

What to Do When the Tractor Gets Stuck

It is easy to get stuck in muddy and wet conditions.

- Always try to back out. Trying to drive forward is dangerous and can result in a rear overturn.
- If backing out is not possible, get towed out forward by hitching to the tractor frame.
- If the tractor must be towed out backward, hitch **only** to the drawbar.
- When towing, use a chain or steel cable and tighten it slowly. Do not use a nylon rope because it can stretch and break, then snap back, resulting in serious injury or death. These have snapped back throwing the cable hook through the cab window, killing the operator.
- Often, someone who is nearby and may be a relatively inexperienced operator is called upon to assist in pulling out stuck equipment. The tractor doing the pulling is actually doing the riskier operation, which could very quickly result in a rear overturn.
- If you need help, get help.

Road Travel

- Make sure brake pedals are locked together and that brakes are adjusted for equal pedal movement. This helps the tractor stop in a straight line.
- Tractor brakes have limited holding power. Use low gears whenever taking heavy loads up or down hills.
- Properly light tractors and equipment. Include turn signals, headlights and taillights.
- Check to see if all lights are working, and use them if there is any question about visibility.
- Keep flashing amber lights on when operating farm equipment on public roads.
- Turn off work lights that face the rear. Make sure the load does not obscure lights and warning devices. If night driving is necessary, clean head- and taillights.
- Tractors or towed equipment can cross into the oncoming traffic lane, especially on narrow rural roads. At these times, consider using an escort vehicle equipped with flashing yellow lights. Remember that equipment can obscure rear tractor lights.
- The two most common causes of collisions are the left-turn collision and the rear-end collision. The left-turn collision occurs when the tractor is about to make a left turn at the same time that a motorist tries to pass. The rear-end collision happens because a motorist doesn't see the farm machinery in time.

Hazards of Filling Gas Cans

Vehicle fires sometimes occur while people are filling metal gas cans placed on plastic surfaces. This type of fire usually involves a gas can in the back of a pick-up truck with a plastic bed liner.

Gasoline tends to carry a static electric charge. When pouring gasoline into a can, this charge can build up on the can. If the can is sitting on concrete or on the ground, the static charge can safely flow away. But when the can is sitting on plastic, such as the plastic bed liner in a truck, the static charge can not escape because the plastic is an insulator, that is, it does not conduct electricity. A spark can occur between the can and the fuel nozzle and ignite the gasoline.

If the spark occurs in the flammable range in the gasoline vapor space near the open mouth of the gas can, a fire occurs.

Use only gas cans approved by OSHA and follow these precautions.

- Use only an approved container.
- Do not fill any container inside a vehicle.
- Always place the container to be filled on the ground and away from other people and traffic.
- Make sure the nozzle is touching can while filling.
- Never use a latch-open device to fill a portable container.
- Do not smoke.
- While transporting containers, tie them in place.

Visit the **Florida AgSafe** Web site to download this brochure and to access additional background information on tractor safety.

<www.flagsfe.ufl.edu>

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Tractor Safety for Disaster Recovery



Prevent these incidents:

- ▶ Overturns
- ▶ Run-overs
- ▶ Collisions
- ▶ Explosions
- ▶ Burns
- ▶ Entanglements

Quick Guide for Tractor Safety in Disaster Clean-up

Tractors are likely to be used for a lot of the clean-up in rural areas. They may be used by the regular operator or by a borrower. These tips are important reminders for all tractor operators. If you are not familiar with tractor hazards, take time to look over the more in-depth information.

- ▶ If the tractor is equipped with a ROPS (rollover protective structure), use the seatbelt. This ensures that the operator remains in the zone of protection during an overturn.
- ▶ Always start the tractor from the operator's station, never by-pass start from the ground.
- ▶ When using a loader bucket, keep the loads low and travel slow. Carrying loads high, especially if turning, can easily cause a side overturn. Use special caution with water-soaked loads, including hay bales. Because of the extra water weight, what looks like a 'normal' load may now be an 'over-load'.
- ▶ Do not hitch above the drawbar when pulling or towing loads or debris.
- ▶ Be especially aware of the rear overturn hazard when pulling out other tractors or vehicles that may be stuck. If the stuck vehicle isn't moving, the tractor attempting to pull it out can overturn to the rear in a split second.
- ▶ Do not get too close to edges of embankments or ditches as the soil can give way.
- ▶ Set gas containers on the ground when filling. Do not fill them in the bed of a pick-up.
- ▶ Be aware of hazards of road travel.
- ▶ Do not allow extra riders unless no alternative transportation is possible.
- ▶ If PTOs are used for operating pumps or other equipment, keep guards and shields in place. Do not take short-cuts by attempting to step over an operating PTO. Be aware that in slippery conditions it can be easier to trip and fall – possibly into the running PTO.

More information about Quick Guide Tips

Bypass Starting Dangers

Shortcuts are common when one is tired and stressed, but they are dangerous. Bypass starting is a very dangerous shortcut.

Bypass starting bypasses all the safety-start and neutral-start switches in the tractor's electrical and hydraulic systems. When someone bypass-starts a tractor or other equipment that is in gear, he or she can be pulled down by the drive wheel and be crushed. The runaway tractor can also injure or kill others in the area.

Towing Equipment

- Make sure that the tractor is properly counter-weighted and that all attachments are secure and properly mounted.
- Do not operate attachments during road travel, and keep the PTO lever in neutral.
- Make sure the tractor is large enough to handle its load, and hitch loads only to the tractor's drawbar hitch points. If the load is hitched any higher, the tractor can overturn quickly by rotating around the rear axle.
- When towing equipment without brakes, keep speed 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 as the weight of towed loads increases, as well as on hills and slopes. Therefore, stay below 25 miles per hour. Remember that towed vehicles or tractors will not have power brakes or steering.
- Equipment weighing more than 4.5 times the weight of the tractor 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 or 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.
- Check the owner's manual for specific recommendations.

Other Tips for Maneuvering

- Slow down on turns and curves. A tractor's turning radius is much smaller than an automobile's. Taking a curve too fast can cause an overturn or a jackknife, if machinery is attached.
- Make sure that maneuvers entering, turning, or leaving the highway do not interfere with other traffic.
- Keep in mind that towed equipment might swing into the oncoming lane.
- Only use the road shoulders when they are stable and well-maintained. Using unstable edges and shoulders can cause a tractor to overturn. Also, driving along the edge can be misleading to motorists. They may pull out to pass just as the tractor re-enters the roadway to avoid a mailbox or bridge. Remember that many motorists aren't familiar with tractors or equipment.
- To let a line of cars pass, pull over to the side and stop, otherwise a culvert, mailbox, or other hazard might force the tractor to re-enter the roadway while cars are still passing.

Steep Slopes

Sometimes a tractor must be operated on a steep slope.

- Backing up or driving down slopes can help prevent rear overturns.
- If a tractor must be operated across the slope, use the widest possible wheel adjustment, very slow speeds and extra caution in watching for obstacles that the wheels might hit.
- Turn the front wheels downhill at the first indication that the tractor may be becoming unstable.