

MARKER LIGHT

5710½ West Diversey

Chicago



USRA BOXCAR

The United States Railway Administration was established in 1918 to operate the nation's railroads while they were under government control. The government through the U.S.R.A. built 100,000 freight cars and thousands of steam locomotives to standardized designs. 25,000 of the 40 ton box car type were built and leased to a total of 26 railroads. These cars saw service until the end of World War II. A few may still be seen in maintenance of way service.

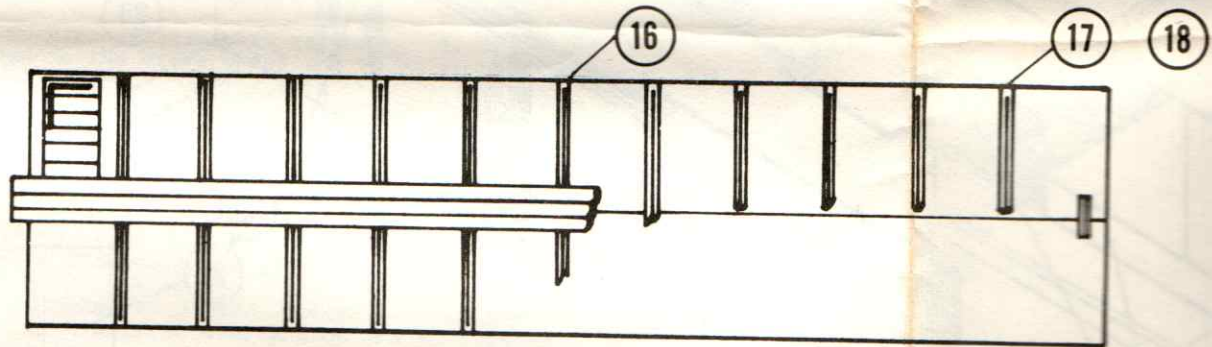
NOTE: Please remove the cardboard insert from the top of the box. This will give you access to the set of sides and the door packed in the cover of the box.

1. Cut two pieces of "C" channel (color code black) to the same length as the roof.
2. Cement the floor blocks (the 2 larger blocks) and the scribed floor to the "C" channels as shown in fig. 1.
3. Shape the center sill to the shape shown in fig. 2.
4. Cut the slotted holes for the brake levers. (Drill a #68 hole at each end of slot and remove the section between the holes). Drill the remaining holes for the air lines, referring to the plan and the isometric of the bottom for location of the train line and air lines.
5. The holes in the body bolsters should also be drilled according to the plan and isometric drawing (#68 and #75 drill for the air lines and a 1/16" drill for the bolster screw).
6. Frame the center sill with 3/64 angle (color code yellow) at the top and bottom of the channel sides as shown in fig. 4.
7. Cut six pieces of "C" channel (color code black) to the length shown in fig. 3. These will have to be notched at both ends. One end to fit over the angle brace of the center sill and the other to fit into the "C" channels. (A square cut can be made and fitted to the channel). Refer to the isometric drawing and the bottom plan and notice that the sections are reversed in each pair i.e., that the open sides of the channel face the opposite ends of the car in each pair of cross members.
8. Drill the holes for the air lines as required referring to the bottom plan and the isometric drawing (#68 and #75 drill).
9. Cut 4 pieces of "I" beams to fit. Notch as shown in fig. 4. Drill holes as required.
10. Form and cut the wire pieces for the air lines and brake lever.

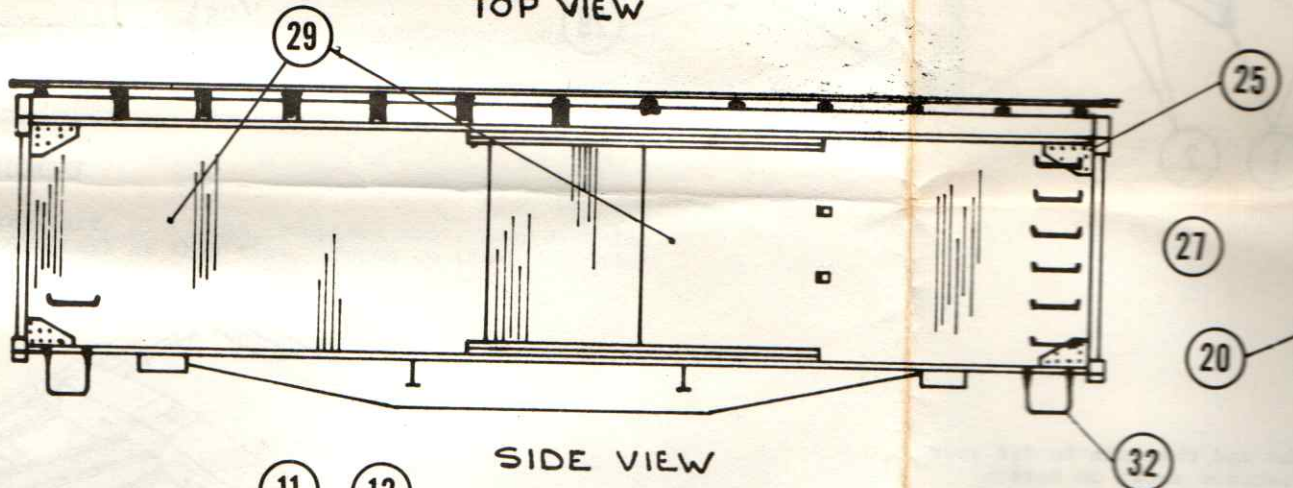
MODELS

Illinois 60639

11. Mount the center sill to the floor assembly.
NOTE: The next steps are not easy, take your time and be patient. Check before cementing pieces in position.
12. "Snake" the main air line thru the center sill. Next start stringing the various cross members on the airline starting from the center of car and working toward the bolsters, put on the smaller air lines. When this is done cement the bolsters and cross members in position.
13. Cut 2 pieces of "C" channel (color code black) and notch to fit at the ends of car. Cement into position.



TOP VIEW



SIDE VIEW

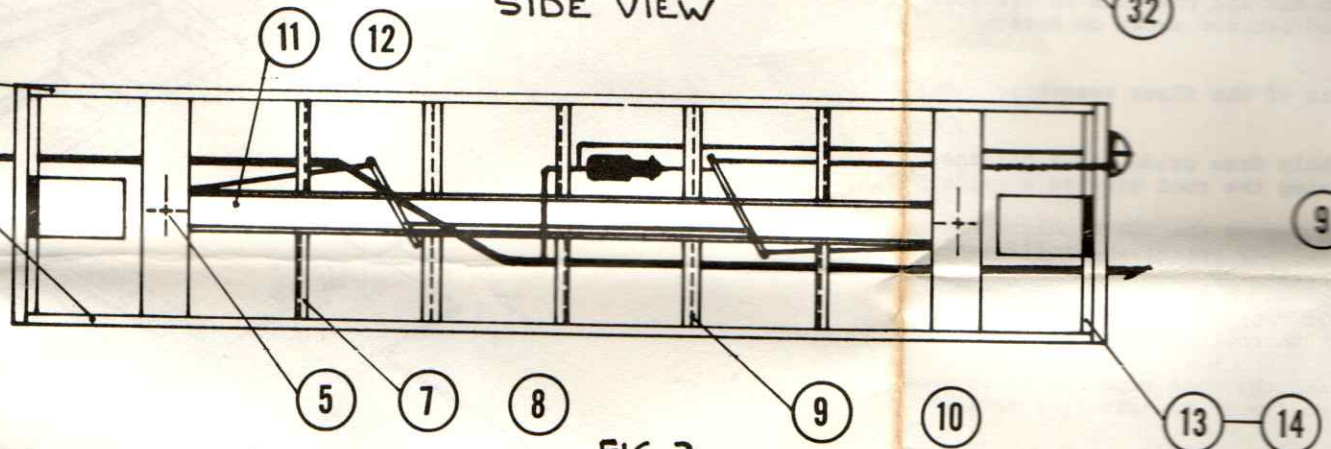


FIG. 3
BOTTOM

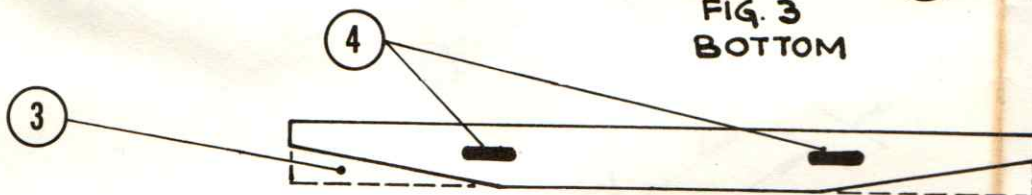
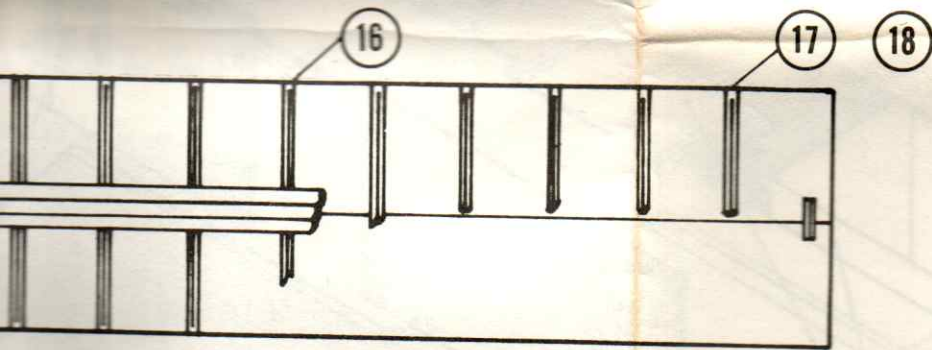
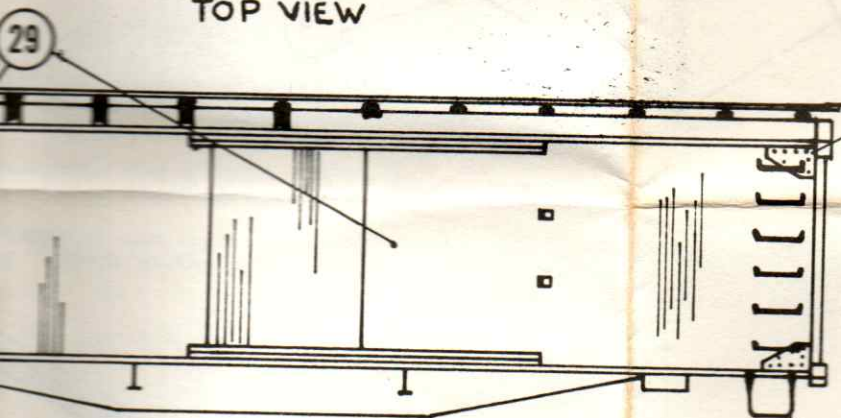


FIG. 2.

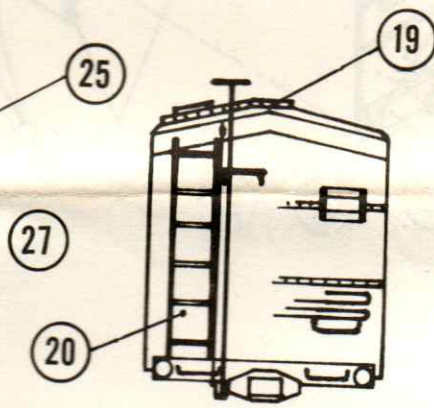
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TOP VIEW



SIDE VIEW



END VIEW

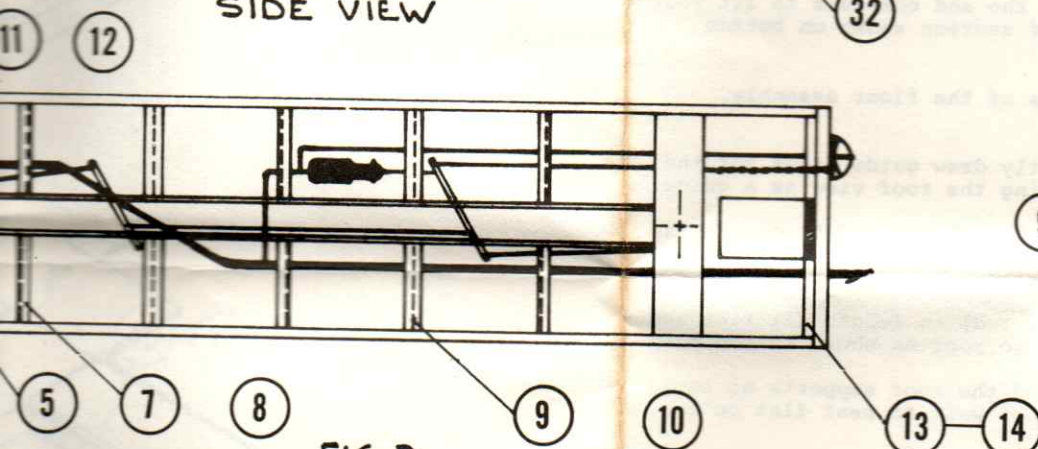


FIG. 3
BOTTOM

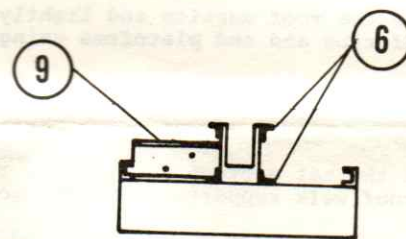


FIG. 4

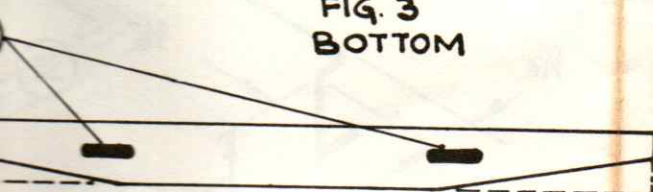
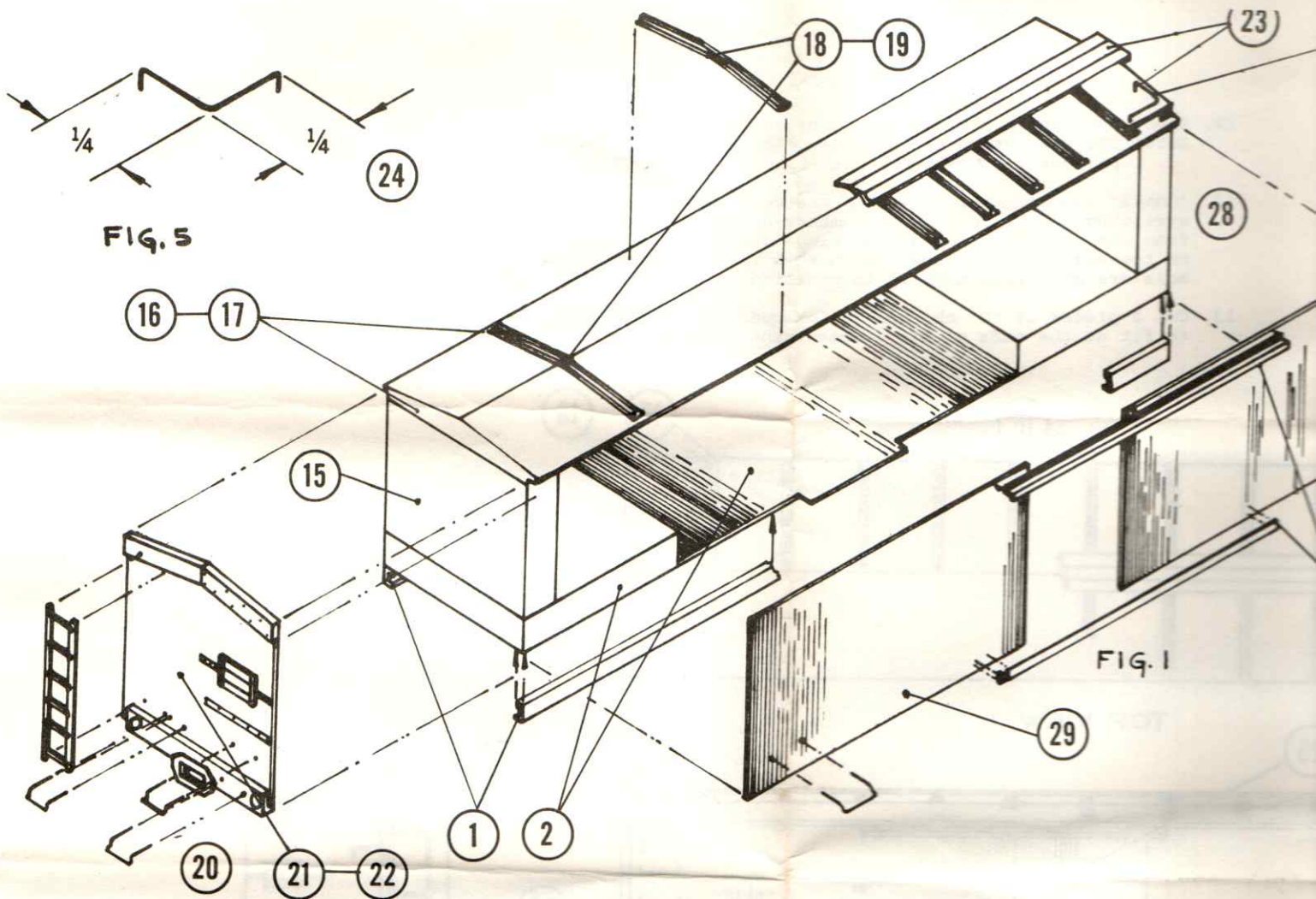
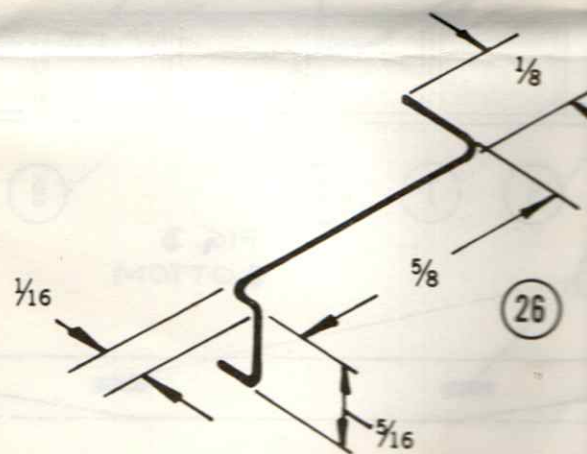


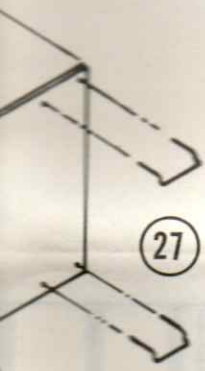
FIG. 2.



14. After the cement has dried cut the end channels to fit your favorite coupler pocket (shaded section shown on bottom plan).
15. Cement the end blocks on blocks of the floor assembly. Refer to fig. 1.
16. Take the roof section and lightly draw guide lines for the roof ribs and end platofrms using the roof view as a guide.
17. Cement the roof section to the top of the end blocks. Make sure one end is cemented flush. Any variation of fit can then be sanded off of the opposite end.
18. Cut the hat section (color code red) to length (11 ribs and 2 roof walk supports). Cement to roof as shown in top plan.
19. Remove the crest of each rib and the roof supports as shown in the end view to allow the roof walk to seat flat on top of the ribs.
20. Drill holes in metal ends for grab irons and ladders and brake platforms (one end only) use #75 drill (refer to end view and fig. 1).
21. Cement the metal ends to the wood body. Allow 1/32 over hang on each side of body. BE SURE THEY ARE SQUARE.



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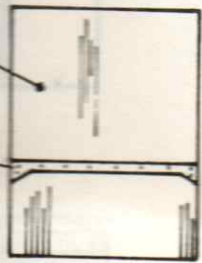


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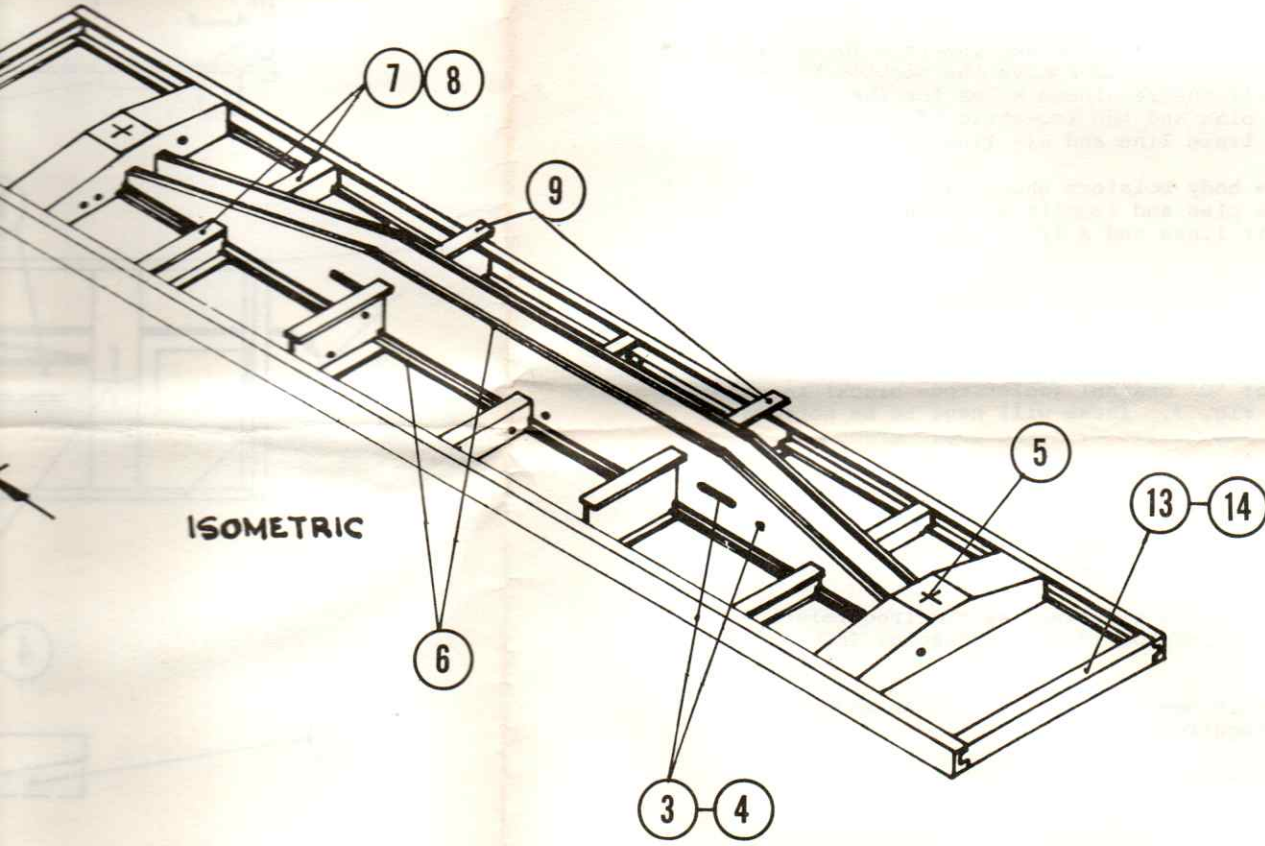
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DOOR

22. Drill same holes deeper into wood end blocks. (Step 20 and 22 can be done as one operation after step 21. (However, it is easier to drill the metal ends as separate piece).
23. Cement the roof walk in place. Cement 2 short pieces of hat section to the bottom of each end platform. Cement end platform in place.
24. Use the short piece of wire provided to form the "L" shaped grab irons for the end platform. Refer to fig. 5. Use #78 drill for mounting holes in platforms.
25. Make 8 corner braces from the plastic provided. See side view for shape and location. The rivets may be simulated with the tip of a dull pin. Cut 2 cross braces for the doors. Refer to door drawing.
26. Form 2 coupler release bars as shown. An additional bend is needed on the brake wheel end to go around the brake staff.
27. Using one of the plastic ladders as a guide make holes for the grab irons on the sides of the cars. Drill holes using a #75 drill. (These holes can be deepened after the sides are in place).
28. Paint the car now. Use Floquil's Tuscan Red. The under body may be painted black if you prefer.
29. Cement the sides in place. Check to make sure everything is square. (There is no overhang on the roof eaves). Add corner braces.
30. Cut 4 door guides from 3/64 "Z" stock (color code green).
31. Cement the upper door guide in place. Position doors and cement lower guides in place. Make 4 door stops from scraps. Angle and cement in place as shown on side drawing.
32. Mount the stirrup steps. Straighten top bend in steps for easier installation (use a drill for starting hole).
33. Add brake staff, platforms, couplers and trucks and the remaining detail at this time. Touch up the paint job.



ISOMETRIC