Podium Newsletter

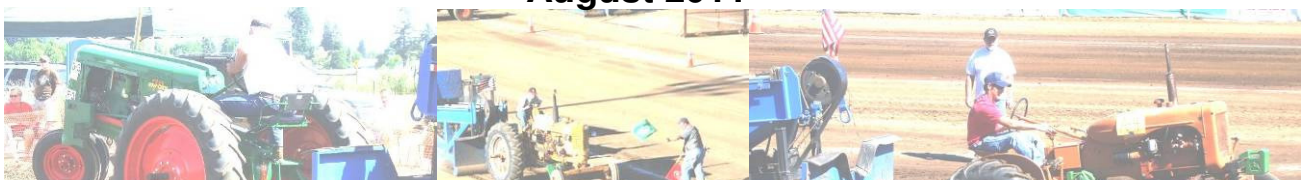
August 2011

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 lightest weight wheel centers, ever?

Last fall I built a set of pulling wheels for the Massey Harris 101 project. As I proceeded with the engine transplant, I eventually ran across others who pull Massey 101 tractors also. One of these folks is Pete Petznick from Belton, MO. He offered great Massey advice and also has a product well worth looking at. Not satisfied with other wheel centers available, Pete decided to design and build his own. His wheel centers are built out of lightweight steel and feature a box tube section. This design allows the material thickness to stay thin, yet have very high strength. Here's the real benefit – these centers only weigh 23lbs a piece! Remember, a regular pressed steel disc that is welded into a rim weighs 55lbs, so it's a savings of 30lbs/wheel. Twenty three pounds is even lighter than an original disc with windows or holes cut in it. In lighter weight classes, Pete's rim centers could be very beneficial when trying to lose weight. They come ready to weld in to any rim, you just have to specify your rim diameter. Here is one of the best features of these rim centers – they come drilled with the hole pattern. For use on the Massey 101, the standard 9 bolt pattern was drilled and they fit perfectly onto the original hubs. Pete also has these available for the Allis Chalmers 6 and 8 bolt pattern, which means…..drum roll….no adapter plates are needed to run 34 or 38 inch tires!

Since the Massey 101 already had a set of wheels and tires on it, I elected to keep the old tires mounted on those rims. For the new rims/centers another set of 15.5-38s was rounded up, which are Firestone Field & Road 151 tires. These tires are often touted as being one of the best for pulling and years ago I had very good luck with a similar set of 13.6-38s on my John Deere 60.



The lightest weight wheel centers, ever? (cont)

Here is what the centers looked like when they arrived via UPS. They were set into the rims and then welded into place.

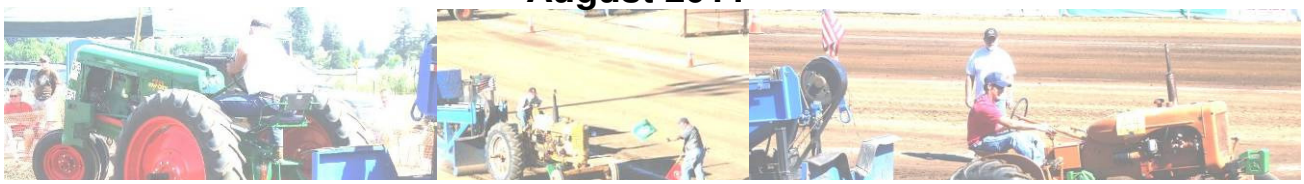
Flat base 14” wide blank rim

Setting the wheel center offset

Close up of welded spoke. Not bad for a non-pro!

Finished Rims ready for powder coat

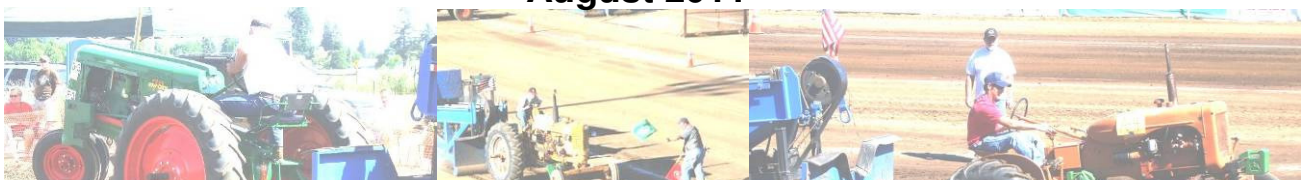
Rims after powder coating – silver metallic



The lightest weight wheel centers, ever? (cont)

The rims bolted onto the original hubs perfectly and really look great on the Massey 101. Since they are a neutral silver color, they can be used on other tractors if desired.

Tires mounted – the centers really stand out!



The lightest weight wheel centers, ever? (cont)

Interested in a set of these centers? Contact Pete directly (see below) for more information.

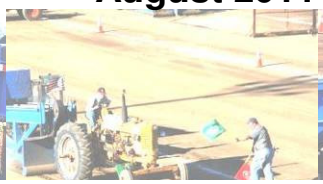
CAP Bros.

MotorSports, LLC

Light-weight rim center—23 lbs.
(on 9 bolt 38in)

Available in 6, 8 & 9 hole bolt pattern

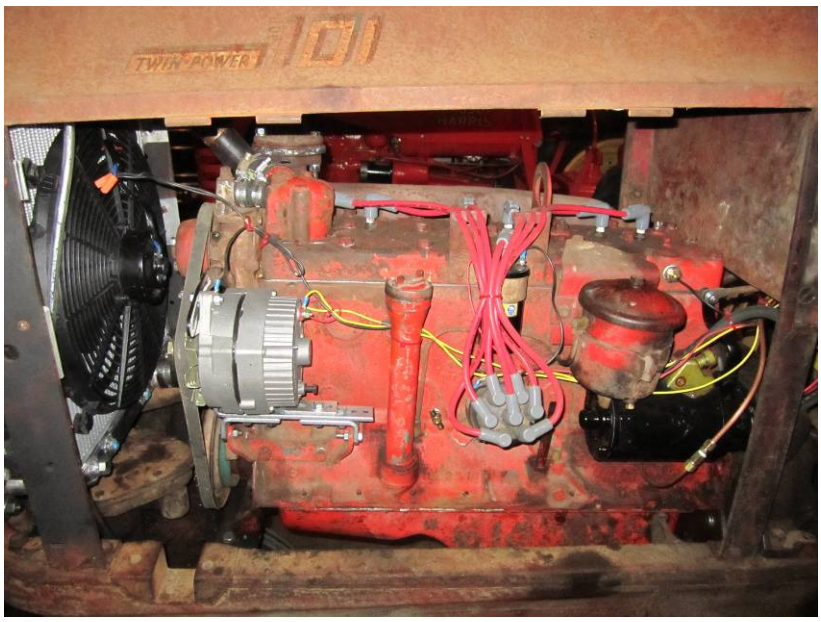
Pete Petznick
6010 Trott Road
Belton, MO 64012
816-308-8879
petep-rdc@sbcglobal.net

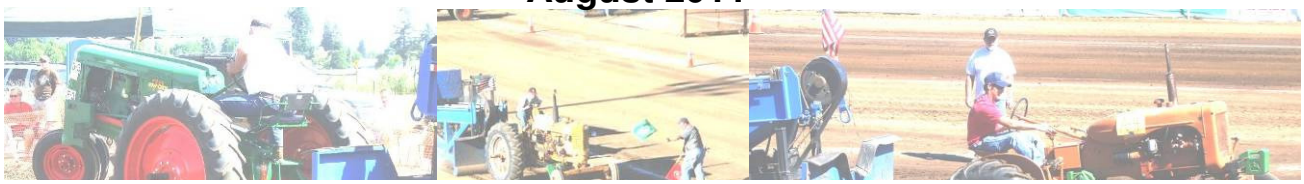

What a Drain – How to fix overtaxed an electrical system

For tractor pulling purposes, often times simple upgrades are made in the interest of efficiency, weight savings, or safety. One such upgrade that has been showcased in past newsletters is the electric radiator cooling fan. As radiators get bigger, so do the mounted fans. Recently, an upgraded 16" diameter 2500cfm fan was installed on the Massey 101 project. Normally, this would have been fine, but this fan draws about 11 amps while running. The original electrical system simply wasn't designed to handle this high of a continuous current draw. A typical 12V regulator is set for around an 8 amp max draw. This means that even with the fan running and the generator attempting to keep pace, the battery is continually being discharged. What's the solution? More amperage from a more modern device – the alternator. In the case of the Massey 101, a kit was installed using a GM Delco 10SI alternator, which is widely available. This alternator is good for about 63 amps max output, which is more than enough to keep the battery charged while the fan is operating. The alternator was set up in a **3 wire configuration**, which means there is a small harness with an exciter wire that ties into the ignition switch.

This allows the alternator to charge at the lower engine rpm that tractors operate at. The kit, bought via ebay, included a mounting bracket that fits the original generator mount. Normally, I like sticking with original equipment as much as possible but this was a necessary upgrade. Worried about load on the engine? Put a switch on the dash to disconnect the charge while hooked to the sled!



Massey 101 Chrysler engine with alternator

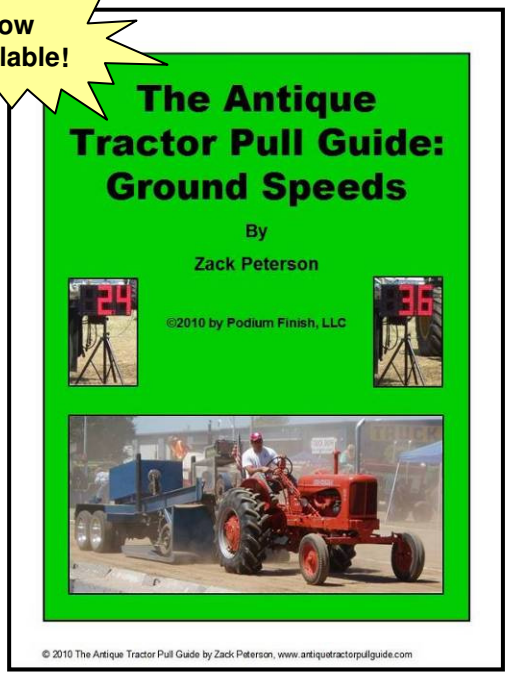


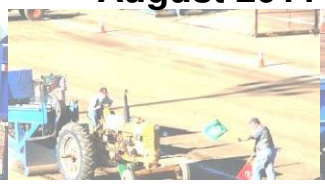
The Antique Tractor Pull Guide: Ground Speeds

What's inside:

- **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.**
- **How to 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!**

Now Available!




How to make the most out of any First Hook

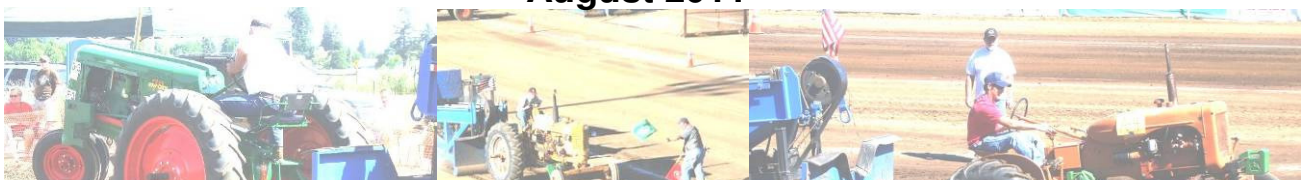
The Massey Harris Mustang and 101 Twin Power were taken to a recent tractor pull, the Banks BBQ in Banks, OR. For the Mustang, this would be the debut of the finished sheet metal and front weight bracket extension. For the 101 Twin Power this would be the first hook since the engine transplant. What's the best way to ensure a good hook when pulling a new configuration for the first time? The answer is to look backwards.

Of course some of this comes with experience, but if other tractors have pulled in similar conditions before, it's possible to apply that configuration to a new machine. Let's look at an example.

The Banks track is notorious for being really hard – it's on the infield of a clay sprint car track. With lots of clay in the soil and extremely dry conditions this time of year, the ground is almost like pulling on pavement. The first few classes always have to fight through the hard conditions until the track gets torn up a bit and improves. It's not uncommon in the lighter classes to leave black skid marks on top of the hardpan.

The Massey 101 was weighed in at 4000lbs. Since it had never been hooked before, the scale was used to judge the weight balance. I knew that on the hard Banks track I had run 35-38% of the weight on the front axle before. That translates into 1400-1500lbs on the front axle, which was checked as I drove onto the scale. I took no chances with a wheelie and put all available weight on the front weight bracket to get up to this loading. Why do this? It's easier to judge "too much weight up front" than not enough. There were 8 other tractors in the class which included some very tough competition in a Ford 901 and Allis WC. The MM ZA has contended successfully with these tractors before and that was used for the basis in weight balance for the Massey 101. Since the 101's first gear is faster than the ZA, a little more weight up front probably wouldn't be a bad idea.

So what were the results in this theory? A 3rd place finish, which was very satisfying after spending so much time on the 101. The weight balance was decent, but not perfect by any means. There was actually a little too much weight on the front end, causing it to bounce a little instead of an even float that transfers all of the weight.

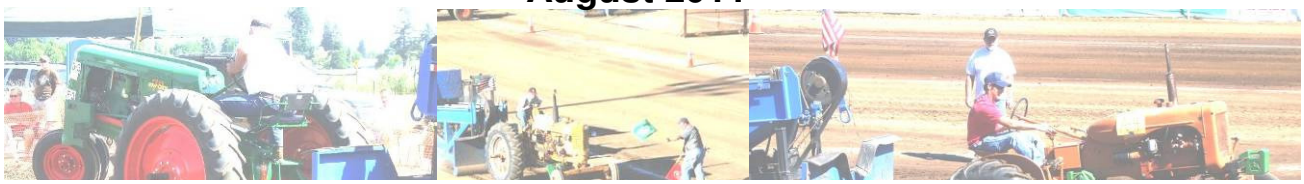


How to make the most out of any First Hook (cont)

The wheels spun out, leaving black marks on the hard ground. A hook like that tells a lot though and provides a good baseline for future pulls. The tractor had very good power in 1st gear, even in the lower rpm range. It should handle 2nd gear well too but that's a discussion for another day…

The Mustang, in the lighter 3000lb class had one of the wildest rides ever. Near the end of the hook the front end came up and the rear wheels developed a power hop. The tractor veered off to the left as I feathered the right brake to keep it in bounds. It bucked all over the place and I was thinking that I might earn a buckle by the time I got off that ride! It bucked/spun out about a foot behind a Ferguson TO-30. The Mustang ended up in 2nd place, which is a respectable finish at this pull. At the Banks Tractor Pull, the show is so large with the lawnmower pulls, tractor pull, truck pull, tug o' war, modified pulls and combine demolition derby that only one hook per tractor is allowed. With only one hook, you have no choice but to make it a good one.

Tractors lined up at Banks

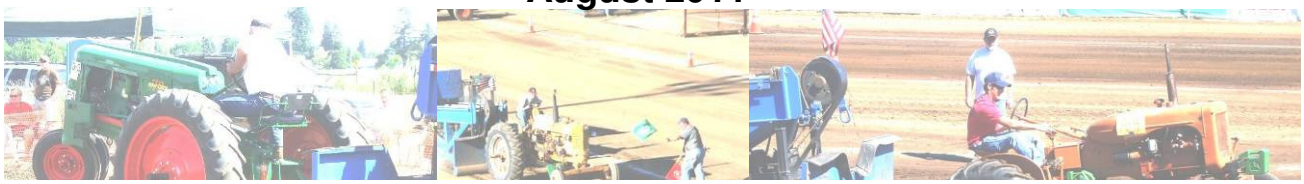


How to make the most out of any First Hook (cont)

Massey 101 and Mustang waiting to get it on

Track view from the Mustang's seat

Guy in the blue shirt studies the 101's wheels

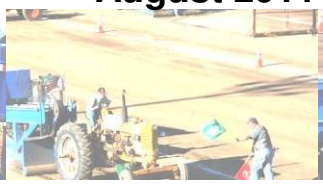


How to make the most out of any First Hook (cont)

The Massey Harris Mustang's marks, notice the dramatic left turn. This photo was taken right after pulling forward from the sled. Always study marks left in the track!!!

All things considered, I was very pleased with the performance and results of this pull. Both tractors ran perfectly and pulled very well. It goes to show again that hard work, paying close attention to details, and willingness to learn and adjust can yield good results – just like life in general.

The Massey 101 Twin Power and 3rd place trophy


One more Hitch Design

Massey 101 hitch main fabrication ~23lbs

Notice D-ring reinforcement underneath. Hitch fixed at 18" length and adjustable up and down via category 0 top links. Top links attach below the centerline of rear axle. Material used – 3" x ½" steel main beams, 2-½" box tube cross bar, ¼" thk, and a 3" D-ring.

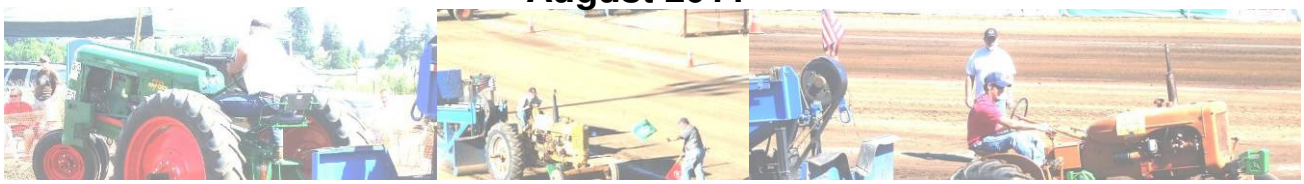
Fiberglass MM 5 Star Grille Cross

MM & Farmall Fiberglass Parts

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 Fenders



Massey Harris 101 Twin Power Profile

Massey Harris 101 Twin Power

Year Manufactured: 1938

Engine: Chrysler Industrial Flathead Six Cylinder

Bore & Stroke: 3.438” x 4.75”

Displacement: 265 Cubic Inches

Horsepower: ~60hp @1900rpm, 70+hp @ 2500rpm

Weight: 3500lbs without weights or driver

Rear Tires: 15.5-38 Firestone Field & Road 151

Front Tires: 5.00-15

Transmission Speeds: 4

To see video and hear this tractor run, visit www.antiquetractorpullguide.com and click the Video link.

Podium Newsletter

August 2011

Coming next month…

- Track conditions
- Let's drive!
- Puller Spotlight
- And more…

September issue will be available 9/21/11

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.

Mt. Hood in the Oregon Cascade Mountain Range in the summertime. One unique thing about this mountain is a year-round ski season. It's good to escape from things from time to time and relax a bit.