

# Railroad Bridges

By Sam Seabright

We always had an electric train under the Christmas tree. It cost my dad \$27.95 in 1945 for the set of a locomotive, cars, a transformer and a loop of track. Later I added switches, more track, a tunnel and a bridge.



No, I am not trying to “sell you a bridge”, this is a true story. In 1975, I worked on the Del Ray Connecting Railroad in Detroit. It serviced the Great Lakes Steel blast furnaces on Zug Island in the Detroit River. There were two car bridges and four rail bridges. I was an engineer: Not one who operated trains, but one who designed bridge repairs, special structures, and facilities such as a Heat Track.

The Heat Track was a tunnel kept warm with heaters. A line of coal hopper cars, frozen solid with icebound coal from Pennsylvania, would be towed into the tunnel to thaw. The cars would then be towed to the Tipper, a giant machine that turned the cars upside down to dump out the thawed coal. The Heat Track probably saved 10% of the winter coal shipments because frozen coal stayed in the hoppers instead of emptying from them.

Arriving at work before dawn was like entering the gates of Hell. Fire and brimstone were pouring from the blast furnace, horrible smells wafted from the asphalt plant, and coke oven grit filled the air.

People died on that island. When a slag pour hit a water puddle there was a great explosion, resulting in a rain of rocks. It was dangerous working around such hot, massive equipment. It was said that when a worker fell into the molten iron pot, an ingot was poured for his wife. I was witness to one fatality, when a railroad worker was pinned between two coal cars.

Another problem on the island was theft, and security was tight. There once was a spate of auto tires being stolen from employees' cars. For two weeks, security patrols were beefed up and every vehicle leaving the island was inspected, but tires kept disappearing. Finally, the thieves were caught using a boat to remove the tires at night.

Derailments were another problem, due to the age of the tracks and the heavy loads. If you can imagine hitting a dozen big potholes in a row you get some idea of the bone-jarring derailment experience. Railroad ties are laid about one foot apart, so a moving derailed train hits every tie as if it were a deep pothole. The rails, ties and sometimes the train can be severely damaged-- as well as the passengers and crew.

My main job was to keep the bridges in good repair. One time, the lift motor died, leaving a bridge stuck in the “up” position. The 1904-era motor and controls could no

longer be replaced, so the motor had to be rewound. I had the motor rewound locally in two days, to the amazement of management who expected it would take weeks, if it were even possible.

One fine day the president of the railroad decided to sell a rail bridge that we no longer used. He assigned the project to me, knowing that I had a knack for making quick and effective engineering designs, repairs, etc.

So I activated my network of machinery dealers, brokers, and contractors. I lined up a marine crane from New Orleans to lift the 880-ton bridge from its moorings, and a contractor to remove the tremendous footings at either end. The Union of South Africa was the successful bidder at \$100,000, and they had to pay for the removal and transport to Africa.

So if I offer to sell you a bridge, don't just laugh it off... it happened once! ▼