

Workplace All Terrain Vehicle Safety

If you work in the field, especially in the seismic or survey fields, you may be required to operate an ATV (All Terrain Vehicle) as part of your job. For most jobs that require the use of quads or other ATVs, you'll have to complete a quad safety course. The ATV safety courses that are required by most oilfield companies will teach you the general walk-around and pre-ride inspection rules, as well as the basics of *riding* a quad with exercises like slalom, hill climbing, and turning. Most courses however, do not offer any instruction regarding loading and unloading ATVs from trucks and trailers. Loading and unloading quads is a daily exercise for many workers, but is too often overlooked in safety training and manuals. This seems odd, considering this is where most accidents occur.

The following are tips for safely loading, unloading, and operating an ATV in a work environment. This page is not a replacement for experience or training, and should be used only as a reference. ATVs can be extremely dangerous. Attempting to perform complex maneuvers like loading and unloading can lead to severe injuries and death. Without the proper training and experience, this risk increases greatly.

Remember, you have the *responsibility* to refuse dangerous work. That includes work that is beyond your abilities. It's not just rhetoric... if you injure or kill yourself at work, the company you work for can face harsh punishment, including heavy fines, lawsuits, worksite shutdowns, and company-wide shutdowns. And you could be dead. No job is worth sacrificing your safety.

General ATV Loading and Unloading Tips

- Park the truck or trailer on a flat, firm surface that is free of obstacles. If it's possible to slightly incline either the front of the truck or the base of the loading ramps, loading and unloading can be done on much less of a slope. However, if the back end of the truck is raised, the loading ramps will sit on a steeper grade, making loading and unloading very dangerous.
- Use the longest loading ramps that are available. Longer loading ramps will decrease the loading angle, making loading and unloading much safer.
- If the loading ramps are not designed to hook or latch onto the truck or trailer, they should be secured in place with a retaining cable or strap before loading or unloading the ATV. If the rear tires spin while the front tires are on the truck, unsecured loading ramps can fail, causing the ATV to flip backwards onto the operator--***this is a sure-fire way to kill yourself. Never use unsecured or friction-hold loading ramps.***

- When using a one-piece or folding ramp rather than two separate loading ramps, you must ensure that it is positioned on flat, level ground; otherwise part of the ramp may lift off of the truck when the ATV starts to climb.
- Most trailers sit significantly lower than the box of a truck, making loading and unloading much less dangerous.
- Never change gears or engage 4x4 while loading or unloading.
- Do not increase throttle or apply the brake when the ATV is on the loading ramps. Any sudden changes to throttle or brake pressure will shift the ATV's center of gravity and may cause a rollover.
- If you hit the brake or an obstacle while you are leaning forward or standing, your body may be thrown forwards into the throttle. This causes an extreme loss of control, and you will very likely be injured. This is a basic design flaw in the positioning of the throttle, and it has been the cause of numerous accidents and injuries.
- Ride straight up or down the loading ramps. Do not attempt to turn the ATV while it is on the loading ramps.
- As with riding on any slope, you need to keep your weight uphill. Stand on the foot pegs or boards when loading or unloading, so that your weight is directly over or slightly forward of the ATV's center of gravity. If your weight is behind the ATV's center of gravity, the ATV may roll over backward.

The safest way to unload an ATV

The safest way to unload an ATV is not to be on it:

- Be sure that all securing straps and chains are removed from the ATV, and that there are no obstacles under or behind the ATV.
- Be sure that the loading ramps are properly aligned with the quad's wheels.
- Start the ATV, disengage the parking brake, hold the brake handle, and place the transmission in Reverse. Do not place the transmission in Neutral.
- While holding the brake, maneuver yourself in front of the ATV. Be sure that the front wheels are straight. Release the brake and push the quad backward until it starts to roll down the loading ramps.
- Do not attempt to steer or brake the ATV, simply let it roll down on its own. It will likely stop when its back wheels hit the ground. Just give it a bit of throttle to get it off of the loading ramps.
- If the loading ramps are on a gentle slope, or if you are a very experienced rider and are comfortable unloading, you may choose to ride the ATV down the loading ramps. Since every ATV behaves slightly differently, you should never attempt to do this with an unfamiliar ATV. Be absolutely sure that you can safely ride down before you start-- it's very difficult to abort a failed unloading. **Only an expert rider should ever attempt to unload an ATV while riding it.**

The safest way to load an ATV

If you are not comfortable loading the ATV, don't do it. Have someone with more experience load it for you, or move the truck so that the ATV can be safely loaded.

- If possible, use a winch to load the ATV. This is, of course, the safest way to load. Unwind enough cable to attach it to the truck, preferably at about the same height as the winch will be once the ATV is loaded. If you have a loading winch attached to the truck, attach the cable to the bottom front part of the frame. Stand back and to the side of the quad, putting the quad between you and the winch cable--just in case it breaks.
- Stay away from the loading area unless you are operating the ATV or the winch. Never stand behind an ATV while it is being loaded or unloaded.
- Never stand on the truck or trailer while an ATV is being loaded.
- Be sure that the loading ramps are properly positioned, and that they sit firmly on level ground. Check the loading ramps yourself-- it's your life on the line.
- Unload any equipment from the ATV before loading it.
- Be sure that there are no obstacles on the loading ramps or the truck.
- Start several meters back from the base of the loading ramps to gain momentum. When you hit the base of the loading ramps, you should be going the same speed that you intend to climb the loading ramps at.
- Loading should be done at a slow and steady speed, with absolute control over the ATV. With a manual transmission, you should be in first gear. With other quads, you should be in low-range; with 4x4 and differential-lock engaged if available.
- If you are loading a two wheel drive quad, you'll need more speed to compensate for the lack of traction. This is obviously more dangerous, and should only be attempted by experienced riders.
- If you encounter any problems when loading an ATV, simply ease off the throttle and allow the ATV to roll backward, off of the loading ramps. Never attempt to compensate by braking, increasing throttle, or steering.
Some reasons to abort the loading procedure are:
 - Not enough throttle to complete the climb.
 - Wrong gear to complete the climb.
 - Improper alignment of tires on the loading ramps.
 - The front wheels of the ATV lift off of the loading ramps.

Loading equipment on an ATV

- Balance your load evenly between the left and right sides, as well as between the front and rear.
- Secure all items with ratchet straps or heavy duty rubber tarp straps.
- Do not ride with loose items on the racks or foot-boards of the ATV. If you encounter rough terrain, loose items can become projectile and cause serious injury.
- Wear eye protection when using rubber straps. A strap that breaks or unhooks under pressure can cause substantial injury.
- Worn, brittle, and otherwise damaged straps should be destroyed and discarded.
- A *Quad Trunk*, or other latching box attached to the front or rear rack of the ATV is excellent for carrying smaller items like hammers, paint cans, flags, etc.

General Riding Tips

- Always keep your weight uphill. Safe quad operation requires you to constantly shift your weight while riding on hills or over obstacles.
- Avoid paved surfaces and public roads whenever possible.
- If it is necessary to ride on a paved road, even if you're only crossing it, slow down and use caution. Quads are not designed to operate on paved or other hard, firm surfaces; you should expect control, handling, and stability to be greatly reduced.
- If it is necessary to ride on a public road, keep your lights on, and stay out of the way of traffic. By the letter of the law, most ATVs are not legal for use on public roads. Most officers in most places make exceptions for people that are performing a job, but if you drive irresponsibly or cause any problems, they won't hesitate to ticket you and impound the ATV.
- Always wear a proper helmet, eye protection, boots, and protective clothing when operating an ATV.
- Never carry passengers.
- Never ride beyond your experience or comfort level. Adjust your riding to the terrain and conditions.
- Slow down and use extra caution when riding through tall grass or other vegetation, especially along fences.

- Avoid livestock wherever possible. Frightened horses and cows are dangerous to themselves and to you. If you have to ride near livestock, ride slowly and give the animals as much berth as possible.
- Don't leave your ATV in a field with cows or horses. They like to eat quad seats, keys, and whatever else will come loose.
- Never ride side-saddle. Even small obstacles can cause you to lose control or fall off of the ATV.
- Always keep both hands on the handlebars. Riding a quad requires you to constantly adjust your steering and shift your weight as you traverse hills, obstacles, and rough terrain. You cannot safely operate a quad with one hand.
- Always keep both feet on the foot rests.
- Traverse obstacles head on, with both front tires making contact at the same time. Attempting to climb over an obstacle on an angle can cause a rollover.
- Keep your wrists bent slightly forward. An obstacle such as a rock or tree stump can cause the front wheels to turn sharply and unexpectedly. This is a good way to spend four months in a cast.
- Keep a first aid kit, tool kit, and a fire extinguisher with the ATV at all times. You may also want to carry a can of tire sealant to reinflate a punctured tire. Though ATV tires are designed to operate at very low pressure and are unlikely to be damaged by lack of pressure, you will notice a substantial loss of control with a flat tire.

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