



This locomotive makes a great shortline engine. The New Hope & Ivyland Railroad runs this McHugh Brothers 44-tonner #400. Photo was taken in 1979. *Courtesy Howard W. Ameling*

## 300 GE 44-tonners populate rails

By J.A. Kindraka

(Finally S gauge will have its own "small diesels" in brass. River Raisin Models has announced the Phase IV 44-tonner for spring, 1993 release. Editor's Note)

With S scale 44-tonners coming, it may be interesting to learn about their history.

The General Electric 44-ton diesel's story actually begins three years before it was first built. The concept for this diesel was a direct result of a labor accord, the Diesel Agreement of 1937. That year the railroads and their operating unions reached an agreement on the size of locomotive that could be operated by one crewman. These were the early days of the diesel locomotive, and the railroad unions were concerned that management might use these new locomotives to eliminate firemen. The 1937 Diesel Agreement provided that a helper (fireman) would be used on any diesel locomotive or railcar over 90,000 pounds in weight.

### INTRODUCED IN 1940

GE introduced the new diesels in 1940, and at 88,000 pounds they were the largest locomotive available that could legally be operated by a single crewman. All four axles were powered by a pair of 150 hp Caterpillar D-17000 V-8 diesel engines via double reduction gearboxes on each axle. Later, the Caterpillar engine's rating was increased to 175 and finally 190 horsepower. The use of the double reduction gearing allowed the units to have small, lightweight traction motors, a crucial

factor in staying below the 90,000 pound limit of the 1937 agreement.

Just to keep history straight, it should be noted that the General Electric 44-tonners were not the first 44-ton diesels; other builders, such as Whitcomb, also placed entries into this market. GE just made more 44-tonners than their competition. Between 1940 and 1955, 308 of these little diesels were constructed. That compares to 41 units built by Whitcomb.

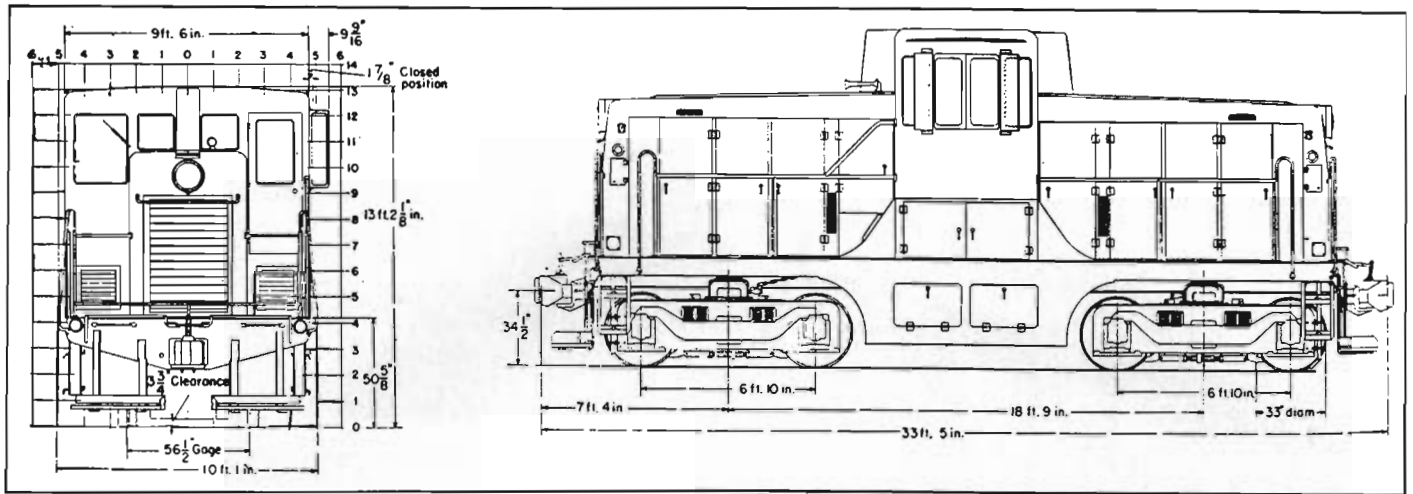
### SEVERAL PHASES

GE's 44-tonners were built in several distinct phases. Early units had 12 "buttonhole" vents along the top of each hood side. Instead of radiator grills at each end, they had a narrow door. Later phases had grills on the sides, and still later the buttonholes disappeared and the grills were moved to the ends.

On the early phases the units had no corner steps, but only a ladder/step arrangement near the cab, one on each side. The two most

**Mead Corporation in Lynchburg, Virginia kept this 44-tonner in work. Courtesy Howard W. Ameling**





popular versions were the phase IC and IV models. The Pennsylvania Railroad was the largest single owner of GE 44-tonners with 46 units.

Generally though, these locomotives were spread among owners in quantities of five or fewer. At least one of the Pennsy's units was renumbered and painted for Penn Central. A photo of PC #9999 appears on page 33 of Kalmbach's *Diesel Locomotive Cyclopedia, Volume 2*.

Operationally the 44-tonners were limited to a maximum speed of 45 mph, although it's doubtful that many actually achieved it. The units were purchased to switch small, tight radius industrial trackage or light branchlines where train lengths seldom exceeded five or six cars.

Many were used as car shop or engine terminal hostling goats. At least one unit (St. Paul Union Depot #441) was purchased to switch passenger cars at the St. Paul metropolitan passenger terminal. They were excellent for flat yard or terminal switching and delivering short trains on level track. It's doubtful that many ever ventured out in areas of mountain grades with much of a train, however.

#### HELPS GG-1

There's an interesting story about a 44-tonner at Strasburg, Pennsylvania and a venerable Pennsy GG-1. The GG-1 was

cruising along between Harrisburg and Philadelphia one day when the engineer noticed one of the big electric's driver-axle bearings running almost white hot.

The engineer managed to stop the train before the bearing or axle broke, but the unit was too badly damaged to go on. It was determined that the closest repair facility was at Strasburg's Museum of Railroad History. The museum's ex-PRR 44-tonner was summoned to drag the dead GG-1 to the museum's facility (at about 5 mph) where a new driver set was delivered and installed at the drop pit.

Then the plucky GE unit once again pulled its repaired electric consist back to the Pennsy main—the branch to the museum has no catenary. From there, the GG-1 returned to 90 mph service and the GE 44-tonner trundled back through the weeds to Strasburg!

For those of you interested in more information on 44-tonners, a line drawing appears in the April 1973 issue of *Model Railroader*. Also, the magazine *Extra 220 South* ran articles and roster information in the March/April and May/June 1975 issues. The following is a partial list of major railroad 44-tonner owners; this is a list of mainly original owners. The list of secondary owners and shortline or industrial owners is beyond the scope of this article.

Phase IC: Boston & Maine, Maine Central, D&RGW, New Haven, Missouri Pacific, NYO&W, Lehigh Valley, Milwaukee Road, Southern Pacific, Minneapolis & St. Louis.

Phase IIA (externally identical to Phase IV units): AT&SF, Pacific Electric (SP), St. Louis-San Francisco, Western Maryland.

Phase IV: Southern, including units lettered for Alabama Great Southern, NO&NE, and CNO&TP; Sacramento Northern (WP), Central California Traction, Tidewater Southern (WP), Petaluma & Santa Rose (SP), Union Pacific, Maine Central, Canadian National, Northern Pacific, Illinois Central, Boston & Maine, New Haven, Delaware Lackawanna & Western, Pennsylvania, Minneapolis & St. Louis, NYC&StL (Nickel Plate), Nashville, Chattanooga & St. Louis and Baltimore & Ohio. **S**

**BELOW.** The 44-tonner with hood doors open to reveal engines and internal workings.

