

# Hauling headaches

## Know your load limits when trailering equipment

**The accident:** A driver was transporting a wheel loader weighing approximately 65,000 pounds on a lowboy trailer, secured by four 3/8-inch chains. During transport, the driver was forced to stop suddenly. The chains broke, allowing the loader to roll forward, over the fifth wheel and onto the top of the truck cab, crushing the cab and killing the driver.

**The bottom line:** A post-accident investigation determined the load exceeded the aggregate working load limit of the chains used in the tiedown assembly, which were rated at 6,600 pounds. Furthermore, at least one chain was improperly attached to the loader, and another was improperly attached to the trailer bed, using the trailer deck instead of the trailer's "D" rings. Failure to properly secure the loader allowed for both longitudinal (forward/backward) and lateral (side-to-side) movement, enabling the machine to roll over the truck's cab.

**Know the load limits** – Although sometimes traffic accidents cannot be prevented, properly securing trailered equipment can help ensure you and other drivers are not injured in the event of a traffic problem.

Before you transport a piece of equipment, find out the working load limit of your tiedown assembly. This indicates the lowest working load limit of the entire assembly, including the associated connector or attachment mechanism and the anchor points, not just the chain itself. The WLL will be marked on the tie down material, and the Federal Motor Carrier Safety Administration tables can also be used. The aggregate working load limit must be at least 1/2 times the weight of the article. In this accident, the tiedowns used had a combined WLL of 26,400 pounds; meaning the load could not have weighed more than 52,800 pounds and be transported safely.

**Tiedown tips** – Once you know

your tiedown assembly is properly rated for your load, you still must take additional steps to secure the machine on the trailer bed. Completely lower any attachments and secure them to the trailer, and ensure that articulated machines are prevented from articulating while in transit. The trailer's "D" rings are designed to minimize chain slack and reduce the possibility of load movement. Closely examine the equipment you're transporting for readily identifiable attachment points for the tiedown assembly. If none can be found, your supervisor should contact the manufacturer for recommended attachment points. Always remember, the entire tiedown assembly is only as strong as its weakest component.

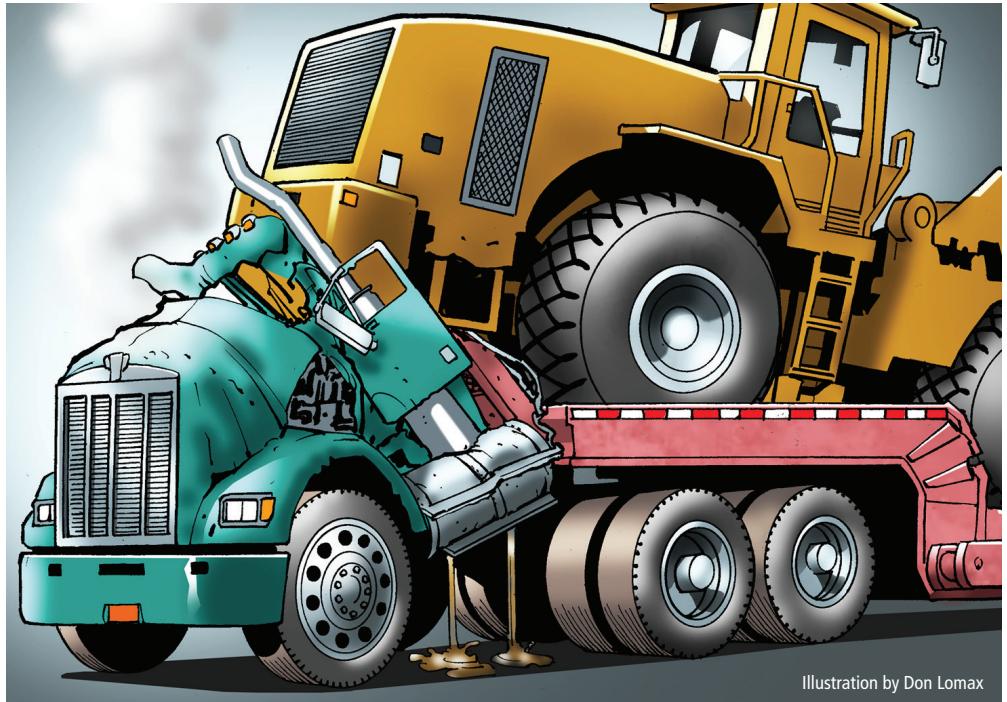


Illustration by Don Lomax

*Information for this Safety Watch is from an accident report, the Center for Disease Control's NIOSH Fatality and Control Evaluation program and the Federal Motor Carrier Safety Administration's Rules and Regulations Part 393. It is meant for general information only.*

Date of safety talk: \_\_\_\_\_ Leader: \_\_\_\_\_  
 Attending: \_\_\_\_\_

