

CHAPTER 7

BUILD A DENVER, SOUTH PARK & PACIFIC TIFFANY REFRIGERATOR CAR

BY TED EDGELL
DRAWINGS BY THE AUTHOR
PHOTOS BY THE AUTHOR AND RUSS REINBERG

THE DENVER, SOUTH Park & Pacific's Tiffany refrigerator cars are far more famous than their relatively few numbers would suggest. Hobbyists may have built a greater number of reefer models than the much more common and economically important boxcars and coal cars. The Tiffany's bright color and bold lettering seem to create an irresistible appeal. The mysteries and rumors of their construction and origin and their prominence in the few gorgeous photos by the masters of the glass plate negative no doubt have contributed to their enduring popularity.

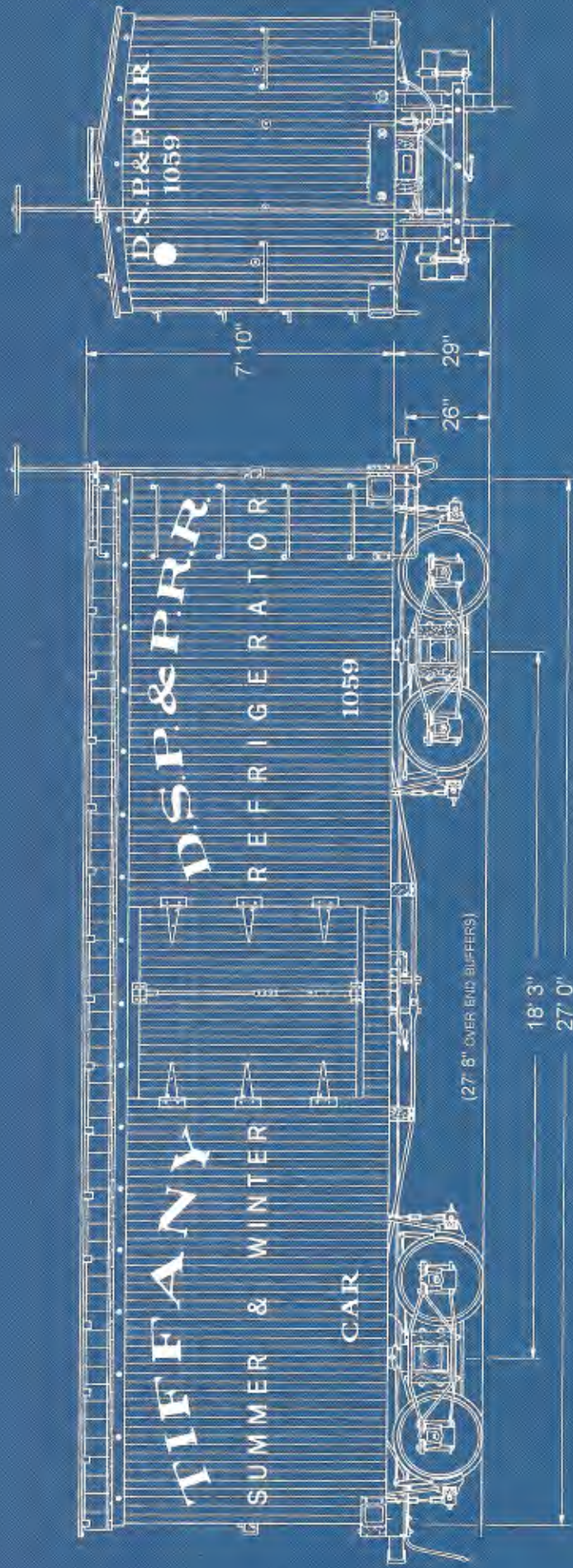
I am as susceptible as anyone to their charm so, many years ago when I decided to explore modeling the South Park in 1:48 scale, I built three 27 foot reefers from the

1050 to 1064 series; the boxcars could wait.

Some investigation and letter writing yielded the basic information and raised a lot of questions. Along the way, I made my own scale drawings as I felt those available at that time were incomplete. I started from John Maxwell's DSP-7 drawing (from a C&S folio drawing) and measured details as best I could from photographs. The photos fail to show several details so I studied contemporary construction practices and incorporated a few "educated" guesses into my plans.

I began construction with the basic body. My choice of material was easy; nothing looks more like a new wood car than...styrene. (*What!?*) Yes, I made the sacrilegious choice because I usually try to build my models so a





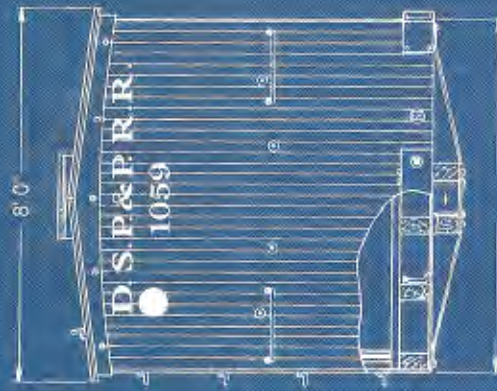
1:48 SCALE

0 1 2 3 FEET

18' 3"
27' 0"



Note: Subsequent research indicates this brake cylinder is incorrect



D, SP&P TIFFANY REFRIGERATOR CAR

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photograph will be indistinguishable from that of the prototype. Of course, I never quite achieve that but, if you could look at a fairly new 1880s freight car, you would see siding from clear, straight-grained wood with nice, smooth layers of primer and finish paint. No obvious grain, splits, or knots would be apparent. The Evergreen siding I used replicates that pretty nicely; I like the

way it looks. Coronado Scale Models number CD157 poling pockets, link-and-pin couplers (part number CP138), Grandt Line nut-bolt-washer moldings, and Grandt number 3508 hinges helped complete the body. The door latch mechanism was pretty common in the era but reproductions apparently are unavailable so I had to scratchbuild them from styrene and brass.



The roof posed more problems. Photos of typical wood roofs show very smooth boards. It looks as though the Tiffany reefers might have had a specific double board roof where the upper and lower layers were offset by half a board width and grooves in the boards faced together to form channels visible as round holes at the edge of the roof.

I glued together two layers of 0.020-inch thick V-groove siding, with the grooves together and lined up. That created holes at the roof edge. To simulate joints between the boards, I lightly scribed the top surfaces with a pointed knife blade, then sliced off the ridge on each side of the resulting groove. It was hit and miss at best and took several tries to get good results. The edges also received the knife treatment to simulate the individual board ends.

Speaking of the smooth roof, I was unsure whether the cars had ice hatches. Initially I thought they should be there, as have other modelers, but now have changed my mind. The reasoning is somewhat convoluted and I will spare you, but no evidence at all exists to suggest there were any. I modeled the hatches flush with the roof, with very minimal hinges and lift rings, but would leave them off if building a car today.

In keeping with the appropriate use of materials, the interior of the car has wood bracing—and you might ask why. Pick up a piece of, say, quarter-inch square styrene strip and the same size balsa or basswood strip and bend each one. You will find that the styrene feels like a comparative wet noodle; wood makes much stronger bracing for a given size. My siding is 0.020-inch thick so the end view of the car shows appropriate thickness of the side sheathing. It normally overlaps the end sheathing with no beveled joints. In quarter-inch scale, such thin siding needs help, so I glued the wood bracing to the styrene with very thick, gel type CA. It works great and avoids the solvents in many types of glue that can distort thin styrene.

We now know the South Park never used the straight air brake system I modeled with Coronado part number BC154. Between 1883 and 1884, the railroad converted from vacuum brakes to Westinghouse automatic air brakes. The cars probably should have the typical combination reservoir, cylinder, and valve more familiar to modelers. That brake configuration appeared before 1880 and the South Park was a very early adopter of Westinghouse automatic air brakes for freight cars. That and other insights came largely from the D,SP&P Internet newsgroup on Yahoo!.

I installed Coronado TR134 trucks—great models, but unfortu-

nately never part of the Tiffany cars. The reefers had similar swing motion trucks with taller, square-end transom beams with a spacer casting invisible on any photograph I have seen. I did make trucks for one car by fabricating a pattern for simple journal box lid castings and building up the rest from styrene. The photo shows one of my unpainted trucks, a partially educated and partially wild guess. I might go with a round hole, or square hole with horizontal rib in the spacer casting were I to redesign the truck.

The large hole in the end of the car is a vent rather than a drain and is flush with the siding. Sometimes the South Park seemed plug them in the winter. The two small holes that look like they were for mounting diagonal grabs irons evidently were part of the strange Tiffany patent system and likely in the center of a disk, something like a washer. One could say much about the patent and the cars' internal construction but nobody yet has told the whole story in one place. See Derrell Poole's articles in the April 1995 *OUTDOOR RAILROADER* and September 1991 to March 1992 *Narrow Gauge and Short Line Gazette* for some details.

I painted my cars in the traditional white but the actual color remains unknown. It was definitely a light shade and both cream and light yellow have adherents. Just pick your favorite and start painting.

My third model, partially visible in the photo of the scratchbuilt truck, still is incomplete. I wanted to add improvements and try a slightly different lettering style than the Coronado decals I used. Photos suggest more than one lettering style. That is reasonable since in the 1880s shops usually hand painted car lettering. I will omit those ice hatches and change some other things, too. Things take time; it has been only about twenty years since I set the project aside and moved on to other things!

