

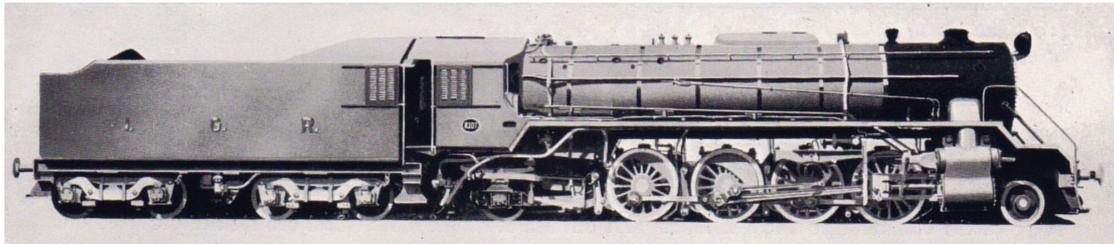
# INDIAN RAILWAYS



5 ft. 6 in. Gauge

1951

2-8-2 (WG)



Cylinders.....	(2) 21 $\frac{1}{8}$ in. Diam. x 28 in. Stroke	Maximum Axleload.....	18.5 tons
Diameter Coupled Wheels.....	5 ft. 1 $\frac{1}{2}$ in.	Weight :	
Working Pressure.....	210 lb.	Engine in Working Order.....	101.85 "
Tractive Effort at 85% Pressure.....	38,890 lb.	Tender " " .....	71.8 "
		Total " " .....	173.65 "

The 2-8-2 WG is the post-war Indian Standard broad gauge freight locomotive constructed to the requirements of the Central Standards Office at New Delhi, and 10 of these were produced at Newton-le-Willows in 1951.

The tractive effort of the WG-38,890 lb. at 85% pressure-lies between that of the XE and the XD, but since its maximum axleload is only 1821 tons, it has a very wide service range over the Indian main lines.

Many of the details, including the boiler, motion, springs, axleboxes, and hind truck, are all interchangeable with those of the 4-6-2 WP passenger engines built in the U.S.A.

The boiler barrel consists of three rings, the centre one being coned, and the wide round-topped firebox, with all-welded steel inner shell, has one Nicholson thermic syphon and two arch tubes. A Joco regulator is fitted in the dome and the Melesco superheater has 38 elements.

The hand-operated rocking grate is in four sections, and the welded ashpan, in two parts, is of the double hopper type.



Bar type main frames are provided together with a rear frame consisting of a one-piece cast steel cradle. The frame pedestal wedges and shoes are of forged steel fitted with renewable manganese steel liners.

The lead bronze coupled axleboxes have Ajax keeps with grease lubricators and the overhung spring gear is compensated in two groups.

Both leading and trailing trucks are fitted with Skefko roller-bearing axleboxes, the former being of the cannon type and the latter with outside bearings. Disc wheel centres are provided on both trucks.

The cylinders are of cast steel with cast iron liners and each one is made integral with half the smokebox saddle.

The connecting and coupling rods are provided with bronze floating bushes and hard grease lubrication, but the motion is fitted with cast iron bushes lubricated by soft grease. The eccentric rods revolve on roller-bearings.

Accessories include two L.R.S. 12 mm. injectors, three 3 in. Ross Pop safety valves, two Everlasting blow off cocks, a five-feed Wakefield A.C. lubricator, and Stone's electric lighting. Steam actuates the engine brake, vacuum equipment being provided for the tender and train brakes. The large capacity sandbox is mounted on top of the boiler barrel.

The tender, which has a capacity of 5,000 gallons of water and 18 tons of coal, has provision for the fitting of a mechanical stoker should this be required at a later date.

The tender bogie frames are of cast steel and Skefko roller-bearing axleboxes are provided, the wheels being of the disc type as on the engine trucks.

Large numbers of these WG locomotives are now in service all over India.