Down to Details

By Chuck Steffens

Welcome back to "Down to Details" with...Chucky! Hahaha. Ahhh... this month I am going to try to send you down the road of converting a Precision 5020 from the standard Wheatland fender style into a row crop fender/dust shield with row crop tires.

With this project I am going to start with a NIB 5020, a set of fenders from a scrapper shelf model 6030 and a set of wheels from a 4430 Precision along with a little elbow grease.

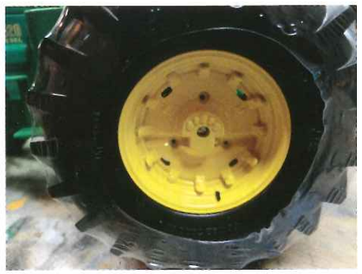
First the 5020 will need to be torn down. The best place to start with tearing the 5020 down is to remove the rear wheels. These can be a bugger when they want to. Most generally I try just grabbing a wheel in each hand and with light twisting and pulling they come off, but in this case that just was not going to work. So the next best thing to do when removing these wheels is to remove the axle from the center of the rim. If you are careful and lightly warm it, then gently tap on the side of it—the epoxy will let go and the axle will fall out.

With the axle removed I used a small punch that fit inside of the hole in the center of the rim that was under the axle. I placed the 5020 on its side holding it securely, and used the punch and a small hammer to drive the axle holding the rim to the tractor out of the rim. This axle has always driven out easily when I had to resort to removing the wheel this way and will leave a nice set of 24.5-32 tires on John Deere centers for another project.

With the wheels off, the next step is to remove the fenders. On the 5010/20 Precisions this can be somewhat of a task if you have never removed the fenders off one before. The best place to start is removing the rockshaft. To accomplish this the rockshaft cylinder housing will have to be removed. A small flat-tipped screwdriver and a little prying along the sides, top, bottom and front seam will have it off and out of the way until it is needed later for preassembly. Now that the rockshaft piston housing is off, the rockshaft shielding will have to be removed. This actually comes off nice and easy. If you grab it and gently lift and pull back it will come right off. With the rockshaft cylinder housing and shielding removed, there will be two screws exposed that will need to come out. Using a Phillips screwdriver, I spun them out and lifted the rockshaft up off of the chassis, showing the rear fender mounts.

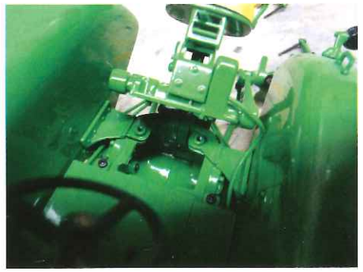
The project started with a NIB 5020.

Now with the rear fender mounts ready to come off, the next item to remove will be the battery boxes. With the tractor on its side there will be two screws on the bottom of each battery box that will need to be removed. With these removed the right battery box comes right off, but the left battery box has an additional support on it. I used the small flat-tipped screwdriver here again to pry the support loose. Now both battery boxes are free, but one problem yet—the hydraulic hoses that run to the rear hydraulic outlets are glued into the rear of the battery box. In this case we are not going to be reusing the battery boxes so I just took a razor blade and cut the hoses free from the battery boxes and set the boxes aside.



The axle cap removed from the 5020 wheel, making it able to drive the axle out using a punch.

Shielding under the seat removed exposing two screws that will need to be removed to lift the rockshaft off of the tractor.



The rockshaft has been lifted, making it possible to remove the fenders.

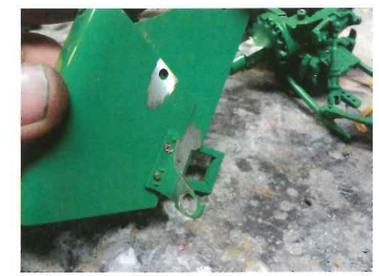
Okay the battery boxes are off and we are getting close to having the fenders off, just two screws around the axle hosing need to come out. With these out the fenders can come off and hopefully find a use in a future project.

Now with disassembly complete, it is time to change focus and get those 6030 shelf model fenders mounted up on the 5020. In the real world, it would have been a matter of a few bolts and a little lifting. Well there isn't much lifting here, but that is the only way it is simpler. The fenders off the 6030 are mounted completely different then they will have to be mounted to the 5020, so I guess we start to modify!

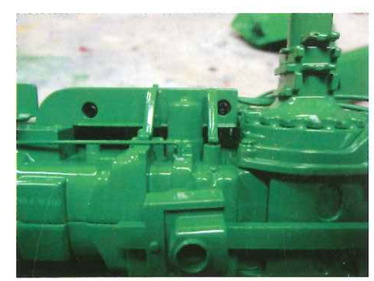
First thing that will have to be done is to remove the rear mounting brackets off the 5020 Wheatland tractor. I used a Dremel or small grinder to grind the mushroomed head off the two mounting locations on the inside of the fender. With these ground smooth, get between the fender and the bracket with a small flat screwdriver and gently pry them apart. With the two halves separated, grind the rest of the pin flat so there is a smooth surface to bolt the fender to.

Next on the list is test-fitting the 6030 fenders to the 5020. The fenders of the 6030 were mounted using screws, though the battery box mounting them to the side of the tractor along with a square mount, fits around the axle housing. Well that doesn't seem too bad. I will just use the square mount around the axle housing and bolt the Wheatland fender bracket to the row crop fenders, right? Well, that is what I did. I first had to trim the extra material around the 5020's axle housing so the square would fit around it. Once I had the fender fitting over the axle housing nicely, I dropped the Wheatland fender mount into the chassis in its stock location. Then I placed the fender on the tractor, lined everything up, keeping the fender parallel with the tractor and finally marking the location where the mount fits the fender. With this location marked, I removed the fender and bracket and relined the two up on the bench, drilled, taped and bolted them together. All right, test-fit again and again—not too bad, but the fenders sit too wide. How do I fix that? The first thing I do is trim the platform up on the 5020. The back half is maybe .100 wider then the front half, but every little bit counts. Test-fit again—still too wide, so I slot the fender bracket to allow the fender to slide in even farther. I used my Dremel with a small bit to trim some clearance and narrow up the outside to match as well. Test-fit again—still not enough. I then trimmed the bracket again with the Dremel and the grinder on the outside of the bracket—test-fit again—I am getting nowhere! Why **is** that? With a little investigating I see that the three-point arms are hitting the fender-mounting bracket! Ahhh...so some more trimming on the bracket and test-fitting until it all fits together and looks right.

This didn't go too badly—now just repeat on the second fender—looks good. Next, mount up the 4430 rims and tires. This is easy enough, as they have the same size axle and even the length is the same. Things are going good. Now step back and take a look at the tractor. Aaarrrggg...there is **way** too much clearance between the fender and the tire. So now I have to take everything apart again. With the fenders off and the fender brackets removed from the fenders, I marked the fenders .250 of an inch up from the original holes I drilled and then placed my fender-mounting bracket in line with this mark. Then I proceeded to drill a new hole .250 higher. ⇨



The fender was trimmed and the dust shield added.



Two screws located under each battery box that will need to be removed.

The fenders are mounted and tires are test-fitted only to realize that there is too much fender clearance.

The fender-mounting bracket is installed and trimmed to fit the tractor.

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This didn't go badly, but now I also had to move the dust shield up .250.

This took more work. To get that dust shield up that extra .250, I had to grind the mushroomed pins off and remove the dust shield from the fender. It should be easy to just move it up .250, but of course not! The fender is casted with the "factory-mounting bracket" that the real tractor has and does not allow the dust shield to sit tight to the fender. So I used my 2-inch angle grinder to trim the extra material out of the inside of the fender until the dust shield fit tight to the fender. Here again trim and test-fit—trim and test-fit. With a nice tight fit, I used a couple of .080 bolts to bolt the fender back to the dust shield and test-fit the fenders back on the tractor.

With the fenders mounted on the 5020 for a test-fit, I installed the 4430 wheels again to check out the overall fit. Yes, it fits nice with just enough fender to wheel clearance, but not too much.

Finally, it's time for bodywork, paint and the final assembly. This project can be a little challenging at times, but the end result looks top-notch, leaving you with only minor extras leftover.

I hope everyone enjoyed this project. Also if any of you builders out there would like to see a future "Down to Details" article on a particular Precision or ???, let me know and I will see what I can do. You can contact me at csteffens@wildblue.net with your suggestions or questions.

Till next time,
Chucky. *TF*

The finished tractor.