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BOARD OF TRADE

THE REPORT
on the
CENSUS OF PRODUCTION
FOR 1951

Volume 3

Trade L

RAILWAY LOCOMOTIVE SHOPS
AND LOCOMOTIVE MANUFACTURING



*Presented by the Board of Trade to Parliament
in pursuance of the Statistics of Trade Act, 1947
(10 & 11 Geo. 6, Ch. 39, Sec. 7).*

LONDON: HER MAJESTY'S STATIONERY OFFICE

1955

TWO SHILLINGS NET

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* Not applicable to this trade

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RAILWAY LOCOMOTIVE SHOPS AND LOCOMOTIVE MANUFACTURING TRADE

THIS REPORT on the Railway Locomotive Shops and Locomotive Manufacturing Trade relates to establishments engaged wholly or mainly in the manufacture of locomotives, mechanical railway signals, turntables, automatic couplings and brake gear (including repair work other than light repairs carried out in running sheds), steam traction engines, steam wagons and road rollers.

This trade corresponds to minimum list headings 84 and 85 in the Standard Industrial Classification.

In the reports on the 1935 Census the activities of all railway establishments engaged on productive work, i.e., civil engineering work on railway property, the manufacture and repair of locomotives, carriages, wagons and railway equipment for the permanent way, and all miscellaneous manufacturing were included in a single report. For the purpose of that report the railway companies were not required to furnish separate detailed returns on an establishments basis and accordingly it is not possible to reclassify the particulars for 1935 strictly in accordance with the Standard Industrial Classification. An attempt has, however, been made to compile, from the information available, figures corresponding very roughly with those for 1948 and onwards. The activities of railway companies were not covered in the 1937 inquiry.

In all years, the output of railway locomotive shops is valued at cost, i.e., a sum calculated to cover the cost of labour and materials together with such a proportion of the general establishment charges properly applicable to the output concerned but without any allowance for profit. The output of other locomotive manufacturers is, however, valued at selling price and therefore includes profit.

There were no larger establishments on the register for locomotive manufacturers other than railway companies in Northern Ireland for any year.

The report is in two parts in this volume. Part A relates to Railway Locomotive Shops and Part B to Other Locomotive Manufacturers.

IMPORTANT NOTES and definitions appear on the inside of the back cover of this report. In interpreting the data in the following tables, it is essential to bear these in mind.

RAILWAY LOCOMOTIVE SHOPS AND LOCOMOTIVE MANUFACTURING TRADE

PART A

RAILWAY LOCOMOTIVE SHOPS

Summary

	United Kingdom			Great Britain		United Kingdom
	1951	1950	1949	1949(b)	1948	1935(c)
	£'000	£'000	£'000	£'000	£'000	£'000
Gross output (production)	44,593	39,168	38,663	..	38,239	13,000
Cost of materials and fuel used (d)	18,049	15,201	13,526	..	12,645	4,500
Payment for work done on materials given out	4	11	43	..	94	..
Transport payments	-	..	..	..	..	..
Net output	26,540	23,956	25,094	..	25,500	8,500
Wages and salaries of persons employed	24,585	22,754	22,721	..	23,035	..
Average number of persons employed	No. 61,456	No. 62,806	No. 63,394	No. ..	No. 64,856	No. 44,800
Net output per person employed	£ 432	£ 381	£ 396	£ ..	£ 393	£ 190
Stocks at end of year	£'000	£'000	£'000	£'000	£'000	£'000
Finished products and work in progress	3,843	3,411	3,423	..	3,342	..
Materials and fuel	11,865	10,533	10,849	..	10,955	..
Number of establishments	No. 314	No. 340	No. 375	No. ..	No. 355	No. ..

The values of gross output and of materials and fuel used are derived in the following way:-

	£'000	£'000	£'000	£'000	£'000	£'000
Output of establishments in this trade (e)						
Principal products (f)	35,401	39,182	38,582	..	31,222	12,188
Other output (g)	8,759					
Changes in stocks and work in progress (h)	+ 432	- 14	+ 81	..	+ 61	
	44,593	39,168	38,663	..	38,239	13,000
Less payment for transport outwards	-	-	-	..	-	
Gross output (production)	44,593	39,168	38,663	..	38,239	13,000
Materials and fuel used by establishments in this trade						
Purchases	19,381	14,884	13,420	..	15,065	4,500
Changes in stocks (h)	- 1,332	+ 317	+ 106	..	- 2,420	
Materials and fuel used	18,049	15,201	13,526	..	12,645	4,500

- (a) There were no small establishments in the register for this trade.
 (b) Owing to the risk of disclosure of information relating to individual undertakings in Northern Ireland separate particulars for Great Britain cannot be given.
 (c) For 1935 railway companies were not required to furnish separate detailed returns on an establishment basis. The figures given in this column have been compiled from available data and correspond very roughly with those for 1948 and onwards.
 (d) Amounts paid for delivery services are excluded for 1951 but included for other years.
 (e) Total value of sales (or transfers) (1951, 1950, 1949 and 1948) or production (1935).
 (f) For details for 1951 and 1948 see Table 8.
 (g) For details for 1951 and 1948 see Table 10.
 (h) For details for 1951 see Table 21.

TABLE 2 - Summary: Small establishments

TABLE 3 - Estimated average employment: All establishments

There were no small establishments (employing on the average ten or fewer persons) in the register for this trade. For the total number of persons employed see Tables 1 and 14.

Analysis by size, 1951

TABLE 4
Larger establishments in the United Kingdom

Average number employed	Establishments	Gross output	Net output	Persons employed	Remuneration			Net output per person employed
					Operatives	Other employees (a)	Total	
	No.	£'000	£'000	No.	£'000	£'000	£'000	£
11 - 24	80	980	625	1,409	580	47	626	443
25 - 49	107	2,700	1,689	3,796	1,535	139	1,674	445
50 - 99	58	2,839	1,814	4,050	1,631	134	1,765	448
100 - 199	42	4,007	2,500	5,645	2,256	197	2,453	443
200 - 299	10	1,723	1,035	2,335	895	76	972	443
300 - 399	1	203	139	328	117	12	129	422
400 - 499	1	298	183	418	139	9	148	437
500 - 749	3	1,685	879	2,031	667	104	770	433
1,500 - 1,999	2	2,111	1,480	3,369	1,155	140	1,295	439
2,000 - 2,499	4	6,793	4,048	9,198	3,374	325	3,698	440
3,000 - 3,999	3	7,408	4,460	10,370	3,648	327	3,975	430
4,000 - 4,999	1	4,021	1,960	4,552	1,510	244	1,755	431
5,000 - 7,499	1	4,290	2,430	6,225	2,070	261	2,331	390
7,500 and over	1	5,535	3,299	7,730	2,679	313	2,993	427
Total	314	44,593	26,540	61,456	22,256	2,329	24,585	432

(a) Administrative, technical and clerical employees.

Analysis by standard region, 1951

TABLE 5
Larger establishments in the United Kingdom

Region	Establishments	Gross output	Net output		Persons employed	Remuneration			Net output per person employed
			Value	Percentage of total		Operatives	Other employees (a)	Total	
	No.	£'000	£'000		No.	£'000	£'000	£'000	£
England and Northern Ireland									
Northern	22	3,984	2,442	9.2	5,580	2,088	125	2,212	437
East and West Ridings	32	3,751	2,150	8.1	4,927	1,823	146	1,970	436
North Midland	30	5,474	2,698	10.2	6,276	2,197	320	2,516	430
Eastern	17	673	389	1.5	845	362	22	383	460
London and South Eastern	37	5,381	3,130	11.8	7,006	2,616	276	2,892	447
Southern	15	1,472	1,074	4.0	2,348	883	84	966	457
South Western	19	4,942	2,909	11.0	7,267	2,478	287	2,765	400
Midland	22	1,293	836	3.2	1,812	731	67	798	462
North Western; and Northern Ireland	39	11,362	6,655	25.0	15,758	5,546	634	6,180	422
Total England and Northern Ireland	233	38,333	22,284	84.0	51,819	18,724	1,959	20,683	430
Wales	33	1,358	946	3.6	2,163	781	61	841	437
Scotland	48	4,903	3,310	12.4	7,474	2,752	309	3,061	443
United Kingdom	314	44,593	26,540	100.0	61,456	22,256	2,329	24,585	432

(a) Administrative, technical and clerical employees.

TABLE 6 - Analysis according to specialisation within the trade, 1951
Larger establishments in the United Kingdom
No specialisation within this trade was distinguished.

TABLE 7 - Total make of intermediate products: Larger establishments
This table is not applicable to the trade.

Sales (or transfers) of the principal products of the trade, including sales (or transfers) of these products by establishments classified to other trades
Larger establishments

	United Kingdom 1951			Great Britain 1948			
	Quantity		Value	Entries	Quantity		Value
	No.	Tons	£'000	No.	No.	Tons	£'000
Locomotives							
Complete							
Steam							
Under 40 tons light weight	28	925	150	..	297	24,899	3,567
40 tons light weight and over	207	16,243	3,059	7			
With internal combustion engines							
Electric transmission	20	960	406	..	7	305	79
Electric (including battery types)							
40 tons light weight and over	23	2,021	659	..	1	52	20
Parts							
Boilers for locomotives	266	3,410	480	5	270	3,812	456
Other parts of locomotives (a)	12	..	24		16	..	..	20
Railway signals, mechanical	526	828	32	7	..	..	452(b)
Other manufactures	..	..	293	..	-	-	-
1	..	..	1	..	-	-	-
Repair work							
Locomotives							
Steam			28,655	30			25,941
Internal combustion engines with mechanical transmission			7	..			3
Internal combustion engines with electrical transmission			75	5			34
Electric (including battery types)			37	..			1
Other repair work			3	..			17
Work done for the trade or on commission			178	..			11
Total			35,850	..			31,461
Sales (or transfers) in other trades (see Table 9)			449	..			238
Principal products of this trade sold (or transferred) by establishments in the trade			35,401	29			31,222

(a) Excluding axles, tyres and wheels.
(b) So far as recorded separately.

Sales (or transfers) of principal products of the trade
by establishments classified to other trades
Larger establishments

TABLE 9

	United Kingdom 1951			Great Britain 1948	
	Quantity	Value	Entries	Quantity	Value
Parts of locomotives, other than boilers (a)	..	£'000	No.	..	£'000
Railway signals (mechanical)	..	147	..	..	28
Repairs to steam locomotives	..	293	6	..	200
Work done for the trade or on commission		9	..		-
Total		-	-		11
		449	..		238

(a) Excluding axles, tyres and wheels.

Sales (or transfers) in the trade of
other than principal products
Larger establishments

TABLE 10

	United Kingdom 1951		Great Britain 1948	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Railway points, switches and crossings	..	359	..	321
Railway chairs	22,862	317	18,049	174
Railway carriages, wagons and trucks, and parts thereof (a)	..	125	..	49
Engineering castings	..	248	768	108
Other engineering products	386	25	..	13
Electrical goods and appliances	..	68	..	72
Scrap and waste sold	..	112	..	117
Scrap metals	..	325	..	113
Iron and steel	Th. tons		Th. tons	
Brass	177.5	1,058	171.8	873
Copper	3.1	595	5.2	508
Other	5.1	970	4.9	531
Other waste products	..	1,105	..	585
Other goods	..	53	..	25
Work done	..	48	..	54
Total		3,353		3,414
		8,759		6,956

(a) Excluding axles, tyres and wheels

TABLE 11 - Production exports and imports of certain principal products

See Part B of this report, Table 11, where particulars are shown in respect of all locomotive establishments.

Usage of certain specified purchased materials, 1951
Larger establishments in the United Kingdom

TABLE 12

Materials used	Quantity
	Th. tons
Iron	
Pig iron	17.1
Iron castings, in the rough	24.3
Wrought iron in all forms, except finished parts	1.1
Non-alloy steel	
Ingots, billets, blooms and slabs	8.1
Angles, shapes and sections	1.6
Girders, joists, beams and pillars (not fabricated)	0.2
Bars and rods	18.2
Hoop and strip (including tape)	0.2
Plates and sheets (other than tin-, terne-, or black- plates and sheets and electrical sheets)	
1/8 inch thick and over	24.8
Under 1/8 inch thick	1.2
Tubes and fittings	14.0
Wire (single wire)	-
Tyres, wheels and axles (railway and tramway)	14.5
Forgings, in the rough (other than drop forgings)	1.8
Drop forgings	0.6
Castings in the rough	12.0
Alloy steel (including high speed steel)	
Ingots, billets, blooms and slabs	0.1
Bars, rods, angles, shapes, sections, girders, joists, beams and pillars (not fabricated)	0.3
Plates, sheets and strip	-
Iron and steel not specified above, except finished parts and scrap	3.5
Non-ferrous metals in all forms, except finished parts and scrap	Th.cwts.
Brass and other copper alloys, including nickel silver but excluding all other nickel alloys	75.2
Copper	88.5
Nickel and nickel alloys, other than nickel silver	2.9
Tin	6.8
Zinc and zinc alloys	1.9
Timber (other than reclaimed), including that used for packing or packing case manufacture but excluding joinery, other fabricated woodwork and purchased packing cases	Th.cu.ft.
Hardwood	24.3
Softwood	77.3

Employment in September
Larger establishments (a)

TABLE 13

(i) Operatives

	United Kingdom			Great Britain		Number
	1951(b)	1950(b)	1949(b)	1949(c)	1948(d)	1935(e)
Males						
Under 18	2,530	2,650	2,599	..	2,769	..
All ages	55,468	56,993	57,400	..	59,257	..
Females						
Under 18	40	52	65	..	50	..
All ages	421	387	438	..	496	..
Total						
Under 18	2,570	2,702	2,664	..	2,819	..
All ages	55,889	57,380	57,838	..	59,753	..

(ii) Administrative, technical and clerical employees (f)

	United Kingdom			Great Britain		Number
	1951	1950	1949	1949(c)	1948	1935(e)
Males						
Under 18	68	103	99	..	104	..
All ages	3,829	3,821	3,769	..	3,577	..
Females						
Under 18	227	242	254	..	245	..
All ages	1,550	1,572	1,540	..	1,526	..
Total						
Under 18	295	345	353	..	349	..
All ages	5,379	5,393	5,309	..	5,103	..

(iii) Total employees

	United Kingdom			Great Britain		Number
	1951	1950	1949	1949(c)	1948	1935(e)
Males						
Under 18	2,598	2,753	2,698	..	2,873	..
All ages	59,297	60,814	61,169	..	62,834	..
Females						
Under 18	267	294	319	..	295	..
All ages	1,971	1,959	1,978	..	2,022	..
Total						
Under 18	2,865	3,047	3,017	..	3,168	..
All ages	61,268	62,773	63,147	..	64,856	..

(a) Excluded employees. The following persons were employed at the larger establishments in this trade in 1951 but are not included in the above tables or in any other Census of Production report (employees in Great Britain engaged, for example, in merchandising and in Northern Ireland canteen and welfare workers):-

Canteen workers 18 Males 253 Females
Other workers 102 Males 96 Females

- (b) In week ended September 22, 1951, September 30, 1950 and September 24, 1949.
(c) Owing to the risk of disclosure of information relating to individual undertakings in Northern Ireland separate particulars for Great Britain cannot be given.
(d) Average for the year.
(e) Details of employment for 1935 are not available. For the estimated total number of persons employed see Table 1.
(f) In the week ended September 22, 1951, September 30, 1950, September 24, 1949, and September 25, 1948.

Average employment
Larger establishments (a)

TABLE 14

	United Kingdom			Great Britain		Number
	1951	1950	1949	1949(b)	1948	1935
Operatives	56,070	57,447	58,086	..	59,753	44,800
Administrative, technical and clerical employees	5,386	5,359	5,308	..	5,103(c)	
Total	61,456	62,806	63,394	..	64,856	44,800

(a) There were no small establishments (employing on the average ten or fewer persons) in the register for this trade.

(b) Owing to the risk of disclosure of information relating to individual undertakings in Northern Ireland separate particulars for Great Britain cannot be given.

(c) In week ended September 25, 1948.

Outworkers. No outworkers were recorded in this trade.

Shift working, 1951 (a)
Larger establishments in Great Britain

TABLE 15

	Total number of man-shifts worked in the week	Total number of shift-hours worked in the week	Number of returns showing the systems stated
Continuous 3 shift systems per 24 hours averaging 8 hours per shift	44,790	361,546	25
Continuous 4 shift systems per 24 hours averaging 6 hours per shift	-	-	-
All 2 shift systems	1,330	13,095	1
Other shift systems	1,700	15,300	2
Total	47,820	389,941	(b)

(a) Shift working during week ended September 22, 1951.

(b) The number and percentage of returns showing shift working and of operatives on shift work were as follows:-

	Returns		Operatives		
	Total in trade	Showing shift-work	Total in trade	Total on returns showing shift-work	Number employed on shift-work
Number	..	26	..	54,612	9,578
Percentage of total in trade	100.0	93.0(c)	100.0	98.0(c)	17.0(c)
Percentage of total on returns showing shift work				100.0	17.5

(c) Rounded to avoid disclosure.

Wages and salaries and employers' National Insurance contributions paid during the year
Larger establishments

TABLE 16

	United Kingdom			Great Britain		£'000
	1951	1950	1949	1949(a)	1948	
Wages and salaries (b) of						
Operatives	22,256	20,712	20,720	..	21,166	
Administrative, technical and clerical employees	2,329	2,042	2,001	..	1,869	
Total	24,585	22,754	22,721	..	23,035	
Employers' contributions to all National Insurance Schemes	645	645	663	..	553	

(a) Owing to the risk of disclosure of information relating to individual undertakings in Northern Ireland separate particulars for Great Britain cannot be given.

(b) Including bonus and commission payments.

Plant, machinery and vehicles - acquisitions and disposals,
and capital expenditure on new building work

Larger establishments

TABLE 17

	United Kingdom		Great Britain		£'000
	1951	1949	1949(a)	1948	
Plant, machinery and vehicles					
Acquisitions					
Plant and machinery					
New	342	680	..	456 (b)	
Second-hand	7	1	..	36	
Vehicles					
New	6	5	..	11	
Second-hand	-	-	-	-	
Total acquisitions	356	686	..	503 (b)	
Disposals					
Plant and machinery	21	12	..	19	
Vehicles	-	-	-	1	
Total disposals	22	12	..	20	
New building work					
Capital expenditure on new building and other constructional work of a capital nature (excluding site values and development charges)	105	79	..	64	

(a) Owing to the risk of disclosure of information relating to individual undertakings in Northern Ireland separate particulars for Great Britain cannot be given.

(b) Revised figure.

VEHICLES COUNTRY TABLES
RAILWAY LOCOMOTIVE SHOPS
1951
Summary

Larger establishments

TABLE 18

	England (a)	Wales	Scotland	Great Britain	Northern Ireland(a)	United Kingdom
	£'000	£'000	£'000	£'000	£'000	£'000
Gross output (production)	38,333	1,358	4,903	..	..	44,593
Cost of materials and fuel used	16,044	412	1,592	..	..	18,049
Payment for work done on materials given out	4	-	-	4	-	4
Transport payments	-	-	-	-	-	-
Net output	22,284	946	3,310	..	..	26,540
Wages and salaries of persons employed	20,683	841	3,061	..	..	24,585
	No.	No.	No.	No.	No.	No.
Average number of persons employed	51,819	2,163	7,474	..	..	61,456
	£	£	£	£	£	£
Net output per person employed	430	437	443	..	..	432
	£'000	£'000	£'000	£'000	£'000	£'000
Stocks at end of year						
Finished products and work in progress	3,604	21	218	3,843	-	3,843
Materials and fuel	10,174	112	1,579	11,865	-	11,865
	No.	No.	No.	No.	No.	No.
Number of establishments	233	33	48	..	..	314

The values of gross output and of materials and fuel used are derived in the following way:-

	£'000	£'000	£'000	£'000	£'000	£'000
Output of establishments in this trade						
Total value of sales (or transfers) (see Table 20)	37,931	1,350	4,879	..	..	44,161
Changes in stocks and work in progress (see Table 21)	+ 402	+ 8	+ 23	+ 432	-	+ 432
Gross output (production)	38,333	1,358	4,903	..	..	44,593
Materials and fuel used by establishments in this trade						
Purchases	17,240	441	1,701	..	..	19,381
Changes in stocks (see Table 21)	- 1,196	- 28	- 108	- 1,332	-	- 1,332
Materials and fuel used	16,044	412	1,592	..	..	18,049

(a) Owing to the risk of disclosure of information relating to individual undertakings, particulars for Northern Ireland, where net output was less than 1 per cent. of that of the United Kingdom, cannot be given separately and have been included with those for England.

TABLE 19 - Summary: Small establishments in Great Britain

There were no small establishments (employing on the average ten or fewer persons) in the register for this trade.

(92585/2)

Sales (or transfers) in the trade
Larger establishments

TABLE 20

	England and Wales		Scotland		Great Britain		Northern Ireland		United Kingdom	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
		£'000		£'000		£'000		£'000		£'000
Principal products										
Locomotives										
Complete										
Steam										
Under 40 tons light weight	No. 28 Tons 925	150	-	-	No. 28 Tons 925	150	-	-	No. 28 Tons 925	150
40 tons light weight and over	No. 207 Tons 16,243	3,059	-	-	No. 207 Tons 16,243	3,059	-	-	No. 207 Tons 16,243	3,059
With internal combustion engines										
Electric transmission	No. 20 Tons 960	406	-	-	No. 20 Tons 960	406	-	-	No. 20 Tons 960	406
Electric (including battery types)										
40 tons light weight and over	No. 23 Tons 2,021	659	-	-	No. 23 Tons 2,021	659	-	-	No. 23 Tons 2,021	659
Parts										
Boilers for locomotives	No. 206 Tons 2,618	390	No. 60 Tons 792	90	No. 266 Tons 3,410	480	-	-	No. 266 Tons 3,410	480
Other parts of locomotives	No. 12	24	-	-	No. 12	24	-	-	No. 12	24
Other parts of locomotives	..	1,645	-	-	..	1,645	-	-	..	1,645
Railway signals, mechanical	526 Tons 828	32	-	-	526 Tons 828	32	-	-	526 Tons 828	32
Other manufactures	..	1	-	-	..	1	-	-	..	1
Repair work										
Locomotives										
Steam		24,411 (a)		4,235		..		(a)		28,646
Internal combustion engines with mechanical transmission		7		-		7		-		7
Internal combustion engines with electrical transmission		75		-		75		-		75
Electric (including battery types)		37		-		37		-		37

RAILWAY LOCOMOTIVE SHOPS COUNTRY TABLES

3/L/11

TABLE 20 (contd.)

	England and Wales		Scotland		Great Britain		Northern Ireland		United Kingdom	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	Tons	£'000		£'000	Tons	£'000		£'000	Tons	£'000
Principal products (contd.)										
Repair work (contd.)										
Other repair work		3(a)		-		..		(a)		3
Work done for the trade or on commission		178		-		178		-		178
Total principal products		31,077(a)		4,325		..		(a)		35,401
Other output										
Railway points, switches and crossings	..	359	-	-	..	359	-	-	..	359
Railway chairs	22,862 ..	317 125	-	-	22,862 ..	317 125	-	-	22,862 ..	317 125
Railway carriages, wagons and trucks, and parts thereof	..	248	-	-	..	248	-	-	..	248
Engineering castings	386 ..	25 68	-	-	386 ..	25 68	-	-	386 ..	25 68
Other engineering products	..	112	-	-	..	112	-	-	..	112
Electrical goods and appliances	..	325	-	-	..	325	-	-	..	325
Scrap and waste sold	Th. tons		Th. tons		Th. tons				Th. tons	
Scrap metals										
Iron and steel	153.8	932	23.7	126	177.5	1,058	-	-	177.5	1,058
Brass	2.9	578	0.2	15	3.1	593	-	-	3.1	593
Copper	4.9	932	0.2	38	5.1	970	-	-	5.1	970
Other	..	1,078	..	27	..	1,105	-	-	..	1,105
Other waste products	..	50	..	2	..	53	-	-	..	53
Other goods	..	48	-	-	..	48	-	-	..	48
Work done		3,006(a)		347		..		(a)		3,353
Total		39,282(a)		4,879		..		(a)		44,161

(a) Owing to the risk of disclosure of information relating to individual undertakings particulars for Northern Ireland cannot be given separately and have been included with those for England and Wales.

Stocks of finished products and work in progress,
and stocks of materials and fuel

Larger establishments

TABLE 21

£'000

		England and Wales	Scotland	Great Britain	Northern Ireland	United Kingdom
Finished products	{ at beginning of year	19	-	19	-	19
	{ at end of year	-	-	-	-	-
Work in progress	{ at beginning of year	3,197	194	3,392	-	3,392
	{ at end of year	3,625	218	3,843	-	3,843
Total finished products and work in progress	{ at beginning of year	3,216	194	3,411	-	3,411
	{ at end of year	3,625	218	3,843	-	3,843
Materials and fuel	{ at beginning of year	9,063	1,470	10,533	-	10,533
	{ at end of year	10,287	1,579	11,865	-	11,865

Employment in September

TABLE 22

Larger establishments (a) (b)

(i) Operatives

Number

	England and Wales	Scotland	Great Britain	Northern Ireland	United Kingdom
Males					
Under 18	2,234(c)	296	..	(c)	2,530
All ages	48,683(c)	6,785	..	(c)	55,468
Females					
Under 18	40		40	-	40
All ages	402	19	421	-	421
Total					
Under 18	2,274(c)	296	..	(c)	2,570
All ages	49,085(c)	6,804	..	(c)	55,889

(ii) Administrative, technical and clerical employees

Number

	England and Wales	Scotland	Great Britain	Northern Ireland	United Kingdom
Males					
Under 18	60	8	68	-	68
All ages	3,355(c)	474	..	(c)	3,829
Females					
Under 18	212	15	227	-	227
All ages	1,356	194	1,550	-	1,550
Total					
Under 18	272	23	295	-	295
All ages	4,711(c)	668	..	(c)	5,379

(continued overleaf)

TABLE 22 (contd.)

(iii) Total employees					Number
	England and Wales	Scotland	Great Britain	Northern Ireland	United Kingdom
Males					
Under 18	2,294 (c)	304	..	(c)	2,598
All ages	52,038 (c)	7,259	..	(c)	59,297
Females					
Under 18	252	15	267	-	267
All ages	1,758	213	1,971	-	1,971
Total					
Under 18	2,546 (c)	319	..	(c)	2,865
All ages	53,796 (c)	7,472	..	(c)	61,268

(a) Excluded employees. The number of persons employed at the larger establishments in this trade but not included in the above tables or in any other Census of Production report (employees in Great Britain engaged, for example, in merchanting and in Northern Ireland canteen and welfare workers) are shown in Table 22(iv) below.

(b) Number employed in the week ended September 22, 1951.

(c) Owing to the risk of disclosure of information relating to individual undertakings particulars for Northern Ireland cannot be given separately and have been included with those for England and Wales.

(iv) Excluded employees					Number
	England and Wales	Scotland	Great Britain	Northern Ireland	United Kingdom
Canteen workers					
Males	15	3	18	-	18
Females	229	24	253	-	253
Total	244	27	271	-	271
Other workers					
Males	102	-	102	-	102
Females	96	-	96	-	96
Total	198	-	198	-	198
Total excluded employees	442	27	469	-	469

Average employment

Larger establishments (a)

TABLE 23					Number
	England and Wales (b)	Scotland	Great Britain	Northern Ireland (b)	United Kingdom
Operatives	49,266	6,804	..	..	56,070
Administrative, technical and clerical employees	4,716	670	..	..	5,386
Total	53,982	7,474	..	..	61,456

(a) There were no small establishments (employing on the average ten or fewer persons) in the register for this trade.

(b) Owing to the risk of disclosure of information relating to individual undertakings particulars for Northern Ireland cannot be given separately and have been included with those for England and Wales.

Outworkers. No outworkers were recorded in this trade.

Wages and salaries and employers' National Insurance contributions paid during the year

Larger establishments

TABLE 24

Wages and salaries and employers' National Insurance contributions paid during the year					
Larger establishments					
	England and Wales (a)	Scotland	Great Britain	Northern Ireland (a)	United Kingdom
Wages and salaries (b) of					
Operatives	19,504	2,752	..	..	22,256
Administrative, technical and clerical employees	2,020	309	..	..	2,329
Total	21,524	3,061	..	..	24,585
Employers contributions to all National Insurance Schemes	564	80	..	..	645

(a) Owing to the risk of disclosure of information relating to individual undertakings particulars for Northern Ireland cannot be given separately and have been included with those for England and Wales.

(b) Including bonus and commission payments.

Plant, machinery and vehicles - acquisitions and disposals, and capital expenditure on new building work

Larger establishments

TABLE 25

Plant, machinery and vehicles - acquisitions and disposals, and capital expenditure on new building work					
Larger establishments					
	England and Wales	Scotland	Great Britain	Northern Ireland	United Kingdom
Plant, machinery and vehicles					
Acquisitions					
Plant and machinery					
New	306	36	342	-	342
Second-hand	7	-	7	-	7
Vehicles					
New	6	-	6	-	6
Second-hand	-	-	-	-	-
Total acquisitions	320	36	356	-	356
Disposals					
Plant and machinery					
Vehicles	21	1	21	-	21
Total disposals	21	1	22	-	22
New building work					
Capital expenditure on new building and other constructional work of a capital nature (excluding site values and development charges)	103	2	105	-	105

TABLE 26 - Payments for transport services for finished goods sold and materials and fuel purchased: Larger establishments

No transport payments were recorded for this trade other than those for Other Locomotive Manufacturers.

VEHICLES
RAILWAY LOCOMOTIVE SHOPS AND LOCOMOTIVE MANUFACTURING TRADE

PART B
OTHER LOCOMOTIVE MANUFACTURERS

Summary

Larger establishments (a)

TABLE 1

	Great Britain					
	1951	1950	1949	1948	1937	1935
Gross output (production) (b)	£'000 25,543	£'000 23,367	£'000 22,473	£'000 22,823	£'000 6,919	£'000 4,878
Cost of materials and fuel used (c)	12,979	11,597	10,828	10,852	3,323	2,347
Payment for work done on materials given out	348	519	324	616	8	4
Transport payments (d)	258	..	..	..	..	..
Net output	11,958	11,252	11,322	11,355	3,588	2,527
Wages and salaries of persons employed	8,224	7,656	7,432	7,611	..	..
Average number of persons employed (e)	No. 21,295	No. 21,372	No. 21,033	No. 23,100	No. 17,212	No. 13,931
Net output per person employed (e)	£ 562	£ 526	£ 538	£ 492	£ 208	£ 181
Stocks at end of year	£'000	£'000	£'000	£'000	£'000	£'000
Products on hand for sale and work in progress	10,326	8,880	8,813	9,756	..	..
Materials and fuel	2,763	2,392	2,605	2,456	..	..
Number of establishments	No. 36	No. 37	No. 36	No. 39	No. ..	No. 26

The values of gross output and of materials and fuel used are derived in the following way:-

	£'000	£'000	£'000	£'000	£'000	£'000
Output of firms in this trade (f)	18,668	23,495	21,741	17,244	5,202	4,269
Principal products (g)	5,216			4,354	1,190	576
Other output (h)						
Changes in stocks and work in progress (i)	+ 1,660	+ 74	+ 908	+ 1,384	+ 527(j)	+ 33(j)
Less payment for transport outwards (d)	25,543	23,569	22,649	22,982	6,919	4,878
Gross output (production)	25,543	23,367	22,473	22,823	6,919	4,878
Materials and fuel used by firms in this trade	13,420	11,399	11,053	11,252	3,323	2,347
Purchases	- 441	+ 197	- 225	- 400		
Changes in stocks (i)						
Materials and fuel used	12,979	11,597	10,828	10,852	3,323	2,347

- (a) For small firms' summary see Table 2.
 (b) Gross output for 1951 includes payments to other firms and undertakings and to firms' own separate transport organisations for transport services. For other years payments for transport services outwards on finished goods sold are excluded.
 (c) Amounts paid for delivery services are excluded for 1951 but included for other years.
 (d) Payments to other firms and undertakings and to firms' own separate transport organisations. For 1951 they cover payments for transport of both goods sold and materials and fuel purchased. For other years payments cover only transport outwards of finished goods sold.
 (e) Including working proprietors. For the total numbers of persons employed in this trade see Table 3.
 (f) Total value of sales (1951, 1950, 1949 and 1948) or production for sale (1937 and 1935).
 (g) For details for 1951 and 1948 see Table 8.
 (h) For details for 1951 and 1948 see Table 10.
 (i) For details for 1951 see Table 21.
 (j) Work in progress only.

Summary
Small firms (a)

TABLE 2

	Great Britain			
	1951	1950	1949	1948
Number of returns	5	4	2	2
Average number of persons employed (b)				
Males	24	28	8	13
Females	3	-	1	-
Total	27	28	9(c)	13

(a) Small firms employing on the average ten or fewer persons.

(b) Including working proprietors.

(c) In addition 4 persons were employed by a small firm in Northern Ireland in the trade. No information about small firms was collected in Northern Ireland for 1951 or 1950.

Estimated average employment (a)

All firms

TABLE 3

	Great Britain				Number
	1951	1950	1949	1948	
As returned by firms					
Employing on the average more than ten persons (b)	21,295	21,372	21,033	23,100	
Employing on the average ten or fewer persons (c)	27	28	9(d)	13	
Estimated average employment in firms not making satisfactory returns	21,322	21,400	21,042	23,113	
Average employment in all firms	21,322	21,400	21,042(d)	23,113	

(a) Including working proprietors.

(b) See Tables 13(iv) and 14.

(c) See Table 2.

(d) In addition, 4 persons were employed by a small firm in Northern Ireland.

Analysis by size, 1951

Larger establishments in Great Britain

TABLE 4

Average number employed	Establishments	Gross output	Net output	Persons employed	Remuneration			Net output per person employed
					Operatives	Other employees (a)	Total	
11 - 49	No. 8	£'000 209	£'000 119	No. 170	£'000 56	£'000 15	£'000 70	£ 701
50 - 99	5	485	209	362	92	42	134	577
100 - 199	4	763	373	505	142	59	201	738
200 - 299	3	759	377	707	196	68	264	533
300 - 399	-	-	-	-	-	-	-	-
400 - 499	5	3,630	1,646	2,247	646	226	872	732
500 - 749	4	3,464	1,594	2,453	704	260	964	650
750 and over	7	16,234	7,642	14,851	4,397	1,323	5,720	515
Total	36	25,543	11,958	21,295	6,232	1,992	8,224	562

(a) Administrative, technical and clerical employees.

Analysis by standard region, 1951

Larger establishments in Great Britain

TABLE 5

Region	Estab-lish-ments	Gross output	Net output		Persons employed	Remuneration			Net output per person employed
			Value	Percent- age of total		Operatives	Other employees (a)	Total	
	No.	£'000	£'000		No.	£'000	£'000	£'000	£
England and Scotland									
Northern; and Scotland	7	8,562	3,442	28.8	7,373	2,266	438	2,704	467
East and West Ridings	4	1,554	895	7.5	1,426	379	157	535	628
North Midland	-	-	-	-	-	-	-	-	-
London and South Eastern	3	248	83	0.7	159	40	23	62	523
Eastern; Southern; and South Western	6	5,103	2,788	23.3	4,952	1,187	778	1,964	563
Midland	4	611	269	2.2	600	182	41	223	448
North Western	12	9,466	4,481	37.5	6,785	2,179	556	2,734	660
Total England and Scotland	36	25,543	11,958	100.0	21,295	6,232	1,992	8,224	562
Wales	-	-	-	-	-	-	-	-	-
Great Britain	36	25,543	11,958	100.0	21,295	6,232	1,992	8,224	562

(a) Administrative, technical and clerical employees.

TABLE 6 - Analysis according to specialisation within the trade, 1951

Larger establishments in Great Britain

No specialisation within this trade was distinguished.

TABLE 7 - Total make of intermediate products: Larger establishments in Great Britain

This table is not applicable to the trade.

Sales of the principal products of the trade, including sales of these products by establishments classified to other trades

Larger establishments in Great Britain

TABLE 8

	1951				1948		
	Quantity		Value	Entries	Quantity		Value
	No.	Tons	£'000	No.	No.	Tons	£'000
Locomotives							
Complete (a)							
Steam							
Under 40 tons light weight	107	..	737	8	489	38,821	8,046
40 tons light weight and over	398	34,372	8,723	7			
With internal combustion engines							
Mechanical transmissions							
Under 200 b.h.p.	671	..	1,442	8	853	..	1,771
200 b.h.p. and over	12	434	159	..			
Electric transmission	55	..	1,314	6			
Electric (including battery types) of all weights	70	..	159	..			
Parts							
Boilers for locomotives	227	..	842	11	202	2,722	549
Other parts of locomotives, including power and transmission equipment (b)	..	12,813	3,205	42	..	10,509	1,766
	..	..	979	..	..	..	2,045
Road rollers complete and parts	..	6,023	1,534	23	1,650	8,955	2,442 (c)
	..	..	333	..	..	..	613 (c)
Railway signals, mechanical	..	..	323	7	..	7,085	460 (d)
	..	..	..	..	..	..	457 (d)
Turntables	..	..	50	5	..	914	76 (d)
	..	..	..	..	..	..	11 (d)
Brake gears and automatic couplings	..	..	1,760	7	..	1,060	142 (d)
	..	..	..	..	..	..	814 (d)
Other manufactures	..	..	11	7	..	..	4 (e)
Repair work (f)							
Locomotives							
Steam			354 (g)	33			1,116
Other			42	6			109
Other repair work, and work done for the trade or on commission (f)			192	9			97
Total			22,160	..			20,519
Sales in other trades (see Table 9)			3,492	..			3,275
Principal products of this trade sold by establishments in the trade			18,668	31			17,244

(a) Including complete locomotives exported in parts.

(b) Excluding axles, tyres and wheels.

(c) Including some parts of steam wagons.

(d) So far as recorded separately.

(e) Described as 'Model locomotives (for exhibition, etc. purposes, not toys) and parts thereof, so far as recorded separately'.

(f) Amount charged.

(g) Including repair work to steam locomotives by larger establishments in Northern Ireland classified to other trades.

Sales of principal products of the trade by establishments
classified to other trades

Larger establishments in Great Britain

TABLE 9

	1951			1948	
	Quantity	Value	Entries	Quantity	Value
	No.	£'000	No.		£'000
Locomotives					
Complete					
Steam					
Under 40 tons light weight	352	769	..	..	..
With internal combustion engines					
Mechanical transmissions, under 200 b.h.p.					
Electric transmissions	73	219	..	..	775
Electric (including battery types)					
Under 40 tons light weight					
Parts					
Boilers for locomotives	-	-	-	-	-
Other parts of locomotives, including	Tons	377	19	Tons	1,032
power and transmission equipment (a)	770	400		3,914		630
..					
Road rollers, complete and parts					
Railway signals, mechanical	4,689	1,004	29	7,447	488
Turntables	..	390				..	245
Brake gears and automatic couplings	..	160	..	..	4
Other manufactures	-	-	-	..	4
Repair work (b)					
Steam locomotives		171 (c)	20		79
Other repair work		-	-		22
Total		3,492	..		3,275

(a) Excluding axles, tyres and wheels.

(b) Amount charged.

(c) Including repair work to locomotives by larger establishments in Northern Ireland classified to other trades.

Sales in the trade of other than principal products

Larger establishments in Great Britain

TABLE 10

	1951		1948	
	Quantity	Value	Quantity	Value
	Tons	£'000	Tons	£'000
Railway carriages, wagons and trucks, and parts thereof (a)	416	432	460	116
..	..	352	..	51
Engineering castings	231	31	..	32
Other engineering products	..	134	..	71
Electrical goods and appliances	..	1,739	..	732
Machinery and parts				
Boilers (other than for locomotives) and boiler-house plant	..	881	..	458
Agricultural, mining, road-making and earth moving machinery	..	623	1,791	610
..	..	..	..	123
Other	..	265	3,027	681
..	..	..	..	470
Scrap and waste sold	Th. tons		Th. tons	
Scrap metals				
Iron and steel	23.4	94	24.4	79
..	..	21	..	..
Brass	0.2	33	..	30

(92585/2)

TABLE 10 (contd.)

	1951		1948	
	Quantity	Value	Quantity	Value
Scrap and waste sold (contd.)	Th. tons	£'000	Th. tons	£'000
Scrap metals (contd.)				
Copper	0.2	39	..	18
Other	..	28	..	27
Other waste products	..	1	..	2
Other goods	..	461	..	610
Work done (b)	..	83	..	243
Total		5,216		4,354

(a) Excluding axles, tyres and wheels.

(b) Amount charged.

Production, exports and imports of certain principal products (a)

Note - The particulars shown below are in respect of all locomotive establishments, including railway locomotive shops.

TABLE 11

		Production (b) (c)		Exports (d)		Retained imports (e)	
		No.	£'000	No.	£'000	No.	£'000
Locomotives, complete							
Steam							
Under 40 tons light weight	1951	135	888	50	280	..	..
40 tons light weight and over	1951	605	11,782	300	6,893	..	..
Total	{ 1951	740	12,669	350	7,173	..	..
	{ 1948	689	11,131	280	5,163	-	-
With internal combustion engines							
Mechanical transmissions							
Under 200 b.h.p.	1951	671	1,442	521	781	..	..
200 b.h.p. and over	1951	12	159	4	50	..	..
Total	{ 1951	683	1,601	525	832	..	..
	{ 1948	54	267	27	276	-	-
Electric transmission	1951	75	1,720	49	1,224	..	..
Electric (including battery types)	1951	93	817	48	309	..	..
Total locomotives, complete	{ 1951	1,591	16,808	972	9,537	9	6
	{ 1948	1,649	18,818	1,025	11,017	1	3
	{ 1935	1,090	6,362	450	1,411	9	26
Parts of locomotives							
Boilers	{ 1951	505	1,346	184	660	..	..
	{ 1948	488	1,026	190	480	..	..
Other parts	{ 1951	..	5,976	..	3,857	..	..
	{ 1948	..	4,672	..	2,005	..	..
Total parts of locomotives	{ 1951	..	7,322	..	4,518	..	411
	{ 1948	..	5,698	..	2,485	..	264
	{ 1935	..	4,040	..	653	..	41
Road rollers and parts (a)	{ 1951	..	1,867	..	1,077	..	10
	{ 1948	..	3,055(f)	..	1,891	..	6
	{ 1937	..	529	..	210	..	-

(a) As output recorded in 1937 was largely incomplete, pre-war comparison is made with 1935, except for road rollers exports and imports of which were not recorded separately in 1935. Figures of production (or sales) refer only to larger establishments in the relevant years. All recorded exports from and imports into the United Kingdom are given in the table; the figures, therefore, are not strictly comparable.

(b) Sales (or transfers) in 1951 and 1948 and production in 1937 and 1935.

(c) Including sales, etc. by establishments classified to other trades.

(d) Valued f.o.b.

(e) Valued c.i.f.

(f) Including some parts of steam wagons.

(92585/2)

Usage of certain specified purchased materials, 1951
Larger establishments in Great Britain

TABLE 12

Materials used	Quantity
Iron	Th. tons
Pig iron	7.2
Iron castings, in the rough	5.4
Wrought iron in all firms, except finished parts	
Non-alloy steel	
Ingots, billets, blooms and slabs	9.0
Angles, shapes and sections	3.8
Girders, joists, beams and pillars (not fabricated)	0.2
Bars and rods	10.6
Hoop and strip (including tape)	
Plates and sheets (other than tin-, terne- or black-plates and sheets and electrical sheets)	
1/8 inch thick and over	22.7
Under 1/8 inch thick	1.1
Tubes and fittings	9.5
Wire (single wire)	
Tyres, wheels and axles (railway and tramway)	6.8
Forgings, in the rough (other than drop forgings)	0.7
Drop forgings	0.4
Castings, in the rough	7.5
Alloy steel (including high speed steel)	
Ingots, billets, blooms and slabs	0.2
Bars, rods, angles, shapes, sections, girders, joists, beams and pillars (not fabricated)	0.6
Plates, sheets and strip	-
Forgings, in the rough (other than drop forgings)	0.1
Drop forgings and castings in the rough	0.4
Iron and steel not specified above, except finished parts and scrap	
Non-ferrous metals in all forms, except finished parts and scrap	Th. cwts.
Brass and other copper alloys, including nickel silver but excluding all other nickel alloys	33.6
Copper	30.2
Nickel and nickel alloys, other than nickel silver	0.2
Tin	3.7
Zinc and zinc alloys	1.5
Timber (other than reclaimed), including that used for packing or packing case manufacture but excluding joinery, other fabricated woodwork and purchased packing cases	Th. cu. ft.
Hardwood	21.0
Softwood	249.5

Employment in September
TABLE 13
Larger establishments (a)
(i) Operatives

	Great Britain					
	1951(b)	1950(b)	1949(b)	1948(c)	1937(c)	1935(c)
Males						
Under 18	1,018	1,037	1,040	1,091	2,301	1,628
All ages	15,932	16,400	16,656	18,208	14,492	11,573
Females						
Under 18	35	21	23	37	68	35
All ages	809	644	653	751	320	274
Total						
Under 18	1,053	1,058	1,063	1,128	2,369	1,663
All ages	16,741	17,044	17,309	18,959	14,812	11,847

(ii) Administrative, technical and clerical employees (d)

	Great Britain					
	1951	1950	1949	1948	1937	1935
Males						
Under 18	122	123	112	103	204	127
All ages	3,191	3,163	2,972	3,046	1,821	1,595
Females						
Under 18	214	199	166	183	140	83
All ages	1,185	1,172	1,115	1,091	579	489
Total						
Under 18	336	322	278	286	344	210
All ages	4,376(e)	4,335(e)	4,087(e)	4,137(e)	2,400	2,084

(iii) Total employees

	Great Britain					
	1951	1950	1949	1948	1937	1935
Males						
Under 18	1,140	1,160	1,152	1,194	2,505	1,755
All ages	19,123	19,563	19,628	21,254	16,313	13,168
Females						
Under 18	249	220	189	220	208	118
All ages	1,994	1,816	1,768	1,842	899	763
Total						
Under 18	1,389	1,380	1,341	1,414	2,713	1,873
All ages	21,117(e)	21,379(e)	21,396(e)	23,096(e)	17,212	13,931

(a) Excluded employees. The following persons were employed at the larger establishments in this trade in 1951 but are not included in the above tables or in any other Census of Production report (e.g., employees engaged in merchanting):-

Canteen workers	6 Males	120 Females
Other workers	16 Males	32 Females

(b) In week ended September 22, 1951, September 30, 1950, and September 24, 1949.

(c) Average for the year.

(d) In week ended September 22, 1951, September 30, 1950, September 24, 1949, September 25, 1948, October 16, 1937 and October 12, 1935.

(e) Working proprietors. In addition 1 (1949) and 4 (1948) male working proprietors were engaged in this trade in larger establishments, no working proprietors were recorded for 1951 or 1950. The 1937 and 1935 figures include working proprietors.

VEHICLES

Average employment
Larger establishments (a)

	Great Britain						Number
	1951	1950	1949	1948	1937	1935	
Operatives	17,011	17,110	17,096	18,959	14,812	11,847	
Administrative, technical and clerical employees	4,284	4,262	3,936	4,137 (b)	2,400 (b)	2,084 (b)	
Total	21,295	21,372	21,032	23,096	17,212	13,931	

(a) For employment in small firms (employing on the average ten or fewer persons) see Table 2.

(b) In week ended September 25, 1948, October 16, 1937, and October 12, 1935. The 1937 and 1935 figures include working proprietors.

Outworkers. No outworkers were recorded in this trade.

Shift working, 1951 (a)
Larger establishments in Great Britain

	Total number of man-shifts worked in the week	Total number of shift-hours worked in the week	Number of returns showing the systems stated
Continuous 3 shift systems per 24 hours averaging 8 hours per shift	30	240	1
Continuous 4 shift systems per 24 hours averaging 6 hours per shift	-	-	-
All 2 shift systems	31,155	301,850	5
Other shift systems	-	-	-
Total	31,185	302,090	(b)

(a) Shift working during week ended September 22, 1951.

(b) The number and percentage of returns showing shift working and of operatives on shift work were as follows:-

	Returns		Operatives		
	Total in trade	Showing shift-work	Total in trade	Total on returns showing shift-work	Number employed on shift-work
Number	31	5	16,741	8,023	6,237
Percentage of total in trade	100.0	16.1	100.0	47.9	37.3
Percentage of total on returns showing shift work				100.0	77.7

Wages and salaries and employers' National Insurance contributions paid during the year

	Great Britain				£'000
	1951	1950	1949	1948	
Wages and salaries (a) of					
Operatives	6,232	5,797	5,689	5,909	
Administrative, technical and clerical employees	1,992	1,859	1,743	1,702	
Total	8,224	7,656	7,432	7,611	
Employers' contributions to all National Insurance Schemes	214	217	217	185	

(a) Including bonus and commission payments.

OTHER LOCOMOTIVE MANUFACTURERS

Plant, machinery and vehicles - acquisitions and disposals,
and capital expenditure on new building work
Larger establishments

	Great Britain			£'000
	1951	1949	1948	
Plant, machinery and vehicles				
Acquisitions				
Plant and machinery				
New	482	503	443 (a)	
Second-hand	29	57	67	
Vehicles				
New	34	40	37 (a)	
Second-hand	5	2	3	
Total acquisitions	550	602	550 (a)	
Disposals				
Plant and machinery				
Vehicles	16	15	25	
	7	6	4	
Total disposals	23	21	29	
New building work				
Capital expenditure on new building and other constructional work of a capital nature (excluding site values and development charges)	123	106	90	

(a) Corrected figure.

COUNTRY TABLES
1951

TABLE 18 - Summary: Larger establishments

See Table 1. There were no larger establishments in Wales in the register for this trade. Owing to the risk of disclosure of information relating to individual firms in Scotland separate country particulars cannot be given.

TABLE 19 - Summary: Small firms

See Table 2. There were no small firms in Wales or Scotland in the register for this trade.

Sales in the trade
Larger establishments

	England and Wales		Scotland		Great Britain	
	Quantity	Value	Quantity	Value	Quantity	Value
Principal products		£'000		£'000		£'000
Locomotives						
Complete						
Steam						
40 tons light weight and over	..	(a)	..	(a)	No. 398 Tons 34,372	8,723
Under 40 tons light weight						
With internal combustion engines						
Mechanical transmissions	..	(a)	..	(a)	No. 426	1,410
Under 200 b.h.p.						
200 b.h.p. and over	..	(a)	..	(a)	12 Tons 434	159
Electric transmission						
Electric (including battery types) of all weights	..	(a)	..	(a)	No. 52	1,254

TABLE 20 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Value £'000	Quantity	Value £'000	Quantity	Value £'000
Principal products (contd.)						
Locomotives (contd.)						
Parts						
Boilers for locomotives	..	(a)	..	(a)	227	842
Other parts of locomotives	..	(a)	..	(a)	Tons 12,043	2,827 579
Road rollers, complete and parts						
Railway signals, mechanical	..	846	-	-	..	846
Turntables						
Brake gears and automatic couplings	..	1,600	-	-	..	1,600
Other manufactures	..	11	-	-	..	11
Repair work (b)						
Locomotives						
Steam		(a)		(a)		182
Other		(a)		(a)		42
Other repair work, and work done for the trade or on commission (b)		192		-		192
Total principal products		(a)		(a)		18,668
Other output	Tons				Tons	
Railway carriages, wagons and trucks, and parts thereof	416	432	-	-	416	432
Engineering castings	..	352	-	-	..	352
Other engineering products	231	31	-	-	231	31
Electrical goods and appliances	..	1,739	-	-	..	1,739
Machinery and parts						
Boilers (other than for locomotives) and boiler-house plant	..	881	-	-	..	881
Agricultural, mining, road-making and earth moving machinery	..	623	-	-	..	623
Other	..	(a)	..	(a)	..	265
Scrap and waste sold					Th. tons	
Scrap metals						
Iron and steel	..	(a)	..	(a)	23.4	94
Brass	..	(a)	..	(a)	0.2	21
Copper	..	(a)	..	(a)	0.2	33
Other	..	(a)	..	(a)	..	28
Other waste products	..	1	-	-	..	1
Other goods	..	461	-	-	..	461
Work done (b)		83		-		83
Total		(a)		(a)		23,883

(a) Owing to the risk of disclosure of information relating to individual firms, separate particulars cannot be given.
(b) Amount charged.

Stocks of products on hand for sale and work in progress, and stocks of materials and fuel

Larger establishments

TABLE 21

£'000

		Great Britain (a)
Products on hand for sale and work in progress (b)	at beginning of year	8,666
	at end of year	10,326
Materials and fuel	at beginning of year	2,321
	at end of year	2,763

(a) Owing to the risk of disclosure of information relating to individual firms, separate country particulars cannot be given.
(b) Owing to the risk of disclosure of information relating to individual firms separate particulars for products on hand for sale and work in progress cannot be given.

TABLE 22 - Employment in September; Larger establishments

See Table 13.

TABLE 23 - Average employment: Larger establishments

See Table 14.

TABLE 24 - Wages and salaries and employers' National Insurance contributions paid during the year: Larger establishments

See Table 16.

Plant, machinery and vehicles - acquisitions and disposals, and capital expenditure on new building work

Larger establishments

TABLE 25

£'000

	England and Wales	Scotland	Great Britain
Plant, machinery and vehicles			
Acquisitions			
Plant and machinery			
New	(a)	(a)	482
Second-hand	29	-	29
Vehicles			
New	(a)	(a)	34
Second-hand	5	-	5
Total acquisitions	(a)	(a)	550
Disposals			
Plant and machinery	(a)	(a)	16
Vehicles	7	-	7
Total disposals	(a)	(a)	23
New building work			
Capital expenditure on new building and other constructional work of a capital nature (excluding site values and development charges)	(a)	(a)	123

(a) Owing to the risk of disclosure of information relating to individual firms, separate particulars cannot be given.

Payments for transport services for finished goods
sold and materials and fuel purchased

Larger establishments

	Number
	Great Britain (a)
Amounts paid to other firms and undertakings	255
Amount paid or credited to firms' own separate transport organisations	3
Total	258

(a) Owing to the risk of disclosure of information relating to individual firms, separate country particulars cannot be given.

GENERAL NOTES

The following brief notes refer to Great Britain and, unless otherwise stated, to the census of production for 1951. Reference should be made to the separate booklet in this series entitled 'The Report on the Census of Production for 1951: Introductory Notes' (price 1s.6d. net) for particulars of the minor differences in the Northern Ireland censuses and other details about the census of production.

Trade classification: Establishments are classified to trades according to the nature of their output. Certain products, called principal products, are identified as characteristic of the production of individual trades, the principal products for a given trade being of a similar nature or commonly associated in production. An establishment is classified to a trade if its output of principal products of that trade accounted for a greater proportion of the value of its output than did its output of principal products of any other trade.

The establishment: The basic unit for the collection of information is generally the establishment which in most cases comprises the whole of the premises under the same ownership or management at a particular address (e.g., a factory). Offices, warehouses and other ancillary places of business situated apart from the producing works are included in the return for the works.

Larger establishments and small firms: Larger establishments are those which employed more than 10 persons on the average during the year; small firms are those employing on the average 10 or fewer persons.

Working proprietors are proprietors of businesses other than limited companies, and include members of their families who work in the business without receiving fixed wages or salaries. Any persons working less than half the normal hours are excluded.

Persons employed: Administrative employees include directors other than those paid by fee only, managers, superintendents and works foremen; research, experimental, development, technical and design employees (other than operatives); draughtsmen and tracers; and travellers and office (including works office) employees. Operatives include all other classes of employees, that is, broadly speaking, all manual workers.

All these figures exclude canteen employees and persons engaged in merchandising or any other activity not covered by a firm's return who are shown separately as excluded employees.

Figures for employees include only persons on the pay-roll (that is whose National Insurance cards were held by the firm), whether full-time or part-time employees.

Outworkers, who are shown separately, are persons employed by the firm who work on materials supplied by the firm, but do not work on the premises; operatives directly employed who work out of doors (e.g., maintenance workers) and sub-contractors are not included as outworkers.

Wages and salaries include all overtime payments, bonuses, and commissions, without any deduction for income tax, insurance, contributory pensions, etc. They exclude payments to working proprietors.

Capital expenditure: Expenditure on plant, machinery and vehicles relates to expenditure charged to capital account during the year of return, including transport and installation costs involved. Expenditure on new building work is similarly that charged to capital account during the year.

Materials and fuel: The cost of materials and fuel purchased includes all purchases during the year of materials for use in production and of fuel (including oil, gas, and electricity for all purposes, including heating and lighting); all packing materials, including the full cost of returnable containers when first purchased; workshop materials; office materials; water charges; materials for repairs to firms' own buildings, plant and vehicles when carried out by

their own work people included in the return; and consumable tools and parts for machinery purchased as replacement. Materials, components, etc. which were purchased and re-sold in the same state (that is, merchanted or factored goods) were excluded. For 1951 firms in many trades were required to state the quantities of certain purchased materials used.

Stocks and work in progress: Firms were instructed to give these at income tax value.

Output: Sales means sales during the year of goods made in the establishment covered by the return or made on commission for it, whether produced in the year or not. For all post-war censuses the value of sales was the net selling value, that is, the amount charged to customers, whether on an ex-works or delivered basis, and net of any trade discounts, agents' commissions, allowances for returnable cases, purchase tax, etc. For goods charged on a delivered basis to customers overseas, firms were required to give the f.o.b. value.

Gross output of a trade is the total value of goods made and other work done during the year; this means the value of sales and work done during the year adjusted for changes in the values of stocks.

Net output is the amount left after deducting from the value of gross output the aggregate of the cost of materials and fuel used and the amount paid for work given out and, for 1951, any transport payments included in firms' returns. This represents the value added to materials by the process of production, and constitutes the fund from which wages, salaries, rents, rates and taxes, advertising and other selling expenses and all other similar charges have to be met as well as depreciation and profits.

Customs and Excise Duty paid on materials purchased is included in the cost of materials, but where it is especially important separate figures are shown.

Later reports: Reports will be published later summarising the main census results and giving information about power equipment and fuel consumption.

Disclosure of information: The report has been prepared in conformity with the disclosure provisions of the Statistics of Trade Act, 1947. Figures have been combined with others of a similar nature in certain cases where publication of separate details might disclose the operations of an individual firm.

Symbols used: '.' for 'Not available', '-' for 'Nil or negligible (less than half the final digit shown)'

The figures in the tables have been rounded off to the nearest final digit, and there may be an apparent slight discrepancy between the sums of the constituent items and the totals shown.

Tables 1 to 17 show figures for the United Kingdom (or Great Britain).

Tables 18 to 26 are country tables and give, where practicable, separate details for England and Wales, Scotland and Northern Ireland.

Table 6: Specialist producers refer to those establishments 50 per cent. or more of whose total output by value is accounted for by the groups of products specified.

Table 8 (or 8(i)) shows the total sales of principal products of the trade, and includes therefore the sales of these products returned by establishments whether classified to the trade or to other trades. Those produced by establishments in other trades are shown in Table 9.

Table 10 shows the sales by establishments in the trade of products other than those regarded as principal products of the trade.

Table 20 (or 20(i)) shows sales by establishments in the trade of products, whether principal products or not, and broadly the aggregates here are equal to the corresponding figures in Table 8 (or 8(i)) less those in Table 9, plus those in Table 10.

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