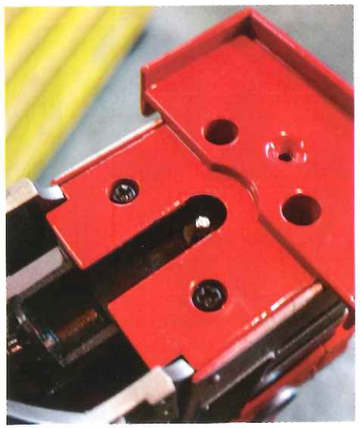
Lessons Learned in Custom Project



Wide front removed from the 1100 and ready for the narrow front to be installed.

The 656 narrow front modified to fit the 1100.

The original 1100 rim with the diameter trimmed and 7.50 tri-rib tire modified to match.

To start this story, I have to say that the excitement of this project was popped soon after I finished the build. You'll learn why, but, for now, keep reading.

As I have stated before, these SpecCast tractors being produced lately are some nice-bang-for-your-buck tractors. The level of detail compared to the price gives a person a nice addition to a collection. Since SpecCast produced the 1150, 1130 and finally the 1100 with wide fronts, I thought it would be a nice "Down to Details" project to convert one of those 1100s to a narrow front. My excitement about the project was popped when I heard SpecCast was going to produce a narrow-front model of the 1100.

Some of the excitement returned when I got to see the prototype of the narrow-front 1100 at the Summer Farm Toy Show in Dyersville, Iowa, and it was an 1100 gas. So, I guess having an 1100 NF diesel can still be a neat build.

To start the project, I needed a new-in-the-box MF 1100. It just so happened that a friend who is a dealer found a model that had been damaged in the box. It looked like the tractor was dropped upside down while in the box, which knocked the tractor completely out of place. The muffler was also broken in two and was randomly floating around inside of the packaging.

I bought the tractor and took it home to find out what I got. Was it junk? Was there more damage than met the eye? After a good visual inspection, it appeared that the only damage was the broken muffler, which was going to be a simple fix. The muffler had been produced in two pieces, and had just come apart at the glued seam. With a little glue on the joint, the top half was placed back on the bottom half and I had a perfectly good MF 1100, which made me HAP-HAP-HAPPY!

The last item I needed was the narrow front to install on the tractor. After rummaging through the "Chuckville Salvage Yard," I came across an Ertl 656 that fell onto some hard times, but had a good front end. Now it was time to get this project started!

First, I removed the narrow front from the 656. I could tell this long story about how I completely disassembled the tractor and took the narrow front out the proper way, but I would be lying. This tractor had fallen on hard times already, so I just took the carnage that was left to the band saw until I had a narrow front in my hand! With the narrow front removed, it was obvious it was going to need to be highly modified to make it work on the Massey.

Now that the NF was removed, the next task was to get the 1100 ready for the conversion. First, I needed to remove the wide front from the tractor. Flip the tractor over and you will see three screws in the red weight bracket/front axle assembly area. With a Phillips screwdriver, remove these three screws, but do not lose them! You need them later. With the three screws removed, gently pull down on the weight bracket assembly. You will see that the steering arm is press fitted onto the steering shaft of the tractor. With a flat-tipped screwdriver, carefully apply some pressure to the steering arm. If all goes right, it should come free from the tractor and the wide front will be off.

Now, you will see two screws holding the wide-front assembly to the weight bracket. With your Phillips, remove those two screws and the axle assembly will be off. Reinstall the weight bracket under the tractor with those three screws I told you not to lose and we will be one step closer to the finished project.

The next step in the project is figuring out how to mount the narrow front. With the weight bracket back under the tractor, I could see that the tractor's steering shaft stuck down about one-quarter of an inch from any obstacles and was almost flush with the weight bracket assembly. There was a little more than a quarter-inch-wide area open to install the narrow front into.

Next, I grabbed the 656 narrow front to see how the fit would be. It was not going to work. The 656 narrow front was built as a play toy, so it was much thicker on the steering portion and the front end was much longer. It was mounted inside of the tractor, which is different than how it needed to be for mounting under the 1100. The part of the narrow front that would be visible looked like it would be a nice match to the 1100, so it was just a matter of making it fit.

To make the narrow front fit under the 1100, I needed to shorten the length of the assembly. Starting with an educated guess, I cut off the excess top portion of the assembly. Next, I had to trim the diameter of the narrow front assembly to fit into the quarter-inch gap on the 1100. Using my 2-inch angle die grinder, I started spinning and grinding until I had it small enough to fit into the slot. With the diameter correct, it was now time to drill a hole into the center of the narrow front so it would tightly fit over the tractor's steering shaft. To get the right size of hole drilled, I used my caliper and first measured the size of the tractor's steering shaft, which came out to be 0.085. Using a 0.085 drill bit, I carefully drilled the center of the narrow front assembly, prepping it for a test fit.

Now that the narrow front has been modified to fit under the 1100 and the initial test fit looked good, it was time to do something about the front tires on the narrow front. The part's front end I used didn't have any wheels on it when I salvaged it, but it did still have the screws used to hold the tires on. I looked through the "Chuckville Salvage Yard" and didn't find anything to my liking. I wanted to use the rims that were on the wide front, but I didn't like those tall "ugly" tires. I thought I would give it a try, but they looked horrible. They were just too tall. The rims looked good, but the combo just didn't fit together right. I also liked the idea of not having to paint those two-tone rims. After doing a little thinking, I grabbed a set of 7.50x16 tri-rib tires I had on the shelf. Could I get these tires to fit on those rims?

The only way I was going to know was to try. First, I needed to remove the wheels from the wide front axle. To do that, the gray center cap will pop out, exposing a screw that will need to come out. With the screw removed, I then removed the tire from the rim and saw a bead around the center of the rim. Well those 7.50s had a bead as well, but just opposite of the rim. Now what. I took the rims out to my sander and ground off the rib, then carefully used my Dremel with a sanding wheel to remove the inner bead on the tire. After both the rim and tire were "debeaded," it was time for the test fit and it was going to work!

With the front rim and tire situation taken care of, I needed to mount the rim to the narrow front. The narrow front was equipped with studs that were tapped for screws—that I had!—and the MF wheels were mounted the same way on the wide front axle, but with a smaller stud. It made it an easy fix. I just measured the diameter of the stud on the narrow front and drilled the rims to match! I used the original screws used on the narrow front, but had to trim the diameter of the washer on the screw a little to make them fit. And we are getting close!

With the front tires installed on the narrow front, it was time for a test fit. So I pressed the narrow front onto the steering shaft of the 1100 for a visual check. NO! The narrow front was too short! The tires were rubbing on the base of the tractor and it was heading downhill! My initial guess was wrong. I had cut off the top of the narrow front too short. I tried pulling it down off of the steering shaft to get the correct height, but then there was not enough bond between the shaft and the narrow front to make a secure fit. AARRRGGGG! I guess you can mark this down as a lesson learned. Luckily, I had a second 656 narrow front available that I was able to modify, but this time I left it long enough to make the narrow front have a proper fit.

With my pride a little damaged, it was off to paint and final assembly. Yes, I made a mistake and it cost me an additional front end, but still it turned out to be a nice tractor. Hopefully, I will have another project on which to use that short narrow front, but mainly it was just a little pride lost and lesson learned.

Tool of the month

This month, I am going to focus on my band saw. Many years ago, I bought a Craftsman 9-inch bench-top band saw for $99. Most of you know that those Craftsman or most of the inexpensive band saws do not have a blade that is capable of sawing metal—even the softest of metals like brass or aluminum—but are designed for wood.

When I purchased the saw, I had a buddy who was able to build blades for my saw. He built me the 62-inch blade that the saw required, but as a wider half-inch-wide 14-tooth blade. This worked for a while, but I ended up having a few broken blades.

This led me to the ol' World Wide Web. With a little searching, I found a company called American Bandsaw which would make custom blades to whatever liking I wanted. It had a guide for tooth count and metal. I

Completed narrow front 1100.

My $99 Craftsman band saw that I could not live without.

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.*

was able to choose a 14-tooth, 0.020 rake blade, half-inch wide, with a 62-inch length for around $15 per blade, which I thought was a steal since it made my $99 wood hobbyist band saw a perfect match for my aluminum/brass hobby.

The only real problems I have had is occasionally I will break a drive belt, but I have found the Sears parts department to be very helpful in getting belts. If I remember right, the belts were $8 each, but $20 shipping and handling no matter how many belts you order, so I order a few at a time. Even with maybe one belt a year breaking, I find having a saw like this invaluable.

I did have a weak moment and bought a much larger Jet brand saw, which was supposed to be top of the line, but guess which saw gets used more! The old Craftsman! I have cut 1-inch-thick aluminum on many occasions. *TF*