



Stuck in the Mud? Getting Unstuck

Getting Vehicles Unstuck

There's nothing more frustrating than getting equipment stuck in the mud. But don't rush to free your equipment by grabbing the first set of chains or ropes you can find, hopping in your truck, and trying to tug it free. Not only is it unlikely that you'll be successful, but you're also endangering yourself and everyone around you.

1. Assess the environment

How deeply is your equipment embedded in the mud? It's important to consider whether the frame is touching the ground and the slope of the terrain. If you are buried up to the axle, dig them out the best you can. You most likely won't be able to completely free your machine, but less force will be required to pull your equipment free.

2. Choose the right vehicle

You'll need to know the weight (GWVR) of your stuck equipment. To pick the right vehicle to pull yourself free, you'll need to know its towing capacity.

3. Gather the right equipment

Tow ropes, cables, and chains can all be used. These choices are inelastic, meaning they pose a significant safety threat if they break. If a chain snaps,

debris can go flying through the air, damaging equipment, and even injuring or killing people in its path.

Always check the condition of any ropes or cables before use. Don't use them if there are any signs of deterioration or weakness. Know the strength rating of any equipment used: are your cables strong enough to pull your machine free?

4. A better option for towing

Elastic recovery straps are designed to stretch until they reach the proper tension point to pull equipment free. They're safer and more reliable than static cables or chains.

5. Preparing to pull

Do not connect multiple chains or straps. They'll be far more likely to snap, and you won't be able to pull with as much force. Never tie straps together or connect multiple towing vehicles.

Remove attachments before trying to tow it free. You won't have to worry about it being in the way, and you want the machine to be as light as possible. It also eliminates the chance of damaging the attachments.

6. Where to attach

Pull from behind, if possible, but

do not attach directly to the rear of the machine. The force required to pull your equipment free is so great, you risk tearing it in two. Instead, attach to the most solid part of the machine. The frame if possible. Pull cables or straps all the way under the equipment. You'll also get more leverage this way.

Tow in a straight line. Whenever possible, tow from a higher elevation than the stuck equipment. And finally, cover any chains or cables in a heavy cable blanket, in case they snap.

7. Pulling your equipment free

Don't accelerate too quickly. That greatly increases the risk that any towing straps will break apart. Start in the lowest gear.

If your tires are spinning, don't force it. Either the vehicle you're using to pull your equipment free isn't powerful enough or it's not on firm enough ground to gain traction.

Remember: you always can get help from a professional towing service with the right equipment to safely free your valuable equipment.

Just avoid getting stuck in the mud in the first place!

Walk the work area before using the equipment. You'll be able to see areas that you may want to avoid.



17 tips for getting vehicles “Un-Stuck”

Never assume a strap, rope, chain, or cable is strong enough. Read the tag that comes with a strap and the ratings for chains and hooks. The pulling equipment may need to be rated 1 or 1.5 times the weight of the stuck equipment, depending on resistance factors. Always inspect the strap for fraying, and chains for stretched/broken links.

There are 3 resistant factors to consider:

1. Rolling resistance – the force it takes to put a vehicle in motion. On a hard, flat surface, it might only be 5% of the weight of the vehicle. On grass or gravel, the rolling resistance is 15 percent of the towed vehicle’s weight.
2. Mire resistance – accounts for how deeply the tires are buried. According to Purdue’s guide, when stuck in mud up to the bottom of the wheel rims, the amount of additional force that needs to be applied is approximately 100% the vehicle’s weight.
3. Gradient resistance – the steeper the slope to get out, the greater the stress exerted on the towing vehicle and equipment.

Never jerk a cable, chain, or tow strap.

There’s a difference between tow and “recovery” straps and ropes. Tow straps do not stretch and are only meant for towing. Unlike tow ropes and straps, recovery straps and ropes don’t have any hardware attached to them and their material allows for stretching under tension.

Recovery straps/ropes should be used without chains, hooks or clevises, if possible. Think of the strap as a very long slingshot. If using a clevis, should it be rated for more weight than the rope or the strap? A torn rope is better than a chain, cable, hook, or clevis flying through the air. You want the weakest link to be the rope or strap. If using chains, the hooks should, at a minimum, have a rating equal to the chain.



Make sure the attachment points will hold — it’s always best to attach to a tow hook or the frame. Always attach to the lower drawbar on the pulling tractor (not the three-point hitch, for example)

Try to make only two attachment points and do not make knots. A rope or strap is at full strength when it is flat and the fiber is not pinched. Connection points are often the weakest link.

Place something on the strap, chain, cable or rope to force it toward the ground. You can purchase cable blankets as dead weight. Floor mats, chains, rope can also be placed over the cable or strap.

If using a clevis, place the pulling rope or strap on the pin, not the side of the clevis.

Insert hooks from the bottom with the tip up. If it breaks or comes off while pulling, it will fall toward the ground instead of flying through the air.

If using cables, remember the phrase “never saddle a dead horse,” referring to the clips or clamps holding the looped ends together. Tighten the bolts down toward the “live” or pulling cable. The U-bolt can squeeze and compromise the strands, and it’s better to have this happen on the “dead” section than on the wires that are part of the pulling section.

Stay away from sharp edges. It’s best to have a straight line with nothing touching the cable or strap, but edge protectors, such as a piece of canvas, can help if a straight line isn’t an option.

Protect windows, if possible. A piece of plywood over the back window of the towing vehicle can provide some protection, but there’s always the possibility of debris striking someone if something breaks.

Unload to reduce weight, if possible. Lightening the load can also help with preventing the stuck vehicle from getting top heavy.

Keep the tailpipe uncovered. Make sure the exhaust fumes are vented and not stuck in the mud or obstructed in any way.

Clean and store straps, ropes, cables and chains properly. Always inspect and clean before storing properly.

SAFETY TRAINING SIGN-IN

Company Name: _____ Date: _____

Subject: Stuck in the Mud? Getting Unstuck.

The following employees participated in this training.

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