

LOCOMOTIVE.

Mr. H. H. Jackson, Chief Mechanical Engineer, reports as follows :—

Locomotives.—On the 1st April, 1917, there were 607 engines in service, and on the 31st March, 1918, there were 624 engines. Three second-hand tank engines were sold, and one tank engine was condemned. These four engines were written off stock. Twenty-one new engines were added to stock, of which fourteen were built in the Government railway workshops, and comprised seven *Pacific type* simple superheated tender engines, Class AB; two heavy suburban tank engines, 4-6-4 type, Class WAB; and five heavy tank engines, 4-6-4 type, Class Ww. Seven 4-8-0 simple superheated heavy tender engines, Class BB, were completed under contract with Messrs. A. and G. Price (Limited), of Thames. The contract which this firm undertook has been now completed to the satisfaction of the Department.

In the Government railway workshops to date 186 engines have been built, and twenty-four old locomotives have been rebuilt. Five hundred and eighty-four locomotives passed through the workshops during the year, the details of work done being as follows :—

Particulars.	Number and Type.						Total.
	Four-cylinder <i>Balanced-compound</i> Tender Engines.	Tender Engines.	Tank Engines.	Fell Engines.	Single Fairlies.	Double Fairlies.	
Number passed through shops	72	204	292	5	10	1	584
Built new	..	7	7	..	..	..	14
Re-erected	..	8	5	..	..	..	13
Converted	..	2	..	..	..	..	2
Thoroughly overhauled ..	22	27	47	2	1	..	99
Heavy repairs	19	50	77	3	3	..	152
Light repairs	31	110	156	..	6	1	304
Painted	26	64	52	5	2	..	149
Paint touched up	22	90	74	..	5	..	191

Included in the above are two engines for Public Works Department and one engine for a private line.

At the close of the year there were on order in the railway workshops fifteen engines, consisting of ten *Pacific type* simple superheated tender engines, Class AB, and five heavy tank engines 4-6-4 type, Class Ww.

As the necessary material is now unobtainable the work of building new locomotives has ceased at Addington, and at Hillside the work will be completed within the next few months. Owing to material not being procurable no further contracts for locomotives can be made in the meantime.

The new locomotives added, together with boiler renewals, increased the total tractive power by 370,771 lb., or equal to 4.41 per cent. The new engines being built and the boilers under construction will, when completed, still further materially increase the tractive power.

Boilers. The work on new boilers, renewals, and repairs has been kept well up to date, but as material is not now procurable no new boilers can be put in hand, and the work of repairing the older ones is a matter of increasing difficulty.

The following statement shows details of boiler-work done :—

Description.	Number passed through Shops.	Built new.	Heavy Repairs.	Light Repairs.	New Tubes (Sets).	Tubes pieced and Second- hand (Sets).	New Firebox.	New Firebox Tube- plate.	Boilers patched.
Boilers	311	18	125	168	35	70	9	10	105

Fifteen new boilers were on order at close of year, and comprised ten Class AB and five Class Ww.

Carriages.—The stock on the 1st April, 1917, was 1,480 cars, and on the 31st March, 1918, the number was 1,488. One car was sold and written off. Nine new bogie cars were built and added to stock.

The following table shows details of car-work done during the year :—

Particulars.	Number and Type of Carriages.			Total.
	Bogie.	Six-wheel.	Four-wheel.	
Number passed through shops ..	1,895	80	13	1,988
Built new	9	..	..	9
Converted	9	..	..	9
Thoroughly overhauled	81	..	..	81
Heavy repairs	886	10	..	896
Light repairs	910	70	13	993
Painted	587	7	2	596
Touched up	697	10	..	707