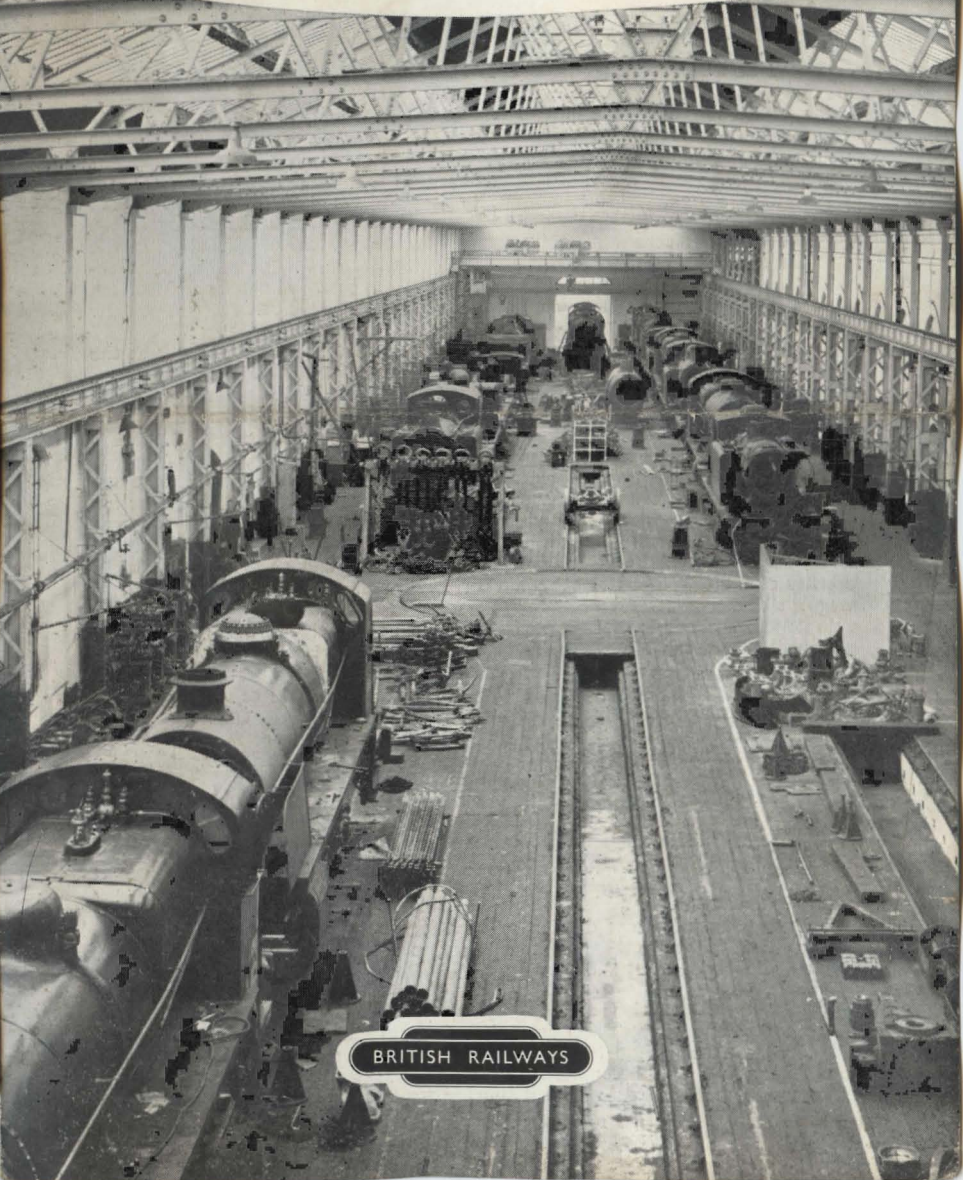


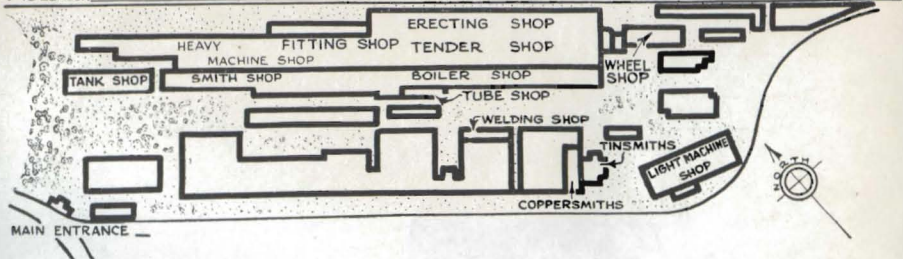
**SOUTHERN REGION  
BRITISH RAILWAYS**

**ASHFORD LOCOMOTIVE WORKS**

The main activity of the Locomotive Works at present is the repair of locomotives and manufacture of component parts



**BRITISH RAILWAYS**



## ASHFORD LOCOMOTIVE WORKS

It was in February of the year 1846 that the Board of Directors of the South Eastern Railway decided to purchase 185 acres of good Kentish countryside on which to lay the foundations of a "Locomotive Establishment".

In the summer of 1847, in the shape of a cluster of 72 Labourers' cottages, there arose the first signs of a new Railway project and the story of Ashford Works had begun. Towards the end of the same year, the inaugural meeting of the Ashford Works Mechanics' Institute took place at which the Chairman of the Board stressed that the construction work was not merely of a fine and well-equipped Locomotive Works but of a complete village. In the autumn of the same year official news was given that the Railway's Locomotive Depot at New Cross would be transferred to the new site at Ashford.

During 1848 work had begun on the first new locomotive to be built at the Works.

In the autumn of 1850 the creation of the Carriage and Wagon Works was seen at Ashford. By this time the adjoining Railway village, known at first by the name of Alfred Town, had been expanded by another 60 houses and the Gas Works was making an appearance on the site.

When the old Railway Companies were grouped in 1923, Ashford became one of the three main Works of the Southern Railway and dealt with the construction and repair of locomotives, carriages and wagons.

The construction of new coaches was transferred to Eastleigh and, in the main, carriage repairs to Lancing in the year 1929, and since then the main activity of the Carriage and Wagon Works has been the building and repair of wagon stock.

In 1948, as a result of Nationalization, the Locomotive Works became the responsibility of the Mechanical Engineer, and the Carriage and Wagon Works that of the Carriage and Wagon Engineer. Since then there has been a further re-organization, and both Works are now under the control of the Mechanical and Electrical Engineer (Workshops), who is responsible to the Chief Mechanical and Electrical Engineer.

The Locomotive Works covers 26½ acres and the Carriage and Wagon Works 40 acres.

The Locomotive Works is engaged on the repair of locomotives and many types of mobile cranes.

The last new locomotive built was the Main Line Diesel Electric Locomotive No. 10202, which was completed in the Autumn of 1951.

### Heavy Machine Shop

This Shop manufactures details for locomotives, carriages and wagons from castings and forgings. Modern machinery is installed for planing, slotting, shaping, drilling, boring and turning.

### Light Machine Shop

The equipment in this Shop comprises Capstan and Turret Lathes, and 1, 4 and 6 Spindle Automatic Machines, and the details produced include turned bolts, pins, firebox stays, union nuts, pipe cones and collars. The repair of brake valves, boiler mounting and lubricators is also undertaken.

## **Tool Room**

Jigs, gauges and precision tools are made in this Shop, which is equipped with lathes, milling, shaping and grinding machines. A Comparator is available for measuring to very fine limits.

## **Fitting Shop**

The repair of valve gear, coupling and connecting rods, sanding gear, brake gear is carried out in this Shop.

## **Erecting Shop**

This Shop is equipped with five overhead electric travelling cranes, two capable of lifting 50 tons each, one 35 tons and two 30 tons. Locomotives are stripped and the parts cleaned in the Bosh before being sent to various Shops for repairs.

During the repair of the frames, it is sometimes necessary to burn out fractured portions and weld in new frame inserts.

All frames are checked to the Datum System, which ensures that the axleboxes are correctly positioned.

Maximum use is made of portable cylinder boring, grinding, drilling, flame cutting and electric welding sets.

## **Boiler Shop**

This Shop is served by two 25-ton and one 10-ton overhead electric travelling cranes to facilitate the movement and repair of locomotive boilers. Other equipment consists of plate levelling rolls, plate edge planer, radial drilling machines and 250-ton hydraulic flanging press and oil-fired plate furnace.

A "Hi-Cycle" plant operating at 125 Volts, 200 Cycles, 3-Phase is used for the drilling and tapping of fireboxes. Maximum use is made of "Hi-Cycle" power and compressed air for portable grinding and drilling machines.

## **Tube Shop**

The layout of this Shop allows boiler tubes to be repaired on a progressive system and includes equipment for the descaling and electrically butt welding new ends on to tubes at the rate of 1,500 per week.

## **Smiths Shop**

This Shop is equipped with electro pneumatic hammers and forges all the details for the Locomotive Works and much of that required for the Carriage and Wagon Works. An electric butt welding machine is used for the manufacture of spring buckles, brake rods and other components. Oil-fired furnaces have been installed to deal with spring plates and buckles for locomotive and wagon springs.

## **Wheel Shop**

The re-tyring of wheels, turning of tyres and journals and other necessary work in connection with the repair of wheels is carried out here.

## **Coppersmiths Shop**

The repair of all copper pipes and the repair and testing of superheater elements is undertaken in this Shop.

## **Sheet Metal Shop**

The manufacture and repair of lamps, oil feeders, torch lamps and other sheet metal work, much of which is of welded construction, is undertaken in this Shop.

## **Whitemetal Shop**

The manufacture and re-conditioning of whitemetal for use on the whole of the Southern Region is undertaken in this Shop. Wagon bearings are also re-metalled here.

## **Welding Shop**

The fabrication of components and the reclamation of worn parts is carried out in this Shop, using electric or oxy-acetylene welding techniques.

