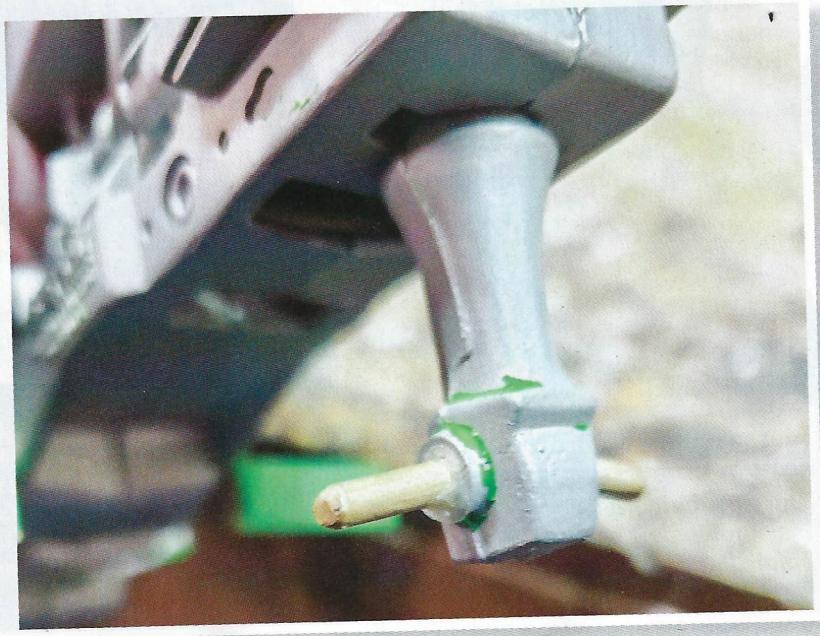
The casting is stripped and the casting seam cleaned and ready for filler.



The narrow front axle with the original wheel stem removed and replaced with 1/8-inch brass rod for mounting the new front wheels.

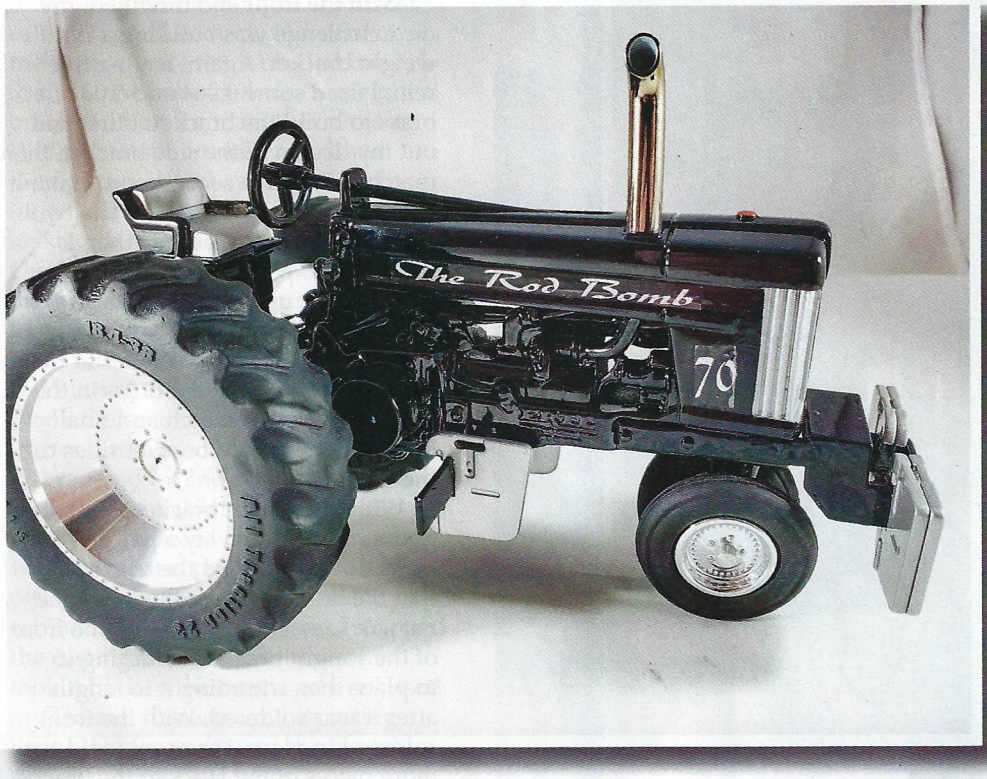
Customizing a Puller Tractor

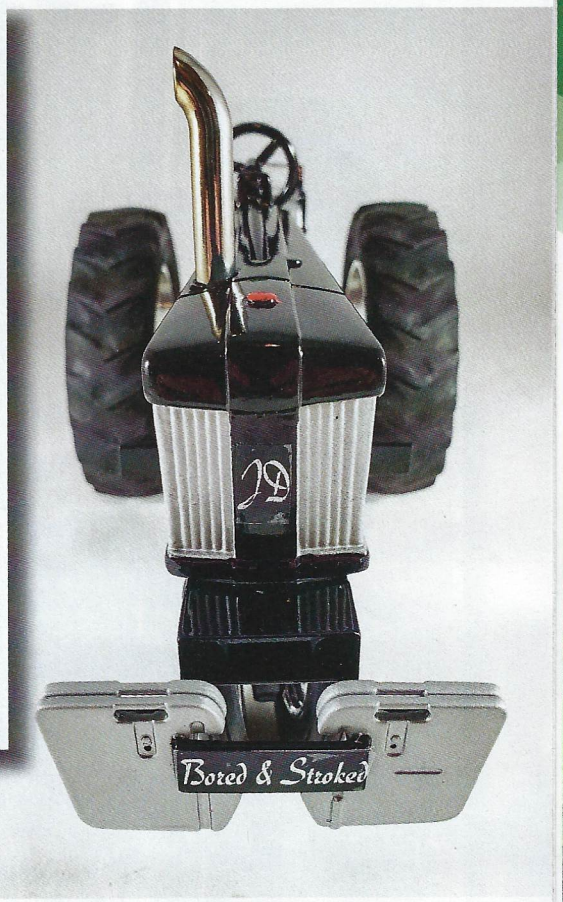
Welcome back, everyone! This month, I had to do some serious thinking about what to write my column about. My time frame for building has gotten quite limited, with the added success of our parts business, and the responses from my readers is that you like my columns to have a story included. On top of that, I have been hearing you want me to focus on some of the older shelf model tractors Ertl produced.

This criteria got me to focus on a 1990s-era John Deere 70 that a buddy of mine gave me years ago that had originally been his son's. He wanted me to restore the tractor back to original condition. The front tires were missing and it had the typical wear-and-tear a play toy has, including the paint being badly chipped. But all-in-all, it was a good casting.

After he handed it to me, I told him it was a waste of my time and his money, because the tractor had no value. If he just wanted it restored, I would go to eBay and purchase a new-in-the-box model and tell him it was his son's tractor and save us both the aggravation. As you can expect, he did not like that idea at all. We talked about having his son work with me and use the tractor as an opportunity for his son to learn some hands-on customizing skills. But his son by now was a teenager with great intentions, but teenagers have lots of other things on their minds and the 70 found a home on the shelf. For years, it sat there collecting dust. Then the shingles on my roof took some wind damage and I needed some help from my buddy. That brings us here.

So, after repairing my roof, my buddy and I talked about that tractor again. I mentioned making a little antique puller out of it and he agreed. He also gave me free rein on building it, which could be quite dangerous!





Having free rein did give me a little bit of a challenge. I wanted to build something unique and unexpected, but I also wanted to build something that was tasteful. With this plan, I started to round up parts. The first parts I gathered were the front rims and tires. I had some chrome-plated 3-D printed front rims made for me awhile back, and everyone knows a flashy antique puller should have chrome rims up front. With those chrome rims, I had some old stock Slik brand tires from the 1960-1970 era Olivers it produced, which I made these rims to go with.

I grabbed the tireless front rims and gave them a good pull, removing them and leaving the stock front axle stem sticking out. My front rims have a 1/8-inch diameter hole for mounting and the narrow front axle of the 70 was going to need some modifications for these new rims to work. First, I used my grinder to slowly grind down the stem, every so often checking the wheel width stance by placing the replacement wheel up against the ground-off stem until I had the wheels set at the width I wanted. I made sure I kept the stem trimming square with the original angle of the stem, so when I installed the new wheels, they would have the same angled stance.

With the front end modified, my next challenge was building a front weight bracket. Again, having free rein, I used some 0.064 and 0.032 flat brass to build the bracket. I first laid out my design of the side bracket, then matched it with a second one, making two identical brackets. With the two side brackets soldered together, I used my caliper and marked out a bolt pattern, using casting marks on the frame as a reference to start, then drilling and tapping the holes in the frame while drilling the holes in the weight bracket to match and finally bolting both weight bracket sides to the tractor.

With the weight bracket side bolted to the frame, I then lay a piece of flat brass down and held the tractor so that the brackets paired up with the flat stock, essentially making the front of the weight bracket, soldering it in place then trimming it to length after it was soldered. With the front soldered in place, I then soldered two more pieces of flat stock to the bracket, mainly just for decorative purposes to give the bracket a nice clean look.

Once I had the stem ground to the length I wanted (about 1/16 inch from flush), I marked the center of the stem and proceeded to drill a 1/8-inch hole into the remaining stem and into the center of the narrow front axle approximately ¼-inch deep.

In this hole, I placed a 1/8 brass rod and gave the rim a test fit to make sure things were correct. Satisfied with how the wheel was fitting, I then cut the brass rod off about 1/8 inch longer than the rim width with the axle installed, and then applied some glue to the axle end. I reinstalled the rod into the narrow front end and repeated that on the opposite side. I left the rod 1/8 inch longer, because I could then use one of our 1/8 axle caps to hold the wheel onto the tractor.

At this point, I thought about just calling it good enough and painting the tractor, but I felt it needed more. I found some brass belly/side weight brackets I had from another project. With some minor tweaking, I had them fitting the 70, making it just a little nicer. But now I thought I really needed to make this tractor nice. One problem those 1990s-era tractors had was the casting seams down the middle of the tractor and those big holes where the rivets were.

Wanting to take it to that next level, I took the casting down to the base tractor. I removed the seat, which was just pressed in, and I had it out with the help of a flat screwdriver. I also removed the rear wheels, cutting the wheel rivet and popping those wheels off. I took the tractor to my blast cabinet. Using 240-grit glass, I stripped the casting to the bare aluminum. I took it back to the bench, where I used my Dremel to clean up the parting lines all the way around the tractor, plus grind the rivet holes.

With the seams cleaned up, I used some auto body filler to fill all the seams and rivet holes and sanded them smooth. After the filler was sanded smooth, I sprayed some fill primer to the casting. After 24 hours, I sanded that smooth with 240 grit then finally 600 grit, giving the tractor a nice smooth surface.

Now, here is where things could have gone wrong. It is time to paint. What do I do? If I paint the tractor standard green with a yellow seat, it will be nice, but it won't make that bold statement. Here is where I went for the hero or zero moment and decided to paint the tractor black.

With the front chrome rims, I could install our polished aluminum rear rims, paint the grilles, weights and seat silver, along with some chrome decals, and have a nice chrome exhaust pipe. So, I was all in. I painted the tractor black with the silver and figured if worse comes to worse, I would keep the tractor and figure something else out. But I did have free rein…

After the tractor and weights got their christening of paint, I then contacted my local sign shop for some chrome decals. Since the owner's name was Rod Zweibohmer (Rod Bomb), I thought what better name for a pulling tractor could there be than "The Rod Bomb." This would also personalize it to him as well. After I had the tractor assembled, we invited Rod and his wife to supper for the unveil. The only thing I had told Rob is that the tractor had "bling." I asked him what he thought I did and he said it better be green! OOPS! But after seeing the tractor, he said not only did he like the tractor, but he loved it! In the game of hero or zero, the hero gets a point!

Until next time, thanks for reading and check out www.chuckysprecisionspullersandparts.com for the parts used on this build and many others, as well as past "Down to Details" columns. *TF*

Living just northwest of Dyersville, Iowa, in the heart of farm country and farm toy replica country, Chuck Steffens has found a niche in the toy world, building high-detailed replicas in his spare time. He shares his experiences with Toy Farmer *readers, hoping to lead other collectors to personalize one of their own tractors. Comments or suggestions can be directed to csteffens@wildblue.net.*