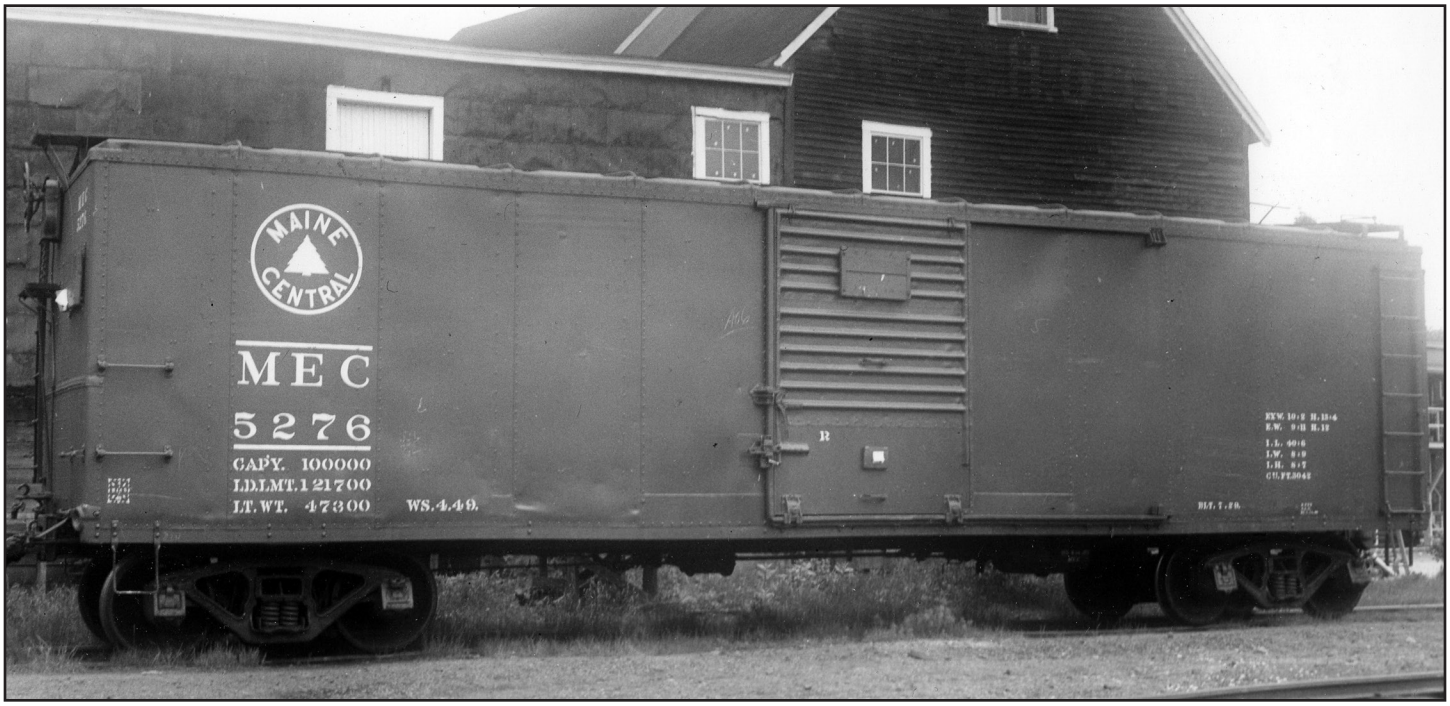
Part P111 & P112 - Maine Central 'Re-roofed' ARA Box Cars



ca. 1948, Charles Winters Collection

History

In 1929, the Maine Central received 1,004 ARA-design box cars from Standard Steel Car Co. They were assigned to the series 5000-6003. They generally followed the ARA design, with "ARA" style side sheathing (different from the PRR X29 side patterns,) and ARA underframes with the automobile car crossbearer configuration, with the crossbearers located 9'10" from the center of the car. The crossties were located under the door posts, 3'2½" from the center of the car. However, they used an early version of the Viking corrugated steel roof. They also used Ajax power hand brakes and rode on ARA cast steel sideframe trucks. The cars also had unusual 7-rung ladders on the side, with the lower rung being a drop-type grab.

In 1948, the Maine Central began a program to re-roof the cars. A small number (exact quantity unknown) of the first cars to be so modified received the Murphy rectangular panel roof, like on MEC 5276 shown above. However, most cars received the Murphy diagonal panel roof. Many cars also had the lower panels of the doors replaced with plate steel, again as illustrated above. Patches where the side sheathing had corroded were also common, as illustrated to varying degrees on all of the cars pictured here.

When re-roofed, the cars were painted freight car red and decorated with the white pine tree emblem. Beginning circa 1954, cars were repainted in MEC Pine Green with MEC Harvest Yellow stenciling and large "The Pine Tree Route" emblem.

Instructions

General

The general order of the assembly is in many ways up to the preferences of the modeler. There are also some things that are optional and require items not included in the kit. These are noted throughout the instructions.

Assembly Sequence

◊ Begin by gluing the desired weight to the inside of the car body. If using an adhesive such as Goo, silicone, etc., wait until the adhesive has fully cured before gluing the roof in place.

◊ Modify the kit underframe to fit the car body. The kit underframe is for a car with 5'0" kingpin-to-striker spacing while the MEC and LNE cars had a 5'6" spacing. Remove the stringers from the car floor using a chisel blade. Move on to the black underframe part (this is the long piece with the center sills, crossbearers and coupler pockets.) The material past the bolsters should be cut away (save the coupler boxes if you will use them or discard them if you prefer another type of coupler box.) Then trim the bolsters themselves away from the rest of the underframe. Glue the bolsters in place using the two rivet pairs on the side sills as locator aids. In essence, you are moving the bolsters 6" closer to the center of the car. Add the kit crossties (rectangular-shaped pieces with small tabs on one edge.) Remove the small tabs and glue the crossties so that they are located under the door posts. Consult photos for placement.

◊ Add the roof casting. Clean the edges of the underside of the roof using a mill file, by running the file along the edge at an angle to avoid damaging the detail on the roof eaves. Take the roof and insert it into the car body, centered from end to end. If the fit is satisfactory, glue the roof in place using ACC. The best way is to hold the roof in place and carefully run thin ACC along the joint from the inside, keeping a tissue at hand to wick away any excess ACC that may seep through

Fayetteville, NC, September 9, 1951, Col. Chet McCoid photo, Bob's Photo

to the outside. If the roof is held in place firmly during this step, and you tackle one part of the roof/body joint at a time, there should be little opportunity for the ACC to leak out from inside the car body.

◊ Now the details will be added. Much of what you do from here on will be determined by how much detail you prefer to add. If you wish to add a train pipe, drill holes in the underframe cross members now. The model shown in these instructions does not have a "separate" train pipe, although there is one cast on to the floor of the Red Caboose car body.

◊ Add the brakes to the underframe. (Note that the underbody photos are of an LNE model, but the locations of the brake equipment as applied to the MEC car are noted; the mounting and brackets, piping, etc., are the same with only the locations being different.) If adding full detail you will need to add an AB brake system. Begin by pre-drilling the parts using a no. 78 drill. These holes will be for wire "piping." Once all of the holes are drilled, add the three brake components to the underbody. The cylinder can be glued directly to the bracket that is already in place on the Branchline part. The AB valve as shown in the photos was add to a strap/bracket simulated with 1x8 styrene strip. One piece rests against the inside of the side sill, one is attached to the side face of the stringer and then the third sits on top of these first two. The AB valve was then glued on top of this. The reservoir was glued directly to the mounting lugs on the Branchline underframe. If using a different set of AB brakes, it may be necessary to add strip styrene.

◊ Add the brake piping. Add the two pipes between the reservoir and the AB valve. Bend as shown in the photos. Add the pipe between the cylinder and the AB valve. If your AB brake set has a dirt collector, add it to the AB valve now, pre-drilling it with a no. 77 hole. Secure all of these "pipes" with ACC if you have not done so already.

◊ Add the brake levers, if not using the Branchline brake sprues. The main brake lever from the cylinder on the model was created using 1x6 styrene strip. Insert the main lever at the front of the cylinder into the clevis and secure everything in place using the appropriate type of cement. The dead lever is from the Branchline brake set with added Tichy turnbuckles. Add the brake levers as shown using more turnbuckles to simulate clevises and 0.012" wire for the brake rods. Consult the photos as you work. Add grab irons to simulate hangers for the levers. For the rod emanating from the clevis on the front of the cylinder, a section of chain may be added as well for additional realism.

◊ Add the running board to the roof. The running board and latitudinal running board castings are designed to have the openings between the boards like the prototype did. This means that they must be carefully cleaned up to remove the flash from between the boards. Here is one method that works: carefully sand the back of the castings either by rubbing sandpaper on the back side of the parts or you can also rub the castings on a piece of sandpaper laid on a flat surface. Either way, the goal is to make the "flash" in the spaces between the boards tissue-thin. Then, using a hobby knife (like an Xacto) trim away the flash and remove it. Note that the boards are connected at places and you can see these by holding the parts up to a light source. *Do not trim away these areas as you will end up with separate boards in your hands!* Glue the running board in place, taking care to center it both lengthwise and crosswise. The method that we have found that works best is to tack it in place on a few of the saddles (supports) at the center of the car first. Then glue it in place at the supports at the ends, taking

Jay Williams/Big Four Graphics

care to center it across the supports. Then go back and glue it to the remaining supports. Lastly, add the latitudinals. First remove one board from the latitudinal at the end furthest away from the nut-bolt-washer detail on the latitudinal. Then drill holes in the castings for the corner grab irons and add those, creating an eye bolt from 0.008". Once these have dried, trim to length on the back side of the casting using wire nippers and file smooth with a mill file. Now add two pieces of styrene strip (1x3) to the back side of each of the castings, in line with the bolt dimples in the castings. These strips should extend past the casting at both ends. These strips will represent the support straps for the latitudinals. Glue the two appropriate strips to the underside of the running board, ensuring that the latitudinal is "square" relative to the car body. There will be lengths of styrene support strap hanging over the roof eaves. That is okay. When the latitudinals have dried, gently push down the latitudinal to create a slight pitch to follow the slope of the roof. Then gently push the straps down to follow the contour of the roof eave. Trim them so that they will nestle against the roof eave in the angle formed by the roof eave and the top of the side. Glue in place. You may find it easier to tack it in place with some type of contact cement followed by a little ACC. Repeat for the other latitudinal. For the angle under the end of the running board, we used a styrene 2x4 (although a similarly sized "block" of strip will do) "flat" on the underside with 1x2 diagonal supports.

◊ Next, detail the sides and ends. Add the bracket grabs (these are on the Red Caboose parts sprue.) We removed the grab portion and replaced it with 0.012" wire for durability. If you wish to add the doors now, scroll down to that section of the instructions. However, if adding now, it is recommended that you add some thick styrene to the back of the doors to "beef" them up as handling may cause them to "cave-in" a little. Add the sill steps. On the Maine Central, these were u-shaped. We filled to holes on the side sill for the Red Caboose sill steps and then added A-Line sill metal steps (included) to the bottom of the side sill in the appropriate locations. We then added the "mounting straps" from the Red Caboose sill steps to simulate the mounting hardware for the A-Line steps. Add the ladders. The Red Caboose ladders are not used. The 8-rung ladders supplied in the parts bag are trimmed to 7-rung types and the bottom rung is replaced with a wire drop-style grab, if you choose to replicate the ladder of the prototype. This requires drilling holes in the ladder stile, a challenging, but not impossible task. Add strip styrene segments at the top and bottom of the back of the stiles to serve as mounting lugs. Please consult the photos.

◊ Detail the ends. Create a 6-rung ladder from the same ladders as used on the side and attach in the same fashion. Add the bracket grabs to the end. The ones on the end sill have the brackets oriented horizontally, while the one on the right side of the end has the brackets oriented vertically. The Red Caboose parts set includes both styles. Drill a no. 78 hole through the bottom corner where the left push pole pocket is located. Create an eye loop from 0.010" wire and glue it in the hole. Bend the uncoupling levers from 0.012" wire. Secure the uncoupling lever with ACC. We only secure this part in one place. If you normally add an eye bolt to the coupler box, do so now. Add the placard boards from the Red Caboose parts. Now, turn your attention to the B end. Prepare the Tichy hand brake housing by drilling hole(s) in the bottom to accept a u-shaped wire loop (if you are adding a segment of chain [not provided]) or just running a piece of wire into the bottom. Add the chain and wire loop, or just the wire, to the bottom of the housing and secure with ACC. If using chain, make sure that the section of wire from the chain to the bottom of the car side is in place as well. Next, glue the housing to the model as shown in the photo. Add the bell crank to the end sill, directly below the housing. Trim the wire from the housing so that it is the proper length and secure in the notch in the bell crank using ACC. We used a Tichy turnbuckle (not provided) that was modified and slipped over the bell crank. This is also shown in the photo. Add the brake stand and brake stand supports to the car end. Finally, pre-drill the retainer from the Tichy brake parts and add it to the end. Run 0.008" wire from the retainer to the underside of the end sill, as shown. Add the Ajax hand wheel from the Tichy brake parts. However, if you have a spare Ajax hand wheel from an Intermountain kit, use

Cedar Hill (New Haven,) CT, February 23, 1954, Col. Chet McCoid photo, Bob's Photo

Morris Abowitz photo

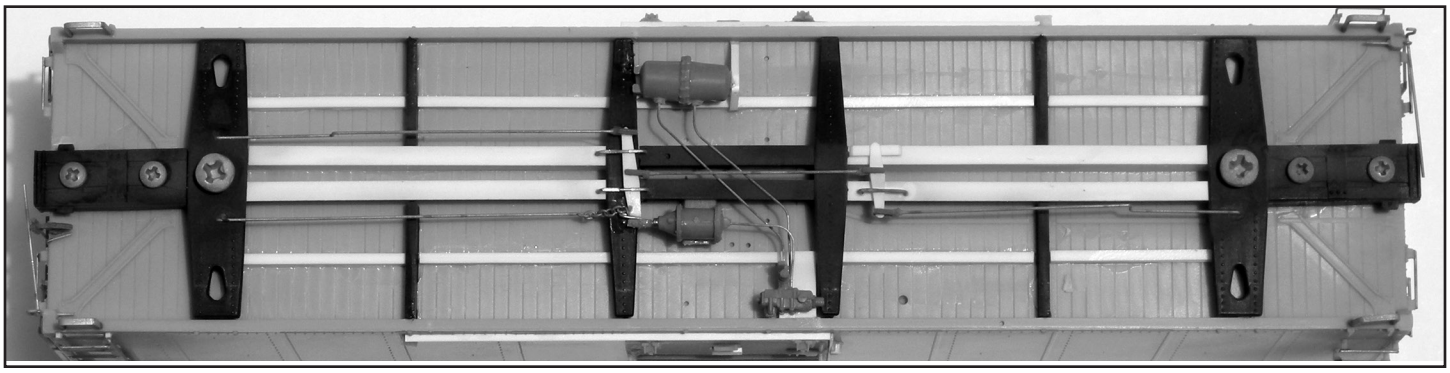
it as it is the correct early style Ajax type that is correct for this car (and incorrect for Intermountain models.)

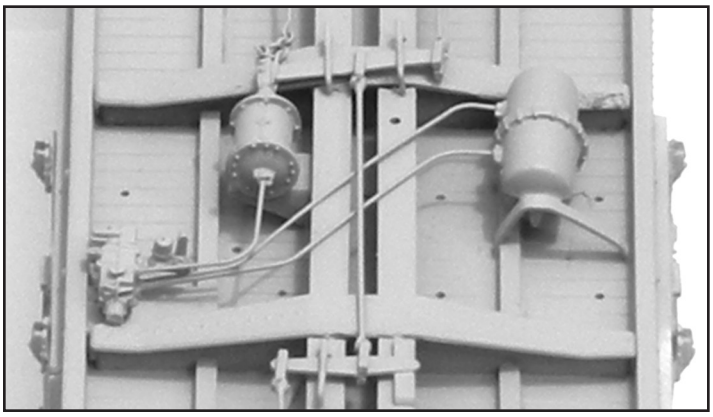
◊ Now turn your attention to the door castings. Clean these up by rubbing on sandpaper until the flash is tissue thin. Clean up the edges using a fine file. If all is okay, glue using ACC. Next, add the placard and route card boards to the doors. The route card board is resin. Finally, add the door tracks below the doors and along the side sill. These are created by gluing a strip of 0.020" x 0.030" styrene strip (included) on edge. Add the resin door stops. The complex one is located at the end of the top door guide while the simple triangular one is glued at the end of the bottom door track. See photos.

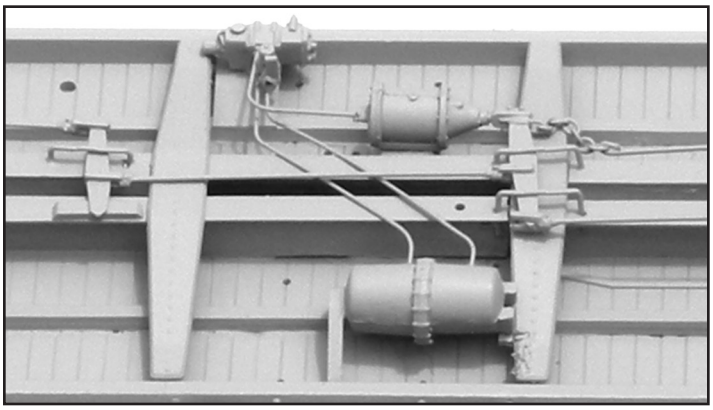
◊ For trucks, we recommend Tahoe Model Works Buckeye trucks as being close matches for the prototype.

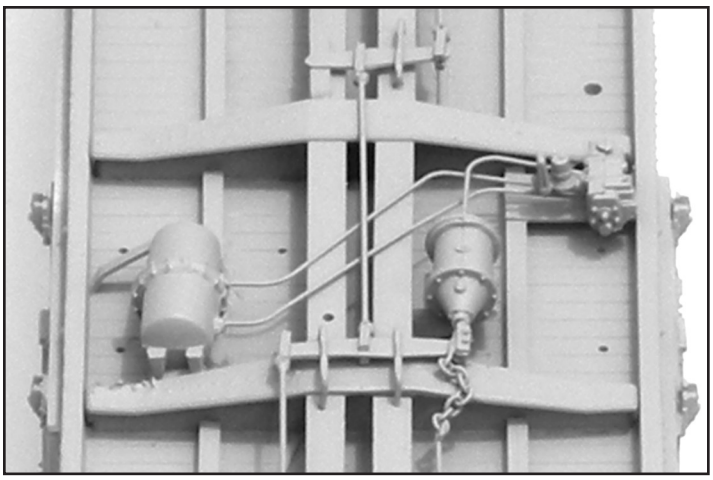
◊ Before painting the model, we recommend lightly sandblasting all metal (grabs) and engineering plastic surfaces (truck sideframes) to ensure that the paint will not chip or flake. This should be followed by a washing using liquid dishwashing detergent and a soft toothbrush. Rinse thoroughly and allow to dry completely. Prime the model with your choice of primer. For the main coat, there are several options. Floquil/Polly Scale offer Maine Central Pine Green as does Accupaint, although that is no longer available and difficult to locate. We used what we think is a very good match - White Ensign Models Dull Dark Green. It is an enamel and is available from many larger military modeling shops. If necessary, follow the base coat with a gloss coat to improve decal adhesion.

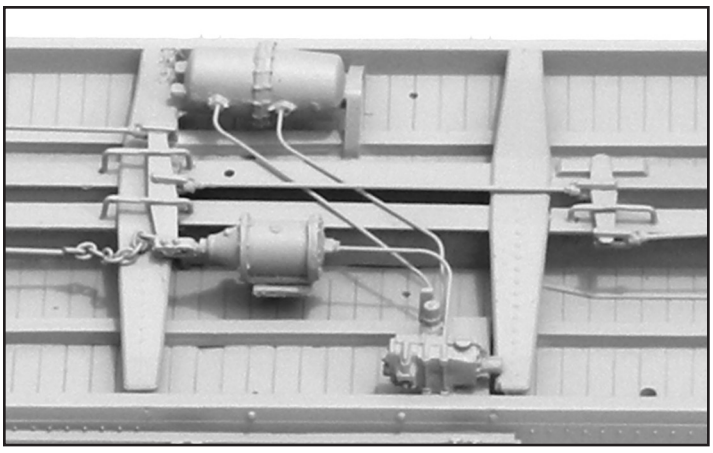
◊ For decaling, our recommended approach is to apply the decals with only water. After sliding them in place (with a dull object) let them dry *thoroughly*. After they have dried, apply decal setting solution by touching the edge of the decal with a brush that has the solution on it and letting capillary action pull the solution under the decal. Again, let the decals dry thoroughly. After they have dried again, using a sharp knife, slit any areas where there are bubbles or silvering. Add setting solution, Keep repeating until all traces of air are gone. Add a flat coat to seal the decals. Weather to







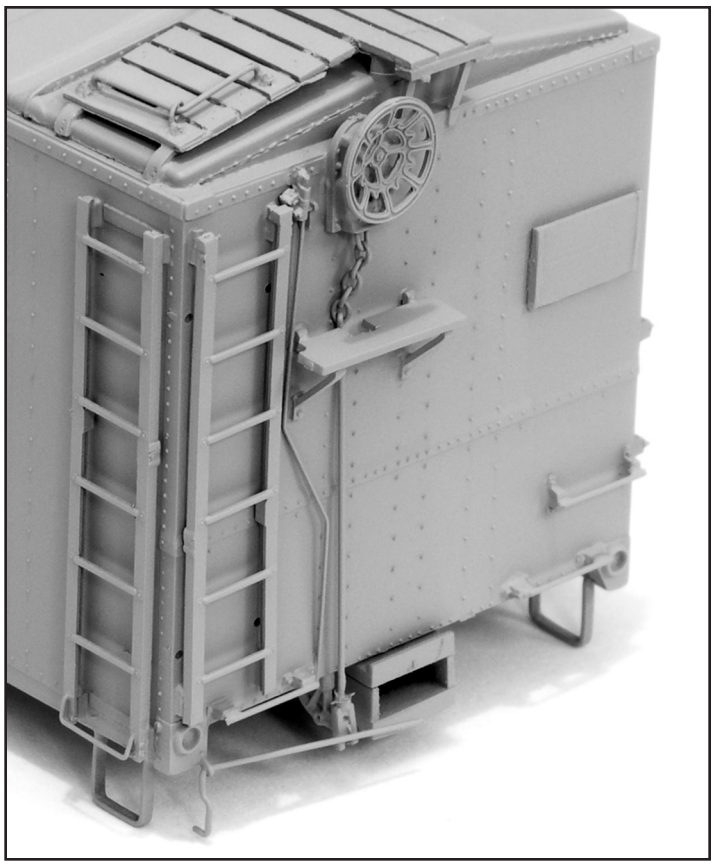


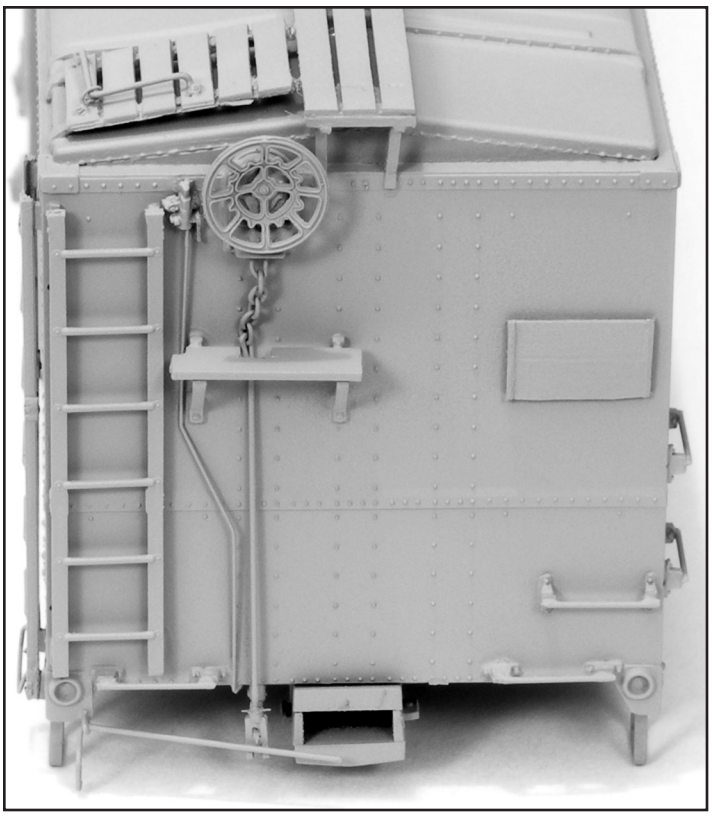


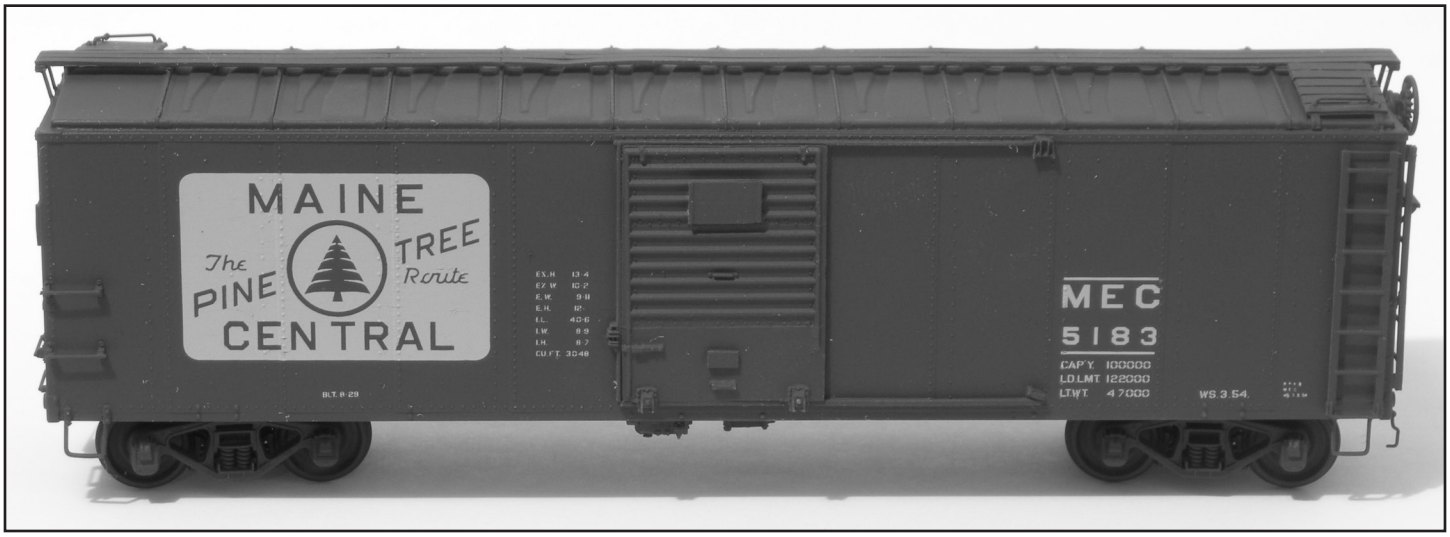
your preference, add reweigh and repack stencils, and chalk marks, and your model is ready. Congratulations!

Parts List
Resin castings (roof, doors, and details) [included]
Decals[included]
Red Caboose 40' ARA Box Car kit
Sill steps
18" straight and drop grab irons
Tichy AB brake sprue
Strip styrene
Wire (0.008", 0.010", 0.012". 0.015")

Optional
Tahoe Model Works Buckeye trucks
Couplers
Strip styrene - various
Chain







Thank you to Bill McClung of Red Caboose and Don Tichy of Tichy Train Group. Special thanks to Bill Welch for inspiration and roof patterns.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