

Dump Truck Safety for Operators and Pedestrians

FACT SHEET

LENGTH: 13 MINUTES

Production Year: 2023

PROGRAM SYNOPSIS:

Dump trucks are one of the most common types of heavy equipment and can be found on almost every construction site, mining operation, and other industry where hauling heavy loads is required. But just because dump trucks are commonly used, that doesn't mean they are always safe to be around. In fact, there are a lot of hazards associated with dump trucks that all workers and operators should be aware of. This program gives an overview of common hazards presented by dump trucks and general safety tips to prevent dump truck-related incidents and injuries.

PROGRAM OBJECTIVES:

After watching the program, the participant should be able to explain the following:

- How deadly run-over and back-over incidents can be;
- The results of property damage;
- How to avoid contact with overhead electrical lines;
- How to avoid tip-over incidents;
- The importance of a pre-use inspection combined with general safe driving practices.

PROGRAM OUTLINE:

INTRODUCTION

- Dump trucks are one of the most common types of heavy equipment and can be found on almost every construction site, mining operation, and other industry where hauling heavy loads is required.
- But just because dump trucks are commonly used, that doesn't mean they are always safe to be around. In fact, there are a lot of hazards associated with dump trucks that all workers and operators should be aware of.
- Keep in mind, watching this video alone **will not** make you qualified to operate a dump truck. Only hands-on training approved by your employer and the appropriate licensing can do that.
- However, this training video **will** give you an overview of common hazards presented by dump trucks and general safety tips to prevent dump truck-related incidents and injuries.

RUN-OVER AND BACK-OVER INCIDENTS

- According to the Bureau of Labor Statistics, dump trucks are responsible for 25% of all run-over and back-over deaths in the construction industry.
- Dump trucks are particularly hazardous to pedestrians and other vehicles because dump trucks have large blind spots which can completely obscure pedestrians and vehicles from the view of the operator.
- This is why dump truck operators must maintain a constant state of awareness about their surroundings and monitor the movement of all pedestrians and vehicles.
- Operators should pay particular attention when people or vehicles enter a blind spot and be certain they have moved clear again prior to moving the dump truck.
- Pedestrians should never approach a dump truck without first making eye contact with the driver and receiving an indication that it is safe to approach or cross.
- Workers should never place themselves directly behind a dump truck and should never place themselves between a dump truck and a solid object.
- Keep in mind that a dump truck is usually a temporary visitor to a work zone and the operator may not be familiar with common pedestrian pathways or the flow of other vehicular traffic on site.
- Never assume the dump truck operator will stop for, or even be aware of, your movements as a pedestrian or operator of other mobile equipment.
- Because backing is one of the main hazards associated with dump trucks, taking measures to minimize backing and to control backing hazards is an important part of jobsite safety.
- Best practice is to minimize long-distance backing by designating a clear, safe area near the dumping or loading operation that allows dump trucks to turn around prior to backing.

- Clear communication must take place between the truck driver and any person working nearby.
- When there are people working in the area and/or other hazardous conditions exist, a spotter should be used to help direct the path of the dump truck and keep other personnel from entering its intended path.
- The spotter must wear high-visibility clothing and be sure to always remain in sight of the operator.
- Because visibility is so important to prevent run-over fatalities, all workers on an active jobsite should wear some type of high-visibility clothing.

PROPERTY DAMAGE

- Dump trucks are large, heavy, and powerful.
- Dump truck drivers often find themselves operating in tight quarters and in changing conditions.
- Any time a dump truck contacts another vehicle, building, or any solid object, serious property damage can occur.
- When a dump truck turns while traveling forward, the body of the truck tends to cut the corner and can easily strike nearby objects. Similarly, when operating in reverse, the front end will swing wide during a turn. Be aware of these danger zones and do not place yourself or vehicles into them.
- Dump truck operators must maintain proper clearance from all objects when turning or backing.
- And finally, dump trucks are tall, especially when the dump bed is in the raised position. Colliding with overhead structures is a common source of property damage incidents involving dump trucks.
- To prevent this, truck operators must know the height of their truck as well as the clearance height of any structure they plan to drive under.
- In addition, never raise the dump bed while under a structure with limited clearance and be sure to lower the dump bed fully before moving the dump truck.

CONTACT WITH OVERHEAD ELECTRICAL LINES

- The presence of overhead electrical lines is a particular hazard that all dump truck operators and their spotters must be aware of. Raising the dump bed and allowing the truck to come too close to, or make direct contact with, energized overhead electrical lines can be a fatal mistake.
- Again, knowing the height of the truck, as well as the height of the electrical lines, is critical to maintaining a safe distance.
- For electrical lines of 50,000 volts or less, a minimum distance of 10 feet must be maintained between any part of the dump truck and the power line. Higher voltages require even more distance be maintained.

FALLS

- A common source of injury associated with dump trucks is falling while climbing on or off the vehicle.
- When mounting or dismounting the vehicle, be sure to always maintain three points of contact. This means that two feet and one hand, or two hands and one foot, must always remain in solid contact with the vehicle while climbing.
- Of course, never climb onto any part of a dump truck that is not intended for climbing, and never attempt to ride on or in any part of the truck other than the passenger compartment.

TIP-OVER INCIDENTS

- Another major hazard related to the operation of dump trucks is the possibility of a tip-over.
- One common tip-over scenario occurs when wet or frozen material remains lodged near the top of the truck's dump bed. This dangerous situation can result in a top-heavy condition, and any movement of the truck, such as turning or tilting due to soft or uneven ground, can cause a tip-over.
- Due to the risk of a tip-over while dumping, all ground-based personnel should remain well clear and the truck's operator should remain in the cab with seatbelt on while actively dumping.
- Never attempt to jump from the cab of a dump truck during a tip-over. Remaining buckled inside the cab is the safest place to be.
- Tip-overs are more likely to occur when the truck's dump bed is in the raised position. With the bed in this position, the truck's combined center of gravity is well above the stable "base-of-support" formed by the wheels and frame rails.
- This is why dump trucks should not drive with the dump bed raised. Only move forward the minimal amount needed to fully dump the load, then remain stationary until the dump bed is returned to the fully lowered position.
- For maximum stability while dumping, make sure the truck's trailer, cab, and wheels are all aligned and straight.
- Also, only dump on level, solid ground. Raising the dump bed while on uneven or soft ground can lead to a tip-over.

- Of course, a fully loaded truck also has an elevated combined center of gravity and may become unstable when turning at excessive speed or traveling on uneven ground.
- When loading a truck, be sure to distribute the load evenly within the truck box and do not overload the truck.
- Always keep dump trucks away from the edges of trenches, excavations, pits, and quarries. Not only is there a risk of soil collapse and a truck tip-over, but the extreme weight and vibration of a dump truck can cause an excavation to collapse onto workers below.

PRE-USE INSPECTION

- Before using a dump truck each day, it's important to conduct a pre-use inspection. If your organization utilizes a detailed checklist, be sure to follow it.
- Start with a 360-degree walk-around inspection looking for any obvious signs of damage. Look under the truck body and engine compartment for any fluid leaks.
- Inspect for sufficient tread on each tire and check that each is inflated to the proper air pressure.
- Open the engine compartment and check the various fluid levels, including engine oil, coolant, and power steering fluid. Also check the tension and condition of the fan belt.
- Ensure that all running lights, turn signals, and brake lights are functioning properly, and that the back-up alarm is functioning. Also test the windshield wipers and horn.
- With the engine running, inspect the dash area for any warning lights that may be displayed.
- Complete the inspection with any additional items required by your employer and/or the truck's manufacturer.
- Before driving, adjust the seat position to best fit your body size and make sure all mirrors are adjusted to provide maximum vision around the vehicle.
- And finally, before heading out on the road, make sure all loose dirt, rocks, and other debris are cleaned from the outside of the truck, and that the load tarp is properly deployed to cover the load.

SAFE DRIVING PRACTICES

- Dump truck operators are tasked with a heavy responsibility because their actions affect the safety of everyone on the road.
- A dump truck handles and performs much differently than a standard-sized vehicle, and the operator must always be alert and focused on safe operation.
- Keep in mind that the posted speed limits are designed for lighter vehicles. Dump trucks should **never** exceed the speed limit and should drive **under** the speed limit on turns or when traveling on ramps.
- Dump trucks require a longer stopping distance than a typical automobile.
- When traveling over 40 miles per hour, a good rule of thumb is to maintain a following distance of 5 seconds from the vehicle in front of you. Even more distance is required during inclement weather.
- Practice defensive driving by frequently scanning your mirrors and each side of the roadway as you drive.
- The purpose of frequent scanning is to maintain an awareness of the position and movements of the vehicles around you, as well as any potential hazards and obstacles that may be upcoming.
- Pay particular attention to vehicles entering and exiting your blind spots.
- Be sure to return your gaze to the roadway in front of you every 1 ½ seconds and keep a sharp lookout for brake lights or other indicators that traffic may be slowing or stopping ahead.
- Also, be aware that to other drivers, a dump truck appears big and slow. Other drivers will frequently pull out in front of you, pass at inappropriate times, or make other unsafe maneuvers. Try to anticipate their actions and be prepared to slow down or perform a defensive maneuver if needed to avoid an incident.
- To maintain awareness and focus, eliminate all possible distractions before driving. Put the phone away **before** heading out. Do not adjust the radio, program navigation systems, or interact with other devices while driving.
- Pull over in a safe place and come to a complete stop if you need to make a phone call or interact with a device.
- Finally, always wear your seat belt. According to the Federal Motor Carrier Safety Administration, dump truck drivers have the lowest seat belt usage of all commercial drivers.
- Don't become a statistic! Buckle your seat belt every time you climb into the cab of a dump truck.

CONCLUSION

- Dump trucks are large and powerful vehicles capable of hauling and dumping very heavy loads.
- Dump trucks can also be hazardous, and all nearby workers and truck operators must remain focused on safety any time active dump truck operations are taking place.
- No matter your role, always make job site safety a top priority. Take the dump truck safety tips presented in this program and use them to remain safe, healthy, and injury free.

DUMP TRUCK SAFETY FOR OPERATORS AND PEDESTRIANS

ANSWERS TO THE REVIEW QUIZ

1. a

2. b

3. a

4. a

5. b

6. a

7. a

DUMP TRUCK SAFETY FOR OPERATORS AND PEDESTRIANS
REVIEW QUIZ

Name _____ Date _____

The following questions are provided to determine how well you understand the information presented in this program.

1. Operators should pay particular attention when people or vehicles enter a blind spot and be certain they have moved clear again prior to moving the dump truck.
 - a. True
 - b. False

2. Colliding with overhead structures is not a common source of property damage incidents involving dump trucks.
 - a. True
 - b. False

3. For electrical lines of 50,000 volts or less, a minimum distance of 10 feet must be maintained between any part of the dump truck and the power line.
 - a. True
 - b. False

4. Never climb onto any part of a dump truck that is not intended for climbing and never attempt to ride on or in any part of the truck other than the passenger compartment.
 - a. True
 - b. False

5. Driving with the truck's dump bed in the raised position does not create a greater risk of tip-over.
 - a. True
 - b. False

6. A pre-use inspection starts with a 360-degree walk-around inspection looking for any obvious signs of damage.
 - a. True
 - b. False

7. Try to anticipate the actions of other drivers on the road and be prepared to slow down or perform a defensive maneuver if needed to avoid an incident.
 - a. True
 - b. False