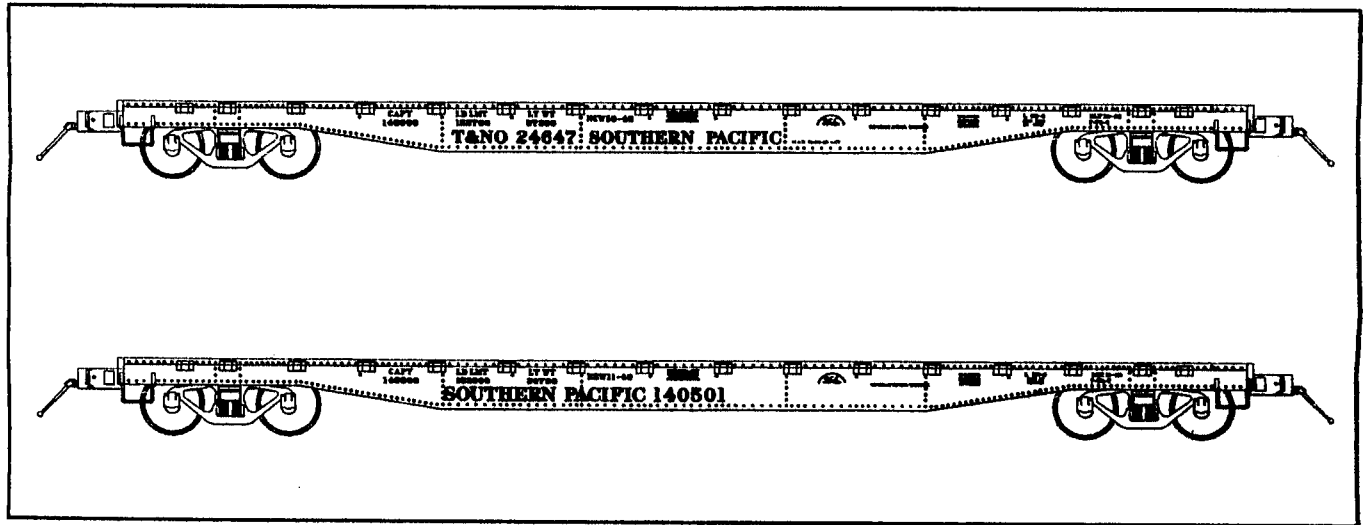


HO Scale
Southern Pacific/T&NO F-70-6/7
53'6" Flat Car



Each part is guaranteed* against factory defect or breakage. If you get glue on or break a part, this is also covered under the guarantee* as well as parts missing from the kit. It is the intention of I to make sure the product you purchased is operating on your railroad the way you intended, instead of the shelf, not able to be completed because of a part. When contacting I always include; scale, road name, kit number & part number, plus your name and mailing address.

*Some parts may not always be available because of discontinuance of the product. Every attempt will be made to replace your part.

Helpful Tools:

Hobby Knife Sharp blades Small Philips screwdriver Small needle nose pliers Tweezers
Pin Vise Small set of drills

Most Recommended Tool - PBL-804 Nippers (Tweezers that cut)
Sold by: PBL, P.O. Box 769 Ukiah, CA 95482 (Phone: 707-462-7680)

Assembly:

Please note that most parts have been silhouetted for easy identification and/or shown in the exploded view. Part numbers follow logical assembly sequence (with the most vulnerable to be added last).

Please read the instructions thoroughly before starting!

Flat Car Body & Underframe:

1. From sprue #1, remove the "B" end beam, #1 and the "A" end beam, #2. From sprue #2 remove the two side sills #3 (with tack board and retainer valve) and #4 (with tack board and defect card tube near the board).

These four parts will be formed together to make a box. Use a flat surface and glue the four parts together with the largest flat surfaces facing down (see drawing #1). Note on the inside of both side sills is the letter "B", this letter represents the "B" end of the car and will be glued to "B" end beam #1. Glue the "A" end beam #2 to the other end of the car.

Once you are sure this assembly is square, let dry for at least 1 hour depending on the type of glue you are using.

2. Being sure your squared assembly is dry, you can now insert the body core into the rectangle, again use your flat surface. See drawing #2.

Be sure that the two mounting bosses found on the inside of the side sills at the B end fit against the edge of the "B" end bolster.

Note that both ends of the inner body are raised above the center where the weight will go later. These ends need to be absolutely flush with the tops of the side sills and end beams. If it is higher, it will cause the deck to be higher than the side sills and not look very good.

Also be sure that the weight well has a depth of approximately .045" to accommodate the addition of a weight.

3. Using drawings #3, #4 and #5 you can now proceed with the underbody. From sprue #3 cut parts #6, #7 and #8, the brake cylinder, distributing valve and air reservoir and mount as shown in drawing #3.

Next cut from sprue #4 part #9 the lever support bracket and glue in place as shown. Follow this by cutting from sprue #4 part #10 the rod and levers. Carefully slip the end of one lever of #10 into the top notch of #9 as shown and slip the end of the other lever into the end of the brake cylinder rod clevis, put a touch of glue on both joints. Also drawing #3.

4. The frame is part #12, remove this from it's sprue and note on the bottom side that there is a pin near the end of each crossbrace. These pins will help the frame nest on the inner body. Also note on the frame and on the inner body that one pin and one hole are offset to help you mount the frame correctly. Before gluing in place, take from one of the bags the 2 rectangular weights and insert them into the frame cavity as shown on drawing #4, now you can glue the frame in place.

With the frame in place you can now add the three brake rods. Part #13a is a brass rod with a small angle in one end. Insert this rod through the holes in the frame as shown in drawing #5 and #6 and glue the small angle in the hole at the end of the brake cylinder chain, glue the other end against the frame center sill so your truck wheels will have clearance.

The two 13b brass rods can now be installed also as shown in drawing #5. Again gluing both ends to the frame center sill to allow for wheel clearance. Drawing #6 shows an overall view of completed underbody.

5. There are four corner pieces to the car, 2 each of 2 different kinds. Drawing #7 shows the car looking down on it's top. Note A and B ends. Also note that the corners are designated #14 and #15 which indicates which corner piece goes where. From sprue #5 remove corner pieces #14 (4 holes) and glue in place on the proper corners, the longest angle mounts against the end beam. Also from sprue #5 remove corner pieces #15 (3 holes) and mount on the opposite corners, long angle goes on the

end beam. See also drawing #9.

It is extremely important that the tops of these corner pieces are always flush with the top of the sidesills (#3 & #4) so that the grab irons, when mounted, will be parallel with the car body. See drawing #8.

- You will find 1 & 1/2 sprues (sprue #6) of stake pockets, part #16. See drawing #8 which shows that the pins on the back of the pocket are lower on one end. The drawing also shows that the pins are always on the lower end of the pocket when mounting to the car so that the pocket will always be flush at it's top with the sidesill. You can now glue all pockets in place.
- Both brass and plastic grab irons have been supplied. Use the plastic grab irons on sprue 5 as a guide as to which number the brass grab irons are. The car is cored for .007 wire grabs but a little drilling may need to be done to open up the hole. If you use the plastic grabs, you will need to drill the holes larger for the plastic grabs to fit.

Note there are two types of grab irons. One is a drop type, #17, see drawing on sprue 5. The other is a straight type, #18, also see sprue #5

The drop grabs (2 needed per car) go on one side/corner diagonally across from each other. The straight grabs go on the opposite corners diagonally across from each other. 2 of part #18 go on each end. See drawing #9.

Using drawing #7 note the two #14s, mount the drop grab #17 on the side sill at these two locations. At corners #15 and the ends, mount grab irons #18.

- From sprue #5 cut the brake mechanism #19 and glue in place as indicated on drawing #9 and 9a. Then cut the brake awl, #20, from sprue #5 and glue in place as shown.

Sprue #5 also has the cut lever brackets, #21, cut two from the sprue and mount as shown in drawing #9.

- Glue the flat body weight #22 into the weight well at this time making sure it sits below the top of the side sills.
- From sprue #5 cut four stirrup steps, part #23. Drilling will be required on the side sills at the corners where the dimple is. Once the holes are drilled, glue the four stirrup steps in place. See art drawing on front cover of instructions for location.
- Cut from sprue 5 the brake wheel and staff, #24, and glue in place as shown in drawing #9.
- Depending on the kit you have either a wood deck or a plastic deck is used. If a wood deck is used, skip this step. For plastic deck kits, glue the deck, #25, in place now making sure that it is centered at each end and the sides, set entire assembly aside so deck will dry centered.
- Glue the two air hoses, #26, sprue #3, in place on the ends as shown in drawing #9.

With exception of the coupler cut bars and coupler lids the model is ready for painting and decaling. Decals are enclosed for specific road names. When you paint the body, be sure to also paint the coupler lift bar and the coupler lids. If your kit has a wood deck, be sure to cut the four deck brackets, #27a, from sprue #5 and paint them body color also.

When dry, if using the wood deck, #27, glue the wood deck in place. Note over the bolster area there are four small holes. These holes are where very small pins in the bottoms of the deck brackets, #27a, glue them in place now. See drawing of part #25 for location.

- Carefully watching the brake wheel so not to damage it, turn the model over and mount the Couplers, using two short screws, #32, and the coupler box lids, #34, on sprue 1.

Once this is done, carefully slide the coupler lift bar, #35 through bracket #21 and glue in place. These are fragile in that only one end is attached. You can bend them back a little and glue them to the coupler box, if you wish.

Trucks:

Assemble the trucks by snapping the sideframes, part #29, into the bolster, part #28. Then insert the wheels, part #30, into the sideframes. Attach to car body using the longer screws, #31.

This completes your model. It is hoped that you will enjoy this car for years to come!

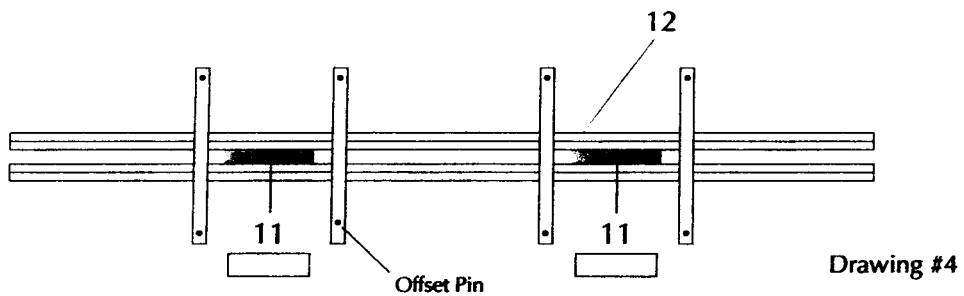
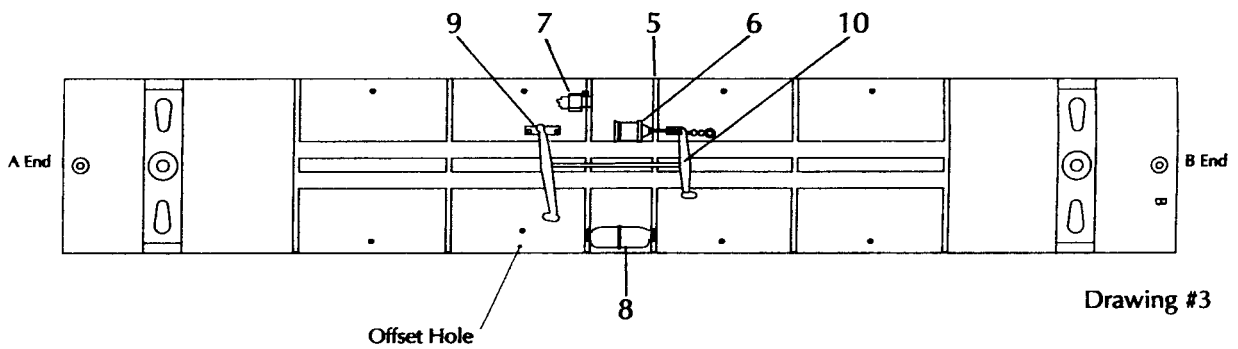
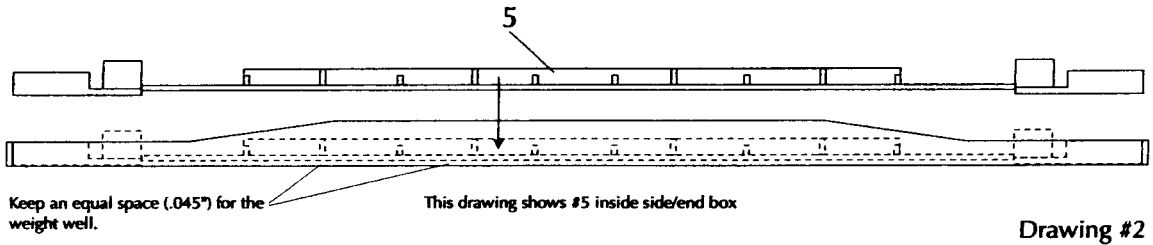
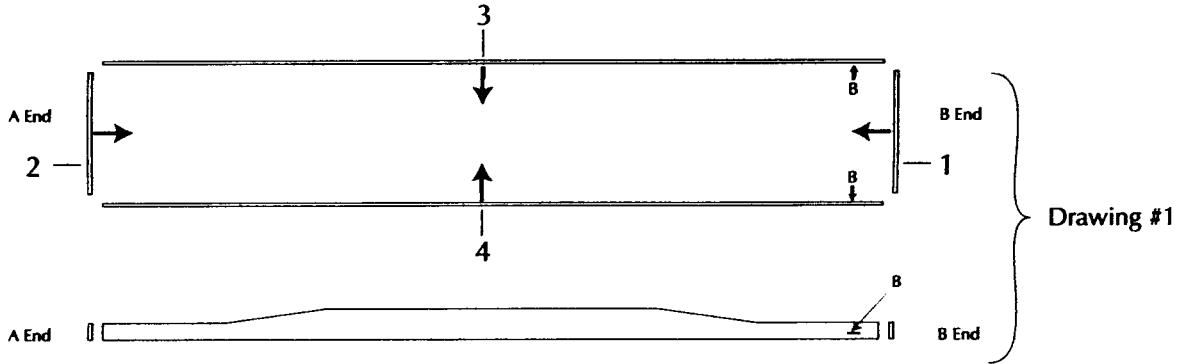
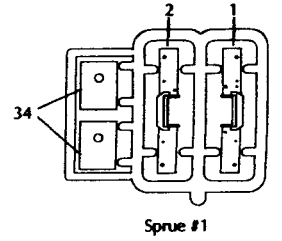
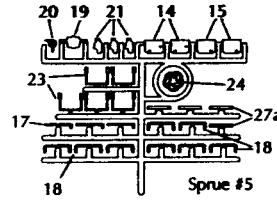
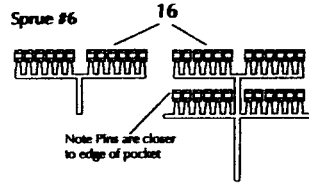
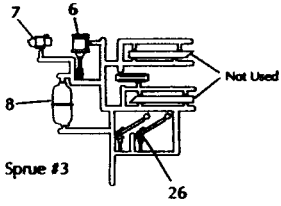
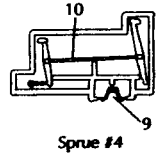
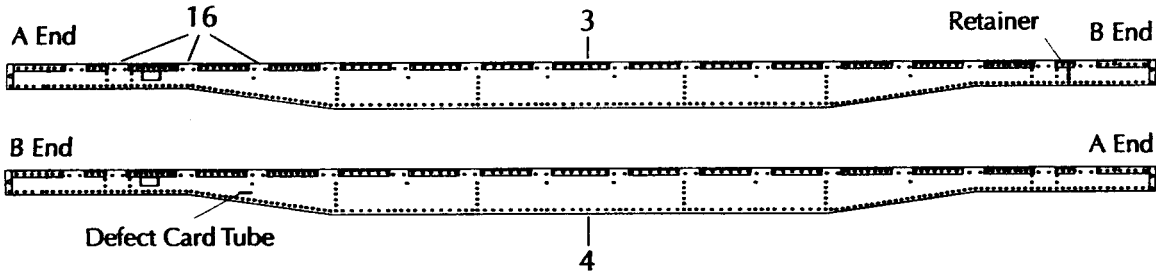
Remember, don't let a missing, broken or ruined part keep you from completing and operating your model.

Contact us immediately to take full advantage of the guarantee if needed. Be sure to include your name and address in order for us to ship your part(s).

PARTS LIST:

Part #	Part Description	On Sprue #	Quantity
1.	"A" End Beam	1	1
2.	"B" End Beam	1	1
3.	Side Sill w/Tack Board & Retaining Valve		1
4.	Side Sill w/Tack Board & Defect Card Holder		1
5.	Inner Body Core		1
6.	Brake Cylinder	3	1
7.	Distributing Valve	3	1
8.	Air Reservoir	3	1
9.	Lever Support Bracket	4	1
10.	Rod & Levers	4	1
11.	Frame Weights		2
12.	Frame		1
13a.	Chain to Bolster Brake Rod (brass) w/small angle	Bag	1
13b.	Lever to Bolster Brake Rod (brass)	Bag	2
14.	Corner Piece with 4 Holes	5	5
15.	Corner Piece with 3 Holes	5	5
16.	Stake Pockets	6	1-1/2 sprues
17.	Brass Drop Grab Iron (use on sides @ #14)	Bag	2 brass 3 plastic
18.	Brass Standard Grab Iron Ends & Sides	Bag/5	6 brass 8 plastic
19.	Brake Mechanism	5	1
20.	Brake Mechanism	5	1
21.	Cut Lever Brackets	5	2 used
22.	Flat Body Weight		1
23.	Stirrup Steps	5	4 used
24.	Brake Wheel & Staff	5	1
25.	Plastic Deck - Included with RC-2100 only		1
26.	Air Hoses	3	2
27.	Wood Deck - Included with RC-2101 only		1
27a.	Wood Deck Brackets (only used on wood decks)	5	4
28.	Bolsters	Bag	2
29.	Side Frames	Bag	4
30.	Wheels	Bag	4
31.	Screw A (Truck screw - longer)	Bag	2
32.	Screw B (Coupler screw - shorter)	Bag	2
33.	McHenry Coupler	Bag	2
34.	Coupler Box Lid	1	2
35.	Coupler Cut Bars - metal	Bag	2

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