ALWAYS MOVING FORWARD

(DURA-HAUL)

2019 BELLYDUMP TRAILER

OWNER'S MANUAL

VERSION 1.0



2019 END DUMP TRAILER

OWNER'S MANUAL Version 1.0





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WARNING!

- This trailer must be used following the manual, inappropriate use out of the trailer is the responsibility of the user and may cause malfunction of the equipment in partial damage, total loss of the equipment, injury or loss of life.
- The content of the following owner's manual provides basic operations, maintenance and colors in a general aspect and may not belong to this model of the trailer that has been acquired as each version can be customized to the needs of the user.

Before attempting to load, unload, or operate this trailer, YOU MUST READ THIS MANUAL and become completely familiar with all of its operation instructions and safety precautions.

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

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

DAILY INSPECTION

It is important that your Belly Dump trailer be inspected and serviced on a regular basis to keep it in safe and in a functional condition. Regular maintenance will also save you money in costly repairs over time. A daily inspection of the following items should be performed before using the trailer:

Trailer

- Hopper
- Kingpin area
- Fifth wheel plate
- Framework
- Bolts and fasteners
- Ladder
- Mud flaps

Suspension & axles

- Axle alignment
- Hub oil level
- Brake adjustments
- Brake pad thickness
- Wheels
- Tires

Tarps

- Tarp hardware
- Tarps

PAINT CARE & CORROSION PREVENTION

Your Dura-Haul End Dump trailer is coated with a 5 step powder coating Process. This paint is built to give a longer lasting corrosion resistance and higher quality finish. The best way to preserve the finish on your trailer and help prevent corrosion is to wash it regularly, especially after it has been used around road salt or other ice, road oil or tar, or any other potentially corrosive material. Hauling corrosive products such as salts and fertilizers will void the paint warranty.

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

PREVENTATIVE MAINTENANCE

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

After the first 50 miles.

Check torque of cap nuts or flange nuts on each wheel

After the first 1,000 miles

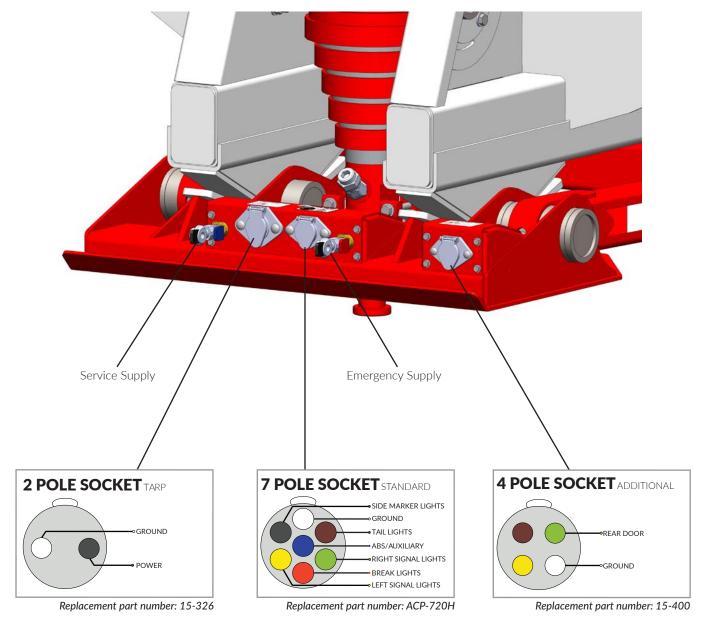
- Check torque of suspension hardware
- Check alignment of suspension

Every 5,000 miles or once a month (whichever comes first)

- Wash trailer thoroughly with a mild detergent and water
- Check general structural condition for corrosion or cracks
- Inspect kingpin area
- Check clearances and torque of single point suspension system
- Visually check alignment of suspension
- Check condition of lights
- Check wiring harness for cracking or chafing
- Check pneumatic line for signs of leakage or wear
- Check hinges on rear door(s) for signs of damage
- Lubricate hinges, latches, and bearings (if applicable) on rear door(s)
- Inspect brake components for proper adjustment and for any sign of damage
- Check tires for excessive wear and proper inflation
- Check wheel nuts for proper torque
- Check wheel seals for leaks
- Check level of oil in axles
- Check conveyor system for excessive wear or damage
- Check condition of tarp system, if installed
- Check condition and security of mud flaps

Fifth wheel area inspection

The fifth wheel area must be kept clean and free of dirt and foreign materials. This includes the area between the kingpin plate and the body of the trailer where the conveyor travel. Build of materials can cause binding or other serious damage if allowed to remain in this area.



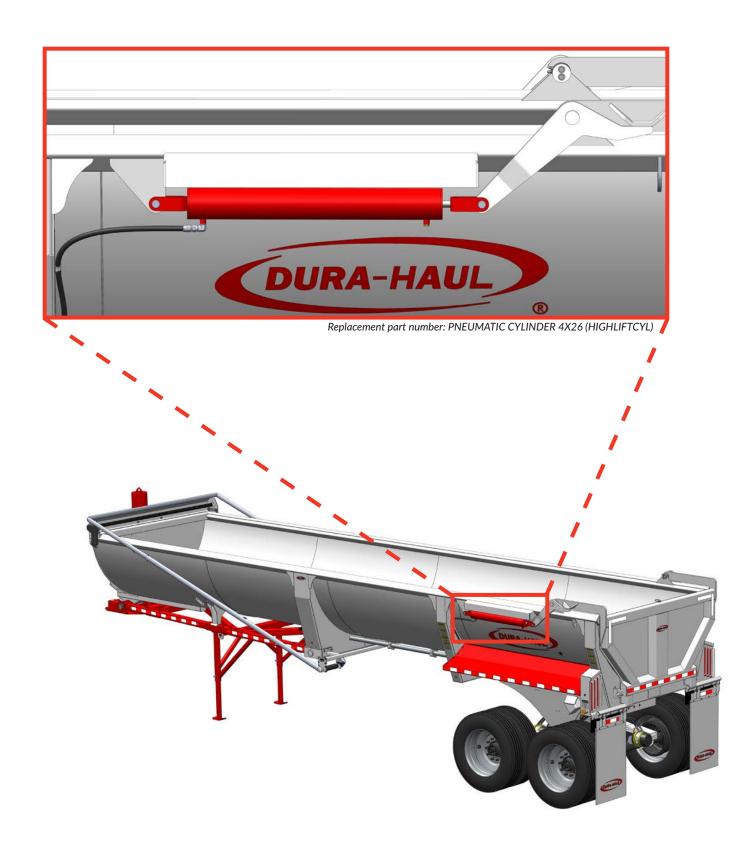
If your trailer has an electric tarp system, it is connected to this socket in order to operate the tarp.

In different models of the trailer that include both systems: the vibrator and an electic tarp, use this plug to connect the vibrator, and the tarp system and rear gate are plugged in the 4 pole socket.

The 7 pole socket is a standard plug on all trailers. This connector is used to feed every light of the trailer such as the side marker lights, tail lights, brake lights and the ABS valve for the brake system.

The 4 pole socket is used to activate the pneumatic cylinders to operate the rear gate.

Other models of the trailer have an electric tarp system and a vibrator, in this case use this connector to feed the rear gate and the tarp system, while the vibrator is puggled in the 2 pole socket.



PNEUMATIC DOOR

The rear door has a mechanical closing system that works with pneumatic cylinders which the versa valve activates. This valve, located in the chassis on the axles, can be activated from inside the cab or manually.

When activated, it allows the air flow to first drive the lower cylinder to unlock the closing system and release the doott operates the upper cylinders that make the rear door rise up to 90 $^{\circ}$.

To close the door first it releases the air from the upper cylinders so that the door goes down and then activates the lower cylinder to lock the locks again.

Located with the versa valve are 2 airflow adjustment valves, these work to adjust the opening and closing speed of the rear gate and also to adjust to locking mechanism.

NOTE: Mudflaps are bolted to a pivot bracket allowing them to move freely to avoid breaking and or tearing while unloading. (fig. 1.1)

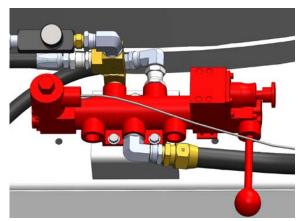
Fig. 1.0



WARNING!

Gate can open under the weight of the load causing a loss of property, serious bodily injury or death. Make sure door is securely closed and latched before getting behind the trailer or before loading or towing the trailer.

VERSA VALVE



Replacement part number: VGK-4523-20C-D012

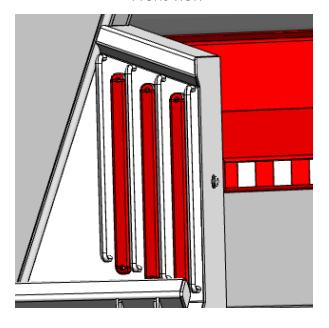
Fig. 1.1



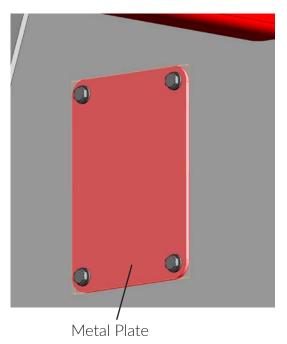
WARNING!

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

Front view



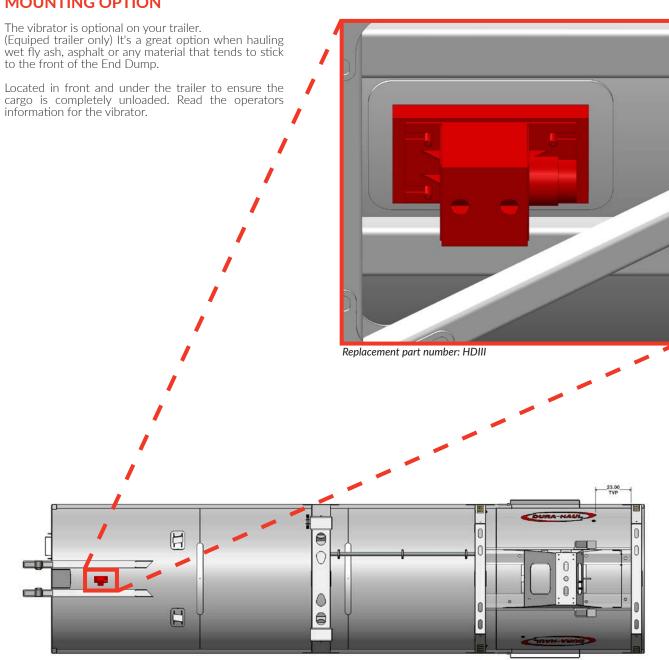
Back view



- ${f 1.}$ Remove the bolts using 7/16" key or socket from the metal plate on the back side of the rear lights.
- 2. Take the plate off.
- **3.** Remove the light and cut the wire.
- 4. Replace old light with new light and rewire.
- **5.** Place 1/4" bolts back in plase using 7/16" key or socket.



MOUNTING OPTION



Bottom view

MOUNTING OPTION

We offer two types of tarp, electric or manual.

The electric tarp is switch activated from the truck's cab inside; different from the front to back manual tarp which has a chain crank to rotate the gears sliding the tarp across the entire length of the end dump.

TARP MATERIAL

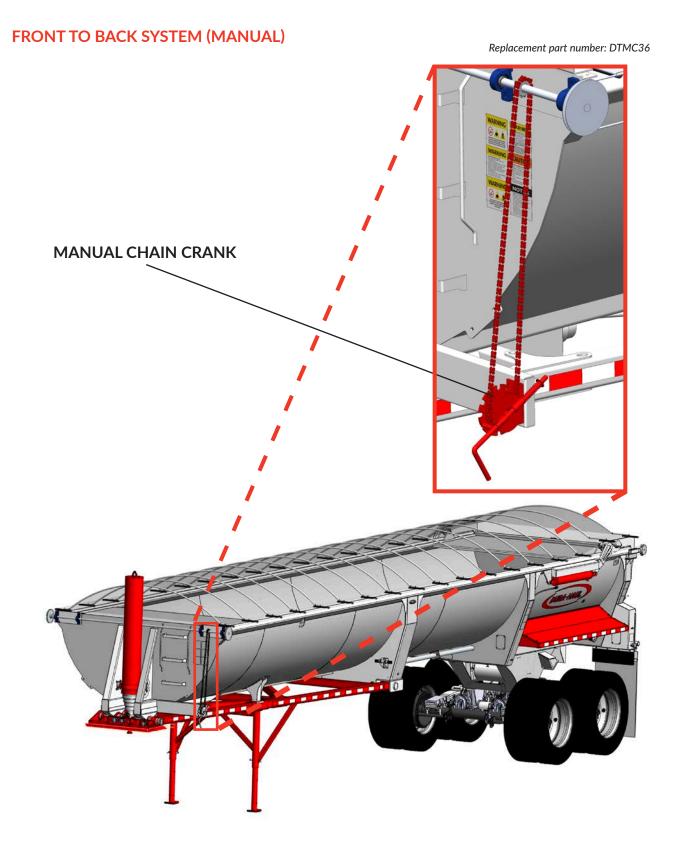
The variety of materials we have available are mesh tarp and vinyl tarp.

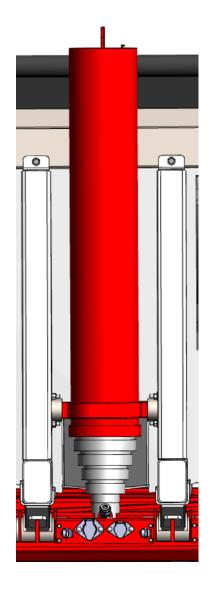
Choose whichever fits better to your requierements.

FLIP TARP SYSTEM



Replacement part number: FTB-UB-S34-36M





To Extend:

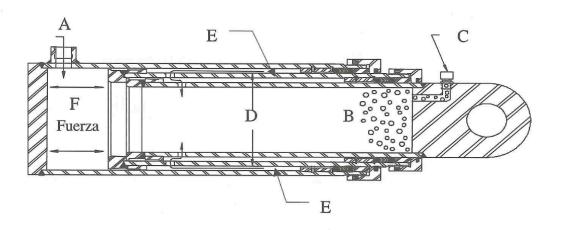
High pressure oil from the pump is directed by the control valve through port (A) to fill the cylinder. Any air in the hydraulic system will be trapped in the end of the cylinder (B) and may be bled off through the bleeder valve (C). It is advisable to bleed air from the cylinder on initial start up and on a weekly basis thereafter.

As the system pressure rises, the oil pushes on the bottom of the largest plunger (F) forcing it to move out. The outside diameter or sealing area of the plunger (D) determines the effective area.

As the plunger extends, the oil trapped between the plunger wall (E) is released through internal port holes in the plunger. When the largest stage is fully extended, the next largest will proceed to extend, etc.

To Retract:

A single-acting telescopic cylinder must be retracted by gravity or mechanical means.



WARNING







DO NOT STAND BEHIND A LOADED TRAILER WITH DOOR(S) OPEN. THE TRAILER'S CONTENTS COULD SPILL ON YOU CAUSING SERIOUS INJURY OR DEATH.

WARNING







DOOR CAN OPEN UNDER THE WEIGHT OF THE LOAD CAUSING LOSS OF PROPERTY, SERIOUS INJURY OR DEATH. MAKE SURE DOOR(S) ARE SECURELY CLOSED AND LATCHED BEFORE GETTING BEHIND THE TRAILER OR BEFORE LOADING OR TOWING THE TRAILER.

WARNING







THE OPERATOR'S RESPONSIBILITY IS TO BE AWARE OF PROPER LADDER USAGE AND CURRENT SAFETY REGULATIONS.

WARNING







UNEVEN OR OVER LOADING CAN CAUSE THE TRAILER TO COLLAPSE OR BECOME UNCONTROLLABLE WHILE DRIVING, LEADING TO A LOSS OF PROPERTY, SERIOUS INJURY OR DEATH. LOAD THE TRAILER EVENLY FROM THE REAR TO THE FRONT. DO NOT HEAP THE LOAD IN THE MIDDLE.

WARNING







SLIPPING ON, OR FALLING FROM LADDERS CAN LEAD TO SERIOUS INJURY OR DEATH. USE CAUTION WHEN CLIMBING ON TO THE TRAILER TO REDUCE THE RISK OF FALLING.

WARNING







BRAKE SYSTEM COMPONENTS ARE SPRING LOADED. SERVICING BY AN UNTRAINED PERSON CAN RESULT IN SERIOUS INJURY OR DEATH. HAVE BRAKES SERVICED BY A TRAINED TECHNICIAN ONLY. CAGE OR DEACTIVATE BRAKES BEFORE SERVICING.

WARNING

THE ALIGNMENT OF THE SUSPENSION MUST
BE INSPECTED AND ADJUSTED BY A
QUALIFIED TECHNICIAN IN ACCORDANCE
WITH DURA-HAUL'S OWNER'S MANUAL.
ADJUSTMENTS MADE BY AN UNTRAINED
PERSON COULD RESULT IN LOSS OF
PROPERTY, SERIOUS INJURY OR DEATH.

WARNING

- •PRIOR TO COUPLING TRAILER TO TRACTOR:
 - INSPECT FIFTH WHEEL AND KING PIN FOR DAMAGE. DO NOT OPERATE TRAILER IF ANY DAMAGE IS FOUND.
 - •VERIFY THAT THE FIFTH WHEEL IS CLEAN AND LUBRICATED (CONSULT THE DURA-HAUL OWNER'S MANUAL FOR INSPECTION AND LUBRICATION.
- PRIOR TO TOWING THE TRAILER, ENSURE THE KING PIN IS SECURELY ENGAGED IN THE FIFTH WHEEL.
- FAILURE TO FOLLOW THESE STEPS CAN RESULT IN THE TRAILER DISCONNECTING FROM THE TRACTOR WHILE TOWING, WHICH COULD RESULT IN LOSS OF PROPERTY, INJURY OR DEATH.

WARNING

USE OF IMPROPERLY SIZED OR MISMATCHED TIRES, STUDS, LUG NUTS, OR OTHER WHEEL HARDWARE COULD RESULT IN THE WHEEL HARDWARE OR COMPLETE WHEELS COMING OFF OF THE TRAILER WHILE TOWING. THIS COULD CAUSE DAMAGE TO OR LOSS OF PROPERTY, SERIOUS INJURY OR DEATH. CONSULT A QUALIFIED TIRE TECHNICIAN BEFORE CHANGING HARDWARE.

WARNING

THE ANTI-LOCK BRAKE SYSTEM ON THIS TRAILER MUST BE SERVICED BY A QUALIFIED TECHNICIAN ONLY. WORK PERFORMED BY UNTRAINED A PERSON CAN RESULT IN LOSS OF PROPERTY, SERIOUS INJURY OR DEATH.

NOTICE

IF THE ABS INDICATOR LAMP
COMES ON AND STAYS ON
WHEN YOU APPLY BRAKES TO A
MOVING 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 BREAKING
CAPABILITY.

WARNING

CONSIDER BEFORE EACH USE

- •USE LADDER ONLY AS DEFINED IN THE OWNER'S MANUAL.
- DO NOT USE IN POOR HEALTH, UNDER THE INFLUENCE OF DRUGS OR ALCOHOL, OR PHYSICALLY IMPAIRED IN ANY WAY.
- •SHOES OR BOOTS MUST BE WORN WHILE USING LADDER, MUST BE CLEAN AND IN GOOD CONDITION.
- LEATHER SOLES SHOULD NOT BE WORN, AS THEY CAN CAUSE YOU TO SLIP.
- USE LADDER AT YOUR OWN RISK.

NOTICE

CHECK YOUR TRACTOR:

- FMVSS-121 REGULATIONS MANDATE HIGHER AIR PRESSURE IN THE SUPPLY LINE. BRAKE PERFORMANCE ON THIS TRAILER WILL BE IMPAIRED IF THE TRAILER COMPRESSIONS ADJUSTMENT IS TOO LOW.
- COMPRESSOR CUT-IN PRESSURE: ADJUST TO 105 PSI ON THE GOVERNOR.
- •COMPRESSOR CUT-OUT PRESSURE: ADJUST TO A MINIMUM OF 120 PSI ON THE THE COVERNOR.

NOTE: The use of additives in the air brake system is NOT recommended.

CAUTION

INSPECT BEFORE EACH USE

- •INSPECT THOROUGHLY FOR MISSING OR DAMAGED COMPONENTS.
- •INSPECT THOROUGHLY FOR LOOSE FASTENERS AND ENSURE THAT ALL LADDER HARDWARE IS IN WORKING ORDER.
- ENSURE LADDER IS FREE OF FOREIGN DEBRIS.
- •REPLACE LADDER AND/OR HARDWARE IF DAMAGED OR WORN.



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movingforward@durahaul.com

US toll free 877 523 5355

www.durahaul.com

