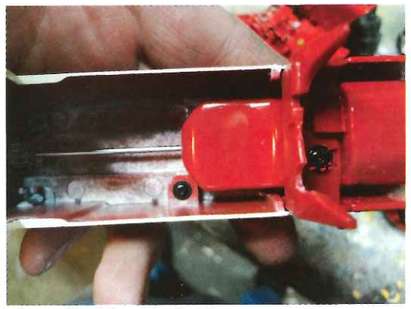
Completing the 766 gas

The steering shaft of the 1066 removed and straightened. Also the new location drilled a quarter of an inch back.

The steering support and filler panel from the 460.



The underside of the hood.

Last time we visited, I took you through the installation of a Precision 460 engine into a Precision 1066 chassis, with the goal of building a 766 gas. This month, we are going to finish this task. Also, I will show you how to convert the 1066 wide-front chassis to a narrow front, then convert the white-panel hood to a later black-strip hood.

First, we need to get that narrow front installed. I would normally use the narrow front from the Farmall 460 I salvaged the engine out of, but it was already gone well before this project started, so I'll use a new-in-the-box 460.

To remove the narrow front, I should be able to just grab the narrow front and pull down. If all goes well, the narrow front will pull off of the steering shaft of the 460 and be ready for use—should. Well, it did not go that well on this one.

That narrow front was glued something fierce and was by no means coming free from the steering shaft. So, this leads to more work. To handle this problem, the grill of the 460 would have to come off. Grabbing my heat gun, I warm the hood and grill area of the 460, easing the grip of the epoxy holding the grill in place. With the hood and grill warmed, I use the flat-tipped screwdriver to gently pry the grill straight forward, working lots of different areas. With the grill out, the steering gear and shaft can come forward. Remove the steering gear and pull the narrow front out the bottom.

Now that the narrow front has been removed from the 460, I then remove the filler plate under the 460s chassis. With the two screws removed, the plate comes off as well as the steering shaft support.

With these two pieces off, I then test fit them on the 1066 chassis and see that the 1066 steering shaft is not going to be right. The shaft on the 1066 comes down through the radiator, then makes two 90-degree bends. If I mount the narrow front to the 1066 steering shaft, it would be located correctly but would not steer correctly. It would be steering on an access rather than a center line. To solve this problem, I straightened the steering shaft with a vise grip enough to pull it out of the tractor. I then used a hammer and a solid surface to finish the straightening.

With the 1066 steering shaft straight, I then reinstall it into the chassis and see that the shaft will be too far forward to have the proper location of the narrow front on the tractor. Well, I guess I will have to move the steering arm back. To get the proper location of the narrow front, I drilled a new hole about one-quarter of an inch back from the original. One-quarter of an inch may not seem like much, but it made a massive difference on the location of the narrow front.

Now that the location is correct, the proper height needs to be set. To accomplish this, I set the 460 filler panel under the 1066 chassis. First, I see that the steering shaft support is going to be too long. Easy fix. I grind it shorter and shape it to match the bottom of the radiator.

Next problem: I still have the steering shaft glued solid into the 460s narrow front. After warming, pulling, twisting and more pulling, I finally twist the shaft off. I then drill the shaft out, taking my time and not getting off the center line and possibly ruining the narrow front. Starting with a No. 52 drill bit, I slowly work my way up to the correct size to match the 1066 steering shaft.

With the narrow front drilled to match the 1066 steering shaft, I then start cutting the shaft off until it is the correct length to fit tight against the steering shaft support, but long enough to be solidly mounted inside the narrow front.

Once everything is fitting properly and the overall appearance is satisfactory, I use some epoxy and mount the steering shaft support to the bottom of the radiator.

Next, I drill the filler panel and matching holes in the bottom of the radiator, running bolts up to hold the panel and the radiator firmly in place.

With the filler panel installed, I apply some epoxy between it and the steering shaft support for even more stability. With all of these parts installed, I apply a small amount of epoxy into the drilled hole in the narrow front. I install it under the tractor, being careful not to use too much and create future problems like having a tractor that will not steer. Now we have a 766 gas narrow front.

Converting The Hood

The next task is converting the white-panel hood into a black-strip hood. They never made a 766 black strip with a gas engine. The gas engine option ended in 1975 and the black strip started in 1976, but this will look cool!

The carburetor and intake tube removed from the tractor and modified for the correct fit.

A finished 766 gas narrow front.

At first, it might not seem like much converting the hood. But like everything else, it is all the little details that take time. Mainly, the side louvers on the hood need to be removed and the hood painted.

To start, the hood will have to come apart. First and easiest, remove the muffler. One screw holds it in place. Once the screw is removed, the muffler comes off. Next, the fuel tank and filler panel need to come out. This is easy, too, because one screw needs to be removed. With the fuel tank and filler panel removed, the steering shaft will fall out.

The next part of disassembling the hood can become a little more tricky—removing the grab handles and levers. Warming things up with my trusty heat gun helps, along with a very fine-tipped flat screwdriver and patience!

Once warmed, work the grab handles slowly. If you take your time, you can get inside the hood and push them out enough to break the glue's bond. After the handles have been freed, the TA lever will have to come off. Much like the grab handles, gently pry out and push and it will come out.

Last are the shifting levers. They are held in place with glued pins. Getting rough will break the pins, so use small movements and work many areas. The last item that needs to come off is the radiator cap. You can get to the back of the cap and tap it out with little effort.

With the hood now stripped of parts, I grab my angle die grinder with a 2-inch, 50-grit grinding disc and slowly remove the louvers on the front side panels, making sure not to get carried away and creating bigger problems.

With the louvers ground off, I use 240-grit sanding paper to smooth the 50-grit grinding marks. After the 50-grit marks are sanded smooth, I use 400-grit to smooth the panel even further, saving myself bodywork on the hood. After the panels are smooth, I carefully sand the white off the hood with a red fine Scotch-Brite pad and the tops of the hood with a very fine gray Scotch-Brite pad. The red pad gives enough grit for color to stick, but gray does not. The gray gives enough grit for the clear coat to stick without leaving sanding scratches. Now it is off to paint.

Using Omni automotive primers and its line of base coat/clear coats, I am ready to assemble the tractor in no time. Having test fit everything, this tractor went together great.

To set this tractor's appearance even further from the 1066, I was able to remove the rear tires from the rims and replace them with a set of tires that was on Ertl's Model 656, representing more of a 16.9x38 tire which was an option for the tractor.

I now have the tractor complete, so I think. Making sure I built the tractor right—poor timing after it is built—I notice a detail I overlooked in the build. The carburetor and intake tube on the 766 face forward rather then toward the rear on the 460! How did I miss this? Well, how do I fix this? I guess by fixing it!

So here I go. I get behind the carburetor with my small screwdriver and do some testing. It appears that the carburetor fits up into the intake manifold. I gently pry out on the carburetor and it seems tight. I give it a little more grunt and it starts to move. I start working the carburetor back and forth until it breaks free from the intake.

With the carburetor freed from the intake, I try to reverse it and reinstall, but the intake tube is not bent anything like the one on the 766. Well, I go for broke. I grab a couple of fine-tip pliers and start bending. I find out quickly that the tube is die-cast aluminum. So, things started to take shape. Test fit. Close, but not yet.

Next, I mount the carburetor into my vise and use a small hammer to tighten up the bend. We are getting close, then the intake tube gets a crack but does not break. So test fit again and it fits! I put some epoxy into the crack, just in case, add some epoxy to the top of the carburetor and install it back into the intake manifold.

So, now I have a non-correct, but very nice 766 gas. We will just call this one a "Farmer Repaint!"

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