

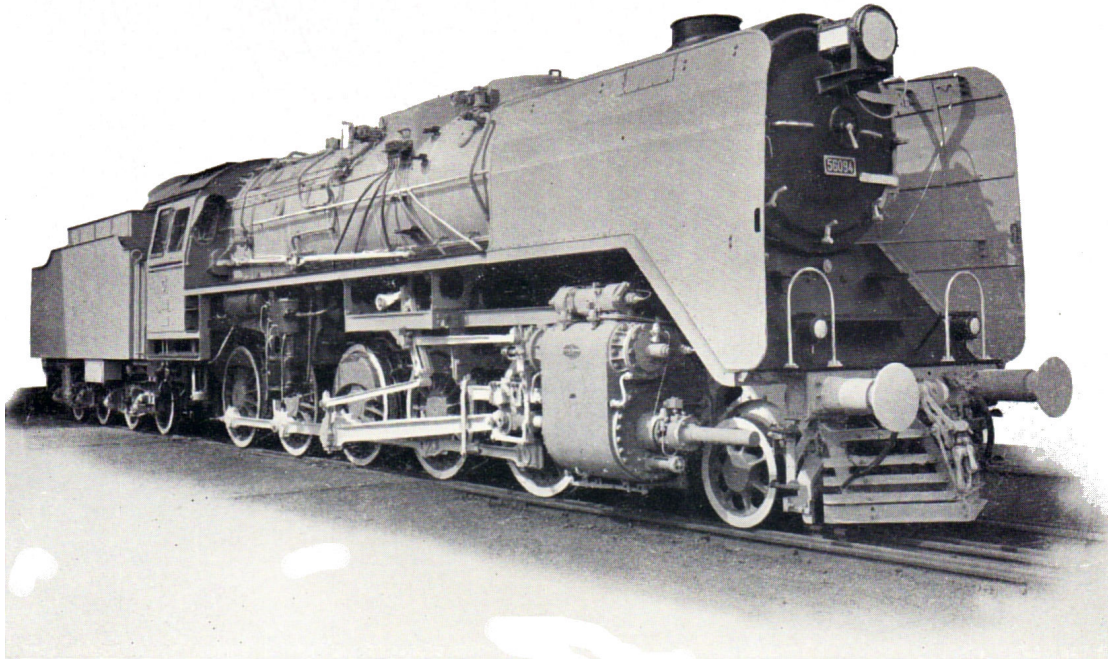
TURKISH STATE RAILWAYS



4 ft. 8½ in. Gauge

1948

2-10-0 (IE)



Cylinders.....	(2) 25½ in. Diam. x 26 in. Stroke	Maximum Axleload.....	18.7 tons
Diameter Coupled Wheels.....	4 ft. 9½ in.	Weight :	
Working Pressure.....	227 lb.	Engine in Working Order.....	106.9 "
Tractive Effort at 85% Pressure.....	57,560lb.	Tender " "	60.8 "
		Total " "	167.7 "

In 1939 a contract was placed in this country by the Turkish State Railways (T.C.D.D.) for a number of Class IE freight locomotives of a previous German design, but due to the intervention of the war, the order could not be completed until 1948. Twenty-two of these engines were built at Vulcan for operation on the difficult and mountainous main lines in Asia Minor radiating from Ankara and Eskisehir.

These exceptionally powerful locomotives have a tractive effort at 85% pressure of 57,560 lb., and a maximum axleload of 18.7 tons. " -

The boiler, with an evaporative heating surface of 2,575 sq. ft., has a very long barrel with round-topped firebox, the inner firebox and water stays being of copper. The superheater has 43 elements and the header is cast in two parts to separate the saturated and superheated chambers, whilst the two domes house a water purifier and a Wagner regulator.

A three hopper ashpan is fitted, with three sets of fixed bars and a section to form a drop grate respectively.

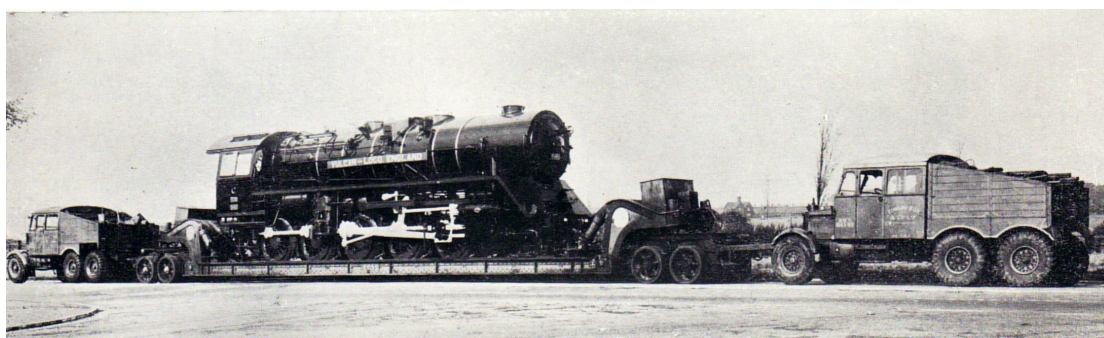
VULCAN LOCOMOTIVES



The bar frames are 32 1 in. thick and have a cast steel stay between the cylinders and a fabricated smokebox saddle, and the spring gear is compensated in two groups.

The coupled axleboxes are of forged steel with brasses lined with white metal, the keeps being equipped with Armstrong oilers.

The connecting and coupling rods are all provided with adjustable bushes, and due to the long coupled wheelbase of 24 ft. 11 in. special provision for lateral play has been made by the use of spherical bearings in the leading and trailing rods.



2-10-0 Locomotive- for Turkey en route to the Docks

The Westinghouse straight air and automatic brake equipment is fed from a 7 in. cross compound air compressor, and an interesting feature is the inclusion of Riggensbach counter pressure brake equipment for operation on long down grades with the engine in reverse gear. This is operated by a slide valve in the exhaust pipe worked from an air cylinder in the cab, which then allows the cylinders to function as compressors.

Lubrication of the locomotive is by oil throughout, and a Wakefield mechanical lubricator and sight-feed indicator supplies 14 feeds to the valves, pistons, piston rods, valve rods, and tailrods.

The leading truck is of the Krauss type in which the truck wheels are connected to the leading coupled axle by an arm with controlled side movement.

The cab is of German State Railways standard design, and other features include two Clyde soot blowers, a Marcotty firedoor, Teloc speed indicator, Alfol insulation, Everlasting blow-off cock, air-operated sanders with sandbox on the boiler top, one Davies & Metcalfe No. 11 exhaust steam injector and one No. 11 live steam injector.

The relatively small tender, carried on two diamond framed bogies, has a welded tank and a capacity of 6,380 gallons of water and 74 tons of coal.

The locomotives were finish painted in black with chromium bands and vermilion wheel centres, and were put on rail at Haidar Pasha.