

Espee Models F-70-7 Piggyback Flatcar Instructions

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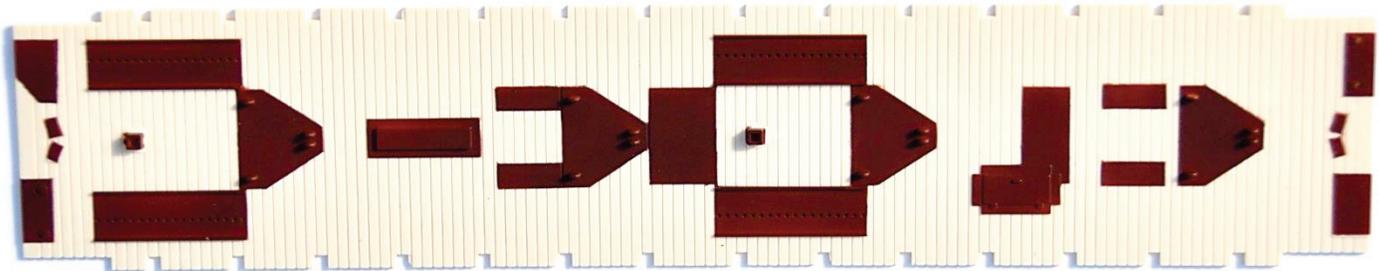
Thank you for purchasing our F-70-7 Piggyback Flatcar kit from Espee Models. Please be aware of a few things before assembling your new kit. This is a craftsman style kit intended for the intermediate level modeler who has had some experience building these types of plastic models. You will need a variety of tools including an X-Acto knife with No. 11 blade, fine tweezers, emery boards, CA glue, and ABS cement such as Ambroid Pro Weld.

During assembly you will need to be familiar with terms and the general location of various railroad hardware. This model was intended to satisfy most modelers with a level of detail for a very nice freight car model. It can also be super detailed to a contest level model with a little bit of additional work and added detail. Some references that will help you in the construction of the model are SPH&TS *S•P Trainline* numbers 43, 44 & 46; also Southern Pacific Freight Cars Volume 3 by Tony Thompson is a very valuable resource and many prototype photos can be viewed there.

Included in your kit is enough material to construct one flatcar, including specific detail parts to create the TOFC version of this car. The F-70-7 was the first car to be transformed into piggyback service on the SP, with conversions beginning in 1953.

A variety of parts sprues were tooled to create these highly-accurate flatcars. You will find one of each sprue; sides, floor, frame, ends, deck, rub rails, ratchets, flatcar detail, AB brake, piggyback detail, small standees, and a pair of stake pockets and 70-ton Barber S-2 trucks. Screws are included to mount the trucks. If you desire to screw in the draft gear covers rather than gluing them to the frame, use a 0-80 x 5/32 screw (not supplied).

1. To begin, look over each sprue and remove any flashing from the injection process. A new No. 11 blade can be carefully used to remove flashing. A file may be used, but be careful not to remove paint from the surface. If needed, the correct matching paint is available from P-B-L, P.O. Box 769, Ukiah, CA 95482, or call 707-462-7680. Ask for SP Freightcar Red.
2. The deck is shot with a color that resembles freshly-installed wood decking. This is beneficial for convenience, however the prototype car had all of the metal parts painted SP Freightcar Red. To achieve this, you will need to either hand paint the metal detail or mask off the deck accordingly. It is recommended that the modeler mask the deck with Tamia masking tape or blue painter's tape. Then airbrush a finish of SP Freightcar Red over the metal surfaces. You may choose to weather the wood on the deck during this stage or wait until the model is finished. Study the following photo for masking:



3. Remove the sides, ends, frame, and floor from their sprues and sand or file the casting marks away. Begin by assembling the sides and ends, noting that they are keyed to fit properly and the “B” end is marked on the inside of the side sills.

4. Note the AB brake valve, brake cylinder, and air reservoir on the flatcar detail sprue. Using an X-Acto knife, remove them and install on the floor.

5. Carefully trim the AB brake linkage from its sprue and install it on the floor. Note the “B” end of the floor is marked in the upper left corner. Next place the “AB” brake system in the corresponding



locations while noting the brake lever assembly mounts in the live lever bracket slot and the brake cylinder clevis. Make sure the brake cylinder clevis is pointing towards the “B” end of the car.

6. Install the frame onto the floor noting the locator pins for the correct placement. You may choose to use brass wire (not included) for modeling the trainline and main reservoir lines to the air hoses and trucks.



7. Slide the floor into the sides from the top down. There are stops molded in the sides to prevent the floor from recessing too far into the sill. Once the floor is properly placed, use capillary action to spread liquid cement across all four sides and clamp the carbody together while it dries.

8. Install the weight into the depressed channel on the top of the floor. Do not use Walther’s Goo as it will warp the plastic over time. CA glue is recommended.

9. Once the weight is dry, attach your couplers to the draft gear and screw the trucks into the bolsters.

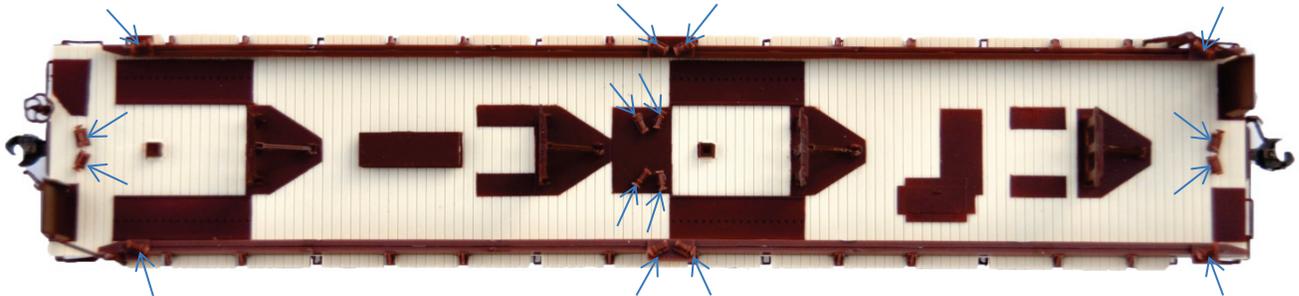
10. Carefully remove the stake pockets from their sprue and glue them onto the sides of the carbody. Note the locator pins are offset on the pocket, and the pins should be in the upper half of the detail part when inserting them into the frame. Be sure to mount them all the same way.

11. It’s now time to glue the deck to the floor. Note that there is one plate on the end of the deck that is notched at an angle. This belongs on the “B” end of the car under the hand brake once it is installed. There are locator knobs on the bottom of the deck that key into the floor on each end. To avoid warping, use slow-drying CA or MicroBond from Microscale and glue the deck to the floor.



12. At this point in construction your flatcar should resemble the photo at right. The remaining instructions will address the specific detailing of the deck and piggyback appliances.

13. Start by gluing the tie down ratchets to the base frames located on the floor. Carefully set the ratchets level onto each base frame. Note the position of each ratchet gearhead and place 16 of them according to arrows below:



14. Return your attention to the remaining details along the frame of the model. Cut from the sprue the end corner braces. There are two types identified by an additional hole in one style. First remove the pair that does not have the extra hole and mount them to the right corner on the "B" end. Glue the other diagonally across the car to the right corner on the "A" end. Next glue the other pair of braces with the extra hole to the other corners.

15. Drill out .022" holes for the plastic grab irons and glue in place. If you want to use scale brass grab irons, drill out the holes using your size of wire - .012" recommended. The drop angled grab irons go on opposing ends of the car on the right-hand side when facing the model.

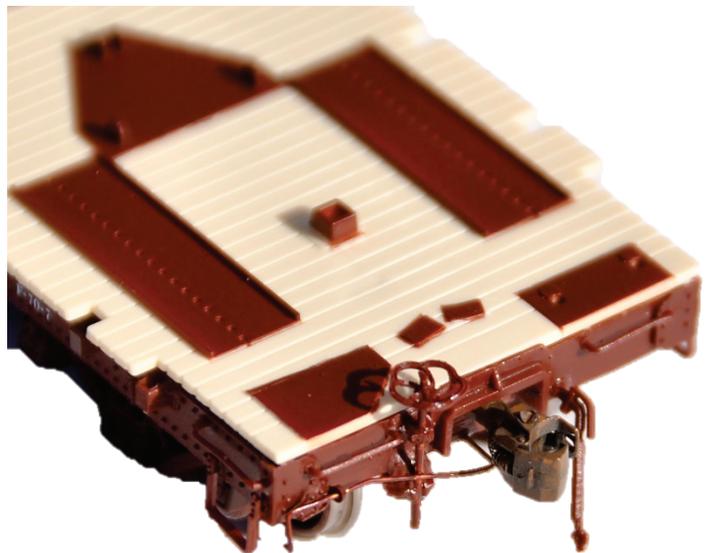
16. Drill out the holes and glue the stirrup steps in place at this time.

17. Next glue the brake pawl and brake wheel in place. The brake pawl will need to be drilled for the brake wheel stem with a .030" drill. Next glue the awl into the slot provided on the "B" end of the car. Slip the brakewheel all the way down to the base of the awl.

18. Next add the coupler lift bar brackets, and form cut levers out of brass wire.

19. Glue airhoses in place.

20. It's now time to install the rub rails on each side the side of the deck. The rub rails are formed by gluing two pieces together. Assemble both sets and allow time for drying. Note the ratchet holders face the outside of the car. Study the image below for the finished rub rail:



21. The rub rails are designed to fit into the stake pockets, but they do not run the entire length from end sill to end sill. Add the rub rails to the deck noting that the long end goes towards the chock block end of the car. While adding glue to each of the vertical posts, make sure the rub rails are held tightly up against the deck edge to ensure a straight positioning while sighting down the car.



22. Install the four standees and their support brackets. If you plan to model your flats without trailers, install them in the downward position. Starting from the “B” end, the standees alternate short, tall, short, tall.

23. Remove the tool box from the piggyback detail sprue and glue it to the notch in the deck between the third and fourth standee.



24. Install the drop plates on each end of the car in the upward position. Carefully remove the support brackets from the sprue. Using the locating holes in the rub rails, glue the vertical post to each corner paying attention to the photos for proper placement of the two different style posts. One has an angle brace attached.

25. For added detail, you may choose to pain the air hoses black and the gladhands silver.

Also available from Espee Models is a limited-edition Pacific Motor Trucking Company 22' Round-Nose Trailer Kit. Daylight trailers are accurate loads for your Southern Pacific F-70-7 Piggyback Flatcar! These kits are available in a two-pack from www.espeemodels.com.



Revised PMT Logo (1950s)

Original PMT Logo (1940s)

