Historical & Technical Society

SOUTHERN PACIFIC F-70-10 TOFC FLAT CAR KIT

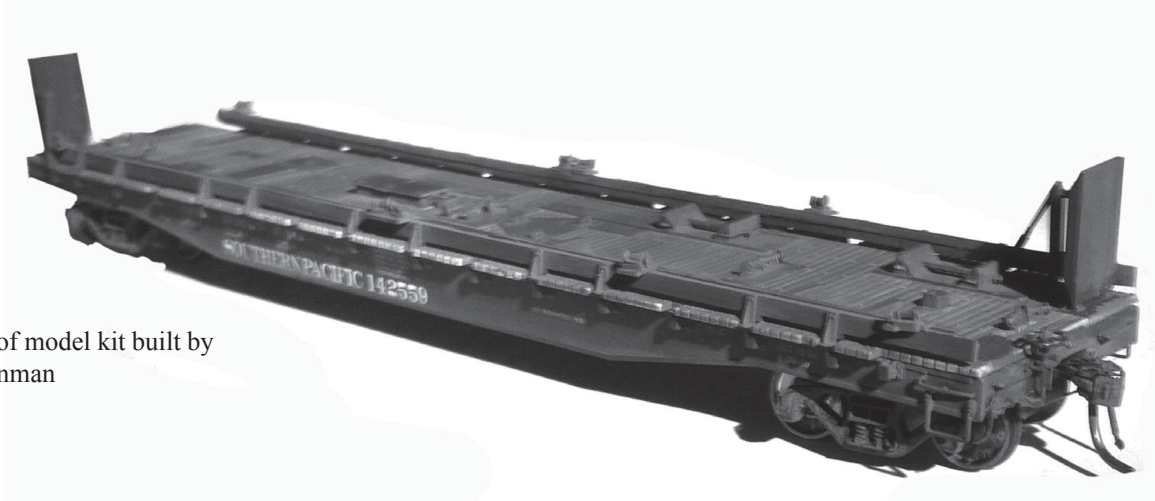


Photo of model kit built by
Scott Inman

Thank you for purchasing a kit from the SPH&TS. 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 flat kits.

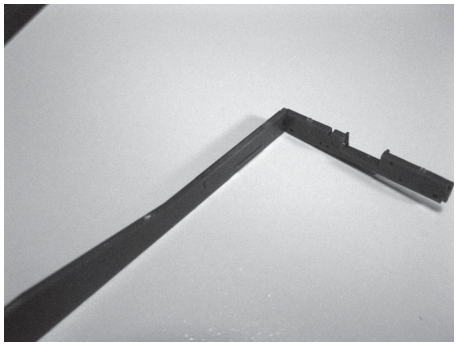
During assembly you will need to be familiar with terms and the general location of various railroad hardware. This model was intended to satisfy most modelers with a level of detail for a very nice layout model. It can also be super detailed to a contest level model with a little bit of additional work and added detail. Some references that will help you in the construction of the car are SPHTS Trainlines' numbers 43, 44 & 46, also Southern Pacific Freight cars Volume 3 by Tony Thompson has been a very valuable resource.

The correct matching paint is available from P-B-L, P.O. Box 769, Ukiah, CA 95482 707 462 7680. Ask for SP freight car red. You will need to provide a car weight. This can be obtained from a local sheet metal shop or from your hobby shop by using a piece of K&S brass strap stock .032"x 1" x 5.625"L.

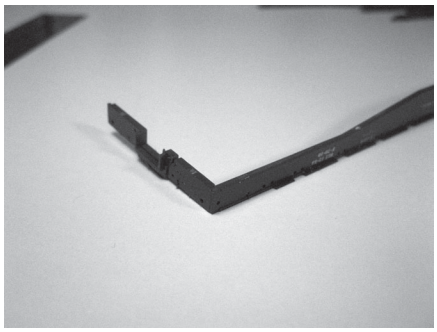
If you desire to screw your coupler box lids on, you will need a 1-72 self tapping screw or a 2-56 screw which will require reaming out the center lug on the coupler box. The box is designed for a #5 style coupler. (not included)

Your support for this project helps to ensure future releases of new, never done before SP cars. No other historical society has set out to produce their very own line of railroad specific cars. This is what makes the SPH&TS cars so special. Visit our website's company store for more offerings and support your society!! Happy modeling,

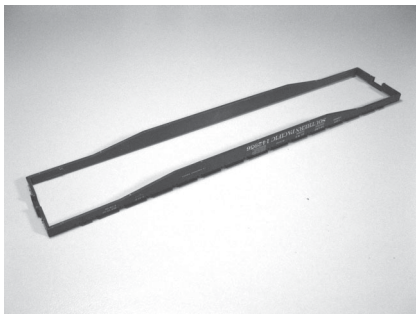
www.sphts.org



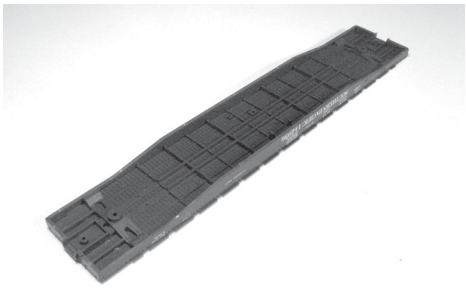
Start by assembling the end beams to the sides. Note that the locating lugs are different sizes for proper orientation of the “B” end. Let one assembly thoroughly dry and go on to the opposite side.



Continue assembly of the second pair of sides and ends. Allow sufficient time to dry.

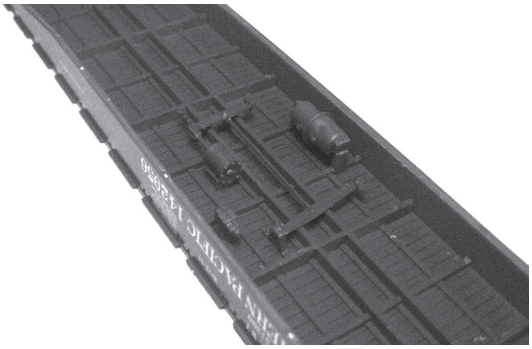


After side-end assemblies are dry, mate the two halves together to form the outer structure of the sill assembly.

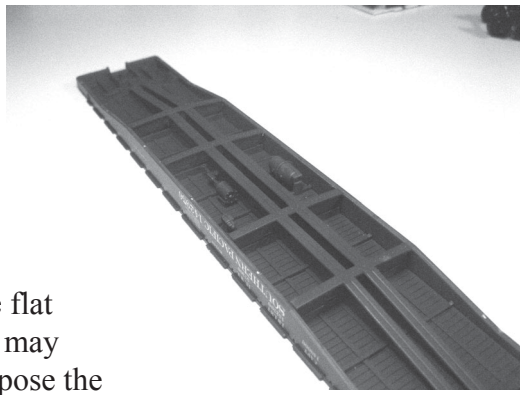


Making sure that the sill assembly is 100% cured, drop in the underframe. Please note that the underframe and side sill have a “B” marked at their respective locations. Make sure you position the floor so the “B” is on the same end as the “B” on the side sill.

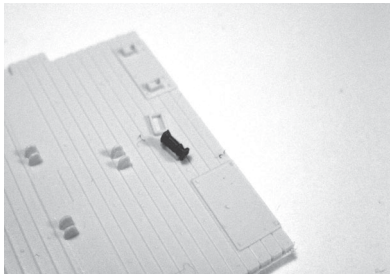
Locating ribs are provided to aid in leveling the underframe. Careful attention at this point will save big headaches later.



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.

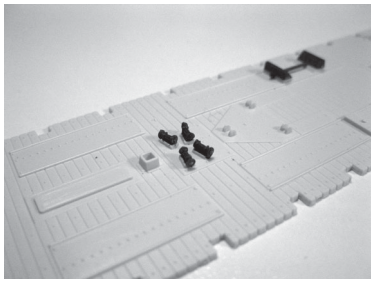


Continue by capping the underframe with the center sill. It is best to use a couple of small clamps at each end while gluing. This helps keep the joints nice and tight. Set aside to allow for sufficient dry time.

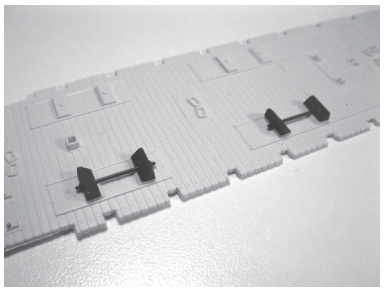


Lets work on the deck while the flat body is drying. At this point you may want to mask off your deck to expose the metal details for painting.

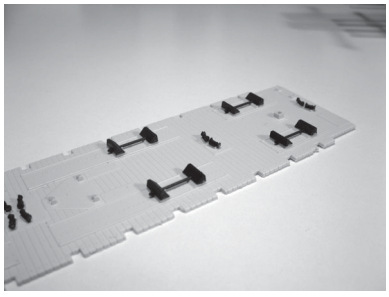
(The matching paint for this car is Star Brand SP Freight Car Red, available from P-B-L, website: www.p-b-l.com or Phone 707 462-7680)

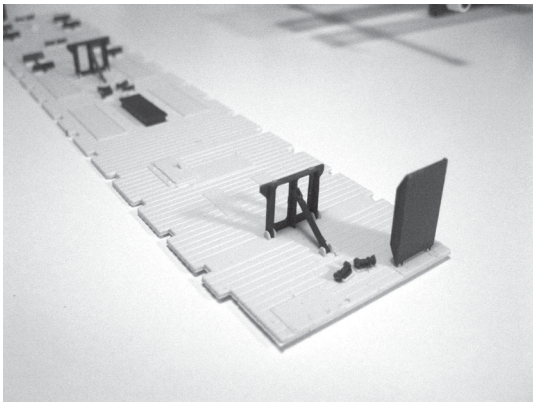


Start by gluing the tie down rachets to the base frames located on the floor. Carefully set the rachets nice and level onto each base frame. Note the position of each rachet gearhead.



Now we will add the chock blocks. Please think ahead to the type of trailer you will be adding to your flat and glue only the blocks you'll need. EX: For two 22" trailers add all four as pictured, For one 30'-40' vnn you'll need only the rear set of chocks.

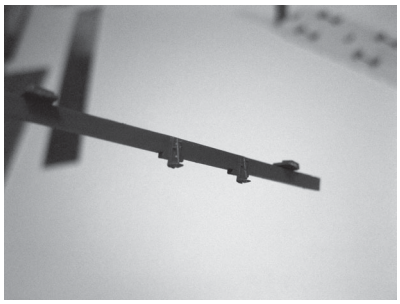


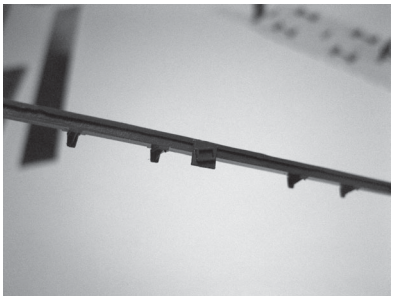


Next add the trailer supports and the angle brace followed by the tool box lid and bridge ramps.

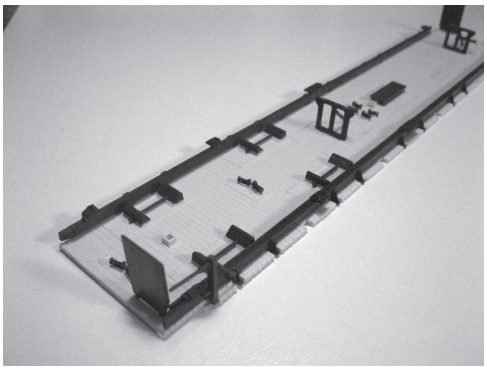
Note: If you are going to be loading only one trailer, you'll only need to position the most forward support in the up position, the centered one will be assembled in the down position.

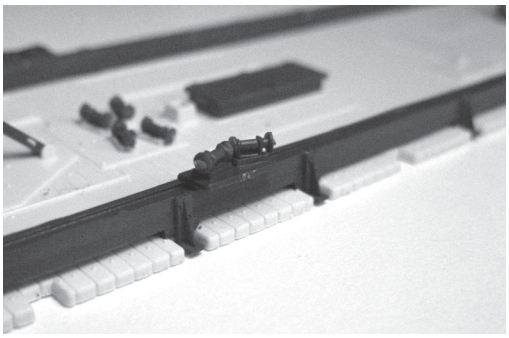
The rub rails are formed by gluing two pieces together. You will note the one end of the bracket rail must be trimmed by a small amount to fit inside the cavity of the rub railing. Assemble both sets and allow time for drying.



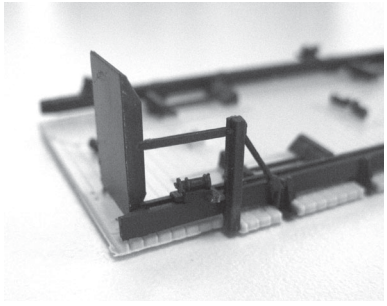


When dry, add the rub rails to the deck noting that the long end goes towards the chock block end of the car. While adding glue to each of the vertical posts, make sure the rub rails are held tightly up against the deck edge to ensure a straight positioning while sighting down the car.

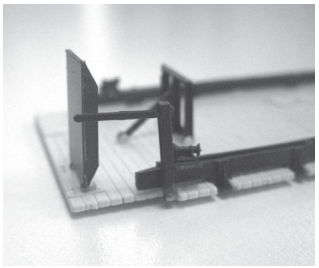


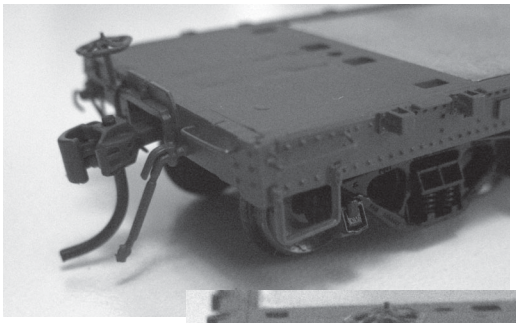


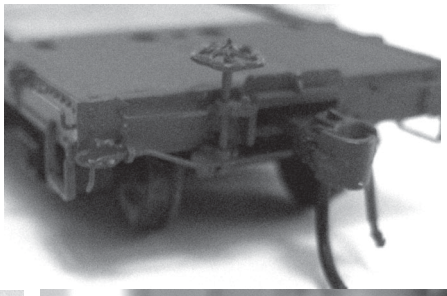
Now you can continue adding the remainder of the rachets to the pocket locations on the rubs rails.

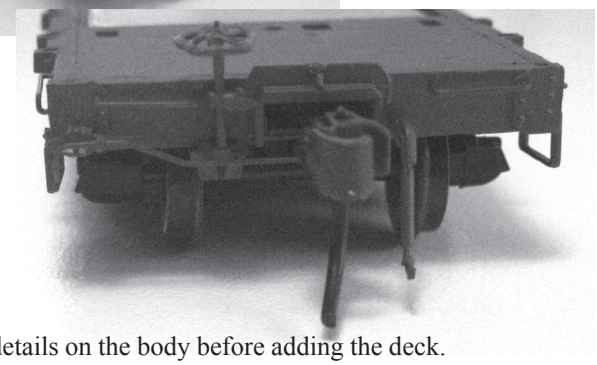


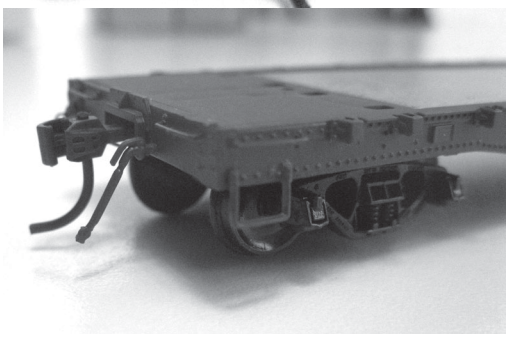
Using the locating holes in the rub rails, glue the vertical post to each corner paying attention to the photos for proper placement of the two different style posts. One has an angle brace attached.











Next we'll finish up the details on the body before adding the deck.

1) 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,

2) Cut stake pockets from sprue and glue in place on the side sills. Be sure to mount them all the same way. The top of the pocket is the end with the pins closest to it.

3) 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 the sides of the cars.

4) Glue stirrup steps in place at this time.

5) Next glue the brake pawl and brake wheel in place. The brake pawl will need to be drilled for the brake wheel stem .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.

6) Next add the coupler lift bar brackets, if you wish, and form the cut levers out of the brass wire provided.

7) Glue airhoses in place.

8) Install the #5 style couplers next. The covers can be glued on. If you want them to be screwed in place, you'll need to drill out the center boss for what ever size of screw you will be using.

9) Assemble the truck sideframes to the bolster by snapping them in to the ends. Add the wheelsets and screw mount to the car.

10) Next add your favorite type of weight. We used a piece of K&S .032" x 1" brass strap stock cut to length.

Using the correct color of paint, touch up any areas you may need with a small brush or better yet, fog it on with a airbrush for the best results.

Finish your model by adding the TOFC deck assembly making sure the deck is centered with the centerline of the car.

Your car is now ready to be assigned to the TOFC pool on your layout, Add your favorite trailers and Let em roll!!