



photo by Christoph Fleischmann

BR 62

Like the Prussian T-18, (later known as the BR 78 under the unified system), the Reichsbahn BR 62 “MAMOTH” was conceived and built as a 4-6-4T with an emphasis on economics and simplicity. Many years before any European 4-6-4s existed, the American locomotive builder Norris had demonstrated the feasibility of high speed locomotives by utilizing a four wheel leading truck configuration which provided a safe and stable ride even on rough tracks.

Although the Norris configuration became very popular in North America, it was not used in Europe during the early days of railways owing to the relatively short runs and smooth tracks that existed there. Also, European design philosophy required that the maximum possible adhesive weight be placed on driving wheels thus eliminating leading / trailing trucks.

However, in the later part of the 19th century, European locomotives with leading / trailing trucks made their debut; this was the result of locomotive weights becoming too heavy for the track to support the relatively few driving wheels. It became necessary to spread the weight over many wheels as speeds reached 90 km/hr. European designers turned to the four-wheeled truck as being the solution to stability problems as well as keeping wheel loading within existing track limits.

Starting in 1912 in Prussia, more than 500 T-18 / BR 78 “Baltic” 4-6-4Ts were constructed. In 1920, all of the railways in the German empire were united. An office in Berlin was established to unify future locomotive construction for the new Reichsbahn system. Owing to the phenomenal success of the BR 78, another 4-6-4T configuration, known as the BR 62, was selected to be designed and built later in that decade.

The design of the BR 62 was based on that of the BR 78, however many astute improvements were made such as moving the water tank away from the drive wheels. Such a configuration causes the adhesive weight of the locomotive to remain fairly constant during as run since the trailing trucks primarily supported the water tank contents.

The massive boiler could deliver steam at a rate that developed 1680 HP. As the BR 62 was ready to go into full production, a serious economic crisis occurred in Germany during the late 1920's and Henschel built only 15 at their Kassel works in 1928. Despite the locomotive's excellent performance, the Reichsbahn could only afford to buy two and the remaining 13 were not purchased until 1932.

BR 62s operated during WWII; many survived those terrible days and continued to operate until 1956 in West Germany and possibly as late as 1976 in East Germany. Technically, the locomotive was a complete success and had “the most beautiful architecture of all the unified locomotives”.

Aster selected BR 62 No. 015 as the prototype for their Gauge 1 model. It is the sole surviving example of this great locomotive



Specifications

Scale / Gauge 1/32, Gauge 1 Weight 5.5 kg (12.1 lbs)

Dimensions Length O.B. 535 mm (21.1")

Width 97 mm (3.8 ")

Height 143 mm (5.6 ")

Wheel Arrangement 4-6-4 (Leaf Spring Action)

Drive Wheels 55 mm dia. stainless steel

Pilot Wheels 24.5 mm dia. stainless steel Trailing Wheels 24.5 mm dia. stainless steel

Cylinders Two double acting cylinders with crossported Dimensions

Bore 12 mm, stroke 20 mm

Valve Gear Heusinger

Steam Port 1.5 mm, cut off at 84% stroke

Lap 1.0 mm, travel 5.0 mm

Boiler Type "C" alcohol fired Water Capacity 280 cc 80% full

Pressure 3 kg / cm² (normal working)

Fittings 2 safety valves, 2 super heater tubes, pressure gauge, water gauge, blow down valve, throttle valve, blower valve, bypass valve

Axle Driven Pump Mounted on the Lead Driver Axle

Dimensions Bore 5 mm, Ram stroke 6 mm

Lubricator Roscoe Displacement type mounted on the smoke box

Burner Three wick alcohol

Water Tank Capacity

300 cc, hand operated mounted pump with bore 8 mm, ram stroke 6 mm.

Fuel Tank Capacity

140 cc 200 proof methyl or ethyl alcohol

Minimum radius

2 meters (6.5 feet)

Working Lamps 2 head lights; 2 rear lights, and 6 side lights.

SPECIFICATIONS OF BR 62

SCALE/GAUGE: 1/32 (GAUGE ONE 140 MM)

TOTAL WEIGHT: 55 KG

DIMENSIONS LENGTH O.B.: 535 MM

WIDTH: 97 MM

HEIGHT: 145 MM

WHEEL ARRANGEMENT: 4-1/1-4, LEAF SPRING ACTION

DRIVING WHEELS: DIA. 55 MM, MADE OF STAINLESS STEEL

PILOT TRUCK WHEELS: DIA. 24.5 MM, MADE OF STAINLESS STEEL

TRAILER TRUCK WHEELS: DIA. 24.5 MM, MADE OF STAINLESS STEEL

ENGINE: CYLINDERS: 2 X CYLINDERS WITH CROSSPORT, BORE 12 MM X STROKE 20 MM

VALVE GEAR: HEUSINGER VALVE GEAR

STEAMPORT: 1.5 MM, CUT OFF 84 %

LAP: 1.0 MM, TRAVEL 4.0 MM

"C" TYPE FOR ALCOHOL BURNING

280 CC AT 80% FULL

8 KJ/CM AT NORMAL WORKING

2 X SAFETY VALVES, 2 X SUPER-HEATER TUBES, PRESSURE GAUGE, WATER GAUGE, BLOW-DOWN VALVE, THROTTLE VALVE

BLOWER VALVE, BY-PASS VALVE

MOUNTED ON THE LEADING DRIVERS AXLE

PUMP BORE 5 MM X RAM STROKE 6 MM

ROSCOE DISPLACEMENT TYPE MOUNTED ON THE SMOKEBOX

3 WICK TUBE ALCOHOL BURNER

BOILER TYPE: WATER CAPACITY

PRESSURE: 280 CC AT 80% FULL

FITTINGS: 8 KJ/CM AT NORMAL WORKING

AXLE DRIVEN PUMP: 2 X SAFETY VALVES, 2 X SUPER-HEATER TUBES, PRESSURE GAUGE, WATER GAUGE, BLOW-DOWN VALVE, THROTTLE VALVE

LUBRICATOR: BURNER

WATER TANK CAPACITY: 330 CC, HAND OPERATION WATER PUMP MOUNTED

FUEL TANK CAPACITY: 140 CC OF ALCOHOL

MINIMUM RADIUS: 2 METER

WORKING LAMPS: 2 X HEADLIGHT

(BATTERY OPERATION): 2 X TAIL LIGHT

6 X VALVE GEAR CHECKING LAMPS (TREIBWERKSLEUCHTE)

ELECTRIC VERSION

DC MOTOR X 1: RATED VOLTAGE 12 V

RATED AMPERE: 2 A

SPEED: 5,200 RPM

TRANSMISSION SYSTEM: SPUR GEARS (WHEELS FREE TO ROTATE)

GEAR RATIO: 19:1 (FROM MOTOR TO DRIVING WHEELS)

GRANDIOR PULL: 1,350 G AT TENDER

LIGHTS - RATED VOLTAGE 1.5 V (BATTERY)

2 X HEAD LIGHT, 2 X TAIL LIGHT, 6 X VALVE CHECKING LAMP

SUBJECT TO CHANGE WITHOUT NOTICE



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