

Well-planned barns and pastures, and innovative use of high- and low-tech gadgets can make life on the farm much easier. If you have any helpful “husbandry hints,” *Alpacas Magazine* would love to hear from you.

■ How to Change an Alpaca Trailer Tire

Many alpaca owners spend some time on the open road transporting alpacas for showing, breeding, obtaining veterinary services, and delivery to buyers. This article and photo layout will describe the tools and procedures that are needed to safely and efficiently change an alpaca trailer tire on the road. Changing a tire is not difficult if you have the right tools for the job and know how to use them.

The list of tools includes:

- **Leather gloves** – these are most helpful to handle dirty tires and knuckle scraping tools. You may want to include a pair of thin coveralls to keep you clean during the process.
- **Star lug wrench** – a “star” lug wrench (\$8) with four handles is very important and can be found at auto parts stores. The short “L” shaped lug wrench found in most car tire changing kits is not adequate for trailer wheel lugs. The “star” lug wrench gives you the leverage you need to loosen wheel lug nuts on trailers. Test the wrench to be sure that the “star” lug wrench you buy will fit the lug nuts on your particular trailer.
- **Trailer tire changing aid** – (\$40). This device makes changing tandem axle trailer tires a breeze. It can be used on all tandem axle trailers with drop-down type axles. Test it to be sure it will work with your particular trailer. If this device does not work with your trailer, you will need to purchase a hydraulic jack and follow the manufacturer’s recommendations on placement and use.
- **Wood tire blocks** – four 4-inch by 6-inch by 12-inch treated wood blocks (\$4) work great for blocking trailer tires to keep them from rolling.

You will need to block the tires on the opposite side of the flat once you have pulled the trailer up on the trailer tire changing aid.

- **Emergency tire sealant in a can** – (\$5) fix-a-flat type tire sealant with compressed air. If you are in a situation where you just can not change a tire immediately, tire sealant may work to seal the leak and pump up the tire to allow you to limp to a better tire changing location. You must greatly reduce your speed if you do use tire sealant and consider it to be a temporary fix only.
- **Emergency road triangle** – (\$10) this device is used to set out along the edge of the road to warn approaching motorists of the hazard ahead. Set it approximately 200 feet from your trailer and right next to the traveled portion of the road to encourage drivers to give you plenty of clearance.
- **Large flat screwdriver** – (about 12 inches long), used to remove wheel covers.
- **Flashlight** – is invaluable if you have to change a tire at night. Just imagine fumbling around in the dark with lug nuts, tools etc. not being able to see what you are doing.

Bill and Sherri Duey operate Southern Iowa Alpacas ranch located in the hills of Southern Iowa, 60 miles southeast of Des Moines. They have incorporated innovative features into their alpaca ranch and conduct seminars on business planning, animal selection, and ranch setup for new alpaca ranchers. View their site at www.southerniowaalpacas.com or contact them at alpacas@southerniowaalpacas.com.



Tire changing tools: leather tools, star lug wrench, trailer tire changing aid, wood tire block, emergency tire sealant, emergency road triangle, and flashlight. Don't forget the spare tire, as well.



If you have to stop along a busy highway, pull off to the side as far as possible, turn on your 4-way emergency flashers, and set the emergency triangle out to encourage passing motorists to give you lots of clearance.



Whenever possible, pull off the highway onto a side road, choose a location with lots of site distance, and set the emergency flashers and set out the emergency triangle.



Size up the situation, make sure any alpacas on board are comfortable and mentally prepare yourself to tackle the tire changing job.



Using a large flat screwdriver, remove the wheel cover from the flat trailer tire.



While all trailer tires are still on the ground, use a star lug wrench and loosen all the lug nuts on the flat tire wheel. (Note: if you raise the tire off the ground before loosening the lug nuts with the wrench, they are very difficult to break loose because the wheel will spin freely.) Leave them finger-tight still holding the wheel on the trailer.



Place the trailer tire changing aid in front of the good front tire on the same side of the trailer as the flat tire. This way, you can pull onto the aid. If the front tire of the trailer is flat, place the trailer changing aid in back of the good back tire and back onto the aid.



Pull the trailer forward until the good trailer tire is perched on top of the trailer tire changing aid (or back up, depending on which tire you are changing). Set the vehicle emergency brake and turn off the engine.



Set the wood wheel blocks in front and back of the tires on the opposite side of the trailer to help prevent rolling.



Remove the lug nuts from the wheel. They are easy to lose, so place them on the wheel cover.



Lift the flat tire and wheel off the hub and set it aside.



Line up the wheel lugs. A simple trick is to slightly rotate the wheel hub until one of the lugs on the hub is centered at the top. This will make it easier to install the spare tire.



Align the holes in the spare tire to have one centered at the top. Lift the tire onto the hub and wiggle the tire so that it slips onto all the lugs.



Insure that the tire is pushed all the way back onto the hub. put the lug nuts back on the lugs and tighten to finger tight. Next, tighten the lug nuts with the star lug wrench in an alternating pattern. Start with the top nut, next do the bottom nut, then the nut at the upper left, then lower right, etc. This cross-type pattern will help ensure the wheel is lined up correctly on the hub.



Remove the wood tire blocks. Back down off the trailer tire changing aid.



Tighten all lug nuts again with the star lug wrench in the alternating cross type pattern until they are very tight.



Replace the wheel cover, ensuring that the valve stem opening is properly lined up. Line up the cover so that it almost pops on the wheel. Then, using your gloved fist, firmly tap the portion that is not snapped. It will pop into place. Tap around the cover to ensure that it is firmly in place.



Gather up ALL of your tools, wood tire blocks, flat tire, emergency triangle, etc., and stow them away in the trailer. Smile! You are once again ready for the open road.