

## Thank You for Purchasing an Eagle Bridge™ Trailer

The purpose of this manual is to address:

- Safety
- Warranty Information
- Service and Maintenance
- General Care and Use
- Conveyor Operating Instructions
- Rear Door Operating Instructions
- General Support Information

Please refer to the Table of Contents to locate the needed information. If you have questions about the trailer which are not covered in this manual, please call us at (208) 336-3666 or toll free at (800) 235-6577. Our hours of operation are Monday through Friday, 8:00 a.m. to 5:00 p.m., Mountain Time.

This manual is written to cover many versions of Eagle Bridge™ trailers. Because of this, some sections are not applicable to your trailer. Thoroughly review the manual and any attached supplements to determine what is applicable to your trailer.

Two print copies along with two CD's are supplied with each trailer upon delivery; one copy with the paperwork and the second in the registration box located on the front fender of the trailer, shown in the figure below. This manual is considered a permanent part of the trailer and should remain with the trailer if ownership is transferred in any way.



Registration Box Location

*Notice: Contents of this manual are subject to change without notice!*

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## **LIMITATION OF WARRANTIES**

Goods manufactured by Trinity Trailer Manufacturing, Incorporated (“Trinity Trailer”) are warranted to be free from defects in workmanship or material under normal use and service for a period of **One (1) year to THE ORIGINAL OWNER** or any remaining time on the warranty period for **SUBSEQUENT OWNERS**.

This warranty is applicable if the owner has, as a minimum:

- Properly maintained the trailer
- Not overloaded the trailer (i.e. Exceeded the GVWR\* or the GAWR\*)
- Not transported corrosive cargo
- Adequately restrained the load
- Loaded the trailer properly

The warranty period begins on the date the vehicle is delivered and ends at the expiration of the coverage period.

Goods Manufactured by parties other than Trinity Trailer are **not warranted** by Trinity Trailer.

**THERE ARE NO WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR OTHER WARRANTIES, EXPRESSED OR IMPLIED, UNLESS OTHERWISE EXPRESSLY SPECIFIED HEREIN.**

Trinity Trailer’s sole obligation under this warranty is to repair or exchange, at its option, any such goods manufactured which are found by Trinity Trailer to be defective in workmanship or materials. Trinity Trailer reserves the right to require any products to be returned for inspection at the buyer’s expense to our facility in Boise, Idaho. The foregoing shall be the sole and exclusive remedy for any such defects, whether in contract, tort, warranty or otherwise.

**In no event** shall Trinity Trailer be liable for indirect, special, incidental or consequential damage in connection with or arising out of the sale of goods or furnishing services.

The warranty herein **does not apply** to and Trinity Trailer makes no warranties, expressed or implied with respect to:

- Items manufactured by other parties
- Items that have been modified by other parties
- Goods which wear out and have to be replaced during the warranty period. These goods include but are not limited to: tires, plastic liner, chains, flaps, tarp, light bulbs, electrical or hydraulic receptacles, paint, brakes, linings, drums and return springs, equalizer, torque rod, camshaft bushings, camshafts, slack adjusters, brake cylinder diaphragms, springs, slider pads, wheel bearings, oil and oil seals, door seals, rim clamps and studs, gaskets and sealers, etc.

**\*GVWR (Gross Vehicle Weight Rating)**-The structural capability of the trailer when supported by the kingpin and axles with the load uniformly distributed throughout the cargo space.

**\*GAWR (Gross Axle Weight Rating)**-The structural capability of the lowest rated member of the running gear components- suspension and spring system, hub, wheels and drums, rims, bearings, brakes, axles or tires.

## Important Safety Information

**Before attempting to operate, load, unload or do anything with or to the trailer, YOU MUST READ THIS MANUAL and become completely familiar with all of its operating instructions and safety precautions.**

**To avoid serious injury or death, ALWAYS FOLLOW THESE PRECAUTIONS:**

1. Do not allow unqualified, untrained or careless personnel to operate the trailer. Do not use the trailer for a purpose for which it was not intended.
2. Each person at the user's facility who may be involved with installing, operating, servicing, inspecting, maintaining or repairing the trailer must read the complete operating instructions and carefully study and understand the safety instructions. All actual and potential operators should confirm their having done so in writing.
3. The trailer must be serviced and maintained only by authorized and properly trained personnel. Such personnel must have undergone training by a factory-trained representative concerning the proper and safe operation of the trailer. Only the manufacturer or factory-trained technicians should carry out more than minor repairs.
4. Do not allow anyone who is not physically fit or mentally alert near the trailer or its operating area. Be constantly alert to possible hazards on or around the trailer.
5. Keep a safe distance at all times from any moving parts, including the conveyor.
6. When unloading the trailer:
  - a. Long hair must be protected by headgear.
  - b. Do not wear loose apparel such as ties, scarves, etc.
  - c. Remove all wristwatches and jewelry.
  - d. Wear only approved industrial grade eye protection or a face guard to protect against flying debris.
7. Do not allow tools or other loose objects to be placed on top of or around the trailer.
8. At the very first sign of any problem and before attempting any troubleshooting or maintenance, the conveyor must be stopped.
9. Safety features must not be removed, dismantled, altered, put out of operation or relocated. All guards and safety devices are to be re-fitted and in place after changeovers, servicing or making repairs and before the trailer is used. All safety devices must be checked at regular intervals for correct operation.
10. Do not remove safety signs or warning decals from the trailer. Product safety signs should be periodically inspected and cleaned as necessary. Product safety signs should be replaced when they are no longer legible at a normal viewing distance. Replacements are available from Trinity Trailer Mfg., Inc.
11. Follow all workplace safety and accident prevention regulations applicable to the operation of the trailer. Comply with local, state and/or federal environmental regulations, including those governing airborne dust particles.
12. Designate a person to be responsible at any given time for installation, commissioning, operating and repair of the trailer so the responsibility for safety will not be lost.
13. The trailer has been designed and built with original Trinity Trailer Mfg., Inc. parts only. Only original Trinity Trailer Mfg., Inc. parts must be used for maintenance or repair. Use of other parts will void your warranty.
14. Do not perform modifications to or reconstruction of the trailer without first getting written approval from Trinity Trailer Mfg. Inc.
15. The cleanliness and tidiness of the trailer and its surrounding area must be ensured through appropriate instructions, routine inspections and cleaning.

## **WARNING SYMBOLS USED IN THIS MANUAL**

Eagle Bridge™ trailers have inherent hazards associated with their use. We have made efforts to minimize these risks through the use of engineering controls. There are certain risks, however, which cannot be completely eliminated if the design is to remain functional.

The following symbols and classifications of hazards are used in this manual and on the safety labels on the trailer.



This is a safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



**DANGER**

This indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING**

This indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION**

This indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

**CAUTION**

A caution statement used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

## **SAFETY LABELS**

Your trailer had numerous safety labels affixed to it when it was built; they are shown throughout this manual. It is important that these labels remain visible and legible throughout the life of the trailer. To help ensure they are visible, the trailer should be cleaned regularly with water and a mild detergent. Over time the condition and/or color of the labels may deteriorate due to use of the trailer and the environment in which it is used. If the labels should become illegible or lose their color, it is the owner's responsibility to replace them. Contact our customer service department at (800) 235-6577 to order replacements.

## **INSPECTION, SERVICE AND MAINTENANCE**

It is important that your Eagle Bridge™ trailer be inspected and serviced on a regular basis to keep it in a safe and functional condition. Regular maintenance will also save you money in costly repairs over time.

### **DAILY INSPECTION**

A daily inspection of the following items should be performed before using the trailer:

- Bin and Support Members
- Belt Return Slides
- Bolts and Fasteners
- Brake Adjustment
- Brake Pad Thickness
- Brake System
- Conveyor System
- Coupler Plate
- Fasteners
- Framework
- Hub Oil Level
- Hydraulic System
- Kingpin
- Ladders
- Lights and Wiring
- Mud Flaps
- Plastic Liner
- Pneumatic System
- Suspension System
- Tarp Hardware
- Tarps
- Tires
- Wheels
- Wheel Seals

### **PREVENTATIVE MAINTENANCE SCHEDULE**

We recommend that you follow the general preventative maintenance schedule below. The intervals given are for nominal operating conditions; service more frequently if the trailer is used in an overly humid or dusty condition.

#### **AFTER THE FIRST 50 TO 100 MILES**

- Check torque of cap nuts or flange nuts on each wheel

#### **AFTER THE FIRST 1,000 MILES**

- Check torque of suspension hardware
- Check alignment of suspension

#### **AFTER THE FIRST 50 HOURS OF OPERATION**

- Replace the hydraulic oil and filter
- Replace the oil in the planetary gearbox



### **EVERY 100 HOURS OF OPERATION**

- Clean the spark arrester on the gasoline engine (if applicable)

### **EVERY 250 HOURS OF OPERATION**

- Replace the hydraulic oil filter

### **EVERY 5,000 MILES OR ONCE A MONTH (WHICHEVER COMES FIRST)**

- Wash trailer thoroughly with a mild detergent and water
- Check general structural condition for corrosion or cracks
- Inspect kingpin area
- Check clearances and torque of air-ride suspension system (if applicable)
- Visually check alignment of suspension
- Check condition of lights
- Check security of registration box and required paperwork
- Check wiring harness for cracking or chafing
- Check hydraulic and pneumatic lines for signs of leakage or wear
- Drain moisture from air reservoirs
- Check hinges on rear door(s) for signs of damage
- Lubricate hinges, latches and bearings (if applicable) on rear door(s)
- Inspect brake components for proper adjustment and for any sign of damage
- Check tires for excessive wear and proper inflation
- Check wheel nuts for proper torque
- Check wheel seals for leaks
- Check level of oil in axles
- Check conveyor system for excessive wear or damage
- Check condition of tarp system, if installed
- Check condition and security of mud flaps
- Check oil level in planetary gear on conveyor hydraulic and add if necessary

### **EVERY 15,000 MILES OR THREE MONTHS**

All items listed above plus:

- Check all hardware; replace any which are damaged or missing; tighten any loose bolts or nuts
- Clean grease off kingpin plate and inspect for excessive wear or cracks
- Measure alignment of suspension; adjust if out of allowable tolerance
- Inspect all welded connections and joints on suspensions
- Check for proper torque of all bolts and nuts on the suspension system
- Replace hub bearing lubricant
- Lubricate automatic slack adjusters
- Inspect brake drums, lining and shoes

- Test operation of brakes
- Inspect brake lines for wear or chafing
- Lubricate conveyor chains and front shaft bearings
- Check condition of front and rear chain sprockets and bearings for wear or damage
- Check lining of the trailer for cracks or damage; check floor lining for excessive wear
- Check condition of gladhand seals
- Lubricate the door seals
- Service gasoline engine in accordance with the manufacturer's recommended procedures (if applicable)
- Check aluminum sidewall extensions for damage or cracking (if applicable)

## ONCE A YEAR

All items listed above plus:

- Drain and replace hydraulic fluid from reservoir
- Replace hydraulic oil and filter (or every 1,000 hours, whichever is first)
- Replace oil in the planetary gearbox (or every 1,000 hours, whichever is first)
- Lubricate landing legs

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## HONDA 20HP GASOLINE ENGINE MAINTENANCE SCHEDULE

<b>REGULAR SERVICE PERIOD (3)</b> Perform at every indicated month or operating hour interval, whichever comes first.		<b>Each Use</b>	<b>First Month or 20 Hrs</b>	<b>Every 6 Months or 100 Hrs</b>	<b>Every Year Or 300 Hrs</b>	<b>Every 2 Years or 500 Hrs</b>
<b>ITEM</b>						
<b>Engine Oil</b>	Check Level	o				
	Change		o	o		
<b>Engine Oil Filter</b>	Replace	Every 200 Hrs				
<b>Air Cleaner</b>	Check	o				
	Clean			o (1)		
	Replace					o *
<b>Spark Plug</b>	Check/Adjust			o		
	Replace				o	
<b>Spark Arrester (Applicable Types)</b>	Clean			o		
<b>Idle Speed</b>	Check/Adjust				o (2)	
<b>Valve Clearance</b>	Check/Adjust				o (2)	
<b>Combustion Chamber</b>	Clean	After Every 1000 Hrs (2)				
<b>Fuel Filter</b>	Replace				o (2)	
<b>Fuel Tube</b>	Check	Every 2 Years (Replace if necessary) (2)				

\*Replace the paper filter element only.

(1) Service more frequently when used in dusty areas.

(2) These items should be serviced by your Honda servicing dealer, unless you have the proper tools and are mechanically proficient. Refer to the Honda shop manual for service procedures.

(3) For commercial use, log hours of operation to determine proper maintenance intervals.

**Figure 1-Honda 20HP Gasoline Engine Maintenance Schedule**

## FIFTH WHEEL AREA INSPECTION

The fifth wheel area must be kept clean and free of dirt and foreign materials. This includes the area between the kingpin plate and the body of the trailer where the conveyor chains and flaps travel. Buildup of snow, ice or other foreign materials can cause binding or other serious damage if allowed to remain in this area. Any binding can place excess stress on the front shaft, which can result in any of the following:

- The shaft to bend or break
- The bearings or adjustment mechanisms to be damaged
- The chain to stretch excessively, resulting in premature failure

Daily inspect the kingpin and kingpin plate for the following:

- Wear, cracks or other damage
- Damaged or missing parts
- Bent belt return slides (Figure 2); these can be bent during normal operation and must be straightened before use

Keep the fifth wheel plate lubricated in accordance with the tractor manufacturer's recommendations.



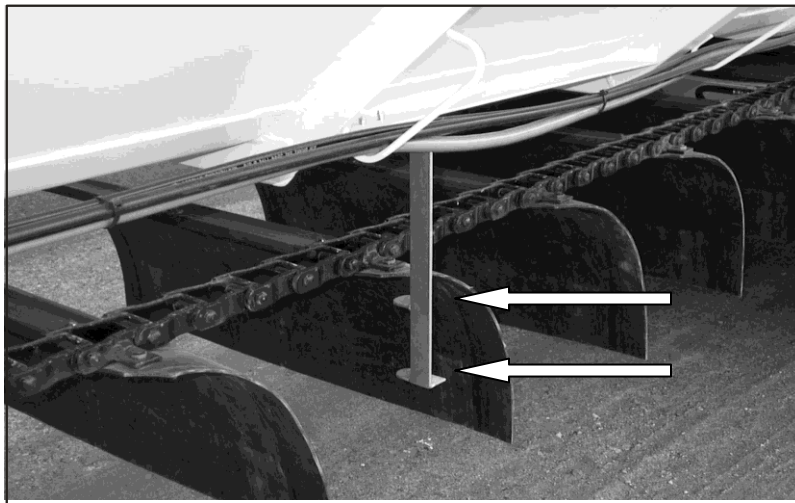
**Figure 2-Belt Return Slides**

## ADJUSTING AND LUBRICATING THE CONVEYOR SYSTEM

### CONVEYOR CHAIN

The chain must be kept within the two pointers on the chain adjustment gauge, which is located on the roadside of the trailer in front of the suspension area (Figure 3).

Adjustment is made by tightening or loosening the hex nuts on the threaded shafts at the front of the trailer (Figure 4). This moves the front shaft bearings forward or rearward and provides the proper amount of tension in the chains. Be certain to tighten the stop nuts on the shafts after making any adjustments.



**Figure 3-**Chain Adjustment Gauge



**Figure 4-**Chain Tensioner Assembly

The conveyor chain must be inspected regularly and lubricated using a high quality oil. Do not use grease. Use Table 1 to determine which grade of lubricant to use based upon the operating temperature.

<b>Temperature (Degree °F)</b>	<b>Recommended Lubricant</b>
-20 to 20	SAE 10
20 to 40	SAE 20
40 to 100	SAE 30
100 to 120	SAE 40
120 to 140	SAE 50

**Table 1-Chain Lubricant Guide**

How often the chains need lubrication is dependent upon the amount of use and the type of product carried.

- Under daily use or in harsh environments, daily inspection is required. Lubricate as needed.
- Under all other uses, weekly inspection should be sufficient. Lubricate as needed.
- If a food-grade lubricant is used, you may need to apply it more often. It is your responsibility to determine how often lubrication is required.



## **WARNING**

Attempting to lubricate the chains while they are in motion can result in serious bodily injury or death. Stay clear of the chains while they are in motion. Position the chains and completely disable the hydraulic system before doing any maintenance.

Remember, proper lubrication can extend chain life, reduce down time and save you money.

## **BEARINGS AND SPROCKETS**

The bearings on the front and rear conveyor shafts must be inspected and lubricated at regular intervals using an NLGI Grade 2 general-purpose grease. As with chain lubrication, the amount of lubrication is dependent upon the amount of use.

- Under daily use, daily inspection is required. Lubricate as needed.
- Under all other uses, weekly inspection should be sufficient. Lubricate as needed.
- Inspect sprockets for excessive wear or damage.



## **WARNING**

Attempting to lubricate the bearings while the shaft is rotating can result in serious bodily injury or death. Stay clear of the bearings while they are rotating. Completely disable the hydraulic system before doing any maintenance on the bearings.

## PLANETARY GEARBOX

When using the planetary gearbox under normal temperature ranges between 0-120 °F, the gearbox is to be half full of SAE 80/90 oil. Use the lower of the two plugs to check the level of the oil. Oil is to be changed after the first 50 hours of operation with subsequent changes every 1000 hours or yearly, whichever comes first.

### NOTE

**There is absolutely no warranty, expressed or implied, on the chain or drive system if the system is not maintained properly, is misused or is overloaded. This includes, but is not limited to the hauling of corrosive materials such as fertilizer, sludge, brewer's mash or corn gluten.**

## LUBRICATION OF THE DOOR(S)

Door hinges and bearings must be lubricated regularly, especially if the trailer has been operated or stored for an extended period of time in a humid or wet environment. Corrosion can lead to the failure of door hinges if they are not maintained properly. As a general rule with the rear doors, as with the entire trailer, "if it moves, lubricate it." Use a NLGI Grade 2 general-purpose grease on all shafts and grease zerks.

The seals on most doors should have silicone grease or spray-on lubricant applied to them once every three months. This will help them last longer and will help them provide a better seal. During cold, damp weather or under heavy use, apply the grease more frequently.

## CARE OF THE PLASTIC LINER

### HIGH MOLECULAR WEIGHT (HWM) AND ULTRA-HIGH MOLECULAR WEIGHT (UHMW) LINER

The plastic liner under the chain (and on the slopes, if applicable) must be inspected for damage and wear. Replace the liner if it is worn through at any spot. If any foreign material should become lodged between the liner and the body of the trailer, remove it by blowing or vacuuming it out.



Use eye protection when using air to blow material from underneath the liner to help prevent injuries from flying particles.



Getting inside the trailer with the door(s) closed or the hydraulic system energized can result in serious injury or death. Open door(s) and disable all hydraulic systems before entering the trailer.

## **COATING CARE AND CORROSION PREVENTION**

Your Eagle Bridge™ trailer is coated with a high-performance polyurethane paint. This paint is designed to give you durable performance in the rugged environments encountered by your trailer.

The best way to preserve the finish on your trailer and help prevent corrosion is to wash it regularly, especially after it has been used around road salt or other ice melting agents, road oil or tar, or any other potentially corrosive material. Use warm water with a mild detergent and allow the trailer to air dry. Use of abrasive or caustic cleaning agents will void the paint warranty. Hauling corrosive products such as salts and fertilizers will also void the paint warranty.

Small nicks or chips in the paint can occur with normal use. Any chips or scratches in the finish should be repaired with matching touch-up paint. This is especially important for carbon steel trailers, as even small areas of bare metal can corrode quickly. The cost of repairing any chips is the responsibility of the owner.

Removal or disrepair of mud flaps on either the tractor or the trailer will void the paint warranty. Frequent use of the trailer on gravel roads will also void the warranty.

If your trailer has aluminum wheels, you should clean them regularly with mild detergent and water to prevent corrosion. Use a non-abrasive, non-acidic cleanser to remove heavy build-up when necessary. Do not use abrasive metal polishes or scouring pads.

## **STAINLESS STEEL BODIES**

Trailers with stainless steel bodies require the same care as painted trailers. Regular washings to remove road grime and remnant corrosive material will help maintain the finish and help prevent corrosion. Use warm water with a mild detergent and allow the trailer to air dry. Use of abrasive cleaning agents will dull and scratch the finish. Use of carbon steel utensils will result in surface contamination.

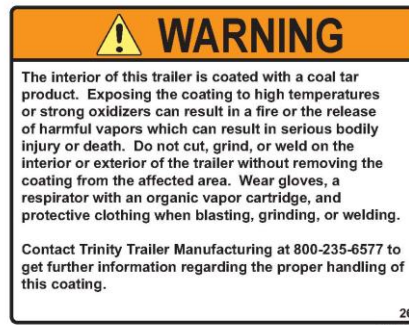
It is particularly important to rinse off the trailer after hauling any material containing chlorides as prolonged contact with chlorides may dull the finish and leave it subject to pitting.

Carbon contamination of stainless steel will cause localized rust spots. The breakdown of the carbon on the surface of stainless steel does not affect the structural integrity of the trailer.

## **INTERIOR COATING**

The interior of your trailer may have a coal tar epoxy coating to help prevent corrosion. There are no physical hazards associated with the coating once it has fully set. However,

problems can arise if the coating is heated when repairing the trailer. The coating must be removed by abrasive blasting before any work can be done on an area of the interior or exterior of the trailer body. Figure 5 shows a warning label which was placed on the trailer at the factory regarding this coating.



**Figure 5-Coal Tar Epoxy Decal**

## PERSONAL PROTECTIVE EQUIPMENT



Failure to follow the following instructions could result in severe physical injury or death.

- Use a dual-cartridge respirator with organic vapor cartridges when removing the coal tar epoxy coating by abrasive blasting.
- Use the respirator when cutting, grinding or welding the area where the coating was removed.
- Use a face shield and/or goggles when performing any of the above operations.
- It is the responsibility of the individual using the respirator to verify that it meets all local and federal (OSHA) safety requirements. Contact our customer service department if you have any questions regarding ventilation while working around this product.

### NOTE

**Trinity Trailer Manufacturing is not responsible for the removal or after-sale application of coal tar epoxy coating. The above information is provided for informational purposes only.**

## CLEANING THE INTERIOR

If product accumulates underneath the chain and flaps, it can usually be removed by lifting each flap and vacuuming, sweeping or blowing the material out. **Under no circumstances should you get into the trailer with the conveyor system running or enabled (See Figure 6). For your safety, completely disable the hydraulic system before entering the trailer (See Figures 7a, 7b and 7c).**



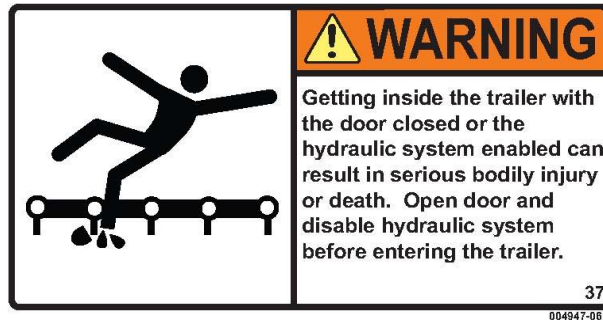


Figure 6-Entry into Trailer Decal

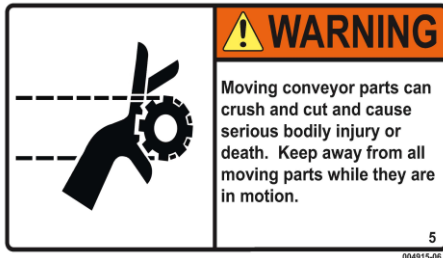


Figure 7a-Moving Conveyor Parts Decal

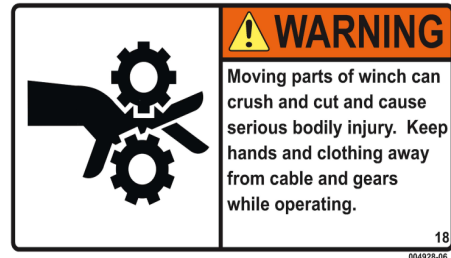


Figure 7b-Moving Winch Parts Decal

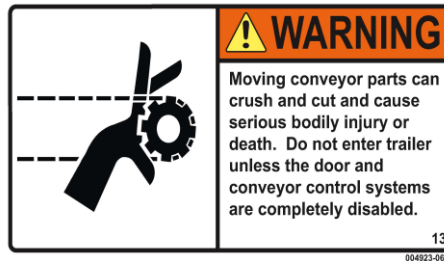


Figure 7c-Moving Conveyor Parts Decal

## SPRING SUSPENSION INSPECTION AND MAINTENANCE

### SPRING SUSPENSION INSPECTION


The following are Hutchens Industries' instructions for suspension inspections. Trinity Trailer Manufacturing requires you to show proof of compliance with these instructions prior to providing any warranty service.

The first maintenance check should be performed after an initial break-in-period of about 1,000 miles. A visual inspection of all suspension components and attachment welds should be performed to reveal any obvious problems, such as cracks or unexpected wear.

During this “walk-around”, it is essential to also check the torque on all suspension fasteners. In the course of the initial “shake down” period in which the components of the suspension “seat in”, as much as 25% of the original clamp load of the bolted fasteners can be lost. After the parts of the suspension have worked together for a very short period of time, re-torquing the bolts is necessary to ensure that undue movement, which results in excessive wear, does not occur.

Visual inspections and re-torquing are maintenance procedures that are performed every four months throughout the life of the trailer.

Begin each inspection with a review of the Hutchens torque decal for the appropriate torque values for each suspension fastener, Figure 8 (the decal can be found on the road side of the trailer and is shown for your convenience). The oiled torque values in the first column are for new fasteners with lubricated threads. When you are installing new components, we recommend you lubricate the threads and use torque values in this column. For maintenance checks on fasteners that have been in service, use the higher torque values in the dry thread column. It’s important that you check all bolts and nuts to insure that the recommended torque values are being maintained. You cannot rely on your visual inspection to detect loose fasteners. **USE A TORQUE WRENCH!**

 **WARNING**


SAFETY ALERT! (1) FOLLOW ALL TORQUE REQUIREMENTS. (2) DO NOT USE ANY COMPONENT WITH VISIBLY WORN OR DAMAGED THREADS. FAILURE TO FOLLOW THESE SAFETY ALERTS CAN LEAD TO LOSS OF VEHICLE CONTROL, PROPERTY DAMAGE, SERIOUS PERSONAL INJURY OR DEATH.

**Hutchens Suspension Torque Requirements**  
**9600-9700 Series ( Decal Part Number 16086-01 Rev. J )**

After an initial break in period, approximately 1000 miles, and at least every 4 months periodically thereafter, ALL bolts and nuts should be checked to insure that recommended torque values are being maintained.

Oiled torque values listed are for new fasteners with lubricated threads. It is recommended that new installations be performed with oiled fasteners. For dry threads which have been in service, use the higher torque values which are noted below.

	OILED	DRY
1 1/8-7 ( 9600 / 9700 Rocker Bolt ) . . . . .	590 lb-ft	790 lb-ft
1-14 or 1-8 ( 9700 Radius Rod Bolt ) . . . . .	540 lb-ft	720 lb-ft
7/8-14 ( Axle U-Bolts & 9600 Radius Rod Bolt ) . . . . .	350 lb-ft	470 lb-ft
3/4-16 ( Axle U-Bolts ) . . . . .	310 lb-ft	420 lb-ft
5/8-18 ( Radius Rod Clamp Bolt ) . . . . .	130 lb-ft	170 lb-ft
5/8-18 ( Spring Retainer Bolt ) . . . . .	35 lb-ft	50 lb-ft



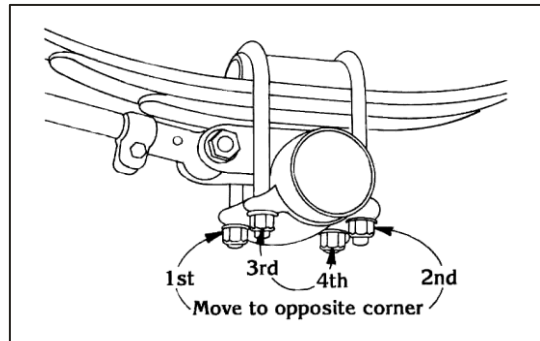
Hutchens Industries, Inc., P.O. Box 1427, Springfield, Missouri 65801-1427    Toll Free 1 (800) 654-8824

**Figure 8-Spring Suspension Torque Requirements**

## AXLE CLAMPS AND SPRINGS

Check the torque on the U-bolt nuts by alternately tightening opposing corners of the clamp assembly, as shown in Figure 9. Dry threads should be tightened to 470 ft-lbs.

Carefully inspect the spring and axle clamp components for any signs of wear or cracks and replace if visible wear or cracks are present.

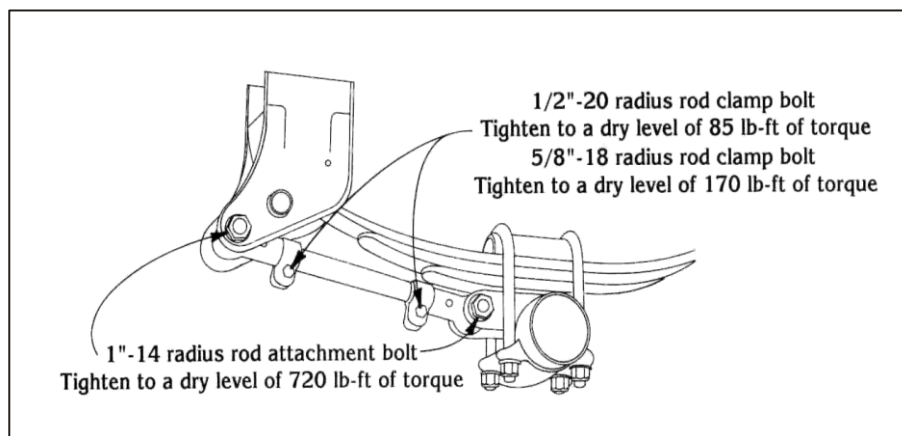


**Figure 9-Spring Suspension Axle Clamp Tightening Sequence**

## RADIUS RODS

The 1" radius rod attachment bolts (Figure 10) at the hangers and spring seats should be checked for proper torque on both the adjustable and non-adjustable radius rods. Loose operation of this bolt can result in wear, requiring new components to be installed to avoid structural damage. If you observe any visible wear or loosening in the bushing, it is imperative that you immediately replace the radius rod bushing and bolt. Failure to replace these components will result in damage to the hanger, spring seat and/or the radius rod.

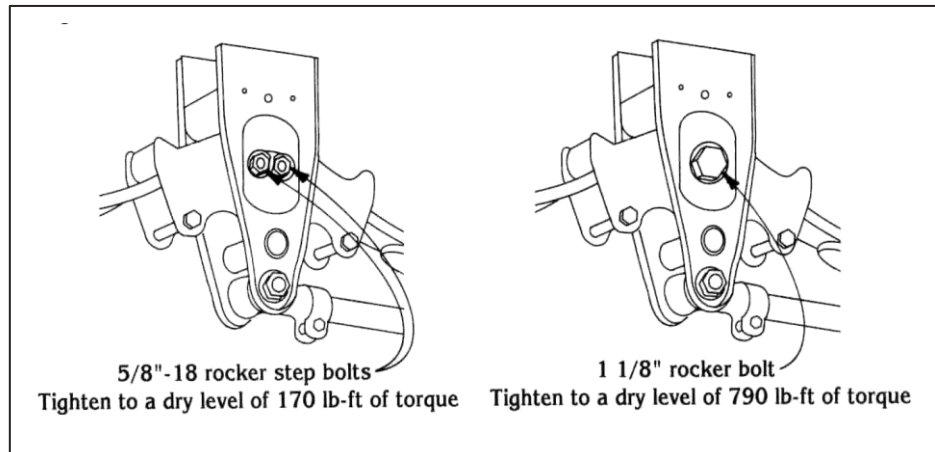
Next, check the radius rod clamp bolts (Figure 10) for proper torque. If the clamp bolt has not been properly maintained, wear between the radius rod screw and the eye end may be observed. If so, the entire radius rod must be replaced. Simply re-tightening the clamp bolt or replacing it will not correct the problem.



**Figure 10-Radius Rod Bolts**

## ROCKER BUSHINGS

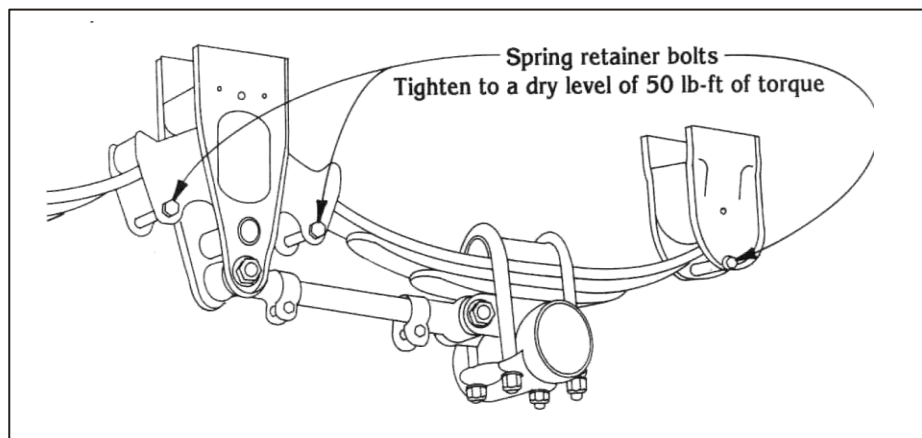
Check the rocker bushing clamp bolts (Figure 11) for proper torque. If the bolts are loose, you must inspect the rocker to ensure that no structural damage has occurred. One way this can be done is by raising the trailer until the trailer weight is taken off of the springs. If the rocker is displaced or if the joint is loose, the rocker should be removed and the rocker and/or rocker bushings replaced. Again, visually inspect the condition of all the rocker/rocker hanger assembly components and replace if visible wear is present.



**Figure 11-Rocker Bushing Bolts**

## HANGERS

Check all of the spring retainer bolts (Figure 12) found in the rockers and rear hangers. Trailers that are operated with loose fasteners for any period of time will result in irreversible suspension damage and possible loss of vehicle control. **Re-tightening a worn fastener will not correct a situation created by loose operation!**

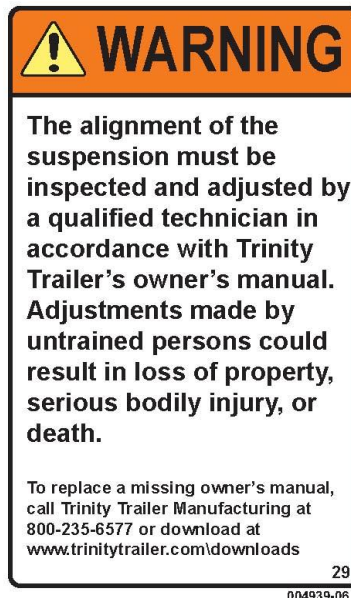


**Figure 12-Spring Retainer Bolts**

## SPRING SUSPENSION ALIGNMENT

Trinity Trailer aligns the suspension using industry-standard alignment procedures. After an initial break in period of 1,000 miles, loosened bolts, nuts and springs can affect the alignment. The surface of the road and type of terrain can also affect the suspension alignment.

Proper and preventive maintenance after the initial alignment is the responsibility of the owner/operator. If you have not been properly trained in suspension alignment procedures, have the work done by a qualified technician. Figure 13 shows the decal that was placed on your trailer when it was built.



**Figure 13-Suspension Alignment Decal**

Trailer axle alignment should be checked (and adjusted if necessary):

- After the initial break-in of 1,000 miles
- Following any maintenance or repair procedures performed on the suspension

Perform the suspension inspection and re-tightening procedures prior to alignment.

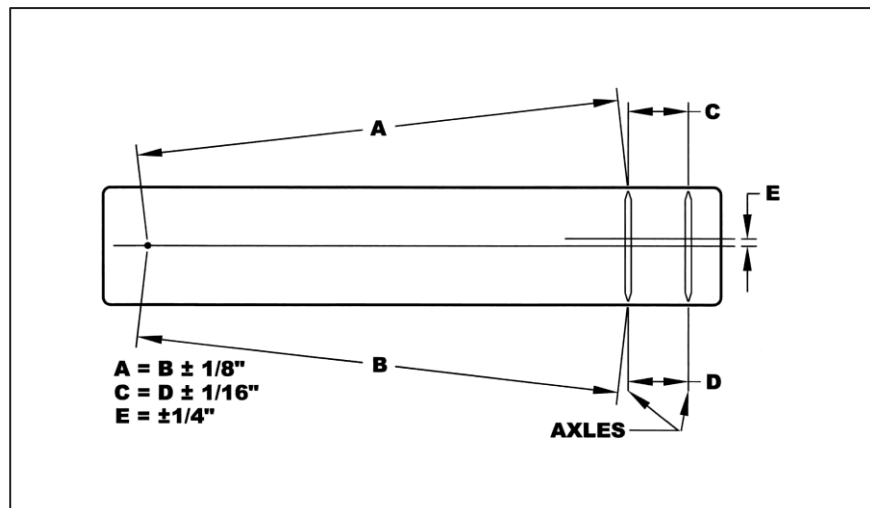
The following information is the standard recommendation for suspension alignment. This information is applicable to all trailers with spring suspensions.

Before the trailer can be aligned properly it must be unloaded. Free the suspension of any binding by pushing the trailer backwards and then pulling forward. The trailer must be level, both side-to-side and front-to-rear. Neither the service nor parking brakes should be applied during the measurement procedure.

The axle position may be determined using any established mechanical or optical (laser) measurement equipment.

Measure distances A and B from the kingpin to the front axle. These dimensions must be within 1/8" of each other. If adjustment is needed, loosen the radius rod clamp bolts and turn the adjustment screw as required. When the front axle is positioned correctly, align any succeeding axles with the front axle by measuring distances C and D. These dimensions must be within 1/16" of each other. (Figure 14)

After the alignment has been completed on all axles, check to make certain the radius rod clamp bolts and all other fasteners are tightened to the required torque.



**Figure 14-Suspension Alignment Requirements**

# AIR-RIDE SUSPENSION INSPECTION AND MAINTENANCE

## AIR-RIDE SUSPENSION INSPECTION (HENDRICKSON HT-SERIES, INTRAAX® AND PARALIFT™ ULTRA)

### DAILY

Verify that the trailer is level and riding at the correct height.

### EVERY 30 DAYS

Review the clearances around the air springs, tires, shock absorbers and all other moving parts. Bolts should be secure and axle connections tight. Any signs of wear should be evaluated and corrected as necessary.

### EVERY 90 DAYS

In addition to the above, inspect all welded connections, frame attachment joints, cross member structures and all pivoting and clamping connections.


## HT SERIES TORQUE REQUIREMENTS

The following torque values are for the HT-Series air suspensions. A decal similar to Figure 15 will appear on your trailer.


### HT/HS/HK SERIES TORQUE SPECIFICATIONS

Fr-Lbs (N•m)	Fr-Lbs (N•m)
QUIK-ALIGN® Pivot Bolt (1) . . . . .505-595 (685-807)	Shock Bolts . . . . .210-235 (285-319)
Welded Pivot Bolt (1-1/8" Dia.) (2) 750-825 (1017-1119)	Upper Air Spring Nut . . . . .80-100 (108-136)
U-Bolts . . . . .475-525 (644-712)	Lower Air Spring Nut . . . . .40-50 (54-68)

1) QUIK-ALIGN  
Pivot Connection



2) Welded Pivot  
Connection




**⚠ CAUTION**

**Do not apply additional lubricant; it can cause overclamping or fastener failure.**

**IMPORTANT:** For QUIK-ALIGN® pivot connections, a torque wrench is not required when installing a new shear-head pivot bolt and a prevailing-torque nut. During tightening, the bolt's shear-head feature will shear after achieving proper torque. Use two (S-24679) QUIK-ALIGN pivot bolt kits per axle during a realignment.

2070 Industrial Place SE  
Canton, Ohio 44707-2600 USA  
Phone (330) 456-7288  
Fax (330) 456-0105



**HENDRICKSON**  
Trailer Suspension Systems

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L336 Rev. J March 1999 Printed in United States of America.  
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**Figure 15-Hendrickson HT-Series Torque Specifications**

**NOTE**

**Torque values are specified for the fasteners in the condition in which they were supplied by Hendrickson. Do not apply any additional lubricants.**

**WARNING**

Over-torquing could result in fastener failure which could lead to a crash. Do not tighten the fasteners beyond the recommended torque.

**INTRAAX® TORQUE REQUIREMENTS**

The following values are for INTRAAX® air suspensions. A decal similar to Figure 16 will appear on your trailer.

<b>INTRAAX® TORQUE SPECIFICATIONS</b>	
	<b>ft. lbs. (N•m)</b>
QUIK-ALIGN® Pivot Bolt.....	505-595 (685-807)
Shock Bolt (Upper and Lower) .....	210-235 (285-319)
Brake Chamber Mounting Nut.....	100-110 (136-149)
Upper Air Spring Nut.....	80-100 (108-136)
Lower Air Spring Nut.....	25-35 (34-47)
S-cam Support Bearing Bolt .....	35-45 (47-61)
	<b>in. lbs. (N•m)</b>
Disc Brake Dust Shield Clamp .....	50-70 (5.6-7.9)
Drum Brake Dust Shield Clamp.....	90-125 (10-14)

**⚠ CAUTION**

**USE OF LUBRICANT may result in overtightened fasteners, unpredictable pivot connection clamp loads and unreliable axle alignments. Do not apply lubricant to pivot connection hardware.**

**IMPORTANT:** A torque wrench is not required to achieve the proper pivot connection torque and clamp load. Just tighten the shear-type bolt with an E20 Torx socket until the bolt's Torx head shears off. For an axle alignment, use two S-24705 QUIK-ALIGN pivot bolt kits per axle for all narrow-bushing INTRAAX suspensions or two S-24679 QUIK-ALIGN pivot bolt kits per axle for all wide-bushing INTRAAX suspensions.

Trailer Suspension Systems  
2070 Industrial Place SE  
Canton, OH 44707-2600 USA  
800.455.0043  
330.489.0045  
Fax 800.696.4416



www.hendrickson-intl.com

Trailer Suspension Systems  
250 Chrysler Drive, Unit #3  
Brampton, ON L6S 6B6 Canada  
905.789.1030  
Fax 905.789.1033

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**Figure 16-Hendrickson INTRAAX® Torque Specifications**

**NOTE**

**Torque values are specified for the fasteners in the condition in which they were supplied by Hendrickson. Do not apply any additional lubricants.**

**WARNING**

Over-torquing could result in fastener failure which could lead to a crash. Do not tighten the fasteners beyond the recommended torque.



## PARALIFT™ ULTRA TORQUE REQUIREMENTS

The following torque values are for the ParaLift™ Ultra auxiliary liftable axle (Figure 17).

DESCRIPTION	SIZE	TORQUE (ft. lbs.)
Pivot Bolt	7/8"	450
Axle Attachment	3/4"	380
Stabilizer Attachment	3/4"	75
Frame Attachment	3/4"	420
Cross Member Attachment	1/2"	80
Air Spring Bolt (Bottom)	3/8"	25
Air Spring Nut (Top)	1/2"	25
Air Spring Nut (Top)	3/4"	45
Tie Rod Clamp Bolt Nut	1/2"	50
Tie Rod U-bolt	3/8"	20
Axle Stop Bolts	1/2"	45

**Figure 17-ParaLift™ Ultra Torque Specifications**

### NOTE

**Torque values are specified for the fasteners in the condition in which they were supplied by Hendrickson. Do not apply any additional lubricants.**

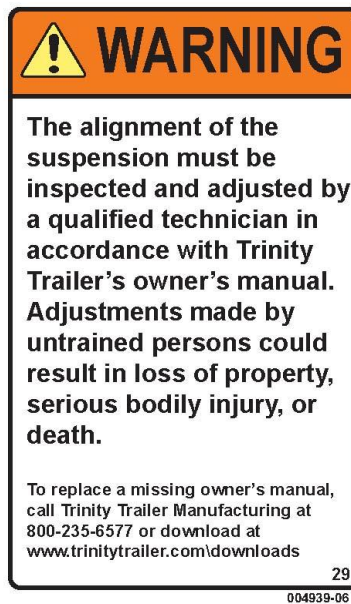


Over-torquing could result in fastener failure which could lead to a crash. Do not tighten the fasteners beyond the recommended torque.

## AIR-RIDE SUSPENSION ALIGNMENT

Trinity Trailer aligns the suspension using industry-standard alignment procedures. After an initial break-in period of 1,000 miles, loosened bolts, nuts and springs can affect the alignment. The surface of the road and type of terrain can also affect the suspension alignment.

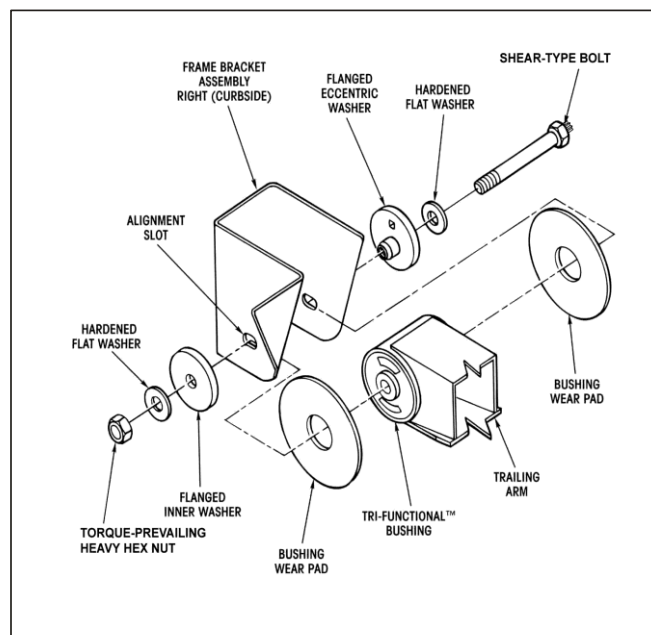
Proper and preventive maintenance after the initial alignment is the responsibility of the owner/operator. If you have not been properly trained in suspension alignment procedures, have the work done by a qualified technician. Figure 18 shows a decal that was placed on your trailer when it was built. See Figure 14 for the suspension alignment requirements.



**Figure 18-Suspension Alignment Decal**

## QUICK-ALIGN® CONNECTION

Hendrickson suspensions use a non-welded Quick-Align® feature (Figure 19). The following guidelines must be used when aligning an air-ride suspension.



**Figure 19-Air-ride Suspension Alignment Components**

1. Remove and discard the pivot bolts and nuts on the forward axle connections and replace with new shear-type bolts and torque-prevailing nuts. Tighten the nuts on the pivot bolts to hold the flanged washers in place against the adjustment guide, but loose enough to permit the hardened flat washers to rotate freely.



## WARNING

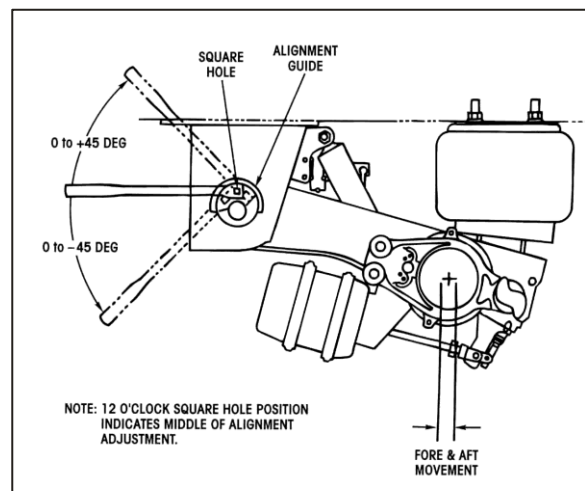
Do NOT re-use the pivot joint fasteners. A new pivot bolt and shear-type bolt must be installed to prevent pivot connection failure due to insufficient clamp load. These parts are contained in Hendrickson kit S-24679, available from our parts department. No liability is assumed for pivot joint failures when either a shear-type bolt or torque-prevailing nut is reused.



## WARNING

Do not apply or allow any type of lubricant to contact the threads of pivot connection fasteners. Lubricant will reduce the friction between the threads of the pivot fastener and nut. Failure of the pivot fastener could occur.

2. On the previously mentioned pivot connection, inspect the orientation of the square hole (Figure 20) on the eccentric flange washer (outboard side). The square hole should be at the 12:00 position (middle of the alignment adjustment); adjust if necessary. To adjust the eccentric, insert a 1/2" square drive breaker bar into the square hole on the eccentric flanged washer. Rotating the eccentric flanged washer clockwise (45° maximum) or counterclockwise (45° maximum) will provide fore and aft positioning.



**Figure 20-Air-ride Suspension Alignment**

3. Repeat step 1 and 2 on the remaining connections.
4. Follow the measurement steps in the spring suspension alignment process above.
5. If additional axle movement is necessary, adjust the eccentric washer on the opposite side of the forward axle from the 12:00 position.

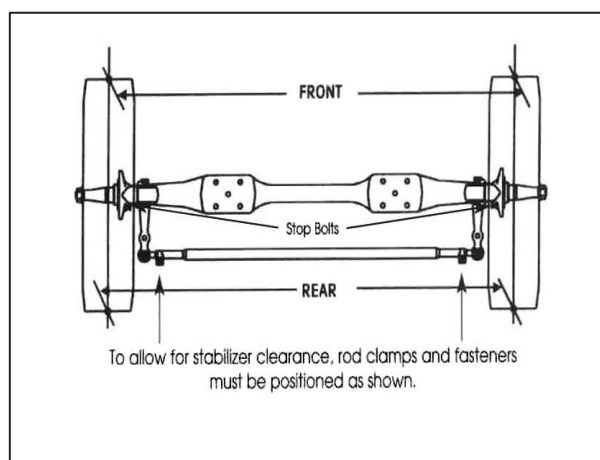
**NOTE**  
**Be sure that the axle movement occurs without compressing the Tri-Functional™ Bushing.**

6. After achieving proper alignment of the forward axle, snug the pivot connections and recheck alignment.
7. Apply torque to the torx-head portion of the shear-type bolt until it shears off of the hex head.
8. Align additional axles to the forward axle by rotating their eccentric flanged washer(s) until both ends of the axle are an equal distance from the front axle (see Figure 12). Repeat steps 1, 2,3,5,6 and 7.

## **PARALIFT™ ULTRA ALIGNMENT**

Only the toe setting needs to be checked on the ParaLift™ Ultra.

1. Lift the axle until the tires are free to spin. Make a line around each tire at the center of the tread using a paint marker.
2. Use a measuring tape to measure the distance between the lines at the front and rear of the tires at the same height as the axle.
3. If the distance between the lines is 1/16" to 1/8" at the front (toe-in condition), no adjustment is necessary.
4. If the measurements do not meet the above requirements, loosen the tie rod clamp bolts, stabilizer mounting U-bolts (if applicable) and nuts. Rotate the tie rod tube until there is a toe-in setting of 1/16" to 1/8" (see Figure 21).
5. Tighten and torque the hardware to the specifications given in Figure 17.



**Figure 21-ParaLift™ Alignment**

## HUB AND WHEEL INSTALLATION AND MAINTENANCE

In addition to following the instructions below, it is recommended that you read and understand the federal regulations relating to tire and wheel handling and maintenance. A copy of these can be obtained through the U.S. Government printing office, your local library or the internet. Refer to 29 CFR 19103177, *Servicing Multi-Piece and Single Piece Rim Wheels*.



**Figure 22-Wheel Hardware Decal**

## BALL SEAT MOUNT WHEELS

Ball seat wheels have spherical chamfers, or “ball seats”, machined into each stud hole. The inner and outer cap nuts center the wheels by seating these seats. The mounting method is also commonly referred to as “stud piloted”.



Follow the information below when working with wheels on your trailer. Failure to do so can lead to loose wheels or component failure, resulting in loss of property, serious bodily injury or death. See Figure 22.

- Use correct, matched parts when mounting the wheels.
- Use the correct size of studs and capnuts (described below) for the type of wheels you are using.
- Do not combine ball seat wheels with pilot mount wheels (described below).
- Do not use heat to remove frozen capnuts. This could result in component failure.
- Only use tires that are within 3/4" of the same rolling circumference. Greater difference in circumference can cause unstable operation and reduce component life.
- Tighten all capnuts in the proper sequence and to the required torque.
- Use the correct hand thread for each axle.
- Do not use Grade 5 inner capnuts with aluminum wheels.

### Ball Seat Mount Steel Wheels

When using steel wheels, use 1.31" to 1.44" dual wheel stud standouts. Use Webb 107080RH and 107091LH inner capnuts (or equivalent) and Webb 178910RH and 178921 LH outer capnuts (or equivalent). Install left-hand threads on the roadside of the vehicle and right-hand threads on the curbside of the vehicle. Capnut tightening sequence and torque values are show in Figure 23.

### Ball Seat Mount Aluminum Wheels

When using aluminum wheels, use 1.31" to 1.44" dual wheel stud standouts. Use Webb 105988RH and 105989LH inner capnuts (or equivalent) and Webb 178910RH and 178921LH outer capnuts (or equivalent). Install left-hand threads on the roadside of the vehicle and right-hand threads on the curbside of the vehicle. Capnut tightening sequence and torque values are shown in Figure 23.

The use of 1.75" to 1.87" stud standouts is not recommended because of the lack of standardization and possible improper installation. The long stud standout must not be used with dual steel wheels. If your hubs have long standouts, use Webb 105988RH and 105989LH Grade B inner capnuts with aluminum wheels only.

## Combining Ball Seat Mount Steel and Aluminum Wheels

When using a combination of aluminum (outer) and steel (inner) wheels, use 1.31" to 1.44" dual wheel stud standouts. With a combination of steel and aluminum wheels, it is critical that the correct hardware be used. Use Leland W620 and W621 inner capnuts (or equivalent) and Webb 178910RH and 178921LH outer capnuts (or equivalent). Install left-hand threads on the roadside of the vehicle and right-hand threads on the curbside of the vehicle. Capnut tightening sequence and torque values are shown in Figure 23.



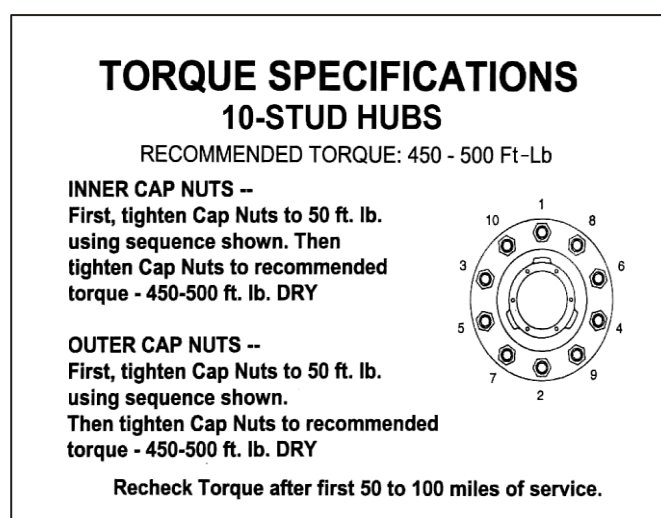
### WARNING

A polyethylene spacer must be placed between the two wheels; without it, corrosion will occur. This could lead to component failure and result in loss of property, serious bodily injury or death.

## Mounting Ball Seat Mount Wheels (Figure 23)

Wheels must be correctly assembled using the correct capnuts and must be correctly aligned to assure maximum service life and safety.

1. All parts must be clean and free of rust, dirt or paint.
2. Position the inner wheel over the studs, being careful not to damage the threads.
3. Install the inner capnuts and tighten to 50 ft-lbs in the sequence shown in the figure below. Tighten to full torque using the same sequence.
4. Position the outer wheel over the inner capnuts, being careful not to damage the threads.
5. Install the outer capnuts and tighten to 50 ft-lbs, again using the sequence shown below. Tighten to full torque using the same sequence.



**Figure 23**-Ball Seat Mount Wheel Torque Specifications

**NOTE**

**The torque listed is for dry threads with no lubricant. Proper capnut torque is important. Insufficient torque can cause stud breakage and damages the ball seats. Excessive torque can overstress the studs and strip the threads.**

**IMPORTANT**

The capnuts must be re-tightened after the first 50 to 100 miles of service.

1. Loosen the outer capnuts.
2. Check the torque of the inner capnuts in the tightening directions.
3. Tighten the outer capnuts to 50 ft-lbs in the sequence shown above. Tighten to full torque using the sequence shown above.

**PILOT MOUNT WHEELS**

Pilot mount wheels have stud holes that are reamed straight through the wheel. Pilot bosses machined on the hub fit tightly to the center hole of the wheel. Pilot mount wheels are secured with right-hand thread flange nuts on studs which have at least 2.16" standouts. This mounting method is also commonly referred to as "hub piloted".

**WARNING**

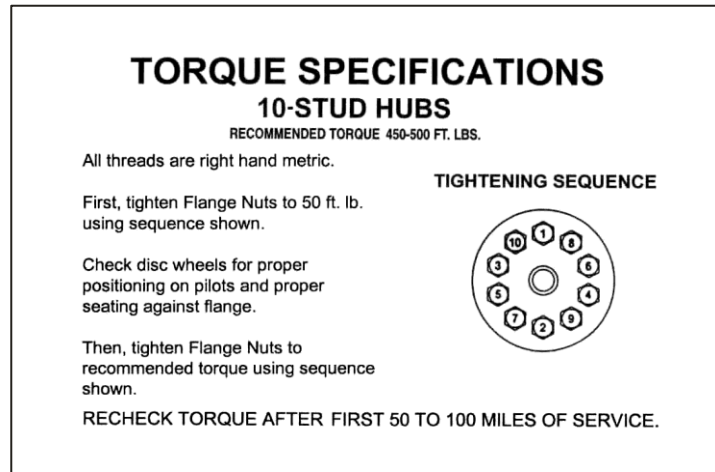
Follow the information below when working the wheels on your trailer. Failure to do so can lead to loose wheels or component failure, resulting in loss of property, serious bodily injury or death. See Figure 22.

- Use correct, matched parts when mounting the wheels.
- Do not combine ball seat mount wheels (described above) with pilot mount wheels.
- Do not use ball seat nuts with pilot mount wheels.
- Do not use heat to remove frozen flange nuts. This could result in a component failure.
- Only use tires that are within 3/4" of the same rolling circumference. Greater difference in circumferences can cause unstable operation and reduce component life.
- Tighten the flange nuts in the proper sequence and to the required torque.

**Mounting Pilot Mount Wheels (Figure 24)**

1. All parts must be clean and free of rust, dirt or paint.
2. Position the inner wheel over the studs, being careful not to damage the threads.
3. Position the outer wheel over the studs, being careful not to damage the threads.
4. Install the flange nuts and tighten to 50 ft-lbs in the sequence shown below.
5. Make sure the surface of the wheel which is contacted by the flange nut is flat.
6. Tighten the nuts to 450-500 ft-lbs using the same sequence.





**Figure 24-Pilot Mount Wheel Torque Specifications**

#### NOTE

**The torque listed is for dry threads with no lubricant. Proper flange nut torque is important. Insufficient torque can cause stud breakage and damages the ball seats. Excessive torque can overstress the studs and strip the threads.**



The flange nuts must be re-tightened after the first 50 to 100 miles of service. Tighten them to 450-500 ft-lbs in the sequence shown above. Failure to re-torque the flange nuts could result in the wheel becoming loose on or falling off of the trailer during operation resulting in property damage, personal injury or death.

#### RECOMMENDED PROCEDURE FOR REPLACING STUDS

- When a broken stud is replaced, the stud on each side of it should also be replaced.
- If more than two studs are broken, replace all of the studs.
- Use the correct stud size. If the correct length stud is not used, the back nut (jam nut) may not seat firmly against the drum.
- Too much “standout” from the mounting face of the hub may make it impossible to secure the inner wheel against the hub face (ball seat mount wheels).
- If replacing studs on ball seat mount wheels, remember that right-hand studs go on the right-hand side (curbside) of the vehicle and left-hand studs go on the left-hand side (roadside).

# HYDRAULIC SYSTEM SERVICING

## TRACTOR HYDRAULIC SYSTEM REQUIREMENTS

<u>Gear Pump Requirements (Volume):</u>	10-15 GPM (Gallons per Minute)
<u>Reservoir capacity:</u>	Minimum 5 Gallons
<u>Hyd. Pressure Requirements/Bypass Settings:</u>	2500 PSI/3000 PSI

Tractor hydraulic oil must be maintained at all times. Neglect of the tractor oil will result in premature hydraulic component failure. Pressure line filters are optional.

## PRESSURE FILTERS

Trailers with combination hydraulic systems that combine a PTO system with an electric or gas system will have an inline pressure filter. The filter has a sight glass on top of the housing unit that indicates the condition of the filter. If the sight glass shows red, it is time to replace the cartridge inside of the filter. These filters DO NOT have a bypass option. As the filter becomes clogged, it will slow down the flow of oil which will slow the unloading of the product.

## HYDRAULIC CYLINDER MAINTENANCE

The hydraulic cylinder which operates the rear door(s) (if installed) should be inspected before each use. See Figures 25 and 26 for precautionary measures that must be taken before performing any maintenance.

- Repair any leaking fittings found before operating the cylinder.
- Keep the cylinder clean and free from foreign materials.
- If there is leakage across the cylinder or the cylinder housing or the shaft is damaged, replace the cylinder.
- A light film of oil on the shaft of the cylinder is normal and should not be mistaken as a leak.
- Small burrs or scratches should be removed from the shaft using a honing stone or emery cloth before use of the cylinder.



Figure 25-Hydraulic System Pressure Decal

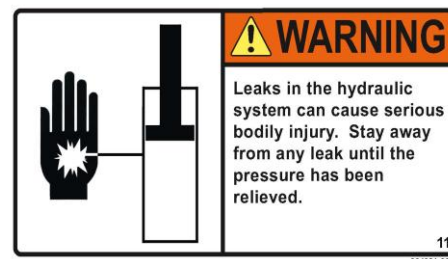


Figure 26-Hydraulic Leak Decal

## HYDRAULIC LINES AND FITTINGS

Visually inspect the hoses and fittings for leaks, cracks, chafing or crimping. Since the hydraulic system operates at high pressures, replace any components which are worn or damaged before use.

## HYDRAULIC FLUID RECOMMENDATIONS

- The hydraulic oil level in the tank should be no lower than four inches from the top of the tank. Check the oil level daily. Refill as required.
- The filter in the system should be changed after the first 50 hours of operation and every 250 hours thereafter. Under dirty or dusty conditions, change the filter more frequently.
- Recommended fluid-Chevron Hydraulic Oil AW ISO 32 or equivalent.

## HYDRAULIC VALVE MAINTENANCE

The seals in the valves of the hydraulic system can become dirty or worn and allow hydraulic fluid to leak across the spool. If this happens in a flow control valve (used with a PTO system) or a door valve, contact our parts department toll free at 800-235-6577 to order a replacement o-ring kit (Figures 27 and 28).

### Flow Control Valve

1. Remove and label the fittings from the valve.
2. Remove the valve from the trailer.
3. Remove the handle by loosening the set screw in the shaft.
4. Remove the snap ring from the shaft.
5. Remove the shaft from the valve body.
6. Clean any corrosion from the shaft using fine emery cloth.
7. Replace the o-rings and seals on the shaft.
8. Reinstall the shaft, snap ring and the handle being careful not to damage the o-rings as they enter the valve body.
9. Reinstall the valve on the trailer.
10. Reattach all fittings securely to the appropriate ports.



**Figure 27-Flow Control Valve O-Ring Kit**

## Door Valve

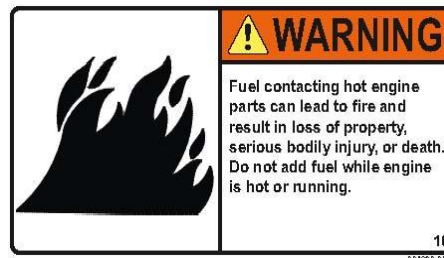
1. Remove and label the fittings from the valve.
2. Remove the valve from the trailer.
3. Remove the cotter pin and clevis pin and attach the lever to the valve shaft.
4. Remove the socket head cap screws that attach the retaining cover to the valve body.
5. Remove the shaft from the valve body.
6. Replace the o-rings on the shaft.
7. Reinstall the shaft, being careful not to damage the o-rings as they enter the valve body.
8. Reattach the retaining cover and lever.
9. Reinstall the valve on the trailer.
10. Reattach all fittings securely to the appropriate ports.



**Figure 28-Door Valve O-Ring Kit**

## GASOLINE ENGINE SERVICING

Service the gasoline engine in accordance with the engine owner's manual supplied with your trailer. If you need a replacement copy of the manual, call our parts department at 800-235-6577. The following safety precautions, along with Figures 29 and 30 should be adhered to when working around the gasoline engine (if installed).



**Figure 29-Refueling Warning Decal**

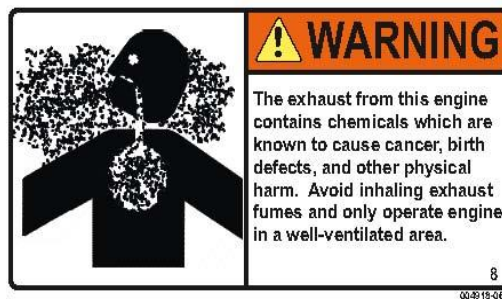


Gasoline engines equipped with electric starters have a 12-volt battery which can be unsafe if handled improperly. Follow these precautions when servicing the battery.

- Use extreme care when servicing the battery. Battery fluid contains sulfuric acid and must be kept away from your eyes and skin. Safety glasses, rubber gloves and protective clothing are needed when handling the battery. If acid contacts your eyes or skin, flush immediately with large amounts of water. Get emergency attention immediately.

- The battery can produce hydrogen gas and can explode, causing serious bodily injury. Do not smoke while checking or servicing the battery. Keep open flames and sparks away from the battery.
- To avoid a short circuit across the battery, which can result in serious bodily injury, never allow tools or metal objects to contact the battery posts and the trailer. Disconnect the negative battery cable when checking or servicing the battery.
- Keep battery fluid away from children and pets.
- Do not store the battery where there is a likelihood of open fire, sparks or accessibility to children.

Some areas require that the engine be equipped with a spark arrester to reduce the potential for the exhaust from the engine to cause a fire. Your engine should have had one installed when the engine was installed on your trailer. You should remove the arrester and clean it in accordance with the engine manual at least once every 100 hours of operation.



**Figure 30-Engine Exhaust Decal**

## **ANTI-LOCK BRAKE SYSTEM (ABS)**

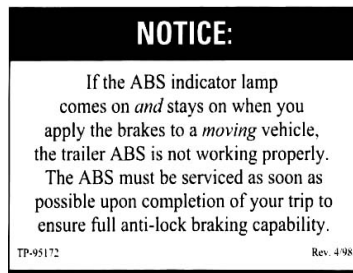
The Meritor WABCO (previously Rockwell) 4S/2M anti-lock brake system is used on your trailer. This system exceeds the requirements of the Transportation Code of Federal Regulations, 49 CFR 571.121.

You should use your brakes as you normally would when you are driving. Apply the brakes the same way you would if your trailer didn't have an ABS system. You should not need to pump the brakes if the system is working properly. You may notice some chassis vibration when excessive brakes are applied. This is normal; the system senses the wheel rotation speed and will modulate the air pressure if it detects a wheel lock-up condition.

**NOTE**

**Like all anti-lock braking systems, this system will allow a small amount of wheel lock-up.**

Read the following decal (Figure 31) which was supplied by Meritor WABCO and was put on your trailer when it was built.



**Figure 31-ABS Indicator Decal**

You should note that the vehicle must be traveling at least 5 mph for the light to illuminate. If the light stays on, contact an authorized Meritor WABCO service center to remedy the problem before continuing to operate the trailer.

ABS service must be performed by a qualified technician to ensure the brakes on the trailer operate properly. Read the following decals (Figures 32a and 32b) and then follow the instructions and precautions.



**Figure 32a-ABS Servicing Decal**



**Figure 32b-Brake System Component Decal**

## IGNITION POWER ACTIVATION

Ignition Power Activation is the process of using the vehicles ignition switch (or interrupting the power on the blue wire by some other means) to display blink codes on the trailer ABS indicator lamp located on the side of the trailer. This method is for constant power vehicles only.

To obtain blink codes using ignition power activation, perform the following procedure:

1. Turn the ignition switch on for no longer than 5 seconds. The ABS indicator lamp will be on.
2. Turn the ignition switch off. The ABS indicator lamp will go out.
3. Turn the ignition switch on. The ABS indicator lamp will then come on, and then go out.
4. The blink code will be displayed three times by the ABS indicator lamp on the trailer.

BLINK CODES		
Blink Code	Problem Area	Action
3	Sensor BU1	Determine sensor location. Check sensor installation. Make necessary repairs.
4	Sensor YE1	Determine sensor location. Check sensor installation. Make necessary repairs.
5	Sensor BU2	Determine sensor location. Check sensor installation. Make necessary repairs.
6	Sensor YE2	Determine sensor location. Check sensor installation. Make necessary repairs.
7	External ABS Modulator Valve	Verify proper electrical installation. Check power supply. Make necessary corrections.
9	Internal Modulator Failure-inlet valve #2	Verify proper installation. If code continues, contact Meritor WABCO for assistance.
10	Internal Modulator failure-inlet valve #1	Verify proper installation. If code continues, contact Meritor WABCO for assistance.
11	Internal Modulator failure-outlet valve	Verify proper installation. If code continues, contact Meritor WABCO for assistance.
14	Power Supply	Verify proper electrical installation. Check power supply. Make necessary corrections.
15	ECU Failure	Verify proper installation. If code continues, contact Meritor WABCO for assistance.
16	SAE J1708 Failure	Internal failure, contact Meritor WABCO
17	SAE J2497 (PLC) Failure	Internal failure, contact Meritor WABCO
18	Generic I/O Failure	Verify proper electrical installation. Check power supply. Make necessary corrections.

**NOTE:** For ignition power activation, power is provided by the ignition switch.

## REAR IMPACT GUARD

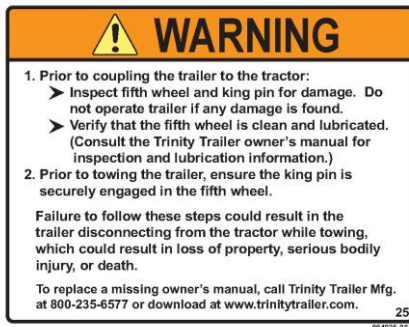
Your trailer meets the latest rear impact guard requirements of the Transportation Code of Federal Regulations, 49 CFR 571.223 and 571.224. If the guard is damaged, the Federal Highway Administration requires that it be repaired such that it will again be in compliance with these regulations in a “like new” condition. Have a qualified mechanic inspect any damage before continued use of your trailer. Contact our repair department toll free at 800-235-6577 if the guard needs to be repaired.



# OPERATING INSTRUCTIONS

## COUPLING THE TRAILER

To couple the trailer to the tractor safely, follow the procedures below. Figures 33a and 33b show warnings which were placed on your trailer when it was built and relate to the safe coupling of the trailer.



**Figure 33a-Coupling Decal**



**Figure 33b-Winch Handle Decal**

1. Check the kingpin and surrounding area for cracks or damage.
2. Clean and lubricate the fifth wheel in accordance with the tractor manufacturer's recommendations.
3. Position the fifth wheel for coupling with the plate tilted down toward the aft end of the tractor, the jaws opened, and the safety unlocking handle in the automatic lock position. If the tractor is equipped with a sliding fifth wheel, lock it in place.
4. Ensure the spring brakes are applied on the trailer.
5. Make certain the doors are securely closed on the trailer.
6. Align the tractor with the front of the trailer and back up until the fifth wheel just touches the trailer.
7. Engage the parking brake and shift the tractor into neutral.
8. Adjust the height of the landing legs so the trailer is level with the fifth wheel.
9. Check to make certain that the kingpin is aligned properly with the fifth wheel.
10. Connect the service and emergency air lines from the tractor to the gladhands on the front of the trailer. Secure the air lines so they will not be damaged when the tractor is backed up under the trailer.
11. Apply the trailer parking brakes by pulling the trailer brake knob in the tractor.
12. Release the tractor brakes by pushing in the tractor brake knob.
13. Back the tractor slowly under the trailer until the kingpin engages in the fifth wheel and locks in place.
14. Raise the landing legs slightly off the ground (see Figure 33b) and pull on the trailer gently with the tractor while the trailer brakes are still locked in the cab to ensure the kingpin is fully engaged.
15. Inspect the fifth wheel area thoroughly to make certain the connection between the tractor and trailer is secure. Make certain that the locking lever is in the locked position.

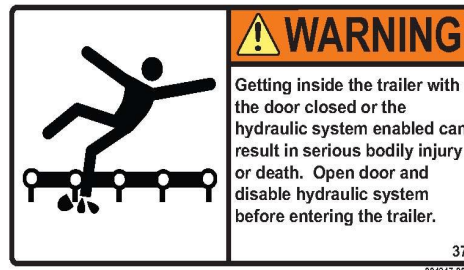


16. Attach the electrical cable from the tractor to the trailer, making sure the connector securely engages the socket.
17. Make certain the air lines and electrical cable are supported to prevent them from chafing or being snagged while connected.
18. Raise the landing legs completely, leave in gear and securely place the crank in its bracket (See Figure 33b).

**No one should ever be allowed to ride on or in the trailer while it is being towed or has the door closed and/or hydraulic system enabled (Figure 34a and 34b).**



**Figure 34a-Riding in Trailer Decal**



**Figure 34b-Getting inside Trailer Decal**

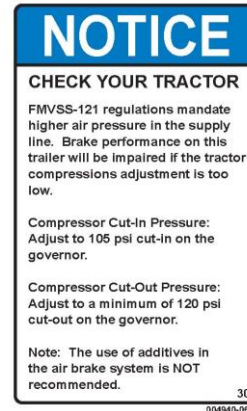
1. Before uncoupling the trailer, move the truck to an area with a level surface capable of supporting the weight of the trailer.
2. Stop the truck with the tractor aligned with the trailer.
3. Lock the trailer brakes and back the tractor up slightly to relieve the pressure on the locking jaws. Engage the parking brake on the tractor.
4. Lower the landing legs until they contact and just start to put pressure on the ground.
5. Disconnect the air lines and electrical cable from the trailer.
6. Move the locking lever on the fifth wheel to the open position.
7. Pull the tractor forward to disengage the kingpin. Stop the tractor before the fifth wheel comes out completely from underneath the trailer.
8. Adjust the landing legs to raise the trailer so it will clear the fifth wheel.
9. Pull the tractor forward to clear the trailer.

## A NOTE ON AIR PRESSURE

U.S. Federal Motor Vehicle Safety Standards part 121 now requires that the air compressor on all tractors pulling trailers must have higher air pressure levels in the supply line. This is required because the performance of modern brake systems requires higher pressures.

Because of this, you must check the pressure settings on the compressor governor on your tractor. If set properly, the compressor should cut-in at 105 psi and should cut-out at a minimum of 120 psi (Figure 35).

Do not attempt to tow your Eagle Bridge™ trailer if your tractor does not meet these requirements.



**Figure 35-Air Pressure Decal**

## LOADING THE TRAILER

When loading the trailer, the load must be distributed uniformly from the rear to the front. Read the following decals (Figures 36a, 36b and 36c) regarding loading safety. If you haul products that are granular and tend to flow, it is strongly recommended that you load the trailer from the rear forward. This will reduce the tendency for the material to force the chain flaps up, allowing the product to become lodged underneath the flaps. Your chain will last longer and require less frequent maintenance if you load in this manner.

If your trailer has a slide-up small door, make sure the safety latches at the bottom of the large door are securely latched before loading or towing the trailer.



**Figure 36a-Uneven Loading Decal**



**Figure 36b-Door Load Warning Decal**

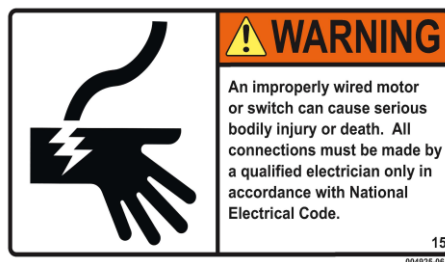


**Figure 36c-Fall Decal**

## DRIVE AND HYDRAULIC SYSTEMS

### SUPPLYING POWER TO THE ELECTRIC MOTOR

Because there are various types of receptacles, trailers equipped with electric motors do not have a plug attached to the wire pigtail at the factory. Consult a qualified electrician to determine the type and rating of plug needed and to have it installed (Figures 37 and 38). If a longer cord is necessary, use a plug to make the connection between the pigtail and the cord-**DO NOT** splice the conductors!

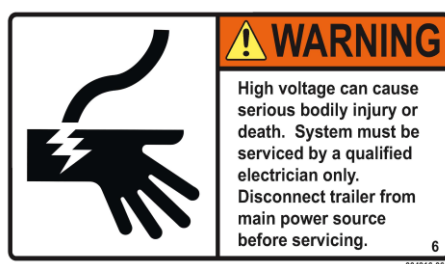


**Figure 37-Motor Wiring Decal**

You will also need to determine the appropriate size of extension cord needed for your application. The lengths given in Table 2 are the maximum recommended length for single-phase 220 VAC with a 2% maximum voltage drop. Consult a qualified electrician if your trailer uses a motor other than a single-phase 5HP or 7 ½ HP motor for proper cord sizes and lengths.

<b>5HP Single Phase</b>	
Conductor Size (AWG)	Cable Length (Ft)
14	60
12	95
10	150
8	240
6	350

**Table 2-Maximum Electrical Motor Cord Size, 1Ø 220 VAC**



**Figure 38-Electrical Servicing Decal**

## OPERATING THE REAR DOOR(S) AND UNLOADING SYSTEM

Trinity Trailer manufactures multiple rear doors to meet the needs of our customers. Please review the following pages to locate the instructions which apply to your door.

### DOOR AND CONVEYOR SYSTEM COMPONENT IDENTIFICATION

#### Manual Flip-Up Door

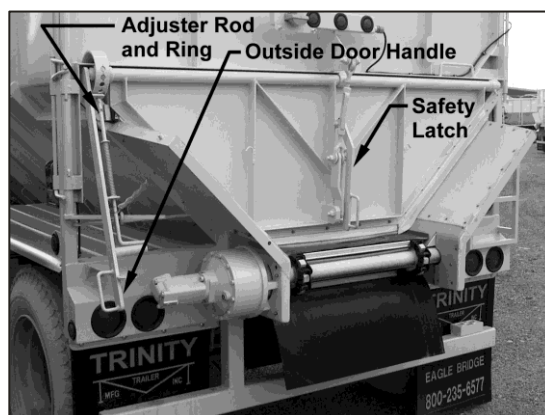


Figure 39-Manual Flip-Up Door Components

#### Manual Slide-Up Door

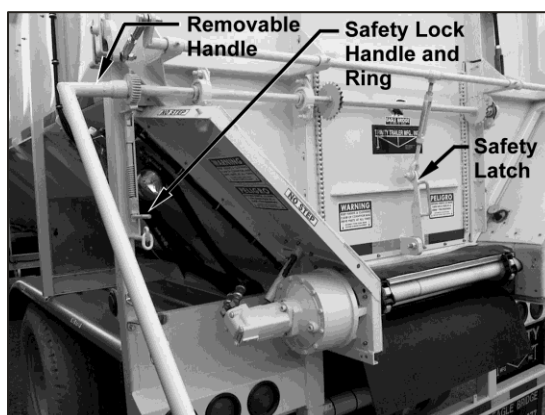


Figure 40-Manual Slide-Up Door Components

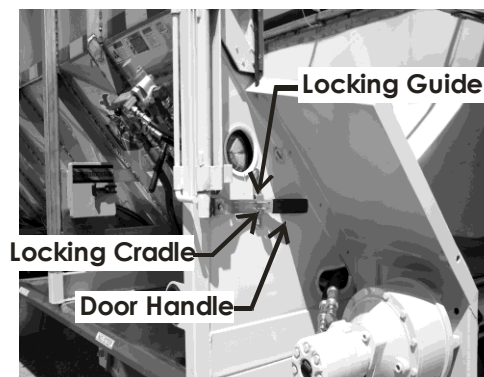
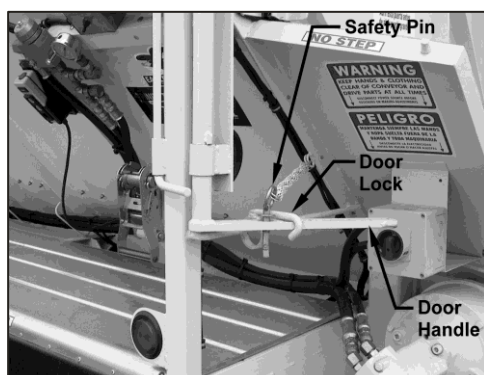


**Figure 41**-Manual Slide-Up Door Handle-Stowed

### Full-Swing Hydraulic Flip-Up



**Figure 42**-Full-Swing Door (Hydraulic Flip-Up Version Shown)

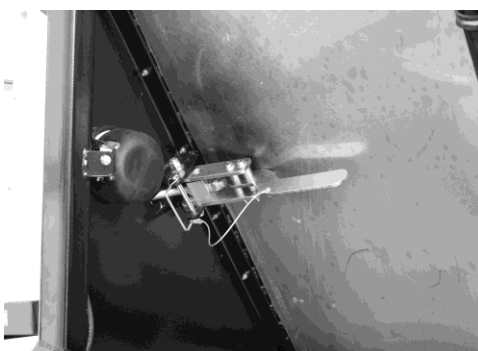


**Figure 43**-Full-Swing Door Latch Components



**Figure 44**-Full-Swing Door, Curbside

### **Full-Swing Slide-Up Door Clamp Latches**



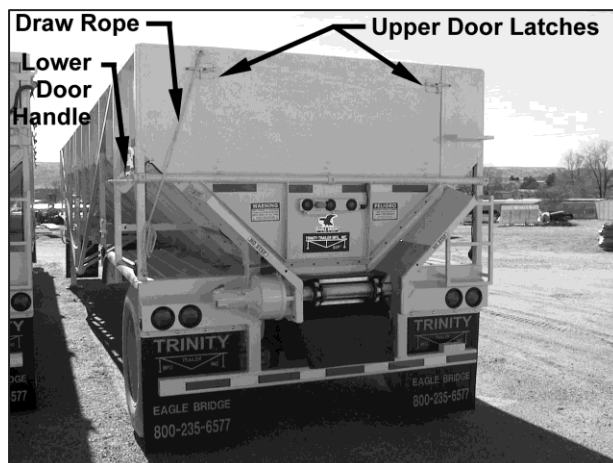
**Figure 45**-Clamp Latch Secured



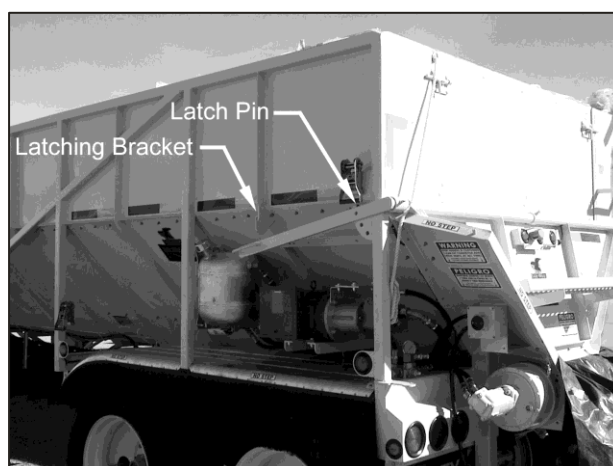
**Figure 46**-Clamp Latch Disengaged



## “Spud” Door

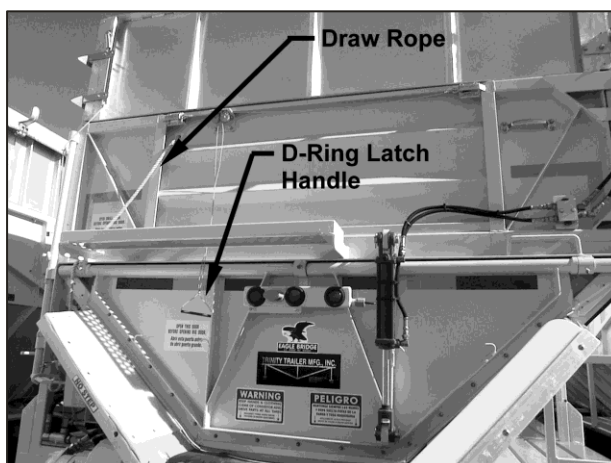


**Figure 47-**Manual “Spud” Door Components



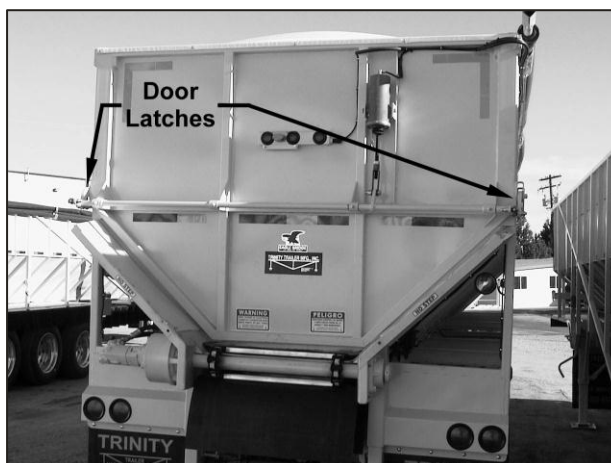
**Figure 48-**Manual Lower “Spud” Door Handle

## Full-Swing “Spud” Door



**Figure 49-Full-Swing “Spud” Door Components**

## Top-Hinge Door Pneumatic Latch



**Figure 50-Top-Hinge Door Pneumatic Latch**



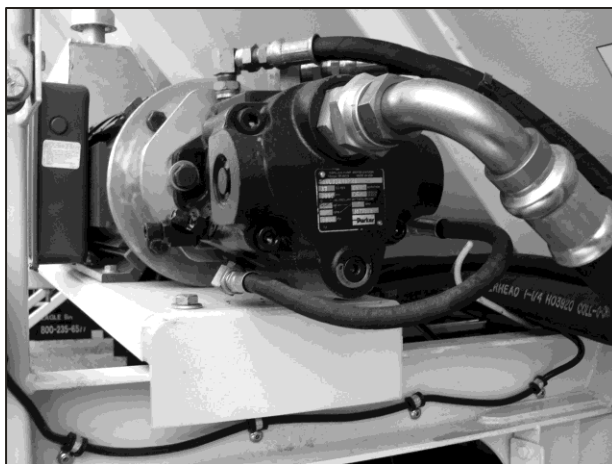
## Top-Hinge Slide-Up Door Safety Latch



**Figure 51-**Top-Hinged Slide-Up Door Safety Latch

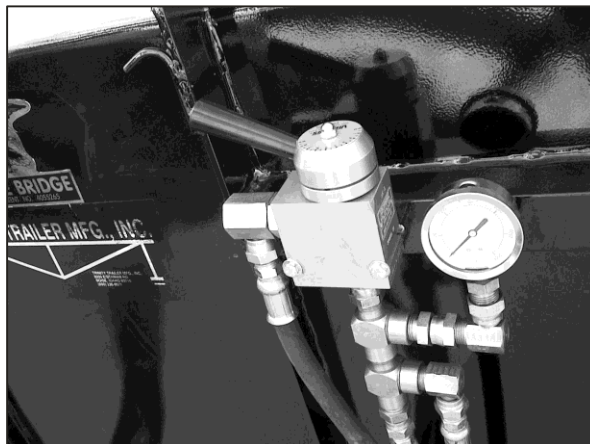


**Figure 52-**20HP Gasoline Engine  
(Shown mounted in optional motor box)



**Figure 53-**End View 5HP Electric Motor/Pump

## Door and Conveyor Controls



**Figure 54-**Needle Valve Used to Control Conveyor Speed



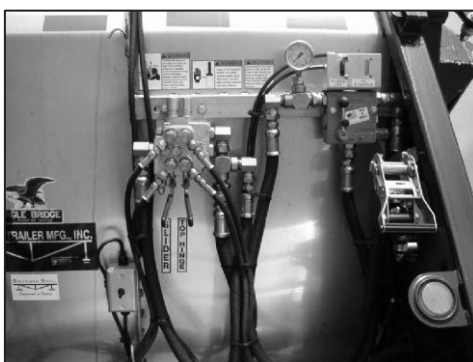
**Figure 55-**Flow Control Valve Used to Control Conveyor Speed with PTO Systems



**Figure 56-**Push-Pull Valve Used to Select Door or Conveyor



**Figure 57a-Door Valve for Opening and Closing Door**



**Figure 57b-Double Spool Valve for Opening Top Hinge Slide-Up Doors**



**Figure 58-DC Hydraulic Control Unit**

## GENERAL DOOR SAFETY

Figures 59 through 64 are decals that were installed on your trailer when it was built regarding the safe operation of the rear door(s). Completely read through this information and adhere to it when operating the door(s).



**Figure 59-Door Security Decal**



**Figure 60-Door Opening Sequence**



**Figure 61-Getting Behind Trailer Decal**



**Figure 62-Front Wet Seal Decal**



**Figure 63-Slide-Up Door Decal**



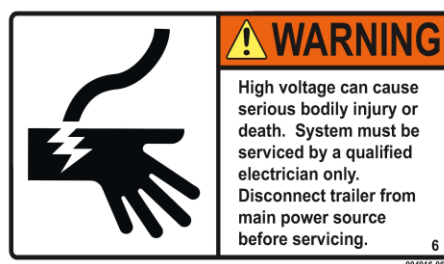
**Figure 64-Overhead Door Decal**

## GENERAL CONVEYOR SAFETY

The conveyor system on your trailer can be very dangerous if it is not operated properly. Figures 65 through 67 show decals that were placed on your trailer when it was built. Read and understand each of them before operating the conveyor system.



**Figure 65-**Conveyor with Doors Closed Decal



**Figure 66-**Voltage Warning Decal



**Figure 67-**Hydraulic Valve Decal

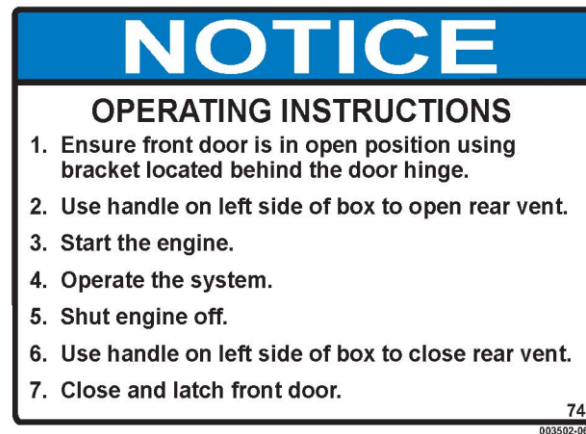
## CONVEYOR OPERATION

### ELECTRICALLY-DRIVEN HYDRAULIC SYSTEM OPERATION (FIGURE 53)

1. Ensure the rear door is open. (*Procedures for opening the door are following this procedure*).
2. Make sure the electric motor is in the 'off' position.
3. Rotate the needle valve (Figure 54) so the lever is toward the front of the trailer.
4. Plug the electric motor into an approved receptacle which is appropriately sized and has the necessary safety mechanisms to properly operate the motor. It is the operator's responsibility to ensure that the installation is safe.
5. Switch the electric motor on.
6. If your trailer has a hydraulic door, place the push-pull valve (Figure 56) in the 'conveyor' position.
7. **Move needle valve 1 or 2 clicks to start the conveyor. As the load is discharged, the conveyor speed can be gradually increased. If the conveyor does not start moving, check the pressure reading on the gauge. If it is still increasing, wait until it reaches full operating pressure (2500 PSI). If conveyor still does not move, DO NOT increase the flow control setting. Call Trinity Trailer Mfg. at 800-235-6577 for assistance.**

### GAS ENGINE-DRIVEN HYDRAULIC SYSTEM OPERATION (FIGURE 52)

1. Ensure the rear door is open. (*Procedures for opening the door are following this procedure*).
2. Rotate the needle valve (Figure 54) so the lever is toward the front of the trailer.
3. Start the engine in accordance with the engine owner's manual. If you have the optional motor box, use the instructions shown below in Figure 68.
4. Set the engine throttle at approximately 2/3 full open. The engine will produce the most torque at this setting-not full throttle.
5. If your trailer has a hydraulic door, place the push-pull valve (Figure 56) in the 'conveyor' position.
6. **Move needle valve 1 or 2 clicks to start the conveyor. As the load is discharged, the conveyor speed can be gradually increased. If the conveyor does not start moving, check the pressure reading on the gauge. If it is still increasing, wait until it reaches full operating pressure (2500 PSI). If conveyor still does not move, DO NOT increase the flow control setting. Call Trinity Trailer Mfg. at 800-235-6577 for assistance.**



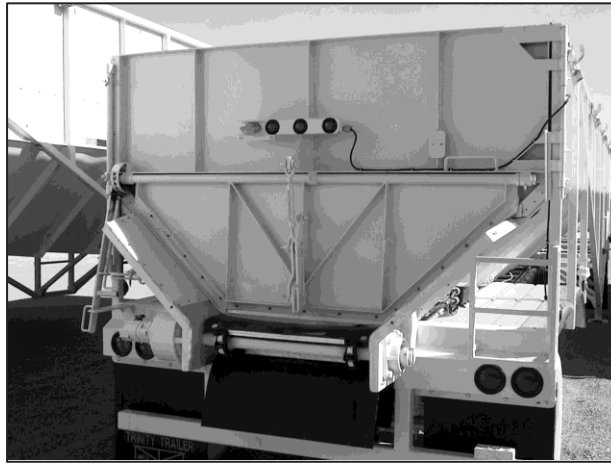
**Figure 68-**Operating Instructions for a Honda 20HP Gasoline Engine with Optional Motor Box

## **TRACTOR-DRIVEN PTO HYDRAULIC SYSTEM OPERATION**

1. Make sure the PTO is off.
2. Make sure the flow control valve (Figure 55) is shut off.
3. Check the connections between the tractor and the trailer to ensure the pressure and return lines are connected properly and securely.
4. Ensure the rear door is open. (*Procedures for opening the door are following this procedure*).
5. Engage the PTO on the tractor.
6. Adjust the flow control valve to obtain the desired conveyor speed. If the desired speed cannot be reached with the flow control valve completely open, increase the engine rpm on the tractor.
7. Reduce the engine rpm on the tractor to idle before trying to control the conveyor speed with the flow control valve.



## FULL-SWING DOOR WITH MANUAL FLIP-UP DOOR



**Figure 69**-Full-Swing Door with Manual Flip-Up Door



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Flip-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Opening the Flip-Up Door (Figure 39)

1. Release the safety latch located on the flip-up door by pulling the handle out away from the trailer door (if equipped).
2. Pull the outside door handle out of the retaining slot.
3. Squeeze the adjuster rod on the handle until it comes out of the adjuster ring.
4. Raise the handle until the desired opening is reached.
5. Release the adjuster rod into the nearest hole in the adjuster ring.

### Opening the Full-Swing Door (Figures 42 to 44)

1. Open the flip-up door using the procedure above.
2. Remove the safety pin from the handle or rotate the handle locking guide counter-clockwise to release handle.
3. Slide the door lock to the roadside of the trailer and disengage from the handle or lift handle from locking cradle.



4. Pull the handle to disengage the side latches.
5. Pull the full-swing door toward the curbside of the trailer and secure it to the side of the trailer with the chain and pin provided.

### **Closing the Door(s)**

Make sure the conveyor is not operating and reverse the procedures above.

## FULL-SWING DOOR WITH HYDRAULIC FLIP-UP DOOR



**Figure 70-Full-Swing Door with Hydraulic Flip-Up Door**



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Flip-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System

1. Place the push-pull valve (Figure 56) in the door position.
2. Start the gas engine (Figure 68) or electric motor.
3. Rotate the needle valve (Figure 54) to the lowest setting which will operate the door.
4. Raise the handle on the door valve (Figure 59) to raise the door to the desired height.
5. Turn off needle valve.
6. If the full-swing door needs to be opened, open it now (see instructions below).
7. After the door(s) are open, move the push-pull valve to the conveyor setting.
8. Adjust the needle valve until the desired conveyor speed is reached.
9. After the load has discharged, stop the conveyor with the needle valve.
10. Close the full-swing door if open (see instructions below).
11. Move the push-pull valve to the door position.
12. Rotate the needle valve to the lowest setting which will operate the door.
13. Lower the handle on the door valve to close the door.
14. Turn off the needle valve.
15. Turn off the gas engine or electric motor.

### **Operation with a Tractor-Driven PTO Hydraulic System**

1. Make sure the PTO is off.
2. Make sure the flow control valve (Figure 55) is in the off position.
3. Check the connections between the tractor and the trailer to ensure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Raise the handle on the door valve to open the door to the desired height.
6. If the full-swing door needs to be opened, open it now (see instructions below).
7. Adjust the flow control valve until the desired conveyor speed is reached.
8. After the load is discharged, stop the conveyor with the flow control valve.
9. Close the full-swing door if open (see instructions below).
10. Lower the handle on the door valve to close the door.
11. Disengage the PTO.

### **Operation with a Combination Tractor-Driven PTO Hydraulic System and Gas-Driven and/or Electrically-Driven Hydraulic System**

Use the procedures above for the hydraulic system you are using. The door and conveyor will operate with the second system not running.

### **Opening the Full-Swing Door (Figures 42 to 44)**

1. Make sure the conveyor is not operating.
2. Open the flip-up door using the appropriate procedure above.
3. Remove the safety pin from the handle or rotate the handle locking guide counter-clockwise to release handle.
4. Slide the door lock to the roadside of the trailer and disengage from the handle or lift handle from locking cradle.
5. Pull the handle to disengage the side latches.
6. Pull the full-swing door toward the curbside of the trailer and secure the door to the trailer with the chain and pin provided.

### **Closing the Door(s)**

Make sure the conveyor is not operating and reverse the procedures above.

## FULL-SWING DOOR WITH DC-POWERED HYDRAULIC FLIP-UP DOOR



**Figure 71**-Full-Swing Door with DC-Powered Hydraulic Flip-Up Door



### WARNING

Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



### WARNING

Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



### WARNING

Flip-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Opening the Flip-Up Door

1. Make sure the electrical supply from the tractor to the trailer is properly connected.
2. Make sure the conveyor is off.
3. Push the up arrow button on the DC control unit (Figure 71 inset) to open the flip-up door to the desired height.

### Opening the Full-Swing Door (Figures 42 to 44)

1. Make sure the conveyor is not operating.
2. Completely open the flip-up door using the procedure above.
3. Remove the safety pin from the handle or rotate the handle locking guide counter-clockwise to release handle.
4. Slide the door lock to the roadside of the trailer and disengage from the handle or lift handle from locking cradle.
5. Pull the full-swing door toward the curbside of the trailer and secure the door to the side of the trailer with the chain and pin provided.

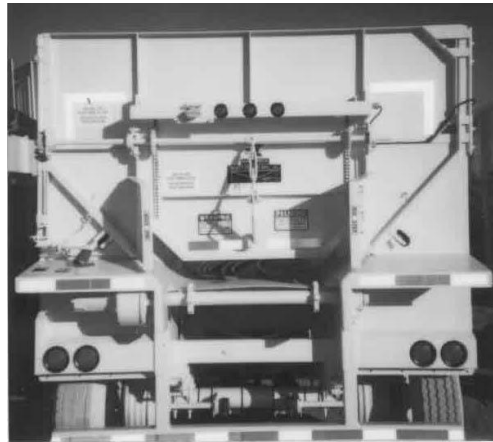
### **Closing the Full-Swing Door**

Make sure the conveyor is not operating and reverse the procedures above.

### **Closing the Flip-Up Door**

1. Make sure the conveyor is not operating.
2. Make sure the full-swing door is properly closed.
3. Push the down arrow button on the DC control unit to close the door.

## FULL-SWING DOOR WITH MANUAL SLIDE-UP DOOR



**Figure 72**-Full-Swing Door with Manual Slide-Up Door



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Slide-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Opening the Slide-Up Door (Figures 40 and 41)

1. Make sure the conveyor is not operating.
2. Release the safety latch located on the slide-up door by pulling the handle out away from the trailer door.
3. Remove the handle from its storage place at the center of the trailer.
4. Attach the handle to the nut located on the horizontal shaft just above the slide-up door.
5. Squeeze the safety lock handle down and place the loop over it to hold the safety in the unlocked position. (Note: To release the tension on the safety latch, pull the handle toward the back of the trailer).
6. Push the handle toward the front of the trailer to raise the door to the desired height.
7. Take the loop off the safety latch handle and release the safety. This will hold the door open.

**NOTE**

**Clamps must be in place and must be tight to unload through the slide up door (Figure 45).**

**Closing the Slide-Up Door**

Make sure the conveyor is not operating and reverse the procedures above.

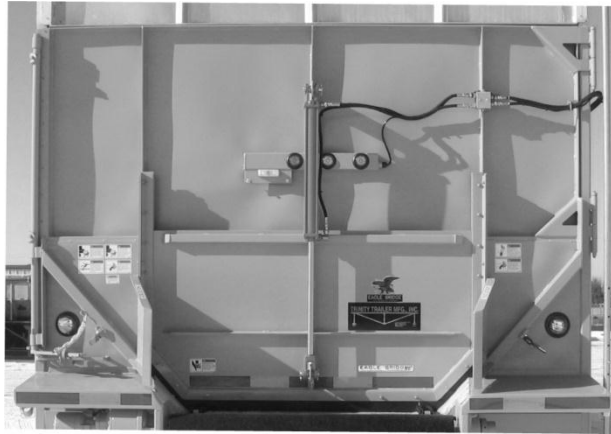
**Opening the Full-Swing Door (Figures 42, 43, 44 and 46)**

1. Make sure the conveyor is not operating.
2. Open the slide-up door using the procedure above. The slide-up door must be raised high enough to clear the rear trailer skirts to open the full-swing door.
3. Release the two safety latches located on each side of the lower portion of the door.
4. Remove the safety pin from the handle or rotate the handle locking guide counter-clockwise to release handle.
5. Slide the door lock to the roadside of the trailer and disengage from the handle or lift handle from locking cradle.
6. Pull the full-swing door toward the curbside of the trailer and secure the door to the trailer with chain and pin provided.

**Closing the Full-Swing Door**

Make sure the conveyor is not operating and reverse the procedure above.

## FULL-SWING DOOR WITH HYDRAULIC SLIDE-UP DOOR



**Figure 73**-Full-Swing Door with Hydraulic Slide-Up Door



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Slide-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System

1. Place the push-pull valve (Figure 56) in the door position.
2. Start the gas engine (Figure 68) or electric motor.
3. Rotate the needle valve (Figure 54) to the lowest setting which will operate the door.
4. Raise the handle on the door valve (Figure 59) to raise the door to the desired height.
5. Turn off the needle valve.
6. If the full-swing door needs to be opened, open it now (see instructions below).
7. After the door(s) are open, move the push-pull valve to the conveyor setting.
8. Adjust the needle valve until the desired conveyor speed is reached.
9. After the load is discharged, stop the conveyor with the needle valve.
10. Close the full-swing door if open (see instructions below).
11. Move the push-pull valve to the door position.
12. Rotate the needle valve to the lowest setting which will allow the door to operate.
13. Lower the handle on the door valve to close the door.
14. Turn off the needle valve.
15. Turn off the gas engine or electric motor.



**NOTE**

**Clamps must be in place and must be tight to unload through the slide up door (Figure 45).**

**Operation with a Tractor-Driven PTO Hydraulic System**

1. Make sure the PTO is off.
2. Make sure the flow control valve (Figure 55) is in the off position.
3. Check the connections between the tractor and trailer to make sure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Raise the handle on the door valve to open the door to the desired height.
6. If the full-swing door needs to be opened, open it now (see instructions below).
7. Adjust the flow control valve until the desired conveyor speed is reached.
8. After the load has discharged, stop the conveyor with the flow control valve.
9. Close the full-swing door if open (see instructions below).
10. Lower the handle on the door valve to close the door.
11. Disengage the PTO.

**NOTE**

**Clamps must be in place and must be tight to unload through the slide up door (Figure 45).**

**Operation with Combination Tractor-Drive PTO and Gas-Driven and/or Electrically-Driven Hydraulic System**

**Tractor-Driven PTO**

1. Make sure the PTO is off.
2. Make sure the flow control valve is in the off position.
3. Check the connections between the tractor and trailer to make sure the pressure and return lines are connected properly and securely.
4. Place the push-pull valve in the door position.
5. Engage the PTO.
6. Raise the handle on the door valve to open the door to the desired height.
7. If the full-swing door needs to be opened, open it now (see instructions below).
8. After the door(s) are open, move the push-pull valve to the conveyor setting.
9. Adjust the flow control valve until the desired conveyor speed is reached.
10. After the load has discharged, stop the conveyor with the flow control valve.
11. Close the full-swing door if open (see instructions below).

12. Place the push-pull valve in the door position.
13. Lower the handle on the door valve to close the door.
14. Disengage the PTO.

**NOTE**

**Clamps must be in place and must be tight to unload through the slide up door (Figure 45).**

**Gas or Electrically-Driven System**

Use the procedures above for the hydraulic system you are using.

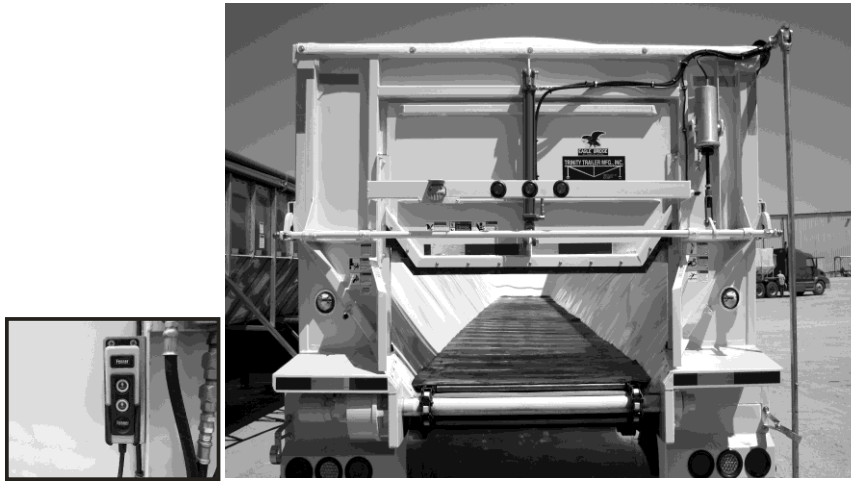
**Opening the Full-Swing Door (Figures 42, 43, 44 and 46)**

1. Make sure the conveyor is not operating.
2. Open the slide-up door using the procedure above. The slide-up door must be raised enough to clear the rear trailer skirts to open the full-swing door.
3. Release the clamps located on each side of the lower portion of the door.
4. Remove the safety pin from the handle or rotate the handle locking guide counter-clockwise to release handle.
5. Slide the door lock to the roadside of the trailer and disengage from the handle or lift handle from locking cradle.
6. Pull the full-swing door toward the curbside of the trailer and secure the door to the side of the trailer with the chain and pin provided.

**Closing the Full-Swing Door**

Make sure the conveyor is not operating and reverse the procedures above.

## FULL-SWING DOOR WITH DC-POWERED HYDRAULIC SLIDE-UP DOOR



**Figure 74**-Full-Swing Door with DC-Powered Hydraulic Slide-Up Door



### WARNING

Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



### WARNING

Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



### WARNING

Slide-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Opening the Slide-Up Door

1. Make sure the electrical supply from the tractor to the trailer is properly connected.
2. Make sure the conveyor is not operating.
3. Push the up arrow button on the DC control unit (Figure 74 inset) to open the slide-up door to the desired height.

### NOTE

**Clamps must be in place and must be tight to unload through the slide up door (Figure 45).**

### **Opening the Full-Swing Door (Figures 42, 43, 44 and 46)**

1. Open the slide-up door using the procedure above. The slide-up door must be raised high enough to clear the rear trailer skirts to open the full-swing door.
2. Release the clamps located on each side of the lower portion of the door.
3. Remove the safety pin from the handle or rotate the handle locking guide counter-clockwise to release handle.
4. Slide the door lock to the roadside of the trailer and disengage from the handle or lift handle from locking cradle.
5. Pull the full-swing door toward the curbside of the trailer and secure the door to the side of the trailer with the chain and pin provided.

### **Closing the Full-Swing Door**

Make sure the conveyor is not operating and reverse the procedure above.

### **Closing the Slide-Up Door**

1. Make sure the conveyor is not running.
2. Make sure the full-swing door is properly closed.
3. Push the down arrow button on the DC control unit to close the door.

## MANUAL “SPUD” DOOR



**Figure 75-**Manual “Spud” Door



### **WARNING**

Do not get behind a loaded trailer with the door(s) open. The trailer’s contents could spill on you causing serious injury or death.



### **WARNING**

Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



### **WARNING**

Flip-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### **Opening the Flip-Up Door (Figure 48)**

1. Make sure the conveyor is not operating.
2. Remove the latch pin (located just below the tarp ratchet) from the door handle.
3. Pull the handle out away from the trailer to release the handle from the latching bracket.
4. Pull down on the handle until the door reaches the desired opening and replace the latch pin back in the door handle.

### **Closing the Flip-Up Door**

Make sure the conveyor is not operating and reverse the procedure above.

### **Opening the Fold-Down Door (Figure 47)**

1. Release the two latches at the sides of the fold down door by raising the lever and sliding the latch toward the center of the door.
2. Lower the door using the draw rope to keep it from falling rapidly.

### **Closing the Fold-Down Door**

Close the fold-down door by reversing the procedure above.

## FULL-SWING “SPUD” DOOR WITH MANUAL FLIP-UP DOOR



**Figure 76**-Full-Swing “Spud” Door with Manual Flip-Up Door



Do not get behind a loaded trailer with the door(s) open. The trailer’s contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Flip-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Opening the Flip-Up Door (Figure 39)

1. Release the safety latch located on the flip-up door by pulling the handle out away from the trailer door (if equipped).
2. Pull the outside door handle out of the retaining slot.
3. Squeeze the adjuster rod on the handle until it comes out of the adjuster ring.
4. Raise the handle until the desired opening is reached.
5. Release the adjuster rod into the nearest hole in the adjuster ring.

### Closing the Flip-Up Door

Make sure the conveyor is not operating and reverse the procedures above.

### **Opening the Fold-Down Door (Figure 49)**

1. Release the two latches at the sides of the fold down door.
2. Lower the door using the draw rope to keep it from falling rapidly.

### **Closing the Fold-Down Door**

Close the fold-down door by reversing the procedure above.

### **Opening the Full-Swing Door (Figures 42 to 44)**

1. Open the flip-up door using the procedure above.
2. Remove the safety pin from the handle or rotate the handle locking guide counter-clockwise to release handle.
3. Slide the door lock to the roadside of the trailer and disengage from the handle or lift handle from locking cradle.
4. Pull the full-swing door toward the curbside of the trailer and secure it to the side of the trailer with the chain and pin provided.

### **Closing the Full-Swing Door**

Make sure the conveyor is not operating and reverse the procedures above.



## FULL-SWING “SPUD” DOOR WITH HYDRAULIC FLIP-UP DOOR



**Figure 77**-Full-Swing “Spud” Door with Hydraulic Flip-Up Door



### **WARNING**

Do not get behind a loaded trailer with the door(s) open. The trailer’s contents could spill on you causing serious injury or death.



### **WARNING**

Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



### **WARNING**

Flip-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### **Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System**

1. Place the push-pull valve (Figure 56) in the door position.
2. Start the gas engine (Figure 68) or electric motor.
3. Rotate the needle valve (Figure 54) to the lowest setting which will operate the door.
4. Raise the handle on the door valve (Figure 59) to raise the door to the desired height.
5. Turn off needle valve.
6. If the full-swing door needs to be opened, open it now (see instructions below).
7. After the door(s) are open, move the push-pull valve to the conveyor setting.
8. Adjust the needle valve until the desired conveyor speed is reached.
9. After the load has discharged, stop the conveyor with the needle valve.
10. Close the full-swing door if open (see instructions below).
11. Move the push-pull valve to the door position.
12. Rotate the needle valve to the lowest setting which will operate the door.
13. Lower the handle on the door valve to close the door.
14. Turn off the needle valve.
15. Turn off the gas engine or electric motor.

### **Operation with a Tractor-Driven PTO Hydraulic System**

1. Make sure the PTO is off.
2. Make sure the flow control valve (Figure 55) is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Raise the handle on the door valve to open the door to the desired height.
6. If the full-swing door needs to be opened, open it now (see instructions below).
7. Adjust the flow control valve until the desired conveyor speed is reached.
8. After the load has discharged, stop the conveyor with the flow control valve.
9. Close the full-swing door if open (see instructions below).
10. Lower the handle on the door valve to close the door.
11. Disengage the PTO.

### **Operation with a Combination Tractor-Driven PTO Hydraulic System and Gas-Driven and/or Electrically-Driven Hydraulic System**

#### **Tractor-Driven PTO**

1. Make sure the PTO is off.
2. Make sure the flow control valve is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Place the push-pull valve in the door position.
5. Engage the PTO.
6. Raise the handle on the door valve to open the door to the desired height.
7. If the full-swing door needs opening, open it now (see instructions below).
8. After the door(s) are open, move the push-pull valve to the conveyor setting.
9. Adjust the flow control valve until the desired conveyor speed is reached.
10. After the load has discharge, stop the conveyor with the flow control valve.
11. Close the full-swing door if open (see instructions below).
12. Place the push-pull valve in the door position.
13. Lower the handle on the door valve to close the door.
14. Disengage the PTO.

#### **Gas or Electrically-Driven System**

Use the procedures above for the hydraulic system you are using.

### **Opening the Fold-Down Door (Figure 49)**

1. Release the two latches at the sides of the door by lifting the latches and sliding towards the center of the door.
2. Lower the door using the draw rope to keep it from falling rapidly.

### **Closing the Fold-Down Door**

Close the fold-down door by reversing the procedure above.

### **Opening the Full-Swing Door (Figures 42 to 44)**

1. Make sure the conveyor is not operating.
2. Open the flip-up door using the appropriate procedure above.
3. Remove the safety pin from the handle or rotate the handle locking guide counter-clockwise to release handle.
4. Slide the door lock to the roadside of the trailer and disengage from the handle or lift handle from locking cradle.
5. Pull the full-swing door toward the curbside of the trailer and secure the door to the side of the trailer with the chain and pin provided.

### **Closing the Door(s)**

Make sure the conveyor is not operating and reverse the procedure above.

## TOP-HINGED DOOR WITH MANUAL LATCH AND PNEUMATIC LIFT



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Top-hinge door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Opening the Top-Hinged Door

1. Make sure the conveyor is not operating.
2. Pull the door handle out of the retaining slot.
3. Pull the door handle toward the front of the trailer to release the door latches.
4. Turn the conveyor on slowly and set to the desired unloading speed.
5. Move the toggle valve up to activate the pneumatic cylinder which will hold the door open after the load has been discharged. The door will be held partially open to allow all of the product to leave the trailer. ***Note: The pneumatic cylinder is not intended to open the door; it merely helps support it.***

### Closing the Top-Hinged Door

1. Make sure the conveyor is not operating.
2. Move the toggle valve down to release the air in the pneumatic cylinder, allowing the door to close.
3. Pull the door handle toward the back of the trailer catching and latching the door on the pins.
4. Put the handle back in the retaining slot.

## TOP-HINGED DOOR WITH MANUAL LATCH, PNEUMATIC LIFT AND MANUAL SLIDE-UP DOOR



### WARNING

Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



### WARNING

Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



### WARNING

Slide-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Opening the Top-Hinged Door

1. Make sure the conveyor is not operating.
2. Locate and release the safety latches on both sides of the door (Figure 51).
3. Pull the door handle out of the retaining slot.
4. Pull the door handle toward the front of the trailer to release the door latches.
5. Turn the conveyor on slowly and set to the desired unloading speed.
6. Move the toggle valve up to activate the pneumatic cylinder which will hold the door open after the load has discharged. The door will be held partially open to allow all of the product to leave the trailer. ***Note: The pneumatic cylinder is not intended to open the door; it merely helps support it.***

### Closing the Top-Hinged Door

1. Make sure the conveyor is not operating.
2. Move the toggle valve down to release the air in the pneumatic cylinder, allowing the door to close.
3. Pull the door handle toward the back of the trailer, catching and latching the door on the pins.
4. Put the handle back in the retaining slot.
5. Engage the safety latches on both side of the door.

### **Opening the Slide-Up Door (Figures 40, 41 and 51)**

1. Make sure the conveyor is not operating.
2. Make sure the safety latches are engaged on both sides of the door.
3. Release the latch located on the slide-up door by pulling the handle away from the trailer door.
4. Remove the handle from its storage place at the center of the trailer.
5. Attach the handle to the nut located on the shaft just above the slide-up door.
6. Squeeze the safety lock handle down and place the loop over it to hold the safety in the unlocked position. ***Note: To release the tension on the safety latch, pull the handle toward the back of the trailer***
7. Push the handle toward the front of the trailer to raise the door to the desired height.
8. Take the loop off of the safety latch handle and release the safety. This will hold the door open.

### **Closing the Slide-Up Door**

Make sure the conveyor is not operating and reverse the procedure above.

## TOP-HINGED DOOR WITH PNEUMATIC LATCH AND PNEUMATIC LIFT



**Figure 78-**Top-Hinged Door with Pneumatic Latch and Pneumatic Lift



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Top-hinge door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Opening the Top-Hinged Door

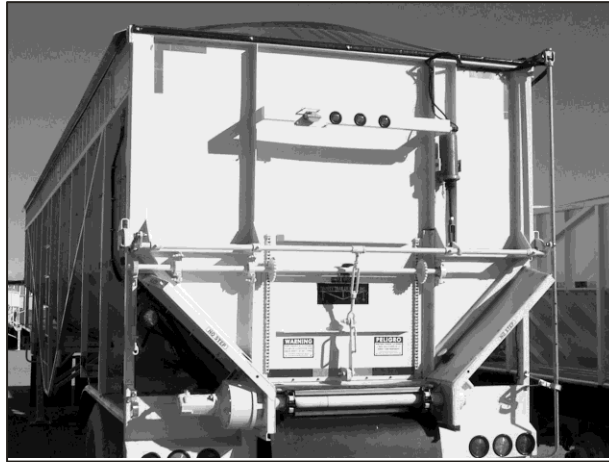
1. Make sure the conveyor is not operating.
2. Move the toggle valve up to release the door latches. This will also slowly activate the pneumatic cylinder which will hold the door open after the load has discharged. The door will be help partially open to allow all of the product to leave the trailer.

***Note: The pneumatic cylinder is not intended to open the door; it merely helps support it.***

### Closing the Top-Hinged Door

1. Make sure the conveyor is not operating.
2. Move the toggle valve down to release air from the pneumatic cylinder, allowing the door to close and latch.
3. Make sure the air-operated latches are properly latched.

## TOP-HINGED DOOR WITH PNEUMATIC LATCH, PNEUMATIC LIFT AND MANUAL SLIDE-UP DOOR



**Figure 79-Top-Hinged Door with Pneumatic Latch and Pneumatic Lift  
and Manual Slide-Up Door**



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Slide-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Opening the Top-Hinged Door

1. Make sure the conveyor is not operating.
2. Locate and release the safety latches on both sides of the door (Figure 51).
3. Move the toggle valve to release the door latches. This will also slowly activate the pneumatic cylinder which will hold the door open after the load has discharged. The door will be held open to allow all of the product to leave the trailer. ***Note: The pneumatic cylinder is not intended to open the door; it merely helps support it.***
4. Turn the conveyor on slowly and set to the desired unloading speed.



### **Closing the Top-Hinged Door**

1. Make sure the conveyor is not operating.
2. Move the toggle valve down to release the air from the pneumatic cylinder, allowing the door to close and latch the door.
3. Make sure the air-operated latches are properly latched.
4. Engage the safety latches on both sides of the door.

### **Opening the Slide-Up Door (Figures 40, 41 and 51)**

1. Make sure the conveyor is not operating.
2. Make sure the safety latches are in place at the bottom of the door.
3. Release the latch located on the slide-up door by pulling the handle away from the trailer door.
4. Remove the handle from its storage place at the center of the trailer.
5. Attach the handle to the nut located on the horizontal shaft just above the slide-up door.
6. Squeeze the safety lock handle down and place the loop over it to hold the safety in the unlocked position. ***Note: To release the tension on the safety latch, pull the handle toward the back of the trailer.***
7. Push the handle toward the front of the trailer to raise the door to the desired height.
8. Take the loop off of the safety latch handle and release the safety. This will hold the door open.

### **Closing the Slide-Up Door**

Make sure the conveyor is not operating and reverse the procedure above.

## TOP-HINGED DOOR WITH MANUAL LATCH AND HYDRAULIC LIFT



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Top-hinge door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System

1. Place the push-pull valve (Figure 56) in the door position.
2. Start the gas engine (Figure 68) or electric motor.
3. Pull the door handle out of the retaining slot.
4. Pull the door handle toward the front of the trailer to release the door latches.
5. Rotate the needle valve (Figure 54) to the lowest setting which will operate the door.
6. Raise the handle on the door valve (Figure 59) to raise the door completely.
7. Turn off the needle valve.
8. Move the push-pull valve to the conveyor setting.
9. Adjust the needle valve until the desired conveyor speed is reached.
10. After the load is discharged, stop the conveyor with the needle valve.
11. Move the push-pull valve to the door position.
12. Rotate the needle valve to the lowest setting which will operate the door.
13. Lower the handle on the door valve to close the door.
14. Turn off the needle valve.
15. Pull the door handle toward the back of the trailer, catching and latching the door on the pins.
16. Put the handle back in the retaining slot.
17. Turn off the gas engine or electric motor.

### Operation with a Tractor-Driven PTO Hydraulic System

1. Make sure the PTO is off.
2. Make sure the flow control valve (Figure 55) for the conveyor is in the off position.
3. Check the connections between the tractor and trailer to make sure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Pull the door handle out of the retaining slot.
6. Pull the door handle toward the front of the trailer to release the door latches.
7. Raise the handle on the door valve to lift the door to the desired height.
8. After opening the door, slowly adjust the flow control valve until the desired conveyor speed is reached.

9. After the load has discharged, stop the conveyor with the flow control valve.
10. Lower the handle on the door valve to close the door.
11. Pull the door handle toward the back of the trailer, catching and latching the door on the pins.
12. Put the handle back in the retaining slot.
13. Disengage the PTO.

### **Opening Door with Combined Tractor-Driven PTO and Gas-Driven and/or Electrically-Driven Hydraulic Systems**

#### **Tractor-Driven PTO**

1. Make sure the PTO is off.
2. Make sure the flow control valve is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines connected properly and securely.
4. Place the push-pull valve in the door position.
5. Engage the PTO.
6. Pull the door handle out of the retaining slot.
7. Pull the door handle toward the front of the trailer to release the door latches.
8. Raise the handle on the door valve to open the door to the desired height.
9. Move the push-pull valve to the conveyor setting.
10. Adjust the flow control valve until the desired conveyor speed is reached.
11. After the load has discharged, stop the conveyor with the flow control valve.
12. Place the push-pull valve in the door position.
13. Lower the handle on the door valve to close the door.
14. Pull the door handle toward the back of the trailer, catching and latching the door on the pins.
15. Put the handle back in the retaining slot.
16. Disengage the PTO.

#### **Gas or Electrically-Driven System**

Use the procedures above for the hydraulic system you are using.

## **TOP-HINGED DOOR WITH MANUAL LATCH, HYDRAULIC LIFT AND MANUAL SLIDE-UP DOOR**



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Slide-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### **Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System**

1. Place the push-pull valve (Figure 56) in the door position.
2. Start the gas engine (Figure 68) or electric motor.
3. Pull the door handle out of the retaining slot.
4. Pull the door handle toward the front of the trailer to release the door latches.
5. Rotate the needle valve (Figure 54) to the lowest setting which will operate the door.
6. Raise the handle on the door valve (Figure 59) to raise the door completely.
7. Turn off the needle valve.
8. Move the push-pull valve to the conveyor setting.
9. Adjust the needle valve until the desired conveyor speed is reached.
10. After the load is discharged, stop the conveyor with the needle valve.
11. Move the push-pull valve to the door position.
12. Rotate the needle valve to the lowest setting which will operate the door.
13. Lower the handle on the door valve to close the door.
14. Turn off the needle valve.
15. Pull the door handle toward the back of the trailer, catching and latching the door on the pins.
16. Put the handle back in the retaining slot.
17. Turn off the gas engine or electric motor.

### **Operation with a Tractor-Driven PTO Hydraulic System**

1. Make sure the PTO is off.
2. Make sure the flow control (Figure 55) for the conveyor is in the off position.
3. Check the connections between the tractor and trailer to make sure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Pull the door handle out of the retaining slot.
6. Pull the door handle toward the front of the trailer to release the door latches.
7. Raise the handle on the door valve to lift the door to the desired height.

8. After opening the door, slowly adjust the flow control valve until the desired conveyor speed is reached.
9. After the load has discharged, stop the conveyor with the flow control valve.
10. Lower the handle on the door valve to close the door.
11. Pull the door handle toward the back of the trailer, catching and latching the door on the pins.
12. Put the handle back in the retaining slot.
13. Disengage the PTO.

### **Opening Door with Combined Tractor-Driven PTO and Gas-Driven and/or Electrically-Driven Hydraulic Systems**

#### **Tractor-Driven PTO**

1. Make sure the PTO is off.
2. Make sure the flow control valve is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines connected properly and securely.
4. Place the push-pull valve in the door position.
5. Engage the PTO.
6. Pull the door handle out of the retaining slot.
7. Pull the door handle toward the front of the trailer to release the door latches.
8. Raise the handle on the door valve to open the door to the desired height.
9. Move the push-pull valve to the conveyor setting.
10. Adjust the flow control valve until the desired conveyor speed is reached.
11. After the load has discharged, stop the conveyor with the flow control valve.
12. Place the push-pull valve in the door position.
13. Lower the handle on the door valve to close the door.
14. Pull the door handle toward the back of the trailer, catching and latching the door on the pins.
15. Put the handle back in the retaining slot.
16. Disengage the PTO.

#### **Gas or Electrically-Driven System**

Use the procedures above for the hydraulic system you are using.

#### **Opening the Slide-Up Door (Figures 40, 41 and 51)**

1. Make sure the conveyor is not operating.
2. Make sure the safety latches are in place at the bottom of the door.
3. Release the latch located on the slide-up door by pulling the handle away from the trailer door.
4. Remove the handle from its storage place at the center of the trailer.
5. Attach the handle to the nut located on the horizontal shaft just above the slide-up door.

6. Squeeze the safety lock handle down and place the loop over it to hold the safety in the unlocked position. ***Note: To release the tension on the safety latch, pull the handle toward the back of the trailer.***
7. Push the handle toward the front of the trailer to raise the door to the desired height.
8. Take the loop off of the safety latch handle and release the safety. This will hold the door open.

### **Closing the Slide-Up Door**

Make sure the conveyor is not operating and reverse the procedure above.

## TOP-HINGED DOOR WITH PNEUMATIC LATCH AND HYDRAULIC LIFT



**Figure 80-Top-Hinged Door with Pneumatic Latch and Hydraulic Lift**



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Top-hinge door can crush and cut. Keep away from door while operating to prevent bodily injury.

### Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System

1. Place the push-pull valve (Figure 56) in the door position.
2. Start the gas engine (Figure 68) or electric motor.
3. Move the toggle valve up to release the door latches.
4. Rotate the needle valve (Figure 54) to the lowest setting which will operate the door.
5. Raise the handle on the door valve (Figure 59) to raise the door completely.
6. Turn off needle valve.
7. After the door is open, move the push-pull valve to the conveyor setting.
8. Adjust the needle valve until the desired conveyor speed is reached.
9. After the load has discharged, stop the conveyor with the needle valve.
10. Close the door if open (see instructions below).
11. Move the push-pull valve to the door position.
12. Rotate the needle valve to the lowest setting which will operate the door.
13. Lower the handle on the door valve to close the door.
14. Turn off the needle valve.
15. Move the toggle valve down to latch the door. Make sure the latches are fully engaged on the pins.
16. Turn off the gas engine or electric motor.

## **Operation with a Tractor-Driven PTO Hydraulic System**

1. Make sure the PTO is off.
2. Make sure the flow control valve (Figure 55) is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Move the toggle valve up to release the door latches.
6. Raise the handle on the door valve to open the door to the desired height.
7. Adjust the flow control valve until the desired conveyor speed is reached.
8. After the load has discharged, stop the conveyor with the flow control valve.
9. Lower the handle on the door valve to close the door.
10. Move the toggle valve down to latch the door. Make sure the latches are fully engaged on the pins.
11. Disengage the PTO.

## **Operation with a Combination Tractor-Driven PTO Hydraulic System and Gas-Driven and/or Electrically-Driven Hydraulic System**

### **Tractor-Driven PTO**

1. Make sure the PTO is off.
2. Make sure the flow control valve is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Place the push-pull valve in the door position.
5. Engage the PTO.
6. Move the toggle valve up to release the door latches.
7. Raise the handle on the door valve to open the door to the desired height.
8. After the door(s) are open, move the push-pull valve to the conveyor setting.
9. Adjust the flow control valve until the desired conveyor speed is reached.
10. After the load has discharged, stop the conveyor with the flow control valve.
11. Place the push-pull valve in the door position.
12. Lower the handle on the door valve to close the door.
13. Move the toggle valve down to latch the door. Make sure the latches are fully engaged on the pins.
14. Disengage the PTO.

### **Gas or Electrically-Driven System**

Use the procedures above for the hydraulic system you are using.



## **TOP-HINGED DOOR WITH PNEUMATIC LATCH, HYDRAULIC LIFT AND HYDRAULIC SLIDE-UP DOOR**



**Figure 81-Top-Hinged Door with Pneumatic Latch, Hydraulic Lift and Hydraulic Slide-Up Door**



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Slide-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### **Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System**

1. Place the push-pull valve (Figure 56) in the door position.
2. Start the gas engine (Figure 68) or electric motor.
3. Locate and release the safety latches on both sides of the door (Figure 51).
4. Move the toggle valve up to release the door latches.
5. Rotate the needle valve (Figure 54) to the lowest setting which will operate the door.
6. Raise the handle on the door valve (Figure 59) to lift the door to the desired height.
7. Move the push-pull valve to the conveyor setting.
8. Adjust the needle valve until the desired conveyor speed is reached.
9. After the load has discharged, stop the conveyor with the needle valve.
10. Move the push-pull valve to the door position.
11. Rotate the needle valve to the lowest setting which will operate the door.
12. Lower the handle on the door valve to close the door.

13. Turn off the needle valve.
14. Move the toggle valve down to latch the door. Make sure the latches (Figure 50) are fully engaged on the pins.
15. Engage the safety latches on both sides of the door.
16. Turn off the gas engine or electric motor.

### **Operation with a Tractor-Driven PTO Hydraulic System**

1. Make sure the PTO is off.
2. Make sure the flow control valve (Figure 55) for the conveyor is off.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Locate and release the safety latches on both sides of the door.
6. Move the toggle valve up to release the door latches.
7. Raise the handle on the door valve to lift the door to desired height.
8. After opening the door, slowly move the lever on the flow control valve until the desired conveyor speed is reached.
9. After the load has discharged, stop the conveyor with the flow control valve.
10. Lower the handle on the door valve to close the door.
11. Move the toggle valve down to latch the door. Make sure the latches (Figure 50) are fully engaged on the pins.
12. Engage the safety latches on both sides of the door.
13. Disengage the PTO.

### **Operation with a Combination Tractor-Driven PTO and Gas-Driven and/or Electrically-Driven Hydraulic System**

#### **Tractor-Driven PTO**

1. Make sure the PTO is off.
2. Make sure the flow control valve is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Place the push-pull valve in the door position.
5. Engage the PTO.
6. Locate and release the safety latches on both sides of the door.
7. Move the toggle valve up to release the door latches.
8. Raise the handle on the door valve to open the door to the desired height.
9. Move the push-pull valve to the conveyor setting.
10. Adjust the flow control valve until the desired conveyor speed is reached.
11. After the load has discharged, stop the conveyor with the flow control valve.
12. Place the push-pull valve in the door position.
13. Lower the handle on the door valve to close the door.
14. Move the toggle valve down to latch the door. Make sure the latches are fully engaged on the pins.
15. Engage the safety latches on both sides of the door.
16. Disengage the PTO.

## **Gas or Electrically-Driven System**

Use the procedures above for the hydraulic system you are using.

### **Opening the Hydraulic Slide-Up Door**

1. Make sure the conveyor is not operating.
2. Make sure the safety latches are in place at the bottom of the door.
3. Place the push-pull valve in the door position.
4. Start the gas engine or electric motor.
5. Rotate the needle valve to the lowest setting which will operate the door.
6. Raise the handle on the door valve marked slider door to raise the door to the desired height.
7. Turn off the needle valve.

### **Closing the Slide-Up Door**

Make sure the conveyor is not operating and reverse the procedures above.

## **TOP-HINGED SLIDER DOOR WITH PNEUMATIC LATCH, HYDRAULIC LIFT AND HYDRAULIC FLIP-UP DOOR**



**Figure 82-Top-Hinged Slider Door with Pneumatic Latches, Hydraulic Lift and Hydraulic Flip-Up Door**



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



Flip-up door can crush and cut. Keep away from door while operating to prevent bodily injury.

### **Main Door Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System**

1. Place the push-pull valve (Figure 56) in the door position.
2. Start the gas engine (Figure 68) or electric motor.
3. Move the toggle valve up to release the door latches.
4. Rotate the needle valve (Figure 54) to the lowest setting which will operate the door.
5. Raise the handle on the door valve marked top-hinge (Figure 59) to raise the door completely.
6. Turn off the need valve.
7. After the door(s) are open, move the push-pull valve to the conveyor setting.
8. Adjust the needle valve until the desired conveyor speed is reached.
9. After the load has discharged, stop the conveyor with the needle valve.
10. Move the push-pull valve to the door position.
11. Rotate the needle valve to the lowest setting which will operate the door.
12. Lower the handle on the door valve to close the door.
13. Turn off the needle valve.

14. Move the toggle valve down to lock the pneumatic latches. Make sure latches are fully engage on pins.
15. Turn off the gas engine or electric motor.

### **Flip-Up Door Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System**

1. Place the push-pull valve in the door position.
2. Start the gas engine or electric motor.
3. Rotate the needle valve to the lowest setting which will operate the door.
4. Raise the handle on the door valve marked flip-up door to raise door to desired height.
5. Turn off needle valve.
6. After the door is open, move the push-pull valve to the conveyor position.
7. Adjust the needle valve until the desired conveyor speed is reached.
8. After the load has discharged, stop the conveyor with the needle valve.
9. Move the push-pull valve to door position.
10. Rotate needle valve to lowest setting which will operate the door.
11. Lower the handle on the door valve to close the door.
12. Turn off the needle valve.
13. Turn off the gas engine or electric motor.

### **Main Door Operation with a Tractor-Driven PTO Hydraulic System**

1. Make sure PTO is off.
2. Make sure flow control valve (Figure 55) is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Move toggle valve up to release the pneumatic door latches.
6. Raise the handle marked top-hinge on the door valve to open main door completely.
7. Adjust flow control valve until the desired conveyor speed is reached.
8. After the load has discharged, stop the conveyor with the flow control valve.
9. Lower the handle on the door valve to close the door.
10. Move the toggle valve down to latch the pneumatic latches. Make sure the latches are fully engage on the pins.
11. Disengage the PTO.

### **Flip-Up Door Operation with a Tractor-Driven PTO Hydraulic System**

1. Make sure the PTO is disengaged.
2. Make sure the flow control valve is in the off position.
3. Check the connection between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Raise the handle marked flip-up on the door valve to open flip-up door to desired height.

6. Adjust the flow control valve until the desired conveyor speed is reached.
7. After the load has discharge, stop the conveyor with the flow control valve.
8. Lower the handle on the valve to close the flip-up door.
9. Disengage the PTO.

## **Main Door Operation with a Combination Tractor-Driven PTO Hydraulic System and Gas-Driven and/or Electrically Driven Hydraulic System**

### **Tractor-Driven PTO**

1. Make sure the PTO is disengaged.
2. Make sure the flow control valve is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Place the push-pull valve in the door position.
5. Engage PTO.
6. Move the toggle valve up to release the pneumatic door latches.
7. Raise the handle marked top-hinge on the door valve to open door completely.
8. After the door is open, move the push-pull valve to the conveyor position.
9. Adjust the flow control valve until the desired conveyor speed is reached.
10. After the load has discharged, stop the conveyor with the flow control valve.
11. Place the push-pull valve in the door position.
12. Lower the handle on the door valve to close the door.
13. Move the toggle valve down to latch the pneumatic latches. Make sure the latches fully engage the pins.
14. Disengage the PTO.

### **Gas or Electrically-Driven Hydraulic System**

Use the procedures above for the hydraulic system you are using.

## UTILITY DOOR



**Figure 83-Utility Door**



**Figure 84-Cam Lock Curbside**



**Figure 86-Cam Lock Roadside**



**Figure 85-Door Locking Handle**



### **WARNING**

Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



### **WARNING**

Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



### **WARNING**

Utility door can crush and cut. Keep away from door while operating to prevent bodily injury.

## **Operation with a Gas-Driven and/or Electrically-Driven Hydraulic System**

1. Locate and release the safety cam lock latches on both sides of the door (Figures 84 and 86).
2. Remove the safety pin from the locking handle (Figure 85).
3. Slide the door lock to the roadside of the trailer and disengage from handle.
4. Pull the handle to disengage the side latches.
5. Open the door by pulling it towards the curbside of the trailer and secure it with the chain and pin provided.
6. Start the gas engine or electric motor.
7. Adjust the needle valve until the desired conveyor speed is reached.
8. After the load has discharged, stop the conveyor with the needle valve (Figure 54).
9. Turn off the gas engine or electric motor.

## **Operation with a Tractor-Driven PTO Hydraulic System**

1. Make sure the PTO is off.
2. Make sure the flow control valve (Figure 55) for the conveyor is off.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Locate and release the safety cam lock latches on both sides of the door.
5. Remove the safety pin from the door locking handle.
6. Slide the door lock to the roadside of the trailer and disengage from handle.
7. Pull the handle to disengage the side latches.
8. Open the door by pulling it towards the curbside of the trailer and secure it with the chain and pin provided.
9. Engage the PTO.
10. Adjust the flow control valve until the desired conveyor speed is reached.
11. After the load has discharged, stop the conveyor with the flow control valve.
12. Disengage the PTO.

## **Operation with a Combination Tractor-Driven PTO and Gas-Driven and/or Electrically-Driven Hydraulic System**

### **Tractor-Driven PTO**

1. Make sure the PTO is off.
2. Make sure the flow control valve for the conveyor is off.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Locate and release the safety cam lock latches on both sides of the door.
5. Remove the safety pin from the door locking handle.
6. Slide the door lock to the roadside of the trailer and disengage from handle.
7. Pull the handle to disengage the side latches.
8. Open the door by pulling it towards the curbside of the trailer and secure it with the chain and pin provided.
9. Engage the PTO.
10. Adjust the flow control valve until the desired conveyor speed is reached.
11. After the load has discharged, stop the conveyor with the flow control valve.
12. Disengage the PTO.

### **Gas or Electrically-Driven System**

Use the procedures above for the hydraulic system you are using.



### **Opening the Utility Door (Figures 84-86)**

1. Make sure the conveyor is not operating.
2. Locate and release the safety cam lock latches on both sides of the door.
3. Remove the safety pin from the door locking handle.
4. Slide the door lock to the roadside of the trailer and disengage from handle.
5. Pull the handle to disengage the side latches.
6. Open the door by pulling it towards the curbside of the trailer and secure it with the chain and pin provided.

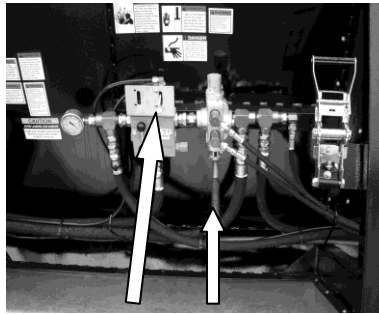
### **Closing the Utility Door**

Make sure the conveyor is not operating and reverse the procedure above.

## TOP-HINGED FLIP-UP RECYCLING DOOR



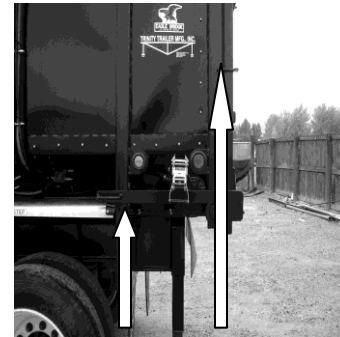
**Figure 87-Recycling Door**



A B

**Figure 88-Door Controls**

A-Toggle Valve (Door Latch Release)  
B-Top-Hinge Hydraulic Door Control



C D

**Figure 89-Retaining Slots**

C-Trailer Retaining Slot (Door Locked)  
D-Door Retaining Slot (Door Unlocked)



**DANGER**

High voltage can cause serious bodily injury or death. Beware of overhead power lines. The rear door can be raised to over 20 Feet. Do not get any part of the trailer within 30 feet of a power line (Figure 90).



**WARNING**

Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



**WARNING**

Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.



**WARNING**

Flip-up door can crush and cut. Keep away from door while operating to prevent bodily injury.



**CAUTION**

Before opening top-hinge door, beware of height restrictions.

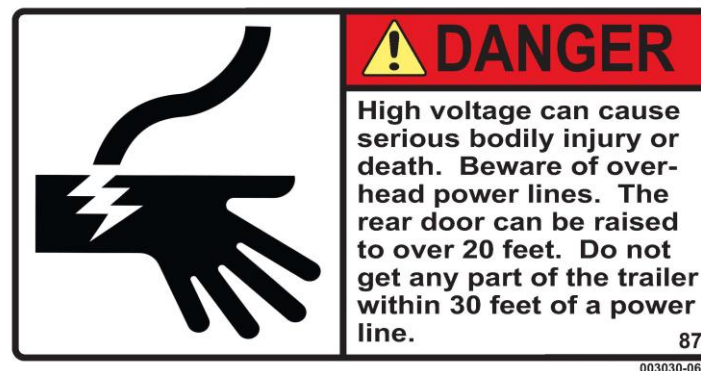


**CAUTION**

Do not attempt to open top-hinge door while trailer is tarped.

## Operation Procedure

1. Make sure the PTO is off.
2. Make sure the flow control valve is in the off position.
3. Check the connections between the tractor and trailer to ensure the pressure and return lines are connected properly and securely.
4. Engage the PTO.
5. Pull the lower door lock handle out of the trailer retaining slot (Figure 89).
6. Pull the lower door lock handle up and place in the door retaining slot.
7. Move the toggle valve up to release the upper door latches (Figure 88).
8. Raise the hydraulic door control until the door is fully open.
9. Unload the trailer as per the owner's manual.
10. After the load has discharged, stop the conveyor with the flow control valve.
11. Lower the top-hinge hydraulic door control until the top-hinge door is fully closed.
12. Move the toggle valve down to lock the top-hinge door latches. Make sure the latches are fully engaged on the pins.
13. Lower the flip-up hydraulic door control until the flip-up door is fully closed.
14. Pull the lower door latch handle out of the door retaining slot.
15. Push the handle towards the front of the trailer until the latches hook on the pins on the trailer and the handle locks into the trailer retaining slot.



**Figure 90-High Voltage Danger Decal**

## FOLD-DOWN EXTENSION (SIDEBOARD) DOOR

Your trailer may be equipped with a fold-down door(s) in the sideboard of the trailer (Figure 91). Use the following instructions for operating this door. **Use caution when operating this door (Figure 92) as it can fall rapidly.**



**Figure 91**-Fold-Down Sideboard Door



**Figure 92**-Fold-Down Door Decal



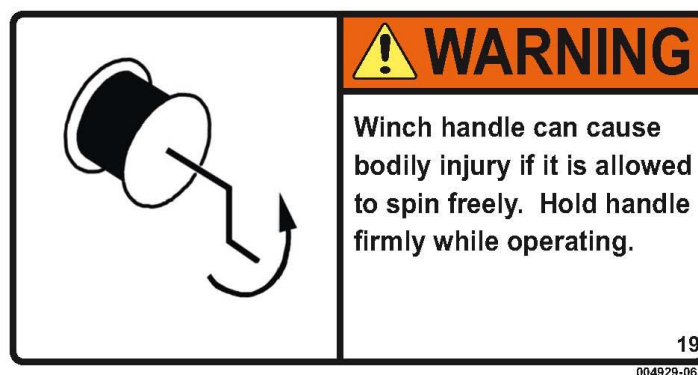
Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



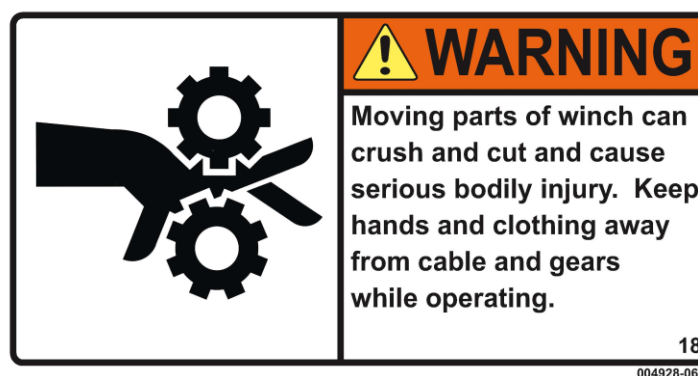
Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.

## Opening the Door

1. Disengage the ratcheting lock on the winch and unwind until the cable is slack, adhering to the warnings shown in Figures 93 and 94. Re-engage the lock.
2. Pull on the draw rope to start the door opening.
3. Disengage the winch lock again and slowly unwind the cable, allowing the door to open completely.



**Figure 93-**Moving Winch Parts Decal



**Figure 94-**Winch Decal

## OPERATING THE PNEUMATICALLY-ACTUATED FRONT SEAL

Some trailers are equipped with a front seal (Figure 95) operated with air pressure from a pneumatic reservoir. If the reservoir does not have sufficient pressure in it to actuate the seal, the trailer should be connected to the air supply from the tractor.



**Figure 95**-Pneumatically-Actuated Front Seal

The control valve used to operate the front seal is located at the rear of the trailer near the controls for the conveyor and/or door. Raise the toggle valve up to open the seal and down to close it. The rubber seal must have a chain crossbar from the conveyor system located under it in order to obtain a good seal

### **IMPORTANT**

The applicable procedure for closing the rear door(s) must be followed before the front seal is closed.

The front seal must be opened before the trailer is unloaded.



Do not get behind a loaded trailer with the door(s) open. The trailer's contents could spill on you causing serious injury or death.



Moving conveyor parts can crush and cut and cause serious bodily injury or death. Keep away from all moving parts while they are in motion.

## USING THE REMOVABLE TAIL FINS

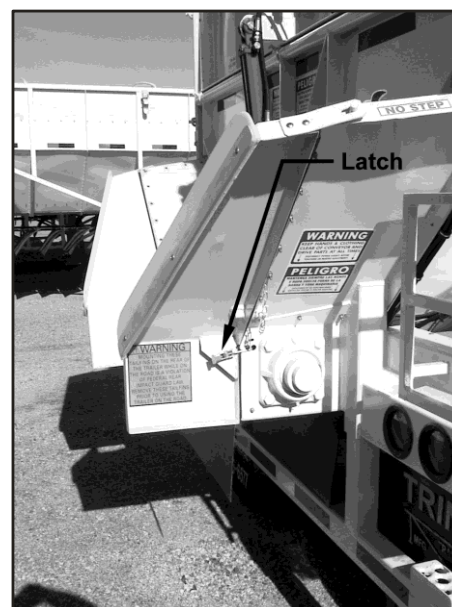
Some trailers are equipped with removable tail fins. These fins are used while unloading the trailer to help direct the load onto a hopper or an elevator. Use of these removable tail fins on the road is a violation of the federal rear impact guard law (Figure 96). Trinity Trailer is not liable for any action against the owner or operator resulting from installation of these tail fins on the trailer while the trailer is on the road. It is the responsibility of the owner or operator to verify that the tail fins are removed from the rear of the trailer before using the trailer on the road. You will find the following decal located on each tail fin.



**Figure 96-Tail Fin Decal**



**Figure 97-Tail Fin Stowed**



**Figure 98-Tail Fin Mounted**

Figures 97 and 98 show how the tail fins are stowed when they are not in use and how they mount to the rear of the trailer, respectively.

## TARP SYSTEMS

Your trailer may be equipped with one of three types of tarps. The standard tarp is a manual rollover tarp that is attached to the curbside of the trailer. When the tarp is rolled over the top of the trailer, secure it in place with the attached straps to the ratchets which are mounted on the roadside of the trailer. If there is a flap on the front or back of the tarp, secure with bungees to make sure the tarp seals. The handle for the tarp is removable and is stowed behind the ladder on the roadside of the trailer (Figure 99).

**Do not** leave the handle attached to the tarp while driving.



**Figure 99-Rollover Tarp Handle Stored**

The second type of tarp is a Shur-Lok® style roll tarp system by Shur-Co®. This tarp is similar to the standard rollover tarp; however, it does not use straps to secure it when unrolled. On the roadside of the trailer is a 4-inch latch plate, or overhang, attached to the top of the trailer. When you unroll the tarp, continue rolling it past the latch plate until it is completely unrolled. Continue to turn the crank handle in the same direction so the tarp starts rolling up underneath the latch plate. Once the tarp has tension on it, lock the handle in the crank retainer on the roadside of the trailer (Figure 99). The Shur-Co® illustration in Figure 102 shows these steps. Figure 100 shows this tarp rolled up.

The third type of tarp is an electrically operated Shur-Lok® style. This tarp has an electric motor and control arm system. A rocker switch on the front of the trailer operates the system. To open the tarp, push and hold the rocker switch until the tarp rolls over the trailer and against the tarp stops. To close the tarp, push and hold the rocker switch until the tarp has rolled all the way down and rolled back up against latch plate.





Figure 100-Shur-Lok® Tarp Rolled Up



Figure 101-Shur-Lok® Roadside Hardware

## ATTENTION!

**THE TARP MUST BE KEPT TO A RECOMMENDED 40-60 LBS. OF TENSION OR EXCESSIVE TARP WEAR MAY OCCUR.**

**DO NOT WALK OR STAND ON THE END CAPS.**

**DO NOT OPERATE THIS VEHICLE AT HIGHWAY SPEEDS, WHILE THE TARP SYSTEM IS IN THE "OPEN" POSITION!**

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### OPERATING INSTRUCTIONS

<b>1. Crank The Tarp Up Under The Latch Plate.</b>	<b>2. Bring The Crank Arm Down To A Vertical Position.</b>	<b>3. Lift The Crank Arm Up To The Crank Retainer.</b>	<b>To Adjust The Tarp Tension</b> <b>1. Allow The Tarp To Roll Down Away From The Latch Plate.</b> <b>2. Remove The Crank Arm From The Splined Shaft.</b> <b>3. Rotate The Crank One Or Two Teeth And Reassemble.</b>
			

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Shur-Co., Yankton, SD 1-800-4 SHUR-LOK (1-800-474-8756)
Patent No. 31746

Figure 102-Shur-Lok® Tarp Decal

## **LADDER, WALKWAY AND CATWALK SAFETY**

You may have one or more ladders, walkways or catwalks on your trailer. If you do, review the following information thoroughly. Trinity Trailer has made every effort to reduce or eliminate the risk involved with using these devices.

Although there is always a risk in working on elevated areas, it is a fact that the vast majority of accidents involving ladders result from the failure to exercise care. Proper training, as well as routine inspections and maintenance can substantially reduce the number or ladder related injuries.

Never stand on the top two steps of any ladder or the top cap of a ladder. This could cause you to become off-balance resulting in a fall. Always maintain at least three points of contact with the ladder (2 feet and 1 hand or 2 hands and 1 foot should be in contact with the ladder at all times). Do not over-extend sideways. Use the belt buckle rule: Keep your belt buckle positioned between the side rails at all times, this will maintain your center of gravity in the proper position.

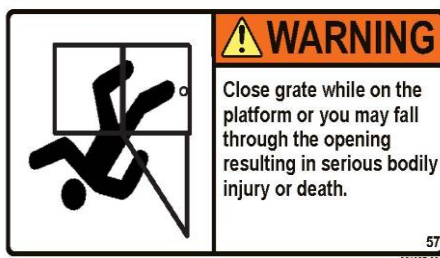
Below are twelve cautions and warnings about ladders, walkways and catwalks that may be on your trailer. Review each of these thoroughly before using the trailer.



**Figure 103-Secure Chain Decal**



**Figure 104-Handhold Decal**



**Figure 105-Close Gate Decal**



**Figure 106-Falling Gate Decal**



**Figure 107-Rung Warning Decal**



**Figure 108-Top Two Rung Caution Decal**

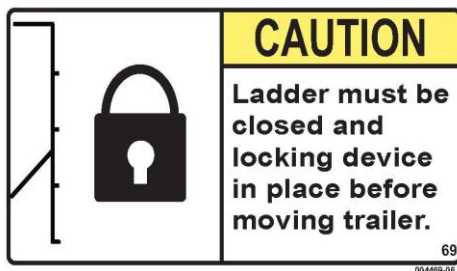


**Figure 109-Slipping Ladder Warning Decal**



**Figure 110-Fall Protection Notice Decal**

**NOTE (Figure 110)**  
Fall protection device connections are located at every ladder, walkway and catwalk location on Eagle Bridge™ trailers.



**Figure 111-Ladder Locking Device Decal**



**Figure 112-Owner Responsibility Decal**



Figure 113-Above this Rung Decal



Figure 114-Ladder General Caution Decal

## **LADDER USE PROCEDURE**



**Figure 115**-Front Ladder Showing Upper User Fall Protection Device



**Figure 116**-Roadside Ladder



**Figure 117**-Roadside Ladder Showing Offset

1. Inspect the ladder, components and hardware for visual signs of wear.
2. Inspect the ladder rungs for debris or ice which may cause an unsafe condition.
3. Inspect the area around the base of the ladder to ensure a firm footing area for mounting and dismounting the ladder.
4. Review the ANSI safety labels on and around the ladder.
5. Keep at least three points of contact with the ladder at all times.
6. Keep your buckle inside the ladder frame at all times.
7. If you are at or above four feet from the ground, you must use an OSHA approved fall protection harness.
8. For your safety, a fall protection harness attachment has been provided for all ladders, catwalks and walkways on Eagle Bridge™ trailers (Figure 118).
9. Pay special attention to the “Do not step or stand on or above this rung” warning decal. The rung at which the decal is placed and above is not designed as steps but rather as hand holds (Figure 113).



**Figure 118-**User Fall Protection Device Attachment Point

10. Under no circumstances should there be more than one person on a ladder, catwalk or walkway on an Eagle Bridge™ trailer at any given time.
11. The ladders, catwalks and walkways found on Eagle Bridge™ trailers are designed for persons at least 5 feet tall and weighing 350 lbs. or less.
12. Never use a ladder, catwalk or walkway on an Eagle Bridge™ trailer without wearing closed toe shoes or boots.
13. Avoid loose clothing and/or jewelry around ladders, catwalks and walkways on Eagle Bridge™ trailers.
14. Do not use any ladders, catwalks or walkways on Eagle Bridge™ trailers during weather conditions that are conducive to lightning.
15. Always use both hands on the ladder, catwalk or walkway while mounting or dismounting.
16. Always inspect the ladder after use for any damage to the ladder, components or hardware.

## **TRAILER MODIFICATIONS**

The trailer has been engineered for maximum performance and longevity. Therefore, any modifications to the trailer will result in loss of warranty. Trinity Trailer will not be liable for any modifications to the trailer without prior written consent. Should you desire to modify the trailer, please submit to Trinity Trailer in writing your proposed changes along with drawings of those changes and any relating materials.



**Figure 119-**Top Rail Modification Decal

## **REPORTING SAFETY DEFECTS**

Trinity Trailer Mfg., Inc.  
8200 Eisenman Rd.  
Boise, Idaho 83716  
(208) 336-3666  
(800) 235-6577  
Fax (208) 336-3741

### **Reporting safety defects**

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administrations (NHTSA) in addition to notifying Trinity Trailer Mfg., Inc.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in any individual problems between you, your dealer or Trinity Trailer Mfg., Inc.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (336-0123 in Washington, DC area) or write to:

NHTSA  
U.S. Department of Transportation  
400 7<sup>th</sup> Street SW, (NSA-11)  
Washington, DC 20590

You can also obtain other information about motor vehicle safety from the Hotline.

**Thank You Again for Purchasing an Eagle Bridge™ Trailer.**

