



## Instructions: NYC Despatch Shops Incorporated and St. Louis Car Company Bay Window Caboose Kit

9/18/2021



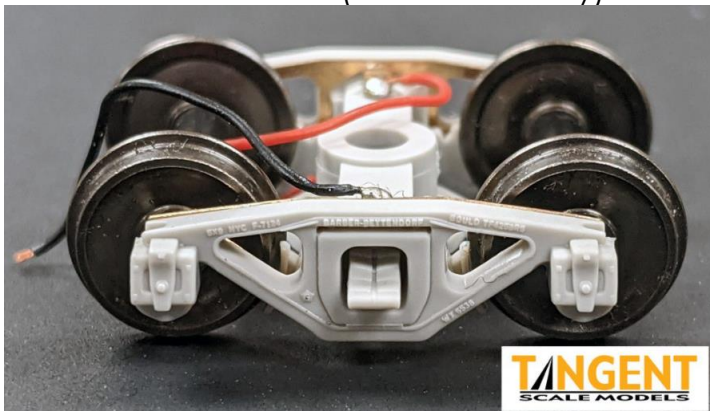
Thank you for purchasing the Tangent Scale Models NYC Despatch Shops Incorporated (DSI) and St. Louis Car Company (SLCC) Bay Window Caboose Kit! We offer four different configurations of our DSI / SLCC cabooses so far. These kits are all very similar to each other! Here are a few quick notes before starting:

- **Do not download or print these instructions until you actually are ready to build.** Why? We update the instructions frequently, so If you saved this file or printed it for later use, please understand that we may have updated the instructions since then. Please check our website to see if this document has been updated before starting your build. We date the document and only show the most current version on our website.
- **Instructions have many large images:** Because some model builders are visually oriented, while others prefer written instructions, we have included *both* text and photos within these instructions. As you can see, many of the images are rather large, to aid in your model building.
- **There are more images at the end:** If you want to see more views of a completed model as a reference for your building, scroll to the end of this document.
- **Modeling from computer screen is ideal:** If possible, we recommend modeling from your computer or tablet screen. You can then enlarge the images as you see fit, and you save ink and paper at the same time.

- **There are several ways to complete your kit:** While there are multiple sequence steps possible to build this caboose, we believe the sequence included here yields the best results.
- **Extra parts are available online:** They are on our website under “Parts for Cars and Caboose”
- **Prototype photos:** While you likely have your own sources of prototype photos, please recall that for each RTR scheme that Tangent releases, we include a prototype photo on our website. You can use these as references in addition to your own sources.
- **This kit is meant for adults:** While we applaud bringing younger modelers into our hobby, this model includes more than 60 small parts, many of which are sharp and/or delicate. Therefore, this kit is recommended for those 14 years of age and older.
- **We offer our trucks separately:** Our gorgeous trucks are available separately, and are interchangeable between our caboose products, in case you want to use them with other projects or with one of our caboose products! Currently available:
  1. **70-Ton Gould Roller Bearing Caboose Trucks w/ Power Pickup** (molded in black)



2. **70-Ton Gould Plain Bearing Caboose Trucks w/ Power Pickup** (molded in Gray)



- **We offer semi-scale wheels separately:** We offer semi-scale wheels separately for our power-pickup caboose trucks in 4 axle packs.



- **This kit does not include lighting or circuitry:** Please note that this kit does not include lighting circuitry or bulbs. Our approach was that kit builders would want to approach lighting their own way. We have included the external-facing lighting appliances: light bars for the side marker lights (pyle or box type, depending on the kit you purchased), as well as the end FRA flasher light (for box marker light kits, SKU 60000-01). Our trucks include power pickup capability and wires, and the kit is ready for whatever lighting circuit or decoder you want to use. (If any!)
- **If you plan to light the caboose:** You may want to plan the drilling of appropriate holes in the metal floor to allow any wires from the truck to pass through the bolster and interior areas. **This should be done at Step 9.** (Notice there are already holes in the plastic bolsters for wire pass-through. Additional holes need to be considered in the metal floor only.)
- **We want feedback:** If you find something missing from our text instructions, or you believe there is an error within these kit instructions, please let us know by submitting a comment to us on our website or sending an email to [support@tangentscalemodels.com](mailto:support@tangentscalemodels.com) Thank you!

### **There are 4 versions of our NYC DSI/SLCC Kits:**

1. **Undecorated KIT 1949+ (NYC)** is a fully unassembled kit version of the as-built 1949+ era Lot 782 DSI caboose. This kit features a full running board on the roof and also includes extra part variations for railings, walkways and underframe details to handle the Lot 827 St. Louis Car built prototypes. Heads up NYC and P&LE kitbashers: This is a great kitbash path to a custom built NYC 1948 DSI Lot 778 caboose or a shorter P&LE Lot 795 caboose! This kit is UNLIT -- no electronics are included. It is perfect for those who want to build their own cabooses or want to customize their own lighting circuit options. Ready for painting and lettering for a prototype or your own private road. This kit includes Tangent Gould 70T plain bearing caboose trucks with power-pickup and 33" standard 110 tread CNC wheels. You supply your own favorite couplers. SKU 60100-01.
2. **Undecorated KIT 1963+ (NYC-PC-Early CR)** is a fully unassembled kit version of the modernized 1963+ era Lot 782 DSI caboose. This kit features a full running board on the roof as well as the roof vents, battery box and other upgrade features from the NYC Beech Grove Shops upgrade program. The kit also includes extra part

variations for St. Louis Car railings, end walkways and underframe details. This caboose kit covers the 1963+ NYC era, PC era before running board removal as well as some early CR paint jobs. Heads up NYC kitbashers: This is a starting path to a custom built 1963 DSI Lot 919 caboose! This kit is UNLIT -- no electronics are included. It is perfect for those who want to build their own cabooses or want to customize their own lighting circuit options. Ready for painting and lettering for a prototype or your own private road. This kit includes Tangent Gould 70T plain bearing caboose trucks with power-pickup and 33" standard 110 tread CNC wheels. You supply your own favorite couplers. SKU 60101-01.

3. **Undecorated KIT 1979+ (CR)** is a fully unassembled kit version of the modernized 1979+ era Lot 782 DSI caboose. This kit features a roof without a running board but does have the roof vents, battery box and other upgrade features from the 1960s NYC Beech Grove Shops upgrade program. The kit also includes extra part variations for St. Louis Car railings, end walkways and underframe details. This caboose kit covers the 1979+ CR era, perfect for those who just can't get enough CR cabooses on their roster. Heads up CR kitbashers: This is a great starting point towards a CR Era N7B (ex 1963 DSI Lot 919) or a CR Era N10 (ex 1969 PC Altoona Car) caboose! This kit is UNLIT -- no electronics are included. It is perfect for those who want to build their own cabooses or want to customize their own lighting circuit options. Ready for painting and lettering for a prototype or your own private road. This kit includes Tangent Gould 70T roller bearing caboose trucks with power-pickup and 33" standard 110 tread CNC wheels. You supply your own favorite couplers. SKU 60102-01.
4. **Undecorated KIT 1975+ (ITC-NW)** is a fully unassembled kit version of the modernized 1975+ era Illinois Terminal St. Louis Car Co. caboose. This kit features a roof without a running board and also has the "cut-down" modern ends with ladders removed. This kit is a great choice for the late 1970s ITC and NW modelers. Yes, some of these made it into NW red! This kit is UNLIT -- no electronics are included. It is perfect for those who want to build their own cabooses or want to customize their own lighting circuit options. Ready for painting and lettering for a prototype or your own private road. This kit includes Tangent Gould 70T plain bearing caboose trucks with power-pickup and 33" standard 110 tread CNC wheels. You supply your own favorite couplers. SKU 60103-01.



## OVERVIEW OF THIS KIT'S CONTENTS:



### Parts bags included:

- Item 1 – Underframe, brake lines, running board, and pedestal for interior lights
- Item 2 – Interior parts, coupler boxes
- Item 3 – Floor
- Item 4 – Window glass
- Item 5 – Trucks with wheels
- Item 6 – Brake parts, air hoses, etc.
- Item 7 – End frame parts
- Item 8 – Wire parts
- Item 9 – Screw bag?
- Item 10 – Etched step and flag parts

### Standalone parts included:

- Part 11 – Body Shell

**Parts needed/recommended:**

- Couplers. The coupler boxes for this caboose are designed for Kadee “whisker” shank couplers - #158.

**Tools needed/recommended:**

- Liquid styrene cement to bond plastic to plastic parts (Tamiya green bottle, Testors Liquid Styrene Cement are two easy to obtain example products)
- CA-type cement or cyanpoxy (sold in hobby shops, or in hardware store as “super glue” under various brands in the small squeeze tubes) for wire to plastic joins – best applied with a piece of scrap wire to keep “glue blobs” to a minimum (**Note:** Many of the small parts in this kit are made from slick engineering plastic. (Sometimes referred to as Delrin or POM). For these types of joins, you will need to use CA-type cement or cyanpoxy. This includes the end cage parts and the running board)
- Hobby knives - #11 and #17 are ideal
- #78/#79 drill bit in a pin vise is useful, although a #11 blade can be used gingerly
- Small Phillips head screwdrivers
- A foam cradle to rest the model on as you work. An inexpensive offering is here: <https://www.micromark.com/Foam-Cradle>

**PREAMBLE – THINGS YOU SHOULD KNOW**

- **This kit is NOT recommended for children aged 14 and under.**
- **Small parts:** there are many very small parts included in this kit. The assembly sequence requires you to have several bags open at a time, so we recommend a clean and open work surface so that you can keep all of the parts in the open and accessible. Let's get started!
- **Assembly Sequence:** This kit is designed so that there are three separate subassemblies, allowing you to assemble, paint, and weather each one then join them to complete the kit. That being said, if you want to fully paint the interior it would be much easier to paint the individual components and the floor before assembling them. Also, when assembling the body you may want to consider leaving out the window glass until all paint and weathering is complete. There is no particular sequence to the assembly process, meaning you can build any of the three subassemblies in any order since they are not connected by any individual parts until all are joined together. These instructions will show the underframe first, followed by the interior, then the carbody.
- **Painting:** For the purposes of these instructions we will begin with the interior, then the underframe, then the body. We advise painting the interior assembly prior to working on the body.

Let's get started, and enjoy your build!

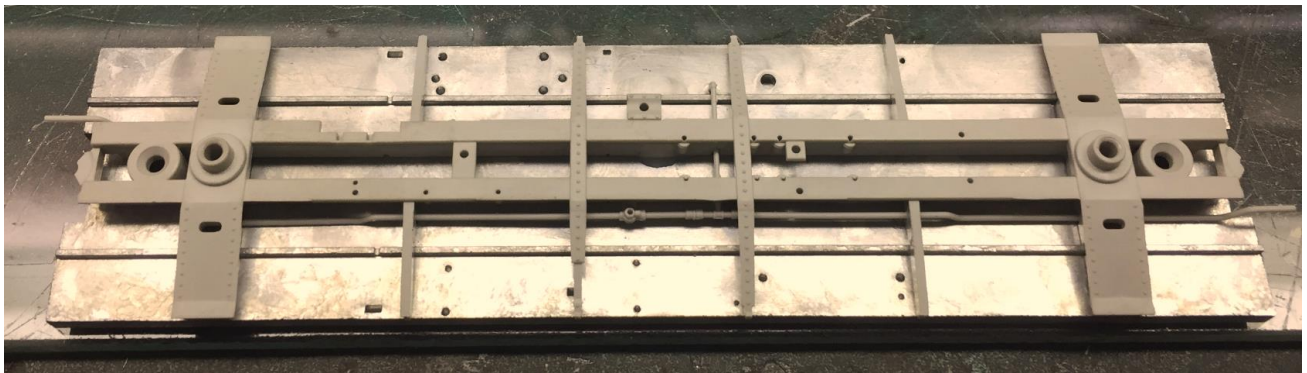
## UNDERFRAME ASSEMBLY

The underframe will use parts in bags 1, 2, and 3.

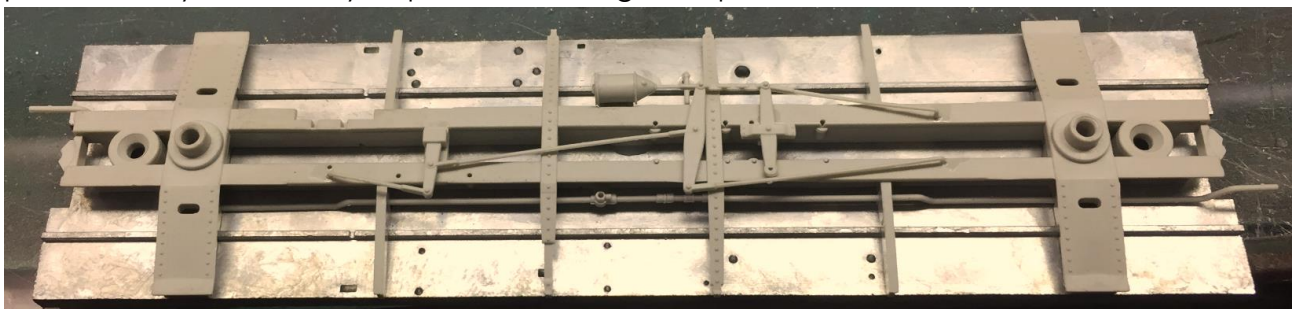
1. **Locate the floor.** Locate the metal floor piece and place it on your work surface with the trench for the lighting wires facing down.



2. **Install the train line and center sill.** Locate the train line and the center sill. The train line will fit in notches in the sill assembly. Orient it so that the coupling for the dirt collector pipe is opposite the bracket for the brake cylinder. You will see a series of small holes between the ridges in the floor; this is where the small pins on the train line go. Carefully line up the sill assembly and secure with CA.

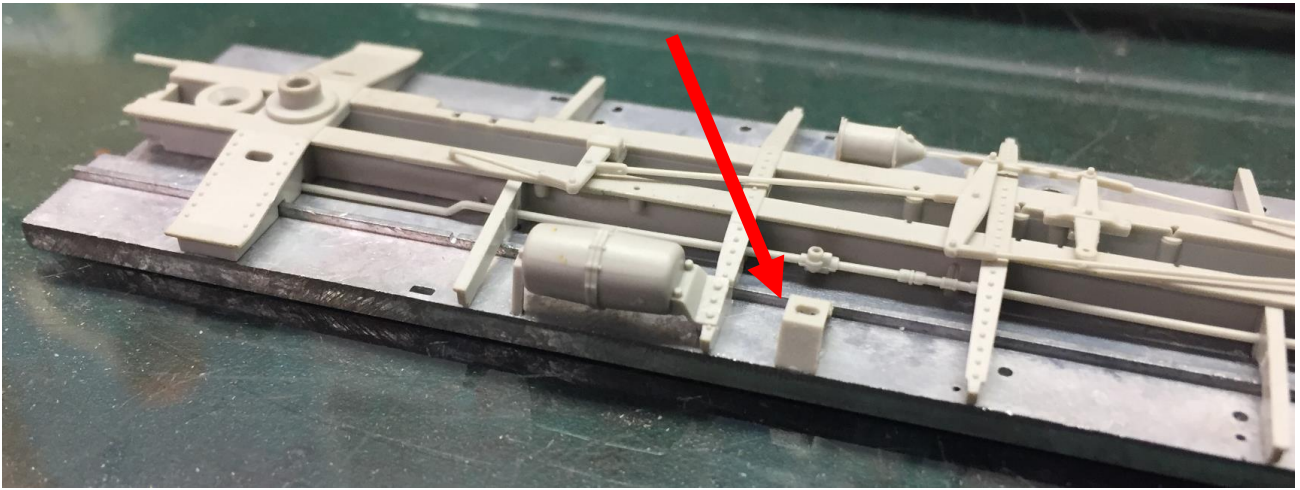


3. **Install the cylinder/brake lever assembly.** Next, install the cylinder/brake lever assembly into the bottom of the underframe. after cleaning up any flash (being very careful!). This part can only fit one way so position it and glue in place.

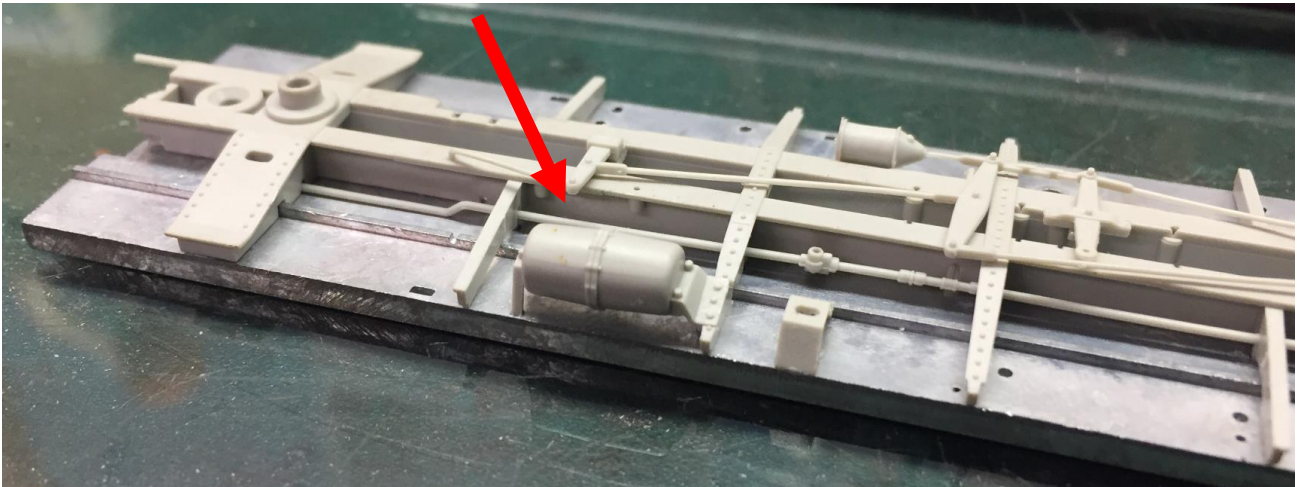




4. **Install the AB valve bracket.** Locate the AB valve bracket that is correct for the version you are building. One side of the bracket has more of an angle to it; this goes toward the center sill of the caboose.

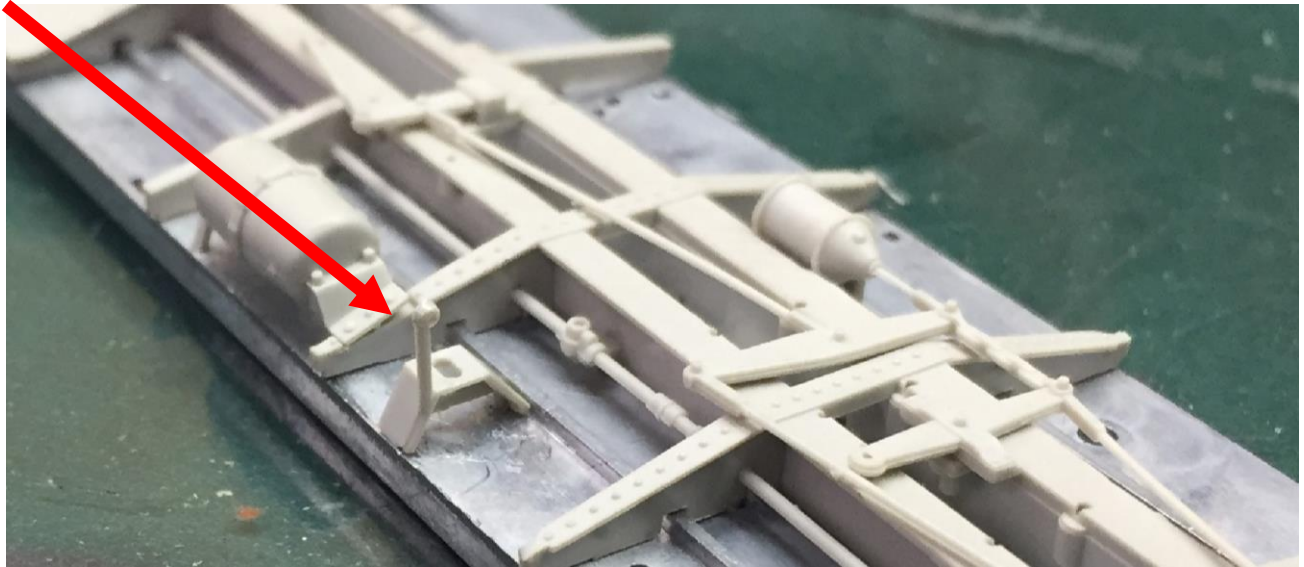


5. **Install the brake reservoir.** After the glue cures, install the brake reservoir on the bracket with the holes facing the center of the caboose. Glue the reservoir to the left of the AB bracket in the holes provided. It can only fit one way.



6. **Install the air line hangar part.** Locate the plastic hangar part and install it underneath the caboose.





7. **Install the brake release rod.** Bag 8 contains the wire parts. Open the bag and empty the contents being careful to not lose any in the process. You will first need the brake release rod.



You will also need one part from Bag 1: the small bleed rod support bracket.



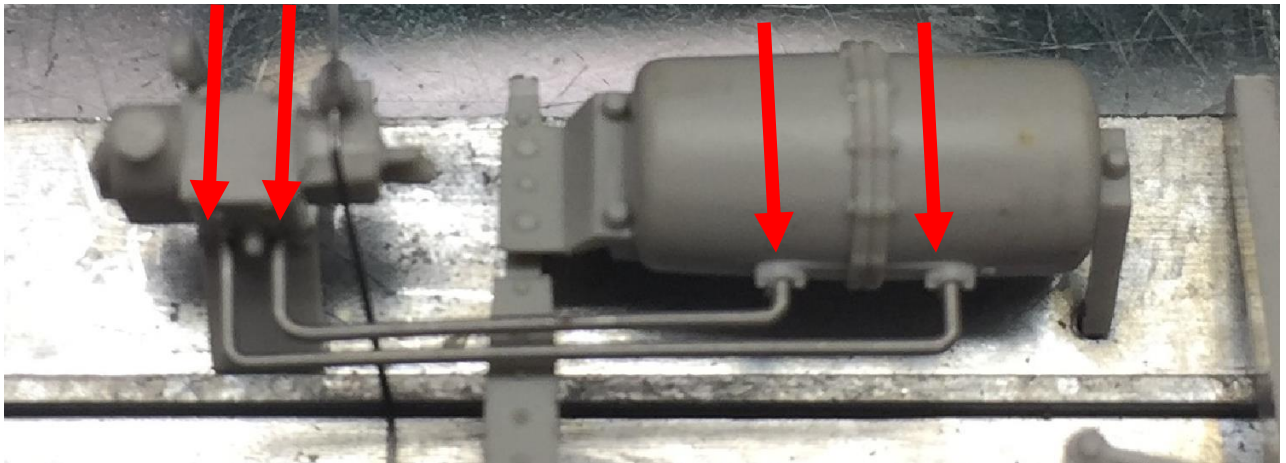
The bleed rod can be installed in the underframe before you install it on the floor, or you can do as we did and cut it in half and install it after the sill is in place. Install the small bleed rod bracket in the floor. Referring to the photos, position the two halves of the bleed rod and secure with CA.



8. **Install the piping from AB-valve.** From the wire parts locate the two pipes that go from the reservoir to the AB valve.



These parts will fit into the lower two holes in the AB valve. Secure the wires in the reservoir with CA but wait until all parts are inserted into the AB valve before gluing to avoid blocking the holes.



9. **Install the conductor release line.** On this version of the build, there is a curved wire that goes from the eyelet in the AB valve bracket to a hole in the floor. Secure with CA.

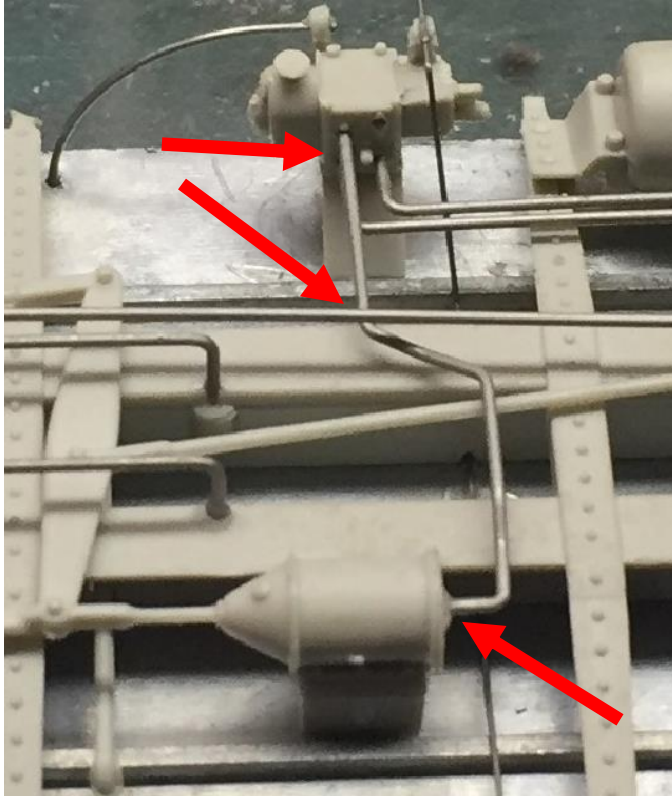


10. **Install the cylinder to AB valve line.** There is a very irregularly shaped wire that goes from the cylinder to the upper left hole in the AB valve.

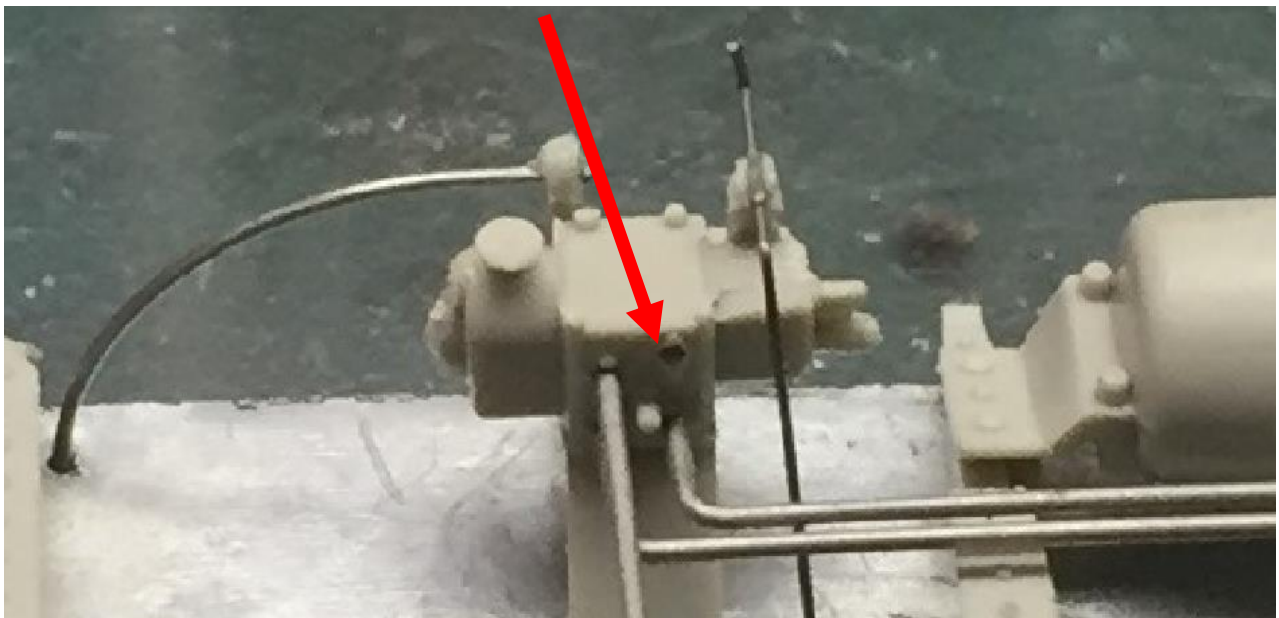


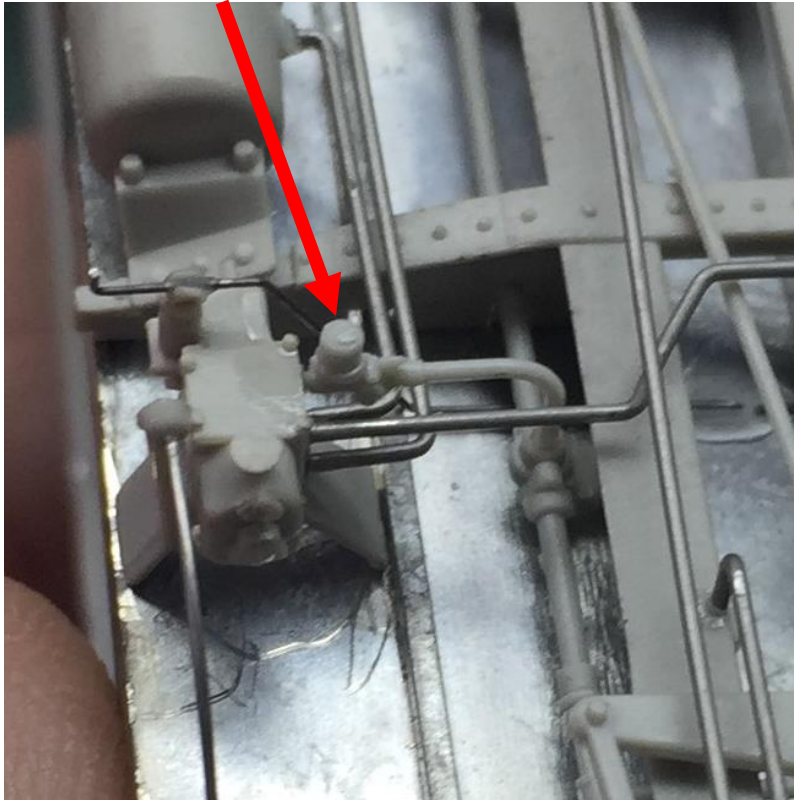
Position and secure in the cylinder with CA.



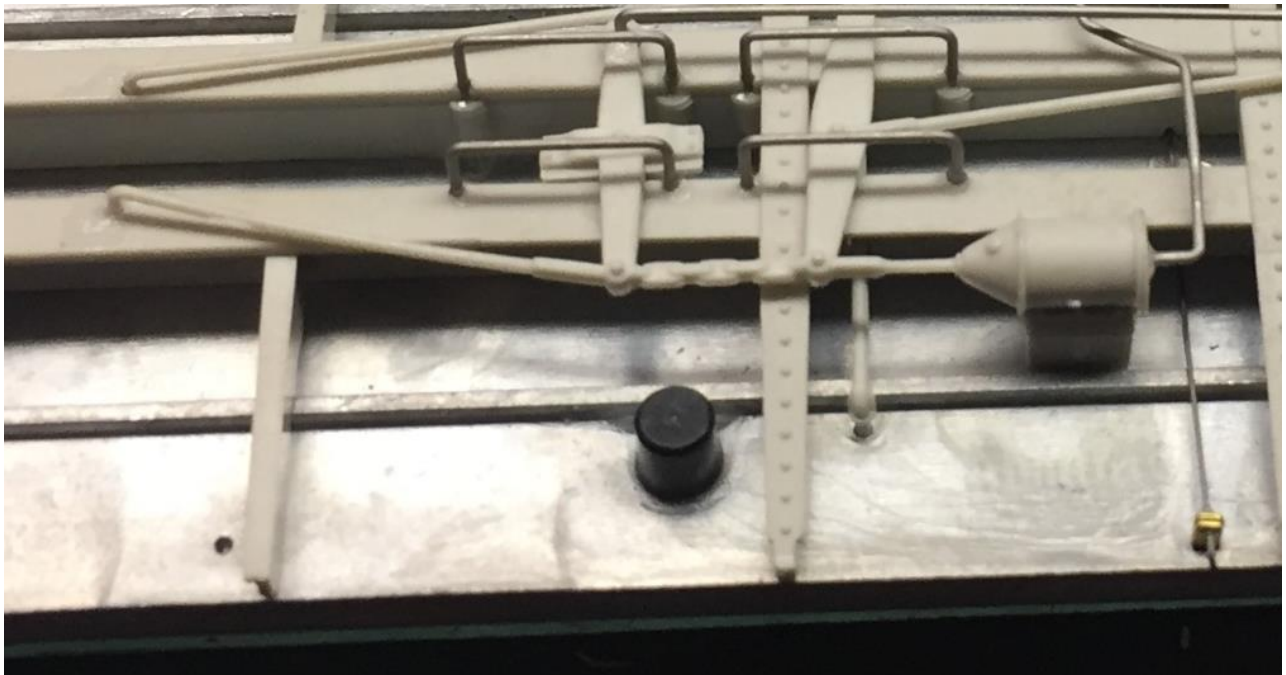


11. **Install the dirt collector.** Locate the plastic dirt collector pipe and position it so that the curved end goes into the coupling in the train line, and the other end goes into the top right hole of the AB valve. Now that all parts are inserted into the AB valve you can secure all of them with CA.

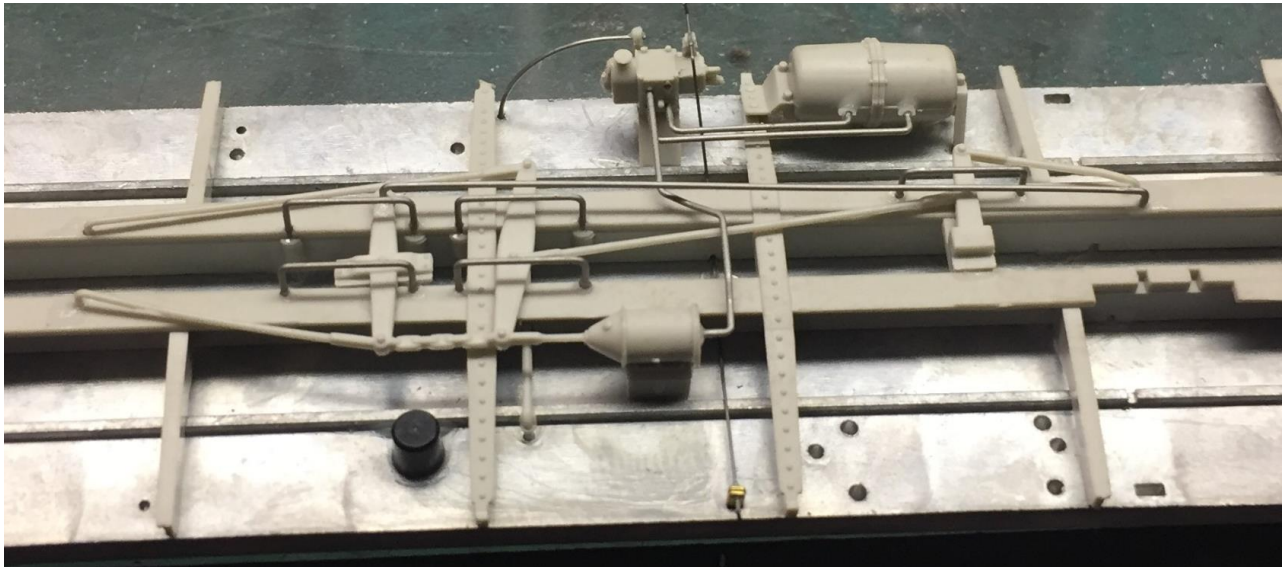




12. **Install the toilet drain pipe.** Locate the black plastic toilet drain pipe and install it into the large hole in the floor. There are several versions of this part so refer to your prototype to determine which you will use, or none at all for more modern-era versions.



13. **Finish the brake line installations.** Install the remaining wire parts into the floor using the photo as a guide, securing everything with CA.

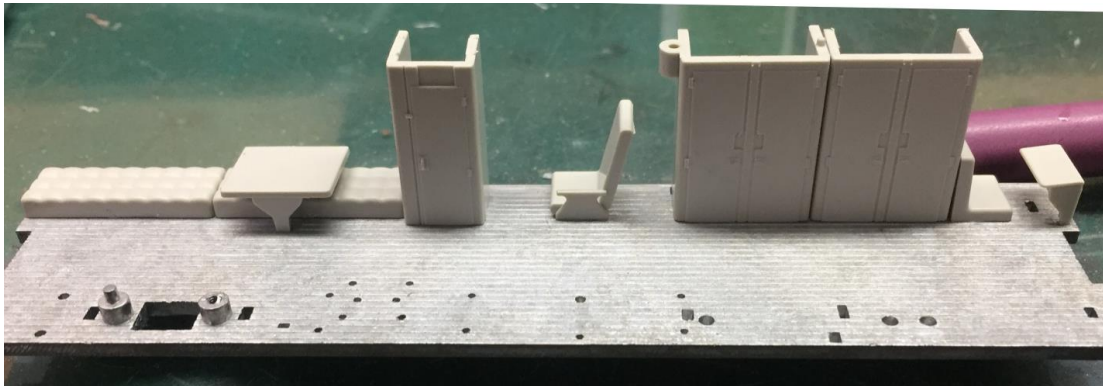


This completes the assembly of the underframe. Put all unused parts back into their respective bags and put them aside until needed again.

#### **INTERIOR ASSEMBLY**

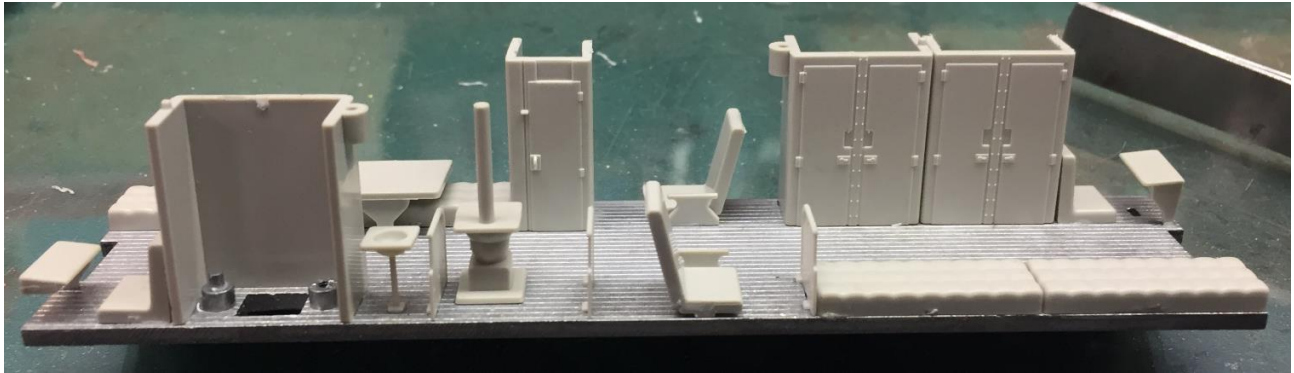
This is the NYC Interior – If you have the ITC kit, check out the ITC interior photo at the very end of these directions with the double bunks!

14. **Position the interior parts that sit above the air cylinder.** Locate the metal interior sub-floor part. It has the modeled wood-grooved floor. There is a small cut out that will align it with the underframe when assembled together. On one side of the floor you will have from right to left: a desk, chair, 2 large lockers, a seat with an armrest, a small locker, a bench, a table, and a second bench. The large locker with the small nub on the upper corner goes closer to the center of the caboose. These are on the side of the caboose that has the brake cylinder. Temporarily join the interior floor to the underframe to allow you to orient the interior details correctly. Once all the components are arranged on the one side of the floor, secure all of the parts in place with CA.

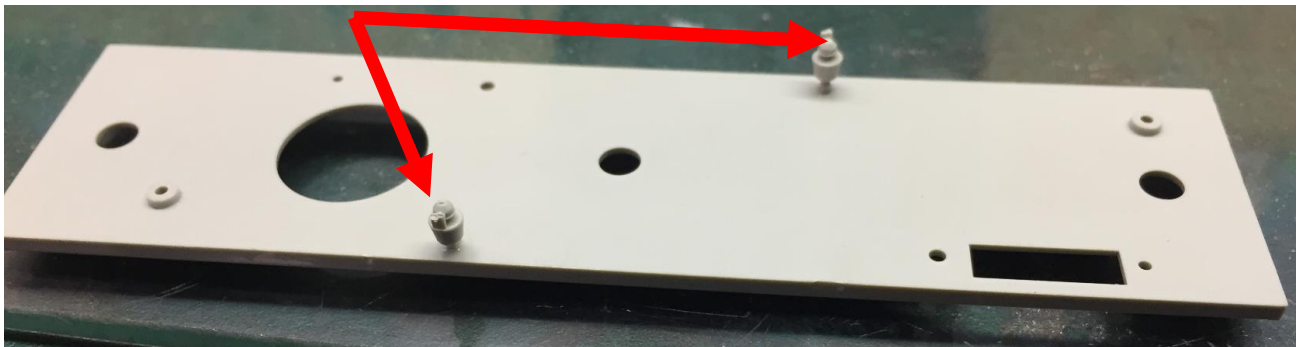




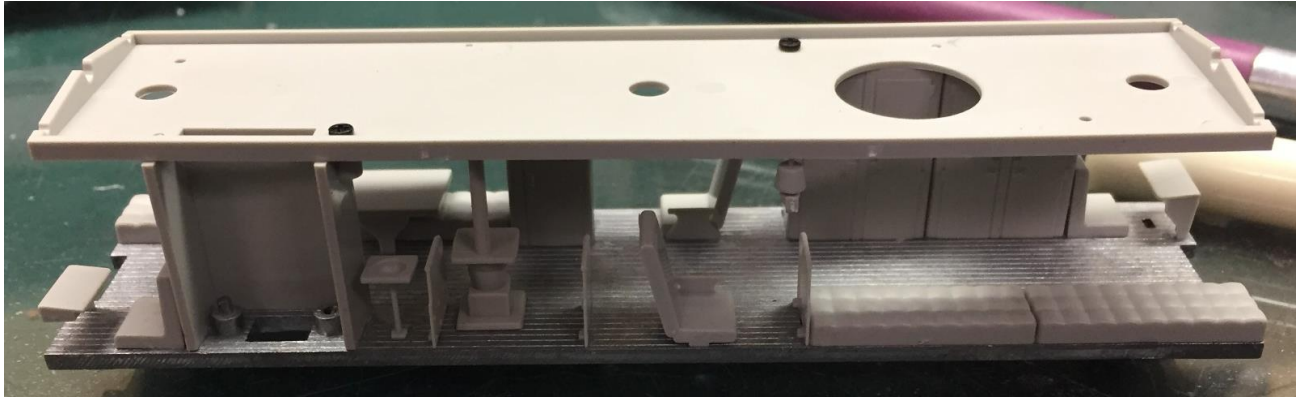
15. **Complete the opposite side of the interior.** On the other side of the caboose the order from left to right is: a desk, a chair, a locker (with a nub in the upper corner), the sink, a divider, the stove, another divider, a chair with armrest, another divider, and two benches. The sink and dividers are contained in bag 6.



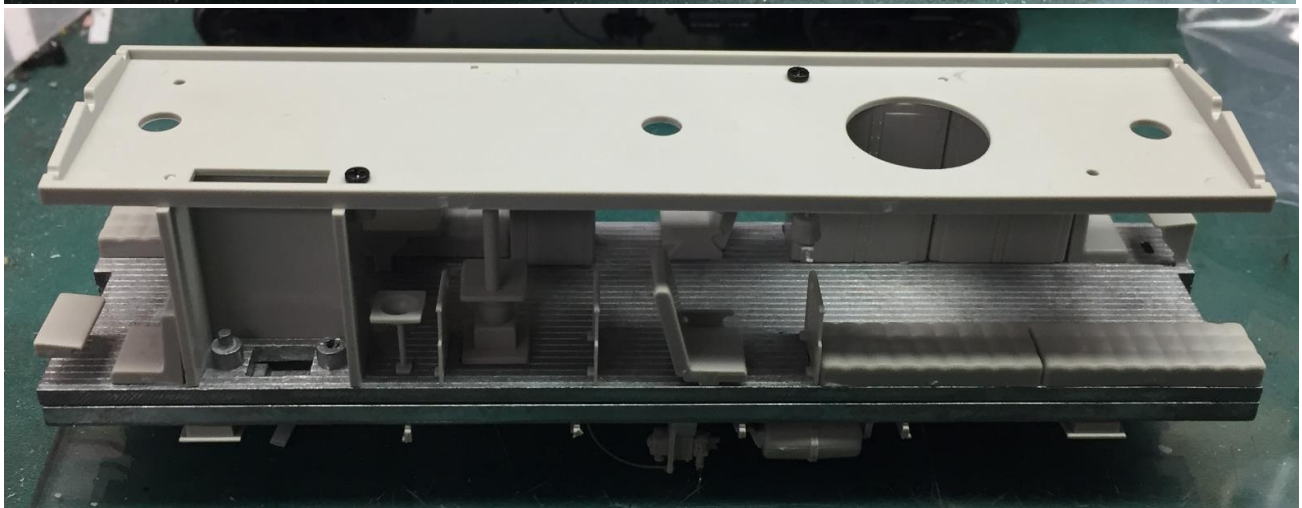
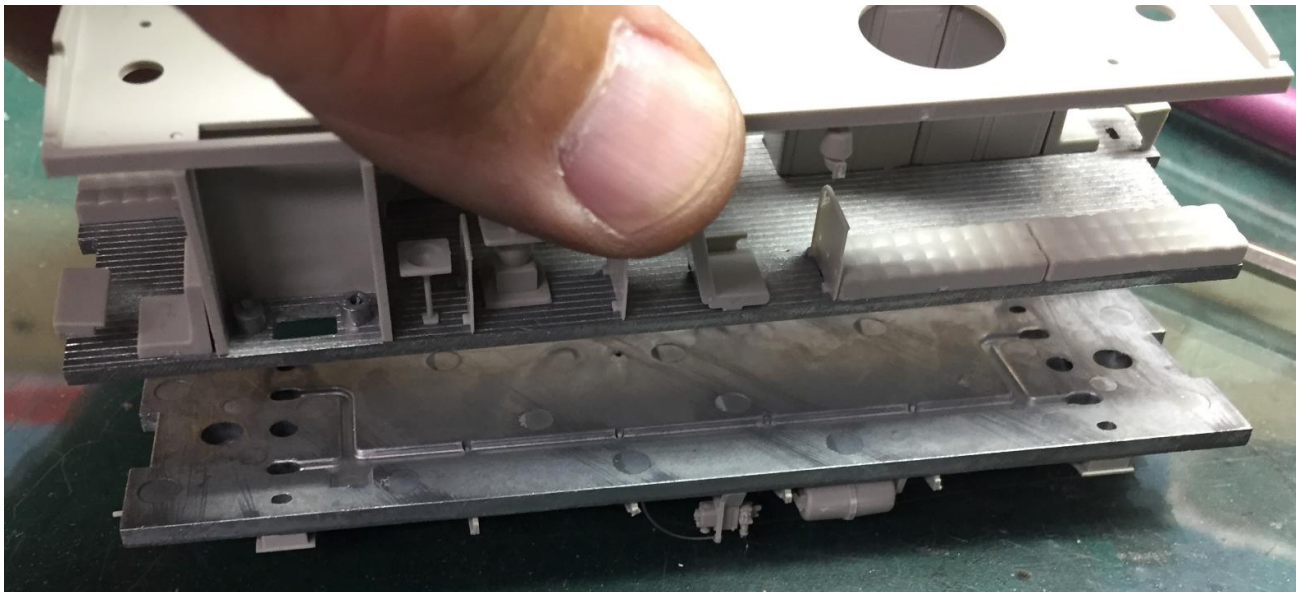
16. **Install the interior light fixtures to the interior sub-roof.** Locate the interior sub-roof and lay it down on your work surface with the flat side (not the side that has an outer lip) facing up- this will be the “roof” of the caboose interior. Locate the two interior light fixtures and glue them into the small square holes in the roof with the small “paddle” facing the outside of the roof.



17. **Install the interior sub-roof.** Bag 9 has a small bag marked 14025DPB that has three small screws in it. You will use two of them to secure the roof to the tops of the lockers. The square opening of the roof goes over the locker that is over the square opening in the floor. Orient so that the flat side with the two small parts you installed is facing down.



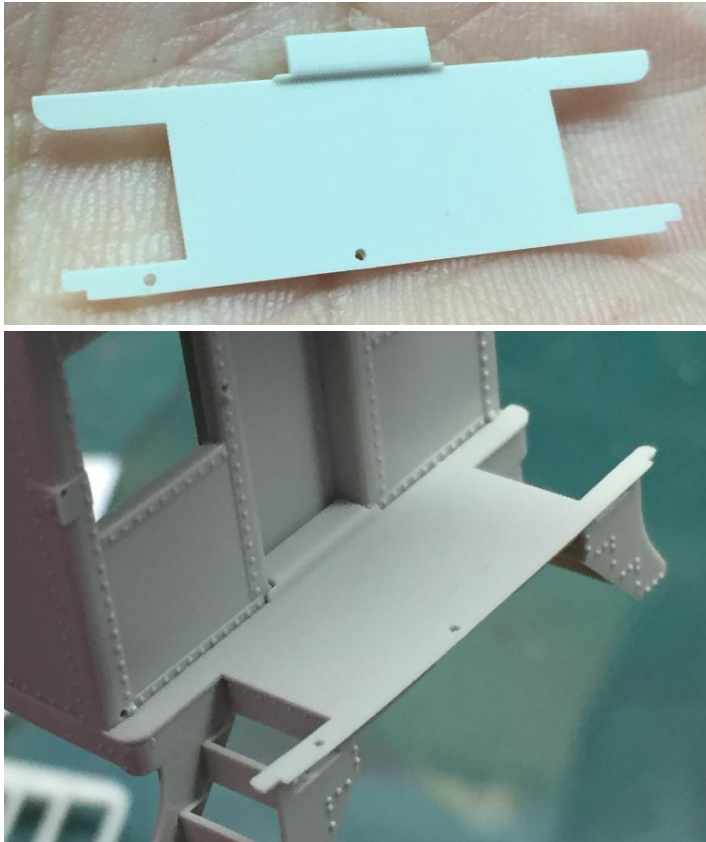
18. **Merge the interior and underframe assemblies.** Line up the interior to the underframe assembly. They do not need to be glued together since they will be held together with screws.



This completes the assembly of the interior. Set it aside for now.

### **CARBODY ASSEMBLY**

19. **Install the end platforms.** Begin by emptying the contents of Bag 6. Depending on the version you are building, choose the correct end platform. (Square nub pattern – DSI, Diamond tread pattern = SLCC!) There is a tab in the center of the part that will fit into the notch below the end door. Secure the platform but do not glue the two “wings” on the ends since these will need to be loose so that you can attach the end cages in a later step.

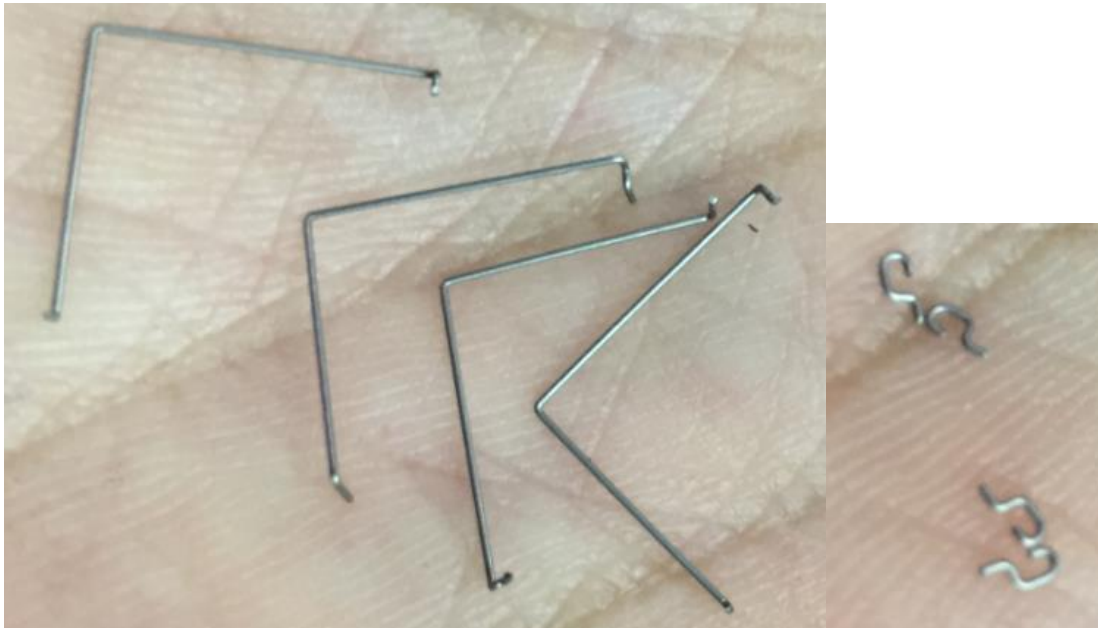


20. **Install the smoke jack.** Choose the appropriate smoke jack and install in the opening on the roof.

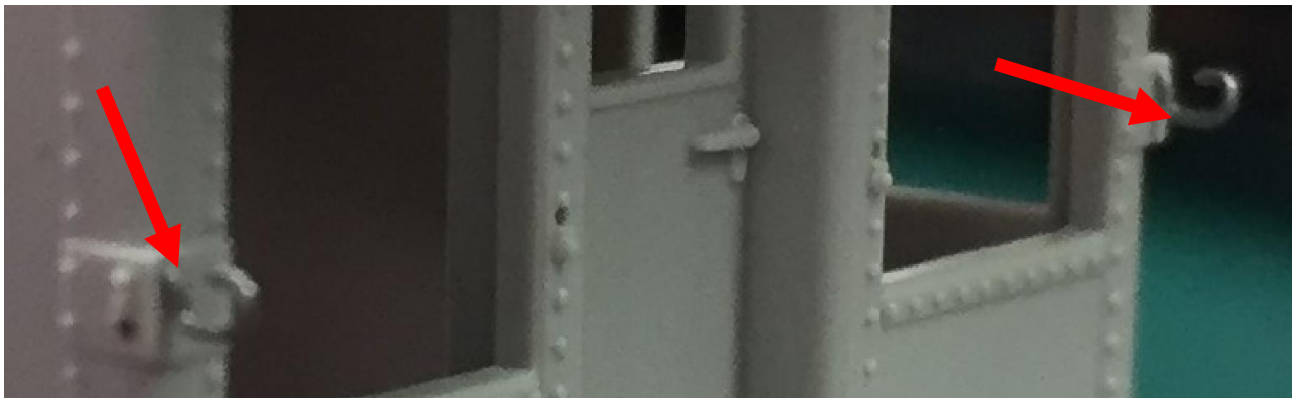




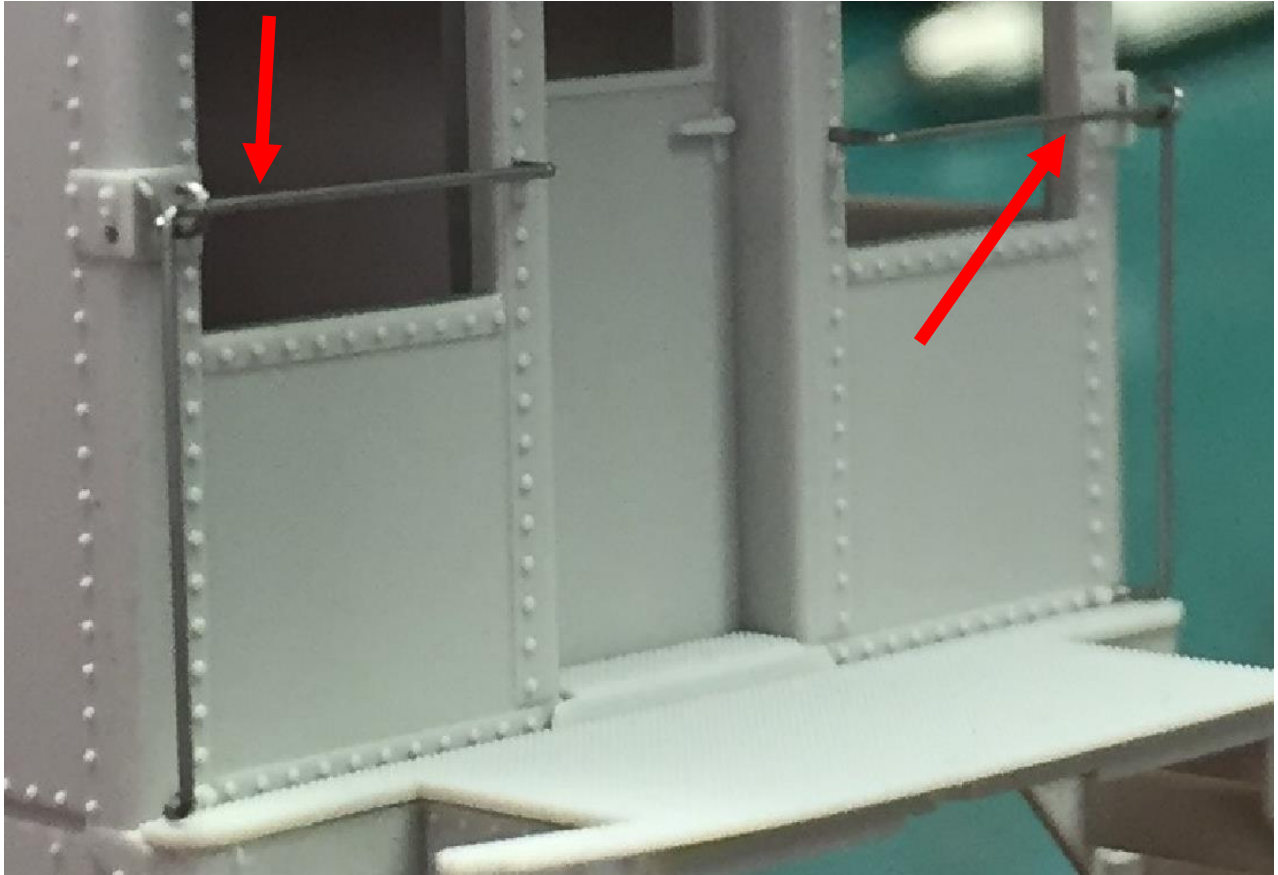
21. **Install the end railing eyelets and end railings.** Going back to the wire parts bag, empty the contents and locate the four L shaped end railings and eyelets.



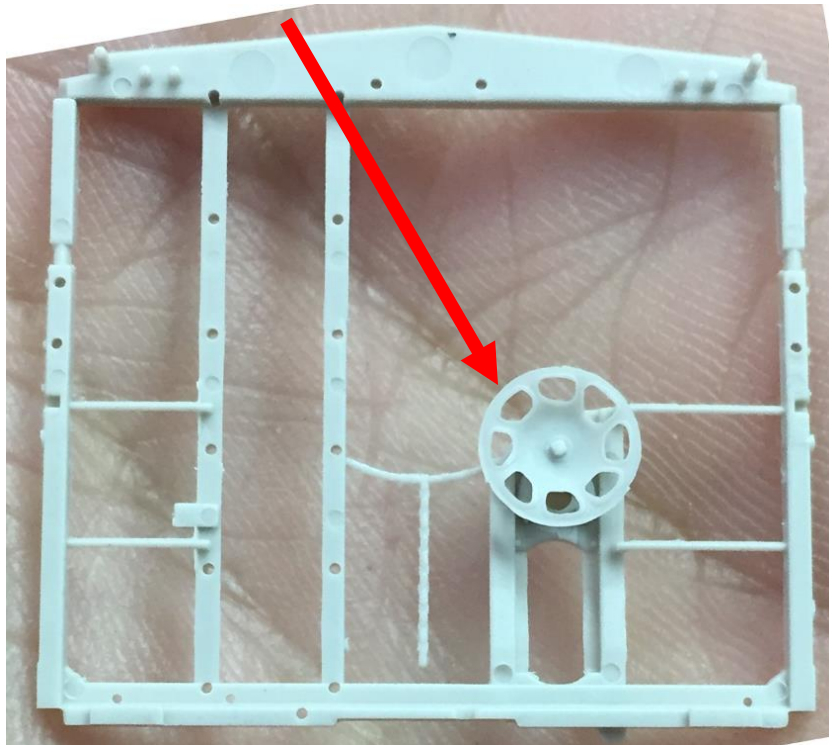
Glue the eyelets in the holes in the body located at the lower outside corners of the end windows.



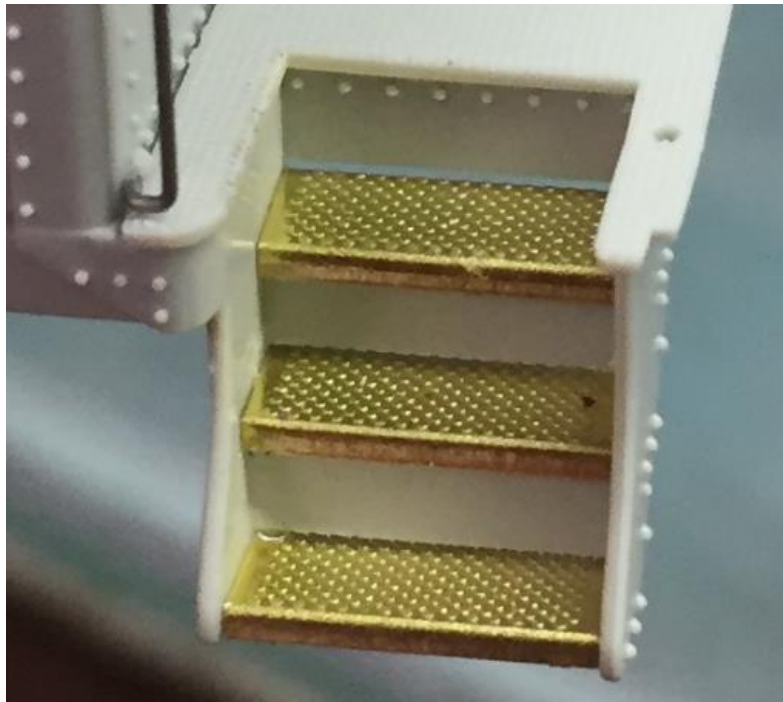
The end railings have one side that has a compound bend-this will go into the hole in the lower outside corner of the body just above the end platform, therefore there are left and right versions of the rail. Orient the appropriate railing on both ends of the caboose and secure all four with CA.



22. **Choose the end frame and install the brakewheel.** Choose the appropriate end cage variation and brakewheel for your build. Consult photos for guidance on the appropriate parts. Glue the brakewheels in the upper holes in the brake housing of the end cages.

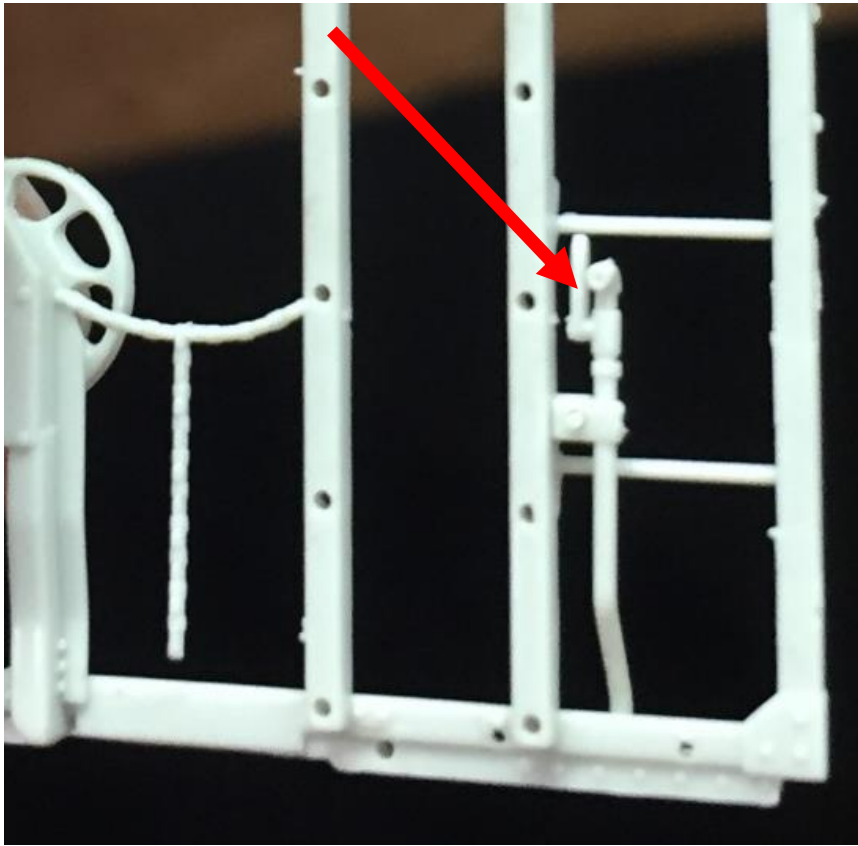


23. **Install the step treads.** There are three different tread patterns on the steps. Choose the one that is appropriate for your version. The step wells have small ridges on the sides that the treads sit on and the front lip of the tread fits over the vertical supports. Position the treads in the step wells so that they rest on the ridges and the front lip sits flush on the vertical support. Secure from the back side with CA.

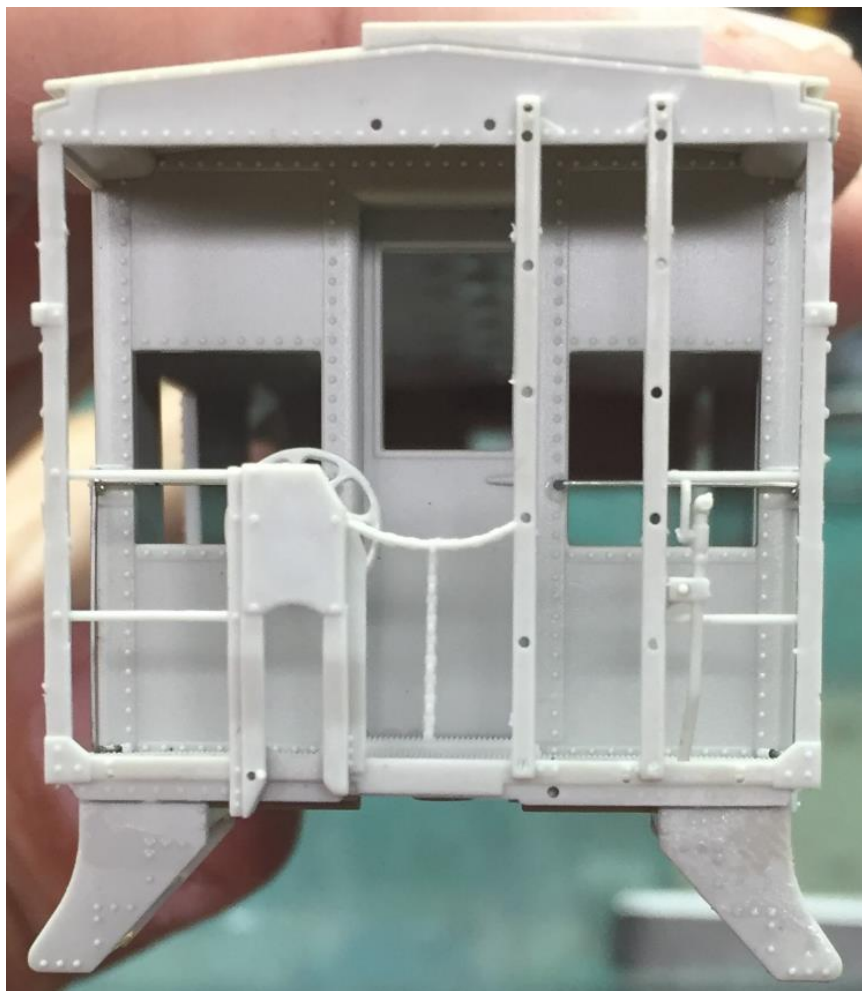


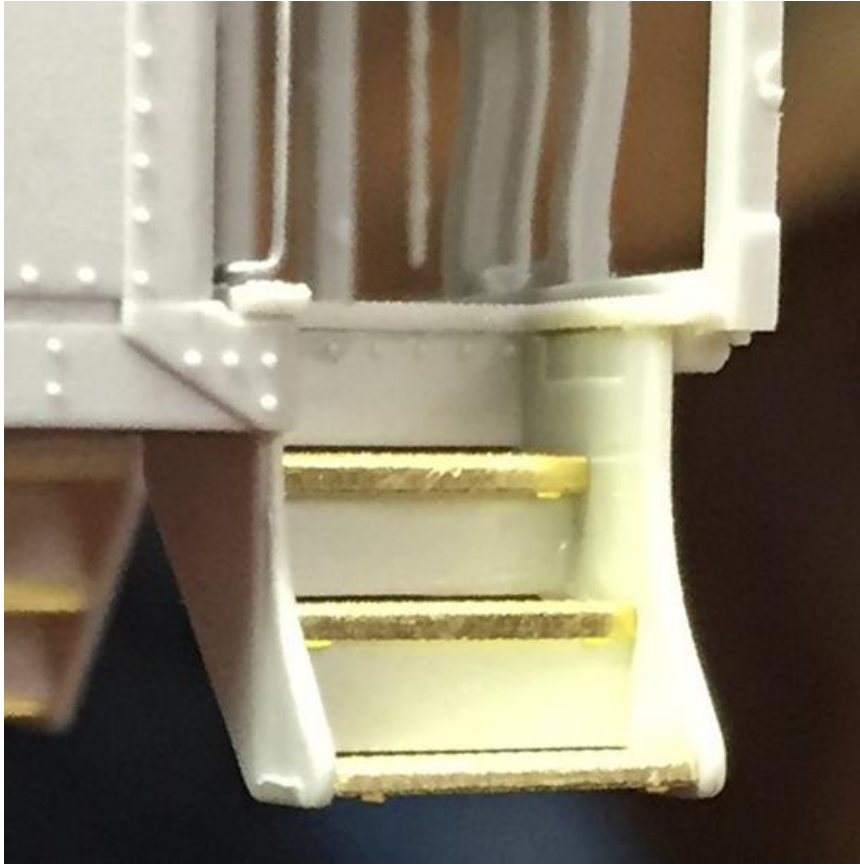


24. **Install the train air release pipe.** The release pipes have a small tab with a hole that fits over a pin on the ladder stile. Position the pipe so that it fits over the pin and the end of the pipe goes behind the bottom rail of the end cage. Glue in place.

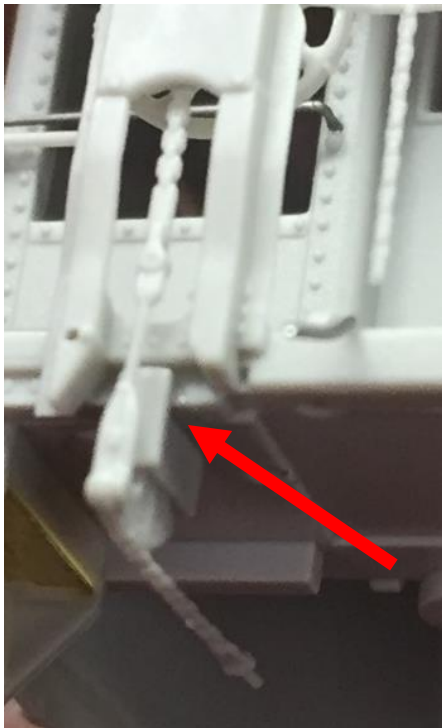


25. **Install the end frame part.** The end cages have pins on the top edges that go into holes in the top edge of the carbody. Position the top rail in the groove and carefully lift the end "wings" of the end platform we left loose in a previous step. There is a small pin on the backside of the wing that fits into a hole in the end cage. Once it's in position, glue in place.





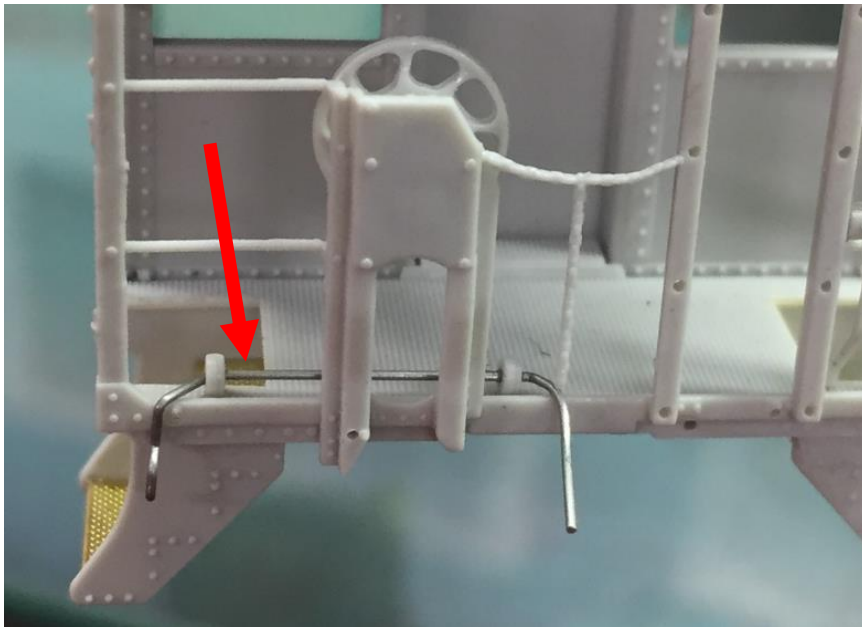
26. **Install the fulcrum and chain.** The fulcrum/chain assembly fits into a slot on the bottom of the carbody, and the vertical chain fits behind the brakewheel housing. Glue in place.



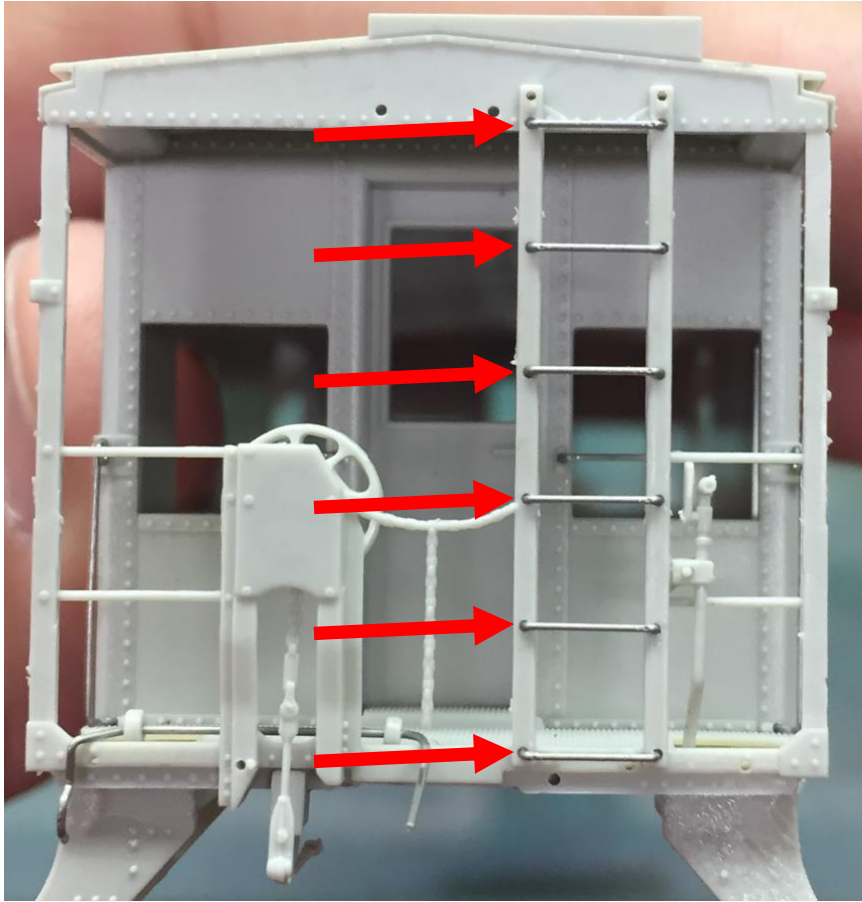


27. **Install the coupler lift bar.** Going back to the wire parts bag, find the coupler lift bars.

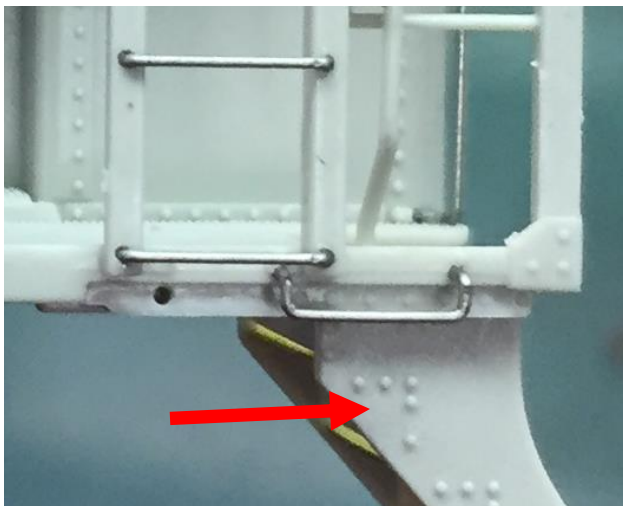
There are four small plastic eyelets. Begin by gluing one in place in the outermost hole on the end frame. When this part is secure, carefully thread the cut lever through it making sure it's oriented correctly. Thread the other eyelet on to the end of the cut lever and position it by the other hole in the platform. Touch the opening in the eyelet with a bit of plastic cement so that it becomes a bit sticky. We do this because the eyelet can slip off the wire very easily otherwise and it aids in the positioning and insertion into the hole. Using a pair of tweezers maneuver the other eyelet into the hole and when it's in position glue it in place. This process is a bit difficult, but with a bit of patience it can be done fairly quickly. Secure all with CA.



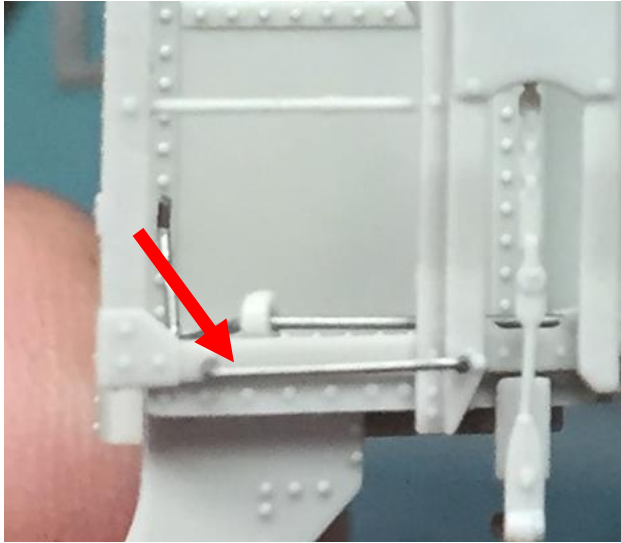
28. **Install the ladder grab irons.** Locate the ladder grab irons and install them with CA.



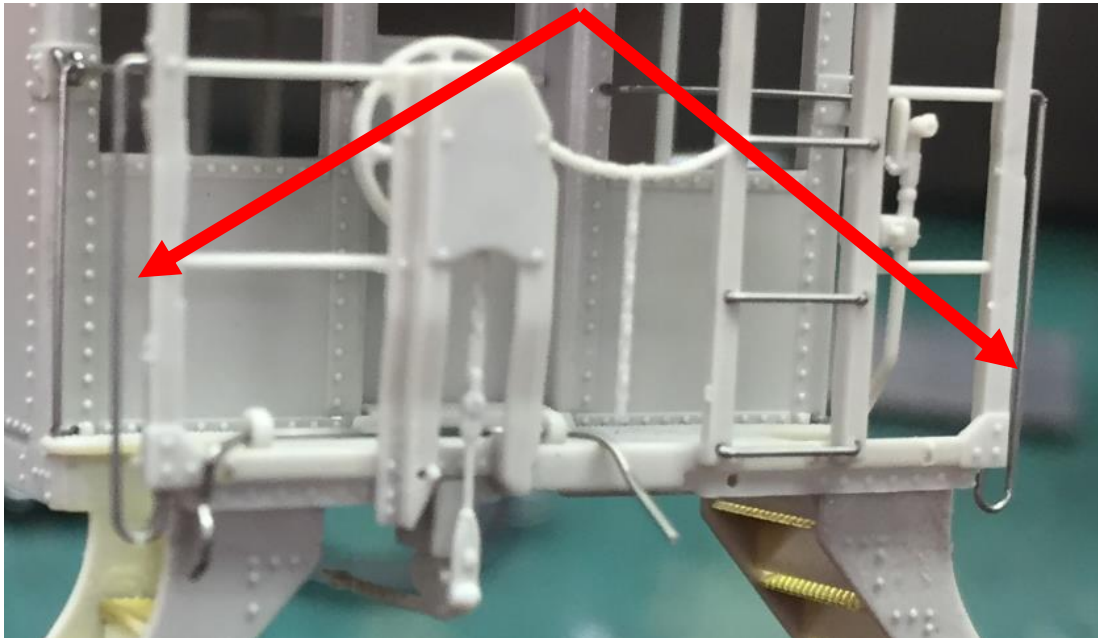
29. **Install the right end drop grab iron.** There is a drop grab that goes to the right of the ladder. Secure with CA.



30. **Install the left end drop grab iron.** There is a drop grab that goes to the right of the ladder, and the large straight grab goes to the left.

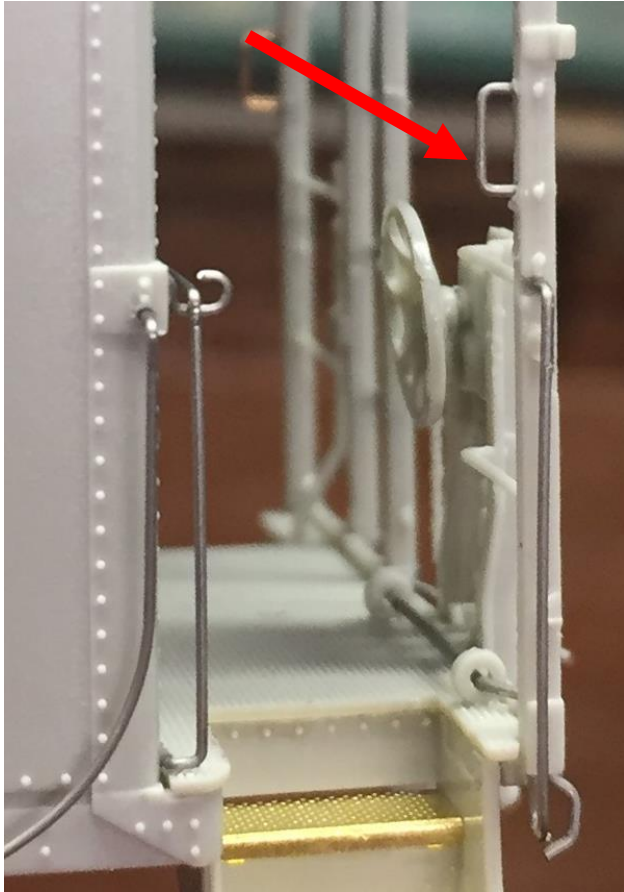


31. **Install the corner grab irons.** The corner grab irons have a loop at the bottom and a 90 degree bend at the top. The loop end fits into a hole under the corner of the end cage and the top fits in a slot in the corner post.

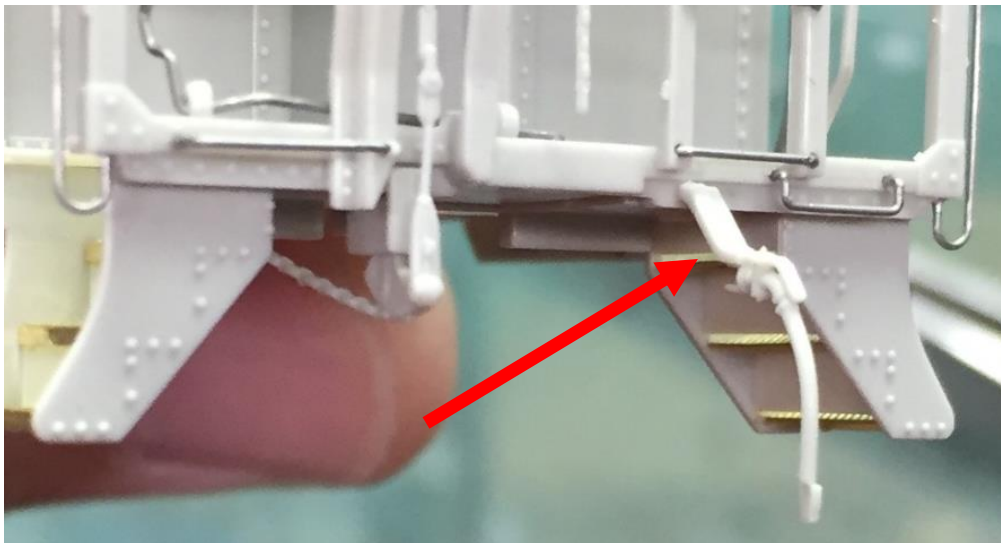


32. **Install the four small grab irons into the corner posts.** The four smallest grabs go into holes in the back side of the corner posts.



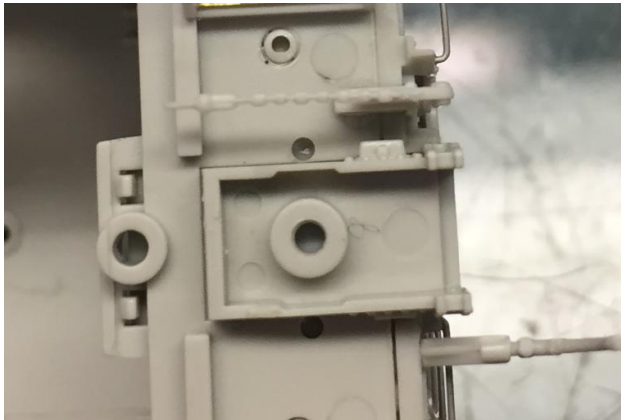


33. **Install the air hose and bracket.** Glue the plastic air hose/bracket into the small hole in the end sill.



34. **Install the coupler pockets.** The coupler pockets have two pieces, one that attaches permanently to the carbody and one that is held in place with a screw so you can perform

maintenance. The bottom piece fits into a shallow recess in the bottom of the end platform. Position the pocket making sure the front edge is flush up against the end of the caboose and secure with CA.

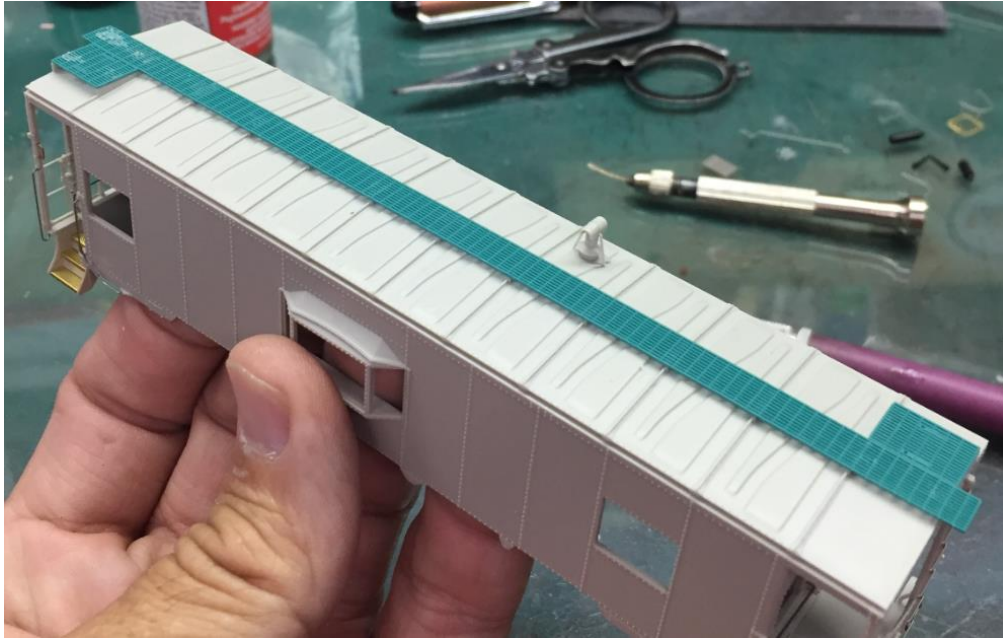


Place the upper piece/cover making sure the pins fit into the holes in the floor and secure in place with the flat head screws from bag 1704DFB. This will also allow you to add the couplers after the caboose is painted.

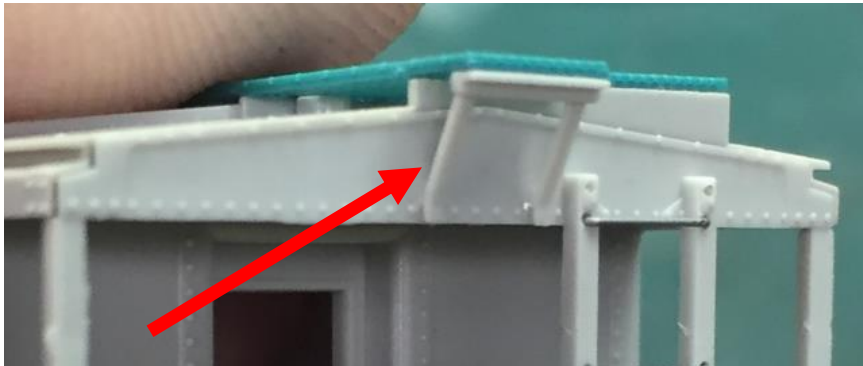


**35. Repeat steps 19-34 on the other end of the caboose.**

**36. Install the running board ("roofwalk").** Glue the running board to the carbody.

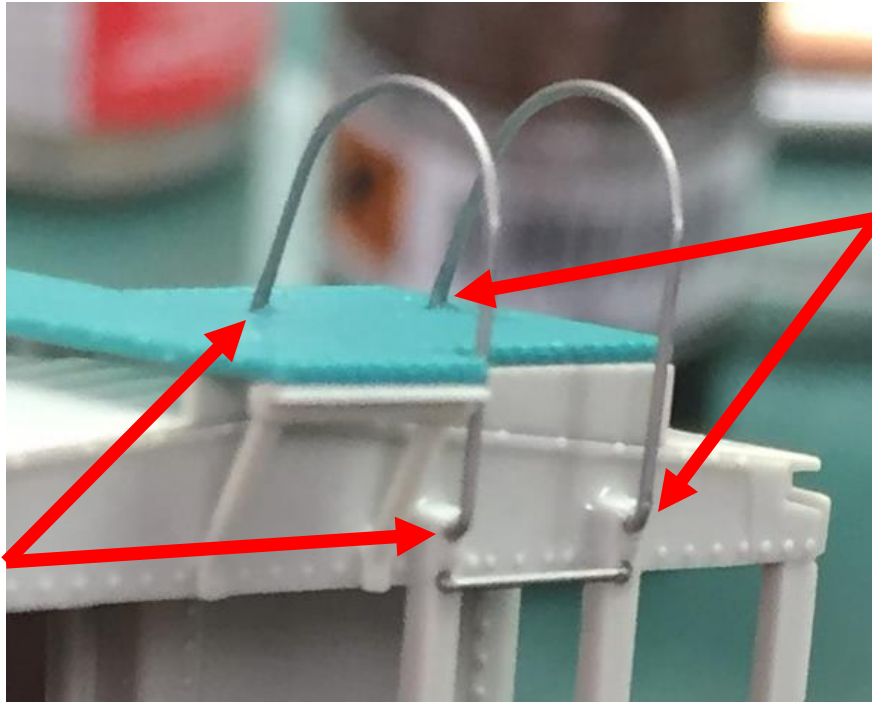


37. **Glue the end supports to the body.** Locate the plastic end support part and glue to the body. Repeat for the other end of the caboose.



38. **Install the top ladder railings.** Locate the four top ladder railings. One end of the railing has a 90 degree bend-this side will go at the top of the ladder stiles and the other end goes into the holes in the running board laterals. Secure with CA. Repeat for the other end of the caboose.





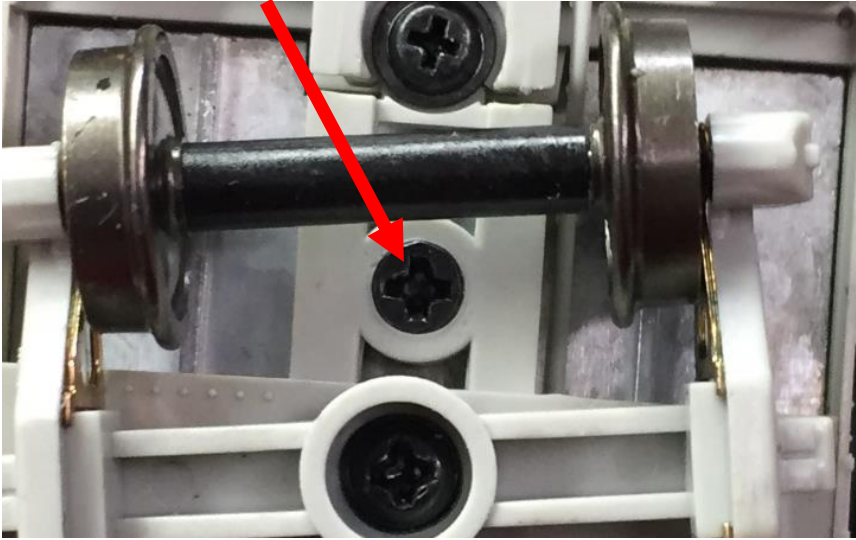
### FINISHING UP

Before the final assembly steps, you will want to paint your caboose and install the windows.

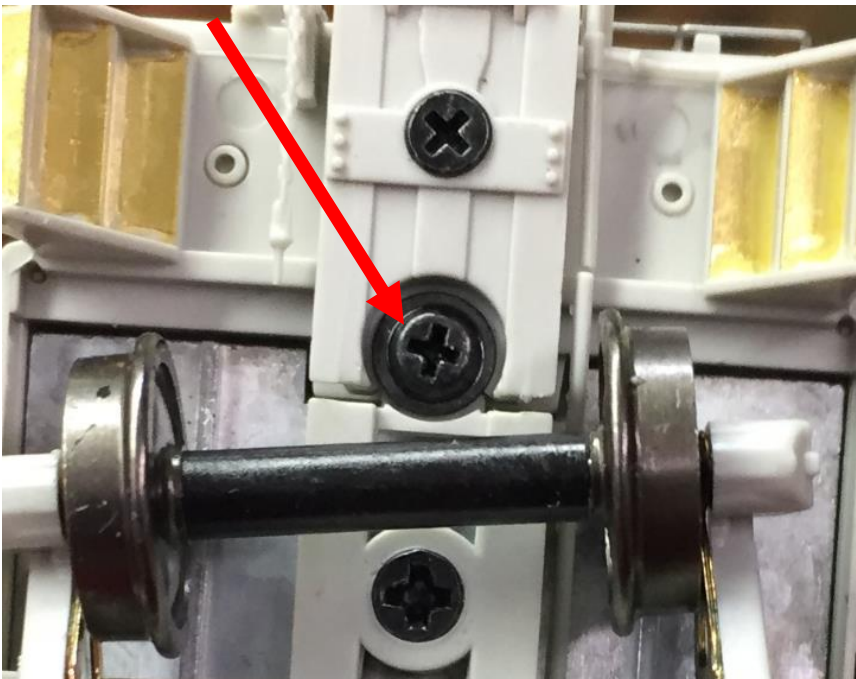
39. **Paint the caboose.** We only have two suggestions for painting this caboose. The first we have already mentioned: wait until the caboose is painted before installing the couplers. Painting couplers could make them very "sticky" and not perform at their best. If you have had success in the past in painting couplers then disregard this suggestion! If the couplers are not installed, we recommend you stuff a small piece of paper towel into the coupler pocket to keep paint from getting inside. This is not absolutely necessary, but it will allow couplers to operate more freely.
40. **Install the windows and end markers.** The last parts to be added to the carbody are the windows and any end markers you choose. We recommend that you don't add these parts until after painting is complete. This also allows you to paint the markers before installation which will make the process much easier. We would also recommend that you use canopy glue to secure the windows as any CA type glue could cause the windows to fog and any solvent could cause damage to the clear plastic. The windows that fit into the end doors also have a screen that gets inserted from the back side into a recess in the window casting.

### FINAL ASSEMBLY

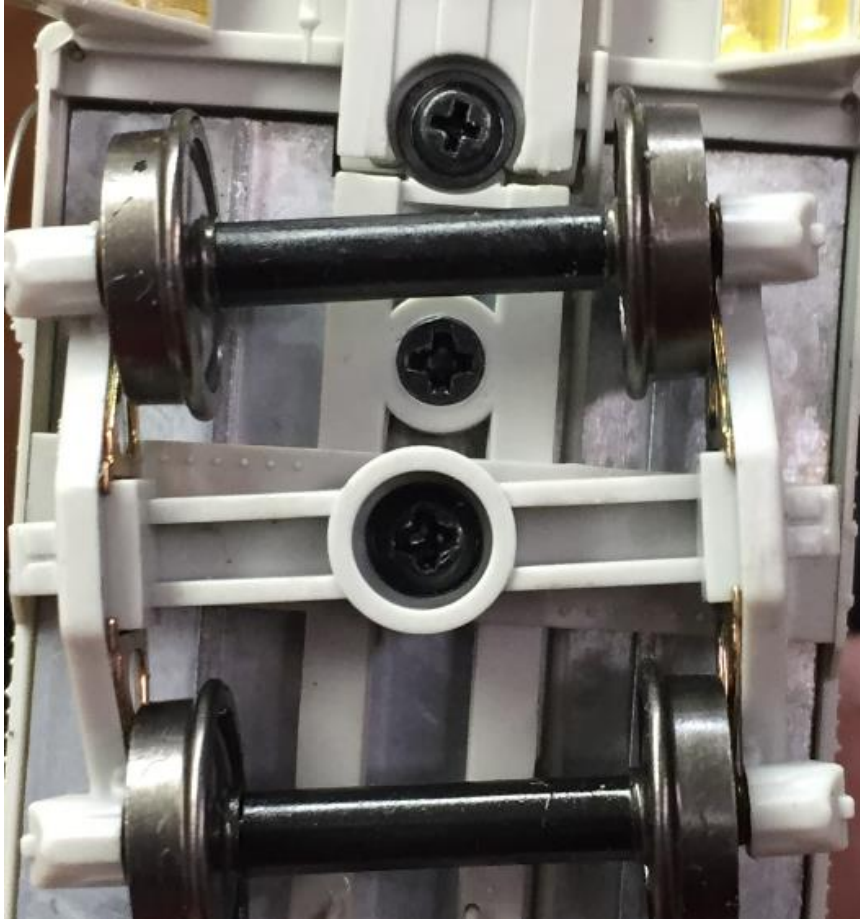
41. **Attach the underframe to the interior.** Marry the underframe to the interior assembly making sure to orient it properly. Join the two assemblies together using the flat head screws from the bag marked 1420DFM in the holes just in front of the bolsters. Repeat on the other end of the caboose.



42. **Secure the coupler pocket.** Secure the coupler pocket cover to the center sill using the appropriate screws (with "washer" type head). Repeat on the other end of the caboose.



43. **Screw the trucks to the caboose.** Attach the trucks using the final screws. Repeat on the other end of the caboose.

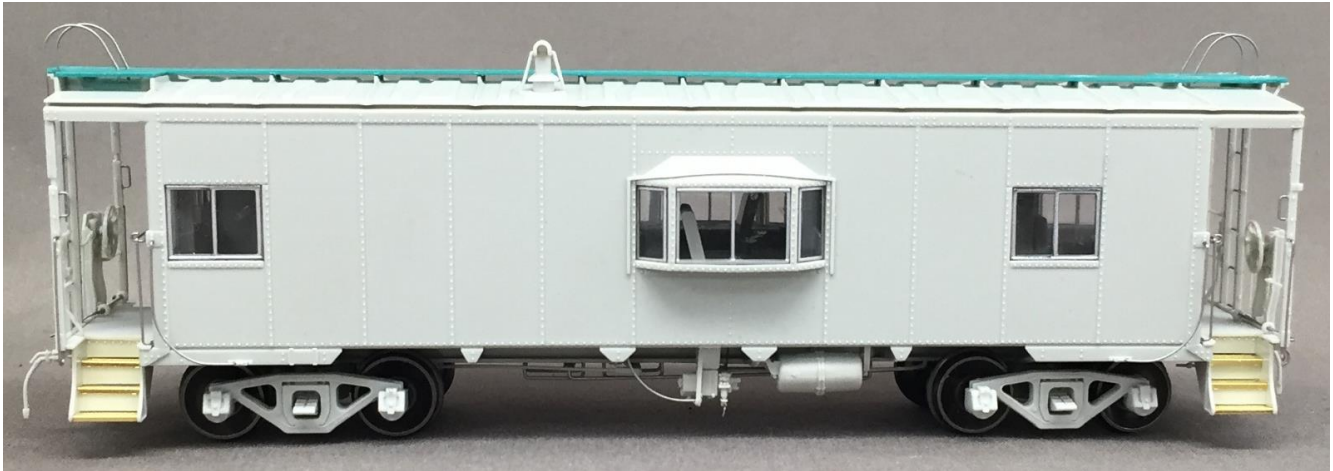


This concludes the assembly.

Thank you again for buying this caboose from Tangent Scale Models. Your hard-earned dollars allow us to continue to bring you more models in the future.

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More images of finished cabooses are shown on the following pages.







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details**



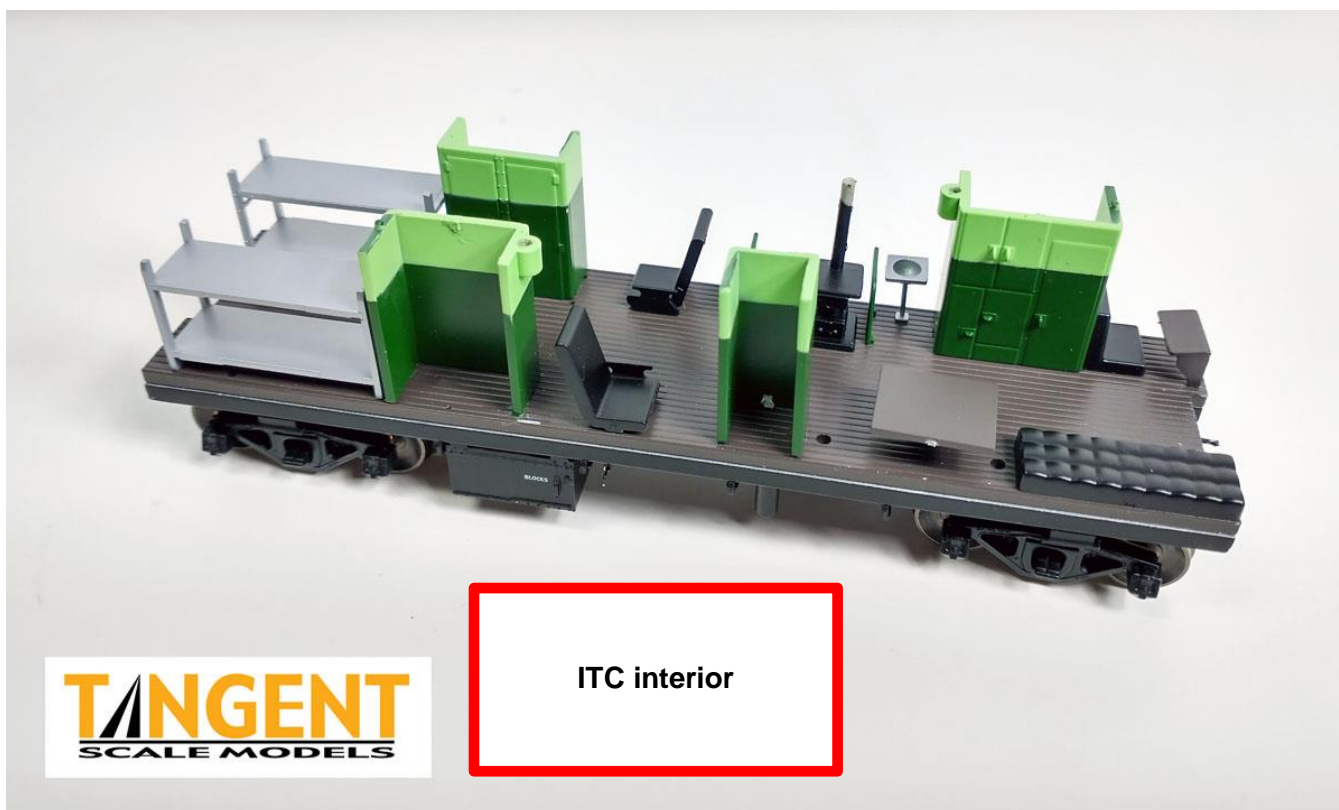


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