



HYCUBE 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 your purchase of your new Trout River Trailer. The Trout River Hycube Trailer is designed to haul and convey a very wide variety of materials. Equipped with an all- season multipurpose belt you can haul more variety with a better payload and unload faster and more efficiently than any other trailer on the market today. Please review this manual and feel free to contact us with any questions or concerns. Please pay close attention to the complete manual, as some of this information is specific to the Trout River Hycube.

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, and will be in touch soon.

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 are 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.



Trailer Overview

Trout River prides itself on making the best Hycube trailer on the market today. The “best” means understanding the customer’s needs when it comes to versatility, driver friendliness, longevity and most importantly - the ability to make money. The Trout River Hycube is designed with volume in mind and is meant for materials that are not that dense/heavy. Some examples of this would be woodchips, garbage, and agricultural products. It does not raise in the air- so you can unload indoors and work safely under bridges and wires.



Hardox 500 Tuf high tensile steel reduces wear, leading to trailer longevity

4" Pitch proprietary chain

Bolted in conveyor crossbars for easy replacement

Bolted on suspension allows some flexibility when needed, lowering the stress applied to the trailer frame



All season continuous 83" wide belt.



Trailer Care Summary

Do

- Re-torque your wheels when you receive your trailer
- Set your oiler to ensure the chain wet with oil
- Ensure that all operators are properly trained
- Ensure that the operator oils the chain every day
- All required maintenance at proper intervals
- Be aware of tub, and tarp crossbars when loading trailer

Do Not

- Overload the trailer (like all equipment, it can only take so much abuse)
- Put oversized material in the trailer, keep the material 6 inches or less in diameter
- Stand near the tailgate when opening
- Touch or contact moving parts
- Operate the trailer without proper training





10 Point Walk Around

1. Torque Wheels • They are all new and have usually travelled several thousand kilometres to get to the customer.		6. Maintain Oilers • Look to see an appropriate amount of oil is coming out. • Make sure the brushes aren't clogged, broke, or wore. • Also, visually inspect to ensure they are making contact with the chain.	
2. This Trailer Was Not Designed To Haul Materials Such As Asphalt, Asphalt Millings, Gravel or Aggregates • Materials mentioned above may cause damage or break the conveyor system. • No Material Larger than 6".		7. Testing Chain Tension • The chain will have to be adjusted within the first 6 months. • The chain tension can be checked during regular trailer maintenance (no longer than 45 days). • Open inspection doors. Use prybar to lift the chain. If the link starts to pivot and rise, the chain is too loose. If it moves as a section, the chain has appropriate tension. NOTE: A chain that has not been properly oiled will not show proper tension.	
3. No Scrap Steel or Demolition • This will cut up or gouge the belt. • This will also lead to leaking. • This could also ruin the conveyor if the material goes through the belt and into the conveyor.		8. Adjusting Chain • The chain adjusters are at the front of the trailer under the fenders. • The chain should be adjusted while the conveyor is running. • Adjustments need to be done simultaneously on both sides of the trailer. • Loosen four lock bolts and turn adjuster rod to tension chain. Tighten lock bolts. NOTE: Do NOT use an impact gun.	
4. Hydraulic Connections • Need to be clean and free of contaminants. • Dirty oil from the truck can break down hydraulic components. • Make sure the connections are secure or it will restrict the flow and/or damage the seal in the gearbox.		9. Open Tailgate Before Unloading • If you don't open the tailgate, the load will push open the door. The door locks will bend- the door could warp, and it will not close properly.	
5. Oil Chain • Should always remain clean and wet with oil. • Usually oil once a day. • Do NOT leave it off for two months then apply the oil to it.		10. Conveyor Belt Seals and Seal Plates • This is a wear item. If it is not maintained, material will leak onto the conveyor.	

Trailer Safety

Pre-operation Inspection Safety

1. Check all tires and suspension for signs of excess wear and electrical connections.
2. Check all lighting and indicators for proper function.
3. Check for any loose or broken elements which could break free during operation.
4. Always make sure that the hydraulic supply and return hoses are correctly attached. (Failure to connect return line first and properly will permanently damage the system).
5. Never put your hand in the inspection doors while the conveyor is running.



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. Make sure that all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.
3. Drive carefully and defensively at all times and especially when negotiating uneven or hilly terrain.
4. Do not allow riders on any part of the trailer units either during field operation or road and highway travel.
5. Make sure you are in compliance with all the local regulations regarding transporting on public roads and highways. Consult your local law enforcement agency for further details.



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.



Proper Hydraulic Coupling

1. Always make sure that hydraulic couplers are clean and free of contaminants 2. Contaminated hydraulic oil will cause component failure	
3. Fittings in this section are labeled as they are installed on all Trout River Trailers. We recommend that they remain this way. 4. 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.	Supply  Return 
5. Be sure that connections are completely Tightened and secure. If not coupled properly, oil restriction will cause damage to vital hydraulic components	

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 a good practice to check the tires at each rest period during the day. When a driver hears 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

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

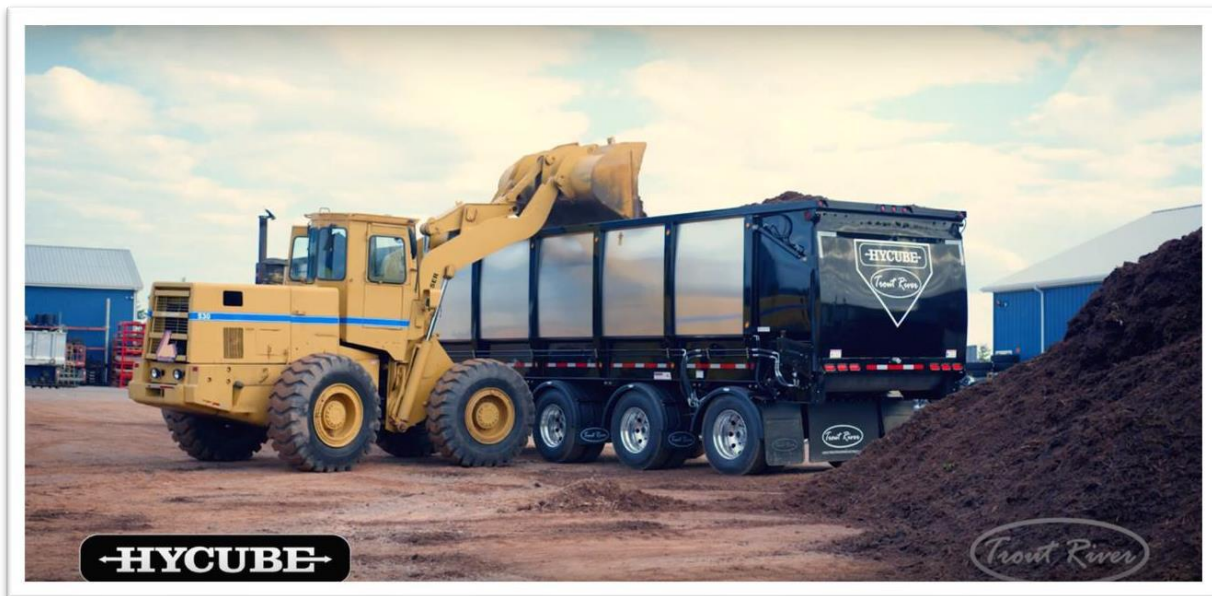
Loading

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

*ALWAYS USE CAUTION AROUND 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 fifth wheel just touches the trailer
- Do not hit the trailer

Step 5: Secure tractor

- Put on parking brake
- Put transmission in neutral

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 brake system for chafed air lines:
 - Shut 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

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 in neutral
- Put parking brakes on
- Shut off 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 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 in 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 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

Uncoupling

Step 1: Position rig

- Make sure surface of parking area can support 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 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 trailer off the fifth wheel). This will:
 - make it easier to unlatch 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 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 tractor forward until 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 ground is supporting trailer
- Make sure support legs are not damaged

Step 9: Pull tractor from trailer

- Release parking brakes
- Check and drive tractor clear



Service and Maintenance

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
62 Griffin Dr., Bloomfield
Prince Edward Island,
Canada C0B 1B0
(902) 853-1614



Component Overview

BODY



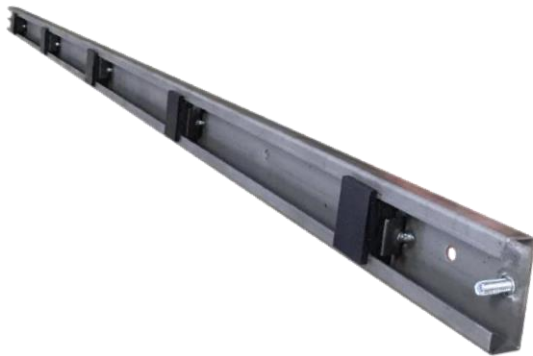
Our welded steel design will provide many years of trouble-free operation. Over-loading or abusing by dropping material over 6" in diameter into the trailer can cause structural damage. Regular inspection of the frame and conveyor support elements will allow repair to be done before serious damage results. Any observed damage should be repaired immediately. Standard welding practices will satisfy most repair matters. Good reporting practices will also provide probable cause of the damage and recommendations to the manufacturer and /or the operator to avoid repeated occurrence.

BELT



The belt on our Hycube trailer is 83" wide. Because the belt is fastened to the chain cross bars and the chain carries all of the load pulling, our belt gets very little abuse. It should be inspected for wear. The seal which rubs on the belt should also be inspected regularly for wear and replaced as required. The belt lacing should be inspected regularly for signs of wear or damage.

CHAIN CROSS BARS



Our “chain cross bars” are bolted to the chain on both sides. The conveyor belt is fastened to every second crossbar. The bolt has a lock nut which should not come off although regular inspection is recommended. Each chain cross bar has five UHMW slides fastened to the underside. The chain cross bars must be inspected through the inspection doors on either side of the trailer. By opening both doors and/or with adequate lighting inspect the system while it is operating.

CAUTION never put hands or tools inside the inspection door while the system is running. Always lock out the system or remove key from truck when servicing. (Do this using step four of uncoupling)

Should a damaged chain cross bar be observed, it should be removed completely and replaced as soon as possible. Should two or more adjacent chain cross bars become damaged. They must be replaced immediately before continuing to operate.

CHAIN



Trout River chain is a heavy duty 4" pitch roller chain with 1.125" diameter rollers. Each full link (every 8") an attachment is welded to the chain. This attachment allows the bolt up of the chain cross bars. Our chain rides on a cold rolled steel rail which provides a “freight train” loading efficiency as well maintaining a tight seal under the trailer side panels.

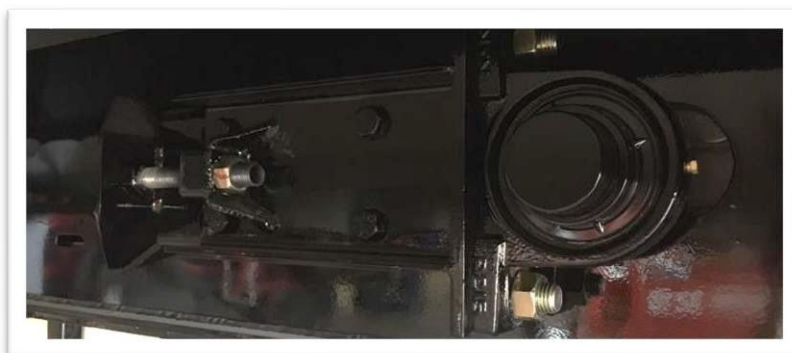
CHAIN OILER



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. It is easiest to see oil flow by removing the brush from its holder. 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 re filling the reservoir be sure to use a good quality hydraulic oil. **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.

CHAIN ADJUSTERS



Adjustment if required is done by loosening the four front idler lock bolts and turning the large adjustment screw. After adjustment, retighten the four lock bolts to be sure the adjuster does not back off.

BEARINGS



The bearings require no other maintenance than greasing occasionally. It is very important that the rear and front idler shaft bearings are not over greased. Over greasing will cause the seals to blow out and bearing failure will occur shortly after as the seals will no longer keep out contaminants. We recommend that the bearing be given 1- 2 shots of grease monthly.

BEARING REPLACEMENT

If bearing replacement is necessary always make sure that the shaft is lined up running straight with chain rails and always drill shaft for set screws. It is also very important to lock tight set screws into place after drilling shaft.

GEARBOX



The planetary gearboxes are supplied with 80w90 gear oil installed. Annual (spring & fall) oil change is recommended. Remove the bottom plug and drain. Refill through the top vent hole until the oil reaches the sight glasses.

HYDRAULIC MOTOR

The hydraulic motors are completely self-contained. Maintenance involves keeping your system oil clean and cool. Check the fittings occasionally for leaks. Tighten or replace as required.

HYDRAULIC SYSTEM



Oil temperature should not exceed 150 degrees Fahrenheit. (Some heat is normal).

A well designed hydraulic wet-line on your truck will eliminate most hydraulic problems.

For additional information and recommendations refer to the hydraulic design sketches included in this manual or request a copy from Trout River.

Use caution when operating in extreme cold weather. Customer experience has shown us that the trailer will operate as normal if you warm up your hydraulic oil first and then run your belt a couple of times unloaded.

TAILGATE LATCHES

Latches & Mechanisms should be lubricated regularly during routine maintenance. All moving joints need to be lubricated as well. An aerosol undercoating / lubricant such as Krown T40 will work well. Apply generously to all moving parts. This same product should be applied to the bolts and adjustment screw of the chain adjusters at the front of the trailer.

UNDERCOATING

On trailers used for salt, fertilizer or other corrosive products, the manufacturer recommends annual application of the Krown or similar undercoating product to all undercarriage and suspension elements of the trailer.



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

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
- Idler Shaft Bearings, front and rear (4 grease points)
 - Idler bearings come from our factory with plugs installed. To grease bearings, plugs must be removed, and grease nipples installed.
 - **DOT 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 (up to 7 grease points)
 - Tarp shaft
 - Universal joints
 - Sliders
- Inspection doors (4 grease points)
 - 2 per door
- Front access hatch (2 grease points)

Trailer Operations

Operators' instructions

This manual has been prepared to assist you in retaining the safety, dependability and performance that are built into Trout River's trailers. It is essential that this Hycube trailer receives periodic inspections, maintenance, and service parts replacement. This manual includes safety checks that the operator should perform periodically. It is important that every Hycube trailer owner and/or operator have an organized maintenance program (TPM). United States and Canada Departments of Transportation require by law that the maintenance records be kept on every commercial highway vehicle. It is to your advantage to be able to show that regularly scheduled TPM inspection checks have been made on every piece of equipment operated.

Not only will a regular TPM program assure you that you will get the most from your Trout River Trailer, but you will also place yourself in a favorable legal position in the event of an accident involving this equipment. Read this manual carefully. Should you have any questions, contact a Trout River factory representative immediately for your answers. This manual should be kept with the trailer and should remain with the trailer when it is sold.



Operation safety

Since this trailer can be used in a variety of situations, it can be difficult to give instructions appropriate for all applications. However, these general guidelines apply to all situations:

1. Be sure that the trailer is securely attached to the towing vehicle and locked into position.
2. Be sure that the air and hydraulic lines are securely connected and that they have sufficient slack for turns.
3. Ensure that the brakes are properly adjusted and in good working condition.
4. Ensure that the electrical harness is securely attached, and all lights and reflectors are clean and operating.
5. Maintain the mud flaps in good condition to minimize road splash in wet conditions. Also, good mud flaps minimize the potential for flying road gravel/ rocks breaking windshields.
6. Always maintain trailer in good mechanical condition.





Trailer Controls

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

Tailgate

The Hycube is available with a few different tailgates. The 2 main ones are the hydraulic tailgate, and barn doors. The barn doors are operated by hand and have no powered controls.

Tailgate locks

The hydraulic tailgate also has hydraulic door locks that must be operated separately.

Belt

The belt of the trailer is operated using the lever.

Please pay attention to decal showing separate lever operations.

Oiler System

- Adjusting the oiler system and brushes is critical to the life of your trailer. The chain must be oiled daily.
- Run the belt completely around (with no load) applying oil to the chain as it goes. **Do not apply too much oil.
 - Oiler system must 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 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.

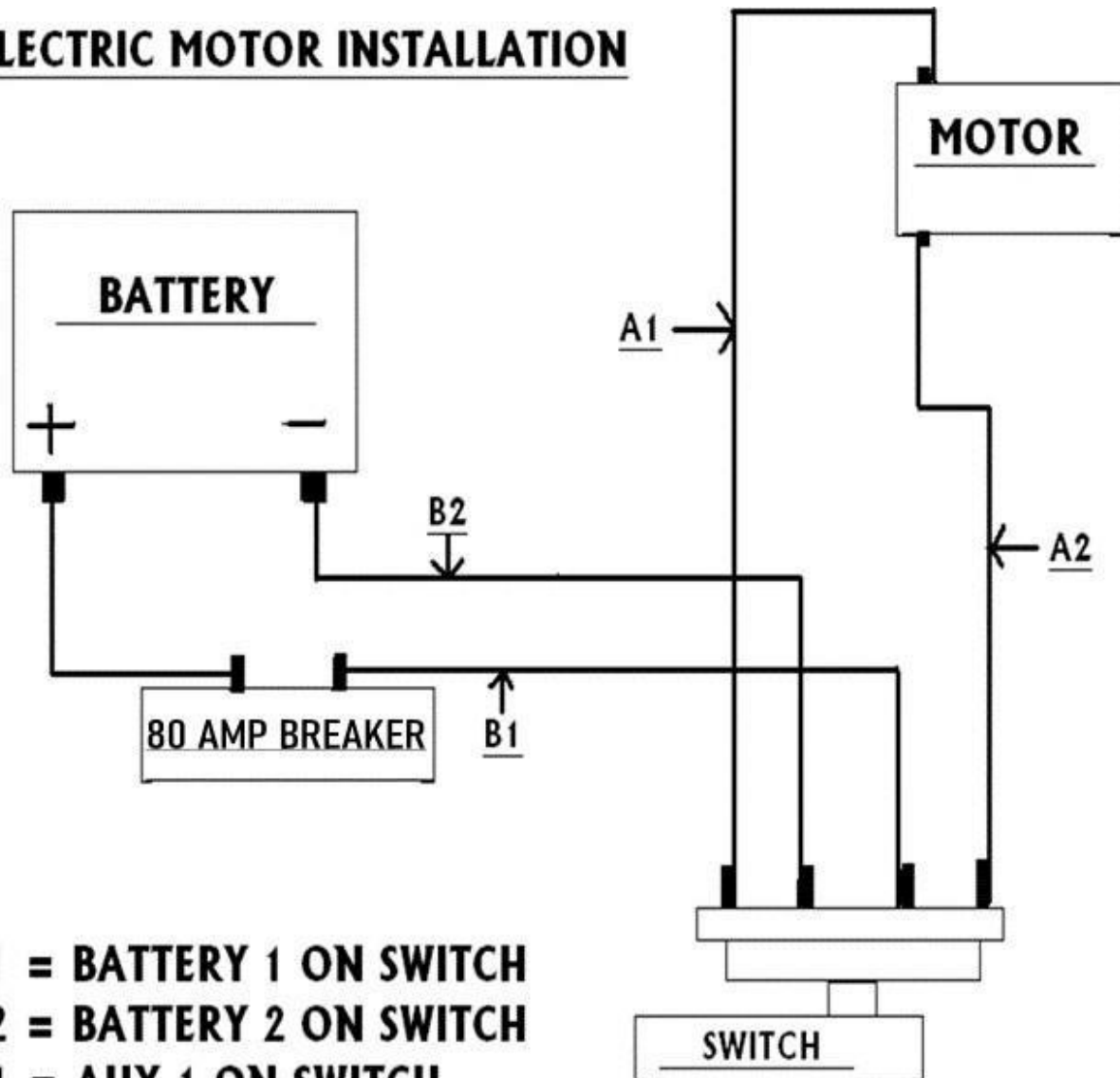


Tarp System

- Manual or Electric side roll tarps are available for these types of trailers



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. (See next page)
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 run on clean hydraulic oil of the right consistency with the proper pump pressure otherwise it can cause damage to the system. (Motor, Valve, and Oiler System)



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



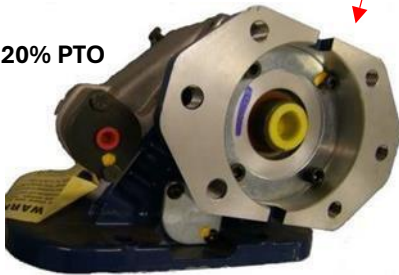
75 gallon aluminum tank with diffuser



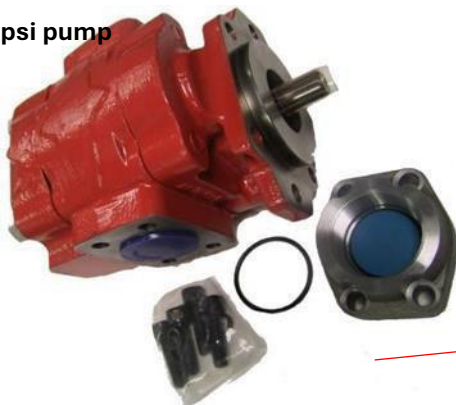
Dual filter head with filter gauge



120% PTO



3000 psi pump



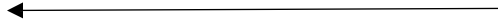
Combo valve



Trout River

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.



Troubleshooting

**For all your parts needs contact your local Trout River dealer, or visit
www.livebottomparts.com**



From the Rear of the Trailer

- The operator needs to ensure the tailgate is 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.
 - Be sure tailgate locks are unlocked before opening the door
- 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



From the Inspection Door

Your Trout River Hycube 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 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.



Checking the Conveyor Chain Tension

1. Open inspection door and inspect chain.
2. Put pry bar under chain and pry in upward direction

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

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. An improperly oiled chain will not give a proper reading.

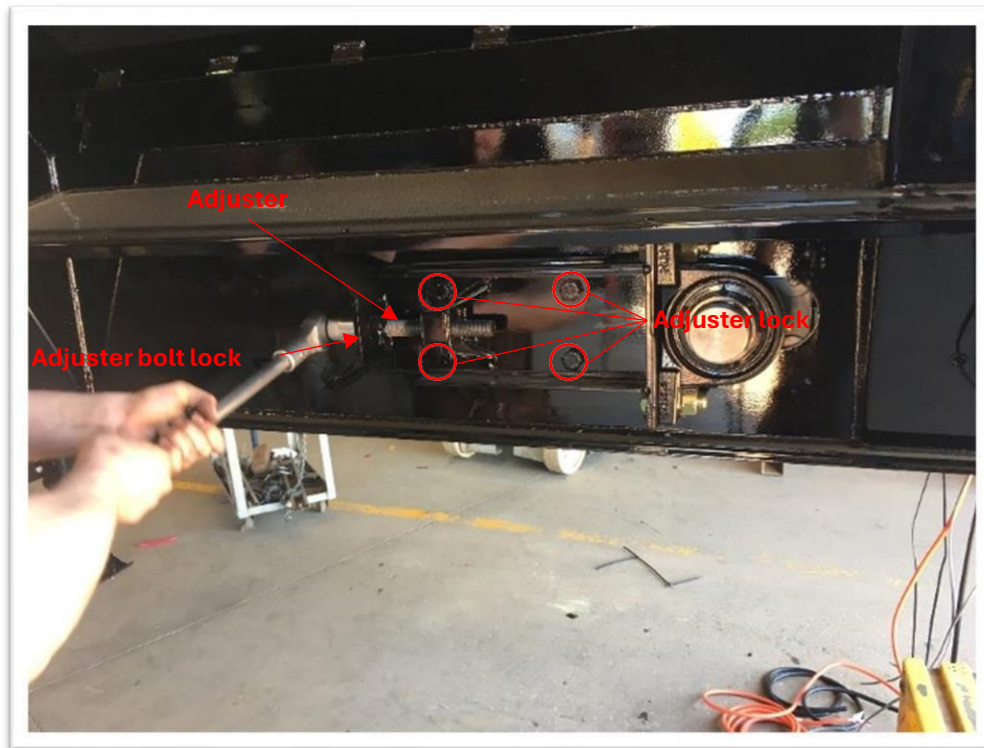


At this point it may be a good time to check conveyor system for any bent or wore out chain crossbars.

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 desired 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

Online Resources

Website: www.troutriverindustries.com
Parts website: www.livebottomparts.com
Service website: www.livebottom.com
YouTube: @TheTroutRiverTrailer
Brochures: issuu.com/troutriverindustries

