Deutsche Reichsbahn Baureihe 03

After the "Deutsche Reichsbahn" consolidated dozens of railway companies in the different states of German during the 1920's, a major step toward further unification was begun with the design of standard locomotives, which could be used on all routes. The famous BR 01 Pacific was the first to emerge. This mighty express locomotive successfully replaced former designs from Prussia, Saxon, Bavaria and Baden.

The BR 01 fulfilled all of her designer's expectations. She was beautiful and her performance was as good as her looks. But hopes for the renovation of the German track system, which was in poor shape after WW!, fell far behind schedule. Some main roads could not withstand the twenty-metric ton axle loads of the BR 01. This was especially true for the lines in the flat country of Northern Germany.

It was decided to build another Pacific locomotive which would have an axle loading not to exceed 17.5 tons. Initially, manufacturers were asked to develop a locomotive with compound cylinders but, as Prussian influence won out, a simple expansion design, similar to the BR 01, was selected. The main difference between the BR 01 and the new locomotives were in boiler diameter (1.70 m instead of 1.90 m), thickness

of frame plates (80 mm instead of 90 mm), and smaller diameter cylinders (570 mm instead of 600 mm).

Know as the BR 03, she was remarkably sleek. The BR 03 was 8% lighter than the BR 01. Because, she proved to be a fast flyer on the track, the BR 03 underwent many streamlining trials. A total of 298 locomotives were ordered from Kenschel, Krupp, Borsig, Schwartskopf and other German manufacturers with production ending in 1937.

The BR 03 family of locomotives were badly damaged during WWII. Only 150 BR 03's remained in West Germany after the war. Even when 70 others are counted in East Germany, more than a fourth of the all BR 03's never again saw service in their homeland. Thirty-five survived in Poland. However tracing remaining BR 03's in other eastern occupied countries proved to be impossible. During the 1950's and 1960's, new boilers were fitted to the remaining BR 03's in both East and West Germany. With their performance considerably enhanced by this modification, the BR 03 lived on until the end of steam railroading in Germany.

Specifications

Scale/Gauge: 1/32, Gauge One (45 mm)
Total Weight: 7 KG. (15 1/2 lbs)
(Engine 4.9 + Tender 2.1 KG)

Dimensions:
Length OB: 553 mm (21 3/4 inches)
(Engine 473 mm + Tender 270 mm)
Width: 98 mm (Tender: 96 mm)

Height: 142 mm (Tender; 120 mm)

Wheel Arrangement: 4-6-2 Pacific
Driving Wheels: Dia. 62 mm
Pilot Truck Wheels: Dia. 24.5 mm
Trailer Truck Wheels: Dia. 39 mm
Tender Truck Wheels: Dia. 24.5 mm

Engine:
Cylinders: 2 x Cylinders with Crossport, Bore 13 mm x Stroke 20 mm
Valve Gear: Heusinger Valve Gear (Walschaert)

Boiler:
Type: "C" Type with Two Flue Tubes.
Water Capacity: 300 at 70% full
Fittings: 2 x Safety Valves, Pressure Gauge, Water Gauge, Blow Down Valve, Reulator Valve, Blower Valve, and Super Heater.

Axle Driven Pump: Mounted on the Leading Drivers' Axle. Pump Bore 5 mm x Ram Stroke 6 mm
Lubricator: Roscoe Displacement Type

Burner: 3 Wick Tube Alcohol Burner
Water Tank Capacity: 330 cc. Hand Operation Water Pump Mounted
Fuel Tank Capacity: 170 cc
Minimum Radius: 2 m