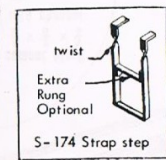
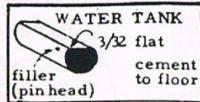
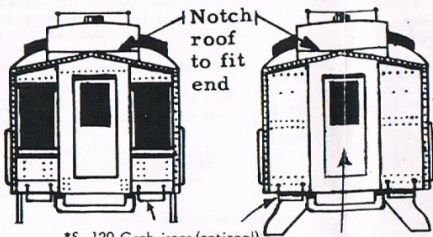


9110 70-0103

**EMPIRE BUILDER**  
**80' Solarium**  
**Observation**

ALL NATION LINE  
 23 W 546 ST. CHARLES RD  
 WHEATON, IL 60138  
 Scale--1/8" = 1 foot



The prototype for this car was built by Pullman for the Great Northern's Empire Builder. Other railroads used similar cars in place of an open platform observation. The Great Northern owned seven such cars, however only four were used in Empire Builder service.

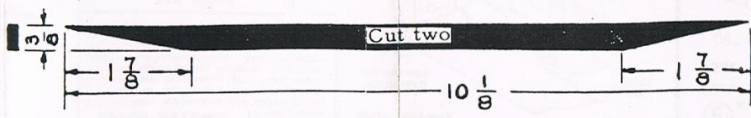
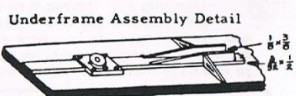
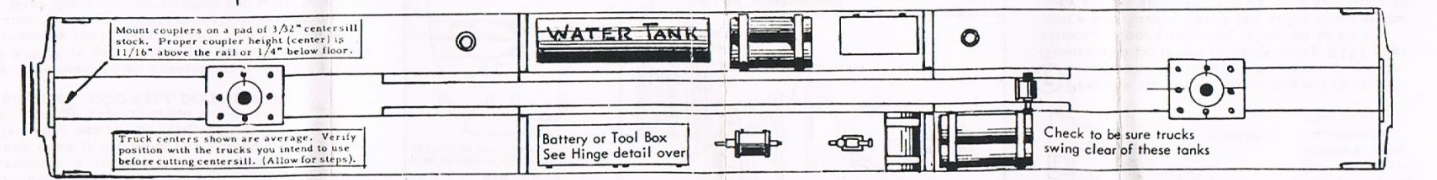
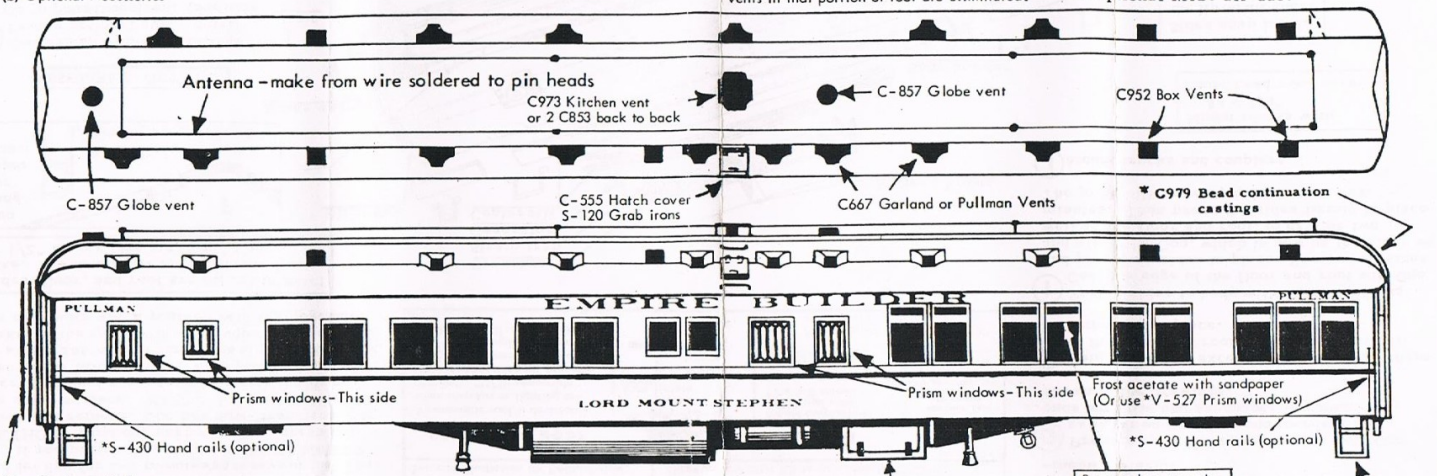
- #1070 D. Willis James
- #1071 Lord Straathcona
- #1072 George F. Baker\*
- #1073 David C. Shepard
- #1074 James J. Hill\*
- #1075 Cyrus H. Jencks\*
- #1076 Lord Mount Stephen\*

\* Empire Builder cars

\* Indicates (a) Super Detail parts (or) (b) Optional Accessories

When M120 air duct is supplied, vents in that portion of roof are eliminated.

Dotted line shows location of optional M120 air duct



Illustrated is one of our super detailing accessories -- an air conditioning unit. This may be used in place of one of the regular underbody boxes.

U-709



**HEY, HERE'S SOMETHING NEW!**

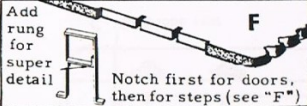
One of the really new features of this kit is the method of cementing the sides to the body. BUT, you need a cement that will hold wood to metal: one that will NOT come loose in a damp basement, a cement that will NOT crack even if the model is stored in an attic where the temperature may change rapidly from sub-zero to plus 120°. **GOO WILL DO THIS JOB.**



We have tested Goo continuously since 1949 and we KNOW it will do this job (and most any other cementing job). Don't take a chance with an ordinary cement. Your models deserve Goo. Try it. Give Goo a chance to show you some new tricks.

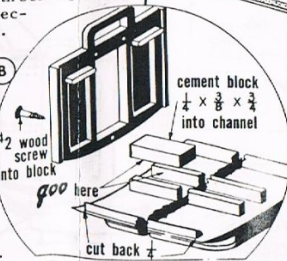
**FOLLOW DIRECTIONS.** It is important and to your advantage to coat both surfaces with Goo and let dry for 2-3 minutes as it says on the tube. Or, if you prefer, you may use the **TRANSFER METHOD.** Coat one part with Goo, press into place and remove. Goo has now "transferred" to the other surface. WAIT 2-3 minutes while the excess solvent evaporates and tack builds up, then press into place for final assembly. You'll be amazed at the difference this simple procedure makes in the speed with which your joints set and the ease with which your models Goo together.

Sides, floor, and roof are all cut to exact size. You do not have to trim them. Roof is 1/2" longer than sides and floor.



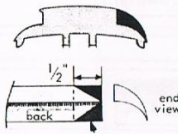
**ASSEMBLY OUTLINE**

- A** Clean flash from end castings. Fasten optional super detail parts to ends if desired. (See note on "Super Details".)
- B** Fasten ends to floor and roof with screws and Goo (inset "B"). Follow directions on Goo tube for quickest bond.
- C** Notch floor to provide clearance for strap steps at the end of the car. ("F").
- D** Locate truck centers for the trucks you will use and Goo the diecast body bolsters in place. Cut centersill parts from wood and assemble on floor, reinforcing the fishbelly sections with pins. Be sure the centersill is centered on the floor.



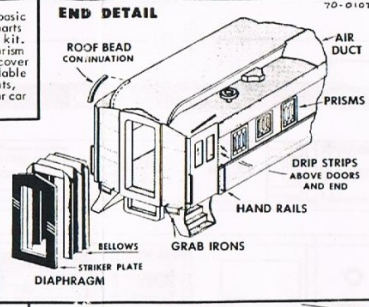
**SUPER DETAILS** To keep basic kit cost low, we packed super detail parts (marked "or optional") in separate kit. Included are: hand rails, grab irons, prism windows, guard chain, tailgates, box cover detail, roof bead castings. Also available are accessories such as interiors, lights, markers, air conditioners to make your car a real show piece. Consult catalog.

**AIR DUCT** Used on roof of air conditioned car in place of individual vents.



Cut off shaded area (both ends) CAREFUL not to break leather edge. Shape front or top surface, sand smooth. Fit to roof (remove roof beading). See end illustration for finished view.

**END DETAIL**

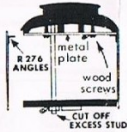


**ROOF ROUNDING**

Shape lower monitor (L) Make curved bead from stripwood (or use \*C979 cast bead). Fit to roof. Shape upper monitor (U) to match bead.

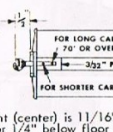
**REMOVABLE ROOF**

A removable roof is desirable when interiors or lighting are planned. \*U750 removable roof kit makes this easy, provides electrical connection to trucks. \*R276 metal angles (cemented or soldered) will reinforce sides.



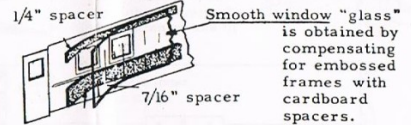
**COUPLERS**

Mount couplers on 3/32" pad with #2 x 3/8 screw. For short radius curves, increase 1/2" dimension.



Proper height (center) is 11/16" above rail or 1/4" below floor

**E** Complete the underbody details with both standard and optional superdetail parts, scaling any needed dimensions from the plan. See "F" for mounting strap steps.



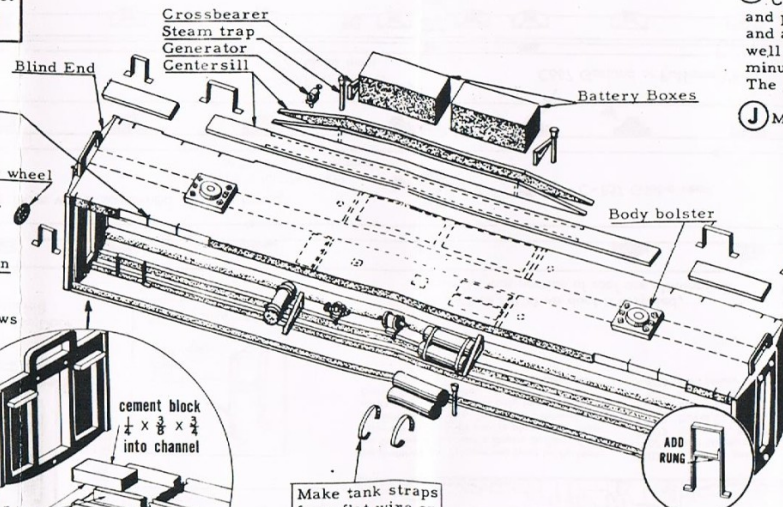
**F** Prepare the sides, mounting all desired details and fastening side doors in place. (Doors can be made to slide using R157 door slides.) Doors must be trimmed to fit in space provided. Check the sides against the body for fit and CUT AWAY roof and floor for clearance as required. Now mount strap steps in floor as shown. (Alt. method: solder steps to car side). Paint the sides, then install window material.

**G** Prepare roof, installing details with Goo as shown on the plans and rounding the ends with file and sandpaper to contour shown in the drawings.

**H** Paint the body, except do not paint the edges of the floor and roof where the sides will be cemented in place.

**I** Fasten sides to body with Goo as follows: Coat the edge of the floor and roof with Goo and press the sides in place. Remove the sides and allow the Goo, which is now on the sides as well as the floor and roof, to dry for two minutes. Then press the sides firmly in place. The joint will set very quickly this way.

**J** Mount trucks and couplers.



Mount trucks with #4 x 3/4" Round head wood screws

Sides snap inside the lip on the ends.

Mount couplers with #2 x 3/8 round head wood screws

Fasten ends to roof and floor with #2 x 1/2" Flat Head Wood Screws. (See inset "B")

**IMPORTANT:** These General Instructions show the body assembly of any car of this type. Car plans on the reverse will show where to locate all detail parts.

Make tank straps from flat wire or 1/16" strips of cardboard or sticky tape.

NOTE: Car has brake wheel on each end.

**POSTAL, BAGGAGE, DINING CAR** O GA  
ALL NATION LINE  
23 W 546 ST. CHARLES RD.  
MILWAUKEE, WIS. 53109 59-0406