



Dump Trailers



OPERATION MANUAL

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This manual:

- Describes the proper procedures that must be considered prior to operating any of **East Manufacturing Corporation's** dump trailers.
- Contains safety information, instructions and preventive maintenance checks that the operator should perform periodically.
- Should be kept with the trailer at all times.
- **East** manuals are available online at EastMfg.com.

East reserves the right to change its products and documents without notice.

Safety Information

This manual addresses safety information, pre-trip inspections, preventive maintenance, guide for proper loading techniques and general information regarding **East** dump trailers. Instructions cover the operation and service of **East** dump trailers. Direct any questions regarding this manual to **East**.

IMPORTANT

- Read this manual carefully prior to loading or towing the **East** trailer.
- DO NOT attempt to operate or service the trailer until instructions and safety precautions are read and completely understood.
- Operate and service the **East** trailers within the operating limits outlined in this manual. When operating **East** trailers, basic safety precautions should always be followed.
- If problems arise, contact a dealer or **East**. Help is also available at EastMfg.com.

For all maintenance requirements, use only genuine **East** authorized parts.

Important advisories are indicated as follows:



WARNING!

Advisory specifies a procedure that must be followed exactly. Personal injury can occur if the advisory is not followed.



CAUTION! Advisory specifies a procedure that must be followed exactly. Damage to equipment or components can occur if the advisory is not followed.


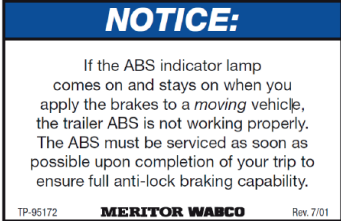
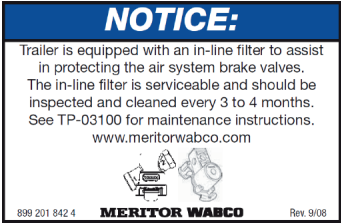
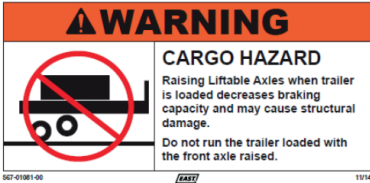

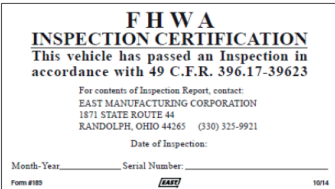
Note: A **Note** can contain information that can increase the longevity of the trailer. A **Note** can also provide information that will enable quicker and easier servicing.

Decals

Decals are an important part of safe trailer operation. Decals address safe operation and maintenance of the trailer, as well as regulation information to maintain compliance with state and federal regulations.

- Prior to operation, locate and review the information of each decal on the trailer.

The decals shown below represent examples of the content and location of **East's** standard decals at the time of printing and manufacturing of the trailer. The number, placement and type of decals are not limited to those shown. Note that decals may be updated or replaced by other decals. Upon receipt of the trailer, document what decals are on it by recording the decal part numbers located at the bottom of each decal. If any safety decals are missing or damaged, contact **East** for replacement at no cost to you.

Decals Located on Front of Trailer	
 <p>NOTICE</p> <p>The Use Of Additives In The Air Brake System Is Not Recommended As They Can Be Harmful To The Performance Of The Air Brake Valves And May Void The Warranty.</p> <p>Additives</p>	 <p>NOTICE:</p> <p>If the ABS indicator lamp comes on and stays on when you apply the brakes to a <i>moving</i> vehicle, the trailer ABS is not working properly. The ABS must be serviced as soon as possible upon completion of your trip to ensure full anti-lock braking capability.</p> <p>TP-95172 MERITOR WABCO Rev. 7/01</p> <p>ABS</p>
 <p>NOTICE:</p> <p>Trailer is equipped with an in-line filter to assist in protecting the air system brake valves. The in-line filter is serviceable and should be inspected and cleaned every 3 to 4 months. See TP-03100 for maintenance instructions. www.meritorwabco.com</p> <p>899 201 842 4 MERITOR WABCO Rev. 9/08</p> <p>Air Line Filter</p>	 <p>WARNING</p> <p>CARGO HAZARD</p> <p>Raising Liffable Axles when trailer is loaded decreases braking capacity and may cause structural damage.</p> <p>Do not run the trailer loaded with the front axle raised.</p> <p>502-01081-00 EAST 1014</p> <p>Liffable Axle</p>
 <p>57213</p> <p>Serial Number</p>	 <p>F H W A</p> <p>INSPECTION CERTIFICATION</p> <p>This vehicle has passed an inspection in accordance with 49 C.F.R. 396.17-39623</p> <p>For contents of Inspection Report, contact: EAST MANUFACTURING CORPORATION 1871 STATE ROUTE 44 RANDOLPH, OHIO 44265 (330) 325-9921</p> <p>Date of Inspection: Month/Year: _____ Serial Number: _____</p> <p>Form #100 EAST 1014</p> <p>Final Inspection</p>

Decals Located on Side of Trailer

NOTICE

The suspension hangers are attached to this trailer with what is referred to as a "SHAKEPROOF" bolt. The torque requirement for this bolt is 225 ft/lbs. Check torque during normal maintenance intervals by holding the bolt and torquing the nut. **DO NOT OVER TORQUE.** The bolt and nut is a metric 16mm. Replacement bolts can be obtained from EAST MANUFACTURING if needed. An acceptable substitute bolt is 5/8" grade 8.

567-01191-00



02/15

Shakeproof Bolt**WARNING**

Beam cutting, welding, heating, or drilling may cause beam failure and/or loss of control of vehicle.

DO NOT cut, weld, heat, or drill undercarriage beam.

667-01162-00



10/14

Beam Warning

Normal Trailer Use

East trailers are designed for operation within the legal highway speed limits and tire manufacturer speed limit on reasonable road surfaces for the type of service it was built to perform in accordance with the following:

The trailer was built to carry cargo within the limitations of two weight ratings listed on the VIN plate. The VIN plate is located on the main chassis rail, roadside, directly to the rear of the landing gear. These weight ratings are:

- **GAWR (gross axle weight rating)** – The structural capability of the lowest rated member of the running gear components: suspension and spring system, hubs, wheels, drums, rims, bearings, brakes, axles or tires.
- **GVWR (gross vehicle weight rating)** – The structural capability of the trailer when supported by the upper coupler assembly and axles with the load uniformly distributed throughout the cargo space.



CAUTION! The maximum load indicated on the VIN plate may or may NOT be a legal load on the highway you plan to use.



WARNING!

- Walk carefully on the trailer. The floor may be slippery. Enter and leave the trailer from the mandoor or ladder mounted on the body of the trailer. Advise others of these precautions.
- Operation of this trailer outside the limitation of this manual or against any federal law will void any responsibility of **East** for any of the results.

Pre-Trip Inspection Checklist



CAUTION! East dump trailers must be operated **ONLY** by trained and qualified professional drivers.

Driver pre-trip inspections must be completed before the first trip of each day and each subsequent trip during the day. Each pre-trip inspection will visually inspect for deficiencies, including the following:

- Verify that all lights function properly.
- Check that all reflectors are in place and not obscured.
- Check that tailgate latches open and close.
- Make sure tailgate latching linkage is properly adjusted. When latched, the locking cams must pass over center on both tailgate latches.
- Inspect for any apparent damage.
- Visually inspect all leaf springs for cracked or broken leaf and equal arch.
- Be sure leaf springs are secured within the hangers and equalizers.
- Check that all air springs are inflated, and shock absorber fasteners are tight.
- Look for oil, water or fuel leaks.
- Verify that the spare tire is secure in the carrier to avoid tire carrier damage. Be sure the tire carrier is securely bolted in place.
- Visually check the brake pads or shoes for wear.
- Make sure there is sufficient hydraulic oil in the hydraulic tank.
- Check for chafed hoses or cracked fittings.
- Examine the landing gear for proper road clearance and ensure the crank handle is securely stowed.

Coupling and Uncoupling Procedures



WARNING!

Severe Injury or Death may occur as a result of failing to properly couple or uncouple trailer. To properly couple or uncouple trailer, follow instructions below.

Coupling Preparation

1. Prior to coupling the tractor to the trailer, place blocks securely behind the rear tires of the trailer.
2. Align the tractor with the trailer.
3. Check the position of the fifth wheel with respect to the trailer coupler plate to ensure that the fifth wheel is at the proper height.
4. Ensure that the contact with the fifth wheel and the nose of the trailer is just to the rear of the center of the fifth wheel.
5. Adjust the height of the coupler plate by adjusting the landing gear using the crank handle.



CAUTION! If the nose of the trailer is too low and contact with the nose of the trailer is made at the rear of the fifth wheel, too much force will be required to lift the trailer. The extra force needed to make engagement can result in impact damage to the nose of the trailer. Avoid this ramming technique.



CAUTION! If the nose of the trailer is too high, the kingpin can override the jaws of the fifth wheel, resulting in “high hookup,” which could damage the fifth wheel mechanism.

Coupling Procedure

1. Once the tractor and trailer are properly aligned, back the tractor until the fifth wheel coupler jaws engage the kingpin.
2. When the locked engagement has been made, verify a positive hookup by attempting to move the vehicle forward while the trailer brakes are still applied.
3. Once coupling is complete as described above,
 - A. Attach all airlines.
 - B. Ensure correct coupling.
 - C. Connect the electrical connection.
 - D. Connect the hydraulic hoses.
4. Visually inspect the fifth wheel locking mechanism and verify that the kingpin has been properly positioned within the fifth wheel coupler jaws.

Note: On frameless trailer with a pivoting upper coupler, double check that the fifth wheel locks are engaged.

5. Charge the trailer brakes with air.
6. With the landing gear crank in the low gear position, raise the landing gear until ground clearance is achieved (see page 23).
7. With the landing gear off the ground, place the landing gear crank in the high gear position to raise the gear to the proper height for ground clearance (see page 23).
8. Stow the crank handle in the high gear position in the bracket provided.
9. If this procedure has been followed, the trailer brake system has already been actuated and performance checked at the time the coupling check was made.
10. If chocks were used and the air brake system has not been checked, do so at this time.
11. Inspect the electrical coupling.
12. Operate the trailer lights by energizing the tractor light switches and applying the brake.
13. The final check for complete tractor-to-trailer coupling is made with the trailer brakes applied. Attempt to move the trailer forward and backward by tractor power to ensure fifth wheel is locked securely.

Uncoupling Preparation

1. Set the trailer parking brakes.
2. Place chock blocks in front and rear of the wheels of the trailer.

Uncoupling Procedure

1. Lower the landing gear with the crank handle in the high gear position until ground contact is made (see page 23).
2. With the crank handle in the low position, turn the crank handle to transfer the weight of the trailer from the fifth wheel of the tractor onto the landing gear (see page 23).
3. If the tractor is equipped with shutoff cocks for the airlines, close them before disengaging the glad hands at the front of the trailer.
4. Disconnect the air and electric jumper lines, as well as the hydraulic hoses, from the trailer.
5. Prepare the fifth wheel for uncoupling by activating the release handle(s).
6. To ensure disengagement of the trailer, slowly move the tractor forward until clear of the trailer.

Note: Although the U.S. Department of Transportation (DOT) requires trailer automatic parking brakes, chocks are still recommended for safety.

Note: For trailers with drop legs, you can back the tractor onto wooden planks to raise the trailer to the desired height for pinning drop legs.

Loading Procedure

The safest loading method is by hopper discharge, since the material flow into the dump body is steady. With slow movement of the vehicle, the load can be evenly distributed in the dump body. The most common method of loading a dump trailer is with a front-end loader. Front-end loading has some disadvantages:

- The loader operator often cannot see inside the dump body and may load more of the material to one side or the other. Uneven loading can contribute to a rollover on the highway or a tip-over during dumping operations.
- Front-end loader buckets and lift arms often damage the trailer sideboards and top rail.



CAUTION! Overloading the dump body can apply excessive torque to the PTO output shaft and may pit or break gear teeth, destroy bearings or fracture the housing. The PTO may fail immediately or over an extended period of time.

Loads with high centers of gravity require special safety precautions. A high center of gravity requires special attention due to the impact on roll stability. Lower operating speeds will best compensate for a high center of gravity load.

Tarping is mandatory for dump trailers in many states. Tarping is recommended any time the load is near the top of the dump body. Proper tarping helps prevent material loss and damage to other vehicles on the roadway.

Unloading

Safety Overview

Stockpiling (dumping the load in a pile) is the most common method for unloading materials from a dump trailer. When stockpiling, a solid, level dumpsite is required to minimize the risk of tip-over.

Before unloading into a hopper, be sure the area is clean of previous dump spillage to maintain a level and uncluttered dumping surface.

The common practice of dumping asphalt into a paving machine hopper while on the go presents serious hazards to the dump operator:

- Overhead obstructions can cause a collision with the raised dump body.
- Overhead electrical wires can come in contact with the raised dump body.
- Soft or uneven shoulders on the roadside can cause a tip-over.
- Changes in the crown or slope of the road can cause the raised dump body to lean.

**WARNING!**

ELECTRICAL SHOCK. Will cause severe injury or death.

Aluminum and steel dump body will conduct electricity. Check for overhead clearance and power lines before raising dump body.

Moving a dump trailer with the dump body elevated is unsafe. Lower the dump body before moving a dump trailer for any reason.

TIP-OVER HAZARD. Can cause injury or death.

DO NOT keep a “hung load” elevated. Fully lower the dump body before trying to dislodge any material that is hanging up in the trailer bed. Keep all persons away from trailer while dumping.

SWINGING GATE. Can cause injury or death.

A failed gate winder, hinge, hinge pin or spreader chain may allow the tailgate to swing and/or the load to dump quickly.

Unloading Procedure

Note: East dump trailers and bodies must be operated ONLY by fully trained and qualified, professional drivers. All dump trailer owners and their drivers must read all TIP-OVER HAZARD warnings and be fully aware of tip-over conditions (see page 15).

1. Pull or back the trailer to the dumpsite.
2. Before dumping, exit the cab to inspect the site and the dump equipment. Be assured of the following:
 - There are no high or gusting winds.
 - The ground is firm and level.
 - There are no electrical wires in the immediate area.
 - The area around the trailer is clear of personnel and equipment.
 - The tires are properly inflated all-around.
 - There are no broken or sagging suspension springs.
 - The payload is evenly distributed from side to side.
 - All Truck/Tractor/Trailer wheels must be in line before dumping.
3. Remove the tarp and other accessories that might interfere with dumping.
4. Hang up the rear mud flaps.

**WARNING!**

TIP-OVER HAZARD. Can cause serious injury or death.

Raising the dump body with the air springs inflated may cause the load to lean. Always deflate trailer air springs prior to raising the dump body.

5. On trailers with air ride suspension, deflate the air springs to lower the dump body onto the internal hard cushions. **DO NOT** try to dump the load with the air springs inflated.

**WARNING!**

TAILGATE BREAKAWAY. Can cause severe injury or death.

When unloading material from the coal chute, the gate winders must be clamped to prevent tailgate bowing and to avoid an accidental tailgate opening.

Loosening a gate winder when the tailgate is not locked can allow the tailgate to spring open. Before loosening a gate winder, verify that the tailgate locking linkage is locked “over center.”

6. Verify that the tailgate latching links are locked over center. The locking cam must be firmly clamped against the stop block.
7. If not dumping through the coal door, loosen and unhook each of the gate winders.
8. Open the tailgate (or coal door, if dumping into a hopper).
9. When operating a frameless dump trailer, perform the following tasks prior to dumping:
 - Apply the trailer parking brakes and release the tractor brakes. The draft arms will pull the tractor back as the dump body rises.

**WARNING!**

TIP-OVER HAZARD. Can cause serious injury or death.

The tractor brakes must be released when dumping the body on a frameless dump trailer. Failure to release brakes will damage the hoist or draft arms and could lead to a tip-over.

10. Engage the PTO (power take-off).

**WARNING!**

TIP-OVER HAZARD. Can cause serious injury or death.

DO NOT leave the controls while the dump body is raised. Always keep the raised end in view. Be prepared to lower the body quickly if it starts to lean.

- Shift the hoist control into the “lift” position. Raise the dump body to the lowest height for dumping. **DO NOT** raise the load to the lifting limit of the hoist cylinder.

**WARNING!**

DO NOT fully extend the hoist cylinder. Raising the load to its upper limit will jar the load and could cause the hoist cylinder to fail. Over-extending the hoist cylinder or jarring the raised load could cause the load to fall or tip.

- When the dump body is raised, shift the hoist control into the “hold” position until the load is dumped or material flow stops.

**WARNING!**

COLLISION HAZARD. Can cause serious injury or death.

Failure to disengage the PTO can allow the dump body to raise and collide with overhead obstructions or electrical wires. Disengage the PTO before leaving the dumpsite.

- Disengage the PTO and move the hoist control to the “down” position. Allow the hoist cylinder to fully retract before moving the truck.



CAUTION! DO NOT travel with the hoist raised even slightly. Using the hydraulic cylinder as a shock absorber can damage the piston seals and cylinder mounting structures.

- When the dump body is fully lowered, pull the unit forward to clear the load.

Note: Dump bodies longer than 28' will not completely dump because the stockpile dams the material. To complete the dump, the body should be fully lowered and the truck moved forward. After the truck is moved forward, the dump body can be raised again to complete the dump operation.

- After dumping, check for material in the dump body. Remove excess material.
- Lock the tailgate. **DO NOT** operate the trailer on the highway with the tailgate open.
- Check the trailer for loose debris. Remove all loose material before leaving the dumpsite. **DO NOT** allow loose material to fall off during highway travel.
- Unhook the rear mud flaps.
- Tighten down all tailgate safety winders.
- Check and secure all accessories before leaving the dumpsite.

Tip-Over Conditions

To avoid a tip-over, the rear portion of the trailer must remain level from side-to-side. If the body leans to one side at the start of the lift, it will lean more as the body rises. The top of the load gets more off-center, causing tipping force to increase as the dump body rises.

The hoist cylinder is not strong enough to resist a tip-over. If the rising nose of the dump body starts to move sideways because the trailer is leaning, the hoist will not stop the sideways movement.

A number of factors can lead to a tip-over, but the more common and serious situation is caused by two or more factors combined. In order to avoid a tip-over, any condition that causes the rising dump body to lean or quickly shift position must be avoided. Some of these conditions are as follows.

– Tire Problems

A blown tire or a tire that is severely under-inflated can cause the rising dump body to lean sideward. Prior to dumping, the tires should always be checked for proper inflation.

– Broken Springs

A broken or weak spring will cause the dump trailer to become unstable while dumping. Overloading will accelerate the problem. Good preventive maintenance inspections are recommended to monitor the condition of spring suspensions. When replacing a broken or damaged spring, also replace the opposite spring to achieve equal deflection under load.

– Overloading

Overloads often damage tires and springs. Excess overloading can deform the axle beam and wheel spindles, resulting in more rapid tire wear. An overloaded trailer has a high center of gravity. A high center of gravity contributes to rollover on the highway, as well as tip-over during dumping.

– Jackknife Position

When the dump trailer is not in line with the tractor, it is difficult to see if the dump body leans. When raising the load, stay as close to the center of the unit as possible and watch the nose of the dump body rise. If you see the nose start to lean, lower the dump body immediately.

– Unbalanced Loads

While dumping, materials that hang up in the dump body will cause the trailer to be off balance. If a large amount of material sticks to one side of the dump body, the out-of-balance condition may contribute to a tip-over. Extra precautions must be taken when dumping in freezing weather or when dumping materials prone to clumping, such as wet clay. An observer in a safe location should monitor how the load discharges from the dump body. If a problem arises, the driver can be warned.

– Movement

Many accidents occur because the dump trailer is moved with the dump body raised. A raised dump body will sway any time the vehicle is moved, making a

tip-over more likely to happen. Accidental contact with overhead electrical wires or telephone lines is also more likely. Avoid moving the truck with the dump body raised.

– Slopes

Never raise the dump body when the trailer is on uneven ground. Even a ground surface that looks flat can have enough slope to cause a raised dump trailer to lean. Road paving projects require extreme caution. The crown of the road together with a changing slope can quickly cause a raised dump body to lean and tip over.

– Soft Ground

Many dumpsites require dumping of the load while on soft ground. Fresh fill often settles unevenly, causing the ground to be “spongy.” Dumping while on soft ground or fresh fill should be avoided.

– Wind Conditions

Gusty wind conditions or adverse crosswinds coupled with any of the other tip-over factors can result in a tip-over. Dumping operations should be suspended while high winds persist.

– Humping

“Humping” is a slang term used in the dump trailer transportation industry that describes a method to dislodge a stuck load in a dump trailer. The event has typically been defined in one of two ways: (1) Lowering the dump body via the hoist control valve and engaging the valve to the hold position, causing a sudden stop, thereby attempting to jar the load loose; and (2) Moving the truck forward or backward with the dump body raised, then braking hard to dislodge the load. Either one of these actions can cause a tip-over, particularly if the hung load is off balance.

This procedure is unacceptable and must be avoided. Trying to dislodge material by quickly moving the truck forward or backward, then braking hard, can cause a tip-over, particularly if the hung load is off balance. In addition to being a dangerous practice, the forces generated can cause severe damage to an extended hydraulic hoist.

Either one of these events induces extreme spike loading hydraulic pressures to the hoist that can cause catastrophic cylinder failure, resulting in the dump body suddenly and violently falling. This action, along with the resulting hoist failure, can cause severe injury or death and must be strictly avoided.



WARNING!

TIP-OVER HAZARD. Can cause serious injury or death.

The driver should observe the hoist cylinder for proper operation. When any stage of the hoist does not extend smoothly or fails to extend in the correct sequence, the hoist should be replaced. Continued operation of a dump body with a faulty hoist is hazardous and could result in a tip-over.

DO NOT raise the dump body with a faulty hoist.

PREVENTIVE MAINTENANCE

It is important to perform preventive maintenance inspections to ensure safe operation of the trailer.

Every trailer owner and/or operator should have an organized Trailer Preventive Maintenance program. DOT requires that maintenance records be kept on every commercial highway vehicle.

For helpful publications in setting up and operating a Trailer Preventive Maintenance program, contact:

Truck Trailer Manufacturers Association
7001 Heritage Village Plaza Suite 220
Gainesville, VA 20155
ttmanet.org
(703) 549-3010

Preparation for Service



WARNING!

FALLING DUMP BODY. Can cause severe injury or death.

Leaky or failed hoist cylinder may allow dump body to fall.
Always block up raised dump body for underbody inspection or maintenance.

Never block up a loaded or partly loaded dump body.

Use the following procedure to raise and block a framed dump body for trailer inspection.

1. Verify that the dump body is empty. Never raise a loaded dump body for service or inspection.
2. Check for the overhead clearance and raise the dump body to the desired height.
3. Place a 6 x 6 hardwood timber or other crush-proof member over both frame beams. Slide the blocking timbers rearward to contact both bottom rails of the dump body.
4. Slowly lower the dump body onto the blocking timbers.
5. Place the hydraulic hoist control in the “hold” position.

Weekly Inspection



CAUTION! Maintenance must be performed only by trained and qualified personnel following these instructions and those specified in the component manufacturers' instruction manuals.

The operator's weekly preventive maintenance procedure includes the following:

Body

- Inspect for any damage.
- Verify that all lights function, are in place and are not obscured.
- Check the electrical system for chafed wires, missing clips and positive grounding.
- Use the following procedure to check the hinge pin and dump shoe bushings for wear.
 - A.** Raise the dump body to the typical dump height.
 - B.** Measure how far the dump shoe hinge boss extends below the hinge pin flange.
 - C.** Lower the dump body and jack up the rear corners of the bed.
 - D.** Measure how far the dump shoe hinge boss extends above the hinge pin flange. If the total wear measured in **step B.** and **step D.** is greater than 3/8", replace the hinge pin and dump shoe bushings.

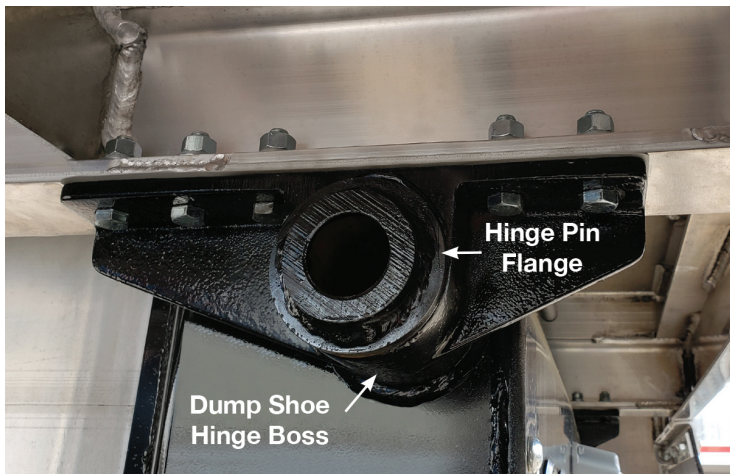


Figure 1: Dump Shoe Hinge Pin

- E.** Grease the dump shoes.

Tailgate

- Verify that the tailgate latches open and close properly.
- Check the tailgate lock adjustments. The tailgate latches should be clamped firmly, and the small end of each locking cam must snap into position against the cam stop block.
- Open and close the tailgate latches to check both latches for proper operation. The tailgate latch pins should be clamped firmly and the small end of each locking cam, Figure 2, must snap into position against the cam stop block. If either latch pin is not tightly clamped, or the locking cam does not lock above center, adjust the tailgate latch according to the following procedure.

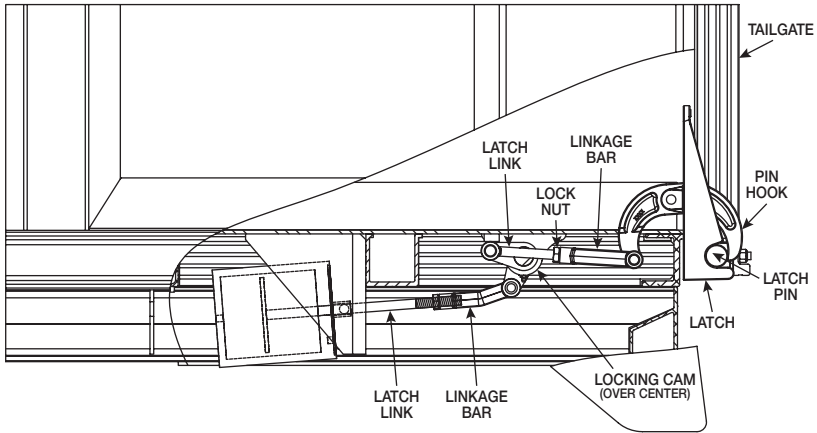


Figure 2: Tailgate Latch Adjustment

1. With the tailgate closed, measure the air gap between each latch and latch pin, and between each latch pin and the pin hook. The thickness of the two air gaps is the amount of latch link adjustment needed.
2. Open the tailgate latches.
3. Loosen the latch link lock nut.
4. Remove the cotter pin and flat washer from the locking cam end of the latch link.
5. Remove the latch link from the locking cam.
6. Thread the latch link in one turn for every 1/16 inch of adjustment needed.
7. Install latch link in the locking cam.
8. Install the flat washer and a new cotter pin.

- 9. Close the tailgate latches to check the adjustment. As the tailgate latches close, an impact should be heard as the pivot cams snap against the stop blocks. If the latch link is too short, the locking cam will not go over center.
- 10. When the proper adjustment is achieved, open the tailgate latches and tighten the lock nut.

- Check the tailgate for alignment and for complete closure to avoid any material leakage.
- Inspect the tailgate sealing faces for excessive wear.
- Grease the tailgate latches, the coal door linkage and the top corner hinges. Use the grease fittings provided.

Note: Lubrication of the over slung hinges should be performed from inside the dump body.

Hoist/Hydraulics

- Check the oil level in the hydraulic tank. Add fresh, filtered hydraulic oil, as needed. See dealer for recommended hydraulic oils.
- Check for chafed hoses or cracked fittings.
- Inspect all high-pressure hydraulic lines for leakage.
- Raise the dump body and inspect the hoist cylinder stages for oil leakage. If leaking, see your qualified service facility.

Note: Oil leakage from the hoist cylinder stages will be more noticeable when raising a loaded dump body.

- Check the A-frame mounting hardware for tightness.
- Verify that the upper hoist pin is secure.
- Grease the upper hoist pin.
- Inspect the lower base assembly for cracks and verify that the bottom hoist pin is secure.
- Grease the bottom hoist pin.

Note: Freedom of movement between the hinge pin and the bushing surfaces of the lower base assembly is necessary for safe hoist operation. The normal clearance between the lower hoist pin and the bushings is 1/8".

Note: Most hydraulic hoists are equipped with an automatic bleeder that discharges air each time the hoist is used. It is normal for a small amount of hydraulic oil to leak during automatic bleeder operation.

Chassis

- Inspect the chassis for visible damage.
- Check the fifth wheel kingpin for cracks and unusual or excessive wear.
- Grease the fifth wheel.
- Inspect the landing gear leg mounting plates and the bracing for cracks.
- Tighten any loose fasteners.
- Grease the landing gear according to the original equipment manufacturer's instructions.

Suspensions

- Visually inspect all suspension springs for broken leaf springs and equal arch.
- Be sure the springs are positioned with the hangers and equalizers.
- Visually inspect all air springs and airlines for chafing.

Brakes

- Check the brake valves for leaks and ensure proper operation.
- Check for and remove any foreign material from within the dust shields.
- Check all airlines and hoses for chafing.
- Remove dirt and other foreign material from the brake drums.
- Drain condensation from trailer air reservoirs.

Wheels and Tires

- Check the tire pressures. Inflate the tires according to the tire manufacturer's specifications.
- Check that wheel lugs are tight.
- Check the oil level in the wheel hubs to ensure proper wheel bearing lubrication. Add oil as needed.
- Inspect seals/hubcaps for leaks.

Monthly Inspection

For monthly inspection, perform the following in addition to those required for weekly preventive maintenance inspection:

General Inspection

- Check all welds for cracks.
- Check fifth wheel plate for corrosion between plate and main rail.
- Check fifth wheel plate and kingpin fasteners for tightness.

Suspension

- Inspect the suspension bushings for excessive wear and freedom of movement.
- Check that suspension hanger bolts are tight. If below required torque of 225 ft-lb, retorque. If below 225 ft-lb more than once, replace bolts.

Wheels, Rims and Tires

- Check and adjust the endplay of the wheel bearings according to the applicable instructions.

General Instructions



CAUTION! East uses high quality components produced by reliable original equipment manufacturers in all of its custom-built trailers. Refer to each component manufacturer's service manual for specific product information.

Good maintenance practices benefit trailer operators who properly maintain their equipment. Performing recommended cleaning and maintenance procedures saves time and money.

Maintenance for vehicle appearance includes cleaning, brightening and polishing.

- Knowledge of proper usage of recommended materials and compounds is essential for satisfactory results.
- Numerous chemical firms provide materials along with instructions for obtaining the best results.
- Maintenance performed with various chemical compounds will be similar but may vary. Be sure to follow the product manufacturers' instructions.

Landing Gear (2-Speed)

- To raise or lower the trailer, push the landing gear crankshaft inward to engage low gear. To quickly extend or retract, pull the landing gear crankshaft outward to engage high gear.
- To extend downward, engage the crank handle with the crankshaft and turn it clockwise.
- To retract upward, engage the crank handle with the crankshaft and turn it counterclockwise.



CAUTION! After extending or retracting the landing gear, pull the crankshaft outward, into high gear, fold the crank handle and place it in the crank handle holder. Never leave the gears in the neutral position or allow the crank handle to be unsecured.

Failure to use both high and low gears will void warranty.

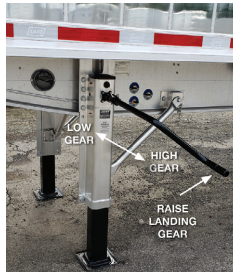
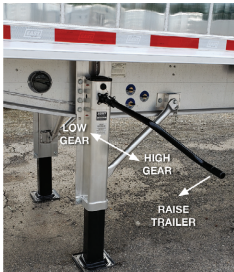


Figure 3:
Landing Gear Operation

Lubrication

Although the landing gear is greased and packed with high-quality lubricants at the time of manufacture, it may be necessary to periodically lubricate the landing gear to maintain satisfactory performance. Additional lubrication may be needed when landing gear is used frequently. Two times a year, or as required by the manufacturer's service manual, lubricate landing gear through the grease fittings provided.

Suspensions

Suspensions for over-the-road operations require periodic inspections to ensure continued safe performance.

The operator should check the following during the pre-delivery inspection, then check monthly after the first 1,000 miles of operation:

1. The ride is level.
2. Trailer is at the specified height.
3. All welds are of acceptable quality.
4. All bolts are securely in place.
5. The articulation of the suspension has no interferences.
6. All bolts are at the specified torque.
 - **Torque:** The amount of force with which certain fasteners (nuts, bolts, etc.) are to be tightened are specified by torque values as noted in foot-pounds (ft-lb).
 - A decal is mounted on each **East** chassis that has the required torque values for the bolted connections of that vehicle.
7. Suspension alignment is correct; adjust if needed.
8. Check for corrosion buildup between dissimilar metal mating surfaces that can occur due to de-icing agents being used on the roads. Examples of this include the interfaces between the main beam and the suspension hangers or the main beam and fifth wheel plate.



CAUTION! Failure to do inspection may cause premature wear on suspension components and tires.

Air Springs

In most applications, air springs should last almost indefinitely. However, rubbing, scuffing or puncturing causes air springs to fail quickly.

If an air spring fails, the vehicle will rest on the internal rubber bumpers, enabling the vehicle to be taken to the next convenient service facility.

The cause of the air spring failure must be determined to avoid reoccurrence.

To replace an air spring:

1. Raise and support the vehicle in a safe manner.
2. If jacks are used, you must use jack stands at the rear corners of the trailer frame.
3. Ensure all air is drained from bags and disconnect the air lines.
4. Unbolt the damaged air spring from its mount to allow the replacement spring to be installed.

Shock Absorbers

Shock absorbers absorb energy to prevent suspension oscillation. They are also used as rebound stops in most air suspensions. Air springs can be pulled apart if their stroke is not restrained by the shock absorber or some other device.

In many operations, the air suspension functions well without shock absorbers. As a result, unless operational problems are detected, immediate replacement of shock absorbers may not be necessary.

When necessary to replace the shock absorbers:

1. Remove the end fasteners.
2. Secure the new shock absorber with the correct size and grade of bolts and lock nuts.
3. Ensure replacement shock absorbers:
 - A. Match the original specifications for performance range.
 - B. Comply with suspension manufacturer's recommendations.
 - Because your suspension may have unique travel requirements, the shock absorber used will probably have its own special characteristics.



CAUTION! DO NOT lift the trailer without the shock absorbers in place. Damage will likely occur to the air springs because of over extension.



CAUTION! DO NOT exceed 5 mph when traveling in reverse and aggressively apply brakes. Separation of the shock absorber could result.

Air Controls

Many types of air controls are available for use with the suspension system. The most common systems automatically regulate the design height by controlling the air pressure supplied to the air springs. Design height is the distance from the center line of the axle to the underside of the chassis at the location where the height control valve is located.

When an air suspension is used in conjunction with other suspensions, such as the mechanical leaf spring type, an operator-controlled pressure regulator may be used. This operator-controlled regulator allows the operator to select the appropriate amount of air pressure to equalize the axle loadings.

Note the following about air controls:

- If lift axles are installed, other special control circuits and components must be added to properly coordinate this independent suspension with the others.
- All air suspensions on the trailer operate from an isolated compressed air supply.
- In addition to providing pressure for equalized axle loadings, the air suspension is also capable of changing the suspension height within a limited range.

Height Control Valve

The height control valve automatically reacts to changes in the relative position of the axle and the chassis. Air is added to or released from the air springs with variations in the axle load. Air pressure corrections are also caused by changes in temperature.

Note: The suspension ride height has been established by the suspension manufacturer. This information is contained in the component manufacturer's operating manual.

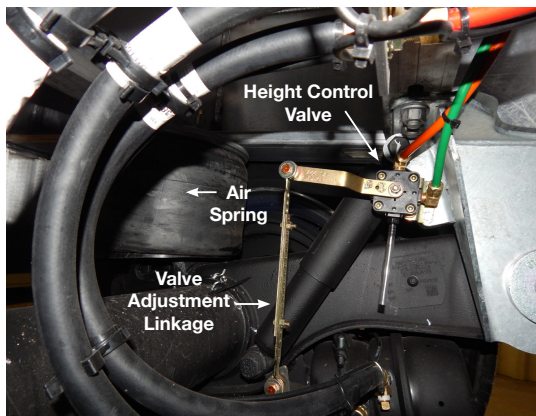


Figure 4: Height Control Valve

Disc Wheels



CAUTION! Make sure all wheel lug nuts are properly torqued to values ranging between 400 ft-lb and 500 ft-lb. These nuts should be checked often. Whenever tires are changed, the nuts and studs should be inspected to ensure they are in good condition. If nuts require frequent tightening, if studs break frequently, or if wheel nut seats round out, the assembly and mounting practices should be reviewed in order to eliminate any inappropriate procedure.



WARNING!

- DO NOT use two-piece cone lock nuts to mount wheels machined for use with ball seat cap nuts. Wheels that are machined to accept ball seat cap nuts will not have enough surface area to properly support a cone lock nut. Loss of torque, broken studs and cracked wheels can result from this mismatched component assembly.
- DO NOT weld aluminum wheels for any reason.
- DO NOT heat aluminum wheel in an attempt to soften it for straightening or to repair damage from impacts or other causes. Heating will weaken the aluminum alloy structure of the wheel.



CAUTION! Lubricants must NOT be applied to the cap nut seats or to the wheel. Lubricants must be wiped clean from the cap nut seats if applied accidentally.

Changing Flat Tire



WARNING!

- DO NOT change tires or wheels with air pressure in the suspension air bags. This can lead to instability, severe injury or death.

1. Exhaust air in the suspension air bags.
2. Set vehicle brakes and chock wheels not being serviced.
3. Place jack under the axle as close to the affected wheel as possible.
4. Jack up axle until the wheel is off of the ground then change tire.
5. Torque lug nuts in a cross pattern to 400-500 ft-lb.

NHTSA INFORMATION

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 Administration (NHTSA), in addition to notifying **East Manufacturing Corporation**.

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 individual problems between you, your dealer or **East Manufacturing Corporation**.

To contact NHTSA, you may either call the Vehicle Safety Hotline toll-free at 888-327-4236 or 800-424-9153, or write to:

NHTSA
U.S. Department of Transportation
1200 New Jersey Ave. SE
Washington, D.C. 20590

You can also obtain other information about motor vehicle safety from [nhtsa.gov](https://www.nhtsa.gov) and the Vehicle Safety Hotline.

EAST DUMP LIMITED WARRANTY

East Manufacturing Corporation warrants each new dump trailer manufactured (hereinafter referred to as the equipment) by us to be free from defects in materials and workmanship, provided that the equipment warranted hereunder is operated by the purchaser in accordance with generally approved practices, with loads not exceeding the manufacturer's rated capacity and with loads that are not abrasive or corrosive in nature.

Dump frame structure of the equipment found to be defective within the warranty period shall be repaired or replaced (at East's sole option), as set forth below, at East's factory location or authorized service facility provided, however, the purchaser notifies East or an authorized distributor as soon as any defect becomes apparent. The period of the warranty is for five years from the date of delivery of the equipment, and East shall bear that portion of the cost of repairing or replacing defective parts of the equipment on the following basis:

1 year	100%
2 years	80%
3 years	60%
4 years	40%
5 years	20%

Steel bodies and frame structures are covered at 100% for the first year only, no warranty coverage after 1 year.

Any parts not manufactured by East will carry their own warranties and are carried out according to their own individual component warranties; examples include axles, suspensions, hoist, tarp, landing gear, wheels, rims, hubs, air lines, springs, airbags, valves, bearings, brakes, etc.

Tires are not warranted by East.

Suspension alignments are covered for the first 30 days only.

Paint is covered for 1 year from date of delivery on workmanship and materials. Surface corrosion caused from stone chips, road debris, scratches or impacts are not included in the warranty coverage.

This Warranty does not expand, enlarge upon, or alter in any way, the warranties provided by the manufacturers and suppliers of component parts and accessories.

The purchaser agrees to return the defective equipment or parts to East's factory location or authorized service facility, freight prepaid, within fifteen days after the defective condition is discovered.

This warranty also excludes the following: normal wear, tear, and deterioration of the equipment; maintenance items including, but not limited to, light bulbs, paint, brake lining, oil seals and bearings; used equipment sold "as is"; equipment that has been repaired, replaced or altered by someone other than East or one of its authorized service facilities.

EAST AND THE PURCHASER AGREE THAT IN CONSIDERATION OF THE ABOVE EXPRESSED WARRANTY, ALL OTHER WARRANTIES OTHER THAN TITLE, EITHER EXPRESSED OR IMPLIED, WHETHER ARISING UNDER LAW OR EQUALITY INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED FROM THIS CONTRACT, FURTHER, THE FOREGOING WARRANTY IS MADE SOLELY TO THE FIRST PURCHASER FROM EAST OR FROM AN AUTHORIZED DISTRIBUTOR.

The sole liability of East and the exclusive remedy of the purchaser arising out of the manufacture, sale or use of the equipment provided hereunder, on warranties or otherwise, shall be limited to the cost of repair or replacement of defective parts as herein specified. Further, East's maximum liability hereunder arising from any cause whatsoever, including but not limited to, breach of contract or tort (including negligence), shall not exceed the contract price of the equipment furnished hereunder. East shall not be responsible for work done, equipment or parts furnished, or parts or repairs made by others unless the work is specifically ordered by East. In no event shall East be liable for removing defective parts or for reinstalling said parts when repaired or replaced by anyone other than East or an authorized service facility or for any costs incurred with such removal or reinstallation.

CONSEQUENTIAL DAMAGES -

NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, IN NO EVENT SHALL EAST BE LIABLE, WHETHER ARISING UNDER CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, FOR LOSS OF ANTICIPATED PROFITS, DAMAGE TO LOADS OR CONTENTS OF THE EQUIPMENT, TRANSPORTATION EXPENSES DUE TO REPAIRS, NON-OPERATION OR INCREASED EXPENSE OF OPERATION COST OF PURCHASED OR REPLACEMENT EQUIPMENT, CLAIM OF CUSTOMERS, COST OF MONEY, LOSS OF USE OF CAPITAL OR REVENUE, OR FOR ANY SPECIAL INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGE OF ANY NATURE ARISING AT ANY TIME OR FROM ANY CAUSE WHATSOEVER.

EAST HYBRID LIMITED WARRANTY

East Manufacturing Corporation (hereinafter referred to as East or us) warrants each new hybrid trailer manufactured (hereinafter referred to as the equipment) by us to be free from defects in materials and workmanship, provided that the equipment warranted hereunder is operated by the purchaser in accordance with generally approved practices, with loads not exceeding the manufacturer's rated capacity and with loads that are not abrasive or corrosive in nature.

Hybrid frame structure of the equipment found to be defective within the warranty period shall be repaired or replaced (at East's sole option), at East's factory location or authorized service facility. The purchaser must notify East or an authorized distributor as soon as any defect becomes apparent. The period of the warranty is for five years from the date of delivery of the equipment, and East shall bear that portion of the cost of repairing or replacing defective parts of the equipment on the following basis:

1 year	100%
2 years	100%
3 years	80%
4 years	60%
5 years	40%

Any parts not manufactured by East will carry their own warranties and are carried out according to their own individual component warranties; examples include axles, suspensions, hoist, tarp, landing gear, wheels, rims, hubs, air lines, springs, airbags, valves, bearings, brakes, etc.

Tires are not warranted by East.

Suspension alignments are covered for the first 30 days only.

Paint is covered for 1 year from date of delivery on workmanship and materials. Surface corrosion caused from stone chips, road debris, scratches or impacts are not included in the warranty coverage.

This Warranty does not expand, enlarge upon, or alter in any way, the warranties provided by the manufacturers and suppliers of component parts and accessories.

The purchaser agrees to return the defective equipment or parts to East's factory location or authorized service facility, freight prepaid, within fifteen days after the defective condition is discovered.

This warranty also excludes the following: normal wear, tear, and deterioration of the equipment; damage caused by accidents, negligence

or improper or insufficient maintenance; maintenance items including, but not limited to, light bulbs, paint, brake lining, oil seals and bearings; used equipment sold "as is"; equipment that has been repaired, replaced or altered by someone other than East or one of its authorized service facilities.

EAST AND THE PURCHASER AGREE THAT IN CONSIDERATION OF THE EXPRESS WARRANTY ABOVE, ALL OTHER WARRANTIES OTHER THAN TITLE, EITHER EXPRESSED OR IMPLIED, WHETHER ARISING UNDER LAW OR EQUITY, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED AND DISCLAIMED, FURTHER, THE EXPRESS WARRANTY ABOVE IS MADE SOLELY TO THE FIRST PURCHASER FROM EAST OR FROM AN AUTHORIZED DISTRIBUTOR AND IS NOT TRANSFERABLE.

The sole liability of East and the exclusive remedy of the purchaser arising out of the manufacture, sale or use of the equipment provided hereunder, on warranties or otherwise, shall be limited to the cost of repair or replacement of defective parts as herein specified. Further, East's maximum liability hereunder arising from any cause whatsoever, including but not limited to, breach of contract or tort (including negligence), shall not exceed the contract price of the equipment furnished hereunder. East shall not be responsible for work done, equipment or parts furnished, or parts or repairs made by others unless the work is specifically ordered by East. In no event shall East be liable for removing defective parts or for reinstalling said parts when repaired or replaced by anyone other than East or an authorized service facility or for any costs incurred with such removal or reinstallation.

CONSEQUENTIAL DAMAGES -

NOTWITHSTANDING ANY OTHER PROVISION OF THIS WARRANTY, IN NO EVENT SHALL EAST BE LIABLE, WHETHER ARISING UNDER CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, FOR LOSS OF ANTICIPATED PROFITS, DAMAGE TO LOADS OR CONTENTS OF THE EQUIPMENT, TRANSPORTATION EXPENSES DUE TO REPAIRS, NON-OPERATION OR INCREASED EXPENSE OF OPERATION, COST OF PURCHASED OR REPLACEMENT EQUIPMENT, CLAIMS OF CUSTOMERS, COST OF MONEY, LOSS OF USE OF CAPITAL OR REVENUE, OR FOR ANY PUNITIVE, SPECIAL, INCIDENTAL OR CONSEQUENTIAL LOSS OR DAMAGE OF ANY NATURE ARISING AT ANY TIME OR FROM ANY CAUSE WHATSOEVER.



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