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ATSF EARLY STEEL CABOOSE

This steel caboose for the Atchison, Topeka and Santa Fe railway was built by American Car and Foundry, in multiple orders, from 1927 to 1931. They became the standard mainline 'way car' on the railroad, and served into the 1960's. Over the years numerous changes were made to the cars, notably the addition of AB brake systems, taller hand railings at the ends, and the addition of electric lighting and radio equipment.

The InterMountain Railway ATSF Early Steel Caboose kit has been manufactured with the in-service detailing in mind. This caboose was used in the steam era, the transition years, and in the diesel era. Numerous additional parts are included in the kit, to enable the modeler to assemble the caboose for service in the era of his choice.

Please read these instructions carefully and familiarize yourself with the parts before beginning assembly. Many of the small parts are delicate. The preferred way to separate the parts from the sprue is by cutting with a sharp hobby knife or separating with de-spruing nippers. A gap-filling cyanoacrylate adhesive is recommended for assembly.

FLOOR and FRAME

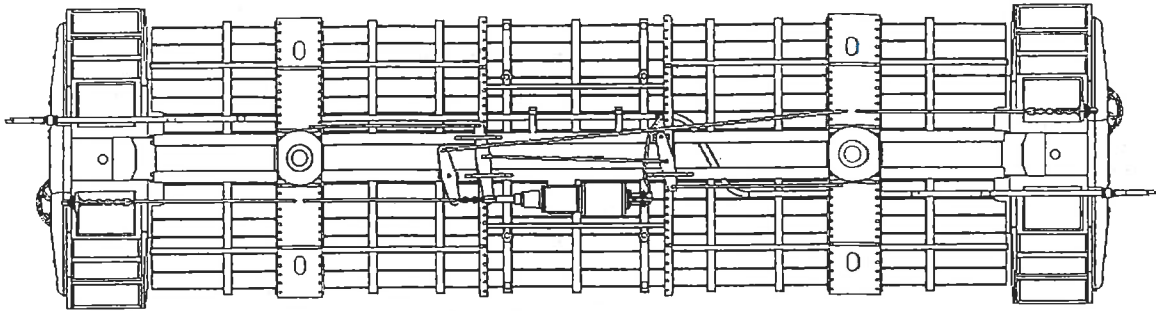
Step 1. Remove any flash from the floor, and test fit the floor into the body. Note there are two locator pins under the door at one end of the body. These pins should align with the two locator holes in the one end of the floor. Set the body aside. Assemble the stair treads to the stairwells at each end of the floor. The top of the tread has the textured surface.

Step 2. Attach the platform to each end. Avoid closing with glue, the hole for the screw to attach the coupler, centered under each platform.

Step 3. Trim any flash from the under frame, and test fit it to the floor. Note one bolster has a square locator which aligns with the square opening in the floor. Assemble the train line to the center of the under frame. Note there is a locator hole in the train line that should be aligned down, away from the floor. Then attach the under frame to the floor.

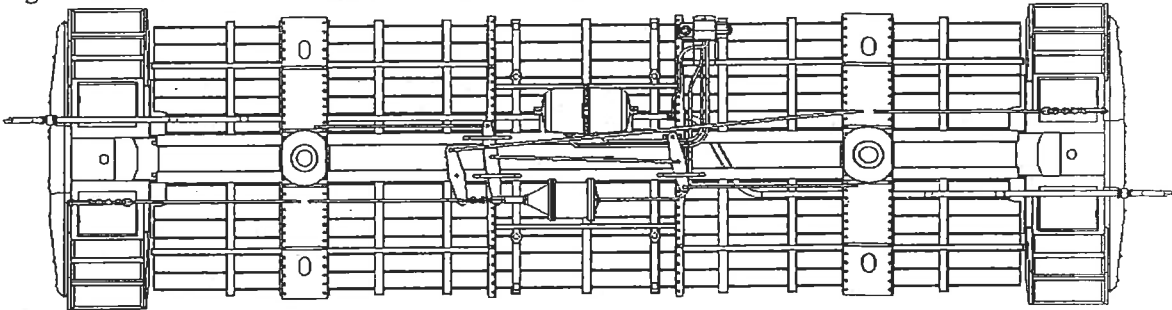
Step 4. Both the 'K' brake components and the 'AB' brake components have been included in this kit. If the model will have the 'K' brake, trim the two brackets that hold the 'AB' reservoir, from the center of the under frame. If assembling with the 'AB' brake components, clear the locator holes for the valve bracket, at the side edge of the floor with a 1/32 in. dia. drill.

Step 5. For assembly with the 'K' brake, attach the 'K' cylinder to the rectangular bracket at the center of the under frame. There is a notch in the bracket to locate the square pin molded to the cylinder.



K BRAKE SYSTEM

Step 6. For assembly with the 'AB' brake, attach the round end to the 'AB' brake cylinder, and attach the cylinder to the rectangular bracket at the center of the under frame. There is a notch in the bracket to locate the square pin molded to the cylinder. Then attach the reservoir to the two brackets on the under frame opposite the brake cylinder. The two holes in the cylinder locate toward the under frame. Then attach the valve bracket to the floor in the two locator holes. The raised part of the bracket should be nearest the side edge of the floor. Then attach the valve to the bracket, with the four holes toward the under frame.



AB BRAKE SYSTEM

Step 7. Attach the double brake lever into the clevis at the end of the brake cylinder. The end of the longer beam, at the chain, inserts into the clevis, and the center hole of the shorter beam locates on the pin at the tip of the bracket molded onto the under frame. Then attach the single brake beam with one end hole on the pin at the tip of the other bracket molded onto the under frame.

Step 8. Attach the wire brake system parts. Note that there is a different wire supply line between the train line and the 'K' cylinder, and between the train line and the 'AB' valve. Also, the hand brake rods are connected from the ends of the shorter of the double brake lever to the bolsters.

Step 9. This kit includes end beams with three different end railings; 36" high with vertical hand brake, 36" high with AJAX mechanism, and 42" high with AJAX mechanism. The cars were originally manufactured with the 36" high end railings. Choose the end railings for the car, and attach the end beams at the three locator holes at each end. Attach the brake wheels to the end railings.

Step 10. There are two types of hand brake rods; one for the vertical hand brake, and one including a fulcrum for the AJAX mechanism. Choose the hand brake rods and attach them to the floor under each hand brake.

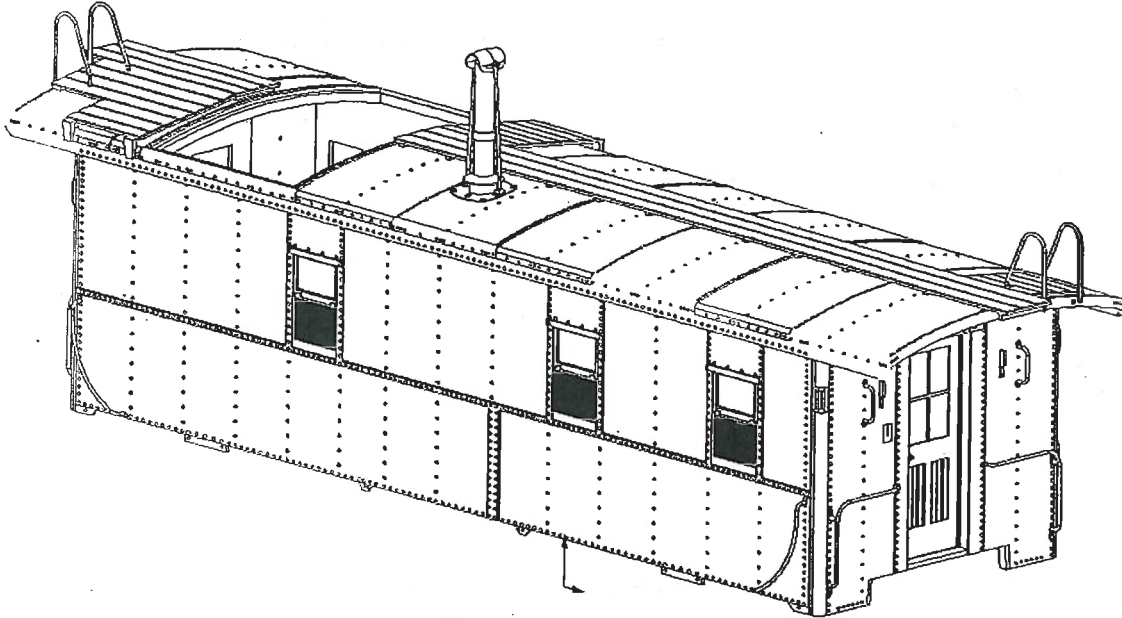
Step 11. The floor has been molded to accept the Kadee No. 78 coupler. Remove the Kadee No. 78 coupler box top, and attach the coupler, with spring, and bottom box to each end with the screw. Be careful that the screw does not push up through the end platform.

Step 12. Assemble the wheel sets into the trucks, and attach the trucks to the bolsters with the screws.

Set the assembled floor and frame aside.

BODY

Step 13. Remove any flash from the body. There is a small round gate in the center of the roof that should be trimmed away. Clear the grab iron holes with a .016 in. dia. (#78) drill. Test fit the cupola to the roof, and then set the cupola aside.



BODY ASSEMBLY - WALKS HALF ACROSS AT CUPOLA

Step 14. The kit includes two types of roof walk; one version with walks half across at the cupola, and one version with walks across the full width at the cupola. Choose the roof walks for the car and attach them to the supports along the center of the roof.

Step 15. Assemble the clear windows to the sides and the end doors. The mullions molded into the end door windows should be to the outside.

Step 16. Attach the etched metal window screens over the lower side windows, and the etched metal marker light brackets to each corner of the body.

Step 17. Attach the grab irons to the body.

Step 18. There are two types of smoke jack in the kit; a shorter one-piece version, and a two-piece version. Note there are two support wires for the smoke jack. Clear the holes for the support wires with a .016 in. dia. (#78) drill. Choose the smoke jack for the car, and attach it into the locator holes in the roof. Attach the support wires.

Step 19. Add the battery box door to the three-window side of the car, if modeling this detail.

Set the assembled body aside.

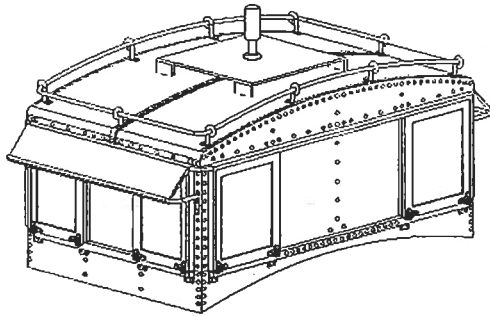
CUPOLA

Step 20. Remove any flash from the cupola. Clear the grab iron holes with a .016 in. dia. (#78) drill. If the car is modeled with the cupola roof antenna, open the four holes for the etched metal ground plane from the underside of the cupola roof with a .021 in. dia. (#75) drill.

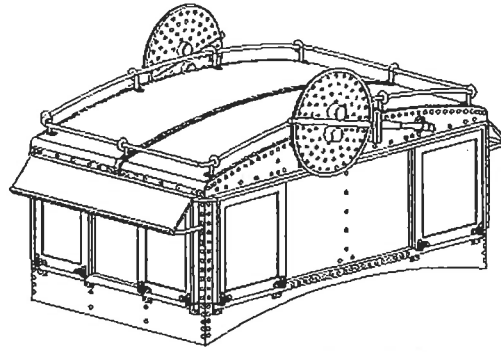
Step 21. Attach the cupola roof grab iron using the metal eyelets.

Step 22. Attach the clear windows to the cupola.

Step 23. Attach the sun shades to the sides of the caboose. The wire support inserts into the holes at each corner of the cupola. The angled edge of the shade contacts the flange across the top of the side windows and rests on the wire support.



CUPOLA WITH ANTENNA



CUPOLA WITH WIG WAG

Step 24. If the car is modeled with the antenna, attach the etched metal antenna ground plane to the top of the cupola, and the 'firecracker' antenna into the hole in the center of the ground plane. Note that the body should have the battery box door if the car is modeled with the antenna.

Step 25. Attach the wig wag signals to the cupola, if modeling these details. The wig wag signals are included in the kit. The wig wag base is the small round disk that attaches to the surface of the end of the cupola, above the inside vertical of the window to the right. The end of the wig wag bar attaches to the base, and the rectangular bracket attaches to the top center of the end of the cupola.

Set the assembled cupola aside.

FINAL ASSEMBLY

Step 26. There are two types of tool cellars in the kit; wooden version and steel version. Determine which tool cellar for assembly to the car, assemble the pair, and attach them to the locator holes in the bottom center of the floor.

Step 27. Attach the correct amount of weight to the top of the floor. Adding approximately 2 oz should bring the car up to recommended weight. Glue the body onto the floor.

Step 28. Attach the ladders to the ends, against the locators on each end beam, and into the locator holes in the edge of the roof.

Step 29. Attach the safety whistles along side each ladder.

Step 30. Attach the air hose to each end of the floor.

Step 31. Attach the coupler lift bar to each end beam.

Step 32. Attach the grab iron loops from the ladders to the roof walks, and the grab irons to the end beams.

Step 33. Snap the cupola into position on the roof.

