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AAR 70 TON FLAT CAR

HISTORY

Following the development of the 50-foot AAR flatcar design, there emerged the desire to extend the car capacity. In addition, the loading was maximized by lowering the height of the deck to approximately 3-1/2 feet above the rail. The result was a riveted design on 70 Ton trucks. Of note is the top plate of the bolster, visible from the top side, and at the same level of the wood decking lumber.

These cars were produced in this standardized design from 1942 through 1953. One principle builder was Greenville Car Company. In addition numerous cars were constructed by the railroad shops, i.e. NYC, B&O, and WABASH. These cars had a long and varied life, lasting to the PC and Chessie mergers. Over their lives the cars were used in general service, wallboard service, early trailer service, auto frame service, MOW, and more.

The InterMountain Railway AAR 70 Ton Flat Car has been produced in two versions, as the flat car and as the car converted with end bulk heads. These instructions are used for either version.

GENERAL COMMENTS

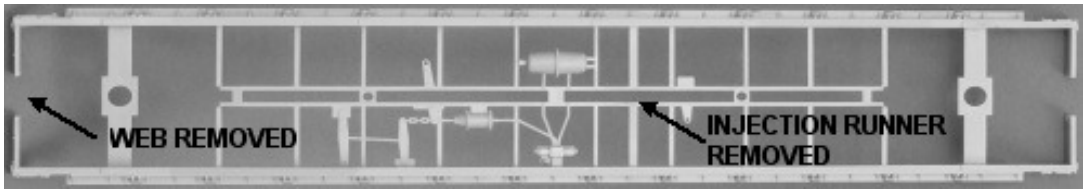
Please read all instructions and study the images and parts before beginning assembly of this kit! Many of the parts are very delicate, in order for your completed model to be as attractive and authentic as possible. DO NOT ATTEMPT TO BEND, TWIST, OR BREAK PARTS FROM THE SPRUE. The most effective tools to use in removing parts from their sprue are an X-ACTO knife, fine clippers, or a sharp, single edge razor blade.

It is best to test fit ALL PARTS before applying glue. We recommend a gap-filling cyanoacrylate glue for joining the parts, plastic-to-plastic, and the metal parts to the wood and the plastic. Generally very small amounts of glue are needed to affix parts, so we recommend that glue be used sparingly and applied with a small applicator.

ASSEMBLY OF THE CAR

Step 1. Remove any flash from the die cast weight. Check the weight by setting it onto a flat surface. If the weight is not flat, gently bend it to flat. Be careful to bend the least at the thin sections at the bolsters.

Step 2. Trim any flash from the plastic body. Note there is a rectangular runner, crossing from one side to the other, approximately 1/4 inch away from the brake valve and reservoir. This runner is the injection runner for the mold, and interferes with the center web of the weight. Remove the short portion of this runner in the middle of the body so the weight can be inserted into the body. It is optional to remove all of the injection runner from side to side of the car. There is also a thin web at each end of the body, which must be removed to clear the coupler box opening.



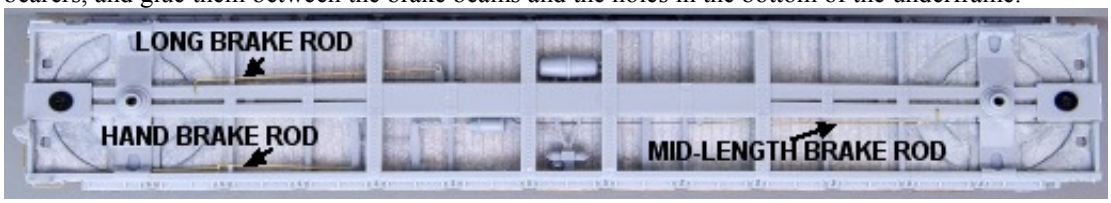
Step 3. Remove any flash from the underframe, and separate it from its sprue. Test fit the underframe into the body. Note that the cross bearers of the underframe have molded notches to fit over the connections of the brake system.

Step 4. Locate the three wire brake rods. Test fit them to the mated body and underframe. The shortest rod fits from the top side into the hole in the hand brake lever, and extends along the side frame of the car toward the bolster. The longest rod fits between the hole in the main brake beam, opposite the cylinder, and the locator hole in the bottom of the underframe, at the brake wheel end of the car. The third rod fits between the locator hole in the second brake beam and the locator hole in the bottom of the underframe, at the other end of the car.

Step 5. Glue the body to the weight. It is recommended to apply the glue to the top of the bolsters and along the recessed edges inside the ends, within which the weight fits. There are two notches in the top center of the body, next to the brake cylinder, that fit over the cross-over of the train line, cast into the bottom center of the weight.

Step 6. Attach the hand brake rod to the body.

Step 7. Glue the underframe to the body. Then secure the assembly with the two screws with the small flat heads, attached through the top of the weight. Thread the two brake rods through the notches in the cross bearers, and glue them between the brake beams and the holes in the bottom of the underframe.



Step 8. Attach the couplers and coupler box covers with the small flat head screws provided. The model has been designed for the Kadee No. 5 coupler.

Step 9. Attach the wire grab irons at the corners of the body.

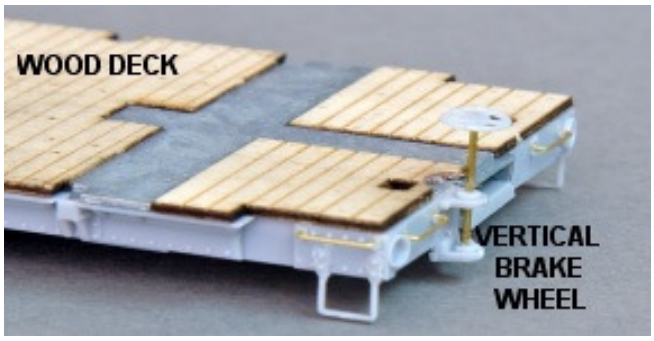
Step 10. Insert the wheelsets into the trucks, and attach the trucks with the screws provided.

Step 11. Attach the stirrups into the locator holes at the corners of the body.

Step 12. For the flat car assembly, attach the vertical brake staff supports to the brake end of the car. The lower support has the right angled locator. For the bulk head equipped car, skip to Step 15.

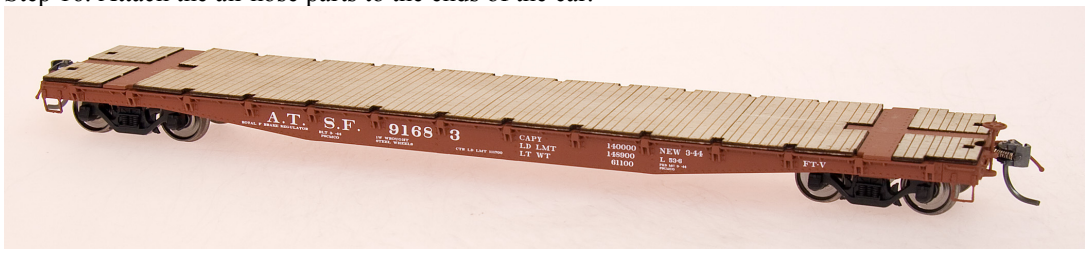
Step 13. Glue the laser cut wood deck parts to the top of the weight. The wood parts fit around the bolster plate detail cast into the top of the weight. There is a curved recess in one of the corner wood parts to clear the brake wheel part.

Step 14. Attach the vertical brake wheel staff through the brake staff supports. Then glue the brake wheel to the top of the brake staff.



Step 15. If assembling the car with the bulkheads, the four corner wood parts are smaller, and are located against the raised corners at the bolsters. Glue the laser cut wood deck parts to the top of the weight. Refer to the BULK HEAD ASSEMBLY instructions to assemble the bulkheads.

Step 16. Attach the air hose parts to the ends of the car.



BULK HEAD ASSEMBLY

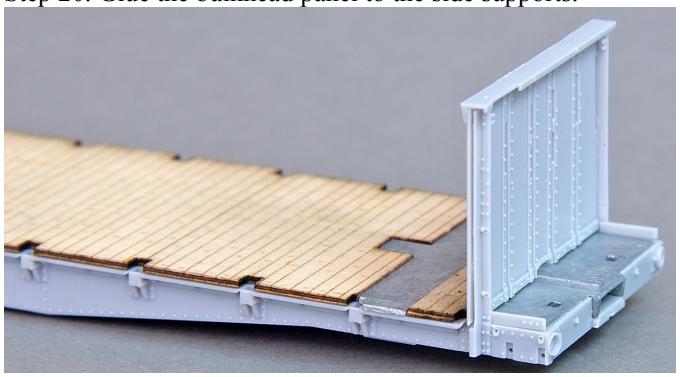
Follow these steps to assemble the bulkhead to the brake end of the car. Then repeat them to assemble the bulkhead at the other end of the car, omitting Steps 24-27, and 29.

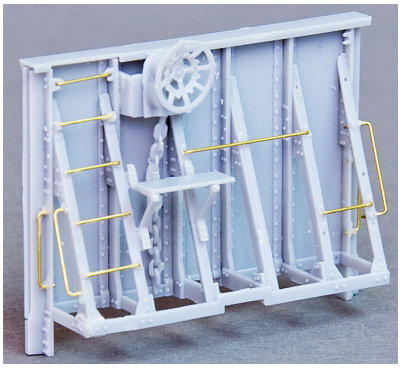
Step 17. Trim any flash from the plastic bulkhead panel "A". Test fit the small rectangular notch over the bolster detail cast into the top of the weight, over the coupler box.

Step 18. Trim the top angle "B" from its sprue and glue it to the top edge of the bulkhead panel. The inside flat surface of the angle locates against the flat surface of the bulkhead panel.

Step 19. Glue the side supports for the bulk head, "C" and "D", into the notches on each side of the body.

Step 20. Glue the bulkhead panel to the side supports.





Step 21. Trim the four vertical supports, "E,F,G,H" and the six angle braces, "J, K, L, M, N, P" from their sprues. Note there are left and right versions of the parts. Attach the supports and braces to the bulkhead as follows, from left to right:

Glue the angle brace “J” next to the left side support “C”.
Glue vertical support “E” into the slot next to the left side support. Glue the angle brace “K” next to “E”.
Glue vertical support “F” into the slot next to “E”. Glue the angle brace “L” next to “F”.
Glue the vertical support “G” into the slot next to “F”. Glue the angle brace “M” next to “G”.
Glue the vertical support “H” into the slot next to “G”. Glue the angle brace “N” next to “H”.
Glue the angle brace “P” next to the right side support “D”.

Step 22. Attach the lowest wire grab between angle braces “J” and “K”, and between angle braces “N” and “P”. Then glue the lower end beam “R” across the lower legs of the six supports. Note the notch in the end beam fits over the bolster detail cast into the top of the weight.

Step 23. Attach the remaining wire grab iron details. It may be necessary to clear the locator holes with a . 016 in. dia. (#78) drill.

Step 24. Drill a .052 in. dia. (#55) hole in the top center of the brake mechanism part “S” to locate the brake wheel. Test fit the brake mechanism part “S” to the brake mechanism bracket “T”. Then attach the brake chain “U” to the third hole in the mechanism bracket “T”, and attach the brake mechanism “S” to the mechanism bracket, over the chain.

Step 25. Attach the brake mechanism assembly to the top of vertical supports “E” and “F”, below the top angle “B”. Note there is a locator hole in the weight that receives the pointed end of the brake chain “U”.

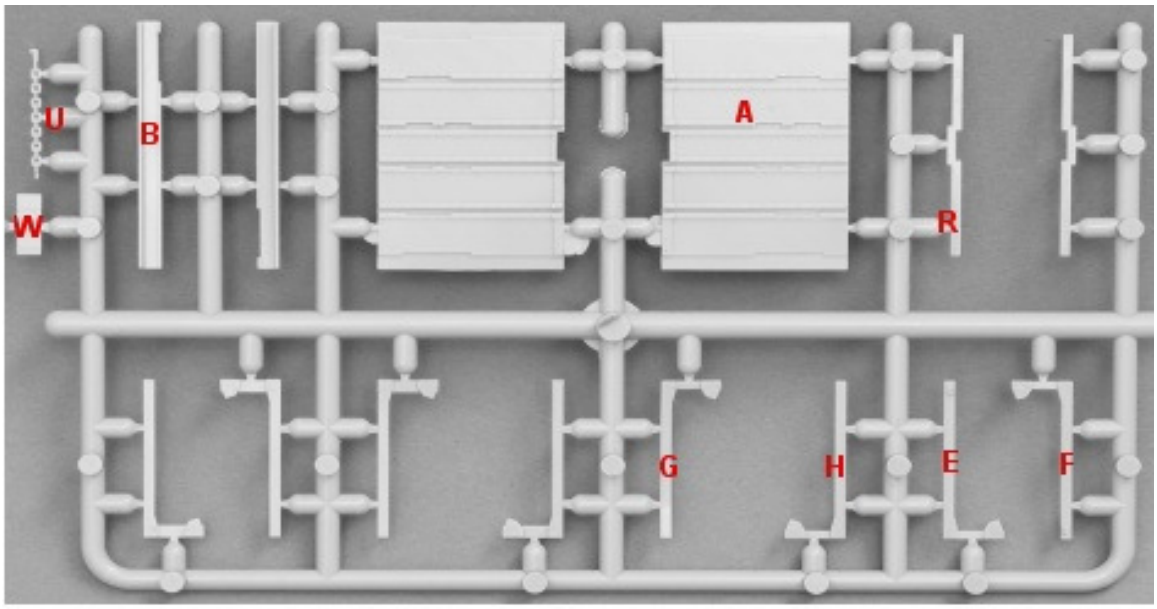
Step 26. Attach the brake platform brackets “V” to the angle braces “K” and “L”.

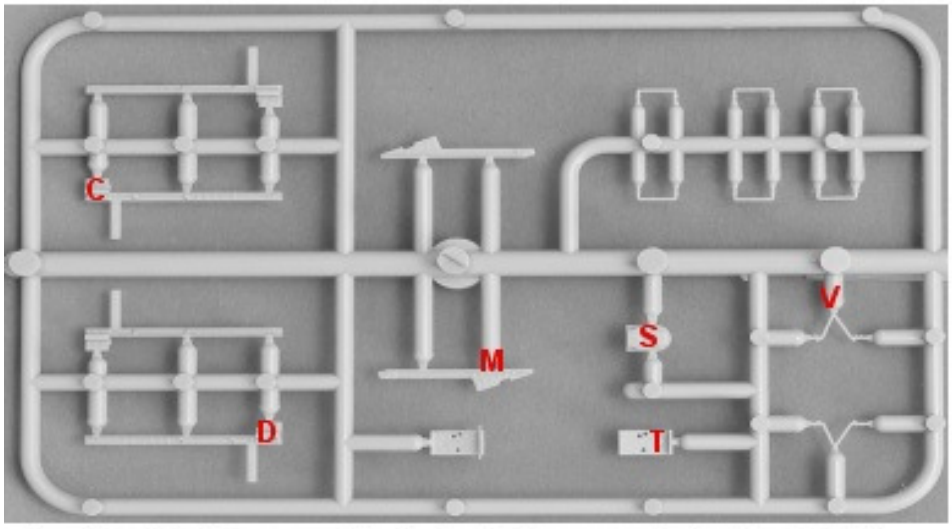
Step 27. Attach the brake platform “W” to the platform brackets.

Step 28. Attach the laser cut wood panel to the flat side of the bulkhead panel.

Step 29. Attach the brake wheel to the brake mechanism.

Step 30. Repeat the bulkhead assembly Steps 17 through 23, and 28, for the other bulkhead without the brake system.


U
B
A
W
R
G
H
E
F


C
V
S
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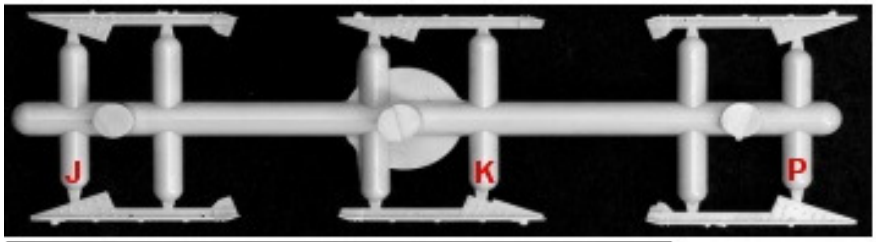
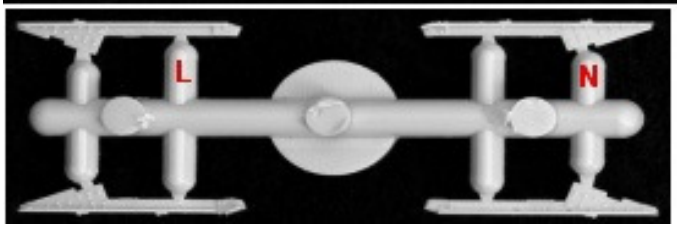

J
K
P


L
N