

Constructing SierraWest 3D Printed Tractors

by Brett Gallant

Please handle these parts very carefully! While I use a high strength tooling resin that is very flexible and strong, these parts contain incredibly fine detail that must be handled carefully to prevent damage. Before you begin construction be sure to download: *“Working with SierraWest 3D Printed Castings”*. These instructions cover all of the basics and provide essential information you will require before proceeding. The photographs are taken of the O Scale version of these kits. Note that the HO Scale versions are *visually identical* but many of the parts are printed as an assembly and not separate. They would be too small to comfortably work with.

General Notes

Test fit all parts prior to assembly! The best way to handle the tractor is by the top of the hood. Use care not to knock any of the stacks off. Steering Wheels, gear shifts, stacks, and seats are printed prototypically accurate so they are especially fragile.

Each kit has correct rear wheel detailing, meaning there is a distinct left and right. Use the photographs to identify them. Use a fine hand drill bit (never a powered drill like a Dremel) and carefully ream the holes on the back side of the wheels. Use a bit the same size as the holes. If a bit is used that is larger you risk chipping the resin. This is one of the few times a drill is used as opposed to a reamer. If you do chip the resin, no worries as it will be hidden once installed.

Use 5 minute epoxy to glue the four wheels to the body. Use CA (super glue) to glue all other details in place.

For the kits that include brass wire, cut to fit then file the edges flat. Blacken with a chemical blackener (like what’s shown on the “University” link on my website) before installing. Prior to beginning each kit, prepare and prime the parts as outlined in the *“Working with SierraWest 3D Printed Castings”* download. Allow the primer to fully cure before proceeding. All paint used is AK Interactive 3rd Generation water based paint unless otherwise noted. The paint scheme for each tractor represents a typical “factory combination” for the model. As with all SierraWest 3D Printed parts, the supports are removed in house. On detailed castings like the tractor bodies, you may find very fine, thin supports that are easily removed with a pair of tweezers.

the Fordson Model “F”

The entire body, seat (fragile!), steering wheel, and exhaust are painted using a 50/50 mixture of Pale Grey and Neutral Grey. The wheel spokes are painted with a 70/30 mixture of Matt Red and Dark Rust. Paint the tires/treads and the crank Smoke Black. Allow the paint to dry then chalk weather as desired with a *very soft bristled brush*. Do not use a brush with stiff bristles or you will damage the finer parts. Start with a light coating of black chalk, follow it with browns and rusts, then come back and use a little more black to blend it all together. More information on chalk weathering may be found at the “University” link on my website.



Now epoxy the wheels to the body and allow to set. Be sure they are straight as crooked wheels look horrible. Once set, CA the seat in place. Cut to fit, then blacken the brass wire and CA the steering wheel to the wire, then the wire in the pilot hole. CA the exhaust stack and crank in place.

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the Fordson Model "F" continued



the John Deere Model "D"

The entire body, is painted using Vallejo brand Flat Green water based paint. The exhaust stack, short air intake cylinder, seat (fragile!), and steering wheel are painted using a 50/50 mixture of Pale Grey and Neutral Grey. Paint the front steering linkage with this same mixture, this can be seen in the photographs. Paint the wheels with a 80/20 mixture of Lemon Yellow and Sand Yellow. Allow the paint to dry then chalk weather as desired with a *very soft bristled brush*. Do not use a brush with stiff bristles or you will damage the finer parts. Start with a light coating of black chalk, follow it with browns and rusts, then come back and use a little more black to blend it all together. More information on chalk weathering may be found at the "University" link on my website.

the John Deere Model "D" continued

Now epoxy the wheels to the body and allow to set. Be sure they are straight as crooked wheels look horrible. Pay close attention to the rear wheels cleat detail making sure you glue them on the correct side of the body. Once set, CA the seat in place by inserting the tab into the slot on the body. Cut to fit, then blacken the brass wire and CA the steering wheel to the wire, then the wire in the elevated stand and pilot hole at the base. CA the exhaust stack and short air intake cylinder in place. Note that the small "nut" on the cylinder faces the rear of the tractor.



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the John Deere Model "D" continued



the Farmall Model "C"

The entire body, seat, and steering wheel is painted a 70/30 mixture of Scarlet Red and Burn Orange. Please note the area with the lights and shift levers is especially fragile. The tires are painted with Smoke Black. The outer rim of the wheels are painted with a 50/50 mixture of Pale Grey and Neutral Grey. The remainder of the wheels are painted with a 70/30 mixture of Matt Red and Dark Rust. The exhaust stack is painted with a 50/50 mixture of Pale Grey and Neutral Grey. The tiny linkage is painted Smoke Black. An extra linkage is provided.



Allow the paint to dry then chalk weather as desired with a *very soft bristled brush*. Do not use a brush with stiff bristles or you will damage the finer parts. Start with a light coating of black chalk, follow it with browns and rusts, then come back and use a little more black to blend it all together.

the Farmall Model "C" continued

More information on chalk weathering may be found at the "University" link on my website. Now epoxy the wheels to the body and allow to set. Be sure they are straight as crooked wheels look horrible. Cut to fit, then blacken the two brass wire segments and CA the tiny linkage in place on the end of the shorter segment. CA this segment in place then the main steering segment. CA the steering wheel in place, then the exhaust.



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the Ford Model 600

Paint the hood, radiator, and rear fenders with French Blue. Paint the remainder of the body Scarlet Red. The tires are painted with Smoke Black. The outer rim of the wheels are painted with French Blue. The remainder of the wheels are painted with Scarlet Red. Allow the paint to dry then chalk weather as desired with a *very soft bristled brush*. Do not use a brush with stiff bristles or you will damage the finer parts. Start with a light coating of black chalk, follow it with browns and rusts, then come back and use a little more black to blend it all together. More information on chalk weathering may be found at the “University” link on my website.



Now epoxy the wheels to the body and allow to set. Be sure they are straight as crooked wheels look horrible.



the Farmall “Regular”

Carefully ream the three steering wheel shaft couplers, on top of the hood, and the support column in order to allow the supplied brass wire to slide easily through.



Paint the main body with a neutral grey. Paint the wheels, except for the treads, Scarlet Red. Paint the treads Black then dry brush a little dirty silver. Allow the paint to dry then chalk weather as desired with a *very soft bristled brush*. Do not use a brush with stiff bristles or you will damage the finer parts. Start with a light coating of black chalk, follow it with browns and rusts, then come back and use a little more black to blend it all together. More information on chalk weathering may be found at the “University” link on my website. Use a wash of commercially available oil/grease paint to dirty the exposed engine.

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the Farmall "Regular" continued

Cut to size, blacken, then install the steering wheel shaft, support column, and steering wheel. Use tiny drops of Cyanoacrylate (super glue). Glue the seat in place. Now epoxy the wheels to the body.

