



## **SBB A 3/5 4 Cylinder Compound Engine**

Between 1902 and 1922 one hundred and ten 4-6-0 locomotives of this type were built by the Swiss Locomotive Works in Winterthur for the Jura-Simplon Railway, which ran to the French border as well as the Gotthard Railway, which ran toward Germany. Later, both railways combined to form became Swiss Federal Railways - the SBB.

The Jura-Simplon used the de Glehn compound design, while the Gotthard favored the Maffei compound configuration, each railway being heavily influenced in their design by neighboring France and Germany. The first forty-eight locomotives produced employed the larger capacity, three-axle tenders.

Aster chose to model locomotive No. 705, a four-cylinder compound express locomotive that has been preserved in working order. Aster's four-cylinder compound system in 1/32 scale was the first commercial model of its kind.

## **Specifications**

### **Dimensions:**

**Length: 591 x Height 138 x Width 96 mm. (Cab Width - 88 mm)**

### **Weight:**

**Engine: 3.2 kg**

**Tender: 1.6 kg**

**Total: 4.8 kg.**

**Boiler Type: "C" Type boiler with two fire tubes of 15 mm diameter**

**Pressure: 4.5 kg/cm<sup>2</sup> at normal working level**

**Fittings: 2 x Safety Valves, 1 x Regulator, 1 x Blower Valve, 1 x Pressure Gauge, 1 x Water Gauge, 1 x Check Valve, 1 x By-Pass Valve**

**Cylinders:**

**H.P. Cylinders x 2:**

**Bore 10 mm x Stroke 20 mm (Rulon Piston Rings)**

**Valve Travel: 5.6 mm**

**Steam Port: 1.4 mm**

**Cut-off: 75% at full gear**

**L.P. Cylinders x 2:**

**Bore 13 mm x Stroke 20 mm (Rulon Piston Rings)**

**Valve Travel: 5.4 mm**

**Steam Port: 1.5 mm**

**Cut-off: 80%**

**Valve Gears: Walschaert's with screw reverser (inside engines linked with the outside Walschaert's gear)**

**Tender Water Tank:**

**240 ml of water capacity**

**Feed Water Hand Pump mounted (Bore 10 mm x Stroke 15 mm)**

**Truck: Axle Driven Pump (feed water) mounted (Bore 5 mm x Stroke 4 mm)**

**Fuel Tank: 115 ml of alcohol**

**Lubricator: Roscoe Displacement Type mounted on boiler top**

**Driving Wheels: Diameter 55 mm made of stainless steel**

**Pilot Truck Wheels: Diameter 25 mm made of stainless steel**

**Tender Truck Wheels: Diameter 32 mm made of zinc die castings**