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Model vs. Prototype “Double Stack Car”

by Mike Carski

In the not to near future, if not already, USA Trains will be releasing a large scale model of the Gunderson Maxi-Stack car. This railcar was designed to carry two highway truck trailers (minus wheels and frame) stacked on top of each other. To begin with, the USA Trains car will be a stand alone unit, but Charlie Ro, owner of USA Trains assures me a retro kit will be available later on to make a three or five unit set, the way they are operated on real railroads.

A little history and some technical info about this relatively new mode of transporting freight. Gunderson, Inc. of Portland, Oregon builds these five unit, articulated double stack cars. They introduced the first such units in 1984, the cars were made to carry new length containers of 42' – 48'. And now in 2000, we are seeing 53' and soon 57' containers.

These individual units that make up a five car set are manufactured from ½ to ¾ inch plate steel. The container supports are bolted, rather than welded, to reduce fatiguing.

The articulation joints were developed to ride atop a 125 ton capacity truck, with a wheel span of 6 feet. The two outboard trucks are conventional 70 ton units, used under normal freight cars. A five unit set is 304 feet long over the couplers and 9 feet-10 inches between the sides. Loaded, these double stacks are 20 feet – 2 inches above the rails, staying within FRA height requirements. Empty weight per unit is 215000 lbs., and a five unit set can transport 293 tons of cargo in containers, or 58 tons per unit. These double stack sets are presently being built by five different companies, and as of 1995, Gunderson has constructed 3,550 five car sets.

The USA Trains single car unit is injection molded out of high strength plastic, is approximately 34 inches long, and will support two containers, being made in 20 feet or 40 feet scale lengths. USA Trains car will hold a 48 scale foot container, to be available early next year, but the 53 and 57 scale foot containers, available next fall, will have to ride on the top of the stack!