



MISSISSIPPI STATE UNIVERSITY™  
MS AGRICULTURAL AND FORESTRY  
EXPERIMENT STATION

# MAFES DAWG TRACKS

The proper loading, positioning, and securing of equipment on a trailer can mitigate the risk during, not only accidents, but sudden stops and maneuvers on the road. Take precautions to prevent damage to equipment or cause harm to you and other drivers on the road.

## Before Loading

- Verify that the trailer is the right fit for the load, and the truck pulling it all is rated for the total weight.
- Ensure stop, tail & turn signals, and trailer brakes are functioning properly.
- Determine where the equipment will be placed on the trailer to balance the weight distribution and to secure the equipment properly.
- If there will be low friction between the equipment and the trailer (such as metal crawler tracks on a metal deck), determine if friction devices are necessary.
- If the equipment to be hauled has rubber tires, verify the tire pressure. Low pressure may result in the loosening of the tiedowns.
- Remove any excessive dirt/debris from the trailer ramps and floor that could reduce friction during loading or transport. Also remove dirt/debris from the equipment that could fall off during transport.

## During Loading

- Do not operate or load equipment that you do not know how to operate safely.
- Wear the seatbelt while loading & unloading.
- Be cautious when attaching securement devices over brake or hydraulic hoses or cylinders to avoid damage to those components.
- Whenever possible, use the equipment manufacturer's designated attachment points.
- Do not use any attachment point that is of questionable strength or suitability.

## After Loading

- Lower all accessory equipment and other movable parts such as hydraulic shovels, booms, plows, etc., and secure them to the trailer using tiedowns. Hydraulics alone are not enough to secure accessory equipment.
- If the equipment being transported has an articulation point, pivot, or hinge within its construction, lock or restrain the vehicle or equipment to prevent any articulation while in transit.
- During transport, stop frequently to check your equipment, load and its securement.

## Tiedown requirements

- The total working load limits of the tie down scheme must be at least 50% of the cargo weight.
- You need at least four tie-down points to prevent side-to-side movement as well as vertical, forward and rearward movement, especially if your load has wheels or crawler tracks, or over 10,000 lbs.
- If the item is longer than 10 ft in length, then it must be secured by two tiedowns for the first 10 ft of length, and one additional tiedown for every 10 ft of length, or fraction thereof, beyond the first 10 ft.
- A single tie down, which is an indirect method, includes one that goes through an anchor point and attaches to both sides of the trailer. This does not count as two.
- You can use a chain to count as two tie downs if you attach it to two anchor points with two binders and slack in the middle.
- Tie downs should be as close as possible to the rear & front of the equipment or at the proper mounting points on your machinery.
- The weakest component determines the entire assembly's limit. Don't forget about other components like vehicle structures, floors, & tie-down anchor points used to secure the load. These must be strong enough and not reduce the working load limit.

For more info contact:

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## Sources:

[49 CFR 392.100-136;](#)

<https://www.equipmentworld.com>

<https://www.trailersuperstore.com/tips-for-hauling-heavy-equipment>