

LOGGING SMALL TIMBER ON SMALL TRACTS WITH AN ATV AND CUSTOMIZED DUMP TRAILER

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Tractor or ATV

In a previous article the advantages of using small tractors equipped with a skidding winch to move small logs was discussed. That article was in Vol. 28, Issue 2, 2009 of the Forestry Journal, which can be read on the CFA website, www.coloradoforestry.org/fj.html. However, not every forest land owner wants or needs a tractor. Many do own an ATV. The larger and more powerful ATVs are capable of skidding logs on flat ground or downhill by just chaining the log to the draw bar. Leaving the front of the log on the ground requires more power and results in significant soil and vegetation disturbance. Another problem is the potential for damaging the drivetrain when the log encounters a stump or rock. For all of these reasons it is advantageous to lift the front end of the log up off the ground.

Custom Addition



One woodland owner saw the potential to utilize his ATV and dump trailer to move logs efficiently, safely and with less soil and vegetation disturbance. What was missing was a way to get the front end of the log up into the trailer bed and hold them there during transport. The solution was to add a custom winching frame to the trailer.

The frame utilizes the stakes holes built into the trailer. It was built in three pieces for one person installation. Materials, fabrication and welding was about \$700.

The 3,000 pound electric winch is bolted to the front of the bed. Winch prices vary widely depending on rating and quality.

Disclaimer: *The following discussion is not intended to be an endorsement of the specific brands and models shown or discussed here. The photos used in this article were taken by the author of equipment used on projects he is involved with.*



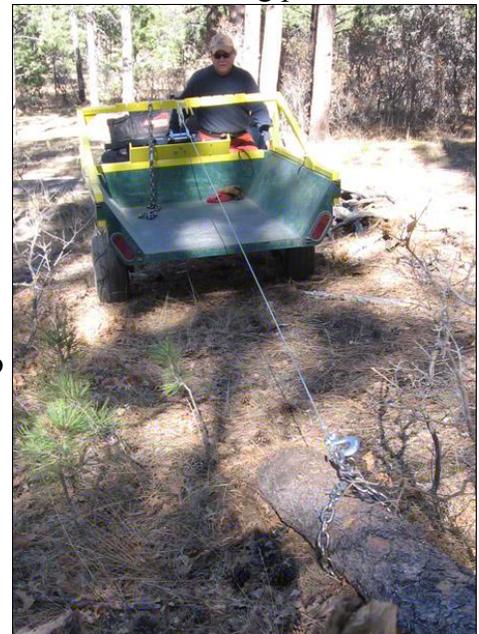


The upper cross-over bar carries the removable snatch block, which raises the winching point for a more advantageous angle of approach to the trailer bed. The notches allow the choker chains to be attached to the frame easily. This takes the stress off the winch and fairlead while moving the logs over stumps, rough ground and through brush.

In Operation

The ATV and trailer are maneuvered into position to winch in the log.

The trailer bed is kept in the lower position until the log is close to the trailer to minimize twisting and other stresses between the trailer bed and frame.





When the log is within about 10-12 feet and directly behind the trailer, the trailer bed is raised. This accomplishes two things; (1) It raises the angle of the winch line, and (2) it lowers the rear of the bed closer to the ground.

Both of these make it easier to winch the end of the log up into the trailer bed.



Then the bed is lowered.



The winch cable is taken off, and the choker chain is set into a notch to keep the log from sliding back off the trailer while on the way to the landing.

If two or three small logs are located close together, they could all be winched in and each secured with its own choker chain.



One large log is a load by itself.

In theory a green ponderosa log from a 16" tree, 50' long, would weigh approximately 1,943 pounds.

Assuming that only 50 to 70% of the total weight would be on the trailer, this load is well within the 2,000 pound capacity of the trailer.

At the landing, the choker is removed from the log and the ATV pulls the trailer out from under the load.

One disadvantage to the ATV versus a tractor is that the ATV can't push logs or pick them up to pile them to conserve landing space.



Lessons Learned on Version 1



Sometimes the log isn't high enough to clear the edge of the trailer. This can occur for two reasons:

- (1) The trailer ends up on a high spot,
- or
- (2) The choker is too far from the end of the log.

A piece of plywood provides the extra little bridge to get the log up and in.

Two changes might help minimize the opportunity for logs to hang up. The cross bar or at least the mount for the snatch block should be 8 to 12 inches higher, and/or a piece of ¼" steel could be hinged to the back of the bed. It could be dropped to the ground when the bed is tilted up to form a ramp for the log end to skid on.

Another change to improve safety would be to use remote winch controls so that the operator can run the winch from a position off to the side of the trailer. It is best to be out of the direct path of a cable in the event that a hook breaks, slips, or the cable breaks.



In Summary

This custom addition to equipment already owned makes the job of skidding logs from stump to landing easier on the ground and vegetation. It also reduces the power requirements and fuel consumption. It works well on this site which is quite gentle ground. It should work well on steeper slopes as long as the ATV can be driven to the top of the slope and then down to the location where the log will be picked up. If the terrain dictates turning around and backing up on the slope, this ATV-trailer combination will not work well.