

The newest member of the Micro-Trains family:

The ACF Three-Dome Tank Car

Review and Photos by Phil Scandura

Three-Dome Tank Car, MSRP: \$22.70

Micro-Trains Line Co.
P.O. Box 1200 • Talent, OR 97540-1200
541-535-1755 • Fax: 541-535-1932
www.micro-trains.com

THE ACF Three Dome Tank Car represents the newest body style in the Micro-Trains line of N-scale rolling stock. Based on an American Car and Foundry (ACF) design from 1941, the new Micro-Trains model features fine scale rivet detail on the tank body; preformed metal wire handrails; separately molded super-detailed domes; detailed running boards; and is equipped with Magnematic couplers. It is lettered for the Shell Chemical Company (SCMX) and is available in roadnumbers 651 and 652.

The Prototype

ACF got its start in 1899, when thirteen car-building companies combined to form the American Car and Foundry

Company. The origins of the tank car business started with Murray, Dougal and Company of Milton, Pennsylvania, who had been building tank cars since 1865. Following the formation of ACF, the Milton plant was immediately designated as the primary tank car production facility.

In the early 1900s, standard tank car capacities were 6,000, 8,000, and 10,000 gallons. At that time about twenty different commodities were carried, riding on 20- or 30-ton trucks. During the years tank car design would continue to mature, including the move from riveted iron tanks on wooden frames to riveted steel tanks on steel underframes. Eventually, tanks would be welded steel and lined to prevent chemical interactions between the contents and the tank. Standardized designs would also come into existence, first driven by the Master Car Builders Association, then the American Railway Association, and finally by the Interstate Commerce Commission (ICC).

Based on the information provided by Micro-Trains, the model is based on a 6,000 gallon design built in 1941 and rides on Bettendorf trucks. The car markings indicate an ICC Class 103 tank car, which utilizes a riveted-steel tank with expansion domes, carries unpressurized contents, and is used in

general service. This class would later become obsolete, being replaced in 1964 with ICC 103-W describing a fusion-welded steel tank.

If you were wondering about the purpose of the domes, they provide the additional tank volume needed to accommodate expansion of the contents caused by temperature variations. They also serve as a spotting feature indicating the number of compartments. The

The new three-dome body style is a welcome addition to the Micro-Trains line of rolling stock, which previously included only a single-dome tank car.



three-dome tank car allows the transporting of three different liquid commodities to a single customer. While the majority of tank cars during the steam era were of the single-compartment type, shippers sometimes needed to transport smaller quantities of different products to the same customer. The introduction of two- and three-compartment tanks cars provided this ability.

The Model

When compared with available prototype scale drawings and photos, an interesting discrepancy was noted. While the Micro-Trains model matched all major dimensions and spotting features of a typical 6,000 gallon ACF car, the Shell Chemical Company prototypes (both 651 and 652) were in fact 8,000 gallon cars. Even the tank lettering on the model indicates compartment capacities



The ACF Three Dome Tank Car represents the newest body style in Micro-Trains line of N-scale rolling stock. Based on an American Car and Foundry (ACF)

design from 1941, the new Micro-Trains model is lettered for the Shell Chemical Company (SCMX), roadnumbers 651 and 652.



of 2,474 in the two end compartments and 2,552 in the center compartment for a total of 7,500 gallons, considered an 8,000-gallon car by ACF as manufacturers often rounded up capacity numbers, similar to the practice of rounding up diesel locomotive horsepower ratings. Dimensionally the 8,000 gallon car is a few feet longer than the 6,000 gallon car. I suspect this was a compromise on the part of Micro-Trains to allow them to letter this car for other shippers that used 6,000 gallon cars, thereby leveraging the new body style across more roadnames. ACF built a total of 977 three-dome tank cars for various shippers. I would consider this only a minor discrepancy, as the naked eye won't notice the difference in length.

The wheel sets were correctly gauged, when measured with the NMRA Mark


As we've come to expect from Micro-Trains, the painting and lettering are crisply applied and prototypically accurate. This particular close-up highlights the car-builder's information.

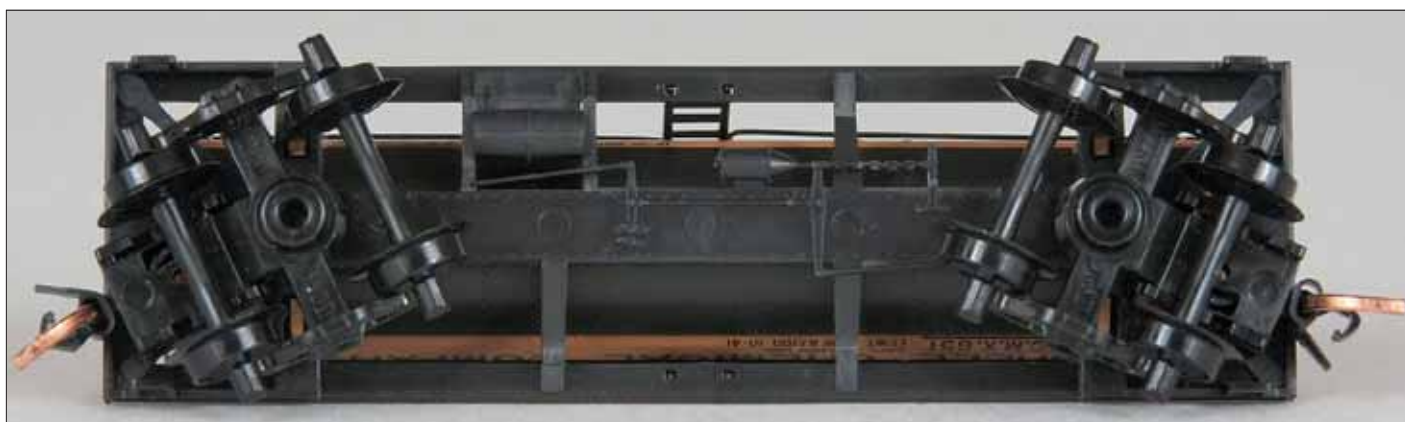
IV standards gage. The car uses the standard Micro-Trains truck design, i.e., one-piece wheels and axles, molded in black plastic, with truck-mounted couplers. The wheel flanges are of the "pizza-cutter" size, which work fine with Code 80 track, but are not suitable for Code 55 track. For those who operate on Code 55, you'll need to swap out the wheels with the low-profile type. Since Micro-Trains no longer packages these with each car, you'll have to purchase them separately. The coupler and trip pin height matched the Micro-Trains coupler height gauge perfectly.

NMRA Recommended Practice "RP-20.1 Car Weight" specifies that N-scale cars should weigh [$\frac{1}{2}$ oz + 0.15 oz per inch of body length]. Based on

this recommendation, the three-dome tank should weigh $\frac{7}{8}$ ounce, however it is slightly underweight at $\frac{5}{8}$ ounce.

"Tanks," Micro-Trains!

The new three-dome body style is a welcome addition to the Micro-Trains line of rolling stock, which previously included only a single-dome tank car. For those who model the 1940s and 1950s, these cars were often seen traveling the rails, especially in the southwestern U.S. As new releases don't last long on hobby shop shelves, you'll want to secure your purchase quickly. And if you're not able to get one this time around, I suspect the future will bring new releases in other paint schemes. Either way, this is a great new body style. 



Looking at the car bottom, Micro-Trains has included basic brake system details. Wheel sets suitable for use on code 55 track are available separately.