

E-Pak
TRAILERS

**STEEL TRAILER
OWNER'S MANUAL**



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INTRODUCTION AND WARRANTY

Congratulations on the purchase of your E-Pak trailer!

Located in Wooster, Ohio, E-Pak Manufacturing, LLC is a leader in the steel roll-off container and trailer industry. For over 30 years, E-Pak has manufactured long-lasting roll-off containers and trailers that consistently exceed customers' expectations.

In order to ensure safe, efficient, and trouble-free operation of your E-Pak trailer, we recommend that all who operate and/or service your trailer read and understand the information contained in this manual. This manual should be kept inside the truck which is connected to your trailer at all times. If your trailer is sold, this manual should be transferred with the trailer.

READ THIS ENTIRE MANUAL CAREFULLY BEFORE ATTEMPTING OPERATION OF YOUR TRAILER. FAILURE TO FOLLOW THE INSTRUCTIONS IN THIS MANUAL COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU, AND/OR SIGNIFICANT DAMAGE TO YOUR TRAILER.

Because this manual contains operating and service instructions for all models of E-Pak trailers, some of the following information or illustrations may not pertain to your specific trailer. Please disregard all information and illustrations that do not apply to your equipment, and follow all instructions that do apply to your equipment—even if the exact equipment shown is different.

Operating and service instructions for certain trailer components can be found in each component's respective manufacturer's manual. If you have any questions about the manufacturer(s) of your trailer's components, please contact E-Pak at 330-264-0825 or toll-free at 800-235-1632.

Although the information in this manual was current at the time of publication, E-Pak Manufacturing, LLC reserves the right to amend this manual as necessary without notice or liability.

If you have any questions about your trailer, please contact E-Pak at 330-264-0825 or toll-free at 800-235-1632.

TRAILERS

E-Pak Manufacturing offers four different types of trailers: frameless dump trailers, frame dump trailers, gondolas (also known as high side trailers), and specialty trailers. Although all trailers are open top trailers, all trailers can be tarped if and when necessary.

NOTE: IT IS THE OPERATOR'S RESPONSIBILITY TO TARP THE TRAILER IF AND WHEN NECESSARY.

Below, you will find a picture and a brief description of each type of trailer.

Frameless Dump Trailers

Frameless dump trailers range in length from 24' to 44'. Because they have no frame, these trailers require the tractor to have a fixed fifth wheel. Frameless dump trailers ALWAYS move closer to the tractor when they are being dumped.

NOTE: FRAMELESS DUMP TRAILERS MUST BE DUMPED ON LEVEL GROUND. FAILURE TO DUMP FRAMELESS DUMP TRAILERS ON LEVEL GROUND COULD LEAD TO SERIOUS INJURY TO YOURSELF AND/OR YOUR TRAILER.



HALF ROUND FRAMELESS DUMP TRAILER



RADIUS FRAMELESS DUMP TRAILER

Frame Dump Trailers

Frame dump trailers range in length from 16' to 40'. Because these trailers have a fixed frame, they require the tractor to have a floating fifth wheel. Frame dump trailers have a fixed position when they are being dumped.



STANDARD FRAME DUMP TRAILER

Gondola / High Side Trailers

Gondola trailers, also known as high side trailers, are taller and longer than both frameless and frame dump trailers. They DO NOT DUMP and range in length from 40' to 53'.



GONDOLA / HIGH SIDE TRAILER

Specialty Trailers

Trailers which do not fit into the preceding categories are considered specialty trailers. Specialty trailers allow operators to haul a greater variety of loads than other trailer types. Specialty trailers DO NOT DUMP; however, most types of specialty trailers can be loaded or unloaded from the side with a forklift.



SPECIALTY TRAILER

TRAILER CARE

All trailers experience “settling” within their first 100 and first 1,000 miles of service.

You must check and re-torque the trailer’s suspension and all trailer tires after the trailer’s first 100 and first 1,000 miles of service.

For information on the proper tightening sequence, see **Tightening Sequence (page 22)**.

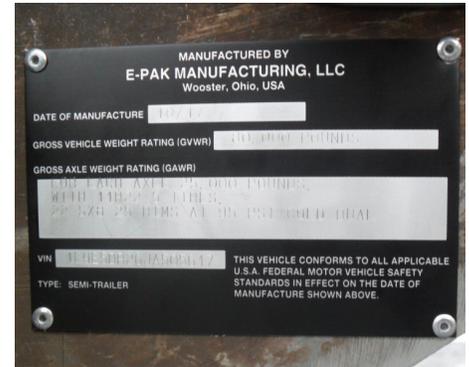
For information on re-torquing, see **Re-torquing (page 23)**.

TRAILER INFORMATION

You can find a variety of information about your trailer on your trailer's VIN tag (pictured left), including the trailer's:

- **Gross vehicle weight rating (GVWR);**
- **Gross axle weight rating (GAWR);**
- **Date of manufacture; and,**
- **Vehicle identification number (VIN).**

Your trailer's VIN tag is located either on the front or in the middle of your trailer's frame.



For information on how the GVWR and GAWR of your trailer impacts its usage, see **Load Distribution (page 8)**.

TRAILER WARRANTY

Your E-Pak trailer includes a limited warranty, as provided in your separate warranty document, and as set forth below:

E-Pak Manufacturing, LLC ("E-Pak") warrants each new trailer manufactured by E-Pak ("Trailer") to be free from defects in material and workmanship occurring under normal use and in accordance with generally approved practices during the Warranty Period and subject to the requirements, exclusions, and limitations set forth herein. This limited warranty extends only to the first purchaser of an eligible Trailer from E-Pak or from an authorized E-Pak distributor ("Purchaser"). Failure to comply with the requirements set forth herein shall deem the warranty void.

WARRANTY COVERAGE. In the event any platform frame structure, body, sub-frame, or frame parts of the Trailer are found to be defective within the Warranty Period, and provided that E-Pak is notified as soon as the defect becomes apparent, E-Pak shall repair or replace the defect, at E-Pak's sole discretion, at E-Pak's plant or at an authorized facility. The obligation of this warranty shall be limited to repairing or replacing any part or parts which, in the opinion of E-Pak, shall be proved defective in materials or workmanship under normal use and service during the Warranty Period.

WARRANTY PERIOD. E-Pak's limited Warranty Coverage applies to eligible Trailers for up to two (2) years for parts and up to one (1) year for labor from original purchase date ("Warranty Period"). During the Warranty Period, E-Pak will be responsible for repairing and/or replacing, at E-Pak's sole discretion, defective parts for up to two (2) years from original purchase date, and E-Pak will be responsible for the labor costs related to the repair and/or replacement of defective parts for up to one (1) year from original purchase date.

COMPONENT WARRANTY INFORMATION. Certain component parts, accessories, and other goods (such as but not limited to, axles, suspension, landing gear, wheels, rims, hydraulic cylinders) of other manufacturers and suppliers, are used by E-Pak in the manufacture of E-Pak Trailers. Upon Purchaser's request, and in the event said warranty permits, any warranty extended to E-Pak by the makers and suppliers of component parts, accessories, or other goods included in E-Pak manufactured Trailers will be assigned to the Purchaser. E-Pak's warranty does not expand, enlarge upon, or alter in any way, the warranties provided by the manufacturers and suppliers of component parts and accessories, and E-Pak's warranty specifically excludes component items.

LIMITED PAINT WARRANTY. E-Pak warrants its paint finish to be consistent with industry standards for one (1) year after the original purchase date, with exceptions of surface corrosion caused from stone chips, scratches, or reverse impact, deterioration due to normal use or exposure, such as chipping, scratching, fading, cracks in caulk seams, road salt or tar, damage by animals, or pressure washing. Warrantable paint repairs are limited to spot repairs and blending consistent with standards in the trailer industry.

WARRANTY EXCLUSIONS. E-Pak's limited Warranty Coverage does not apply to and E-Pak expressly disclaims and excludes any liability for any of the following: (a) normal wear, tear, and deterioration; (b) any part or parts which have been damaged as a result of an accident, unreasonable use (including failure to provide reasonable and necessary maintenance), misuse, abuse, neglect, operation contrary to the generally approved practices, fire, flood, vermin, improper installation by others, use for other than intended purpose, or that have been subjected to loads in excess of rated capacities; (c) removal of defective parts or reinstalling said parts when repaired or replaced by anyone other than E-Pak or its authorized repair facility; (d) parts not supplied by E-Pak; (e) used Trailers originally manufactured by E-Pak and later sold as used equipment; (f) Trailers sold "as is;" (g) Trailers that have been modified, repaired, replaced, or altered in any way by someone other than E-Pak or one of its authorized repair facilities, without the prior express written consent of E-Pak, including but not limited to painting over, removing, or defacing any safety signs or warning labels; (h) any items installed by any other person or company, including any incidental or consequential damages or contingent liabilities arising therefrom; and (i) transportation of any Trailer, part, or parts, to and/or from E-Pak's plant or an authorized repair facility. The cost of repair or replacement under these excluded circumstances shall be borne by the Purchaser and E-Pak shall not be liable for any such costs. The Purchaser is responsible for all routine and preventative maintenance.

LIMITATION OF LIABILITY. E-PAK AND PURCHASER AGREE THAT, IN CONSIDERATION OF THE EXPRESS WARRANTY CONTAINED HEREIN, THIS LIMITED WARRANTY IS IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT ANY IMPLIED WARRANTY IS REQUIRED BY LAW, IT IS LIMITED IN DURATION TO THE EXPRESS WARRANTY PERIOD ABOVE. NEITHER E-PAK, NOR ITS U.S. DISTRIBUTOR, IF ANY (INCLUDING THEIR DIRECTORS, MEMBERS, OFFICERS, EMPLOYEES, AND AGENTS), SHALL BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, DIRECT, INDIRECT, SPECIAL, OR PUNITIVE DAMAGES OF ANY TYPE OR ANY NATURE, INCLUDING WITHOUT LIMITATION, LOST REVENUES (OR OTHER COMMERCIAL LOSSES), TRANSPORTATION COSTS, DAMAGE TO TRAILER LOADS OR CONTENTS, NON-OPERATION OR INCREASED COST OF PURCHASED OR REPLACED TRAILERS, CLAIMS OF PURCHASER'S CUSTOMERS, LOSS OF USE OF CAPITAL OR REVENUE, OR ANY OTHER DAMAGE WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE), OR OTHERWISE. THE SOLE LIABILITY OF E-PAK AND EXCLUSIVE REMEDY OF THE PURCHASER ARISING OUT OF THE MANUFACTURE, SALE, OR USE OF THE TRAILER PROVIDED HEREUNDER, ON WARRANTIES OR OTHERWISE (INCLUDING, BUT NOT LIMITED TO, BREACH OF CONTRACT OR TORT INCLUDING NEGLIGENCE AND STRICT LIABILITY) SHALL BE LIMITED AS SET FORTH HEREIN. This warranty may give you specific legal rights and you may also have other rights that vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusion or limitation may not apply to you.

WARRANTY CLAIM PROCEDURE. E-Pak shall be notified of any defect or defects as soon as the defect(s) become apparent, but in no event shall Purchaser delay E-Pak notification by more than seven (7) days. Purchaser shall, at Purchaser's sole expense, return to E-Pak's plant location, freight prepaid, all Trailers and/or parts claimed defective within ten (10) days after the defective condition is discovered.

SAFETY

DO NOT MODIFY YOUR TRAILER IN ANY WAY. Doing so may impair the function and/or safety of your trailer and could affect the life of the trailer.

NOTE: E-Pak trailers are open top trailers, but they can be tarped. **IT IS THE OPERATOR'S RESPONSIBILITY TO TARP THE TRAILER IF AND WHEN NECESSARY.**

NOTE: Not all trailers and tailgates are created equal. Certain trailers and tailgates are more conducive to carrying some cargo loads than others. **IT IS THE OPERATOR'S RESPONSIBILITY TO ENSURE THAT THE TRAILER TYPE AND TAILGATE OPERATION ARE MOST APPROPRIATE FOR THE CARGO BEING HAULED. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU, AND/OR SIGNIFICANT DAMAGE TO YOUR TRAILER.**

Be sure to review safety instructions with all trailer operators and/or servicers at least annually.

Safety Decals

All E-Pak trailers are delivered with a number of safety decals, as listed in the table and pictured below.

If your trailer was delivered without one or more of the following safety decals, please notify E-Pak immediately at 330-264-0825 or toll-free at 800-235-1632.

If any of your trailer's decals come off or become illegible, please contact E-Pak at 330-264-0825 or toll-free at 800-235-1632 for a replacement decal, and promptly apply them to your trailer as provided in **Applying Decals** below.

DO NOT paint over, remove, or deface any safety signs or warning decals on your equipment. Doing so will VOID your trailer's limited warranty **(see Trailer Warranty, page 5.)**

ALWAYS observe all safety signs and follow the instructions on them.

TRAILER SAFETY DECALS

REFERENCE NUMBER	QUANTITY	DESCRIPTION
1	1	Tailgate Swing Warning
2	1	Wiring Harness
3	1	ABS
4	2	HYVA Dump Safety
5	2	Suspension Procedure
6	1	Danger - Compacting
7	1	Ladder Safety
8	1	Caution
9	1	Danger
10	50% Coverage Front to Back	Conspicuity Tape



TAILGATE SWING WARNING



WIRING HARNESS

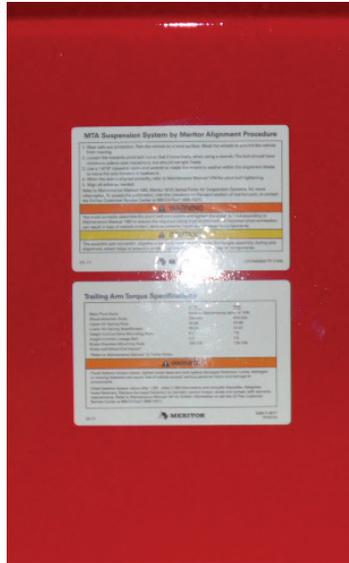


ABS

Continued Safety Decals



HYVA DUMP SAFETY



SUSPENSION PROCEDURE



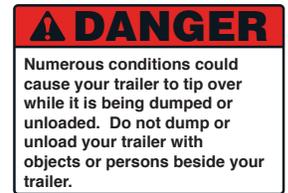
DANGER - COMPACTING



LADDER SAFETY



CAUTION



DANGER



CONSPICUITY TAPE

Applying Safety Decals

Safety decals should be applied to clean, dry surfaces when the temperature is above 50°F (10°C).

To apply safety decals:

1. Decide on the decal's exact position before removing its backing paper.
2. Remove the smallest portion of the decal's backing paper.
3. Align the decal over its specified location and carefully press the sticky portion of the decal in place.
4. Slowly remove the remaining backing paper and carefully smooth the remaining portion of the decal into place.

Small air pockets can be pierced with a pin and smoothed out using a piece of decal backing paper.

LOADING & UNLOADING

ALWAYS load and unload your trailer on level ground, in a location with NO overhead obstructions (i.e., power lines, etc.), and without objects or persons beside your trailer. **FAILURE TO LOAD OR UNLOAD YOUR TRAILER ON LEVEL GROUND AND AWAY FROM OVERHEAD OBSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU, AND/OR SIGNIFICANT DAMAGE TO YOUR TRAILER.**

NEVER exceed the maximum capacity of your trailer. Doing so could lead to serious injury to yourself and/or your trailer.

Avoid loading trailers with large or awkward cargo that could compromise the trailer's ability to dump or be unloaded. **NOTE: IT IS THE OPERATOR'S RESPONSIBILITY TO ENSURE THAT CARGO CAN BE DUMPED OR UNLOADED WITHOUT DAMAGING THE TRAILER.**

Please note that if your trailer is equipped with an air-ride suspension, you must completely deflate the air bags prior to dumping your trailer. **FAILURE TO COMPLETELY EMPTY YOUR TRAILER'S AIR BAGS BEFORE DUMPING YOUR TRAILER COULD RESULT IN SIGNIFICANT DAMAGE TO YOUR TRAILER.**

Load Distribution

NEVER exceed the maximum capacity of your trailer. Doing so could lead to serious injury to yourself and/or your trailer.

The total weight of the load you put on your trailer, plus the empty weight of the trailer itself, must not exceed the trailer's Gross Vehicle Weight Rating (GVWR). You must distribute the load on the trailer such that the load on any tire or axle does not exceed the tire load rating or the Gross Axle Weight Rating (GAWR). See your trailer's VIN tag for proper ratings. (For more information about your VIN tag, see **Trailer Information, page 5.**) If you do not know the weight of your trailer, you must weigh it at a commercial scale. Not following these guidelines could cause serious injury or even death.

E-PAK MANUFACTURING STRICTLY PROHIBITS THE COMPRESSION OR COMPACTING OF MATERIAL INSIDE THE TRAILER AND CONSIDERS THIS AS IMPROPER OPERATION. USING HEAVY EQUIPMENT TO COMPRESS OR COMPACT MATERIAL IN YOUR TRAILER MAY PERMANENTLY DAMAGE THE FRAME OF YOUR TRAILER, AND IN ADDITION, SIGNIFICANTLY INCREASES THE RISK OF YOUR TRAILER TIPPING OVER WHILE BEING DUMPED OR UNLOADED.

Tip-Over Hazards

You must avoid tipping over your trailer while you are unloading it. Tipping over your trailer could result in serious injury or death to you and/or to any persons beside your trailer, and also could result in significant damage to your trailer and/or to any vehicles, equipment, or other property beside your trailer. Do not unload or dump your trailer with objects or persons beside it.

The following conditions could cause your trailer to tip over while it is being unloaded:

- **Dumping your trailer on a soft, uneven, and/or obstructed surface;**
- **Dumping an unbalanced load from your trailer;**
- **Dumping your trailer during high winds or other inclement weather;**
- **Dumping your trailer while your tractor/trailer is in a jackknifed position;**
- **Dumping an overloaded trailer;**
- **Dumping a trailer with material that has been compressed or compacted inside the trailer;**
- **Dumping a trailer that has weak, broken, or leaking suspension parts;**
- **Jerking the trailer or hydraulics (i.e., to free a stuck load);**
- **Moving the trailer with its dump body raised;**
- **If equipped with an air-ride suspension, dumping the trailer WITHOUT releasing all of the air from the air bags;**
- **Moving the trailer in any way.**

Please note that this list is NOT all-inclusive. There are other conditions that could cause the trailer to tip over while it is being unloaded. **IT IS THE OPERATOR'S RESPONSIBILITY TO ENSURE THAT THE TRAILER DOES NOT TIP OVER WHILE IT IS BEING UNLOADED.**

Lift Axle(s)

Your trailer may be equipped with one or more lift axles. These axles can be lowered in order to help evenly distribute the load forces on your trailer. Please see the table below for proper air pressure levels, given your load's weight, and set your lift axle(s) accordingly.

MTA25T LOAD SCALE CHART	
Axle Load	Air Pressure
29,000 lb	104 PSI
27,000 lb	96 PSI
25,000 lb	88 PSI
23,000 lb	80 PSI
21,000 lb	72 PSI
19,000 lb	64 PSI
17,000 lb	56 PSI
15,000 lb	48 PSI
13,000 lb	40 PSI
11,000 lb	32 PSI
9,000 lb	24 PSI
7,000 lb	16 PSI
5,000 lb	8 PSI

 **MERITOR** MISC-1769
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LIFT AXLE PRESSURE SETTINGS

TAILGATE OPERATION & SAFETY

For your convenience, E-Pak trailers are available with any of several different types of tailgates, as described below. The types of tailgates available are: over-slung; side-swing; two-way; high lift; and, air flow.

NOTE: BEFORE DRIVING YOUR TRAILER, YOU MUST MAKE SURE YOUR SECONDARY CONTAINMENT DEVICE (i.e., safety chain or safety winder) IS LATCHED. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY TO YOU, YOUR TRAILER, AND/OR OTHERS.

ALWAYS make sure your tailgate is free and clear of any obstruction when your trailer is in the dump position.

ALWAYS dump your trailer on level ground in a location with NO overhead obstructions (i.e., power lines, etc.). **FAILURE TO DUMP YOUR TRAILER ON LEVEL GROUND AND AWAY FROM OVERHEAD OBSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU, AND/OR SIGNIFICANT DAMAGE TO YOUR TRAILER.**

DO NOT dump cargo that could result in damage to your tailgate. **IT IS THE OPERATOR'S RESPONSIBILITY TO ENSURE THAT ANY DUMPED CARGO DOES NOT DAMAGE THE TAILGATE.**

Over-Slung Tailgates

Over-slung tailgates feature hinges at the top driver and passenger sides of the gate. To open an over-slung tailgate:

1. Make sure your tractor's air lines are attached to your trailer's glad hands and your tractor/trailer is parked on level ground away from overhead obstructions. **FAILURE TO DUMP YOUR TRAILER ON LEVEL GROUND AND AWAY FROM OVERHEAD OBSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU, AND/OR SIGNIFICANT DAMAGE TO YOUR TRAILER.**
2. Pull the valve on the side of your trailer to empty your trailer's air bags. **FAILURE TO COMPLETELY EMPTY YOUR TRAILER'S AIR BAGS BEFORE DUMPING YOUR TRAILER MAY RESULT IN SIGNIFICANT DAMAGE TO YOUR TRAILER.**
3. Pull the valve on the side of your trailer to release the gate's air latches. The latches will fall toward the ground.
4. Dump your trailer. **NOTE: AS YOU DUMP, YOUR TAILGATE WILL OPEN AT THE HINGE LOCATED AT THE TOP OF THE GATE.**

NOTE: DO NOT DUMP CARGO THAT COULD RESULT IN DAMAGE TO YOUR TAILGATE. IT IS THE OPERATOR'S RESPONSIBILITY TO ENSURE THAT ANY DUMPED CARGO DOES NOT DAMAGE THE TAILGATE.

Side-Swing Tailgates

Side-swing tailgates open at a hinge on the side of the trailer. To open a side-swing tailgate:

1. Make sure your tractor/trailer is parked on level ground away from overhead obstructions.
FAILURE TO UNLOAD YOUR TRAILER ON LEVEL GROUND AND AWAY FROM OVERHEAD OBSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU, AND/OR SIGNIFICANT DAMAGE TO YOUR TRAILER.
2. Pull the handle on the side of the trailer toward the back of the trailer.
3. As it opens, pull the tailgate toward the opposite side of the trailer. **NOTE: IN ORDER TO EFFECTIVELY OPEN YOUR TAILGATE, YOU WILL NEED AN OPEN AREA THAT IS AT LEAST TWICE AS WIDE AS THE TAILGATE'S DOOR.**
4. Use the safety chain to tie the tailgate to the side of the trailer.
5. Unload your trailer.

Two-Way Tailgates

Two-way tailgates have the capabilities of both an over-slung tailgate and a side-swing tailgate.

For instructions on how to open your over-slung tailgate, see **Over-Slung Tailgates (page 10)**.

To open your side-swing tailgate:

1. Make sure your tractor/trailer is parked on level ground away from overhead obstructions.
FAILURE TO UNLOAD YOUR TRAILER ON LEVEL GROUND AND AWAY FROM OVERHEAD OBSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU, AND/OR SIGNIFICANT DAMAGE TO YOUR TRAILER.
2. Pull the handle on the side of the trailer down. This will move the pins in the side-swing hinge downward.
3. Unlatch the safety chain from the trailer.
4. As it opens, pull the tailgate toward the opposite side of the trailer. **NOTE: IN ORDER TO EFFECTIVELY OPEN YOUR TAILGATE, YOU WILL NEED AN OPEN AREA THAT IS AT LEAST TWICE AS WIDE AS THE TAILGATE'S DOOR.**
5. Use the safety chain to tie the tailgate to the side of the trailer.
6. Dump your trailer.

High Lift Tailgates

High lift tailgates are over-slung tailgates that use air pressure to lift the gate higher than traditional over-slung gates.

For instructions on how to open your traditional over-slung tailgate, see **Over-Slung Tailgates [page 10]**.

To activate the high lift function of your tailgate:

1. Make sure your tractor's air lines are attached to your trailer's glad hands and your tractor/trailer is parked on level ground away from overhead obstructions. **FAILURE TO DUMP YOUR TRAILER ON LEVEL GROUND AND AWAY FROM OVERHEAD OBSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU, AND/OR SIGNIFICANT DAMAGE TO YOUR TRAILER.**
2. Pull the valve on the side of your trailer to empty the trailer's air bags. **FAILURE TO COMPLETELY EMPTY YOUR TRAILER'S AIR BAGS BEFORE DUMPING YOUR TRAILER MAY RESULT IN SIGNIFICANT DAMAGE TO YOUR TRAILER.**
3. Pull the valve on the side of the trailer to release the gate's air latches. The latches will fall toward the ground.
4. Flip the switch in your cab, or use the push/pull switch on the side of your trailer, to activate the air cylinders on either side of your tailgate and lift the gate into the high lift position.
5. Dump your trailer.

NOTE: DO NOT DUMP CARGO THAT COULD RESULT IN DAMAGE TO YOUR TAILGATE. IT IS THE OPERATOR'S RESPONSIBILITY TO ENSURE THAT ANY DUMPED CARGO DOES NOT DAMAGE THE TAILGATE.

Air Flow Tailgates

Air flow tailgates use two doors, an inner door and an outer door, to redirect air flow around your trailer as you drive down the road.

To activate your air flow tailgate:

1. After unloading your trailer, make sure your trailer is completely empty. The air flow tailgate should only be used with an empty trailer.
2. Release the safety chain from the side of the trailer and pull the entire tailgate (i.e., both inner and outer doors) until it extends straight back from the side of your trailer.
3. Release the inner door latch on the back of your tailgate. The latch will fall toward the ground, and the inner door will swing toward the inside of your trailer.
4. Use your ratchet handle to push the inner door into your empty trailer. Push the inner door until it comes to a complete stop. You may have to pull the outer door toward the side of your trailer in order to get the inner door to come to a complete stop.
5. Once the inner door comes to a complete stop, slowly start closing the outer door.

Air Flow Tailgates CONTINUED

6. Once the inner door taps lightly against the inside wall of your trailer, close the outer door completely.
7. Lock the outer door.
8. To make sure your tailgate is securely locked, reverse your ratcheting handle and attempt to open the tailgate. If the tailgate does not move, it is securely locked.
9. When the tailgate is securely locked, tie up your ratcheting handle.
10. Secure your cam lock.
11. Use the safety chain to secure the tailgate.

To prepare your air flow tailgate for a new load:

1. Release the safety chain on the outer door.
2. Release the cam lock.
3. Unlock the outer door and slowly pull it toward the side of the trailer.
4. Release the ratcheting handle. This will allow the inner door to open toward the outer door.
5. Use the ratcheting handle to open the inner door completely (i.e., so that it rests within the outer door).
6. Once the inner door is completely open (i.e., resting within the outer door), lock the inner door in place.
7. Attach the cam lock.
8. Secure the ratcheting handle.
9. Close the entire tailgate (i.e., both inner and outer doors).
10. Use the safety chain to secure the tailgate.

BRAKE, LIGHTS

Before towing your trailer, make sure that the brakes and all of the lights on your trailer are functioning properly. **FAILURE TO CHECK YOUR TRAILER BRAKES AND LIGHTS BEFORE EVERY TOW COULD LEAD TO SERIOUS INJURY AND/OR DEATH.**

NOTE: FAILURE TO CONNECT YOUR TRACTOR'S ELECTRICAL CONNECTOR AND AIR HOSES TO YOUR TRAILER WILL RESULT IN INOPERABLE TRAILER LIGHTS AND BRAKES, AND CAN LEAD TO COLLISION OR OTHER SERIOUS INJURY.

In order to receive optimum performance and longevity from your trailer lights and wiring, follow these guidelines:

1. Clean all lights regularly, and as needed.
2. Check that all lights burn properly.
3. Replace any burned out lights with equal candlepower replacement lights.
4. Replace missing conspicuity tape with factory approved replacement tape.
5. Inspect all wiring, including the light cable, to ensure that it is:
 - NOT frayed;
 - properly supported (i.e., so that it cannot be pinched or entangled in any way); and,
 - properly protected.
6. Make sure all wiring connections are tight.
7. Make sure the light cable is clear and long enough to permit jackknife parking.
8. Keep the wiring harness plug on the light cable and the wiring harness connector on the trailer, free of corrosion.

Failure to follow these guidelines could lead to faulty operation and/or shortened life of your trailer lights and wiring.

BRAKING WITH ABS

All E-Pak trailers are equipped with ABS. Stopping with ABS requires no special skills; simply brake as you always have.

When your ABS engages, you will feel a rapid tapping on the bottom of your foot. **DO NOT RELEASE YOUR BRAKES!** Instead, maintain consistent braking pressure. **DO NOT "PUMP" YOUR BRAKES!** Your ABS will automatically release and apply your brakes up to five (5) times per second, much faster than you could by pumping your brake pedal.

If you are driving with a single, double, or triple trailer, watch your trailer(s) in your mirrors and correct your braking pressure as necessary to keep your tractor/trailer in a straight line.

If only your trailer has ABS, use your tractor's brakes as necessary to maintain control and keep your tractor/trailer in its lane.

Braking with ABS CONTINUED

Remember: **you** are the most important element in the safe operation of your vehicle. ABS is not an excuse to take unnecessary risks. **ALWAYS** drive carefully and maintain a safe distance from the vehicle in front of you.

Depending on how your ABS is powered, your ABS lamp may come on briefly at ignition and then go off, or it may flash each time you apply the brakes on a moving vehicle. **IF YOUR ABS LAMP COMES ON ABOVE 4 MPH, OR IF IT REMAINS ON DURING THE ENTIRE BRAKING APPLICATION, THERE IS A MALFUNCTION AND YOUR VEHICLE SHOULD BE SERVICED AS SOON AS POSSIBLE.**

LADDER

NEVER use your ladder to climb and/or walk your trailer while it is loaded. The ladder should **ONLY** be used for two purposes:

1. To make sure your load is secure and/or tarped as necessary;
2. To access the interior of an **EMPTY** container (i.e., to clean it in preparation for your next load, etc.).

When you climb your ladder, **ALWAYS** face your trailer and **ALWAYS** keep both hands on the ladder.

NOTE: FAILURE TO USE YOUR LADDER ACCORDING TO THESE INSTRUCTIONS IS PROHIBITED AND COULD RESULT IN SERIOUS INJURY AND/OR DEATH.

PRE-TRIP INSPECTION

State and Federal Laws require a daily inspection of this vehicle by the operator. (The following Pre-Trip Inspection list can also be found in **Daily Inspection Report, page 23**).

Prior to each trip:

1. Check that all lights work.
2. Check that all conspicuity tape is in place and clearly visible.
3. Check that all safety decals are in place and in good, readable condition.
4. Check the tractor's electrical harness, air hoses, and hydraulic line (if equipped) for damage. Repair any damage before coupling the tractor to the trailer or towing the trailer.
5. Listen for air leaks in hoses and air suspension (if equipped).
6. Check that the tailgate latches open and close.
7. Make sure the tailgate latching linkage is properly adjusted. When latched, the locking cams must pass over the center on both tailgate latches.
8. Visually inspect all springs for broken leafs and equal arch.
9. Be sure the springs are secured within the hangers and equalizers.
10. Check that all air bags are inflated.
11. Check and inspect all tires. If a tire has a bald spot, bulge, cut, or cords showing, replace the tire[s] before towing the trailer.
12. Check tire pressures. Tires should be inflated to the tire manufacturer's specifications.
13. Check that the wheel lugs are tight and the rims are not slipping.
14. On wheels with see-through hubs, check the oil level in the wheel hubs. Add oil as needed.
15. Make sure that the spare tire is secure in the carrier, and that the carrier is bolted to the chassis.
16. Visually check the brake pads for wear.
17. Set trailer parking brakes and test the brakes by rocking the trailer back and forth.
18. Make sure there is sufficient hydraulic oil in the hydraulic tank.
19. Check for chafed hoses or cracked fittings.
20. Inspect the trailer for any apparent damage. Look for oil, water, or fuel leaks.

Replace any worn, damaged, leaking, broken, or non-functioning items before towing the trailer.

COUPLING

Before coupling your tractor to your trailer:

1. Inspect the fifth wheel for any damage or missing parts. **DO NOT ATTACH** your trailer to your tractor if there is any damage to your fifth wheel. Repair any damage to your fifth wheel before coupling your tractor to your trailer.
2. Make sure your mounting tractor is secure.
3. Make sure that the fifth wheel plate is greased as required. **FAILURE TO PROPERLY LUBRICATE THE FIFTH WHEEL PLATE COULD RESULT IN STEERING PROBLEMS DUE TO FRICTION BETWEEN THE TRACTOR AND THE TRAILER.**
4. Make sure the fifth wheel is in proper positioning for coupling, i.e.:
 - The wheel is tilted down toward the rear of the tractor;
 - The jaws are open; and,
 - The safety unlocking handle is in the automatic lock position.

NOTE: Frame dump trailers, including the Standard Frame and MI Quad, and **gondola / high side trailers**, including the Radius and Rectangular trailers, require the tractor to have a floating fifth wheel mount. **Frameless dump trailers**, including those in the Pak-Lite and Pak-King series, require the tractor to have a fixed fifth wheel mount.

5. Make sure the trailer's kingpin is not damaged. **DO NOT ATTACH** your tractor to the trailer if there is any damage to your kingpin. Repair any damage to your kingpin before coupling your tractor to your trailer.
6. Make sure the trailer's kingpin is the appropriate size for your fifth wheel. **DO NOT ATTACH** a trailer to a fifth wheel that is not the proper size.
7. Inspect the area around your vehicle, making sure that the surrounding area is clear.
8. Check that any cargo is secured against movement that could be caused by coupling the tractor to the trailer.
9. Make sure the tractor's air lines are safely supported in such a way that they will not be crushed or caught while the tractor is backing under the trailer.
10. Apply the trailer's parking brakes.

To couple the trailer to your tractor:

1. Check the rear trailer tires.
2. Position your tractor directly in front of your trailer. **NEVER** back under the trailer at an angle, as you could push the trailer sideways and damage its landing gear.
3. Back up your tractor slowly, until the fifth wheel just touches your trailer. **DO NOT HIT THE TRAILER.**
4. Secure the tractor by engaging the parking brake and putting the transmission in neutral.
5. Exit your cab to check the trailer height and adjust as necessary. The trailer should be low enough to be raised slightly by the tractor as the tractor is backed underneath it. If the trailer is too low, your tractor may damage the front of the trailer. If the trailer is too high, the trailer may not couple correctly.

Coupling CONTINUED

6. When you are sure your trailer is at the right height, check that the kingpin and fifth wheel are aligned.
 7. Back under the trailer SLOWLY, using the lowest reverse gear. Stop when the kingpin is locked into the fifth wheel.
 8. Secure the tractor by:
 - Applying the parking brake;
 - Putting the transmission in neutral;
 - Shutting off the engine; and,
 - Removing the key (so that no one else can move the tractor while you are under it).
 9. Inspect the coupling, using a flashlight if necessary.
 - Make sure there is no space between the kingpin and the fifth wheel. If there is space between the kingpin and the fifth wheel, **SOMETHING IS WRONG AND THE TRAILER SHOULD NOT BE OPERATED.** Adjust the tractor and trailer until there is NO SPACE between the kingpin and the fifth wheel.
 - Go under the trailer and look into the back of the fifth wheel. Make sure the fifth wheel jaws are closed around the shank of the kingpin. **WARNING: DO NOT OPERATE THE COUPLED UNIT UNTIL THE FIFTH WHEEL JAWS ARE SECURELY CLOSED AROUND THE KINGPIN.**
 - Check that the locking lever is in the “lock” position.
 - Check that the safety catch is in a position over the locking lever. On some fifth wheels, the catch must be put in place by hand.
- NOTE: IF THE COUPLING IS NOT RIGHT, DO NOT DRIVE THE COUPLED UNIT. FIX THE COUPLING BEFORE OPERATING THE UNIT. DO NOT PROCEED UNTIL THE COUPLING IS CORRECT.**
10. Check your tractor-trailer connection for security by:
 - Raising the trailer’s landing gear slightly off the ground;
 - Pulling the tractor gently forward while the trailer brakes are still applied; and,
 - Making sure that the trailer is locked onto the tractor.
 11. When you are sure that your tractor-trailer connection is secure, connect the tractor’s red (emergency) air line to the trailer’s red (emergency) glad hand. This provides continuous air supply to the trailer.
 12. Connect the tractor’s blue (service) air line to the trailer’s blue (service) glad hand. This provides air to the trailer only when the brake is applied.
 13. Plug the electrical cord into the trailer and fasten the safety catch.
 14. If equipped, use either the wing nut or quick connect functionality to connect the trailer’s black hydraulic line to the tractor’s hydraulic fitting.
 15. Check the electrical lines, hydraulic line (if equipped), and both the red (emergency) and blue (service) air lines for any signs of damage, and make sure the electrical lines, hydraulic line (if equipped), and air lines will not hit any moving parts on the vehicle.

Coupling CONTINUED

NOTE: IF ANY OF THE ELECTRICAL LINES, HYDRAULIC LINE (if equipped), OR AIR LINES ARE DAMAGED IN ANY WAY, THEY MUST BE REPAIRED OR REPLACED PRIOR TO OPERATING THE COUPLED UNIT.

16. Supply air to the trailer's brake system by pushing in the tractor's "air supply" knob OR by moving the tractor's protection control valve from the "emergency" setting to "normal."
17. Once the air pressure is normal, check the brake system for crossed air lines by:
 - Shutting off the tractor's engine (so that you can hear any leaks in the brake system);
 - Applying and releasing the trailer's brakes, listening for the sound of the brakes being applied and released; and,
 - Checking the air brake system pressure gauge for signs of major air loss.

If the brake system is functioning properly, you should hear the brakes move when they are applied and air escape when they are released.

18. When you are sure that the trailer's brakes are working, start the tractor's engine and double check that the air pressure is up to normal.
19. Raise the trailer's landing gear. If equipped, use a lower gear (i.e., push the landing gear crank in, away from you) to begin raising the landing gear, then switch to a higher gear (i.e., pull the landing gear crank out, toward you) once the trailer is free of weight. **NOTE: YOU MUST RAISE THE LANDING GEAR COMPLETELY. NEVER DRIVE WITH THE LANDING GEAR ONLY PART WAY UP, AS THEY MAY CATCH ON RAILROAD TRACKS, ETC.**
20. Safely secure the landing gear crank handle.
21. When the full weight of the trailer is resting on the tractor, perform a final check. Make sure:
 - There is enough clearance between the rear of the tractor frame and the landing gear so that when the tractor/trailer makes a sharp turn, the landing gear clears the back of the tractor; and,
 - There is enough clearance between the top of the tractor tires and the nose/underside of the trailer.

UNCOUPLING

Before uncoupling your tractor from your trailer:

1. Position your coupled tractor/trailer in a straight line (i.e., so that your tractor can pull straight away from your trailer) on a flat, level surface that can support the weight of your trailer.
NOTE: PULLING YOUR TRACTOR AWAY FROM THE TRAILER AT AN ANGLE CAN DAMAGE YOUR TRAILER'S LANDING GEAR.
2. Inspect the area around your vehicle, making sure that the surrounding area is clear.

To uncouple your trailer from your tractor:

1. Ease pressure on the fifth wheel jaws:
 - Lock the trailer's brakes by pulling out the tractor's "air supply" knob OR by moving the tractor's protection control valve from the "normal" setting to "emergency;" and,
 - Ease pressure on the fifth wheel locking jaws by backing up gently. (This will also help you release the fifth wheel locking lever.)
2. Lower the trailer's landing gear until it makes firm contact with the ground. If equipped, use a higher gear (i.e., pull the landing gear crank out, toward you) to begin lowering the landing gear, then switch to a lower gear (i.e., push the landing gear crank in, away from you) to finish lowering the landing gear. In a low gear, turn the crank a few extra times to lift some weight off of the tractor. **NOTE: To make it easier to disconnect the fifth wheel now AND easier to couple the trailer in the future, DO NOT lift the trailer off of the fifth wheel.**
3. Disconnect the air lines and electrical cable from the trailer, making sure all of the lines are supported so that they won't be damaged while driving the tractor.
4. If equipped, disconnect the trailer's hydraulic line from the tractor's hydraulic fitting.
5. Connect the trailer glad hands either to the dummy coupler at the back of your cab OR couple them together. Hang the electrical cable with plug DOWN to prevent moisture from entering the end.
6. Unlock the fifth wheel by:
 - Raising the release handle lock; and,
 - Pulling the release handle to the "open" position.

NOTE: TO AVOID SERIOUS INJURY, STAY CLEAR OF THE REAR TRACTOR WHEELS, AS THE VEHICLE MAY MOVE.

7. Drive your tractor forward until the fifth wheel comes out from under the trailer. Stop the tractor frame under your trailer so that the trailer will not fall to the ground if the landing gear sinks or fails.
8. Secure the tractor by applying the parking brakes and putting the transmission in neutral.
9. Make sure the ground is supporting the trailer, and its landing gear is not damaged in any way.
10. Release the tractor's parking brake, and drive the tractor clear of the trailer.

ALIGNMENT

Properly aligned trailer axles optimize fuel economy and drivability and help prevent excessive tire wear. Ideally, the trailer wheels would be parallel to one another and perpendicular to the centerline of the trailer; however, because of uncontrollable factors, this scenario is often unattainable. It is more likely that the trailer wheels will be parallel within a very small tolerance range to one another and perpendicular within a very small tolerance range to the centerline of the trailer.

The wheels of your E-Pak trailer should be parallel within 1/8" to one another, and perpendicular within 1/8" to the centerline of your trailer.

There are also two important trailer axle angles that must be kept within recommended tolerance ranges: the thrust angle and the scrub angle. When out of tolerance, these angles can lead to increased rolling resistance and excessive tire wear, and can contribute to trailer “dog tracking”—a condition that exists when the trailer does not follow directly behind the tractor as the coupled vehicle is driven in a straight line. (Dog tracking is also influenced by, among other factors, body rail alignment, king pin location, and axle side-to-side location.)

If realignment is necessary, call E-Pak at 330-264-0825 or toll-free at 800-235-1632 to correct your alignment.

LUBRICATION

In order to receive optimum performance and longevity from your trailer, you must lubricate the following grease fittings (as equipped) at least once per week:

1. Hydraulic cylinder fittings;
2. Trailer draft arms fittings;
3. Side-swing tailgate hinges and roller fittings;
4. Over-slung tailgate pivot pin and latch fittings;
5. Slack adjusters and brake arms fittings;
6. Tailgate latch bar bearing and remote fittings;
7. Steerable axle fittings;
8. Coal chute door fittings; and,
9. Any other fittings not mentioned above.

ADJUSTING THE BRAKES

All E-Pak trailers come equipped with an automatic slack adjuster. Every four [4] days, the slack adjuster should automatically adjust your brakes to maintain proper brake adjustment.

You MUST check your brakes EVERY WEEK to ensure that your automatic slack adjuster is working properly.

Set your slack adjusters so that the free stroke is 3/8" - 5/8" on each slack adjuster.

If your slack adjuster fails to properly adjust your brakes, have your dealer or a qualified trailer service center repair it for you.

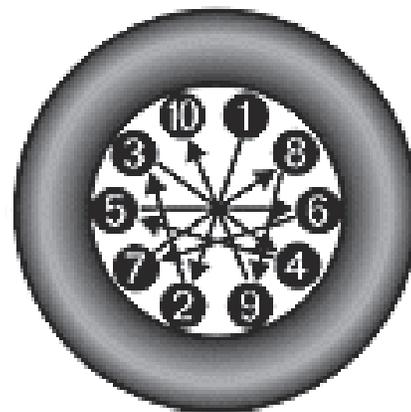
MAINTENANCE & SERVICE

Good maintenance of your trailer is YOUR responsibility. Performing the necessary maintenance on your trailer will prolong its performance and life and ensure the safety of its operation.

When replacement parts are necessary for periodic service and maintenance, genuine factory replacement parts must be used to restore your trailer. **E-PAK IS NOT RESPONSIBLE FOR USE OF UNAPPROVED PARTS AND/OR ACCESSORIES OR OTHER DAMAGES.**

Tightening Sequence

Tighten all bolts in the sequence pictured below to the torques specified in **Re-Torqueing [page 23]**.



TIGHTENING SEQUENCE

Re-Torqueing

It is extremely important to maintain proper torque on your trailer axles and wheels. Torque is a measure of the amount of tightening applied to a fastener (i.e., a nut or bolt), expressed as length multiplied by force. For example, applying a force of 90 pounds at the end of a one-foot-long wrench will yield 90 foot-pounds (ft.-lbs.) of torque.

Maintaining wheel nuts or bolts at the proper torque levels prevents loose wheels and broken studs, and protects you against a possible separation of your wheels from your axles.

To ensure that the proper amount of torque is being applied to your fasteners, **ALWAYS** use a torque wrench to tighten bolts.

The proper torque on your E-Pak trailer wheels is 450-500 ft.-lbs. for steel or aluminum wheels.

In addition, the hanger bolt will also require proper torqueing. Please refer to the manufacturer's sticker for frequency and torque specifications. The sticker is located between the axles.

Daily Inspection Report

State and Federal Laws require a daily inspection of this vehicle by the operator. (The following Pre-Trip Inspection list can also be found in **Pre-Trip Inspection, page 16.**)

Prior to each trip:

1. Check that all lights work.
2. Check that all conspicuity tape is in place and clearly visible.
3. Check that all safety decals are in place and in good, readable condition.
4. Check the tractor's electrical harness, air hoses, and hydraulic line (if equipped) for damage. Repair any damage before coupling the tractor to the trailer or towing the trailer.
5. Listen for air leaks in hoses and air suspension (if equipped).
6. Check that the tailgate latches open and close.
7. Make sure the tailgate latching linkage is properly adjusted. When latched, the locking cams must pass over the center on both tailgate latches.
8. Visually inspect all springs for broken leafs and equal arch.
9. Be sure the springs are secured within the hangers and equalizers.
10. Check that all air bags are inflated.
11. Check and inspect all tires. If a tire has a bald spot, bulge, cut, or cords showing, replace the tire(s) before towing the trailer.
12. Check tire pressures. Tires should be inflated to the tire manufacturer's specifications.
13. Check that the wheel lugs are tight and the rims are not slipping.
14. On wheels with see-through hubs, check the oil level in the wheel hubs. Add oil as needed.

Daily Inspection Report CONTINUED

15. Make sure that the spare tire is secure in the carrier, and that the carrier is bolted to the chassis.
16. Visually check the brake pads for wear.
17. Set trailer parking brakes and test the brakes by rocking the trailer back and forth.
18. Make sure there is sufficient hydraulic oil in the hydraulic tank.
19. Check for chafed hoses or cracked fittings.
20. Inspect the trailer for any apparent damage. Look for oil, water, or fuel leaks.

Replace any worn, damaged, leaking, broken, or non-functioning items before towing the trailer.

Trailer Service

In addition to conducting the pre-trip inspection mentioned in **Pre-Trip Inspection (page 16)** and **Daily Inspection Report (page 24)**, you must also conduct the following maintenance on your trailer.

DAILY:

1. Inspect the trailer body and chassis for damage. Repair all damaged parts.
2. Inspect all of the fasteners, welds, and structural frame members for bending and other damage, cracks, or failure. Repair or replace any damaged fastener and repair any damaged frame member. If you have any questions about the condition or method of repair of fasteners or frame members, call E-Pak at 330-264-0825 or toll-free at 800-235-1632. Welds must be repaired by a qualified technician. **NOTE: BROKEN OR DAMAGED FASTENERS OR WELDS CAN CAUSE INJURY OR DAMAGE TO THE TRAILER AND/OR ITS CONTENTS.**

AT LEAST WEEKLY:

Lubricate your trailer grease fittings. For more information on your trailer's grease fittings, see **Lubrication (page 21)**.

