upon discovery.
- Unless agreed in writing with Trout River, all repair work must be completed within 30 days of the original notification of the defect.
- Any repair or replacement carried out prior to approval by Trout River will not be covered.
- Any repair work must be carried out by a qualified person or service centre.
- Trout River must receive a quote from the qualified person or service centre estimating the cost of the repairs, including the hourly rate and number of hours estimated for the completion of the work. This quote

must be provided prior to the commencement of work. Trout River will issue a purchase order authorising the work before it can commence.

- Trout River must receive a final invoice for the work completed detailing the cost of parts used, the actual hours taken and the rate charged per hour.
- Trout River reserves the right to reject any quote it determines to be excessive whether based on the number of hours required, or the rate at which those hours are to be charged.
- Trout River will not pay any amounts over and above that which has been approved for the repair.
- All parts for repairs must be supplied by Trout River, unless Trout River is unable to provide such parts.

Exclusions from Warranty

This warranty shall not extend to:

- Any unit or components which have been subject to misuse, negligence, operation at temperatures below minus 20 degrees F, accident, or which has been repaired or altered by anyone other than Trout River or its authorized service centres in any way so as in the judgement of Trout River to affect adversely its performance or reliability.
- Units that have not been maintained as set out in the attached *Maintenance Schedule*.
- Units that have not been regularly cleaned to prevent the build up of material in areas that can impede the operation of the unit.
- Parts specified by customer outside of normal options offered by Trout River.
- Normal maintenance service, or maintenance parts such as seals, brakes, tires, etc.
- Normal wear and tear on items such as paint, tarp covers, lights, rims and other parts subject to normal wear and tear.
- The conveyor belt.
- Second and subsequent owners.

Third-Party Warranty

Components manufactured by companies other than Trout River (such as, axles, suspension, electrical, etc.) are not covered by Trout River, but are subject to the warranty of the third-party company.

In the case of a defect in a part covered by a third-party warranty, the owner should contact the Trout River Warranty Department. If the initial report suggests that the part is covered, the original owner can choose one of the following:

1. Return the defective part or provide the necessary evidence to Trout River to allow inspection and investigation by the third-party manufacturer. If the part is covered, Trout River will pass the result of the warranty claim to the owner including any replacement parts or credits. If the part is not covered, Trout River will pass on the decision from the manufacturer. In the event that the part is not covered, Trout River may, at its own discretion, work with the original owner to find an acceptable solution.
2. Pay for a replacement part and return the defective part or provide the necessary evidence to Trout River for further investigation by the third-party manufacturer. If the defect is fully or partially covered by the third-party warranty, the full or partial purchase price of the replacement part will be refunded to the owner by Trout River in accordance with the decision of the third-party manufacturer. If the part is not covered by the manufacturer, Trout River will pass on the decision, and no refund for the replacement part will be issued.
3. Choose to deal directly with the third-party manufacturer.

Truck Mounted Boxes

Any damage, defect, failure, or performance issue arising directly or indirectly from the installation or modification of a truck mounted box by an installer is not covered by this warranty. Trout River accepts no responsibility for:

- Improper mounting techniques.
- Use of incorrect or substandard hardware.
- Any damage to the truck caused by the installer or installation process.
- Structural damage resulting from misalignment or inadequate support.

- Safety risks or vehicle instability caused by third party installation.

Limitation of Liability

Repair or replacement under this warranty is the exclusive remedy of the original owner.

Trout River will not be liable for any indirect, incidental, special, punitive, or consequential damages arising out of or in connection with the sale, use, or performance of the unit, including but not limited to loss of profits, loss of revenue, business interruption, loss of use, legal action, or any other commercial or economic loss. In no event shall the Trout River's total liability under this Agreement exceed the purchase price paid by the original owner for the unit.

Warranty Information

The warranty described herein is in lieu of all other warranties, expressed or implied. This document contains the entire warranty and supersedes any other warranty, whether oral or written, relating to the unit purchased.

Warranty Registration

Within 14 days of delivery, the completed Warranty Registration forms should be submitted to **The Warranty Department, Trout River Industries, 62 Griffin Drive, Bloomfield, COB 1H0, Prince Edward Island, Canada** or emailed to Warranty@troutriverindustries.ca.

Filing a claim

To file a claim, or if you have any questions concerning this warranty, please contact the Trout River Warranty department at: +1-902-853-1614

Maintenance Schedule

	Every Day Or ~ 5 Loads	Every week Or ~ 25 Loads	Every Month Or ~ 110 Loads	Every 3 Months Or ~ 330 Loads	Every 6 Months Or ~ 660 Loads	Every 12 Months Or ~ 1300 Loads
Inspect the main hydraulic connections	x	x	x	x	x	x
Oil the conveyor chain	x	x	x	x	x	x
Inspect the conveyor	x	x	x	x	x	x
Grease the trailer (including tarp system)		x	x	x	x	x
Inspect & adjust the oiler system			x	x	x	x
Wash the conveyor system			x	x	x	x
Check tarp cable tension (end to end system)			x	x	x	x
Check the conveyor chain tension				x	x	x
Inspect the conveyor seals					x	x
Change the gearbox oil						x

Following this maintenance schedule is a condition of warranty coverage.
Failure to follow this schedule will result in the loss of coverage.

Warranty Registration (2027)



Owner information

Name _____

Street Address _____

City, Province/State _____

Postal Code/ZIP _____

Phone Number _____

Email Address _____

Unit Information

Dealer Name _____

Unit Type _____

Model Number _____

VIN _____

In-Service Date _____

Proof of Purchase ☐ (Copy of purchase invoice attached)

Intended Use

Road Building ☐ Aggregate Hauling ☐ Waste/Biosolids ☐ Agricultural ☐ Other ☐ _____

Warranty Terms Acknowledged

☐ I have read the warranty and I understand and agree to the terms therein.

Owner's Signature

Name (PRINT) _____

Signature _____

Date _____

Instructions

1. Keep a copy for dealer records
2. Give a copy to the customer for their records
3. Email a copy to warranty@troutriverindustries.ca or mail to The Warranty Dept, Trout River Industries, 62 Griffin Drive, C0B1H0, PE., Canada.

Failure to complete the warranty registration fully within 14 days of original purchase can result in delays in warranty claim processing or warranty coverage being denied entirely.

Safety

The following are some general safety rules pertaining to trout river trailers:

- Never enter trailer with conveyor in operation
- When the conveyor is running be sure to keep all body parts, clothing, etc. clear of inspection doors, conveyor belt, or any other moving parts; failure to do so could result in serious injury.
- Be aware of the tailgate position and stand clear when opening or closing.
- When the trailer is unloading be sure to stand clear of the rear of the trailer, as to not get injured from the load being ejected from the tub.
- Ladder is designed for a maximum of 250 pounds; do not exceed this limit. Top ladder rung is only there as a "handhold"; do not use as a step.
- Trailer hydraulic system is designed to run in excess of 2500 psi, this amount of pressure could be very dangerous; always take care when connecting hydraulic lines, that it is done properly, and replace any damaged hydraulic components immediately. Always be sure system pressure is relieved before maintenance.
 - *Always connect return line first and disconnect last.*
- Air system can also be dangerous, be aware of air lines, that they are not damaged, and relieve system pressure before maintenance.
- When working on the trailer, be sure all power systems are disconnected, unless otherwise instructed or needed, *always be aware of present dangers.*

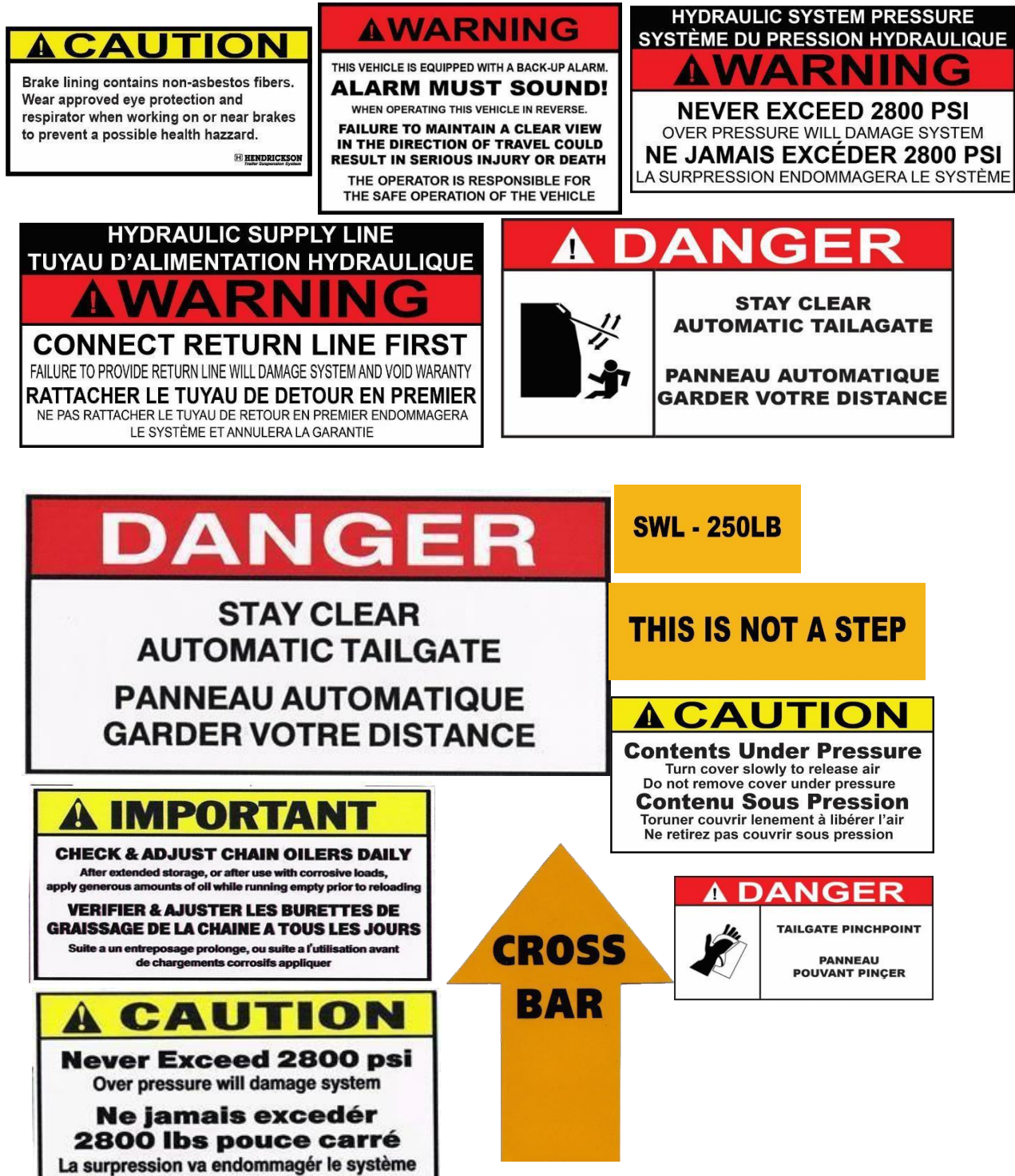
Travel Safety

1. Read and understand all the information in the operator's manual regarding procedures and safety when operating the trailer unit in the field or on the road.
2. Drive carefully and defensively at all times and especially when negotiating uneven or hilly terrain.
3. Do not allow riders on any part of the trailer units either during field operation or road and highway travel.



Safety Signs

1. Keep safety signs clean and legible at all times.
2. Replace safety signs that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety signs are available from the factory.



Hydraulic system

- The trailer hydraulic system is designed to run in excess of 2500 psi, this amount of pressure could be very dangerous.
- always take care when connecting hydraulic lines, that it is done properly, and replace any damaged hydraulic components immediately.
- Always be sure system pressure is relieved before maintenance.
- Always connect return line first and disconnect last.
- If a potential leak is spotted, shut off the system immediately and do not investigate until it shuts off.

Tire Safety

When operating the trailer, it is the responsibility of the driver to check the tires frequently. Inflation pressures, wear patterns and matching are critical parameters that must be monitored. The following factors affect tire care:

1. **Inspection Frequency:** Tires should always be checked before the start of a run and twice during the day or every 4 operating hours, whichever comes first. It is also good practice to check the tires at each rest period during the day. When a driver hears an unusual noise or experiences unusual handling characteristics, the first item to check is the tires. Problems found early, found during routine tire checks, can save more serious problems later on.
2. **Inflation Pressure:** Tires should always be operated at their specified pressures. At their specified pressures, the tire is designed to run with the full width of the tread flat on the contact surface. Operating at other than specified pressures will change the contact patterns and can dramatically shorten tire life. In addition, the tires will run hotter and can lead to blow-outs.

Check tire pressure when the tire is cold. A hot tire can have as much as 20 psi higher than a cold tire.

3. **Tire Matching:** Do not mix ply types on the same axle. Their operating characteristics are different and will lead to uneven tire loading, rapid tire wear, and adverse handling characteristics. Matching also includes combining tires that have the same amount of tread remaining. A tire with more tread has a larger rolling radius and will have to carry a higher load. The best performance will be obtained when the rolling radius is within 1/8" for all tires on an axle.

Torquing the Wheels

- If the wheels on a trailer are removed, they need to be torqued after re-installation.
 - Initially torque to 500 ft/lbs.
 - After 100 kms re-torque to 500 ft/lbs.
- Be sure to follow the torquing pattern when torquing the wheels.
 - Failure to do so could result in a warped or bent rim.
 - Torque pattern shown below.



Brake Safety

The safe, reliable and trouble-free operation of your trailer requires that the brakes be maintained in good operating condition at all times and the driver follows good application techniques when driving. The irresponsible use of brakes by the driver when traveling can contribute to low brake life or result in system malfunctions, short life and poor tire wear patterns.

The following list summarizes some basic operational guidelines for the driver:

1. Check the function of the brake system before starting a trip.
2. Maintain a safe vehicle speed at all times. Slow down for rough road/ slippery surfaces, winding roads or congested areas.
3. Always provide sufficient vehicle spacing on the road to allow for a safe stopping distance.
4. Apply brakes gradually to produce an even deceleration until the vehicle is stopped.
5. Watch traffic patterns ahead. Anticipate pattern changes that could result in an emergency. Apply the brakes gradually in sufficient time to produce a controlled stop.
6. Shift to a lower gear to use engine compression as the retarding force when going down steep grades.
7. Do not apply brakes for a long period of time such as a downgrade.
8. Dry the brakes by applying them several times after going through water.
9. Release the brakes just before going over railroad tracks or rough conditions. This will reduce shock loads on the braking system and flat spots on tires.
10. Wet, icy or snow-covered surfaces require special care. Make cautious intermittent applications by pumping the brakes to reduce speed without locking the brakes.
11. Use caution when applying the tractor driveline brake should you lose the service brake system. Rapid and hard application of the driveline brake can result in the loss of braking systems.
12. Use wheel chocks, apply trailer and tractor parking brakes and place tractor in low gear when parking the unit.
13. Maximum brake retarding occurs just before the wheels lock up and the tires skid. Release the brakes just before you feel them lock up then reapply them.
14. When trailer brakes are applied with hot drums, it may result in a cracked drum. Allow them to cool before reapplying the brakes.
15. Fanning will use up the system air reserves. This is not recommended unless facing adverse conditions. This can result in insufficient application pressure should an emergency arise.
16. Hard or panic stops can overheat the linings and drums. Overheating will reduce the brakes life expectancy.

Loading/Unloading Safety

Loading

- Do not drop load on trailer to prevent damaging sides or conveyor.
- Use common sense when loading material containing large rocks or frozen chunks. Trout River Trailers are suitable for materials up to 6" in diameter.
- Do not exceed total load carrying specifications for the trailer.
- Do not load trailer in excess of the gross vehicle weight shown on the certification plate.

Unloading

- Move the truck forward as the pile builds to provide faster and more complete unload.
- Ensure that the rear of trailer is clear of individuals and obstructions before opening tailgate.
- Never enter the trailer while it is unloading.



Tailgate Safety

When accessing the rear of the trailer, the tailgate is a hazard. All new Live Bottom trailers come with a "Ground Level Lockout". This means the tailgate can easily be locked in the upward position to ensure safety. Below are instructions on how to lock out your tailgate:

1. Open the tailgate.
2. Move the pin in lockout tube to the top hole to lock the tailgate in the upward position.
3. Shut off air supply to the tailgate. You should see the tailgate relax on the lockout pin.
4. Once finished at the rear of the trailer, do these steps in the reverse order to unlock tailgate



Tailgate

- The tailgate is a potential hazard when opening or closing, as it opens and closes with speed and force. There are also many pinch points on the different tailgates we offer.
- Be very careful when opening or closing the tailgate that you, and everyone else is clear of the tailgate.
 - We also offer tailgates that open and move as 2 or more parts. Inspect your tailgate to determine the dangers it presents.
- Also, on or near the tailgate are the door locks.
 - These move quickly and powerfully and would have the ability to cause injury if a body part were caught in it.
 - Keep clear when locking the tailgate.



Coupling

Step 1: Inspect the Fifth Wheel

- Check for damaged or missing parts.
- Check to see that mounting to tractor is secure; no cracks in the frame etc.
- Be sure that the fifth wheel plate is greased as required. Failure to keep the fifth wheel plate lubricated could cause steering problems because of friction between the tractor and the trailer.
- Check if the fifth wheel plate is in proper position for coupling:
 - Wheel tilted down towards the rear of the tractor.
 - Jaws opened.
 - Safety unlocking handle in the automatic lock position
 - If you have the sliding fifth wheel, make sure it is locked.
 - Make sure the trailer kingpin is not damaged or worn.

Step 2: Inspect area and chock wheels.

- Make sure the area around the vehicle is clear.
- Be sure the trailer parking brakes are applied.

Step 3: Position tractor

- Back the tractor directly in front of the trailer (Never back under the trailer at an angle, because you might push the trailer sideways and damage the support legs)
- Check position, using outside mirrors, by looking down both sides of the trailer.

Step 4: Back slowly

- Back until the fifth wheel just touches the trailer.
- Do not hit the trailer.

Step 5: Secure tractor

- Put on parking brake.
- Put transmission into neutral.
- Be sure the trailer is securely attached to towing vehicle and locked in position.

Step 6: Check trailer coupler height

- The trailer should be low enough so that it is raised slightly by the tractor when the tractor is backed under it. Raise or lower the trailer as needed. (If the trailer is too low, the tractor may strike and damage the trailer; if the trailer is too high, it may not couple correctly)
- Check that the kingpin and fifth wheel are aligned.

Note: Before coupling your Trout River trailer, it is important to verify that the fifth wheel coupling height is compatible with the trailer height. Too high or too low fifth wheel coupling may result in premature wearing of tires, breaks, bearings, etc.

Step 7: Connect air lines to trailer.

- Check glad hand seals and connect tractor supply airline to trailer supply glad hand.
- Check glad hand seals and connect tractor control airline to trailer control glad hand.
- Make sure air lines are safely supported where they will not be crushed or caught while the tractor is backing under the trailer

Step 8: Supply air to the trailer

- From the cab, push in "Air Supply" knob or move tractor protection control valve from the "Emergency" to the "Normal" position to supply air to the trailer braking system.
- Wait until the pressure is normal.
- Check the brake system for chafed air lines:
 - Shut the engine off so you can hear leaks in the brake system.
 - Apply and release trailer brakes. Listen to the trailer brakes being applied and released. You should hear the brakes move when applied and air escape when the brakes are released.
 - When you are sure the trailer brakes are working, start the engine.
 - Make sure air pressure is normal.
 - Sufficient slack for turns.

Step 9: Lock trailer brakes

- Pull out the "Air Supply" knob or move the tractor protection control valve from "Normal" to "Emergency"

Step 10: Back under trailer

- Use the lowest reverse gear.
- Back tractor slowly under trailer to avoid hitting the kingpin too hard.
- Stop when the kingpin is locked into the fifth wheel.

Step 11: Check connection for security

- Raise the trailer support legs slightly off the ground.
- Pull tractor gently forward while the trailer brakes are still applied.

Step 12: Secure tractor

- Put transmission into neutral.
- Put parking brakes on
- Shut off the engine and take the key with you so someone else will not move the tractor and trailer while you are under it.

Step 13: Inspect coupling.

- Use a flashlight if necessary.
- Make sure there is no space between the upper coupler and fifth wheel. If there is space, there is something wrong (kingpin may be on top of closed fifth wheel jaws; trailer could come loose easily)
- Go under the trailer and look into the back of the fifth wheel. Make sure the fifth wheel jaws have closed around the shank of the kingpin.
- Check that the locking lever is in "lock" position.
- Check that the safety catch is in position over locking lever (On some fifth wheels, the catch must be put in place by hand)
- If the coupling is not right, do not drive the coupled unit; get it fixed.

Step 14: Connect the electrical cord.

- Plug the electrical cord into the trailer and fasten the safety catch.
- Check both electrical lines and air supply lines for signs of damage. Replace or repair if necessary.
- Make sure air and electrical lines will not hit any moving parts of vehicle.

Step 15: Connect hydraulic lines.

- Connect hydraulic return line first. Verify that the connection is complete. Failure to provide proper return line connection will create back pressure in the motor. This will cause motor seal failure and hydraulic leakage. Always connect the return line first
- Connect hydraulic supply line. Verify that the connection is complete.
- Check and secure hydraulic lines to eliminate the possibility of them becoming entangled on the truck frame or other objects.

Step 16: Raise trailer support legs (Landing Gear)

- Use low-gear range (if so equipped) to begin raising the support legs. Once free of weight, switch to high gear range. Raise the support legs all the way up. (Never drive with support legs only part way up as they may catch on railroad tracks or other things)
- After raising the support legs, properly secure the crank handle.
- With the front of the trailer supported by the tractor:
 - Check for enough clearance between the rear of tractor frame and support legs. (When tractor turns sharply, it must not hit the support legs or their bracing)
 - Check that there is adequate clearance between the top of the tractor tires and the underside of the trailer.

Service and Maintenance

Uncoupling

Step 1: Position rig

- Make sure the surface of the parking area can support the weight of the trailer.
- Place tractor in a straight line with the trailer. (Pulling out on an angle can damage the support legs)

Step 2: Ease pressure on locking jaws

- Shut off trailer air supply to lock trailer brakes.
- Ease pressure on the fifth wheel locking jaws by backing up gently (this will help you release the fifth wheel locking lever)
- Put parking brakes on while the tractor is pushing against the kingpin. This will hold rig with pressure off locking jaws.

Step 3: Lower the support legs.

- Lower the support legs until they make firm contact with the ground. Turn crank in low gear a few extra turns. This will lift some weight off the tractor. (Do not lift the trailer off the fifth wheel). This will:
 - make it easier to unlatch the fifth wheel.
 - make it easier to couple next time.

Step 4: Disconnect hydraulic, air and electrical lines.

- Disconnect air lines from trailer.
- Hang electrical cable with plug down to prevent moisture from entering it.
- Make sure the lines are supported so they will not be damaged while driving the tractor.
- Uncouple hydraulic lines.

Step 5: Unlock fifth wheel.

- Raise release handle lock.
- Pull the release handle to "open" position.
- Keep legs and feet clear of the rear tractor wheels to avoid serious injury in case the vehicle moves.

Step 6: Pull tractor partially clear of trailer.

- Pull the tractor forward until the fifth wheel comes out from under the trailer.
- Stop with tractor frame under trailer (prevents the trailer from falling to ground, if the legs should collapse or sink)

Step 7: Secure tractor

- Apply parking brakes.
- Place transmission in neutral.

Step 8: Inspect trailer support.

- Make sure the ground is supporting the trailer.
- Make sure support legs are not damaged.

Step 9: Pull tractor from trailer.

- Release parking brakes.
- Check and drive tractor clear.

Materials Hauled

With our multi-purpose belt, and hardened steel tub walls, the Trout River trailer can haul a vast assortment of materials. For this reason, it is easier to list things you cannot haul.

- Although the tub has seals, and may seem to be watertight, we don't recommend hauling liquids, as they may leak out during transport.
- We recommend not hauling materials that are over 6" in diameter, as damages may occur during entry and exit of trailer.
- Anything hotter than asphalt, which is roughly 150 Celsius (300 Fahrenheit), should not be hauled in the trout river trailer, as it can damage the belt, and seals.
- No scrap steel, or demolition material, as this can rip the belt, and damage the conveyor system.



Rear lift

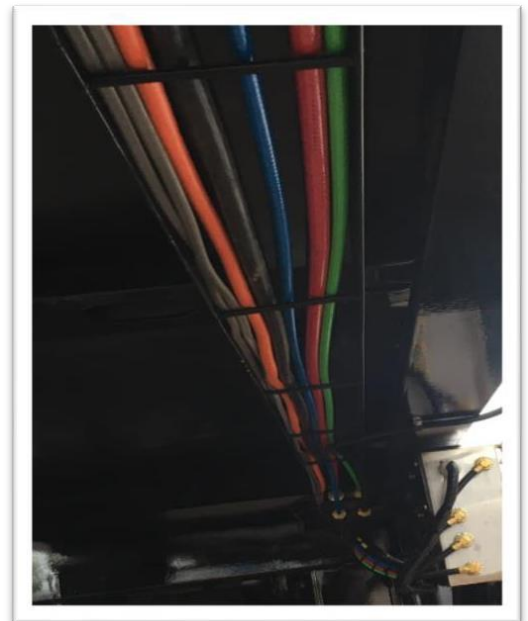
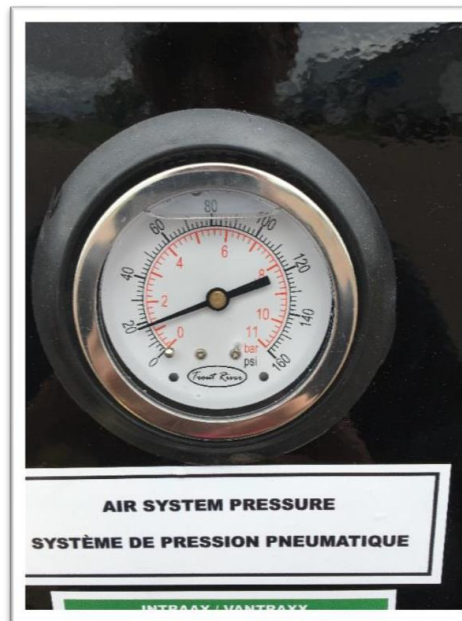
The rear lift has all dangers associated with a standard live bottom, but with the following added.

- The rear lift uses 2 hydraulic cylinders to lift the rear of the tub up in the air. The tub stays connected to the bogie by 2 pivoting frames, 1 of which slides.
 - Pinch points on the rear lift mechanism are slow moving, but dangerous, as there is a lot of weight and force associated with each.
 - ***To stay safe, do not go in, or near, the rear lift as it lifts or lowers.***
- The most obvious pinch point would be *between the tub, the bogie, and the x braced frames.*
 - The front frame is actually 2 separate pieces connected by a slider, which could shear anything that happened to get caught in it.
- The cylinders pivot slightly, which creates a potential pinch point between the cylinder and the lower cylinder mount, or the fenders.
- Never get between tub and bogie, when lifted, unless tub is propped up with a strong “prop rod” and has no risk of falling.
- Be aware that as the tub rises, the bogie moves forward.
 - When lifting or lowering the tub, be sure no one is in the path of the bogie.



Air system

- The trailers air system can be dangerous.
 - If air enters the blood stream, it could cause death.
 - An air blowout could cause partial or total loss of sight or hearing.
- Replace any damaged air system components immediately.
- Many air components contain powerful springs, such as the brake cans.
 - Care should be taken when working with or near these components.



Electrical system

- The trailers electrical runs on 12 volts
- Although 12v is generally fairly harmless, many injuries from electrical shock are secondary injuries.
 - Examples of this would be jerking your hand away and cutting your arm on something sharp, falling off a ladder, etc.
- Be aware of your surroundings when connecting/disconnecting/maintaining electrical systems.
- Do not work "hot" unless necessary.

Conveyor system

- All moving parts can be dangerous.
- Be aware of all points where the conveyor system is exposed, each pose a potential threat.
 - Some of these points are: Inspection doors, the front of the trailer where the oilers are located, seals at the front and rear inside of the trailer, belt scraper, and most points underneath the trailer.
- Never enter trailer with conveyor in operation
- Never go under the trailer with conveyor in operation
- When the conveyor is running be sure to keep all body parts, clothing, hair etc. clear of inspection doors, conveyor belt, or any other moving parts; failure to do so could result in serious injury.



Maintenance Schedule

	Every Day Or ~ 5 Loads	Every week Or ~ 25 Loads	Every Month Or ~ 110 Loads	Every 3 Months Or ~ 330 Loads	Every 6 Months Or ~ 660 Loads	Every 12 Months Or ~ 1300 Loads
Inspect the main hydraulic connections	X	X	X	X	X	X
Oil the conveyor chain	X	X	X	X	X	X
Inspect the conveyor	X	X	X	X	X	X
Grease the trailer (including tarp system)		X	X	X	X	X
Inspect & adjust the oiler system			X	X	X	X
Wash the conveyor system			X	X	X	X
Check tarp cable tension (end to end system)			X	X	X	X
Check the conveyor chain tension				X	X	X
Inspect the conveyor seals					X	X
Change the gearbox oil						X

Step 1: Pressure wash complete trailer, including the conveyor system.

- The trailer must be hooked up to hydraulic power source.

- Turn on the conveyor and pressure wash both chains through the inspection doors.
- Be sure to remove all buildup of grime on conveyor system

Step 2: Inspect Tub and Bogey

- Once washed, do a complete walkaround inspecting all structural components, and components associated with the tub.
- Look for cracks, bends, excessive rust, missing bolts, or other damage of any sort.
- These steps require a ladder, and a flashlight.
- If damage is found, contact us for repair procedures.
- Below are some suggested areas to inspect but not limited to:

Exterior:

- ☐ Bogey
- ☐ Bogey clamps
- ☐ Frame rails
- ☐ Ribs/sidewalls
- ☐ Top rail
- ☐ Tarp components
- ☐ Tailgate and opening mechanism (check function by opening and closing)
- ☐ Front wall
- ☐ Fifth wheel plate and pin
- ☐ Tub/bogey crossmembers
- ☐ Fender hangers
- ☐ Axle hangers
- ☐ Landing gear and mounts

Interior:

- With tarp closed, conveyor off, and tailgate opened and locked, enter the rear of the trailer.
 - ☐ Belt seals and seal plates
 - ☐ Tailgate seal
 - ☐ Tub crossbar
 - ☐ Top rail
 - ☐ Tub walls
 - ☐ Tarp components

Step 3: Inspect Electrical, Air, and Hydraulic Systems

Please note that not every trailer will have all the parts listed below.

- Turn on all indicator lamps and check for damaged/ burnt out lights.
- Check wire tray (under trailer) for damaged:
 - ☐ Wires
 - ☐ Air lines
- Check all air powered mechanisms for damaged:
 - ☐ Lines
 - ☐ Cans
 - ☐ Tanks
 - ☐ Bags
 - ☐ Cylinders
- Inspect complete hydraulic system for damage or any sign of leakage
 - ☐ Fittings
 - ☐ Steel lines
 - ☐ Rubber lines
 - ☐ Valves
 - ☐ Motors
 - ☐ Cylinders
- Keep in mind that ***air*** and ***hydraulic*** systems run at high pressures and are various pieces with heavily preloaded springs. If there are any damaged components, they could be ***extremely*** dangerous and should be replaced ***immediately***.

Grease Points

- Standard axle (4 grease points)
 - Slack adjuster
 - S cam shaft
- Steer Axle (up to 12 grease points)
 - Kingpin (top and bottom)
 - Tie rod ends
 - Brakes
 - Lever arms
- Landing Gear (5 grease points)
 - 2 on each leg
 - 1 on the gearbox
- Tailgate Hinge (2 grease points)
 - 1 per side, relocated to the bottom of the rear rib for easy access.
- Latch Mechanism (4 grease points)
 - 2 per side
- Rear Shaft Bearing (1 Grease point)
- Front Shaft Bearings (2 grease points)
 - Front bearings come from our factory with plugs installed. To grease front bearings, plugs must be removed, and grease nipples installed.
 - **DO NOT OVER GREASE**; any more than 2-3 shots of grease will pop seals out and WILL result in premature bearing failure. When finished, reinstall plugs. Bearings are located under the front fender, on either side of the front shaft (1 per side)
- Tarp System (up to 7 grease points)
 - Tarp shaft
 - Universal joints
 - Sliders
- Inspection doors (4 grease points)
 - 2 per door
- Mudflap Lifting Mechanism (2 grease points)
 - One per side

Landing Gear

- The landing gear of the trailer has 5 grease points in total. 3 on the crank handle side, and 2 on the plain side



Tailgate Hinge

- Each tailgate hinge has a relocated grease point, which is on the side of each rear rib for easy access (1 per side)



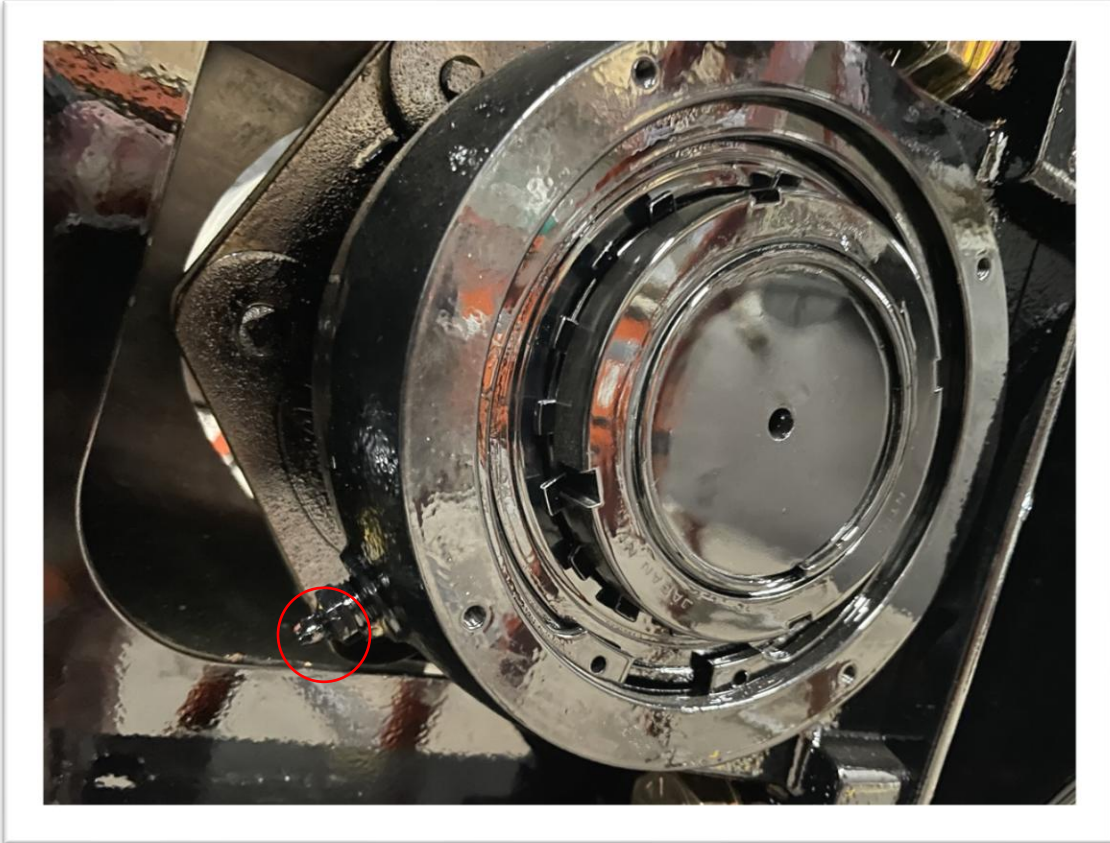
Latch Mechanism

- The tailgate latch mechanism has 4 grease points total which are located on the rear of the trailer, directly above the drive shaft (2 per side)



Rear Shaft Bearing

- The rear (drive) shaft has 1 greaseable bearing located opposite the gearbox, generally on the right (curbside) rear of the trailer.



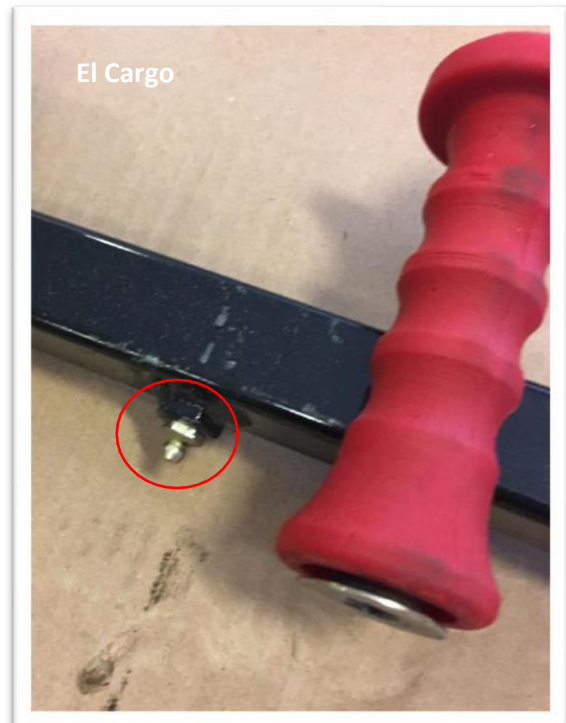
Front Shaft Bearings

- The front bearing comes from our factory with plugs installed. To grease front bearings, plugs must be removed and grease nipples installed.
- **DO NOT OVERGREASE**; any more than 2-3 shots of grease will pop seals out and **WILL** result in premature bearing failure. When finished reinstall plugs. Bearings are located under the front fender, on either side of the front shaft (1 per side)



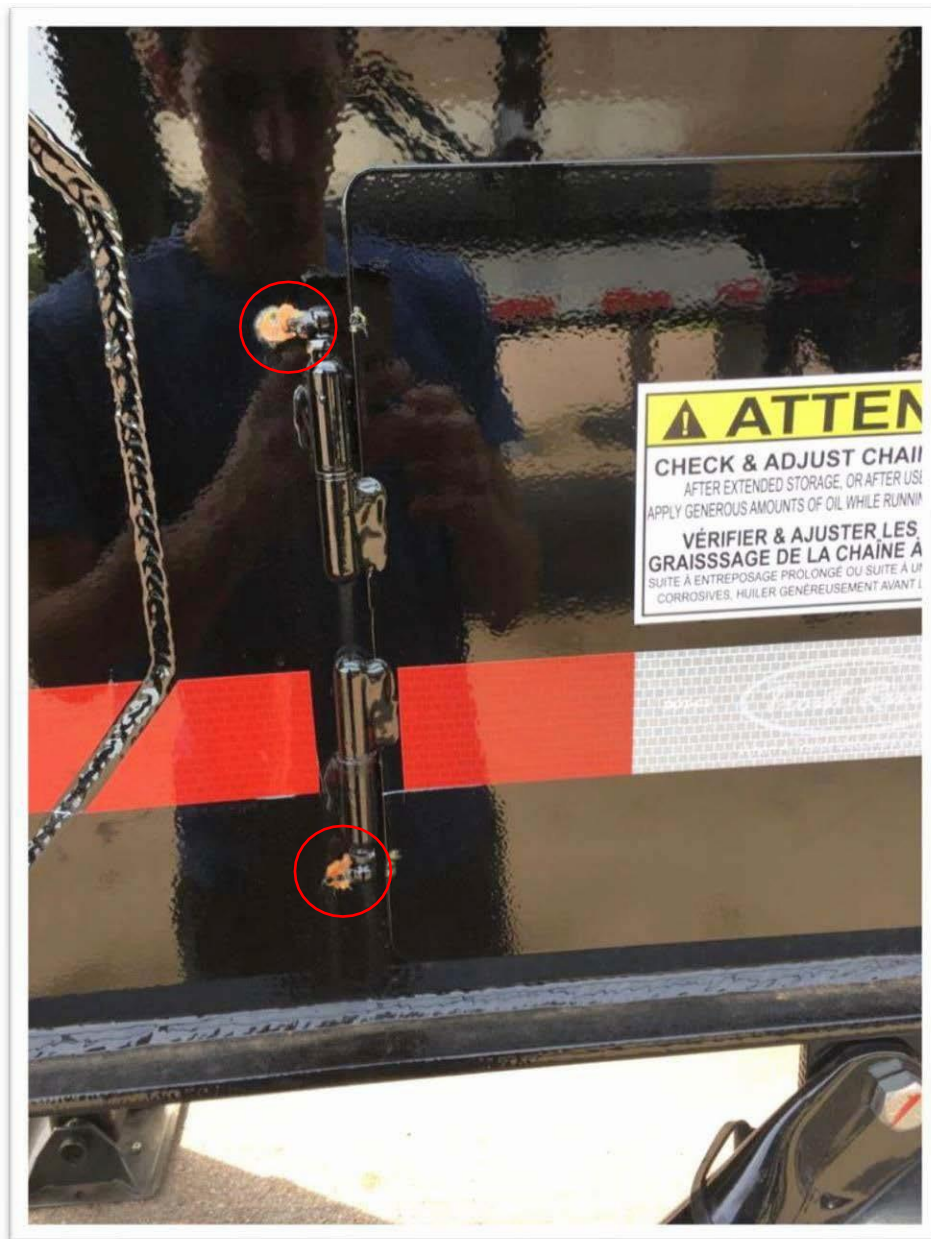
Tarp System

- Depending on the tarp system installed there could be as many as 7 grease points.
- Our two main tarp systems are *Cramaro* (4 grease points) and *El Cargo* (7 grease points)



Inspection doors

- Each of the inspection doors are hinged on 2 bullet hinges, 4 grease nipples total (2 per side)
 - 1 grease nipple per hinge



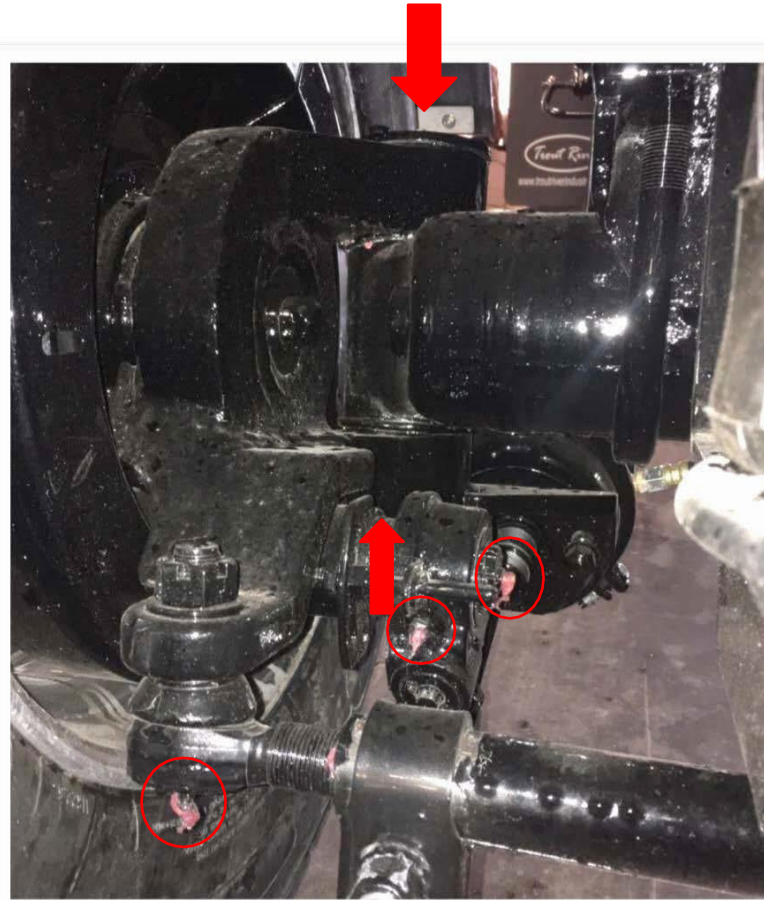
Standard axle

- Each regular fixed axle, or non-steerable lift axle both have 4 grease points on each axle (2 per side)



Steer Axle

Each liftable steer axle has 12 grease points per axle (6 per side)



Trailer Controls

The following are all the controls associated with the operation of the Live Bottom trailer.

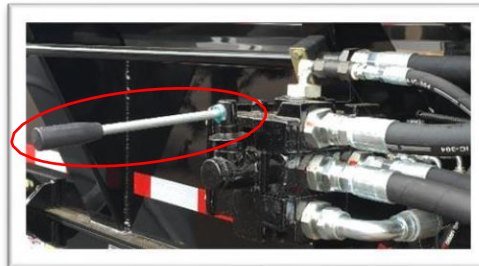
Tailgate

The standard air tailgate can be manually opened from the air control box. The red knob pictured below must be turned to open the tailgate. The tailgate and locks are plumbed together, so one knob can power both.



Hydraulics

The belt of the trailer can be operated manually with the lever on the rear roadside of the trailer. Moving the lever up will reverse the belt and moving it down will unload the trailer.



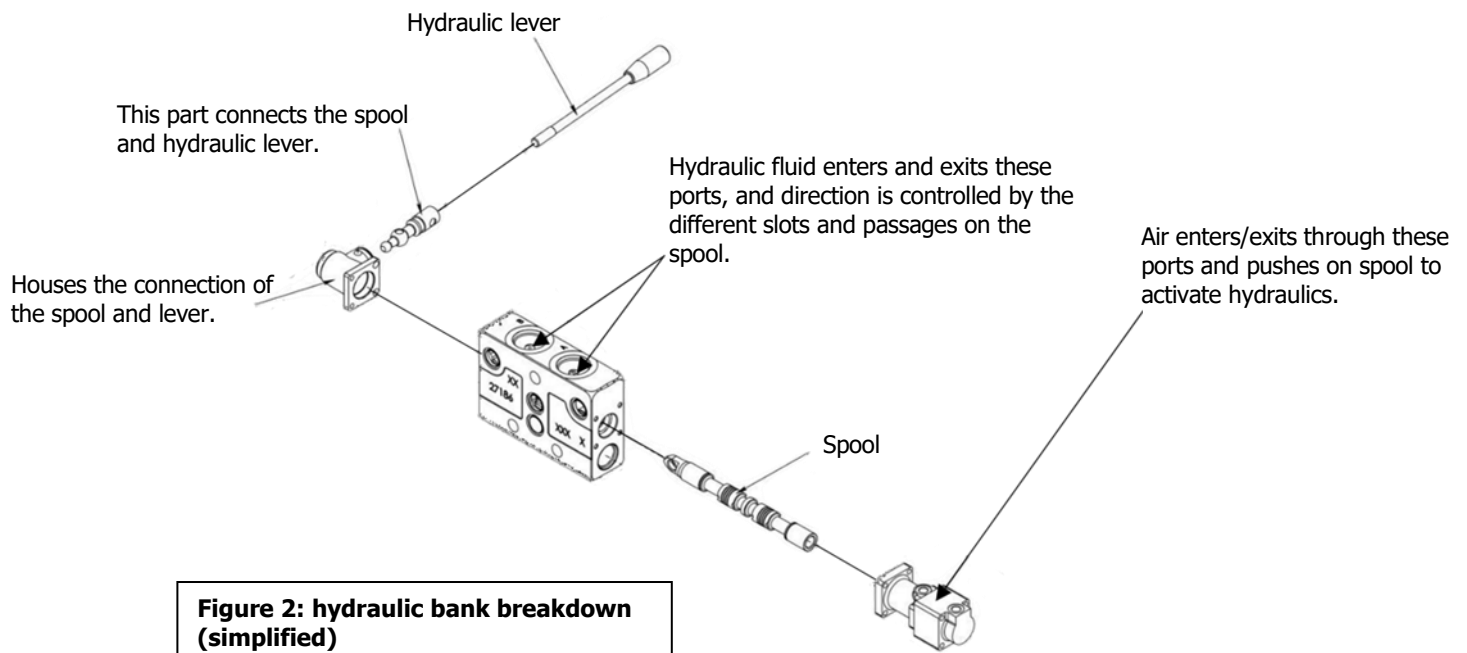
Auto-belt

In front of the hydraulic valve on all new Live Bottom trailers, there is a yellow handled air valve. This is the auto-belt lever. When engaged, the belt will be activated automatically as soon as the tailgate is opened. If a tailgate switch is wired into the truck, this means the trailer can be operated from the truck. Note: It is the operators responsibility to ensure the tailgate is open before engaging the hydraulics/ PTO. Failure to do so could result in tailgate damage which is not covered under warranty.



Auto-belt information

- Our "auto-belt" system is powered by air over hydraulics.
- When activated, the auto-belt operates with the tailgate; as the tailgate opens, belt turns on, when tailgate closes, belt shuts off.
- Lever is located on the rear roadside of the trailer, in front of the hydraulic valve (Figure 1)
- The auto-belt is activated by rotating the ball valve (yellow) handle downward.
- When the auto-belt lever is activated, it allows air to push the hydraulic spool to the operating position (Figure 2)
 - The "spool" is what the hydraulic lever is connected to.



Tarp System

- There are 2 types of tarps available on a Trout River Trailer
 - "End to End" or a "Side Roll Over" tarp
- Both systems are available with either manual controls or with an electric motor. Neither are designed to level off loads.
 - If it is used in this manner, damage will occur to the tarp and the electric motor (If installed)
 - Using the tarp in this way will void any warranty on the tarp system
- To operate electric tarps, power must be supplied to the tarp plug on the front of the trailer, see the diagram on the next page.



El Cargo side roll

Daily:

- Look at the general condition of the system and ensure all components are not worn out or damaged (torn, cracked, dented, bent).
- Inspect wear and tear of the tarp.
- Ensure all screws and bolts are in place and well tightened.

Monthly:

- Ensure bearings, and universal joints turn freely with no excessive operating gaps.
- Lubricate the bearings with quality lubrication oil.
- Grease the universal joints.
- Make sure the horizontal telescopic tube slides easily and does not get stuck or seize.
- Grease the sliding junction.
- Make sure all springs are in good shape and function normally.
- Verify that cables are not frayed or are about to break.

NOTICE

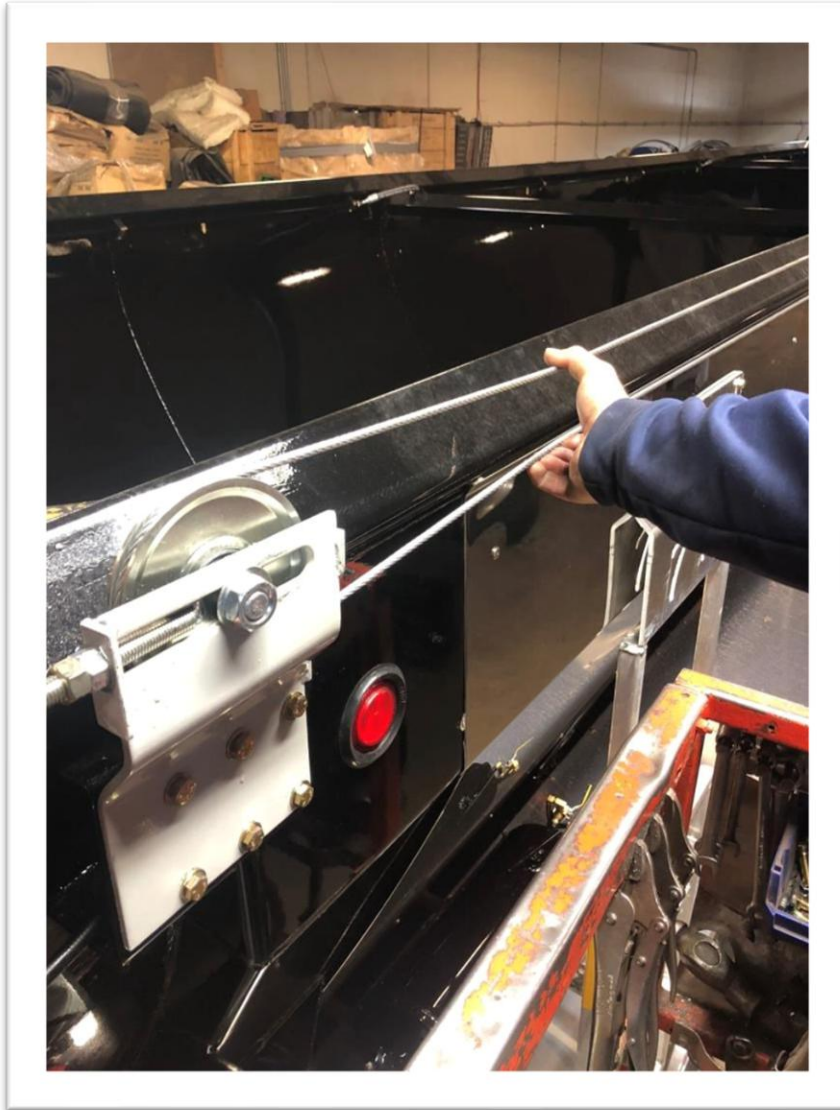
- Replace all used or damaged parts immediately.
- All repairs must be performed as per the appropriate instructions.

Replacement parts and instructions can be obtained from your *Elcargo* distributor or by contacting *Elcargo Fabrication Inc.*



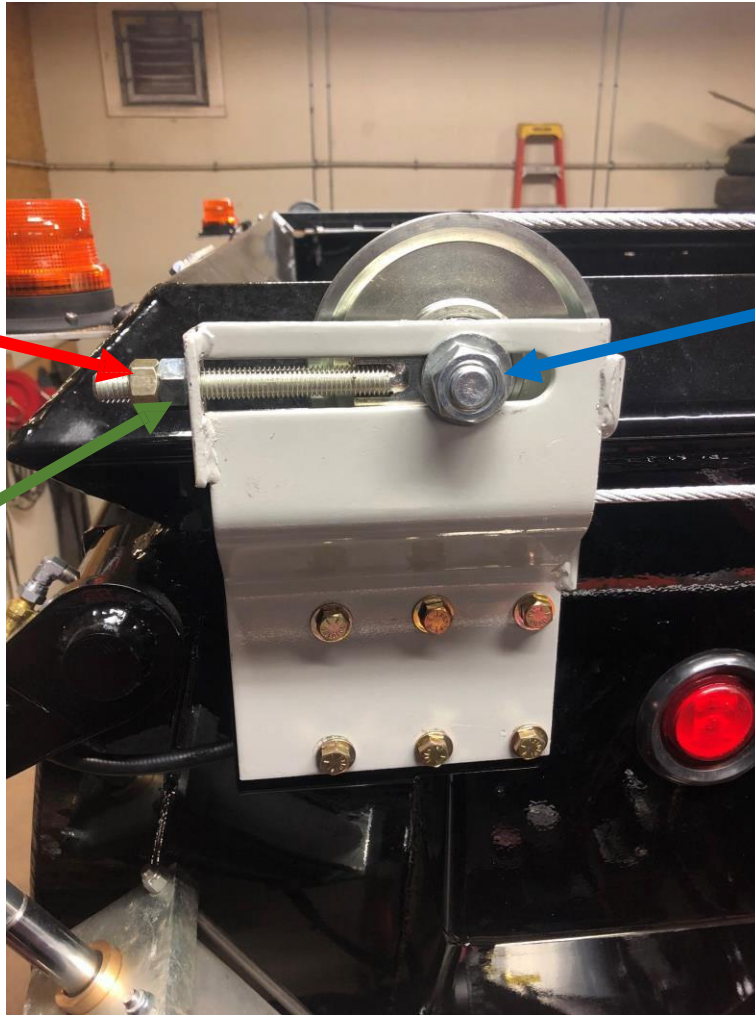
Tarp Cable Maintenance

Begin by checking your cable tension. Do so roughly 18" away from the rear adjuster pulley. Using your index finger, middle finger and thumb, try to squeeze the cables together. You should be able to squeeze the cables together by roughly 1". If you can squeeze them together more than that they will need to be adjusted.



Tarp Cable Adjustment

To adjust the tarp cables, begin by removing the **SECOND NUT** on the rear threaded rod of the adjuster. Once removed, loosen the **NUT/BOLT** that goes through the tarp pulley. With the nut/bolt loose, tighten the **BOLT** on the rear threaded rod until desired tension is reached. Once the desired tension is reached, tighten the nut/bolt going through the pulley and reinstall the second nut back onto the rear threaded rod. Tools required for this job will be a 1 1/8" wrench, 3/4" socket, and an impact gun.



Periodic Tarp Maintenance

On end-to-end tarp systems, there are some items that need to be checked periodically. Failure to consistently maintain your tarp system could add strain to the tarp motor, resulting in it failing prematurely.

1. Lube cables with greaseless silicone spray every two - three weeks. Lube drive chain with chain lube.
2. Take note that the tarp alignment keeps straight, and the cables remain tight.
3. Do not use tarp to level load. (This will send tarp out of alignment which can cause premature motor failure)

To re-align tarp system

If the tarp system happens to go out of alignment, re-align with the instructions that follow:

1. Run tarp to front of trailer.
2. Loosen cable at rear of whichever side did not reach all the way to the front.
3. Run tarp about 4-5 feet toward rear of trailer.
4. Run tarp back to the front with the cable loose, this should allow the cable to slip on the pulley and should straighten the tarp.
5. Tighten the cable.
6. Run the tarp to the rear and check to see if the tarp is now straight.



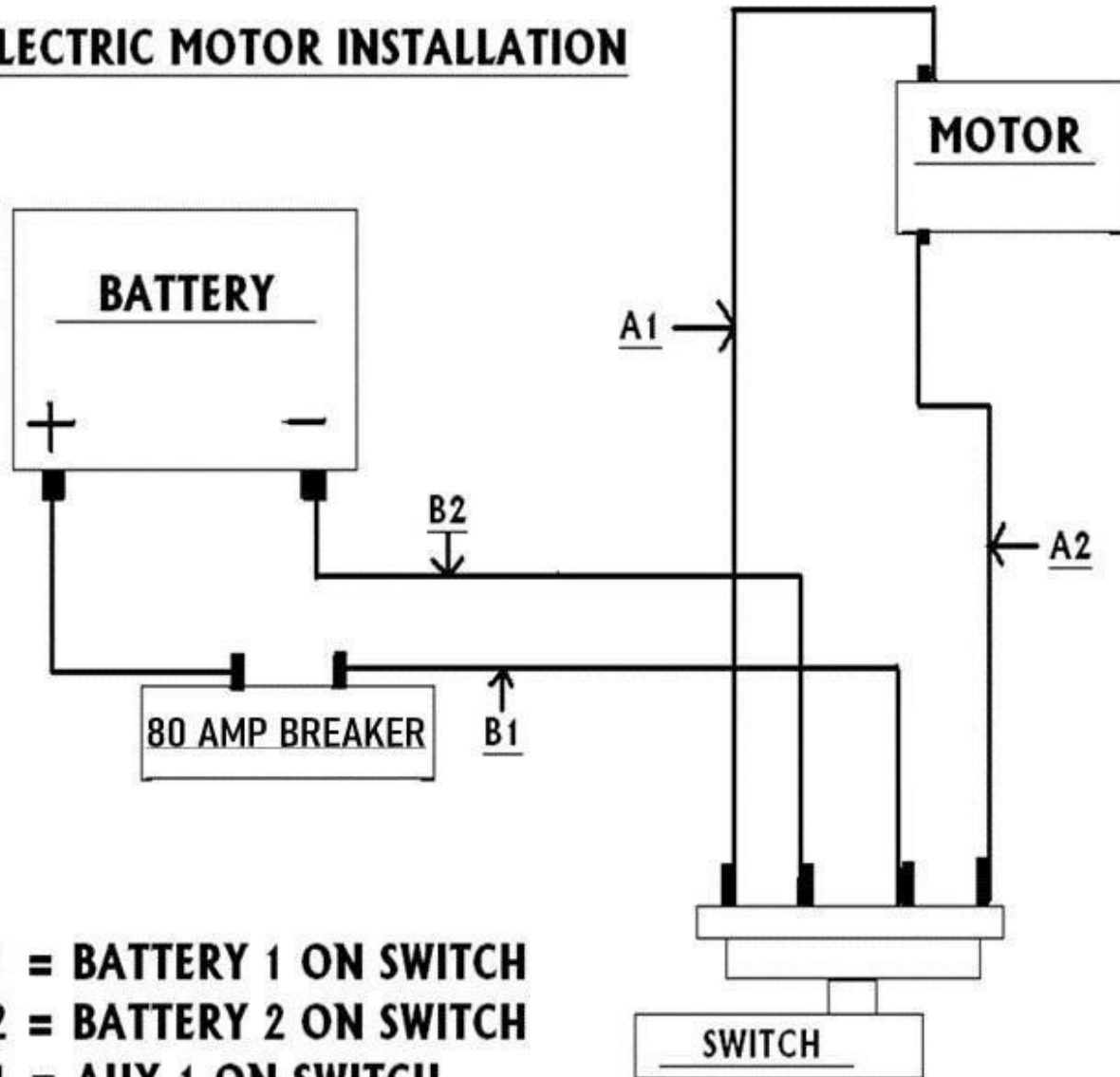
Rules regarding tarps

- Keep load level below tarp, as depicted below.
 - Do not use the tarp to level load.
 - This could result in stretching or breaking of cables, bending of crossbars/ rollers, tarp being ripped, or motors being burnt out.



- Never store tarp in opened position
- Tarp must be fully closed when driving, whether the trailer is loaded or empty.
 - Wind could get under an open tarp and rip it off.

Electric Tarp Motor Diagram

ELECTRIC MOTOR INSTALLATION

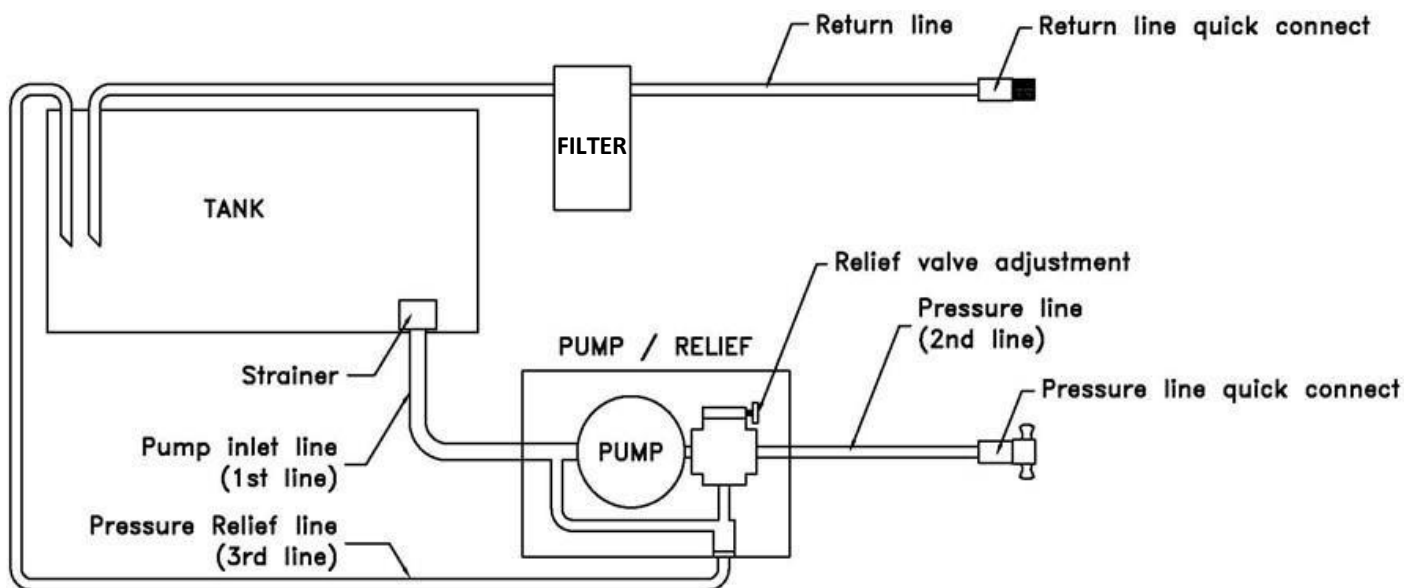
B1 = BATTERY 1 ON SWITCH
B2 = BATTERY 2 ON SWITCH
A1 = AUX 1 ON SWITCH
A2 = AUX 2 ON SWITCH

Hydraulics

Introduction

1. The trailer Hydraulic System runs from the wet-line kit of your truck.
2. Make sure you connect the return line first.
3. The system should run at 2800 PSI. Max.
4. It is extremely important your system runs on clean hydraulic oil of the right WHT(32) with the proper pump pressure otherwise it can cause damage to the system. (Motor, Valve, and Oiler System)

Schematic



Hydraulic Drive System (Wet-line) Diagram

Contact Trout River for additional info and specs.

Supply/Pressure Line

Return Line

6" Console with
high/low settings

75 gallon aluminum
Tank with diffuser

Dual filter head with
filter gauge

120% PTO



3000 psi pump

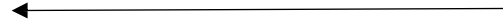


Combo valve



Hydraulic Drive System - Common Problems

The tank is placed too far away from the pump. This increases friction and reduces flow. 6-8' is optimal



The PTO was taken off another piece of equipment and is only rated at 75%. This equals less flow of oil.



The return line has been "T"ed at the suction side of the hydraulic tank. This results in overheating.



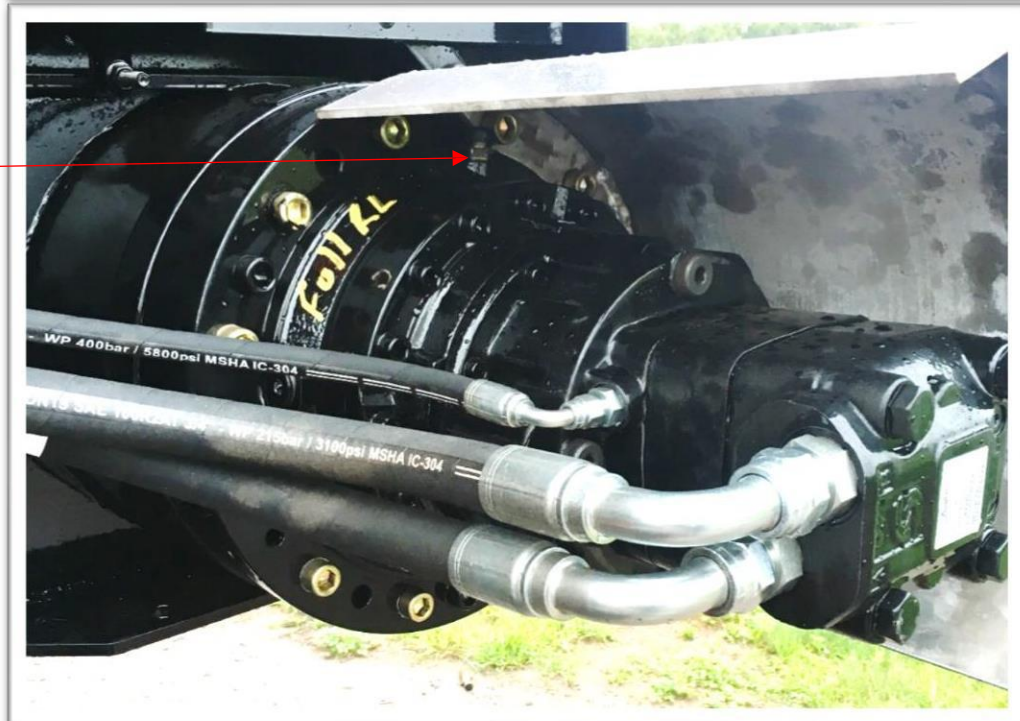
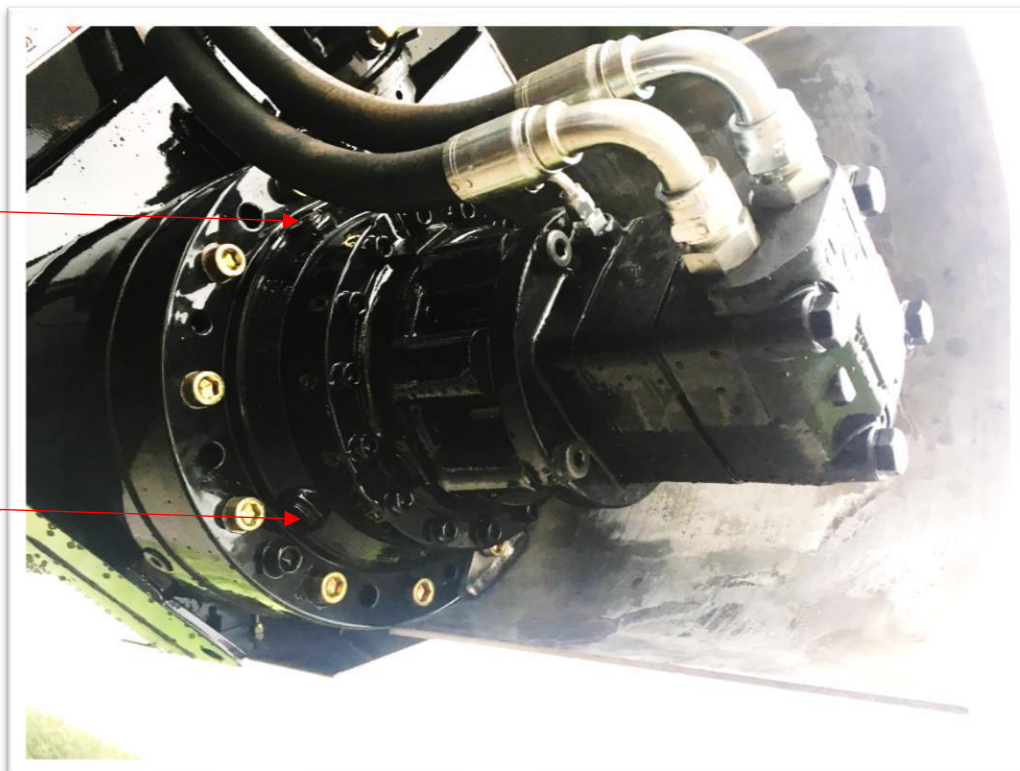
The 2" line from the tank to the suction side of the pump has been reduced to a 1" line. This will reduce flow by 4 times.



Gearbox Maintenance

The directions in this step are for a Trout River Live Bottom, if your trailer is not a Trout River Live Bottom, contact your trailers manufacturer for the proper procedure

- Drain and replace the gearbox oil. Use 8mm hex key to remove and replace drain and fill plugs.
- Use $\frac{3}{4}$ " wrench to remove gearbox vent and be sure it isn't plugged before reinstalling.
- Inspect gearbox for leaks or damage.



Planetary gearbox

MAINTENANCE

Change oil after the first 100 hours of work, other Changes after 2000 hours or at least once per year. Drain the gearbox immediately after working when the oil is still warm in order to avoid the deposit of sludge. Clean the plugs, Especially the magnetic plugs. It is recommended to wash The gearbox inside with a Detergent before refilling it with the new oil. **(80W-90)**

INSTRUCTIONS

- (1)** Remove drain plug from the underside of gearbox. **(best when warm)**. Let drain completely, and reinstall drain plug.
- (2)** Remove top vent plug and plug on right side of gearbox. Fill gearbox in top hole with **(80W-90)** gear oil until in begins to come out the plug hole on the right. Then reinstall the plug on the side then reinstall the vent plug in the top. **Be sure not to loose the copper washers on the plugs removed from the gearbox.**
- (3)** Run the conveyer system till gear oil is warm then check over your hydraulic system for leaking components.

Proper Hydraulic Coupling

2. Always make sure that hydraulic couplers are clean and free of contaminates.
3. Contaminated hydraulic oil will cause component failure.



4. Fittings in this section are labeled as they are installed on all Trout River Trailers. We recommend that they remain this way.
5. The hydraulic return and the hydraulic supply lines should always have different fittings installed so that they never get mixed up when coupling.
- **Coupling improperly will cause severe component damage.**



1. Be sure that connections are completely Tightened and secure. If not coupled properly, oil restriction will cause damage to vital hydraulic components.



From the Rear of the Trailer

- The tailgate needs to be open before starting the belt, failure to open the tailgate before unloading could cause damage.
 - If the trailer has them, make sure the Manual Tailgate Safety Locks (Compression Locks) are not positioned closed.
 - To open the tailgate there is a switch in the air control box to do so.
- Underneath the trailer there is a wiper seal that may need adjusting from time to time. If it is not touching the belt constantly, it should be adjusted.
 - The Wiper seal may need to be cleaned from time to time as well.
 - For adjustment procedure contact Trout River Industries



Inspect Conveyor

- Run conveyor system. As always, keep clear of moving parts to prevent injury.
- From the rear of the trailer inspect:
 - ☐ Belt surface for damage.
 - ☐ Where belt meets tub seals for damage
- From the inspection door inspect:
 - ☐ Chain for potential damage
 - ☐ Crossbars that are bent/ missing Teflon pucks
- From the front of the trailer inspect:
 - ☐ Oiler brushes - Be sure bristles are engaged with chain on both sides of the trailer.
 - ☐ Oiler valve
 - ☐ Oiler lines
- Turn on the on-board chain oiler. Be sure that the flow of oil is sufficient (slightly more than a steady drip)
- Through the inspection door, manually spray a heavy oil/open gear lube/chain lube, on chain to prevent corrosion, and seizing up during off season.
 - Do this on each side of the trailer.
 - **Note: Although the trailer is equipped with on-board chain lubrication, this is an added measure of protection**
- When oiling is complete shut off the oiler, and conveyor.

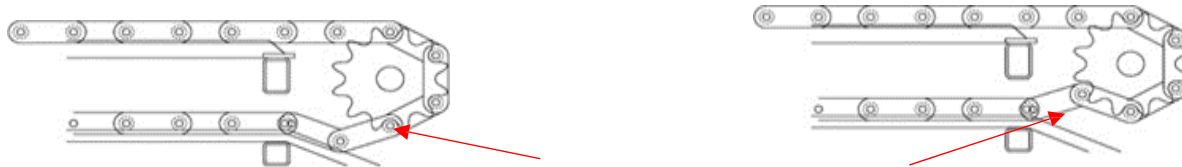
Checking the Conveyor Chain Tension

- 1) Open inspection door and inspect chain.
- 2) Use a prybar through the inspection door, and pry on the bottom half of the chain.
- 3) If the chain links pivot visibly, chain needs more tension (Figure 1)
- 4) If chain all moves up and down as one unit visibly, then it is at the proper tension (Figure 2)
- 5) In the event that your chain needs to be adjusted see the Adjusting the Chain Tension procedure

If all of the chain goes up without kinking at any roller, the chain tension is ok.

If chain kinks refer to chain tightening instructions on next page, repeat steps until chain is at desired tension. While checking the chain tension, ensure the chain is well oiled.

Incorrect Tension: If your chain is coming off the back sprocket as shown below, it needs to be attended to.



- The drawings above, where the chain is falling off or riding up on the rear sprocket, indicate that adjustment to the chain is required to avoid problems.
- It is recommended that the tension of the chain be checked weekly when doing general maintenance, however, it is unlikely that adjustment will be required often.
- The next page shows the proper way to tension your chain



From the Inspection Door

Your Trout River Live Bottom is equipped with two 16-inch inspection doors. These doors allow you to check the chain for oil and for bent crossbars. The chain should be coated with oil at all times. If it is not oiled on a regular basis, the chain will fail.

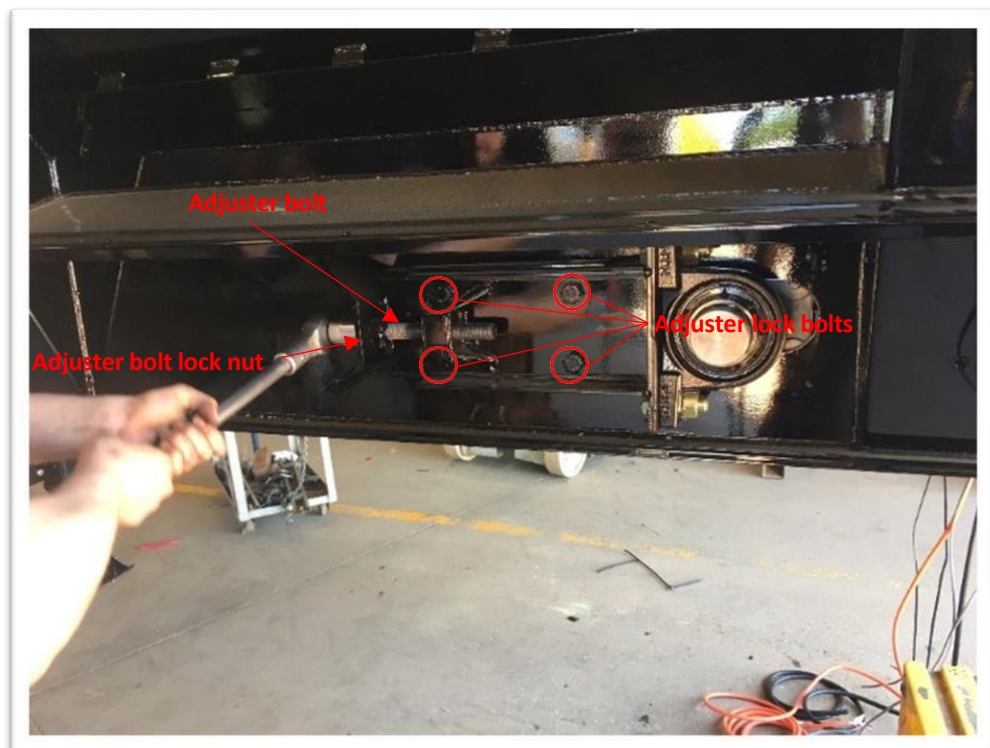
Open the inspection doors and run the conveyor daily to see if there are any bent crossbars. The chain assembly can run for a short time with one missing crossbar as long as there aren't two crossbars bent consecutively. If not repaired, bent bars can cause major damage to the conveyor system.



Adjusting the Conveyor Chain Tension

Having the chain tensioned properly is crucial to conveyor life. Having the conveyor too loose will lead to premature wear, and potential breakage, especially when reversing conveyor. On the previous page we discussed what the proper chain tension looks like. If your chain is loose, the following steps must be taken to tension the chain.

- Loosen the 4 adjuster lock bolts.
- Loosen adjuster bolt lock nut.
- Turn adjuster bolt until proper tension is reached.
- Lock down adjuster by tightening adjuster lock bolts.
- Tighten adjuster bolt lock nut.
- Repeat on the opposite side of the trailer (please note: both sides are not necessarily uniform in adjustments)



Note: Usually both sides take close to the same amount of turns of the adjuster bolt to tension



Chain Oiler

The chain oiler will only work if it is adjusted properly and turned on. To adjust it, simply run the system and slowly adjust the valves at the front of the trailer until the brushes are maintained wet during operation. This may take a few minutes since the flow from the valve must run down to the brush. Avoid the urge to adjust the valve too quickly as it will be difficult to find the best operating setting. This system relies on the system back pressure (approx. 150 psi) This value will change with different trucks thus the system needs to be set up for the particular truck being used. On automatic chain oiler systems, be sure to check fluid levels on a regular basis. When refilling the reservoir be sure to use a good quality lube. ***The operator must inspect the chain oiler daily. It is critical that the chain be maintained wet with oil at all times.***

An alternative to the chain oiler system is to apply a high-quality chain lube through the inspection doors as the chain runs. "Food grade" chain oils are available for applications with food products. This process should be repeated daily during heavy operating conditions.

Oiler System

- Adjusting the oiler system and brushes is critical to the life of your chain. The chain must be oiled daily.
- Run the belt completely around (with no load) applying oil to the chain as it goes.
 - Oiler system may be adjusted differently for each truck it is attached to, as all hydraulic systems run differently.
 - Be sure to shut off the oiler once the chain is oiled.
- The oiler brushes should always be in contact with the chain and may require adjustment.
 - If the brush bristles are worn excessively or missing, please replace the oiler brushes.
- Check hydraulic oil levels in the reservoir daily as the oiler draws oil from the return line.
- The system operates solely on back pressure off the return side of your hydraulics.



If you believe that this vehicle contains a safety defect, please contact the manufacturer immediately.

This vehicle was designed, and quality inspected to conform with industry standards and all applicable National Highway Traffic Safety standards. Trout River warrants this vehicle to be free from defects in materials and workmanship when manufactured. If you detect a defect that could cause an accident or injury, you should advise:



Trout River Industries
Service Dept.
62 Griffin Dr., Bloomfield,
Prince Edward Island,
Canada C0B 1B0
(902) 853-1614

Online Resources

Website: www.troutriverindustries.com

Parts website: www.livebottomparts.com

YouTube: @TheTroutRiverTrailer

Brochures: issuu.com/troutriverindustries