

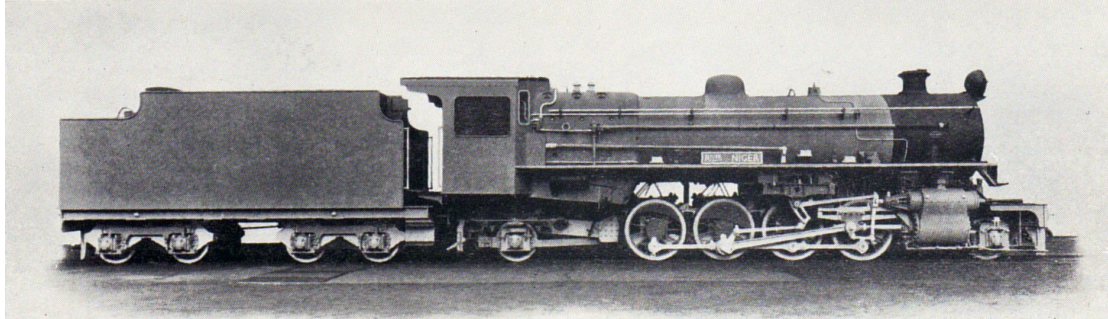
NIGERIAN RAILWAYS



3 ft. 6 in. Gauge

1948

2-8-2 (River)



Cylinders.....	(2) 18 in. Diam. x 26 in. Stroke	Maximum Axleload.....	13 tons
Diameter Coupled Wheels.....	4 ft. 0 in.	Weight :	
Working Pressure.....	200 lb.	Engine in Working Order.....	71.5 "
Tractive Effort at 85% Pressure.....	29,800lb.	Tender " "	47.5 "
		Total " "	119 "

In 1948 20 2-8-2 freight locomotives of new type and known as the "River" class, were designed and built at Newton -le-Willows for the Nigerian Railway, where they were urgently required for the rapidly increasing post-war traffic, including the transport of the large backlog of groundnuts which had then accumulated.

The boiler has a wide all-steel Belpaire firebox with Hulson type grate 38 sq. ft. in area, suitable for the low calorific value of Nigerian coal (11,350 B.T.U's), and three arch tubes.

The ashpan is of the single hopper type and the smokebox is fitted with self-cleaning plates, whilst the washout doors fit on flat seatings welded to the barrel and are thus all interchangeable.

Bar frames 4 in. thick are provided, together with overhung springs without compensation.

The coupled axleboxes are of cast steel with phosphor bronze bearings and whitemetal inserts. Both leading and trailing engine trucks are of the radial arm type with outside roller-bearing axleboxes of Skefko manufacture interchangeable with those of the double bogie tender.



" River " Class Locomotive on down Plateau Limited at Jebba Station

The connecting rod big ends and the coupling rods have floating phosphor bronze bushes and lubrication is by oil throughout.

Two steam turrets are provided, one between the chimney and the dome and the other on the firebox top outside the cab.

The locomotive is provided with a steam brake together with vacuum equipment for controlling the train, the latter being specially designed to the requirements of the Crown Agents by the Vacuum Brake Co., with the ejector outside the cab, thus minimising the heat for the driver as far as possible.

The tender tank is of welded construction and carries 4,000 gallons of water, whilst the coal capacity is 10 tons.

Since 1948 many more of the same class have been built and the design has served as a basis for locomotives in Nyasaland and also the metre gauge lines of East Africa.

In 1954 Vulcan completed a further 15 engines for Nigeria with various modifications introduced in the light of experience gained in service.

These modifications include continuous main frames throughout the length of the engine, compensation for the spring gear in two groups, Skefko roller-bearing axleboxes on the coupled wheels, multiple valve regulator, bye-pass valves on the steamchests, and sandboxes on top of the boiler. The tender sideplates above the water tank have also been dispensed with in these later locomotives.