

BOARD OF TRADE

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*The Report on the
Census of Production
for 1954*

Volume 3: Industry L

RAILWAY LOCOMOTIVE SHOPS AND
LOCOMOTIVE MANUFACTURING

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The Report on the Census of Production for 1954

VOLUME 3, INDUSTRY L

RAILWAY LOCOMOTIVE SHOPS AND LOCOMOTIVE MANUFACTURING

THIS REPORT on the Railway Locomotive Shops and Locomotive Manufacturing Industry 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 industry corresponds to minimum list headings 84 and 85 in the Standard Industrial Classification.

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.

Except for Table 1 which covers the whole industry, the tables in the report are in two parts: Part A relates to Railway Locomotive Shops and Part B to Other Locomotive Manufacturers.

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IMPORTANT NOTES and definitions appear on the next page. In interpreting the data in the tables, it is essential to bear these in mind.

The following notes describe terms in general use in the tables of the report. More detailed explanations of the terms used and a description of the scope and method of taking the census are given in the separate booklet entitled 'The Report on the Census of Production for 1954 - Introductory Notes' (price 1s. 6d. net).

Industrial Classification: Establishments are classified to industries according to the nature of their output and, as far as possible, in conformity with the Standard Industrial Classification. Certain products are identified as the principal products of individual industries, the principal products for a given industry being of a similar nature or commonly associated in production. The principle of classification normally followed is that an establishment is classified to an industry if its output of the principal products of that industry accounted for a greater proportion of the value of its output than did its output of the principal products of any other industry.

Specialist producers normally comprise those establishments 50 per cent. or more of whose total output by value is accounted for by the characteristic products of the specialist group.

Intermediate products: For some industries figures are given showing the total quantities made during the year of intermediate products, i.e., products which may be further processed in the establishments in which they are produced.

Larger establishments: The information given in the report relates mainly to 'larger establishments', i.e., establishments of firms employing on the average more than 10 persons. In most cases an establishment comprises the whole of the premises under the same ownership or management at a particular address (e.g., a mine or factory). Offices, warehouses, laboratories and other ancillary places of business situated apart from the producing works are not regarded as separate establishments and are included in the return for the works.

Small firms are those employing on the average 10 or fewer persons.

The estimates for the industry as a whole given in Table 1 are normally obtained by increasing the other items shown in the same proportion as total employment.

Gross output (production) is the total value of goods made and other work done during the year; it is obtained by adjusting the value of sales and work done during the year for changes in the value of stocks of products on hand for sale and work in progress.

Net output is the amount left after deducting from the value of gross output the aggregate of the cost of materials and fuel used, the amount paid for work given out, and, for 1951 and 1954, any transport payments made. 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.

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. The value of sales is the net selling value, i.e., 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.

Materials and fuel: The total cost of materials and fuel purchased includes all purchases during the year of materials for use in production, and of fuel (includ-

ing oil, gas and electricity) for all purposes: packing materials, including the full cost of returnable cases when first purchased; workshop and office materials; water charges; materials for repairs to buildings, plant and vehicles when carried out by firms' own work-people included in their returns; consumable tools; and parts for machinery purchased as replacements. Purchases of goods for merchanting are excluded. The cost of materials and fuel used, given in Table 2, is obtained by adjusting purchases for changes during the year in the value of stocks.

Stocks: Firms were required to give stocks of materials and fuel, products on hand for sale, and work in progress, at income tax values.

Customs and Excise Duty paid on materials purchased is normally included in the cost of materials. Finished goods are similarly valued as they were sold, duty-paid or duty-free. The net amount of any duty paid is deducted in arriving at net output.

Employment: Total employment includes working proprietors, administrative, technical and clerical employees, and operatives, but excludes outworkers, canteen employees and persons engaged in merchanting or any other activity not covered by a firm's return, who are shown separately as excluded employees. Employees are persons on the pay-roll (i.e., persons whose National Insurance cards were held by employers), whether employed full-time or part-time.

Working proprietors are proprietors of businesses other than limited companies, together with members of their families who worked in the business without receiving fixed wages or salaries. Any persons working less than half the normal hours are excluded. For Northern Ireland directors of limited companies (other than those paid by fee only) are also included.

Administrative, technical and clerical employees include directors, other than those paid by fee only (except in Northern Ireland); managers, superintendents and works foremen; research, experimental, development, technical and design employees (other than operatives); draughtsmen and tracers; travellers; and office (including works office) employees.

Operatives include all other classes of employees, i.e., broadly speaking, all manual workers.

Outworkers are persons employed by the firm who work on materials supplied by the firm in their own homes.

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

Capital expenditure includes expenditure on new building work, and on plant, machinery and vehicles, charged to capital account during the year, including any transport and installation costs involved. It includes expenditure in respect of establishments in Great Britain which had not begun production before the end of the year (which has not previously been included in the Census of Production reports for individual industries).

Symbols used:

.. for not available

- for nil or negligible (less than half the final digit shown).

Where figures are rounded, e.g., given to the nearest £ thousand, there may be apparent slight discrepancies between the sums of constituent items and the totals shown. In some cases, figures have been combined with others of a similar nature where publication of separate details might disclose information relating to an individual undertaking.

Industry summary

Estimates for the industry as a whole

TABLE 1

	United Kingdom			Scotland 1954 (a)	Wales 1954
	1948	1951	1954		
	£ million	£ million	£ million	£ million	£ million
Gross output (production)	61.2	70.2	83.6	..	1.72
Net output	36.9	38.5	44.9	..	1.19
Total stocks and work in progress					
At beginning of year	22.3	24.9	32.7	..	0.13
Change during year	+ 4.3	+ 3.9	- 2.0	..	-
Capital expenditure less disposals (b)	1.2	1.1	1.0	..	0.01
Wages and salaries	30.7	32.8	38.2	..	1.05
Total employment (including working proprietors)	Thousands 88.1	Thousands 82.8	Thousands 78.8	Thousands ..	Thousands 2.21

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

(b) Capital expenditure on new building work, plant, machinery and vehicles (including (except in 1948) that incurred in Great Britain for establishments not yet in production), less amounts received for plant, machinery and vehicles disposed of.

PART A

RAILWAY LOCOMOTIVE SHOPS

Summary of returns received

TABLE 2 (A)

	Unit	Great Britain 1948	United Kingdom	
			1951	1954
ESTABLISHMENTS EMPLOYING ON AVERAGE MORE THAN 10 PERSONS				
Number of establishments	No.	355	314	346
Total value of sales and work done	£'000	38,178	44,161	56,307
Products on hand for sale		3,281	3,411	4,274
and work in progress	{ at beginning of year	..	..	..
	{ change during year	+ 61	+ 432	- 28
Gross output (production)		38,239	44,593	56,279
Purchases of materials and fuel		15,065	19,381	22,757
Stocks of materials and fuel	{ at beginning of year	..	..	..
	{ change during year	+ 8,536	+ 10,533	- 15,754
Cost of materials and fuel used		12,645	18,049	23,865
Payment for work done on materials given out		94	4	25
Payment for transport		-	-	-
Net output		25,500	26,540	32,390
Average number of employees	{ operatives	No. 59,753	56,070	55,513
	{ others	.. 5,103 (a)	5,386	5,901
Total employment		64,856	61,456	61,414
Net output per person employed	£	393	432	527
Wages and salaries	{ of operatives	£'000 21,166	22,256	26,736
	{ of others	.. 1,869	2,329	2,966
Capital expenditure				
New building work (b)		64	105	158
Plant and machinery	{ acquisitions (b)	.. 492	349	415
	{ disposals	.. 19	21	8
Vehicles	{ acquisitions (b)	.. 11	6	2
	{ disposals	.. 1	-	-
ESTABLISHMENTS EMPLOYING ON AVERAGE 10 OR FEWER PERSONS				
Number of returns	No.	-	-	-
Total employment, including working proprietors		-	-	-

(a) Number in week ended September 25, 1948.

(b) Excluding expenditure for establishments not yet in production.

Analysis by size, 1954

Larger establishments in the United Kingdom

TABLE 3 (A)

Average number employed	Establishments	Gross output	Net output	Employees		Wages and salaries		Capital expenditure (a)	Net output per person employed
				Operatives	Others	Operatives	Others		
	Number	£'000	£'000	Number	Number	£'000	£'000	£'000	£
11 - 24	108	1,652	989	1,682	171	873	89	1	534
25 - 49	108	3,331	2,022	3,434	358	1,770	189	3	533
50 - 99	65	4,001	2,489	4,147	426	2,112	220	3	544
100 - 199	37	4,385	2,604	4,411	433	2,257	223	9	538
200 - 299	11	2,175	1,359	2,286	239	1,131	122	6	538
400 - 499	2	878	516	888	69	390	38	22	539
500 - 749	3	1,870	1,020	1,791	220	794	116	18	507
1,500 - 1,999	3	4,456	2,866	4,871	488	2,395	271	74	535
2,000 - 2,499	2	4,273	2,458	4,253	381	2,015	186	36	530
2,500 - 2,999	1	2,032	1,323	2,188	313	1,069	167	40	529
3,000 - 3,999	3	10,225	5,570	9,719	895	4,555	444	86	525
4,000 - 4,999	1	4,856	2,275	3,723	537	1,776	253	47	534
5,000 - 7,499	1	5,520	3,015	5,342	603	2,481	286	91	507
7,500 and over	1	6,625	3,883	6,778	768	3,118	363	140	515
Total	346	56,279	32,390	55,513	5,901	26,736	2,966	575	527

(a) Capital expenditure on new building work and on acquisition of plant, machinery and vehicles. Excluding expenditure for establishments not yet in production.

TABLE 4(A) - Analysis according to specialisation within the industry, 1954

Larger establishments in the United Kingdom

No specialisation within this industry was distinguished.

Sales (or transfers) of the principal products of the industry, including sales (or transfers) of these products by establishments classified to other industries

Larger establishments in the United Kingdom

TABLE 5 (A)

	1951			1954			Entries
	Quantity		Value	Quantity		Value	
	No.	Tons	£'000	No.	Tons	£'000	
Locomotives							
Complete							
Steam							
Under 40 tons light weight	28	925	150	6	192	44	..
40 tons light weight and over	207	16,243	3,059	184	14,076	3,530	6
With internal combustion engines							
Electric transmission	20	960	406	52	2,428	1,374	..
Electric (including battery types)							
40 tons light weight and over	23	2,021	659	6	612	229	..
Parts for locomotives							
Boilers	266	3,410	480	144	2,091	408	..
Superheater equipment including elements	12	..	24	713	32	3	..
Other parts of locomotives (a)	..	..	1,792	..	..	4,099	..
Railway signals (mechanical) and parts	526	828	32 (b)	480	776	49	7
	293 (b)	649	..
Other manufactures	1	-	-	-	-

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TABLE 5 (A) (contd.)

	1951		1954		Entries
	Quantity	Value	Quantity	Value	
Repair work		£'000		£'000	Number
Locomotives					
Steam		28,655		35,336	34
Internal combustion engines with mechanical transmission		7		21	..
Internal combustion engines with electric transmission		75		176	9
Electric (including battery type)		37		159	..
Other repair work		3		-	-
Work done for the trade or on commission		178		-	-
Total		35,850		46,077	..
Sales (or transfers) in other industries (see Table 6)		449		1,416	..
Principal products of this industry sold (or transferred) by establishments in the industry		35,401		44,661	29

(a) Excluding axles, tyres and wheels.

(b) Described as railway signals, mechanical.

Sales (or transfers) of principal products of the industry by establishments classified to other industries

Larger establishments in the United Kingdom

TABLE 6 (A)

	1954			Principal industries in which produced (a)
	Quantity	Value	Entries	
Parts of locomotives other than boilers and superheater equipment (b)	..	854	5	3M, 4I
Railway signals (mechanical)	..	438	5	12C
Repairs to locomotives				
Steam		65	5	3M
Internal combustion engines with electric transmission		40	..	
Electric (including battery types)		19	..	
Total		1,416	..	

(a) The volume number and industry references given are to the industries shown in the list at the back of this report.

(b) Excluding axles, tyres and wheels.

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Sales (or transfers) in the industry of other than principal products
Larger establishments in the United Kingdom

TABLE 7 (A)

	1954	
	Quantity	Value
Parts of railway carriages, rail cars, railway wagons and trucks (a)	..	1,396
Electrical railway signalling apparatus and telegraph and telephone parts	..	169
Railway points, switches and crossings	..	483
Laminated springs for locomotives	..	112
Iron castings	Th.tons	
For locomotives	12.9	198
For the permanent way	64.0	983
For carriages and wagons	15.1	232
Other iron castings in the rough or machined	..	77
Castings of brass and other copper alloys in the rough	..	4
Repair work		
Railway carriages, rail cars, railway wagons and trucks	..	248
Other repair work	..	2,582
Other products	..	281
Scrap and waste sold		
Scrap metals		
Iron and steel	127.1	915
Brass	1.7	291
Copper	3.7	829
Other	5.7	1,209
Other waste products	..	73
Work done		910
Total		11,646

(a) Excluding axles, tyres and wheels.

TABLE 8(A) - Total make of intermediate products

Larger establishments in the United Kingdom

This table is not applicable to the industry.

Purchases of materials and fuel, 1954
Larger establishments in the United Kingdom

TABLE 9 (A)

	Quantity	Cost
	Tons	£'000
Materials		
Drop forgings of iron and steel	533	60
Wrought tubes including boiler tubes and fittings for wrought tubes of iron and steel	10,677	936
Iron		
Pig iron	19,834	342
Castings in the rough or machined	26,993	892
Other iron except finished parts	7,413	78
Steel		
Ingots, blooms, billets and slabs	10,114	356
Angles, sections, shapes, bars, rods, girders, beams and joists (not fabricated)	23,458	902
Castings in the rough or machined	3,407	435
Forgings (except drop forgings) in the rough or machined	1,839	170
Tin-, terne- and black-plates and tin- and terne-sheets	117	8
Other plates and sheets 1/8in. thick and over, and hoop and strip (including tape) of all thicknesses	31,283	1,052
Other steel sheets and plates under 1/8in. thick including electrical sheets	1,609	61
Springs, laminated and other types	2,049	226
Axles, tyres and wheels	17,505	1,068
Bolts, rivets, nuts and washers, screws, nails, tacks, etc.	..	321
Non-ferrous metals in all forms except finished parts and scrap		
Brass and other copper alloys, including nickel silver and cupro-nickel, but excluding all other nickel alloys	3,606	871
Copper	6,641	2,153
Tin	268	189
White metal alloys (anti-friction)	1,933	854
Paint and varnish including emulsion paints, cellulose based paints and lacquers	Th.gal.	
	125	104
Timber (including wood for packing cases)	Th.cu.ft.	
Hardwood	15	12
Softwood	76	42
Engine and boiler packing	Tons	
	411	101
Vehicle components and accessories		
Brake gear	..	295
Superheater equipment including elements	..	345
Boilers, boiler mountings and parts not elsewhere specified	..	364

TABLE 9 (A)(contd.)

	Quantity	Cost
		£'000
Materials (contd.)		
Vehicle components and accessories (contd.)		
Diesel engines complete and parts thereof	..	1,249
Ball, roller and needle bearings and parts thereof	..	33
Traction and other electric motors and parts thereof	..	15
Pumps, industrial valves and parts thereof	..	11
Finished plastics components and fittings	..	1
Electric lighting equipment not elsewhere specified	..	372
Other purchased components not elsewhere specified	..	1,092
Replacement parts for establishments own machinery, plant and vehicles	..	685
Consumable tools bought as replacement, including engineers' small tools, jigs, fixtures and measuring instruments	..	241
Unclassified and all other purchased materials	..	5,325
	Th.tons	
Fuel and electricity		
Coal	120	386
Coke	48	246
Liquid fuels (including creosote/pitch mixtures)		
	Th.gal.	
For use in internal combustion engines		
Motor spirit (petrol) for use in road vehicles and derv. fuel	87	16
Other	380	26
For burning in furnaces, boilers, kilns, etc.	1,749	99
	Th.therms	
Gas purchased		
From Gas Boards	2,384	126
From other sources, including other departments of the same establishments	2,184	119
	Th.kWh.	
Electricity purchased		
From Electricity Boards	67,988	413
From other sources, including other departments of the same establishments	8,831	53
Total cost		22,757

Average number of employees and wages, salaries and superannuation payments (a)
Larger establishments in the United Kingdom

TABLE 10 (A)

	1951	1954
	Number	Number
Average number of employees		
Operatives	56,070	55,513
Administrative, technical and clerical employees	5,386	5,901
Total	61,456	61,414
Wages and salaries paid to	£'000	£'000
Operatives	22,256	26,736
Administrative, technical and clerical employees	2,329	2,966
Total	24,585	29,702
Wages and salaries per head	£	£
Operatives	397	482
Administrative, technical and clerical employees	432	503
Superannuation and other pension funds for employees and dependents (b)		£'000
Employers contributions	..	311
Employees covered	..	Number 60,572
Pension, etc. payments to former employees and dependents (b)	..	£'000 -

(a) The following persons, not included above, were also employed by larger establishments in this industry ('other workers' includes, for example, employees engaged in merchanting):

	1951	1954
	Number	Number
Canteen workers		
Male	18	11
Female	253	274
Total	271	285
Other workers		
Male	102	39
Female	96	44
Total	198	83
Total excluded employees	469	368

(b) The figures given relate to larger establishments in Great Britain only.

Employment in a specified week (a)
Larger establishments in the United Kingdom

TABLE 11 (A)

	1951			1954		
	Males	Females	Total	Males	Females	Total
Working proprietors	-	-	-	-	-	-
Operatives	55,468	421	55,889	54,935	407	55,342
Administrative, technical and clerical employees	3,829	1,550	5,379	4,308	1,602	5,910
Total employees	59,297	1,971	61,268	59,243	2,009	61,252

(a) Week ended September 22, 1951, or October 30, 1954.

OTHER LOCOMOTIVE MANUFACTURERS

Summary of returns received

TABLE 2 (B)

	Unit	Great Britain 1948	United Kingdom	
			1951	1954
FIRMS EMPLOYING ON AVERAGE MORE THAN 10 PERSONS				
Number of establishments	No.	39	36	31
Total value of sales and work done	£'000	21,598	23,883	28,053
Products on hand for sale	"	8,372	8,666	10,326
and work in progress	"	+ 1,384	+ 1,660	- 808
Gross output (production) (a)	"	22,823	25,543	27,245
Purchases of materials and fuel	"	11,252	13,420	13,321
Stocks of materials and fuel	"	+ 2,056	+ 2,321	2,372
at beginning of year	"	400	441	18
change during year	"	10,852	12,979	13,339
Cost of materials and fuel used	"	616	348	1,161
Payment for work done on materials given out	"	158	258	231
Payment for transport (b)	"	11,355	11,958	12,514
Net output	"	18,959	17,011	14,055
Average number of employees	No.	4,137(c)	4,284	3,317
operatives	"	23,100(d)	21,295	17,372
others	"	492(d)	562	720
Total employment	£	5,909	6,232	6,578
Net output per person employed	"	1,702	1,992	1,873
Wages and salaries	£'000	90	123	33
of operatives	"	510	511	433
of others	"	25	16	18
Capital expenditure	"	40	39	31
New building work (e)	"	4	7	8
Plant and machinery	"			
acquisitions (e)	"			
disposals	"			
Vehicles	"			
acquisitions (e)	"			
disposals	"			
FIRMS EMPLOYING ON AVERAGE 10 OR FEWER PERSONS				
Number of returns	No.	2	5(f)	4
Total employment, including working proprietors	"	13	27(f)	23

- (a) For the year 1948 gross output excludes payments for transport services outwards on finished goods sold. For subsequent years gross output includes payments to other firms and undertakings and to firms' own separate transport organisations for transport services.
- (b) Payments to other firms and undertakings and to firms' own separate transport organisations. For the year 1948 payments cover only transport outwards of finished goods sold. For subsequent years they cover payments for transport of both finished goods sold and materials and fuel purchased.
- (c) Number in week ended September 25, 1948.
- (d) Including working proprietors.
- (e) Excluding expenditure for establishments not yet in production.
- (f) Excluding Northern Ireland. No information about small firms was collected in Northern Ireland for 1951.

Analysis by size, 1954

Larger establishments in the United Kingdom

TABLE 3 (B)

Average number employed	Estab-lish-ments	Gross output	Net output	Employees		Wages and salaries		Capital expenditure (a)	Net output per person employed
				Operatives	Others	Operatives	Others		
	Number	£'000	£'000	Number	Number	£'000	£'000	£'000	£
11 - 99	10	573	249	289	71	128	41	7	692
100 - 199	4	998	498	521	115	223	74	46	479
200 - 399	4	1,668	916	986	231	441	117	42	753
400 - 499	3	2,200	1,290	1,035	316	471	161	60	955
500 - 749	4	4,199	1,852	1,833	571	883	315	88	771
750 and over	6	17,606	7,708	9,391	2,013	4,432	1,165	254	676
Total	31	27,245	12,514	14,055	3,317	6,578	1,873	497	720

(a) Capital expenditure on new building work and on acquisition of plant, machinery and vehicles. Excluding expenditure for establishments not yet in production.

TABLE 4(B) - Analysis according to specialisation within the industry, 1954

Larger establishments in the United Kingdom

No specialisation within this industry was distinguished.

Sales of the principal products of the industry, including sales of these products by establishments classified to other industries

Larger establishments in the United Kingdom

TABLE 5 (B)

	1951			1954			Entries
	Quantity		Value	Quantity		Value	
	No.	Tons	£'000	No.	Tons	£'000	
Locomotives							
Complete (a)							
Steam							
Under 40 tons light weight	107	..	737	..	2,290	650	7
40 tons light weight and over	398	34,372	8,723	344	..	11,607	11
With internal combustion engines							
Mechanical transmission							
Under 200 b.h.p.	671	..	1,442	..	2,227	981	7
200 b.h.p. and over	12	434	159	35	1,323	636	..
Electric transmission	55	..	1,314	..	..	2,628	..
Electric (including battery type)							
Under 40 tons light weight	70	..	159	..	..	61	..
40 tons light weight and over				..	..	1,180	..
Parts of locomotives							
Boilers	227	..	842	..	3,184	991	12
Superheater equipment including elements	..	12,813	3,205	..	..	877	5
Other parts of locomotives (b)	..	..	979	..	16,652	4,691	35
				..	..	2,435	
Road rollers, complete and parts	..	6,023	1,534	..	..	2,804	25
Railway signals (mechanical)	..	..	333	..	..	..	..
Turntables	..	..	50	..	3,342	632(c)	12
Brake gears and automatic couplings	..	..	1,760	..	..	1,916	
Other manufactures	..	..	11	..	..	..	..
Repair work (d)							
Steam locomotives			354(e)			256	12
Other locomotives			42			94	10
Other repair work			192			14	..
Work done for the trade or on commission (d)						234	8
Total			22,160			32,687	..
Sales in other industries (see Table 6)			3,492			6,671	..
Principal products of this industry sold by establishments in the industry			18,668			26,016	29

(a) Includes complete locomotives exported in parts.

(b) Excluding axles, tyres and wheels.

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

(d) Amount charged.

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

OTHER LOCOMOTIVE MANUFACTURERS
Sales of principal products of the industry by establishments
classified to other industries
Larger establishments in the United Kingdom

TABLE 6 (B)

	1954			Principal industries in which produced (a)
	Quantity	Value	Entries	
Locomotives, complete, including steam, internal combustion and electric	Tons	£'000	Number	
	..	1,333	8	3M, 4I, 4K
Parts of locomotives (b)	5,752	1,273	14	3B, 4I, 5E
	..	304		
Road rollers, complete and parts; mechanical railway signals; turntables and brake gears	..	3,667	28	4I, 4K, 5E
Repairs to internal combustion locomotives and work done for the trade or on commission (c)		94	..	
		6,671	..	

(a) The volume number and industry references given are to the industries shown in the list at the back of this report.

(b) Excluding axles, tyres and wheels.

(c) Amount charged.

Sales in the industry of other than principal products
Larger establishments in the United Kingdom

TABLE 7 (B)

	1954	
	Quantity	Value
		£'000
Parts of railway carriages, rail cars, railway wagons and trucks (a)	..	181
Engineering castings and forgings	..	140
Machinery and parts		
Agricultural, mining, roadmaking and earth moving machinery		
Complete machines	..	467
Parts	..	131
Other	..	486
Other engineering products	..	328
Scrap and waste sold		
Scrap metals		
Iron and steel	..	119
Brass	..	81
Copper	..	20
Other	..	7
Other waste products	..	2
Work done (b)	..	75
Total		2,037

(a) Excluding axles, tyres and wheels.

(b) Amount charged.

TABLE 8(B) - Total make of intermediate products
Larger establishments in the United Kingdom

This table is not applicable to the industry.

OTHER LOCOMOTIVE MANUFACTURERS
Purchases of materials and fuel, 1954
Larger establishments in the United Kingdom

TABLE 9 (B)

	Quantity	Cost
	Tons	£'000
Materials		
Drop forgings of iron or steel	315	39
Wrought tubes including boiler tubes and fittings for wrought tubes of iron or steel	2,598	313
Iron		
Pig iron	4,904	111
Castings in the rough or machined	..	238
Other iron except finished parts	984	24
Steel		
Ingots, blooms, billets and slabs	9,947	367
Angles, sections, shapes, bars, rods, girders, beams and joists (not fabricated)	10,561	444
Castings in the rough or machined	5,567	967
Forgings (except drop forgings) in the rough or machined	649	76
Tin-, terne- and black-plates and tin- and terne-sheets	55	3
Other plates and sheets 1/8in. thick and over, and hoop and strip (including tape) of all thicknesses	24,634	916
Other steel sheets and plates under 1/8in. thick including electrical sheets	1,287	52
Springs, laminated and other types	980	139
Axles, tyres and wheels	..	31
Bolts, rivets, nuts and washers, screws, nails, tacks, etc.	7,587	710
Non-ferrous metals in all forms except finished parts and scrap	..	135
Brass and other copper alloys, including nickel silver and cupro-nickel, but excluding all other nickel alloys	1,129	301
Copper	..	115
Tin	55	39
White metal alloys (anti friction)	25	12
Paint and varnish including emulsion paints, cellulose based paints and lacquers	Th.gal. 36.6	41
Timber (including wood for packing cases)	..	5
Hardwood	..	25
Softwood	129	85
Vehicle components and accessories	..	15
Brake gear	..	289
Superheater equipment including elements	..	241

TABLE 9(B) (contd.)

	Quantity	Cost
		£'000
Materials (contd.)		
Vehicle components and accessories (contd.)		
Boilers, boiler mountings and parts not elsewhere specified	..	49
Diesel engines complete and parts thereof	..	1,041
Ball, roller and needle bearings and parts thereof	..	231
Pumps, industrial valves and parts thereof	..	24
Electric lighting equipment not elsewhere specified	..	170
Other purchased components not elsewhere specified including traction and other electric motors and parts	..	3,060
Replacement parts for firms machinery, plant and vehicles	..	396
Consumable tools bought as replacement, including engineers small tools, jigs, fixtures and measuring instruments	..	191
Unclassified and all other purchased materials	..	1,233
	Th.tons	
Fuel and electricity		
Coal	46	180
Coke	16	93
	Th.gal.	
Liquid fuels (including creosote/pitch mixtures)		
For use in internal combustion engines	..	25
For burning in furnaces, boilers, kilns, etc.	3,180	125
	Th.therms	
Gas purchased		
From Gas Boards and other sources, including other departments of the same firm	2,173	94
	Th.kWh.	
Electricity purchased		
From Electricity Boards and other sources, including other departments of the same firm	46,619	227
Total cost		13,321

Average number of employees and wages, salaries and superannuation payments (a)

Larger establishments in the United Kingdom

TABLE 10(B)

	1951	1954
	Number	Number
Average number of employees		
Operatives	17,011	14,055
Administrative, technical and clerical employees	4,284	3,317
Total	21,295	17,372
Wages and salaries paid to	£'000	£'000
Operatives	6,232	6,578
Administrative, technical and clerical employees	1,992	1,873
Total	8,224	8,451
Wages and salaries per head	£	£
Operatives	366	468
Administrative, technical and clerical employees	465	565
Superannuation and other pension funds for employees and dependents		£'000
Employers' contributions	..	93
Employees covered	..	Number 3,584
Pension, etc. payments to former employees and dependents	..	£'000 16

(a) The following persons, not included above were also employed by larger establishments in this industry ('other workers' includes, for example, employees engaged in merchanting):

	1951	1954
	Number	Number
Canteen workers		
Male	6	5
Female	120	99
Total	126	104
Other workers		
Male	16	26
Female	32	33
Total	48	59
Total excluded employees	174	163

Employment in a specified week (a)

Larger establishments in the United Kingdom

TABLE 11(B)

Number

	1951			1954		
	Males	Females	Total	Males	Females	Total
Working proprietors	-	-	-	-	-	-
Operatives	15,932	809	16,741	13,579	320	13,899
Administrative, technical and clerical employees	3,191	1,185	4,376	2,377	945	3,322
Total employees	19,123	1,994	21,117	15,956	1,265	17,221

(a) Week ended September 22, 1951, or October 30, 1954.

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