

# Down to Details

By Chuck Steffens

Another month has come and gone and I find myself working up another project that is "Down to Details." This month I am going to start on a two-piece project with the first half here and the other soon to come. What I am going to be doing is using a Precision Elite 4450 2WD along with a Precision Key 4960 to create what collectors have commonly referred to as the "chaser," the John Deere 4450 MFWD.

To start the project off I picked myself up a NIB 2WD 4450 and NIB 4960 at a toy show for a reasonable price. After taking both out of the box it was time for tear down. In this case both tractors will have to come apart, but I am going to focus on the 4450 for now.

First off, the hood will have to come off the 4450. To do this there will be one screw under each battery box that will need to come out. For safe measure, I recommend removing the step as well to prevent it from the demise of an unplanned slip and soon becoming a new addition to your recycle bin.

Once the battery boxes are off, then the two screws that are hidden under them can be removed. This will free the hood up for removal. This is the same



The 4960 and the 4450 new in the box.

as the 4430 and 4440 that I have done "DTD" articles on before. The difference comes in that the 4450 will have working headlights. This is a simple fix, a small pull will remove the LEDs from their socket and the hood can be set aside for now.

Okay now that the hood is off, the next step will be to remove the steering rod. First you will have to remove the horizontal steering shaft by lifting the tape off the tractor, then slide it forward and set aside for now. Once the horizontal shaft is removed the vertical shaft will have to come out. This is best

done using a center-punch tool from the underside, drive the shaft upward and then finish pulling it out with a needle-nose pliers on the shaft as to not hurt the steering gear.



The hood of the 4960 showing the side panel removed from the hood.



The 4960 with the steering rod removed.



The 4450 with the hood and the steering shaft removed.



The 4450 with the front axle removed.

Now that the steering shaft is removed, it is time to remove the front axle. On the rear of the axle at the pivot point there will be a small "C" clip that will have to come off. Be careful not to lose this clip because you will need it later. Once the "C" clip is removed, the front axle will slide toward the rear and the axle will be off.

With the 4450 front axle off, the MFWD on the 4960 will have to come off next. Again, the hood will have to come off to remove the MFWD on the 4960. This will be done by removing the two screws under the weight bracket like on the 4450, but for the rear of the hood, Ertl held the hood on using the pins on the side shields. What you will have to do is gently get between the side shield and



Front axle removed from the 4960.



MFWD before modification.

the hood and pry them out, freeing them from the hood. Once both side shields have been freed from the hood, it will have to be lifted from the front, pull forward and it will be off.

Here again the next step is removing the steering shaft. The vertical shaft can be lifted out of the way, but unlike the 4450 you cannot access the steering shaft from the bottom. Instead you will have to use a needle-nose pliers and pull the shaft out.

Once the shaft is out, you will have to remove the front driveshaft by taking the single screw on the bottom side of the shaft out. Once this is removed, the shaft will come straight down and forward to be set aside for later. Now that the driveshaft has been removed, the MFWD will slide toward the rear and be off.

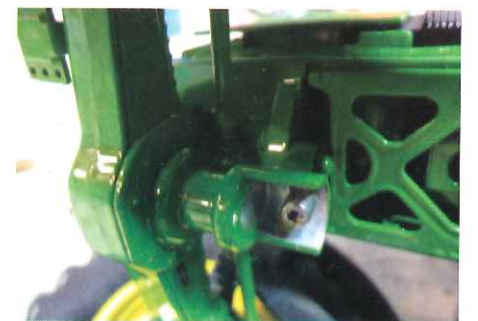
Disassembly is complete—now to reassemble. First thing you will notice, is that the 4450 front axle was held onto the tractor with two pins and the 4960 used one pin on the tractor and one on the axle. So the pin on the 4960's MFWD will have to be removed. For this, I used my 2-inch angle die grinder and made quick work of removing it. With the pin removed there will then have to be a .150 hole drilled in its place for mounting to the 4450. With this hole drilled, the next step will be drilling the hole in the front half of the 4450 chassis to .175 for the pin on the MFWD to fit into. I have found that using a small drill with a .175 drill



The 4960 MFWD after modification.

bit at an angle works fine. It would be nice to drill straight but that isn't going to happen here. One last thing will have to be modified to the MFWD before it can be installed: the axle pivot stops will have to be lowered for clearance. Here again, I used my 2-inch angle die grinder to do this. Now the axle can be installed. Once you install the axle the 4960's vertical steering shaft can be used on the 4450. Once in the hole, take your time to line up the splines and then use a light hammer to set the shaft in the tie rod pivot.

Next item on the agenda is mounting the 4960 transfer case. This is one of those times when I choose to simply break it off the tractor rather than tear the entire tractor apart, because very little, if anything, will be gained by tearing the tractor apart. With the transfer case removed, it is now a process of fit and trim—fit and trim—fit and trim until the driveshaft and transfer case all fit together nicely as one under the tractor.



The MFWD installed under the 4450.



The modifications of the 4960 transfer case and the 4450 chassis for mounting of the transfer case.



# Down to Details Continued

Once this is fitting nicely, I use some 5-minute epoxy and mount the transfer case to the 4450 installing the driveshaft, holding everything in place until the epoxy sets up.

Now it is just a matter of touch-up work in the paint department and the project can be complete, but I wanted to change the rear wheels to better match the size of the fronts. How I did this was to use the rims from a John Deere 7520 row crop tractor, the inserts from a 4620 rim and a set of tires that I made. The 7520 inserts will have to come out and the three pieces of the rim will have to be bolted back together. Once that is complete the 4620 insert will have to be trimmed down to size to fit in the rim. Once this is done, I use some of the epoxy again to hold the insert in place. For mounting the wheels, I used a 3/16 axle and axle caps that are painted flat black for a little added touch. Making a very nice and accurate model of the 4450 MFWD to add to your collection.

Now with the 4960 and all the remaining parts—keep them close, because we are going to have some fun with those. Yes, the 4960 will be converted to 2WD, but I am going to take it a lot further then that.

So until next time—don't lose any parts.  
Thanks, Chucky.

TF

Completed tractor.



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