

Loading Equipment onto Trailers can be Hazardous

By James Carrabba

Agricultural Safety Specialist

The New York Center for Agricultural Medicine & Health - NYCAMH

Agricultural businesses routinely use trucks and trailers to haul mobile equipment over the road to and from fields or worksites. Loading and unloading equipment such as tractors, loaders, and skidsteers onto flatbed or tilt-bed trailers is known to be hazardous enough to cause the loss of workers lives. A recent report from the Census of Fatal Occupational Injuries Research File found that, in the years of 1992 to 2003, an average of nine construction workers were killed each year when loading and unloading mobile equipment from flatbed trucks or trailers. The leading cause of death (75%) was overturns of the equipment while it was being loaded or off-loaded from the trailer. Seventy percent of these fatalities occurred during equipment loading operations. The next largest category of fatalities (20%) was workers being struck by the equipment. The remainder of the deaths occurred when workers were caught between the trailer and the equipment. The main cause of these fatalities included having the trailer parked on a slope or unstable ground, using a trailer or ramp that was too small for the equipment that was loaded or unloaded, and workers standing too close in the vicinity.

Following are some safety practices and recommendations to minimize hazards when loading and unloading mobile equipment from trailers:

1. Always make sure the truck and trailer are parked on firm, level ground.
2. The trailer and/or ramps need to be wide enough for the equipment being loaded.
3. If using a flatbed trailer with ramps, check to make sure the ramps are long enough to avoid having a steep angle.
4. The equipment operator should be familiar with the equipment and preferably experienced in loading and unloading the equipment.
5. Workers in the vicinity need to be alert and out of the immediate danger zone.
6. When possible, and from a safe distance have a ground spotter assist the equipment operator in getting the machine properly positioned on the trailer.
7. The truck and trailer should have the brakes set, wheels chocked and engine turned off.

Keep the trailer deck clean of dirt, oil, or other debris. It is important to note that steel decks can be slippery when they are wet, so be especially careful when loading tracked equipment in those conditions. Remember to lock tilt-bed trailers after you load equipment onto them. Use appropriate-sized chain binders to properly secure the equipment onto the trailer. Check the bindings for tightness after initially traveling a short distance.

The proper way to load a trailer is to put about 60 percent of the load towards the front of the trailer. Not having enough weight in the front of the trailer can cause it to fishtail.

Having too much weight in the front of the trailer puts a lot of the weight onto the hitch, and may cause the hitch to drag and may raise the front end of the truck. Do not overload the trailer and truck. Use an appropriate sized truck for the size of the trailer and the weight of the equipment being hauled. Check the Gross Vehicle Weight Rating (GVWR) of the truck and its towing capacities. If the combined weight of the truck, trailer and equipment being hauled exceeds 10,000 pounds, you must comply with the Federal Motor Carrier Safety regulations. This includes US Department of Transportation markings on the truck, properly securing cargo, and stopping at roadside inspection stations.

As with any piece of equipment, do a complete walk-around inspection of the trailer prior to each use. When you do the walk-around inspection, look at the tires. Check to see that they are in good condition, properly inflated, having no cuts or bulges, and that the lug nuts look tight. Check the lights and flashers. Make sure that all lights and flashers are working properly. Check to make sure that the hitch on both your truck and trailer is in good condition and is properly attached. When inspecting the hitch, look for any signs of cracked metal, broken welds, or loose attachments. Make sure the safety chains are attached and are in good condition. Safety chains should be no longer than necessary to prevent being dragged when turning. The proper length chain helps to maintain control of a trailer if it comes unhitched. If you have two safety chains on each side of your trailer hitch, cross them to the opposite side of the truck hitch when attaching the chains. The crossed chains will hold the trailer hitch up off the road should it come unhitched from the truck. Safety chains should be heavy enough that they support the weight of a loaded trailer.

Information contained in this article was from an article by Michael McCann, which appeared in the Winter 2006 edition of Operating Engineers Magazine. If you would like further information on this topic or any agricultural safety issue, please give NYCAMH a call. If you would like to schedule a farm safety survey or on-farm safety training session, please contact me at 800-343-7527, ext 239 or e-mail me at jcarrabba@nycamh.com. NYCAMH, a program of Bassett Healthcare Network, is enhancing agricultural and rural health by preventing and treating occupational injury and illness.