

Lessons Learned: Supervision

Loading an ATV onto a Truck



NARRATIVE:

A Forest Service employee attended a February 2010 ATV licensing class and was loading the ATV onto the back of a pick-up truck at the end of the training. Another FS employee had placed the ramp against the back of the truck bed, but had not inserted the two strap hooks into the holes which secure the ramp to the bed of the truck. As the FS employee was driving the ATV up the ramp he applied more power in order to transition from the inclined ramp to the bed of the truck. When he increased power at the top of the ramp this caused the ramp to be propelled backward by the tires of the ATV, and the ATV and the employee then fell backward onto the ground. The employee suffered minor injuries to his back and elbow. The ATV engine protective plate was scratched. The truck suffered minor damage to the plastic fitting on the truck bed door. (The FS ATV public use brochure states that adult supervision is required).

Lesson(s) Learned and Recommendations:

- Equipment such as a ramp should be set up properly to begin with, or not be set up at all.
- You should check for yourself if the ramp is properly installed, and if the ramp is adequate.
- The area to the rear of an ATV loading operation is a danger zone.
- A ramp being propelled backward by ATV tires could injure someone standing to the rear.
- An ATV falling backward could injure someone standing to the rear of the truck.
- The bed of the truck is also a likely danger zone during the loading operation. Don't stand there.
- Details of ATV loading and unloading were not on the JHA. This should be included.
- Safety measures focused on the driving training; but any operation is not finished until everyone is back home safe.
- The driver was wearing his PPE at the time of the accident, even though he was made fun of for donning the PPE just to load the ATV onto the truck.
- Scars and injuries sustained over the years were casually referred to as "battle damage." Lesson learned is that in later years all that damage may no longer seem to have been such a good idea.
- Wearing of PPE should be encouraged, not discouraged. This is a basic supervisor responsibility.

***** After this Lessons Learned Report was sent out via email, many safety suggestions regarding the loading of ATVs were sent in from the field. Please feel free to utilize some and/or all of the following safety measures that field personnel have used in the past and are currently using. *****

- "Appropriate straps should be attached about 18 " back on the ramp (from the top) and secured to a solid/fixed anchor point on the vehicle, BELOW the bumper... this places pressure on both the top and bottom of the ramp instead of just the top. It is a safer use of the ramp and FAR more resistant to shifting.
- "If you're loading and transporting an ATV onto and in a truck, the truck should be required to have a cab guard and you should place a rubber tire at the bed headboard to serve as a bumper to prevent or reduce damage to headboard and cab rear window while loading or transporting. Also, lone the ATV is up onto the truck bed, stop, shut it off, and push it forward the rest of the way to the front by hand (not with the throttle) to it's tie-down position. If you haven't smashed a window or pushed a headboard forward into the cab yet while loading or transporting, you likely will eventually. Take these precautions.
- "The ramps shown are good ones and the advice on attaching to the truck is very good. Note that ramp length can be an issue for taller pickups. Polaris specifies a 25 degree maximum climbing angle for some of their newer 4WD ATVs. A 6 foot long ramp on a higher sitting pickup will be steeper than that angle.
To a newbie ATV operator (and any operator, really), it's really risky loading at those steep angles. We shouldn't be exceeding manufacturer's maximum climbing angles. A 7 foot ramp will just barely get down to that maximum angle on some 3/4 T 4WD PUs and there may be some trucks for which you'd need an 8 foot ramp to reduce the climbing angle. Chuck the 6 foot ramps so there's no mistake. I did an informal climbing angle evaluation with help from another experienced ATV operator. That maximum 25 degree angle in real operating conditions is pretty scary steep and only doable as long as you're climbing straight uphill or descending straight downhill in dry conditions and don't have to stop or turn around. If you stop, you probably slide. If you turn crosswise on a hill at that steep angle, you tip over and keep rolling. And all of that is on dry ground with good traction. Point is that the 25 degree max. Climbing angle is too steep to provide any room for error or variations in ground surface. We shouldn't be operating at those steep angles into trucks or on trails. PPE is (or should be in your JHA) the same for loading at a steep angle as it is for climbing steep hills."
- "Could have the wench on the quad."
- "One thing that we found when I was on the forest level is that we stopped loading on pickup trucks and went to trailers with side fold down ramps designed for ATV's, the cost wasn't that great and you could transport more than one, the ramp was much lower to the ground and fixed on the trailer so you always knew the ramp was properly secured. The trailer had tie down points for the ATV that made sure the ATV's were properly anchored. Just a thought you might consider, they have some pretty nice, lightweight trailers out there designed for ATV's also snowmobiles that gets them off the back of pickups."
- "For consideration, how about a design plate that can accommodate a winch at the front of the truck beds (like a boat trailer), then have several winches for checkout, or designate trucks with the winch for transport of ATVs. This avoids the danger of over acceleration into the truck bed or of an employee being on the ATV while loading; just load it like you would a boat."
- "Loading ramps must be secured to transport vehicles with two tie down straps, chains, steel cables, or mechanical fasteners, and capable of supporting the ATV/UTV and associated equipment." FSH 6709.11, Chapter 10--Travel_id_6709.11-2009-1: 13.23-Loading and Hauling