

# Dump Truck Operator Manual

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# Section 1: Important Safety Information

## Important Safety Information

This Double A Body Builders dump truck body is considered heavy duty equipment. While we have tried to make it as safe as possible, you and those around you can still be seriously injured or killed if the unit is operated or maintained improperly. It is very important that you thoroughly understand this manual and that you completely comply with all of the instructions contained in this manual. They are here for your safety; please follow them.

Occupational safety and health laws require that all dump trucks be equipped with body props and back up alarms. We provided your body with safety features which, while not mandated by the federal law, are still important for your safety. These devices include warning decals, safety lights, and body props. **NEVER OPERATE THIS DEVICE IF ANY OF THE REQUIRED SAFETY FEATURES ARE MISSING OR INOPERATIVE. IT IS EVERYONE'S RESPONSIBILITY TO ENSURE SAFETY COMES FIRST.**

# Section 2: Pre Trip Inspection

- **WARNING:** Operate trucks only in well-ventilated areas. Running any vehicle in an enclosed area can lead to a build up of carbon monoxide. Carbon monoxide can cause asphyxiation and death.
- **WARNING:** Never leave a dump body unattended. A proper pre-trip inspection is necessary in order to insure that your dump truck is in a safe and roadworthy condition before you start out on the route. All of the items on this pre – trip inspection checklist are important. **NEVER OPERATE A DUMP TRUCK UNLESS ALL OF THESE FEATURES ARE FULLY OPERATIONAL AND ALL OF THE VEHICLE'S SAFETY SYSTEMS ( LIGHTS, BRAKES,WIPERS,ETC.) are in good working condition.**
- The procedures outlined here pertain only to the dump body and hoist assembly and generic items that should be checked before driving any motorized vehicle on the highway. In addition to the following items, you must follow all pre trip recommendations by the manufacturer of the chassis and all state and federal pre and post trip inspection requirements.

## Pre Inspection Checklist

### Walk around inspection

1. Check rear hinge area for visible damage, loose or missing pins, cracking, bending or other damage to the truck frame around the rear hinge.

**WARNING:** Use caution when climbing on the body. Make sure there is no oil, dirt or debris on either your shoes or any of the surfaces you climb on.

2. If you need to climb on the body or the truck at any time during the inspection process, make sure there is no oil, grease or other slippery substance on either your shoes or any of the truck surfaces. Remember to always keep either both feet and one hand or both hands and one foot firmly and safety in contact with the truck or the body while you are climbing.

3. Check to make sure the pins holding the tailgate at the top are fully engaged and secured by the pin holder.
4. Check tailgate latching assembly. The hooks must be securely fastened over the pins on the tailgate. Four different bottom tailgate and latch assemblies are in use.
5. Look under the truck for any dripping oil or accumulation of oil or grease on the floor or other signs of leakage.
6. Check to make sure that all lights, lenses and reflectors are intact.
7. Check the general condition of the dump body. Make certain there is no excessive rust, damage, etc.
8. Check and clean ladders and steps. Grease, mud and other debris could make them slippery and extremely dangerous.
9. Check condition of the truck suspension including springs, shackles, air bags, and other components.
10. Check , clean and adjust all mirrors.
11. Check condition of the truck suspension, including springs, shackles, air bags

# Pre Inspection Checklist Continued

12. Check tire pressure per markings on the tires.
13. Check to make certain all warning decals are on the body and are clean and legible
14. Check the condition of spreader chains and their attachment. Make certain welds holding them to the tailgate are solid and no links are showing signs of damage.
15. Check the banjo eyes ( the chain adjusting brackets) for signs of wear, cracking welds or mechanical damage.
16. Check the condition of the tailgate. If the tailgate is equipped with a coal door or similar device, make sure that it is operating smoothly and properly and latches securely.
17. Check for any signs of torn metal, rust or cracking welds.
18. Clear all debris off of any extension pans.
19. If your unit is equipped with sideboards, check to make sure that they are properly secure.
20. Check the condition of the cab shield. Be on the lookout for excessive damage, rust, torn, metal or cracked welds.

## Electrical Check

1. Turn on the ignition, place the transmission in reverse and check for operation of the backup alarm lights, if so equipped.
2. Check headlights, taillights, and brake lights.
3. Check operation of the windshield wipers.
4. Check operation of body-up lights. Start engine, engage power takeoff ( See Section 7) and raise the body approximately six inches. The body-up light should come on at that time.
5. Lower body.

# Pre Trip Inspections Continued



Operational Check

**WARNING:** Do not operate the unit if any safety feature does not work. It is extremely dangerous to do so.

1. Make certain that the oil level is in normal operating range.

**Warning:** Make certain that you have proper overhead clearance. Never raise a body underneath overhead obstructions, power lines, etc. Check overhead clearance for the entire length of the area over which you will be spreading.

2. Start the unit, engage the power take off (See section 7) and cycle the unit all the way up and down two or three times, making certain the unit goes all the way up and that it operates smoothly through its entire range of motion. If the unit fails to operate properly, it must be serviced before use.

**Note:** Double A Body Builders hoist are equipped with positive means of support, permanently attached, and capable of being placed in a position to prevent accidental lowering of the body while maintenance or inspection work is being performed. The supports are designed to support empty body only.

3. Raise the body and deploy the body prop/ props.

4. Inspect the Condition of the props.

A. Make certain that the props show no signs of deterioration due to rust, mechanical damage or bending before deploying the prop.

B. If the props are damaged, do not deploy them and do not go further until the damaged props are repaired.

5. With the body securely propped, remove the ignition key, lock the truck door, then inspect the cylinder and pump area for leaks. Check hoses for damage or leakage and check for worn or missing parts.

6. If you are engaged in highway spreading operations and use a cable cutoff or hoist stop to control body height, perform the following operations:

A. Extend the body to the maximum height.

B. Check to make certain that the height is several inches lower than the lowest obstruction on your route and in no event greater than 13 feet.

# Pre Inspection Continued

**WARNING:** Stow body props properly before lowering the body. For basic operations, see decal on body for proper instructions.

7. Lower the body. On the way down, release the handle to check hoist control. It must return to neutral and the body motion must stop when you release the handle.

**WARNING:** An improperly adjusted tailgate release mechanism could cause a sudden and unintended discharge of the load. Component damage and personal injury can occur.

9. Check operation of the tailgate release.

- For a manual control, please note that it should take approximately 50 to 60 pounds of force at the handgrip to release a properly adjusted tailgate.
- For electrical or air controls, make sure that they are operating properly and that the pins and latches secure the tailgate completely.

10. After completing this check, make certain that the tailgate is properly and securely latched. The hooks should extend completely over the pins and should be difficult and require a considerable tug for each hook to move across the pins.

# Pre Trip Inspection Continued

11. If your unit is so equipped, check operation of tarp, spreaders, vibrators and any other optional or additional equipment. Refer to OEM operating instructions for these items.

12. Perform all inspections recommended by the chassis manufacturer or required by your company's pre-trip inspection checklist.

# Section 3 Driving an Empty Truck

- **WARNING:** Make certain the body is down. Never drive a dump body truck with the bed going up, even slightly. If the body up light is on, stop the truck immediately and determine the reason. Do not drive if the body is up.
- Never let anyone ride any place in or on your dump truck other than inside the cab in a designated seating position, securely restrained by seatbelt.
- Never drive a unit with the tailgate in the down or work position.
- Never drive a unit with a coal door ( if so equipped) that is not fully closed and latched.
- If so equipped, never a dump truck with a barn door in the open position.
- Never drive a dump truck with the power take of engaged. This leads to the possibility of an inadvertent raising of the bed.
- Never drive an empty dump truck without making certain that the tailgate is locked and top hinge pins are properly installed.
- Never drive a dump truck without making certain the hoist control is locked and in neutral position.
- Never drive an empty truck without making certain that you have swept all the debris off the cab protector, rub rails, extension pan, steps, ladder, etc. Make certain that there is no grease, oil or other slippery substance on your hands, feet or the surfaces you will touch. Remember you must keep both hands and one foot of one hand and both feet in contact with the truck at all times when climbing in the truck.

Dump trucks have a higher center of gravity therefore, a dump truck is easier to roll over than your average vehicle. It will also take longer to accelerate and to stop than an passenger car or pick up due to its size. When the truck chassis is empty, the rear brakes may lock up or tend to skid, causing loss of vehicle control, particularly on wet, icy, muddy or other slippery surfaces. You will have to adjust your driving to the characteristics of the dump truck.

# Section 3 Driving an Empty Truck

**WARNING:** Always disengage power take off when driving. Damage to PTO or pump and personal injury can occur.



# Section 4 Loading The Truck

**WARNING:** Do not attempt to load the body on soft ground or on ground that is unlevel. Loading on soft or unlevel ground could cause the unit to tip over and creates the risk of serious injury or death. Even though the truck appears to be stable when it is empty, it can still sink or tip as the load is being applied.

The proper procedure for loading the body is as follows:

1. Lower the body.
2. Disengage the power take off.
3. Securely latch the tailgate with the hooks completely over and securely holding the tailgate pins. Both hooks must be under equal tension when removed from side to side. The hook should extend completely over the pin and it should be difficult and require a considerable tug to cause each hook to move across the pins.

**WARNING:** Use caution when climbing on the body. Make sure there is no oil, dirt or debris on either your shoes or any of the surfaces you climb on.

# Section 4 Loading the Truck Continued

4. Make certain there is proper clearance for the loader both from side to side and overhead. Except when loading from the hopper, never attempt to load under any overhead obstruction.
5. Evenly distribute the load side to side. Do not operate truck if load is not centered.
6. Load from front to rear, distributing the load as evenly as possible.
7. When loading with the end loader, load from the center of the body's sides.
8. When loading under a hopper, always park with the body of the truck centered from side to side under the hopper opening and with the hopper opening slightly forward of the center point of the body.
9. The load must not be higher than the sides of the dump body or the sideboards, if so equipped.
10. Before leaving the loading site, remove all debris from rails, sills and other horizontal surfaces.
11. Tarp the load according to your local and state requirements and as necessary to prevent any portion of the load from escaping.

# Section 5 Driving a Loaded Truck



## WARNING

- Unless you are engaged in spreading operations, never drive a dump truck with the bed up, even slightly. Make certain the body is down. If the body-up light is on and you are not spreading, stop the truck immediately and determine the reason. Do not continue to operate until the body is down.
- Never let anyone ride any place in, on or about you dump truck other than in the cab in a designated seating position, securely restrained by a seat belt.
- Never drive a unit with a tailgate in the down or work position.
- Never drive a unit with a coal door that is not fully closed.
- Never drive a loaded dump truck with a barn door in the open position.
- Never drive a dump truck with the power take off engaged. This could result in an inadvertent raising of the bed.
- Never drive a loaded truck without making certain the tailgate is locked.
- Never drive a loaded dump truck without making certain that the hoist controls is locked in the neutral position.
- Never drive a loaded dump truck without making certain that you have swept all the debris off the rub rails, extension pan, steps, ladder and other horizontal surfaces. When climbing on the truck, make certain there is no grease, oil or other slippery substance on your hands, feet or the surfaces you will touch. Remember that you must always keep both hands and one foot or one hand and both feet firmly in contact with the truck when climbing on the truck.
- Be aware of the possibility of load shift, particularly when hauling large objects, such as boulders, large chunks of broken concrete or liquids etc. If the load shifts outward as you are making a turn, it could cause you to lose control of the vehicle and possibly roll it over.
- If your truck is loaded toward the rear (or if you have dumped a partial load, which will cause the remaining load to shift to the rear), it could have the effect of reducing the weight on the front wheels of the truck. If the unit was loaded to the rear or the load has shifted to the rear, you may encounter situations where you are unable to steer the truck, especially on wet, slippery or icy surfaces, or when braking. Further, braking could cause the front wheels to lock up, reducing the efficiency of the braking system and resulting in a much longer stopping distance, particularly on wet, slippery, snowy or icy surfaces.

# Section 5 Driving a Loaded Truck Continued

- Use extreme caution when traveling across an inclined surface such as the side of hill. Never travel on soft ground when crossing a hill side. Never cross an incline greater than 6 degrees, as the likelihood of the vehicle tipping over is too great. When crossing less steep inclines, be alert to any sign of the load shifting.
- Never leave the driver's position of the truck without shutting off the ignition, locking the door, and taking the key.
- Never leave a raised body unattended.

Now that your truck has a load in it, it may have an even higher center of gravity and it will weigh considerably more than it did empty. Therefore, it will take even longer to accelerate and stop than it will take even longer to accelerate and stop than it did when it was empty. It is even more prone to roll over on a curve or during a sudden evasive maneuver. You will have to once again adjust your driving to the characteristics of your loaded truck. In general, you must make even more gradual lane changes, go even slower on turns and give yourself much more room to stop or accelerate or merge with traffic. Failure to do so could cause an accident involving potentially serious injury or loss of life.

# Section 6 Dumping operations

**WARNING:** Dumping operations are potentially extremely hazardous. There is a possibility that the truck can roll over, particularly if it is on uneven or soft ground. Persons on the ground could be severely injured or killed if struck by a discharging load. You or others can be injured if a load hangs up or if you have not opened the tailgate. Extreme caution must be exercised during dumping operations.

Perform the following steps when you reach the area where your load will be discharged:

**WARNING:** No one should ride in, on or around the truck during dumping or spreading operations except in a properly designated passenger seat with a seatbelt.

1. Check the terrain. Make sure it is level, even and firm. Do not attempt to dump if there is a significant sideways sloped 6 degrees or greater to the ground, or if it appears exceptionally muddy or moist.
2. Check carefully for overhead obstructions. Never raise the body dump under a power line, as you or someone else could be injured or killed.
3. Check to make certain how many persons are in the vicinity where dumping will take place.
  - Make certain all personnel are cautioned to stay out of the area where the load may discharge.
  - When dumping, make sure all personnel are accounted for, in sight and out of the discharge area.
4. If you are planning to use the spreader chains, set them to the appropriate length and fasten them in the mounting brackets provided. Chains should be set to an equal length.

# Section 6 Dumping Operations Continued

- **WARNING:** Contents of body may be extremely hot. Wear proper attire when operating body. Personal injury can result.

5. Check the dumping area carefully. Make certain that there is adequate clearance for the load to discharge, both to the rear and the side of the unit. Remember, when the load discharges, it will spread not only to the back of the truck, but also to the sides.

You are now ready to dump your load. Please follow the procedure outlined.

1. Make certain your safety belt and shoulder harness are securely fastened.
2. Release the tailgate. ( If you forget to release the tailgate and the body will not come back down.
3. Engage power take off
4. Double check to make certain that all personnel are in sight, accounted for and out of the discharge area. Double check the overhead clearance.
5. Begin to raise the desired dump angle. Continue to be vigilant to make certain that no one goes behind the trucks or in discharge area during dumping operations. Be especially vigilant on this point when dumping in confined areas.
6. When the load begins to discharge, pull forward gradually until you have dumped the desired amount.
7. Lower the body slowly. Make sure the body is fully down and the body up light is off.
8. Make sure the hoist control lever returns to and locked in neutral.
9. Disengage the power takeoff.
10. Turn off engine and remove ignition key so you can perform the following checks.

**WARNING:** If you need to swing the tailgate manually, take great care not to get your fingers between the tailgate and the body of the trucks, as the tailgate is extremely heavy and serious injury can occur.

11. Close the tailgate. Check to make certain that the hooks are completely over and securely holding the tailgate pins. Both hooks must be under equal tension when moved from side to side. The hook should extend completely over the pin and it should be difficult and require a considerable tug to cause each hook to move across the pins.

12. If you have dumped a partial load, be especially careful that the tailgate is closed.

13. Clean off debris from the horizontal surfaces of the truck.

# Section 7 PTO Operations

**WARNING:** Disengage PTO before driving vehicle

Power take off (PTO) operation is controlled by either a cable, electric hydraulic system, or air shift system.

To engage PTO on standard transmissions, perform the following steps:

1. Shift into neutral, disengage the clutch and move the control to shift PTO into gear.

**NOTE:** It may be necessary to let out the clutch momentarily for proper alignment so the gear may slide into position.

2. Engage the clutch and the PTO is in operation.

To engage the PTO on automatic Transmissions, perform the following steps:

1. Apply the brake and shift into any one of the drive positions. This will stop the transmission gears from turning.
2. Shift PTO into gear, then shift transmission into neutral. This will start transmission gears turning, and in turn, put PTO into operation.

**WARNING:** Do not exceed 15 RPM it can cause transmission, pump and PTO damage.

# Section 8 Tailgate Precautions

**WARNING:** Do not attempt to lift the tailgate with the upper hinges, since release of the upper hinge pins could cause the tailgate to swing down with possible injury.

**WARNING:** Do not have lower passenger pin in while trying to spread with a 3 way / barn door tailgate.

1. Before removing tailgate have unit setting level. Return body down to frame, shut off engine, set brakes and chock wheels.
2. Raise the chain attached to the tailgate to the point of load transfer.
3. Remove the upper tailgate pins.
4. Open the tailgate lower hardware using the tailgate release mechanism.
5. Assuring the bottom pins are free and the upper hinges are not binding to allow removal, remove the tailgate carefully by using a combination of lifting and rearward travel.
6. Store the removed tailgate in a secure position, preferable horizontal one, to assure the tailgate does not fall and remove the chains or cable from lifting eye.

**WARNING:** Make sure your cable and chain or hoist to remove the tailgate is rated at least 800lbs.

# Section 9 Special Situations

**WARNING:** Never unlatch the lower latch when the gate is opened from the top. Severe injury can result.

## Counterbalance and Emergency Lowering Instructions

If you raise your dump body with the tailgate latched and the load shifts to a position that counter balances the body in the raised position, it will not come back down. For your own safety, you must follow these instructions:

**WARNING:** Do not stand on any part of the truck body, cab or chassis while attempting to unlatch the tailgate.

**WARNING:** Serious injury or death will result if you do not strictly follow these procedures:

- Return hoist control to the neutral position. Make sure it is locked in the neutral position.
- Remove the ignition key from the cab of the truck. Lock the doors of the truck upon exiting and place the key in your pocket.
- Make certain no one is in the dumping area.
- If one is available, use a ladder. If you choose to use a ladder, make certain that you place the ladder to the side of the dump body, not to the front. First, remove the safety chain, then pull the tailgate lever. Do not hang onto the lever as the body may lower rapidly.
- If a ladder is not available, and you can do so without going under the raised body or in the area where it will travel, you may use a rake, long stick, shovel or similar implement to remove the safety chain from the release lever. After releasing the chain, make certain that you are not standing underneath the dump body or in the area it will cover when it is in the down position. When you are satisfied that you are clear of the area through which the dump body will travel when it comes down, pull the tailgate release handle using the rake, rope or other implement you have obtained for the purpose.
- This should cause the tailgate to open and the load to discharge.
- After the load has discharged, return to the cab of the truck and lower the body in a normal fashion.

# Section 9 Special Situations Continued

- If you are unable to open the tailgate using either of these methods, it will be necessary to call for mechanical assistance to remove the load. Do not enter the body without having made certain that the hoist controls are locked in the neutral position , the doors to the truck cab have been closed and locked and the keys are in your pocket.

In the event that the previous methods cannot be used, attempt manual unloading by performing the following steps:

1. Secure the dump body in the elevated position. Make certain hoist control is locked in neutral.
2. Set the chassis brakes and choke the wheels.
3. Remove keys and lock door.
4. Rope off area to prevent access to area around truck.

**WARNING:** Do not use the factory supplied body props because they are designed to support only an empty body.

5. Before attempting removal of part of the load, assure personal safety by positioning and securing yourself and others away from where the load may discharge.
6. Remove contents of the dump body using front end loader or similar device until such time as the dump body will lower when the hoist control is shifted into the lowering position.
7. When the dump body is in the lowered position, release the tailgate latch, raise the dump body and allow the load to discharge.
8. Lower the dump body, place the hoist control in the neutral position, shut off the engine, remove the ignition key and carefully inspect the tailgate and tailgate latching system for bending, stretching, or misalignment before the next use of the dump body.

# Section 10 Lubrication

Note: All maintained procedures can be performed with the dump body attached.

**WARNING:** All air bleeder valve, oil filler, cylinder ram, cylinder base, Lift arm pivot points and rear hinge should be greased and checked weekly.

1. Note: Not maintaining these main pivot points on the dump truck can result into hoist failure and longevity of the cylinder life.

# Section 11 Hydraulic oil

## Oil Supply

Whenever the hoist is lubricated, the condition and level of the oil supply should be checked. Dirty oil is the main cause of pump and cylinder repair and likewise expensive downtime. Dirty oil is detectable and should be replaced before considerable damage is done. A sample on a dipstick will show its condition. Any revealed residue means dirty oil.

- We recommend using 10 weight hydraulic oil for oil reservoirs.

# Double A Body Builders Inc.

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