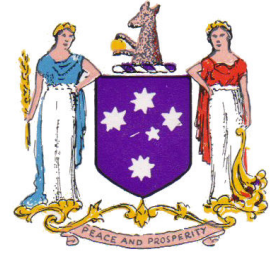


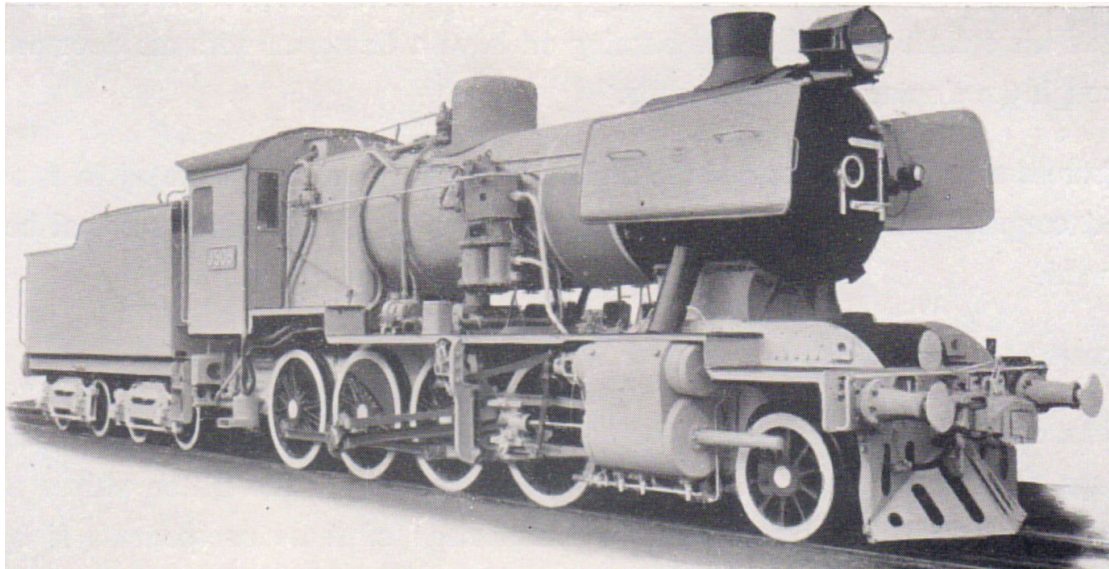
VICTORIAN GOVERNMENT RAILWAYS



5 ft. 3 in. Gauge

1954

2-8-0 (J)



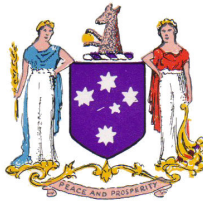
Cylinders.....	(2) 20 in. Diam. x 26 in. Stroke	Maximum Axleload.....	14.75 tons
Diameter Coupled Wheels.....	4 ft. 7 ³ / ₁₆ in.	Weight :	
Working Pressure.....	175 lb.	Engine in Working Order.....	67.75 "
Tractive Effort at 85% Pressure.....	28,650 lb.	Tender " "	45.35 "
		Total " "	113.1 "

Immediately after World War II Victoria, in common with most of the other Australian States, turned its attention to making up arrears in the renewal of its motive power and rolling stock, and they included in this programme 60 2-8-0 J Class locomotives which were built by The Vulcan Foundry in 1,954 to the designs and requirements of the Chief Mechanical Engineer of the Victorian Government Railways.

These relatively light freight locomotives, with a maximum axle load of only 14¾ tons, are a modified version of the K Class, and 30 of them are for coal burning whilst the remaining 30 are oil fired.

The boiler has a Belpaire firebox with a welded steel inner shell and two arch tubes, and it is fitted with a particularly large dome, housing a balanced regulator of the railway's own pattern.

The M.L.S. superheater has 21 elements and in the case of the oil fired engines their length has been reduced to give an increased distance between return bend and tubeplate -3 ft. 0 in.



The coal fired engines have a Hulson type grate and double hopper ashpan with sliding doors operated by an air cylinder, whilst those burning oil have a flamepan with air door and also short air tubes through the sloping side brick walls.

The frames are of 1 in. plate and the underhung springs are compensated in two groups, the oil lubricated coupled and front truck axleboxes being of cast steel with gunmetal bearings lined with whitemetal.

The coupled wheels all have cast steel S.C.O.A.-P. centres.

The cast iron cylinders contain pistons of built up type having forged steel centres and cast iron bull rings secured by rivets, tailrods also being provided. The piston valves are 10 in. in diameter and are of the Pennsylvania pattern. Lubrication of these components is by a six-feed Nathan mechanical lubricator.

The locomotives are equipped with Westinghouse air brake equipment fed by a 7 in. cross compound air pump on the side of the boiler.

General fittings include two Davies & Metcalfe No. 9 Nathan type understep injectors, two Coale type safety valves, Klinger water gauges, two blow-off cocks, Flaman speed indicator, Pyle National electric lighting, and air-operated sanding. The coal fired engines are also equipped with Ajax air-operated firedoors.

The plain-bearing double-bogie tenders have prefabricated welded underframes and a capacity of 7 tons of coal and 4,200 gallons of water. In the case of the oil burning locomotives the water tank is slightly modified to accommodate an all-welded cylindrical oil fuel tank holding 6.8 tons of oil.

Full provision has been made to allow of the conversion of these locomotives from 5 ft. 3 in. to standard gauge should this be required in the future.