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## **GREAT NORTHERN PLYWOOD PANEL BOXCAR**

Allocation of steel during World War II led to the use of more wood products in the construction of railroad freight cars. The Great Northern Railway built a number of classes of boxcars with plywood panels for the exterior sheathing. Production of these plywood sheathed boxcars occurred in the years 1944-1947. An excellent source of prototype history for these boxcars can be found in Great Northern Railway Historical Society, Reference Sheet No. 37, GN Plywood Boxcars, Series 10000 & 10500.

The InterMountain Railway Company, Great Northern Plywood Panel Boxcar, represents the prototype 40 ft. 6 in. inside length, 10 ft. inside height car, from number series 10000-10499, built in 1945, and 10500-10899, built in 1947. The kit also includes alternate Youngstown corrugated side doors and Superior seven-panel side doors.

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.

### **BODY**

Step 1. Remove any flash from the car body(a) and the roof(b). Note the molding gate in the bottom center of the floor should be trimmed flush. Test fit the roof to the body. Test fit the ends to the body. Note there are four locators on the back side of the 'B' or brake end(y), and three locators on the back of the 'A' end(x). Glue the roof to the body; the roof overhangs the body the same at each end. Glue each end to the body, with the top against the roof and aligned to each side.

Step 2. Trim the under frame(e) from its sprue and remove any flash. Note there is a locator pin on the under frame that inserts into a hole in the floor. It may be necessary to clear the locator hole with a .065 in. dia. (#75) drill. Attach the under frame to the body. The cross bearers of the under frame fit into the notches molded behind the flat sill at the

bottom edges of the floor.

Step 3. Carefully trim the under frame brake system(g) from its sprue, and test fit it to the under frame. The locator pins fit the underframe only one way. Test fit the brake system and glue in place.

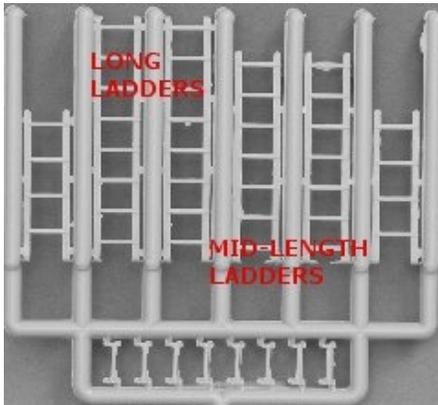
Step 4. Trim the coupler boxes(aa) and lids(bb) from their sprue. Test fit the parts to the locator holes at the ends of the floor. It may be necessary to open the locator holes in the floor with a .065 in. dia. (#75) drill. Place the coupler of your choice into each box, add the lid, and glue a box assembly to each end of the floor. The coupler box is made to accept a Kadee No. 5 coupler.

Step 5. Open the locator holes (in the floor) for the brake fulcrum(h) (with chain), and the air hoses(f), with a .021 in. dia. (#75) drill. Glue the brake fulcrum in place.

Step 6. Assemble the wheel sets(dd) into the trucks(cc), and attach the trucks to the bolsters with the screws provided. The car can now set on the trucks during the rest of the assembly.

#### **DETAILS**

Step 7. Open the locator holes in the ends with a .021 in. dia. (#75) drill. Assemble the mid-length ladders(l) to the ends of the car. Assemble the plastic grab irons(m) to each end of the car. Assemble the tack boards to the ends of the car.



Step 8. Assemble the brake mechanism(q) to the 'B' end. The clevis at the bottom of the brake mechanism fits over the fulcrum (assembled in Step 5) along side of the coupler box. Assemble the brake platform brackets(r) to the end. Assemble the brake platform(s) to the brackets.

Step 9. Glue the necessary weight inside the car. Adding 1-3/4 oz of weight will bring the car to NMRA recommended weight.

Step 10. Select the doors(d) for the car, and glue them in place over the openings in the sides. Two different doors have been included in the kit: corrugated Youngstown, or seven-panel Superior. Note that the back side of the Youngstown door should be

trimmed flat, so the door will fit the openings.



Step 11. Glue the tack boards to the side doors; larger(t) at upper center, and smaller(u) at lower center.

Step 12. Open the locator holes in the sides with a .021 in. dia. (#75) drill. Attach the longer ladders(i) to the right of each side of the car. Attach the two wire grab irons(n) to the left of each side.

Step 13. Attach the corner stirrups to the inside surface of the sill at each corner. Note there are a right(j) and a left(k) stirrup.

Step 14. Attach the roof walk(c) to the supports molded along the center of the roof. To attach the etched metal roof walk, bend the latitudinal portions down so they follow the slope of the roof to the ladders. It is recommended to attach the roof walk from the center supports of the car, progressing toward each end.

Step 15. Attach the roof walk grab irons(w) to the roof walk. Attach the roof walk end supports(p) between the ends of the roof walk and the ends of the car.

Step 16. Attach the brake wheel(v) to the brake mechanism at the 'B' end of the car.

Step 17. Attach the air hoses(f) at each end of the floor, along side the coupler boxes.



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