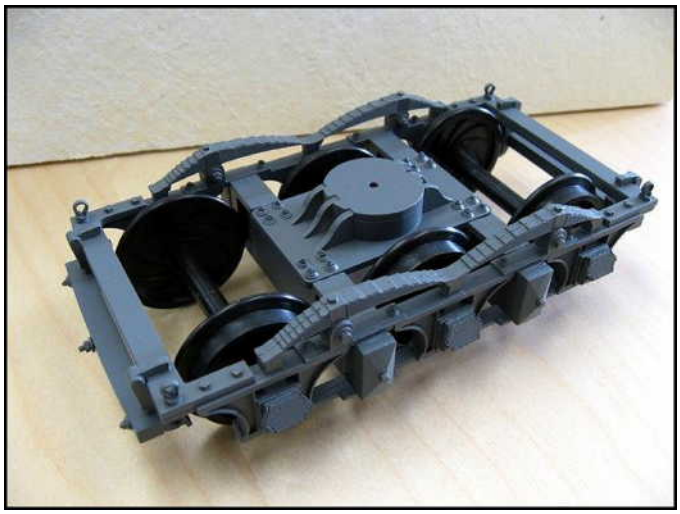


MLS MasterClass 2002

Build a 2-6-6T / 0-6-6T Mason Bogie
An Adventure in 1:20.3

By Doc Watson

Chapter 6 - A Laser Cut Styrene 6-Wheel Rear Truck

BY Bronson-Tate Architectural Models

Construction - Supplement

(MasterClass & Article/Topic: Mason Bogie Tender Truck Kit - Assembly Tips)

I was pleasantly surprised when Doug of Bronson-Tate Architectural Models asked me to build and review one of their Mason Bogie rear truck laser cut styrene kits. This kit was created from PDF files drawn by Dave Fletcher. The intent of this kit is to provide builders of the Mason Bogie locomotive with an easy alternative to scratch-building their own or waiting for a BBT truck.

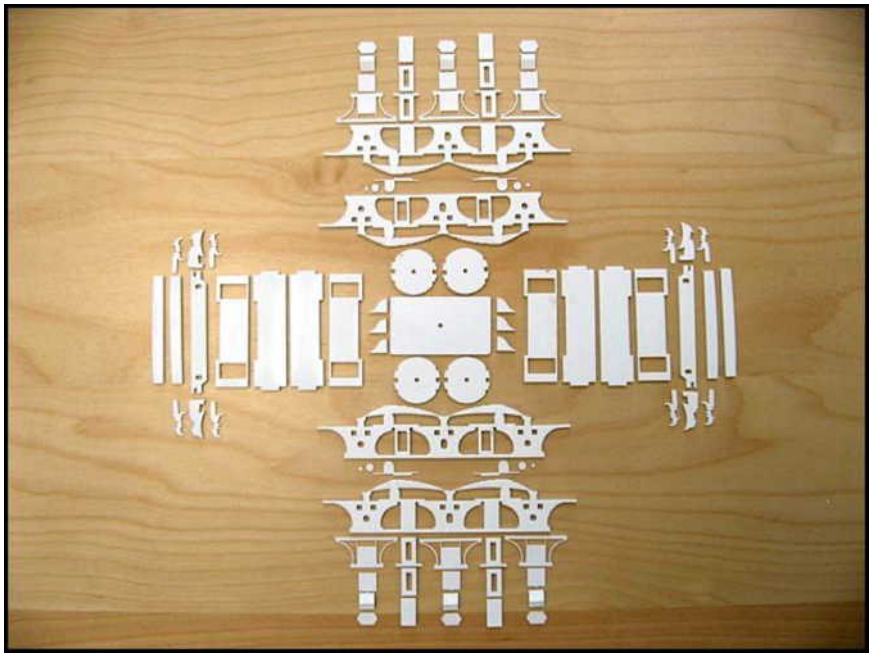
I have built many manufactured kits and a number kits from scratch. My comments and suggestions are drawn from these experiences. Dave has already constructed one of Doug's kits and is shown in the following forum:

http://www.mylargescale.com/forum/t...C_ID=47302

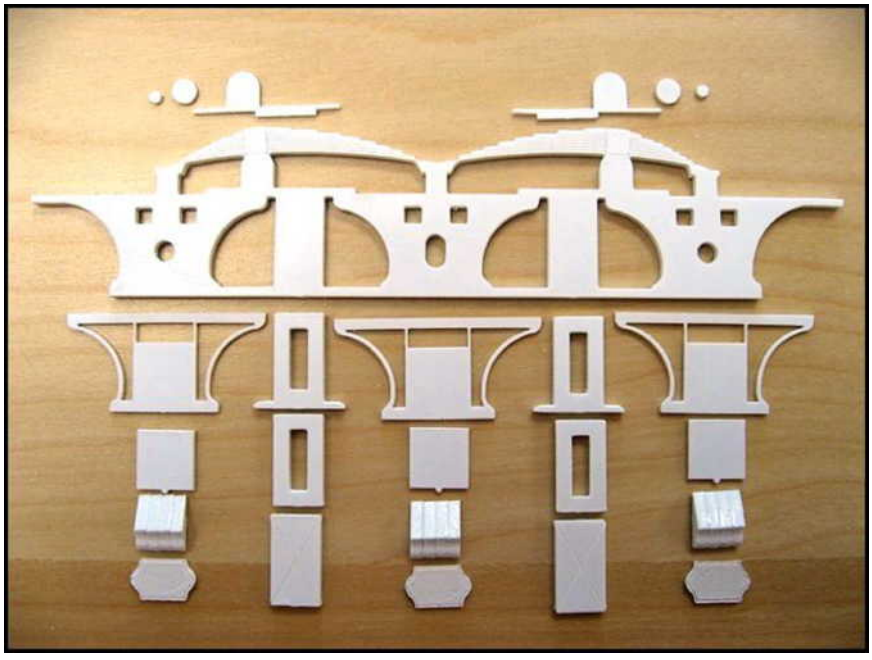
In addition, Jens Lasch has scratch-built this truck using Dave's plans. I found his article to be very helpful. Jens is a better man than I am. The article is a PDF file contained in Chapter 6.

The Kit

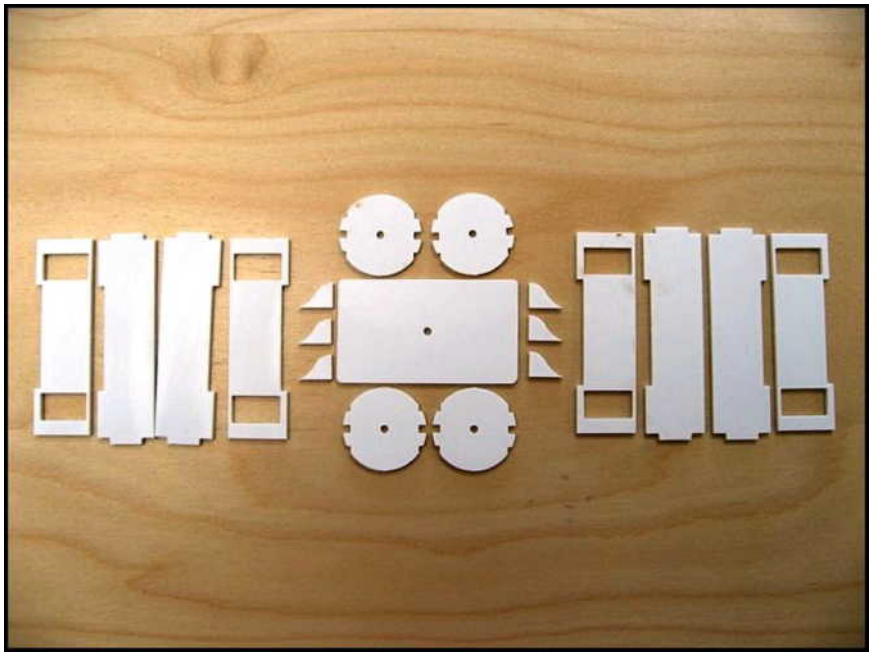
All the parts came on 3 styrene sheets. Being laser cut, there was some melted plastic burrs along the cut lines on one side. I made the mistake of removing all the parts first then sanding each part separately - very time consuming. I strongly recommend sanding the rough side before separating the parts from the sheets. In the photo below, I made an effort to arrange all the parts in their respective order.



The next photo shows all the parts provided for the side frames. The order from top to bottom is the order in which they are attached. In all cases, during construction, I used Testors plastic glue, the one in the triangular-shaped bottle. The 4 small circles (actually the 2 smaller ones are hex-shaped) can be used to simulate the bolts and washers that hold the center spring support.



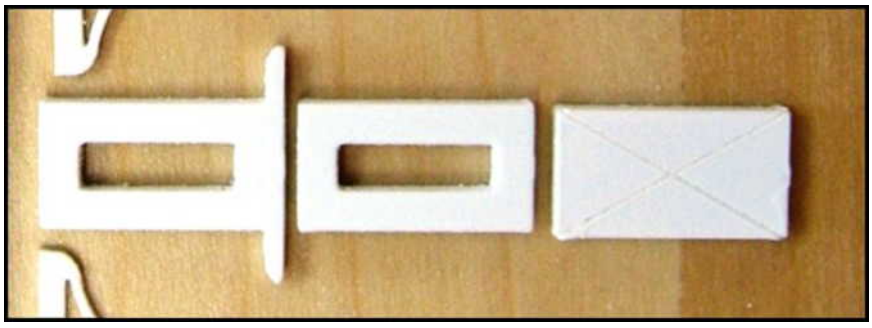
The photo below shows the parts for the truck beams and pivot plate.



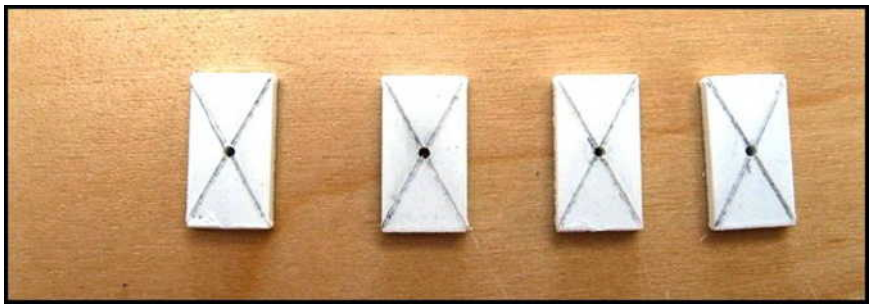
In general, the kit has all the necessary parts (except for the wheels and miscellaneous nuts and bolts) to permit the construction of a very realistic-looking rear truck for the Mason Bogie. The parts are very accurate and, as it turned out, all fit together perfectly.

Truck Beam End Caps

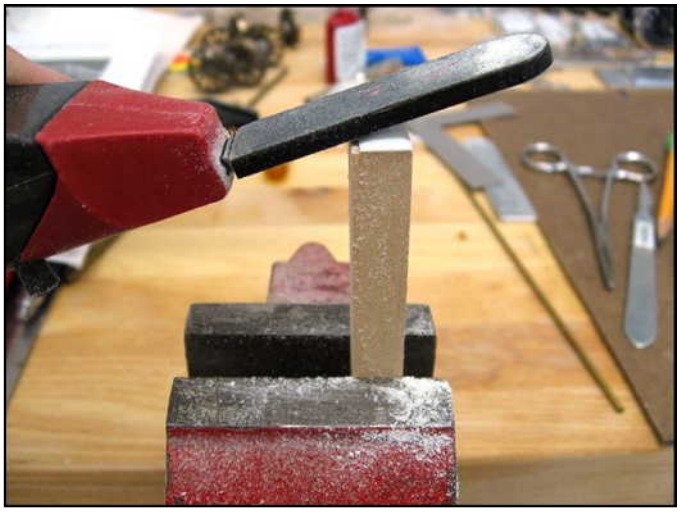
The truck beam end caps consist of 3 parts. They are shown below in the order, top to bottom, which they are attached to the side frame. The bottom piece is the end plate.

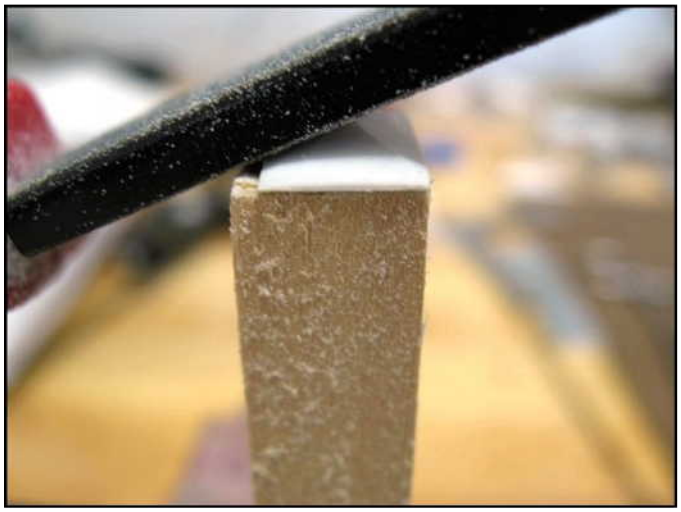


One of the most difficult parts of this kit, I think, is the beveling of the truck beam end plates. The first thing I did was to drill holes in the centers of the plates for 00-90 screws. You need to do this first to ensure they are centered.



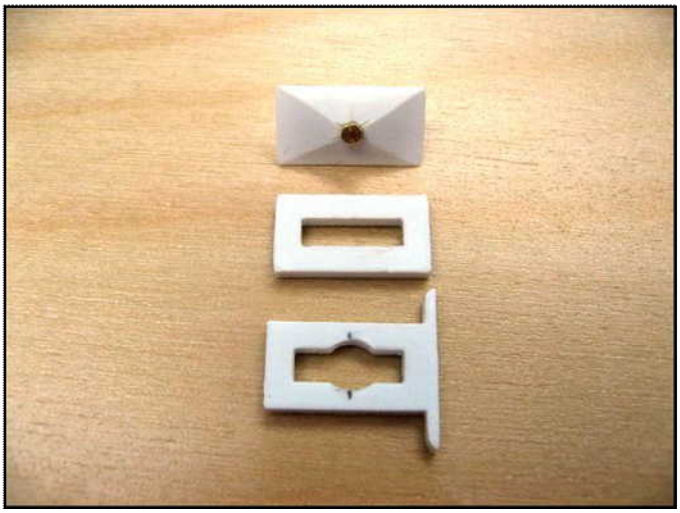
I'm lucky enough to own an electric sander. This turned out to be a tremendous time saver. It allowed me to accurately bevel the edges of the plates with relative ease. I used double-sided tape to temporarily attach the plates to the top of a stick. This provided a stable platform to perform the sanding. I have to admit that determining the angle of the sander was a bit trial and error but, by taking a little off at a time, I got the hang of it pretty quickly.





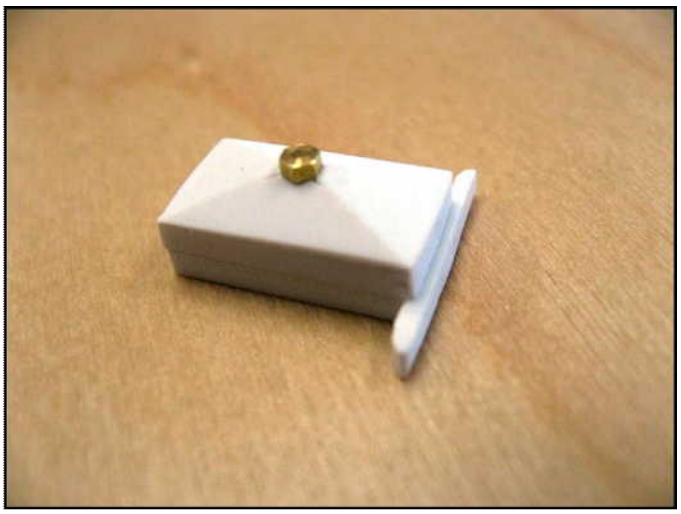
Here's a close-up of the sander at work.

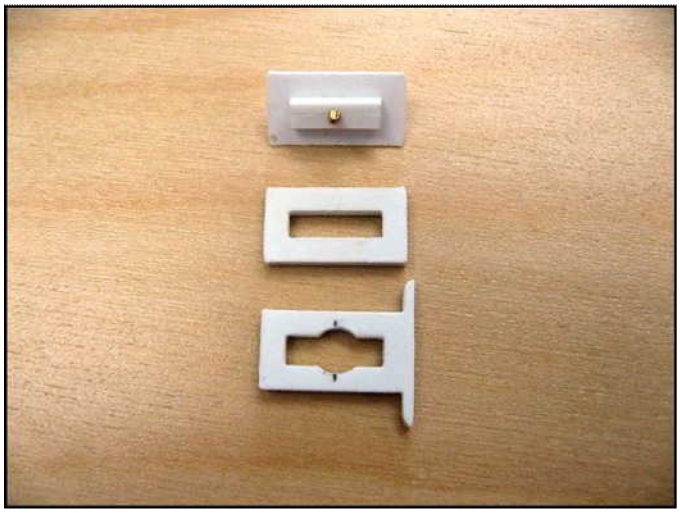
And here's a close-up of the finished product.



The parts for the truck beam caps are shown below. The top piece is the end plate after beveling. As will be mentioned later, I permanently glued one side frame to the truck beams. I found it desirable to make the other side frame removable just in case the wheel sets needed to be replaced in the future. For the side frame that is glued to the beams, the 3 parts are glued together and then glued to the side frame.

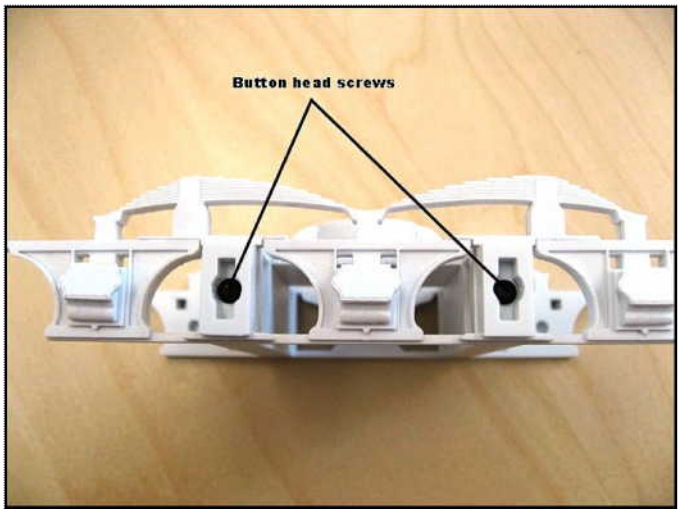
Here is what the truck beam end caps look like when assembled.





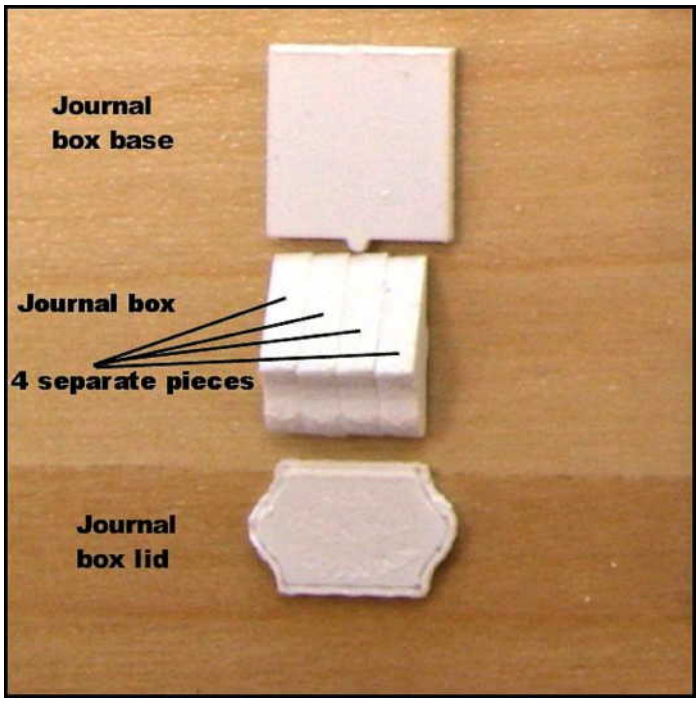
To allow the other side frame to be easily removed, the end plate also has to be removable. The photo below shows the underside of the beam end plate. Two things to note; the end plate needs a piece glued to the underside that is properly sized to permit a snug fit into the opening in the middle piece of the end cap, and the bottom and middle pieces need to be reamed out to allow for the head of the screw that will be used to attach the side frame to the truck beams. (In this picture, I haven't reamed out the middle piece yet.)

I used #2x 3/8" button head screws to attach the side frame to the truck beams.

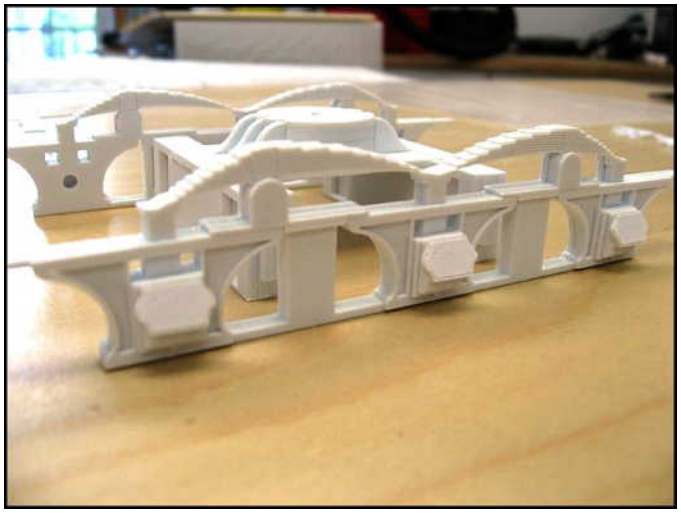


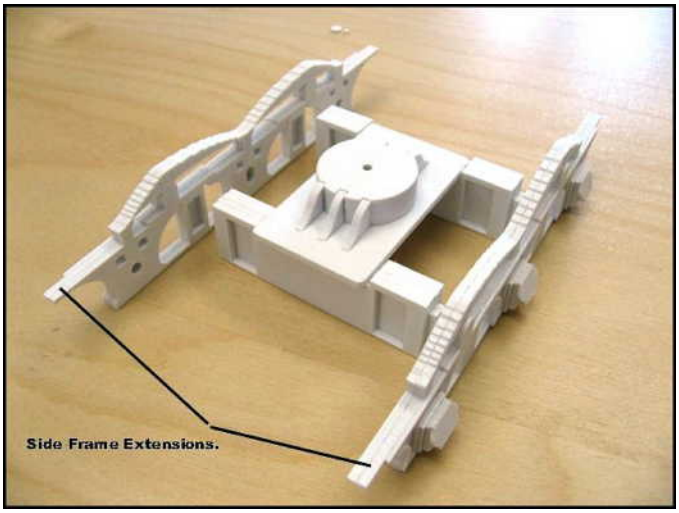
The Journal Boxes

The journal boxes consist of 6 pieces as shown below. They are the base, the 4 small pieces that make up the sloped body of the box, and the inscribed cover. The only improvement that could be made would be to have the laser inscribe the markings on the cover a little deeper. I'm afraid they are going to completely disappear when all the paint is applied. Of course, it would probably be too much to ask if the markings on the covers could be positive instead of negative.



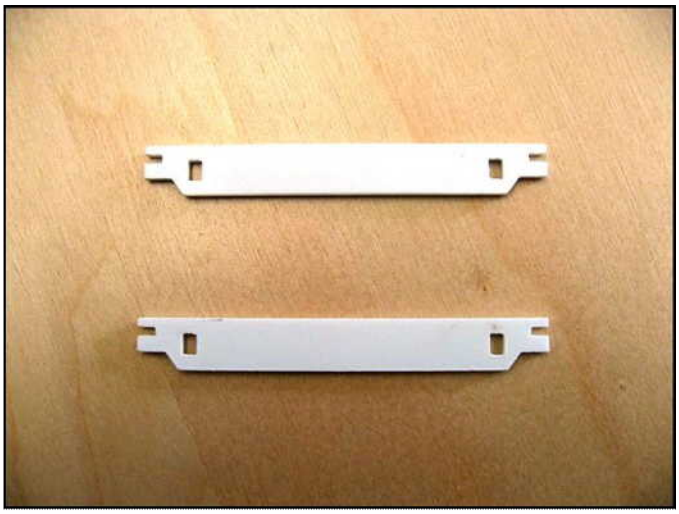
Here are 2 pictures of the partially competed subassemblies.



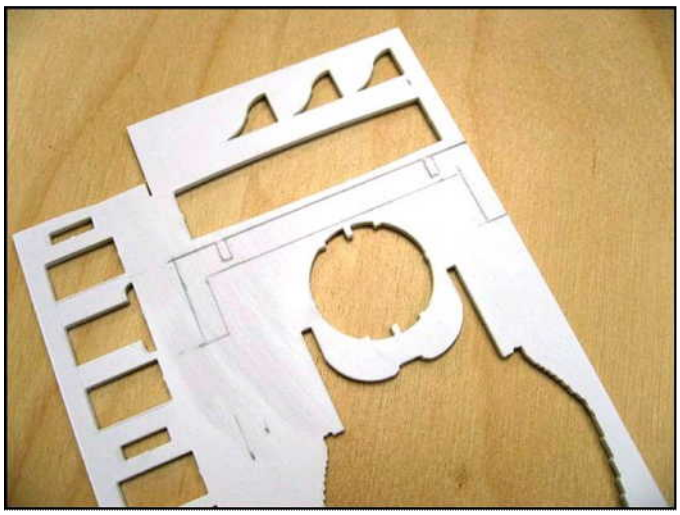


The Brake Assemblies

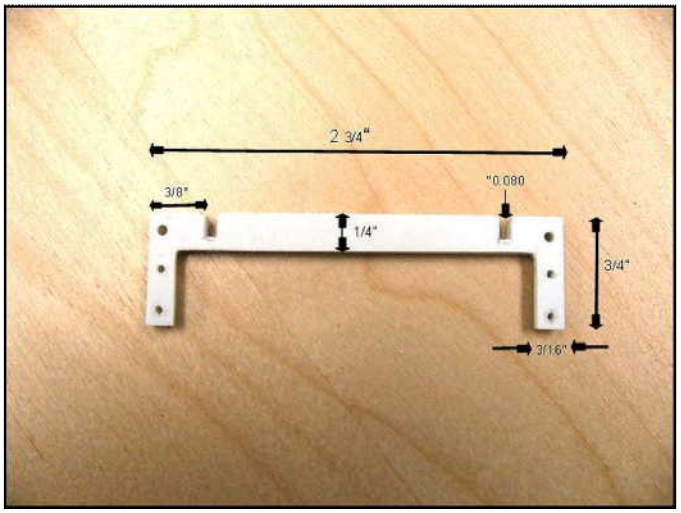
As mentioned previously, the parts provided in the kit permit the construction of a pretty realistic rear truck for the Mason Bogie. However, I felt that the brakes needed some additional work to improve the overall appearance.



Here are 2 pieces from the kit I did not use. These are the brake hanger beams and are intended to be attached the side frame extensions shown in previous picture. They provide a very simple and easy way to hang the brakes. The brakes insert into the 2 rectangular holes. These holes also correctly position the brakes over the wheels.

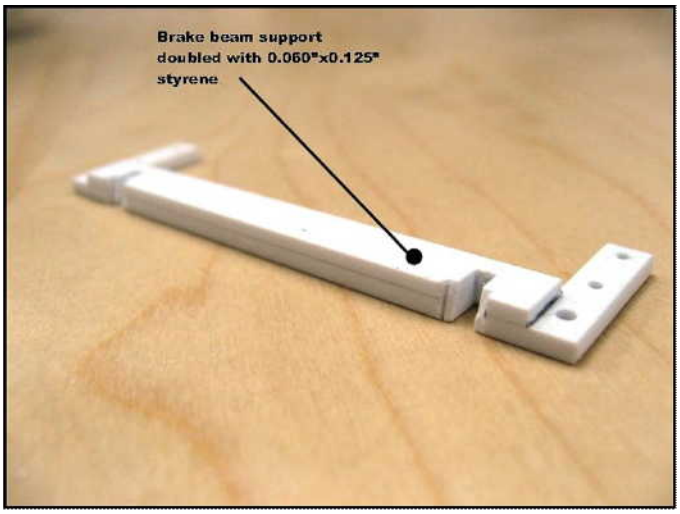


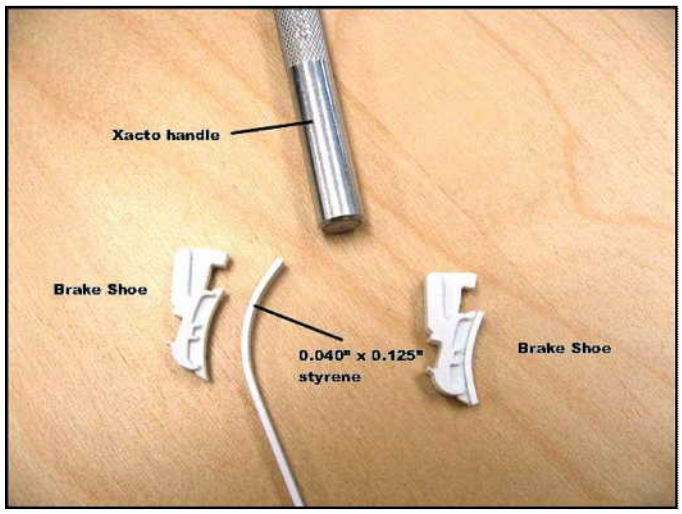
I opted to build my own brake hanger beams. The photo below shows where I got my material for my hanger beams. The outline of a beam is shown in pencil. There is enough room left on each of the thicker parts sheets to make the new pieces.



Below, is the piece I made with the appropriate dimensions indicated. If you use my dimensions, the beam will fit perfectly onto the side frame extensions.

I reinforced the beam, on the underside, with a piece of 0.060”x 0.125” styrene. The reinforcing piece is cut to fit between the insides of the side frame extensions. The combination of the two thicknesses was just right to allow the brake shoes to slide onto the assembly.

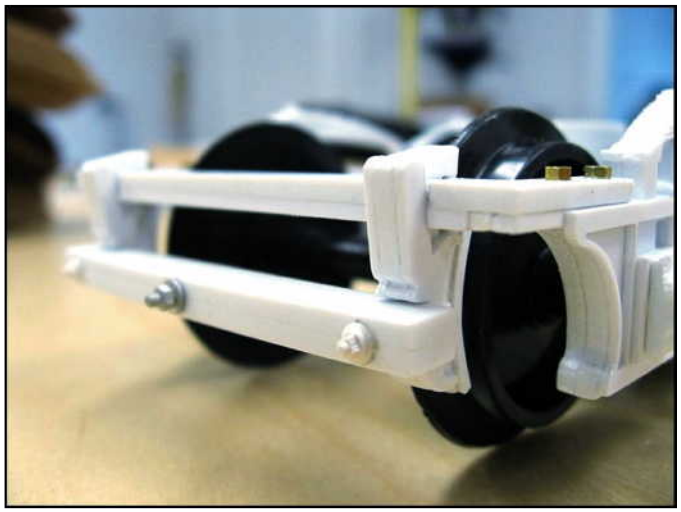


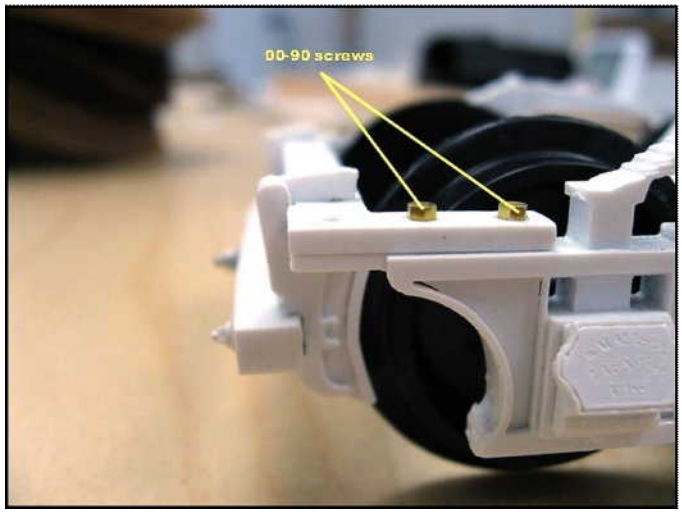


The other thing I did was to add brake pads. These were made from 0.040” x 0.125” styrene. To make gluing the pads to the brakes easier, I pre-bent the strip around a X-acto knife handle. The pad kept its shape long enough for easy gluing.

The assembly steps were as follows: attach brake shoes to upper hanger beams; attach lower beam to brake shoes; and measure and drill for screws that will hold entire assembly to truck.

To the right is a photo of the brake assembly attached to the truck.

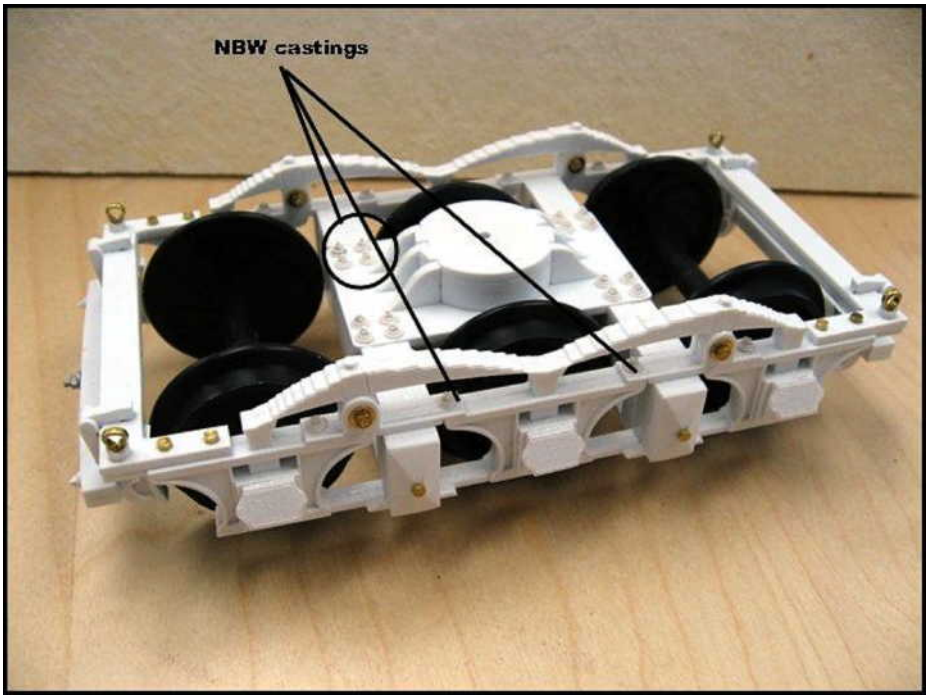




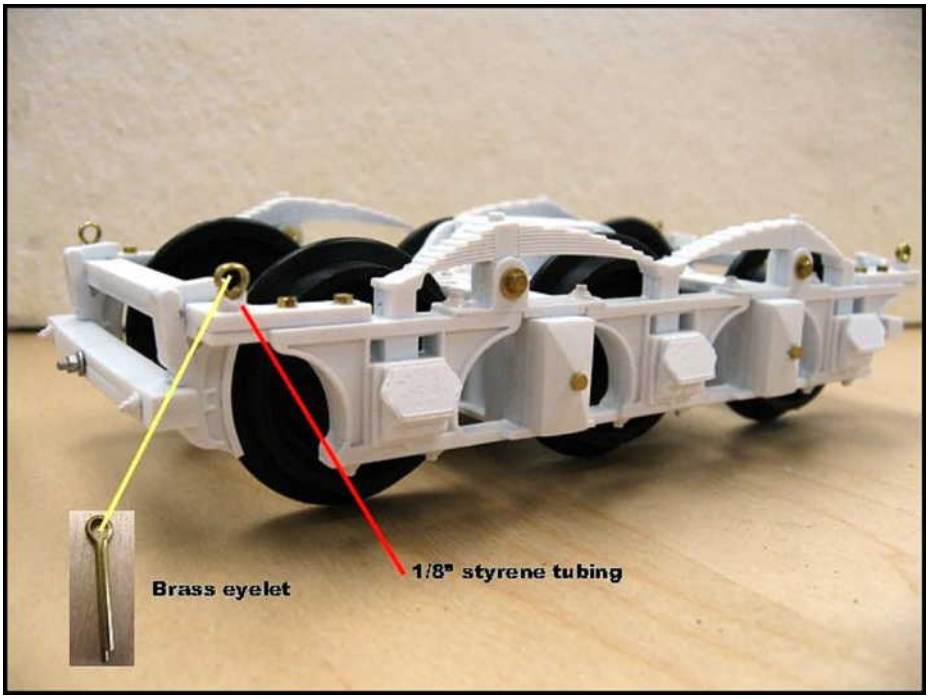
The brake assemblies were attached using #00-90 hex head bolts. I drilled the holes in the brake hanger beam then aligned and marked for the holes in the top of the side frame. I used a #56 drill for the #00-90 bolt holes in the hanger beam and drill size #58 for the tap size in the side frame. Here’s a close up below.

Additional Detailing

I decided to dress up the truck with some added detailing. I found a stash of some various NBW castings. I applied them based on photos of models by other builders.

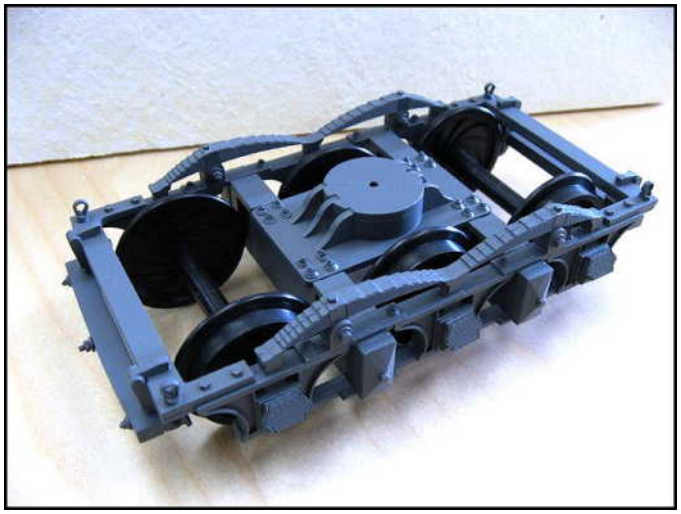


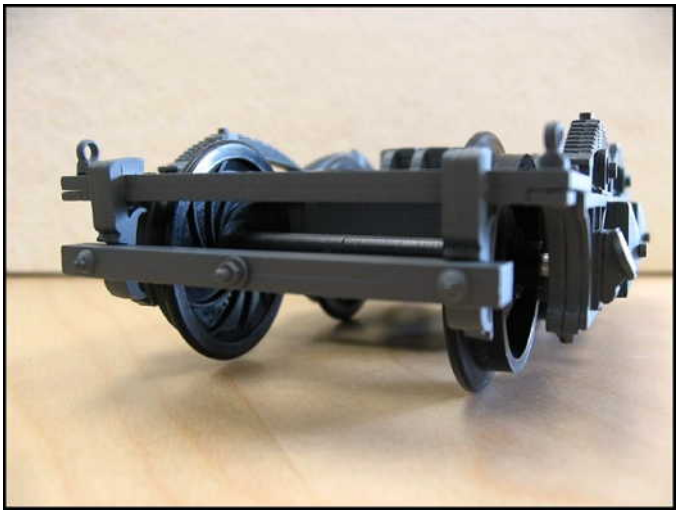
The other parts I added are the eyelets for the safety chains. I found the brass eyelets at Michaels craft store. They actually look more like small cotter pins. They are shown in the insert in the next photo. I made mounts for the eyelets by taking 1/8" dia. styrene tubing, filing the tops of each with a round file, and cutting them to length. I then glued the eyelets into the tubing using thick CA.

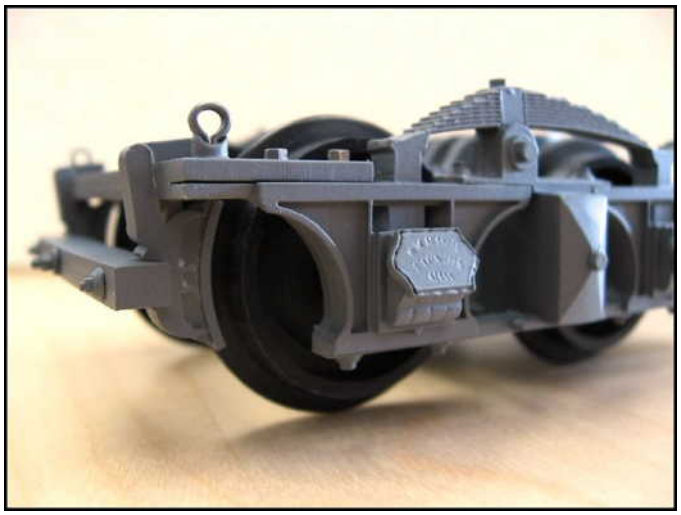


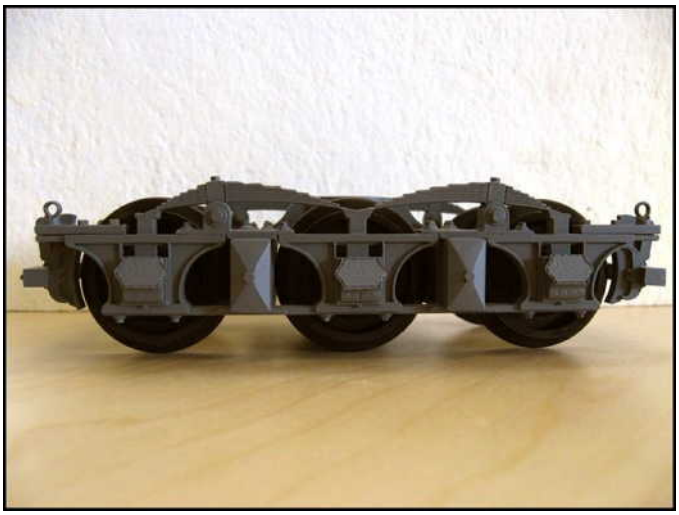
Completed Truck

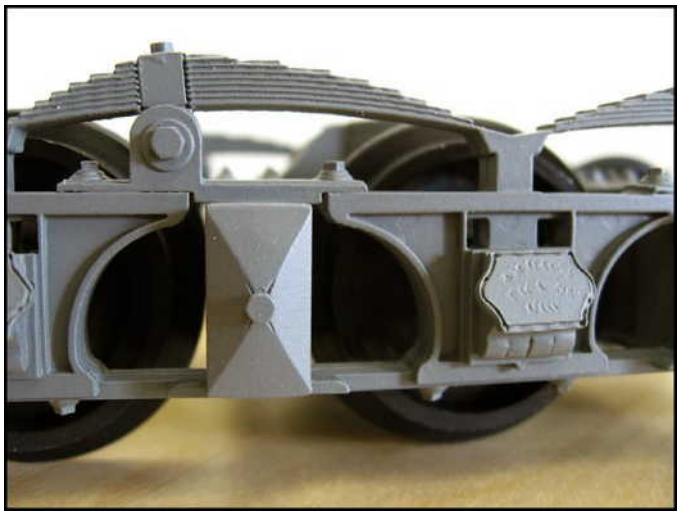
The next to the last step was painting the truck components with Krylon Grey Primer. I will await the final completion of the entire Mason Bogie locomotive before I decide what colors and decals I will use to finish my truck. Below are a few photos of the completed truck. BTW, I didn't have any metal wheels to use so I dug out 3 old plastic, LGB wheel sets.











I hope you enjoyed the photos as much as I enjoyed building the model. I also hope you find the information helpful if and when you decide to build this kit.

I highly recommend the kit and it is well worth the price. Dave has done an outstanding job of designing the truck and Doug has done an outstanding job of providing the parts. All parts are clean and accurate. This kit allows anyone with basic modeling skills to construct a realistic looking truck for their Mason Bogie. The ease of building this kit is far greater than any attempt at scratch building one. I'm not all that knowledgeable with the details of trucks, and still I was able to figure out how this thing went together even without instructions. I'm a very slow builder compared to many, especially Dave Fletcher. It took me approximately 10 hours to complete this model. Not too bad for me. I apologize for any misnomers I may have made regarding the parts. It's only due to my ignorance.

If you have any questions or need clarification of anything I've presented here, please don't hesitate to email or post it to this forum.