



The new-in-the-box Ford 8000.

detailing a **FORD 8000**

Welcome back to this month's segment of "Down to Details." This month, I will take myself out of my comfort zone. Recently, Scale Models produced a special run of 1/16 scale Ford 8000 tractors with a wide front axle, three-point hitch and fenders that I just thought needed some extra detail.

The Ford 8000 was one of those classic muscle tractors produced from 1968 until 1972. But there were few in east central Iowa, and my knowledge of the tractors was minimal. I knew they were blue, but I never had any firsthand experience with them. But it was a true icon of a muscle tractor, as Ford's first tractor in the 100-horsepower world.

The Scale Models 8000 needed more detail, and I knew I had a little challenge in front of me. First, there are no parts available for those 1/16 scale Fords, so I was going to have to produce the parts. I had already been working on producing rear rims for this series of tractor and the fronts are kind of a generic six-bolt design. Also, the exhaust pipe was a straight pipe, with the muffler under the hood, and the precleaner was a common Donaldson design, with the glass bowl and no screen, which I have also been producing. But one of the most prevalent features of the tractor is the steps, which I did not produce.

I'm sure most *Toy Farmer* readers have seen the ever-increasing popularity of 3-D printing and I have been involved with prototypes and custom part options for a few years. But the majority of the 3-D designs I have had done have been by three top-quality designers who really know what they are doing. I decided this Ford would give me a little more experience in this world. With a few photos from the internet and with this Scale Model 8000, I was able to draw a set of steps and send the design to be printed.

I also wanted to add a side console to the 8000. Again, I went online and printed out photos of Ford tractor platforms with the best console images I could find. With no dimensions to use, I used dimensions from the Model 8000 and drew a rough sketch of what I think the side profile of the console should look like. After I get a design I like, I cut a pattern from cardboard to test fit it next to the fender of the tractor. After a few minor adjustments, I was able to get a design I liked that fit the tractor. With this design, I use those dimensions plus the width between the seat and the fender of the tractor to draw a 3-D render of the console, with slots for the levers and levers to put in those slots.

When my 3-D printed steps, console and levers arrived, I could not wait to

test fit the parts together and see if I successfully made some detailed parts for these Fords.

I first fit the steps under the platform of the 8000 and see that I will have to trim one edge a small amount for a perfect fit. With my Dremel, I have those completed in about 30 seconds. With the help of a few 0-80 bolts, I have the steps bolted to the tractor and I am HAPPY!

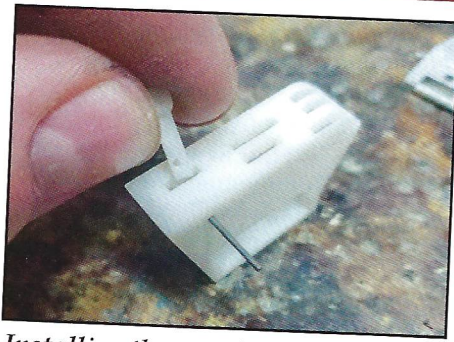
I next test fit the side console next to the seat on the platform and it looks great, too! So I test fit the levers into the console and they fit great as well. So I proceed to drill the levers to match the holes I had in the console. I can see I am going to need to modify both the lever and console files to make this process easier, but at least I have the parts so I can see the modifications I need to do. With the levers installed in the console, I again slide it in-between the seat and the fender for one last test fit and I am very happy.

The next area is installing the new rear rims and tires, but I first need to remove the old ones. With the help of my Dremel, I remove the axle cap and both wheels are off and replaced with a set of the correct Ford rims we now offer and a set of or 18.4x38 tires.

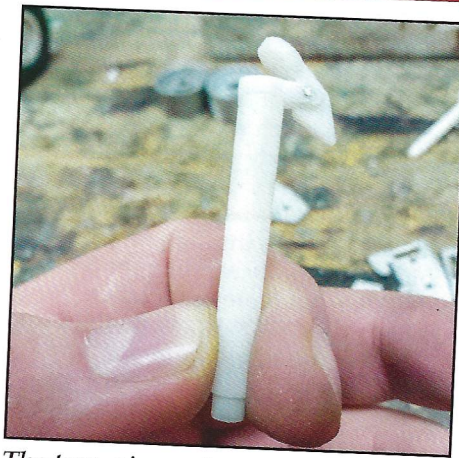
Next, I head to the front of the tractor to update the front rims and tires. The factory-installed fronts are held in place with a rivet. With my Dremel, I have the mushroomed end of the rivet cut off and the front wheels removed.



The parts used to customize the 8000.



Installing the metal pin that holds the levers in place on the side console.



The two-piece exhaust pipe assembled.

The next item is tackling the steering wheel. I decided to use one of our steering wheels through the website. With this decision, I use my Dremel to grind off the mushroomed head of the steering shaft and with a little tug, the steering wheel is off. Next, I measure the steering shaft and drill the steering wheel to 1/8 inch to match. I install the steering wheel on the tractor, but I soon see that the steering wheels sits too far back, so I remove the steering wheel again and trim about 1/4 of an inch off the length of the steering shaft and reinstall the steering wheel and I am much happier now.

For the replacements of the front wheels, I use a set of our front rims and a set of 11L16 tri-rib tires. But our rims have a 3/16 mounting hole and the 8000 used a 1/8-inch rivet. I solved this problem with a bushing we offer to step the 3/16 down to 1/8, so a rivet can be again used to hold the tire to the front axle. To make this setup work, I first have to drill the bushing out a little. I designed the bushing to be a tight fit on a 1/8 rivet, but in this case, I want the bushing to fit loosely so it spins freely. I glue the bushing into the rim and use it as a distance spacer as well as a diameter spacer. Having a loose fit between the rivet and the bushing means that when it comes time to complete final assembly, I can install the rivet into the bushing and then glue the rivet into the tractor and the tire will still roll free. I won't have to mushroom over the rivet end, but instead I can cut it flush with the backside of the steering knee and paint the end of the rivet, giving the tractor a cleaner look.

The tractor is now back on four wheels and the details are looking good, but I am not done yet. The 8000 had a factory straight pipe with a rain cap from the factory, so this gave me a great opportunity to try out a trick. Chucky's Precisions, Pullers and Parts offers a few different mufflers. With those mufflers, we offer extension pipes with and without rain caps. But I wanted to make these extension pipes fit together, essentially making a straight exhaust pipe with a rain cap. I just simply applied some super glue to the joint and put the two halves together using a little extra glue so the joint had a little extra glue seep out and could be sanded smooth, eliminating the joint after paint.

With the straight pipe built, I remove the rod that Scale Models used as an exhaust pipe. I then drill the hole to 0.200 to match my next exhaust pipe, and an updated straight pipe with a rain cap is installed.

In front of the exhaust pipe, Scale Models installed a generic precleaner, which was not correct for the tractor and I planned to fix this problem. Once again, the old precleaner needs to be removed before the new one can be installed. Unlike the exhaust pipe, I was able to pull it out of the hood with just my hand. I then drill the hood to match the diameter of the precleaner stem and install it into the hole, only to see that the precleaner is too tall for my taste, so I remove it from the hood and cut 3/8 of an inch off the stem and reinstall it.

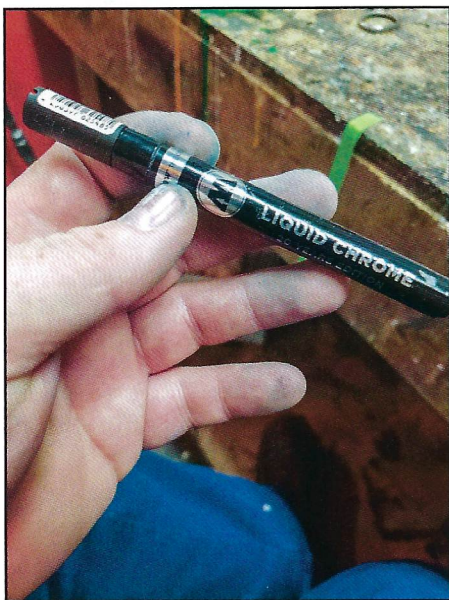
Onto the next detail. We have offered Ford suitcase weights through the website for some time, but I have never used them myself. After some research, I see that the 8000s used a simple steel weight bracket. I measure the weight and see that a piece with the width of 0.375 should be close. Standard brass thickness is 0.032, so using my caliper I measure the tractor width and how far the bracket goes back from the frame rails, then cut a piece of flat stock 0.032 brass 0.375 wide. I score a few lines on it, which I match with the jaws of my Dremel vise to make the bends. I then fit it to the front of the tractor with a few weights installed on the bracket for the correct fit, then drill both the bracket and the tractor and installed four 0-80 bolts. The tractor now has a full set of front weights.



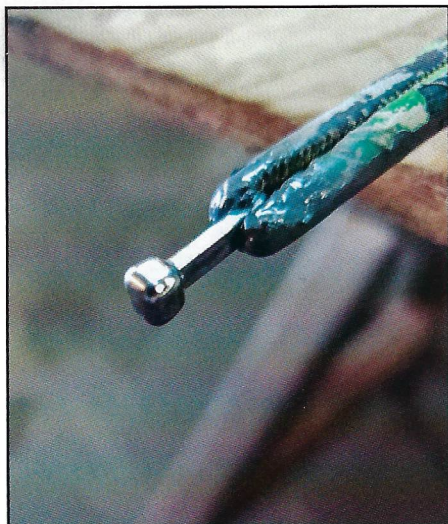
The wheel bushing installed on a 1/8-inch rivet.



Pre-assembly completed before paint.



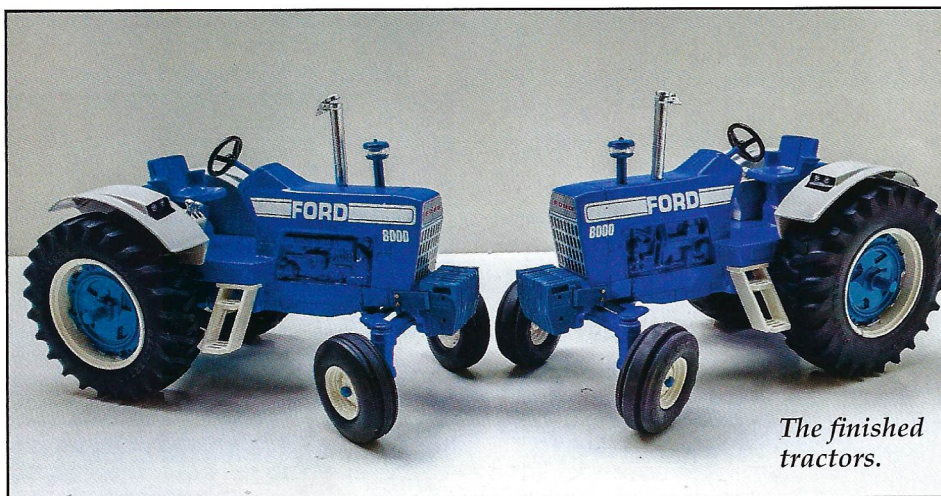
The Liquid Chrome paint stick.



One of the console levers with the Liquid Chrome applied.

The parts are off to paint. I have a second tractor and a second set of parts to build that tractor. It really doesn't take much more effort to paint parts for two tractors rather than one, so I assemble the second tractor. I prep all of the parts for paint, running all of the metal parts through my blast cabinet and lightly sanding the 3-D parts. With parts prepped, I then applied adhesive promoter to the 3-D parts, like I do to all plastic parts I paint, then apply epoxy primer to all of the parts, followed by blue and white base coat paints.

With the Ford 8000 tractor, the levers are aluminum and I thought I would try a new product. I had a customer tell me about a chrome paint pen, Liquid Chrome, that he had shipped to me. Having this pen, I thought it would be a perfect opportunity to test it. It worked great on the levers, but I thought I would also try it on the exhaust pipe. I could not apply the paint fast enough, but it still produced a fairly nice finish. If I could find this color for airbrush application, I think it would work better. He also warned me it scratches easily, so I applied clear coat paint to these parts, just like the blue and white parts.



The finished tractors.

With the paint complete, I assembled both tractors with the same options of tires. A fellow builder wondered if the 20.8x38 tires would fit the tractor, so I test fit a set and they fit, but if I built the tractor with 20.8x38 rears, I would have moved the steps ahead for a little more clearance.

I noticed with the 20.8x38 rear tires mounted on the 8000, the tractor set a lot more level with the 11Lx16s on the front, which made me grab a set of 10.00x16s and install them on the front of the first tractor that had the 18.4x38's on the rear, leveling that tractor and making two tractors that both looked better.

As always, thanks for your time and I hope you learned a trick or two with this build and can utilize it into a build of yours. I will have those 3-D files updated and the parts for this build and many more as well as past columns available through Chucky's Precisions, Pullers and Parts.

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A photo showing the side console installed

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.