

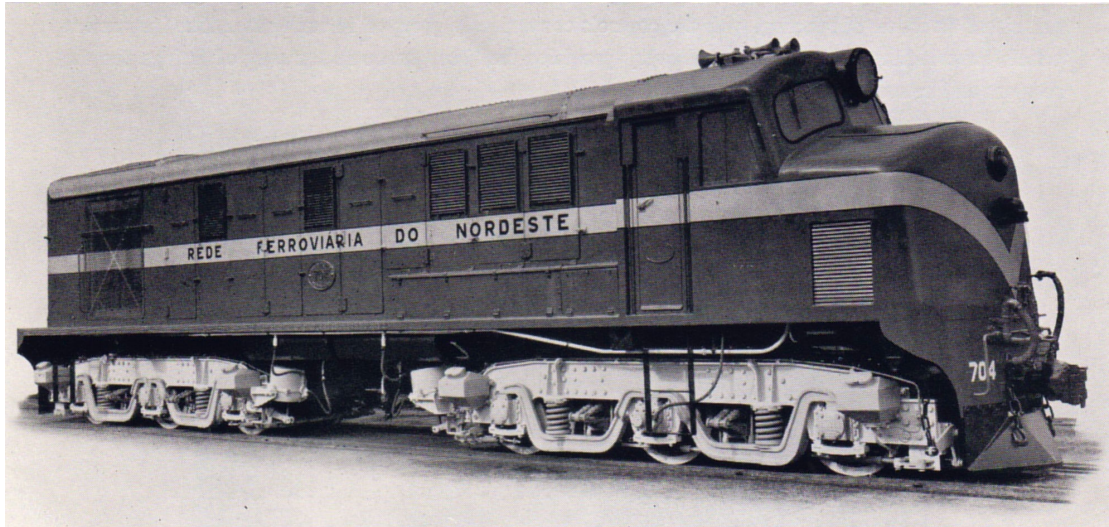
REDE FERROVIARIA DO NORDESTE (BRAZIL)



Metre Gauge

1954

A1A-A1A



| | | | |
|--|-------------------|--------------------------------|-------------------|
| Engine H.P. at 850 R.P.M. | 1000 | Tractive Effort (Maximum)..... | 27,000 lb. |
| Traction Motors | 4 | Maximum Axleload | 12 tons |
| Tractive Effort (Continuous) at 13.7 m.p.h. | 20,400 lb. | Weight in Working Order | 70.7 " |

Thirteen diesel electric locomotives were built at Newton -le-Willows in 1954 for the Rede Ferroviaria do Nordeste (formerly the British-owned Great Western Railway of Brazil) for mixed traffic work on their main line running inland from the port of Recife.

They were built in collaboration with the main contractors, English Electric Co. Ltd., who supplied the engines and electrical equipment.

These locomotives are powered by English Electric 8-cylinder-in-line engines with a maximum output of 1,000 B.H.P. and a derated output for local conditions of 874 B.H.P. The inner and outer axles of each of the two six-wheeled bogies carry nose-suspended traction motors.

The superstructure is of single cab design and is made up of five compartments.

The nose end contains a traction motor blower, the air brake equipment, and ancillary items.



The cab, with bulkheads insulated against sound and heat, has double driving positions to suit either direction of running, with the controls conveniently grouped in each case. The instrument panels have indirect illumination and every provision has been made in the way of fittings for the comfort and convenience of the crew.



Locomotive in service at Palmares Station

The equipment compartment houses the engine, generator, and control cubicle, and the roof is in removable sections to facilitate easy withdrawal. Hinged hatches also give quick access to the cylinder heads. 'This compartment is ventilated by air drawn throughout its length by the radiator fan.

In the radiator compartment are the combined cooling water and lubricating oil radiators flexibly mounted one on each side, together with the fan, located in the roof and driven from the engine.

V U L C A N L O C O M O T I V E S



The rear compartment contains the air compressor which is operated by an additional output shaft from the fan drive.

The built-up underframe is well braced with stretchers, gussets, and the fabricated dragboxes. The main members extend the full length of the locomotive and are deepened in the centre to form the sides of the 400 gallon fuel tank which is an integral part of the frame.

The bogies are of the swing bolster type with frames of fabricated construction and the bogie centres are fitted with floating gunmetal liners. The wheel centres are rolled steel discs with separate tyres, and the roller-bearing axleboxes are of Timken manufacture.

Clasp brakes, actuated by the Westinghouse automatic vacuum system, are applied to the motored wheels only.

Other equipment includes air sanding, Stones electric lighting, speed indicator and twin pneuphonic horns.