

United Highway Carriers Association

Don't Dump Safety: Dump Truck Tip Overs

As **dump truck** bodies and semi-trailer dumping rigs get longer, the incidence of units tipping over has increased. This type of accident is more frequently connected with semitrailer rigs than with straight trucks.

In the last couple of years, one fatality and at least one serious injury have resulted when dump trucks tipped over. Statistics on the frequency of tip-overs are not available because the occurrences are not reported unless injuries result. However, construction personnel involved in operations agree that tip-overs are becoming more frequent.

The main hazard is related to the stability of the end-dump unit when the box is in the raised position.

Dumping

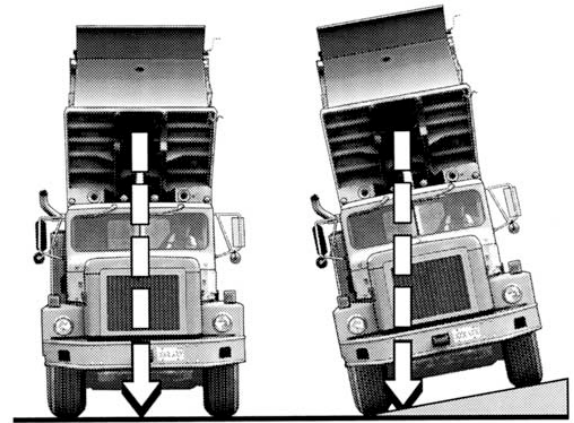
Before dumping, operators should ensure that the tailgate is unlocked and that the vehicle is on a reasonably level surface. Dumping on surfaces that are not level is one of the main causes of tip-overs.

Before spreading material by dumping it from a moving truck, make sure that the entire length of travel is reasonably level.

Trucks should not dump when they are parked side by side with another vehicle. When a dump unit tips over, it is often the operator in the adjoining vehicle who is injured. Dumping operations should be spread out.

Other personnel such as dozer operators, surveyors, and spotters should be warned not to work near a dumping truck in case it tips over.

When the center of gravity of box and load is not roughly between the frame rails of the unit, there is a risk of tip-over (see diagram).



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Loading of the box front-to-back must meet allowable gross weight and axle weight limitations set by the Department of Transportation (DOT). From side to side it is best to load as evenly as possible.

If material is likely to flow poorly, lighten up the load in the top end of the box. A slightly smaller load will be better than a full load that causes a tip-over.

Because of stability problems with semi-trailers, they should not be used for haulage to rough grading or fill areas where surfaces are often uneven or loosely compacted. Straight trucks or straight trucks and pup trailers are more appropriate for highway haulage to these dump areas.