

LARGE TIRE TRAILER TRANSPORT

Towner County, North Dakota

Contact:

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Problem Statement:

With motor graders and front end loaders located throughout the county, it is necessary to do tire repair on sight, hauling tires in for repair. Manually handling these tires is very difficult and can be unsafe for the individual if not handled properly.

Discussion of Solution:

Larry and his staff built a small trailer as shown in the photo to transport the large tires to and from the work site as necessary. The trailer has a two (2") inch axle with 16 inch wheels. The trailer carriage is five (5) feet long, two (2) feet wide and thirty nine (39) inches high, using 1 1/2 inch square steel tubing. The trailer bed is pinned at the front to the trailer hitch for easy tilting in the back. The tail gate is hinged and can then be dropped to the ground level, making it very easy to roll the tire into the cage. The top of the tailgate has a chain attached to partially raise the tailgate when the tire is placed thereon. When the trailer is tilted down in front the tire rolls ahead and the tailgate can be closed. There is a winch located on the trailer hitch to assist in pulling the trailer carriage into place and the pin reinserted. The procedure is reversed for unloading the tire.

With this design they are able to transport the tire on the roadway within the posted speed limit to the repair shop. This is working out very well and three trailers will be built to serve the road maintenance shops in the county.

Cost:

New material was purchased for this at a cost of approximately \$600.00. All labor was done in the shop by the operators, working on this during slack periods of time in the winter when there was no snow removal required. The 16" wheels were purchased so as to have more availability of used tires.

Safety:

Handling these large tires is very difficult. It required two individuals to load them into a truck (pickup), and with the heavy lifting required, a possibility existed for injury. With the trailer, very little lifting is required, and therefore less possibility for injury. One individual can handle the removal, loading, unloading and replacement of the tire.



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