Br 983 / Bay. PtL 2/2 ″GLASKASTEN″

Shortly after the turn of the last century, the Bavarian State Railways were in need of a new lightweight tank locomotive to handle local passenger traffic. A specification was generated calling for the development of small two-axle (0-4-0) tank locomotives with a semi-automatic firing system, which could be safely operated by a one-man locomotive crew. Two manufacturers were selected to produce this novel locomotive, Krauss and Maffei, and a total of thirty locomotives were built by the two companies. However, they were not operationally successful because of maintenance difficulties, and by 1924 all had disappeared from service.

Much earlier than that, however, had recognized the problems associated with their original design. In 1908 they introduced a revised version of their locomotive which would prove to be extremely successful. Nicknamed the "Glaskasten" (Glass box), the new locomotives had two outside cylinders with a blind center axle between the drive wheels. The cab completely surrounded the boiler and had three windows on each side. The coal bunker was located at the upper rear of the cab, so that fuel could be fed to the firebox by gravity. A total

of 42 Glaskastens were built by Krauss and Maffei between 1908 and 1914, thirteen of them without the blind axle. These locomotives saw service in Germany as well as in Austria, Switzerland and Norway.

In 1923, the German Federal Railways were established and all German locomotives were classified by Baureihe [abbreviated to Br] or the type number, ranging from 01 to 99. Numbers 01 through 98 were reserved for standard gauge equipment. Under this system, the Glaskasten was known as the Br983, and the class served the public faithfully for many years. Its simple, yet elegant, design has made it a favorite of locomotive fans throughout the world.

Specifications

Scale/Gauge: 1/30. 45 mm
Weight: 1.92 kg

Length O.B: 241 mm
Width: 101 mm
Height: 142 mm

Wheel Arrangement: 0-4-0T with Jackshaft (blind center axle)
Driving Wheels: Dia. 33.5 mm, Spoked Type.
Cylinders: 2 Cylinders, Bore 10 mm x Stroke 13 mm
Valve Gears: Walschaeert

Boiler Type: Saddle Type with Cross Tubes
Boiler Pressure: 3 kg/cm (Normal Working Level)
Boiler Capacity: 110 cc of Water at 80% full
Boiler Fittings: Safety Valve, Regulator Valve, Blower, Check Valve, ressure Gauge, and Water Gauge
Lubricator: Roscoe Displacement Type

Fuel Tank: Capacity 40 cc at 80% full
Fuel: Methylated Alcohol
Burner: 3 Wick Tube Burner

Minimum Radius: 1 m
Coupler: European Standard Hook Coupler (Height 33 mm)