



SNCF 232 U1 4-6-4

This beautiful locomotive, designed under the direction of Marc de Caso, and completed by Corpet-Louvet in 1949, was the result of a reassessment of the performance of 4-6-4 locomotives made after WW II by the Compagnie de Nord. Prior to the war, it was planned to build eight streamlined locomotives to haul light weight trains at high speeds. This batch was planned to consist of four compounds (Class 232S), three simples (Class 232R) and one turbine. The first seven locomotives were completed during the 1939/1940 time period but the turbine was never finished.

During the war, they were used to haul slow trains despite the original plan to use them only for high speed service. After the war ended, the turbine design was changed to an improved version of the Atlantic type compound locomotives using a bar frame. It was designated the 232 U1 and featured four sets of piston valves driven by outside mounted Walschaert valve gear, roller bearings on the axles, simplified controls

and a mechanical stoker to name just a few of the advanced characteristics.

Despite the fact that the the 232 U1 proved to be an outstanding design and fully lived up to her designer's expectations, no further orders were placed since the SNCF was focusing on electrification. Thus, only one example of this outstanding design was in service which worked the main line between Paris and Lille together with her seven sisters from the classes 232S and 232R. Today the 232 U1 is preserved at the National Museum at Mulhouse.

Note: "Hudson" versus "Baltic"

The world's first 232 or 4-6-4 tender locomotives were built for the NORD in 1911. They became know as "Baltics" because they were designed for the express train from Paris which eventually reached the shores of the Baltic Sea in Northern Europe. All European 4-6-4s, tender or tank locomotives, are know as "Baltics." The name "Hudson" is American and came from the New York Central 4-6-4s which in 1927 first serviced the water level route along the Hudson River.

Specifications for the SNCF Class 232 U1 4-6-4

Scale/Gauge: 1/32, Gauge One (45 mm)

Total Weight: 8.2 kg (18.07 lbs)

(Engine 5.8 kg (12.78 lbs). + Tender 2.4 kg (5.29 lbs)

Dimensions

Length: O.B. 803.0 mm (31.61 inches)

(Engine 492.5 mm (19.39 inches) + Tender 305.5 mm (12 inches)

Width: Engine 94 mm, Tender 94 mm (3.7 inches)

Height: Engine 134 mm (5.27 inches), Tender 129 mm (5.07 inches)

Wheel Arrangement: 4-6-4 Atlantic (231)

All wheels made of stainless steel and insulated both sides. Equalized and leaf spring action.

Driving Wheels: Dia. 62 mm

Pilot Truck wheels: Dia. 29 mm

Trailer Truck Wheels: Dia. 29 mm

Engine:

Cylinders: 2 x H.P. cylinders, bore 10 mm x stroke 20 mm

2 x L.P. cylinders, bore 13 mm x stroke 20 mm

Drain Cocks: Fitted on the LP Cylinders, an operation rod fitting.

Valve Gears: Walschaert's Valve Gear

Steam Port 1.5 mm, cut off 80.2%

Lap 1.2 mm, Travel, 5.4 mm

Boiler:

Type: Locomotive Type for either coal or alcohol burning

Water Capacity: 250 cc at 80% full

Pressure: 4 kg/cm² at normal working

Fittings: 2 x safety valves, 2 x super heater tubes, pressure gauge, water guage, blow-down valve throttle valve, blower valve, whistle and whistle valve, by-pass valve

Axle Driven Pump:

Mounted on the Trailing Drivers' axle

Pump bore 5 mm x ram stroke 6 mm

Lubricator: Roscoe displacement type mounted on the front deck

Burner: Convertible type to either coal or alcohol

Fuel: Coal or alcohol

Tender:

Truck Wheels: Dia. 39 mm

Water Tank: Capacity: 360 cc, Hand operation water pump mounted

Fuel Tank: Capacity:200 cc of alcohol
Minimum Radius: 2.5 meter (8.2 feet)

