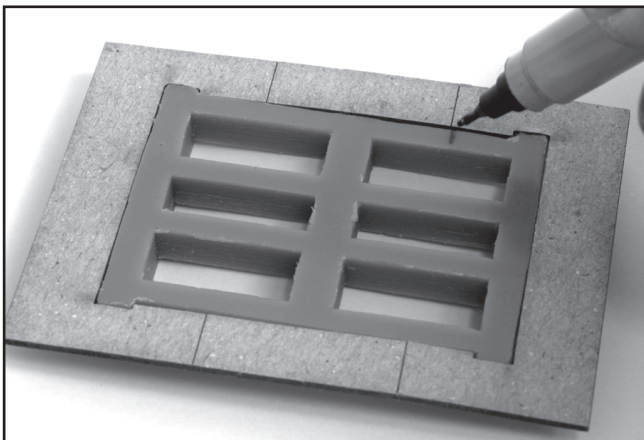


Constructing SierraWest 3D Printed Disconnected Log Cars

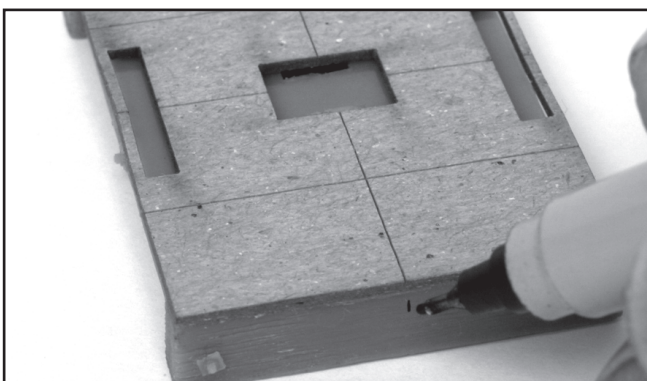
by Brett Gallant

Start by Downloading: “Working with SierraWest 3D Printed Castings”. These instructions cover all of the basics and provide essential information you will require before proceeding.

1. Locate the laser cut template shown below and cut the tabs holding the parts together. Now position the outside part so the markings are facing the same way as the flat side of the frame. Use a permanent marker like a sharpie and mark the frame at the four marks. These marks will be used to line up the pedestal castings.



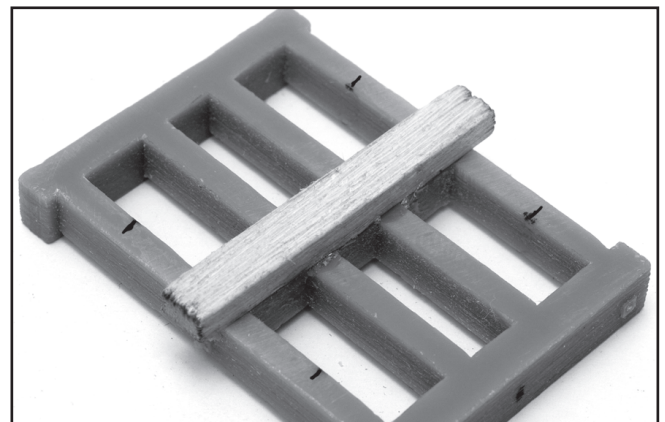
2. Now lay the inside part of the laser cut template on the flat side of the frame and mark both ends as shown. These markings will make locating the coupler pockets easy. If the markings made in steps #1 and #2 become difficult to see after the frame is weathered just go back and re-mark them.



Prior to gluing the bolsters and decking in place is a great time to add wood grain and other distress markings to the wood. Use a brass wire brush to chew up and fray the wood decking. The deck took plenty of abuse so have at it! My website features video clinics on this process so be sure to click on the “university” link for more information.

3. Add wood grain to the bolsters and deck boards. The boards will be stained after they are glued to the frame. In this way the frame and board weathering matches.

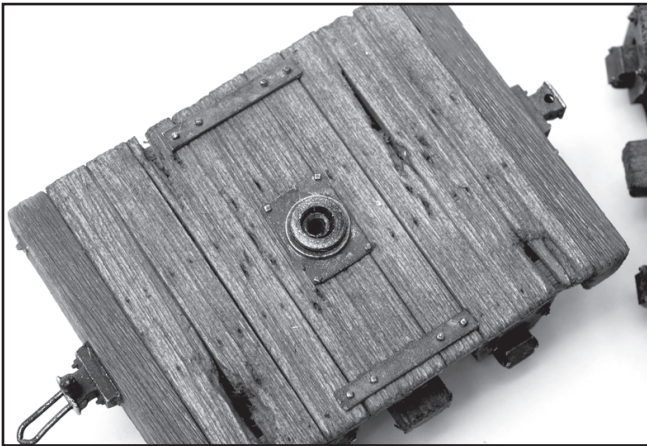
4. Scuff the flat side of the frame up a bit with a piece of sandpaper. This gives the epoxy something to bite into. Now epoxy the bolster in place to the flat side of the frame as shown below. Use a five minute, two part brand. Allow the frame to sit undisturbed while the epoxy sets.



5. Cut the deck boards to fit as shown on the following page. Turn the frame over and epoxy the deck boards in place. You can see in the photograph below how much damage you can inflict on the decking and still remain prototypical. Once the epoxy has set use a steel bristled brush (finer bristles than brass) and give the deck a final brushing. Pay special attention the exposed edges of the deck boards. Include the resin portion of the deck as well so the texture of the two match. Add nail holes.

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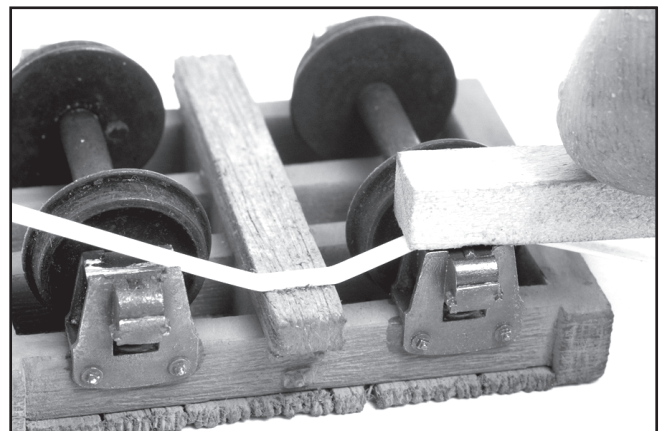
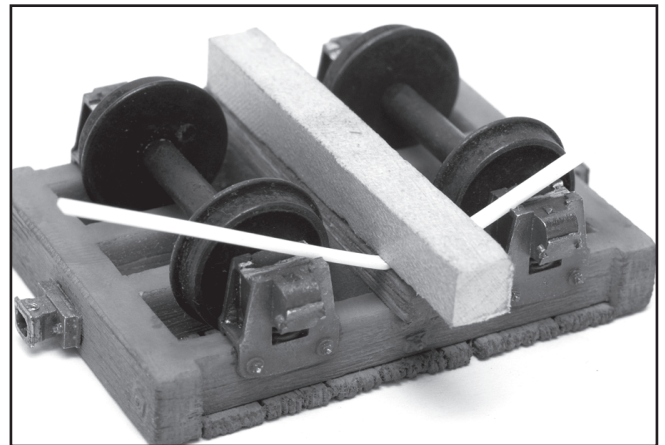
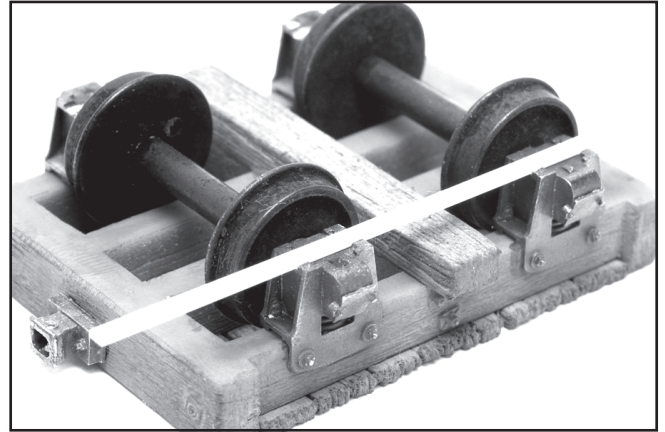
6. Use finely powdered artist chalk and ordinary rubbing alcohol to stain the deck boards and bolster. Once again please refer to the "University", link on my website for demonstrations of this simple technique.

Adding the 3D Printed Details

1. The pedestals are glued to the frame in pairs at the same time as the wheelsets. The disconnects are sold as static display models with the included 3D printed wheelsets. They can be made to function if you replace the wheelsets however, operating disconnects is very tricky and weight will need to be added as well. These modifications are outside the scope of these instructions.

Mix up some epoxy and place a small dollop on the inside of two pedestals. Set one axle in place between them then use the markings made earlier to spot them properly on the frame. Repeat for the other pair. Place the car upside down while the epoxy sets and ensure the axles are nice and straight. Make any adjustments while the epoxy sets up then pick any of the excess epoxy off while it is still stringy.

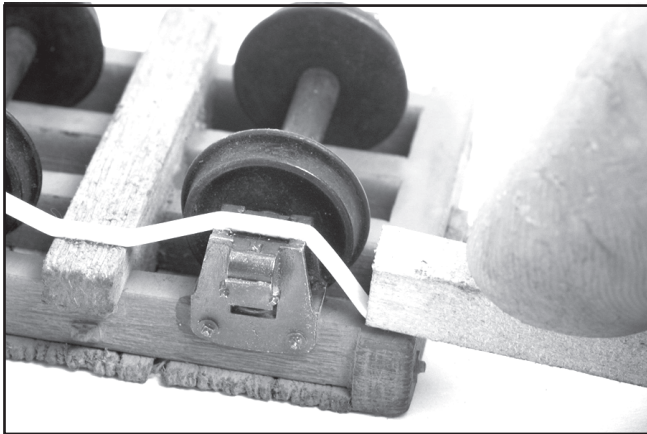
The strapping is formed from the supplied cardstock. It is quite easy to form and install. This thin strapping is prototypical and enhances the appearance. Cut the strips the length of the supplied cardstock, O Scale about .050 wide and HO Scale about .030 wide. Cut two per car, spray paint both sides and the edges flat black then once dry chalk weather rust.



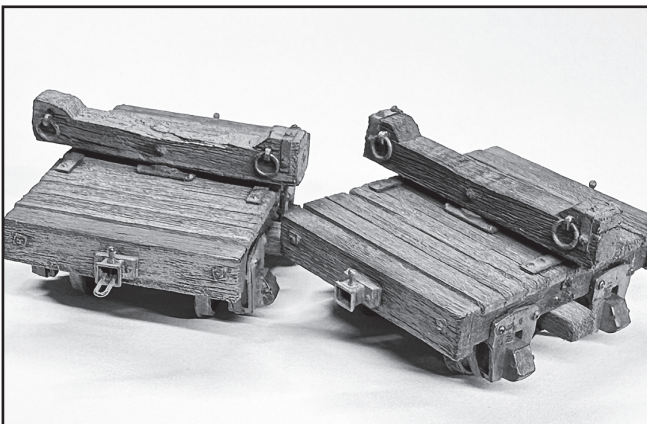
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2. Use CA (Cyanoacrylate or super glue) to secure the strapping as shown in the photograph sequence. The glue will adhere better if you gently scrape the paint and weathering off the pedestals and bolster before applying. Once the glue has secured the strap trim the excess with a new #11 blade. I am utilizing a scrap piece of wood to help facilitate the straps placement.

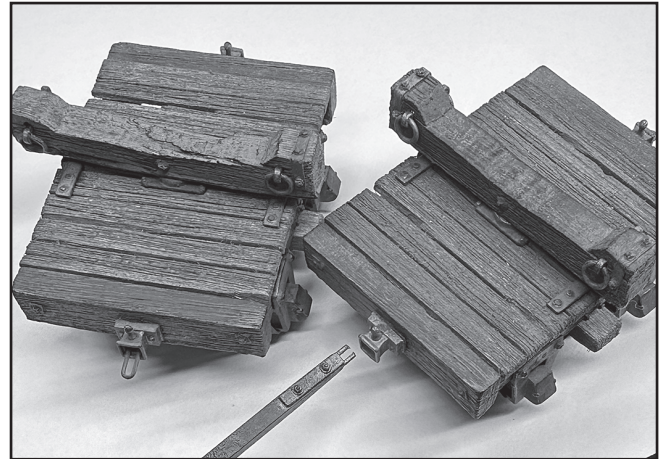


3. Now epoxy the coupler pockets in place using the marks made on the frame earlier. Three different versions are supplied. The pair that include only the pin are intended to be used with the rooster as desired. To use these simple trim the end of the "link" on the rooster so it fits into the pocket with the pin.

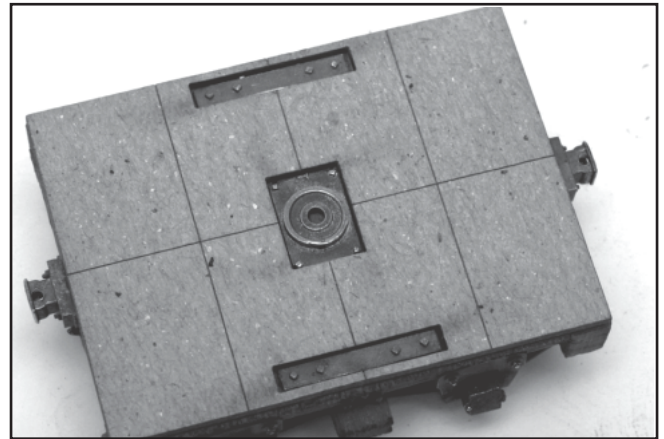


4. *For O Scale only:*

Spot the location of the eye/bolt/ring castings on the bunks as shown, drill holes then glue the eye/bolt/ring castings in place.



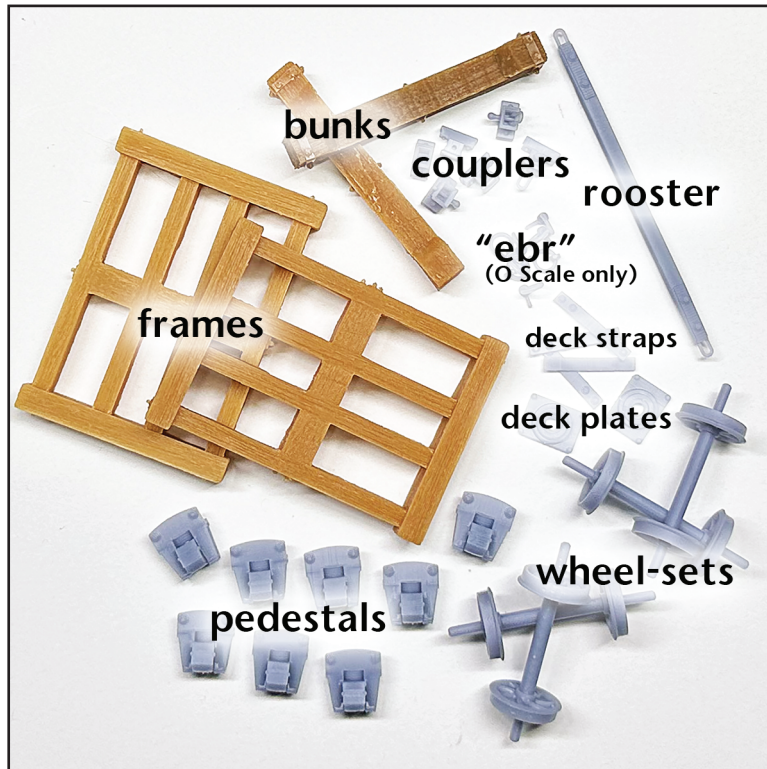
5. Place the inside part of the laser cut template on top of the deck and epoxy the deck straps and deck plate in place.



6. Finally epoxy the bunk in place on top of the swivel plate.

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WOODEN
DISCONNECTED
LOG TRUCKS