

# Safe Tractor Operations: Loading and Towing<sup>1</sup>

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## Towing Equipment

- Make sure that the tractor is properly counter-weighted and that all attachments are secure and properly mounted.
- Avoid operating attachments during road travel and keep the power takeoff lever in neutral.
- Make sure that the tractor is large enough to handle its load and hitch the load **only** to the tractor's drawbar hitch points. The drawbar is designed for pulling heavy loads without the risk of a backward overturn. If the load is hitched any higher, the tractor can overturn quickly by rotating around the rear axle.
- When towing equipment without brakes, keep speeds under 20 miles per hour.
- Towed equipment should have brakes if, when fully loaded, it weighs more than one and a half times the weight of the towing unit. Stopping distances increase with speed and heavier towed loads, and on hills and slopes.
- When towing equipment with brakes, stay below 25 miles per hour.
- Equipment that weighs more than 4.5 times the weight of the towing unit should not be towed.

## Front-End Loaders

Front-end loaders can make tractors unstable and subject to side overturns.

- When using a tractor with a front-end loader, use the wide wheel settings and add rear weights as needed.
- Travel with the bucket in a low position and at low speeds, especially when turning or traveling on rough and slippery terrain.
- Avoid fast starts and stops.

## Loading and Unloading Tractors

When loading a tractor onto a trailer or truck, always load it on level, stable ground. Make sure that the truck or trailer cannot move by setting the brakes, blocking the wheels, or both. Whenever possible, slowly back the tractor onto the truck or trailer. Check to see if anyone is behind the tractor or near the trailer during loading.

- Make sure ramps are clear of mud, grease, or debris. Make sure they are secure.
- Lock the brakes on the tractor and secure it to the trailer with chains and load binders.
- Fasten chains, and lock and wire load binders so that they cannot open.
- If possible, someone nearby should guide the tractor operator with hand signals.

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- Check the owner’s manual for specific recommendations.

## **Additional Safety Resources**

### **Websites**

- For more information about these and many other safety topics, contact your county’s UF/IFAS Extension office, or visit the Florida Agricultural Safety and Health Program website at <https://abe.ufl.edu/agsafety/>.
- Consult *Tractor Fundamentals: Best Practices*, North American Guidelines for Children’s Agricultural Tasks. For more information, contact the National Children’s Center for Rural and Agricultural Health and Safety at <http://www.marshfieldresearch.org/nccrahs>.
- Consult the Outdoor Power Equipment Institute at <http://www.opei.org>.
- Consult the National Agricultural Safety Database at <http://nasdonline.org>.

### **Safety Standards**

- “Hand Signals for Agriculture,” ASAE Standard S351
- “Operator Controls on Agricultural Equipment,” ASAE Standard S335.4
- “Roll-Over Protective Structures (ROPS) for Wheeled Agricultural Tractors,” ASAE Standard S383.1
- “Symbols for Operator Controls on Agricultural Equipment,” ASAE Standard S304.5
- “Roll-Over Protective Structures (ROPS),” Occupational Safety and Health Administration, OSHA Standard 1928.51

### **Safety Decals**

- “No Riders” decals may be purchased from various tractor supply companies.