

Kim winning the SpecCast Oliver 1650 at the Summer Toy Show in Dyersville, Iowa, with her LEGO Versatile.

Daughter Customizes a SpecCast Oliver 1650

Hello again and welcome back to my bimonthly column about personalizing your collectible toy model.

This month's column will be a little different than those of the past since I'm not building the tractor. Well, I did provide a little help here and there.

To get started, I have to take you back to the summer farm toy show held in Dyersville, Iowa, the first full weekend in June. For the last few years, there has been a custom/scratch build contest held in the cafeteria of Beckman High School to help put a spotlight on some of the talent in our hobby, both young and old.

One of the classes provided is for those 14 years old and younger, so I was able to convince my 10-year-old daughter, Kim, to enter her LEGO Versatile four-wheel-drive tractor and give her a chance to represent it. As luck would have it, she was able to win a 1/16 scale model SpecCast Oliver 1650 tractor. After the show was over and we got home, I asked her what she wanted to do with the tractor. She told me she wanted to customize it, so I thought this would be a great opportunity to give her a little experience using her hands and imagination to create a tractor that would be "hers."

With the tractor on the bench, I asked her what she wanted to do to the tractor and she told me she wanted to change the wheels out with a set of more realistic wheels. So, we needed to remove those original wheels, which can provide a little challenge. Dad needed to provide a little arm strength, along with tools, to get those rear wheels off the tractor.

Once the rear wheels of the tractor were removed, I had Kim grab a set of our 38-inch Oliver rear rims, along with a set of our 16.9x38 tires to use as a quick test fit and they appeared to be a nice match for the tractor. With the rims selected, I had her figure the first

modification problem with the 1650. The SpecCast tractor used a 1/8-inch axle and my rims are set up for 3/16 inch, so I showed her she was going to have to drill the axle housing of the tractor out to 3/16 inch so a new axle could be fitted into the tractor. That gave us another opportunity to learn how to use a caliper and measure the hole diameters as well as drill bits to get the correct sizes.

With the correct drill bit measured, Kim then installed the bit into one of the cordless drills I had and tried her best to drill the holes as straight as possible. There were a few times I had to stop her and straighten the drill, but she was able to get the drill through both axle housings of the tractor with a straight hole that a new axle could slip through without resistance.

Having the new axle hole drilled, I then had Kim take a piece of 3/16-inch steel rod that was roughly 3 feet long and slip it into the tractor with the rod sticking out an inch or two on one side. She then slid one of the rims over the axle. With the rim installed on one side, I then had her set the correct axle length for that side and had her mark a rough length mark for the second



Right: Kim learning how to use a dial caliper to measure the axle shaft diameter.



The 1650 out of the box.

side then take the axle back out. Here, I used the cutoff wheel to rough-cut the axle. With the rough-cut axle, I had her reinstall the axle and both rims this time and mark the axle for a correct length, which I again helped her cut to the correct length.

The next job was to tackle the front wheels. The SpecCast tractors use a plastic hub cap on the front rims that covers a mushroomed axle that needs to be drilled. Kim had to remove that green center cap, but she was running into a few issues, mainly not being aggressive enough so she asked Dad to help again. Once the center caps were removed, I then helped her a little more by drilling the "mushroom head" off of the axle and the front wheels were off.

With the front wheels removed, I asked her which wheels she wanted to install and she came up with using the 9.50x15 rim tire combo.

The next thing was figuring out how to mount them. The axle stub on the SpecCast tractors I have built have been 1/8 inch and my rims have 3/16-inch holes. SpecCast uses a bushing in the rims that is a perfect fit to my rims and gives them the correct fit and offset. So, I had Kim remove the bushing from the SpecCast rims and install them in the new rim. With the

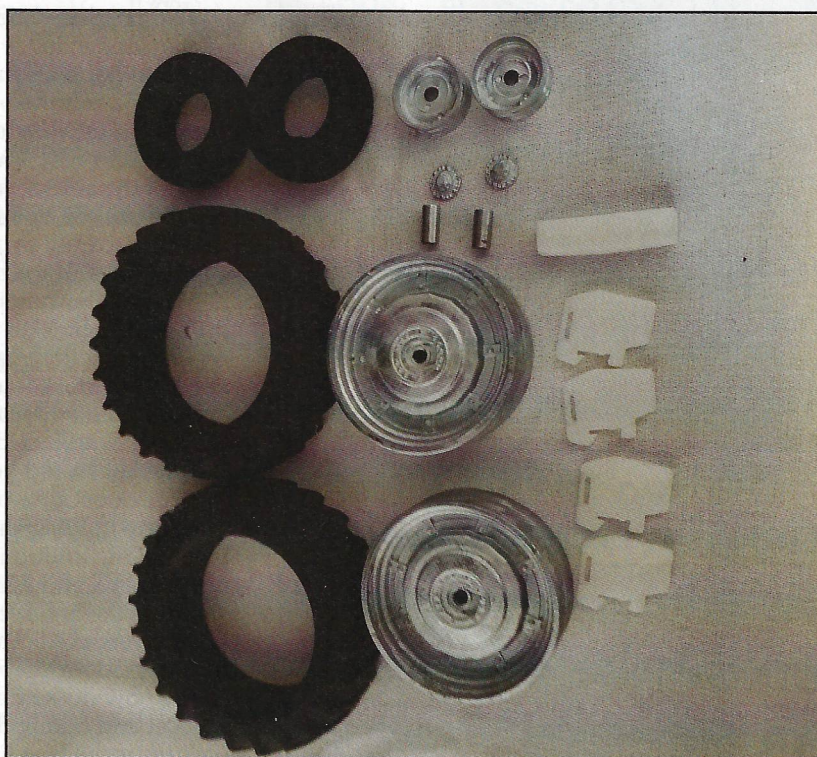
test fit, it looks good!

To permanently mount the rims to the tractor, I give Kim a little more help again and drill the 1/8-inch axle stub, followed by tapping it for a 0-80 bolt. With this completed, Kim installed the rims and installed the 0-80 bolts and the tractor is now back on all four.

Having the tractor back on all four, Kim was getting anxious to paint, but I wanted her to learn a few more things, so I suggested we install a front weight bracket and a few weights. I sent her to find one of our White/M-M/Oliver weight brackets and some weights and our test fitting began.

First, I had Kim fit the bracket up against the front of the tractor to see how and if it would fit and things looked good. I now needed to have her mount the bracket to the tractor.

To mount the bracket to the tractor I had her use the caliper to measure the width of the bracket and divide that by two so we could find the center of the bracket. With the center distance found, I had her scribe a line on the matting surface of the bracket as a guideline. Next, I had her divide that distance by two and scribe two lines at this distance from the edge of the bracket. With these two lines scribed, I had her measure the height of the bracket and again divide it by two and scribe a line that now gives us some location points. Having these location points marked, I had her measure the width of the tractor frame and again divide by two and add a scribe line. Now, I had her go back to the last measurement we had for the bracket and scribe a line that distance from the center of the frame to match with the



The parts used to customize the SpecCast 1650 available through <https://www.chuckysprecisionpullersandparts.com>.



The completed Oliver 1650

bracket. With these lines completed, she then found the vertical centerline and marked these locations.

With all these lines, Kim drilled the four holes needed with the 0.052 drill bit. I had her then run the 0-80 tap into the tractor, followed by running a bolt with a nut into the hole. With the bolt spun in part way, I had her cut the head of the bolt off and then spin the nut down tight to the tractor, holding the bolt securely in place and leaving about 1/4 inch of the bolt sticking out.

With the bolts installed, I had Kim drill out the bracket with a 0.060 drill so it would slide over the 0-80 bolts to hold the bracket in place. Once she had these holes drilled, she test fitted the bracket and we quickly noticed the bracket would not fit tight against the tractor because of those 0-80 nuts that were holding the bolts tight in the tractor. Our solution was to use a 1/8-inch drill bit and drill a small counter sink into the bracket. With another test fit, we were gold! The bracket is now fitting good for prepaint purposes, so she now fits some weights on the bracket and finally decides three weights is the best fit.

It is time for Kim to get parts ready for paint, so I have her disassemble the parts from the tractor again and take them out to be glass bead blasted to roughen and clean the surfaces for paint. After the parts are blasted, I have her apply some body filler into a few of the casting flaws, followed by sanding them smooth and we are off to paint.

I was lucky enough I had the correct "white" to match these SpecCast tractors on the shelf, so Kim then mixed the epoxy primer paint and with a little guidance was able to apply it using my airbrush. After an hour flash time, she then applied the first coat of white paint to the parts and I applied the second coat of color and one coat of clear. With a 24-hour cure for the paint, the tractor was ready for assembly.

Assembly of the tractor was straight-forward. The rear wheels were installed and axle caps glued in place. The front rims were installed and 0-80 bolts with washer heads in them were put in place, then Kim glued the center caps in place. She gave the front weight bracket one last test fit, then applied glue into the drilled holes and then a light coat on the matting surfaces, finally installing the bracket to its new permanent home. She ran into a small problem when she went to install the weights. With the paint on the weights and bracket, the weights did not want to fit right, so with a little help from the X-Acto knife, I was able to trim the weights and give it a little extra clearance to fit correctly.

I think it was a great first project for a 10-year-old and her dad. She now has a personalized tractor to put on the shelf, a few new life skills and a tractor she can enter in the contest for next year. If all goes well, maybe she'll get another project tractor!

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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.