

Down to Details

By Chuck Steffens

Last time we got together I showed you how to build a Precision John Deere 4450 using the 4960 MFWD as a donor tractor telling you that it was going to be a two-piece project. So here we are on the second half of the project. Taking all of the parts left over from building the 4450 MFWD plus a few more to create the baby of John Deere's large chassis tractors, the 4555 2WD.

Hopefully you will be able to use all of the information here or just part of it, depending on what model of the large chassis tractors you want to build. Take for instance if you wanted to build a 2WD 4960 or even a 4760 it would be much simpler to build than the 4555. There are a lot of little differences between the 55 series and the 60 series and then building a 4555 adds some more difficulties in that the 4555 does not have an aftercooler.

So let's get going on the project.

Last time we talked I walked you through removing the hood and MFWD from the 4960, so I will take off from there. With the hood out of the way the first thing we are going to do is remove the rear wheel. In this model, Ertl used



The 4960 stripped down.



The 4430 cab base modified for the 4960 cab top.

a press fit wheel so all that is needed to remove these wheels is to grab ahold of them, then slowly twist and pull and the wheels will come off. After the wheels are removed the cab will be the next item you will want to remove. This is done by removing the four screws (two under each fender), while holding the top half of the cab on. Once these screws are removed, the cab top will lift off, exposing the cab interior. Gently get under the interior with a small flat screwdriver and pry up until the interior pops out. With the interior removed, there will be four screws located at the bottom of the cab base that will need to come out. Taking these out will allow you to remove the cab base to be set aside. Now with the cab removed and we are making a 2WD 4555, the MFWD side screens will need to be removed. This is done by removing the screw that holds them to the spring. You will want to leave the spring there as we are going to need it later. Next will be removing the exhaust. It is attached to the turbo with a pin and some glue as well as the fender with a pin and glue. Like always taking your time and gently prying will have the exhaust off. One final item is to remove the aftercooler. To remove this, here again just pry outward on the aftercooler and it will pop off. There will be some small lines attached to the cooler that will need to come off anyway, so take them with the cooler.



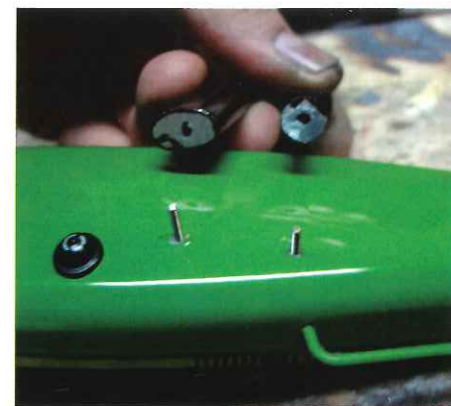
The 4960 cab top modified to fit the 4430 cab base.

Now that the tractor is stripped it is time for the transformations to begin. I will start with a simple item—the intake manifold. What I did was use an intake manifold from a damaged Precision 4430 and lined it up on the engine. Then, drilled two holes on the 4960's engine to match the 4430's manifold and with a little epoxy, attached it. Next thing I did was installed the new 2WD side screens. The 2WD side screens are a quite a bit different than the MFWD and what I did was to get ahold of Brian Long of Long Farm Toys and have him make me a set of resin-casted 2WD side screens. I was lucky enough to remember ahead of time that I was going to be building this tractor so I painted them up when I was painting another tractor. His side screens mount using the same spring that was used before. Only difference is that I bolted the screens to the springs using a .080 bolt with washers and added some epoxy to the treads of the bolt when I bolted it up for extra protection.

With these modifications complete, it was time to move to the cab.

Here is where there are some major differences between a 55 and 60 series tractor.

The fender style of the 55 series tractors is the same style Deere used since 1973 with the 4430, but on the 60 series, they changed the fender having a piece on the front of the fender for added protection



The 4960's hood drilled for the muffler and pre-cleaner and the 4430 muffler and pre-cleaner modified to fit.

and a square headlight rather than the common twin round headlights. Some custom builders have modified the 60 series cab base to better represent the 55 series, but what I choose to do is replace it with one from an earlier model Precision. I used a damaged 4440's base in the past but for this one I am going to use a damaged 4430 base and modify it to match up with the 4960 cab.

To get started with this, the 4960 cab sits lower in its base than the 4430 cab does so the 4430 cab base will have to be lowered inside of the fenders almost to the point of cutting through the cab base. Once this is done the 4960's cab will have to be trimmed back near the door and the lower front cab window to fit. This process is a very time-consuming process of fit and trim—fit and trim, but it is necessary to make small adjustments



The 4430 intake manifold installed on the 4960.



Long Farm Toys 2WD side screen painted and installed.

and check your fit because if you go too far, it will end up with a gap, making it an eyesore to look at or here again, extra parts in your scrap pile. Once you have the cab top half fitting properly with the bottom half, you will need to flip the cab base over and grind down the four mounting locations. The 4430's cab base sits a little taller than the 4960's base did here and if you don't trim them down, the hood will not fit properly. All that you will need to trim will be the mushroomed surface down flat. Just don't go too far or the screw will pull through when mounting the base. Now that the cab base is modified and everything has been test-fitted many times, I masked up the cab base and painted the underside flat black like the 55 series was.

If all went well so far the cab base can be mounted with the same four screws that came out of the 60 series base, then the base interior can be set in the 4430 cab base. Then the 4960's cab top can be put in place and screwed on. The rear screws will line up perfectly if you did the job right, but the front screws will be nowhere close. What I did was just use the rear screws to hold the cab in place. You would have to get pretty rough with the tractor to have any issues with the cab top not staying in place with two screws.

On to making this tractor a 2WD, this isn't a bad job. Actually it is a nice easy job. It will require a shim being built



The 4430 cab base masked and painted flat black.

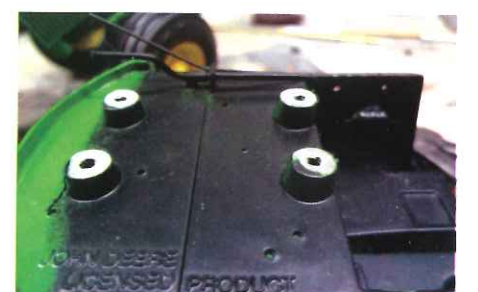
on the front pin of the 4450's 2WD axle to size it up to the size of the 4960 hole. Mounting the rear of the axle requires a little more work though. What needs to be done here is a pin has to be built that will fit the 4960's chassis and the 4450's axle. What I did was used a piece of 1/8 brass rod and fitted brass tubing the next size larger and soldered them together then glued it into the 4960's chassis. After the pin was glued in place, there has to be



The 4450 2WD front axle with the shim installed on the pivot and the pivot drilled and taped with an .080 bolt.



The pivot pin built to hold the 2WD front axle to the 4960.



The 4430 cab base trimmed to lower the height of it.

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a little clearance given on the 4960 under the pin so the 2WD axle fits. What I did was use my 2-inch angle grinder to grind a small amount off of the pivot then test-fit the axle until it all clears and pivots freely. Once the 2WD axle fits properly, I drill the front pivot point of the 2WD axle for a .080 bolt to hold the axle in place once it is mounted under the tractor. With this done add the steering rod from the 4450 using a small amount of epoxy to keep a secure fit in the steering arm.

You will now have a 2WD chassis, but the modifications are not done. The 55 series tractors have the muffler and pre-cleaner mounted in the hood rather than the side of the tractor. What I did for this was use the pre-cleaner and muffler

off the same damaged 4430 tractor and ground the bottoms smooth with a little taper to match the angle of the hood. Then I drilled and taped them with .080 bolts. Now drill the hood in the proper locations for each and bolt them on. With the muffler and pre-cleaner mounted we are getting close, but no cigar yet. There is still the difference of the battery boxes between the 55 series and 60 series. For this what I did was use the battery boxes off that same damaged 4430 that I have been working with and then part of the frame from that same tractor. First you will have to remove the original mounting plate on the left side of the 4960, taking it smooth down to the frame. I then cut the part of the frame where the battery boxes mount on the 4430, trimmed them down on width and height and test-fitted many times. After all fits well, I used one of those

.080 bolts again and mounted the brackets off of the 4430 to the 4960, then mounted the battery boxes

and step to the tractor.

Okay, we are getting close—next item is the rear wheels.

At this point you could just reattach the original 4960 wheel, but I chose to change the wheel to a more common (in my area anyway) 20.8-38. To do this I used a set of rims from a John Deere 7320 tractor then mounted a set of my tires on them. With the wheel ready, the rear end of the 4960 will have to be narrowed. What I did was use my Dremel and narrow the rear axle housing up to the casting mark on both sides. Then I used my angle die-grinder to square it up. Next, I drilled the rear end and wheels for .250 axle for a nice tight fit and finally finished off with a set of deereboydaniel's .250 axle caps painted flat black.

Last thing that needs to be done here is a decal change. I have had good luck using Bossen Imp. decals on these large chassis JDs. They have been a good fit and look right too. I can tell you that creating one of these tractors can take some time, but it sure can make a nice tractor when it is done, making the baby of the large chassis Deere.

Until next time, Chucky.

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The 4960 frame trimmed to accept the 4430 battery box mount.



The 4430 battery box mount installed.



The rear end of the 4960 chassis narrowed up.



The finished tractor.