

#### Welcome to the Podium Club!

The information found at www.antiquetractorpullguide.com is like no other information out there. The tips, tricks and secrets of successful tractor pulling are designed to improve your performance at the next tractor pull, while having more fun at the same time.

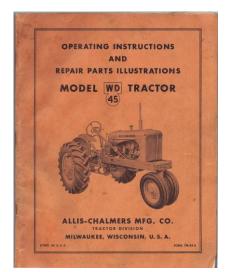
## The 'ol Allis Chalmers Debate – Myth Busted!

Since the early days of pulling there has always been a hot topic surrounding Allis Chalmers WC, WD and WD-45 tractors. They're standard rear tire sizes were 28" from the factory, but in the pulling world everyone wants to run bigger tires. The debate, which still goes on (I have heard recent rumblings in areas of the country), is whether to allow 34" or 38" tires on these Allis Chalmers tractors.

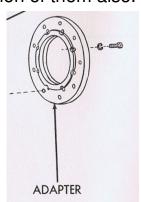
With the advent of newer sets of rules such as United States Antique Pullers (USAP) make no attempt to limit tire size on any particular tractor – it's done by class. Still, in certain areas with home grown rules and brand favorites, there are those who want to limit the effectiveness of the Allis Chalmers tractors. But why? One of the reason that the AC's are so popular pullers is that they are light and have big displacement engines for their size. Also, later engines and combine engines (Gleaner E) can be bolted right in, powering up these light tractors. They are extremely tough pulling machines, and can be especially lethal when on 38" rubber. For these reasons there are still folks out there who want to keep them at bay, allowing only larger sized 28" tires while the competition is pulling on 34" or 38" tires.

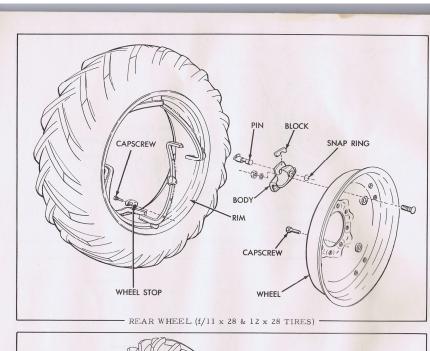
So what original equipment argument can be made to ensure 38" tires are allowed to level the playing field for AC's? There were versions of the WC, WD and WD-45 that featured 38" rubber. Some of the early versions were aftermarket high crop tractors, such as the Thompson kit. There are documented factory instances that show 38" rubber for high crop and vegetable special tractors.

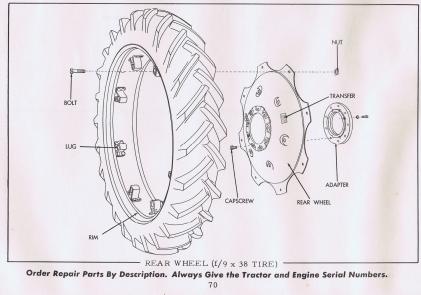
# The 'ol Allis Chalmers Debate – Myth Busted! (cont)



For example, here is a WD-45 parts book. On page 70 there is a diagram that shows a 38" rim for a high crop tractor. One thing to note is on the far right – that's an adapter for the 8 to 9 bolt rim. So if anyone were to question the use of adapter plates for taller tires, there was a factory version of them also.







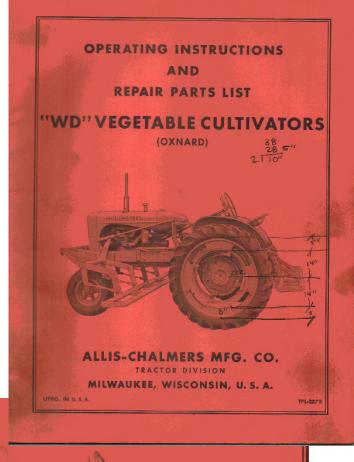
How about the vegetable special version?

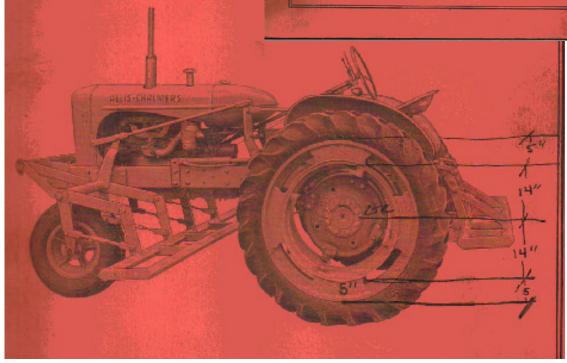


#### The 'ol Allis Chalmers Debate – Myth Busted! (cont)

This is a factory operating and instruction book for a WD with vegetable cultivators. It's showing a vegetable special configuration of the WD tractor, on 38" tires. One thing to note here is that the 28" spin out rims are still used, with spacer plates welded to the 38" rim.

Let's see what this would look like in real life. Read on...







## The 'ol Allis Chalmers Debate – Myth Busted! (cont)

These pictures show a recreation of the rims shown on the front cover of the WD Vegetable Cultivators manual. This WD-45 tractor belongs to Tony Wheatley of Maryland. Tony did a fantastic job putting a factory looking twist on a competitive pulling tractor.

To sum up, there shouldn't be any further debate on taller tires for AC tractors, especially if more places adopt rules similar to USAP. But, just in case there is ever a question of "why that AC tractor has some rake to it", let 'em know you've seen factory documentation for 38" tires.

**MYTH BUSTED!** 





WD-45 sitting on 13.6-38s

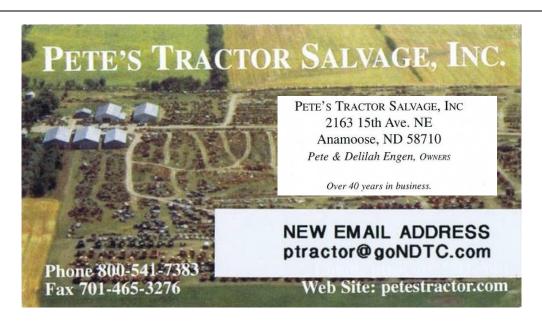


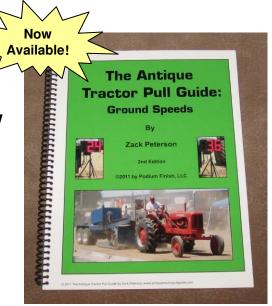


# It's HERE!!! The All New 142 page 2<sup>nd</sup> Edition!

The All New 2<sup>nd</sup> Edition of The Antique Tractor Pull Guide: Ground Speeds

- New ground speed charts added expanding to 142 pages! Now includes speeds for Allis WC with Sherman Transmission, Deere 430/435, Slow speed letter models, and more!
- Ground speeds for most makes and models featured in The Antique Tractor Pull Guide.
- Ground speeds shown with respect to different RPM and different tire sizes.
- Ground speeds shown in every gear from near idle to full RPM, including USAP/NATPA allowed RPM's.
- Figure ground speeds for any tractor at any RPM, allowing for cut tires & lower tire pressures.
- Ground speeds for gearing variations including creeper gears, ring & pinion changes, M&W 9 Speed transmissions, Sherman transmissions and more!







## **Tubeless Tire Techniques**

By Adam Ruscha

In an effort to have the best pulling tractor I can have when I show up at the track, one thing I do is shave every available pound off of my tractor while keeping safety and appearance in mind. This is done essentially to have the lightest chassis to start with when it comes to balancing the tractor. If you make the bare essentials weigh as little as possible, then you have more moveable weight, which is a good thing. I have a few pulling tractors, and having the chassis as light as possible is important to the success of them all. A spot overlooked by many is the tubes inside the tractor's rear tires. Granted, these things make life a lot easier when you stuff them in a tire, air them up and forget them. Consider this though; a 15.5 x 38 tractor tube weighs around 15-1/2 pounds. If you get rid of both rear tubes, you've just saved yourself 31 pounds off the total weight of your tractor. That may not seem like much, but how much difference would that 31 pounds make if it were hanging on a front weight bracket at 11 feet from the center of your rear axle? Quite a bit!

Now there are several ways to go about mounting tires without tubes, but I am going to share the technique I have found through years of experimenting to be the best and the safest. I know there is a large group of people that support the use of ether, a diesel starting fluid, in mounting a tubeless tire. I used to be one of them until I was thrown 10-12' in the air, landed on a concrete floor and lost all the hair off my arm from an ether explosion mounting a garden tractor pulling tire. Granted, I can laugh about it now, but it could have easily ended very badly. So please for safety's sake, do not use ether to mount your tires. It isn't worth the risk. The first thing you need to do is consider your rim size and your tire size. There are a couple methods that I am going to describe, but it entirely depends what kind situation you are in to determine which method to use.

The first method is for tires that are being mounted on rims that are either the manufacturer suggested width or a little (2-3") wider than recommended. This is the most common setup for antique and classic tractor pullers.



# **Tubeless Tire Techniques (cont)**

By Adam Ruscha

The first thing you need to do is get the tires and tubes completely dismounted off of your rims. Examine the condition of your rims. If the rims are rusty and/or dirty, use a wire wheel on an angle grinder and clean them up really well, especially in the area where the bead of the tire seats. A good coat of paint will help to keep the rims in good shape for years to come. After cleaning and



**Tubeless Valve Stem** 

painting if necessary, install a tubeless tire valve stem (pictured above). These are available in a few configurations at many area auto parts stores and/or tire shops. Just be sure they will fit the valve stem hole in your rim when you purchase them.

After the rims are cleaned and the stems are secured, then examine the beads of the tires you are using. The beads should be clean and free of any rust or flaps of rubber that have peeled through the years. Clean the beads lightly with a wire wheel/cup if needed as well. The rim and tire cleanliness is an important key to getting a tire to seal and hold tubeless.

After prepping the rim and tire, go ahead and mount both sides of the tire on the rim. I find this easier to do when the wheel is actually mounted on the tractor. You may have to have an assistant for these next couple steps, as it is somewhat difficult to pull this off by yourself. I take a standard caulking gun and load into it a tube of clear or white silicone such as the one shown at right.



This tire will need some attention before being mounted tubeless





## **Tubeless Tire Techniques (cont)**

By Adam Ruscha

Apply a good thick bead of silicone along the bead of the tire where it is going to seal against the rim when it is inflated. This needs to be done on both the inner and outer beads of the tire all the way around the diameter of the tire. Don't worry about putting too much on the tire as the excess will be pinched out when the tire is inflated. It can be cleaned off fairly easily later on. Now, take a 2" wide ratchet strap and run it around the tire on the tread and put some pressure on it. This should cause the sidewalls of the tire to spread or buckle out towards the rim a little. I make an effort to have the ratcheting mechanism somewhere on the tire other than right where the valve stem is. You will want to remove the core from the valve stem at this time to allow

maximum airflow into the tire.

This is the moment where the assistant will be very helpful. Make sure your air compressor is fully pumped up when you start to inflate the tire. It is quite aggravating to have a tire starting to take air and realize your compressor is empty. A clip-on air chuck is nice to have here as well. It allows you to assist your helper in finding where the tire is leaking air. While the air is going into the tire, you will more than likely have a few areas that are leaking.



This example shows how to run the strap around the tire when inflating

You can use a sledge hammer to hit the tread of the tire in an effort to get the beads to seal to the rim, or you can put a little more silicone in the areas that need it. When the beads of the tire seat on the rim, the tire will inflate relatively quick. As I said earlier, do not use ether, especially not at this point. The silicone is flammable, and you don't want to get splattered in flaming silicone if the ether were to ignite. It may take some effort to get the tire to start taking air, but it will do it. You need to have someone release the tension on the ratchet strap before it gets too tight to do so. After the tire is inflated you can reinstall the valve core.



# **Tubeless Tire Techniques (cont)**

By Adam Ruscha

At this point you should have a fully inflated tubeless tire mounted on your tractor. You can now take a bottle of soapy water and start spraying the beads and the tread down and look for any leaks. If the beads are leaking a little air, you can use a tire wedge and partially break down a small section of the bead and look for debris between the bead and the rim. That is usually what will cause a leak. After ensuring any debris is removed, apply a little dab of silicone throughout the leaking area and inflate the tire again. If you are using an old hard tire as us tractor pullers love to get our hands on, you will



A tire plug being installed

more than likely have a thorn or two in the area between the lugs. To fix these leaks, you will need a drill bit that is just a little smaller than the plugs used for ATV tires. I find it easier to mark all the thorn leaks with a white paint marker first, then go back and repair them all at once. When all the "tread" leaks are located, use a drill to make a hole in the center of the spot that is leaking. Install a tire plug into the hole made by the drill bit and cut the excess off with some side-cutting pliers.

After the silicone sets completely up, the same wire wheel/cup you used to clean the rim and tire can be used to remove the silicone from the edge of the rim where it squeezed the excess off. This technique has proved useful to me in my stock rim width applications and I hope it will help you too.

The other method I am going to describe is for a slightly different application. This is quite a bit more time consuming, but isn't a whole lot more work. This would also work for the stock rim width applications, but is essential if you are doing something crazy like mounting a 16.9 x 38 tire on a 22-1/4" wide rim. Just as in the prior procedure, make sure your rim and tire combination are clean and ready to mount. Mount the tire on the rim; in this case, it will need to be off the tractor. When you mount the tire this time though, install the tube. I know this article is about mounting them tubeless, but bear with me.



# **Tubeless Tire Techniques (cont)**

By Adam Ruscha

Use the silicone on the bead side closest to the valve stem (do not put silicone on the other side yet) and inflate the tube. Be sure to inflate the tube enough to fully seat both of the beads and let it set overnight. When the silicone is fully cured, you can deflate the tire, break the side of the tire without

silicone down and pull the tube out. At this point, you need to install the tubeless valve stem pictured before. You may need to round up 1-3 helpers to pull this mounting job off. Put a good heavy bead of silicone on the side that doesn't have any. Lay the rim and tire combination down on something like a wood block that is positioned in the center of the wheel. Whatever you lay it on should be high enough to keep the rim and tire off the floor or ground a little bit. It also needs to be stable, because you and your helpers will be pushing around on it. With the wheel center blocked up high enough to keep the rim and tire off the ground you can start putting air into the



My 900 Case with 16.9 x 38 Michelin Radials mounted tubeless on 22-1/4" wide rims

tire. Make sure that the side with the freshly applied silicone is closest to the floor or ground. With your helpers evenly spaced around the diameter of the tire, have them apply gentle downward pressure to the outer edges of the sidewall on the upper side. This will push the lower bead out toward the rim where the silicone can have a chance to seal the bead for the tire to inflate. If you can maintain the necessary pressure without breaking the silicone down that has already set up then the tire should inflate without much trouble.

I truly hope this article and future ones will help some of you pullers out there to maximize the ability of your tractors. I also hope this will encourage you to practice safety in your shop and prevent unnecessary injuries when working on your pulling tractor. Good luck and see you at the track.





## Fiberglass pulling parts

# **MM & Farmall Fiberglass Parts**

They are finally here! Fiberglass MM Late R clamshell fenders. These fenders weigh 7lbs a piece! Will also fit other MM models – U, Z, etc.

Ethan D. Berry **The Mopower Ranch** Vermontville, MI 517-243-0617

Ethan is a good friend, fellow puller and very knowledgeable about tractors. He has used his skills as an engineer to create some amazing pulling parts that are high enough quality for restorations too.





Fiberglass MM 5 Star Grille Cross



Fiberglass Farmall Fenders

Farmall M gas tanks also available. Stay tuned for more parts coming soon!



## Making a Difference for the Kids

Kids are the future of pulling. One of the neatest things to see is when a child's face lights up when they get to do something really neat. One such thing is tractor pulling – the thrill we all enjoy times 100 often because it's the first time. Some places, such as the Tunica Southern Nationals, have begun to allow a controlled tractor pull for kids younger than the usual 14yrs old minimum age requirement to pull. This is a fantastic idea since it gives the kids an opportunity to pull without the dangers of the unexpected.

The way it works is with the same tractor, usually a smaller machine like an Allis Chalmers C. A wider seat is used so that an adult can ride on the tractor with the child, handling the starting and stopping. While the tractor is in motion, the kids have control of the steering wheel and throttle – driving for real!

One other thing to mention is the behavior at tractor pulls. With younger people being more involved, there are younger ears and eyes seeing what is going on. It is our duty as adults to cultivate an attitude of sportsmanship and to set an example for younger generations to enjoy pulling. This means showing gratitude and appreciation for fellow pullers. It also means keeping negative displays of anger or foul language to an absolute minimum. And finally, include young folks in the discussion about what is happening at the pull (tractors, history, set up, track conditions, etc.) since they will be interested to understand what they are seeing. Kids pick up on EVERYTHING.

As a relatively new father I realize the importance of setting an example – Ava is 14 months old now, how time flies! Even aside from pulling, it is my responsibility to ensure she grows up knowing proper behavior and leadership principles.

Always remember to be conscious of behavior at every pull and let's continue to grow tractor pulling for generations to come.



#### **An Indoor Tractor Show**

The Willamette Valley Ag Show happens every November in Albany, OR. One of the biggest attractions that seems to be growing every year is an indoor antique tractor display. This year almost 80 tractors were on display for the three days of the show, including some of the pulling tractors in the area.













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# Coming next month...

- Winter Maintenance Tips
- Making a difference for the kids Auction Style
- Notes from Tunica
- And more...

#### December issue will be available 12/19/11

I want to hear from you! If you have feedback, requests or information you would like featured, please send an email to: zack@antiquetractorpullguide.com.

#### **Zack at Tunica!**

Look for Zack and The Antique Tractor Pull Guide this year at the Southern Nationals Pull at Tunica, MS during Dec. 1st-3rd.

