

THE SHIPBUILDING TRADE (Private firms)

Note.—For information regarding the scope of the Census, instructions given to firms for making returns, and definitions of the terms used in this report, reference should be made to the Introductory Notes on pages v to xviii.

Introductory

This trade comprises private firms that were engaged wholly or mainly in the construction or repair of ships, boats, etc. Work of the same kind done at Government dockyards and by railway companies and canal, dock and harbour authorities is not included in this report, but is dealt with in a separate volume.

The particulars given in the following pages relate to work carried out in shipbuilding and ship-repairing yards, and do not cover the marine engineering shops maintained by shipbuilding firms. Separate returns in respect of these shops were made on the schedule for the Mechanical Engineering Trade, and the information received is included in the report on that trade in the section relating to Marine Engineering (see page 240). A table showing, in summary form, the output of marine machinery by shipbuilding firms is, for convenience of reference, given later in the present report (page 318).

The following table shows the main results of the Censuses of 1930 and 1924 in respect of firms in Great Britain that employed an average of more than ten persons :—

Particulars	Unit	1930	1924
Value of products and work done (Gross output) ...	£'000	57,299	51,001
Cost of materials used	"	30,019	28,243
Paid for work given out to other firms	"	1,360	
Net output	"	25,920	22,758
Average number of persons employed	No.	123,571	134,321
Net output per person employed	£	210	169
Power available :—			
Prime movers	H.P.	28,284	34,587
Electric motors driven by purchased electricity	"	276,450	301,467
Number of returns	No.	401	493
Number of establishments	"	456	*

* Not available.

Deficiencies in 1930 aggregates.—The aggregate number of persons employed in 1930 by firms that stated that they employed not more than ten persons on the average was 2,379, the corresponding figure for 1924 being 1,740. The value of the gross output of the small firms in 1924 was £399,000, and particulars of the items included in this figure are given below:—

	£'000
Ships, boats, etc., wholly constructed in the year:—	
Motor vessels	21
Sailing vessels	17
Other vessels	41
Work of new construction on ships, boats, etc., not wholly constructed in the year:—	
Steam vessels and motor vessels	2
Sailing vessels	6
Other vessels	4
Repair work on	
Steam vessels	76
Motor vessels	10
Sailing vessels	66
Other vessels	85
Vessels, not separately distinguished	13
Other goods made	49
Other work done	9
TOTAL	399

In addition, 62 firms to which schedules were sent at the 1930 Census and about 75 at that of 1924 furnished no information; these firms either had small businesses or had ceased productive operations before the end of the censal year.

Size of firms.—In the following table the main particulars recorded at the Census of 1930 are grouped according to the average numbers of persons shown in the returns:—

Size of firm (average numbers employed)	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed
	No.	£'000	£'000	No.	£
11-24 ...	86	442	252	1,480	170
25-49 ...	70	786	435	2,463	177
50-99 ...	73	1,801	1,044	5,369	194
100-199 ...	50	2,420	1,428	7,259	197
200-299 ...	28	2,663	1,637	6,659	246
300-399 ...	18	2,574	1,228	6,159	199
400-499 ...	14	2,787	1,453	6,360	228
500-749 ...	23	7,092	3,070	14,156	217
750-999 ...	8	4,155	1,419	6,892	206
1,000-1,499 ...	8	4,788	1,962	9,629	204
1,500 and over ...	23	27,791	11,992	57,145	210
TOTAL ...	401	57,299	25,920	123,571	210

Regional distribution.—In the following table the results recorded at the Censuses of 1930 and 1924 are grouped according to the areas* into which Great Britain has been sub-divided:—

Area	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed	
	No.	£'000	£'000	No.	£	
1 ...	1930	61	3,648	2,185	9,124	239
	1924	68	4,238	2,554	13,799	185
2 ...	1930	48	5,609	3,115	17,105	182
	1924	55	5,711	2,663	15,214	175
3 ...	1930	6	476	181	888	204
	1924	6	183	80	570	140
4 ...	1930	59	19,080	7,041	36,223	194
	1924	64	15,939	5,996	37,190	161
5 ...	1930	6	55	21	183	116
	1924	6	25	15	111	135
6 ...	1930	111	5,930	3,450	17,431	198
	1924	132	5,545	3,241	18,004	180
7 ...	1930	19	1,333	977	4,364	224
	1924	35	1,656	1,218	5,645	216
8 ...	1930	7	162	89	481	186
	1924	11	188	98	568	173
9 ...	1930	57	18,737	7,670	31,844	241
	1924	73	15,301	5,849	35,978	163
10 ...	1930	27	2,269	1,191	5,928	201
	1924	43	2,215	1,044	7,242	144
TOTAL	1930	401	57,299	25,920	123,571	210
	1924	493	51,001	22,758	134,321	169

Northern Ireland.—The following table summarises the particulars recorded at the Census of Production taken by the Government of Northern Ireland for 1930, together with those furnished at the 1924 Census. The 1930 figures relate to firms that employed an average of more than five persons, while those for 1924 relate to all firms.

Particulars	Unit	1930	1924
Value of products and work done (Gross output)...	£'000	5,425	3,271
Cost of materials used and amount paid for work given out to other firms	"	3,792	1,817
Net output	"	1,633	1,454
Average number of persons employed	No.	9,882	7,546
Net output per person employed	£	165	193
Power available:—			
Prime movers	H.P.	8,323	10,095
Electric motors driven by purchased electricity	"	38,634	28,954

* For particulars see page xviii.

Detailed particulars of the items included in the gross output values shown in the above table are given below:—

Nature of output	1930	1924
	Value £'000	Value £'000
Ships, boats, etc., wholly constructed in the year:—		
Steam vessels	138 (3) (4,498)	275 (3) (13,710)
Motor vessels	155 (3) (6,185)	— — —
Other vessels	4	—
TOTAL—Ships, boats, etc., wholly constructed in the year	297	275
Work of new construction on ships, boats, etc., not wholly constructed in the year:—		
Steam vessels	1,242	1,281
Motor vessels	3,393	1,078
Other vessels	215	3
TOTAL—Work of new construction on ships, boats, etc., not wholly constructed in the year	4,850	2,362
Repair work on		
War vessels	—	17
Steam vessels	138	564
Motor vessels	22	19
Other vessels	10	—
TOTAL—Repair work on ships, boats, etc.	170	600
Other goods made	7	1
Other work done	101	33
TOTAL VALUE OF PRODUCTS AND WORK DONE	5,425	3,271

Production

The schedule for the Shipbuilding Trade was divided at both Censuses into three sections dealing respectively with (a) vessels wholly constructed during the year of return, (b) new construction work on vessels not wholly constructed during the year, and (c) repair work. These three sections are, for convenience, considered separately in the following paragraphs.

Ships, boats, etc., wholly constructed in the year.—The following table shows, for 1930 and 1924, the value and, where available, the number and tonnage of ships, boats, etc., wholly constructed in the year of return, whether sold in that year or not. The particulars of value are inclusive of machinery and fittings purchased from other firms or supplied by other departments of the shipbuilding firms, and also of the value of all work such as the manufacture of machinery, etc. given out to sub-contract. Boats forming part of a ship's equipment are included in the value of

the ship and are not shown separately. The figures for both years are inclusive of the output returned on schedules for other trades.

Kind of vessels	1930				1924		
	Number	Gross tonnage	Value	Entries	Number	Gross tonnage	Value
War vessels	6	Tons 10,596*	£'000 1,278	No. 4	†	†	†
Steam vessels	235 5 ‡	345,122 ‡ ‡	8,500 33 16	57 2 2	176 2 ‡	247,639 ‡ ‡	5,041 3 4
Motor vessels:—							
Exceeding 50 tons gross	40 8 ‡	97,745 ‡ ‡	2,851 50 4	25 2 1	} 127 \$ 78 \$	21,059 \$	525 \$
Not exceeding 50 tons gross	230 25 273	1,816 ‡ 1,185	214 17 126	35 9 19		‡	‡	39
Sailing vessels¶	350 672 ‡	‡ 23,736 ‡	59 555 64	9 43 18	523 23 ‡	19,740 ‡ 7,141	296 4 164
Other vessels	912 ‡	‡ ‡	47 47	11	1,446 ‡	‡ ‡	99 8
TOTAL ... ..	...	...	13,814	...	...	...	6,234

* Displacement tonnage.

† Included with motor vessels.

‡ Not stated.

§ Including very small amounts in respect of war motor vessels.

¶ Described as "Sailing vessels and barges (other than war vessels)" for 1924.

|| Including £11,000 returned on 5 schedules for other trades.

Average values.—The average selling values per ton of the various kinds of ships, boats, etc., wholly constructed in 1930 and 1924, as calculated from the Census returns, are shown in the following table. It should be borne in mind that the vessels included under the specified descriptions may vary considerably in type and in the materials used in their construction, and that variations of this kind between the two census years are not accounted for in the values shown. This fact, together with the somewhat different scope of the heading in the two years (see footnote to preceding table), may account for the wide variations in the average value per ton shown for "Sailing vessels."

Kind of vessels	Average value		1930 as a percentage of 1924
	1930	1924	
Steam vessels	£ per ton gross 24.6	£ per ton gross 20.4	Per cent. 120.6
Motor vessels:—			
Exceeding 50 tons gross	29.2	} 30.8	24.8
Not exceeding 50 tons gross	117.6		
Sailing vessels	106.6	15.0	710.7
Other vessels	23.4	23.0	101.7

Work of new construction done on ships, boats, etc. not wholly constructed in the year.—The following table gives, for 1930 and 1924, the estimated value of all new constructional work carried out in the year of return on vessels not wholly constructed in the year. Amounts returned on schedules for other trades are included in the table.

Kind of vessels	1930		1924
	Value	Entries	Value
	£'000	No.	£'000
War vessels	2,756	12	553
Steam vessels	10,779	71	21,524
Motor vessels :—			
Exceeding 50 tons gross	9,408	47	} 5,262
Not exceeding 50 tons gross	2,565*	31	
Sailing vessels†	30	10	184
Other vessels (including floating docks)	1,267	36	266‡
TOTAL	26,805	...	27,789

* Including £1,000 returned on 6 schedules for other trades.
 † Described as "Sailing vessels and barges (other than war vessels)" for 1924.
 ‡ Including the value of floating docks, stages and other structural work wholly constructed in the year and of repair work to floating docks. The total value of all work done on these structures in 1924 was £217,000 but the corresponding figure for 1930 is not available for publication.

In addition to the constructional work detailed in the foregoing tables, a total amount of £227,000 (30 entries) was recorded in respect of *ships' and boats' fittings* (blocks, masts, spars, oars, etc.) made in 1930. Of this sum, £112,000 (15 entries) was recorded on schedules other than that for the Shipbuilding Trade. The corresponding total for 1924 was £348,000.

Repair work done on ships, boats, etc.—The value of repair work carried out on vessels of all kinds in 1930 and 1924, as returned on schedules for all trades, is shown in the following table :—

Kind of vessels	1930		1924
	Value	Entries	Value
	£'000	No.	£'000
War vessels	9	13	} 14,958
Steam vessels	12,575*	233	
Motor vessels :—			
Exceeding 50 tons gross	1,017	95	} 339
Not exceeding 50 tons gross	128	65	
Sailing vessels†	166	62	577
Other vessels	500	112	241
Unspecified vessels	854‡	38	196
TOTAL	15,249	...	16,311

* Including £45,000 returned on 4 schedules for other trades.
 † Described as "Sailing vessels and barges (other than war vessels)" for 1924.
 ‡ Including £12,000 returned on 3 schedules for other trades.

An aggregate amount of £693,000 (38 entries) was also returned for 1930 as received for *painting, plumbing and other work done on ships*: of this total, £91,000 (12 entries) was recorded on schedules for other trades. This kind of work was not separately distinguished in 1924.

Summary of production.—The particulars dealt with in the preceding paragraphs of this report are summarised below :—

Kind of output	1930	1924
	Value	Value
	£'000	£'000
Vessels wholly constructed in the year	13,814	6,234
New constructional work on vessels not wholly constructed in the year	26,805	27,789
Repair work	15,249	} 16,311
Painting, plumbing and other work done on ships	693	
Ships' and boats' fittings	227	348
TOTAL	56,788	50,682

Volume of production in 1930 and 1924.—The following table compares the volume of production (including repair work) in the Shipbuilding Trade in Great Britain in 1930 and 1924. For the purpose of revaluing the 1924 figures the price relationships shown in the table on page 315 have been used for all work of new construction and for repair work. The calculation for war vessels has been made on the same basis as that for motor vessels.

Kind of output	Total production			1930 as a percentage of 1924
	1930	1924		
	As returned	As returned	At 1930 average values	Per cent.
	£'000	£'000	£'000	
New construction :—				
War vessels	4,034	553	687	587
Steam vessels	19,328	26,572	32,046	60
Motor vessels	15,109	5,877	7,299	207
Sailing vessels and other vessels	2,148	1,021	2,865	75
Repair work on :—				
War vessels and steam vessels ...	12,584	14,958	18,050	70
Motor vessels	1,145	339	421	272
Sailing vessels and other vessels	666	818	1,308	63
Unspecified vessels	854	196	241*	§
Ships' and boats' fittings	227	348	435†	52
Painting, plumbing and other work done on ships	693	‡	—	—
TOTAL	56,788	50,682	63,352	90

* Based on the aggregates of the preceding three items.
 § This figure would have no significance.
 † Based on average values of all preceding items.
 ‡ Not recorded separately.

Exports and imports.—The absence both of complete particulars of number and tonnage of ships, boats, etc., wholly constructed in the year, and of information regarding vessels commenced in years prior to the censal years and finished in those years renders impracticable any comparison of production with overseas trade. The following table shows the number and gross tonnage of vessels exported from the United Kingdom in 1930 and 1924, together with corresponding particulars of vessels imported and retained. The export figures include all new ships and boats built in the United Kingdom and sold to owners abroad, if not registered in the United Kingdom, or if so registered only for the purpose of delivery or transfer abroad. Old vessels sold to owners abroad are not included.

Ships and boats (new), complete	Exports		Retained imports	
	Number	Gross tonnage	Number	Gross tonnage
War vessels { 1930 1924	8	5,331*	—	—
Steam vessels 1930	131	287,450	—	—
Motor vessels :—				
Exceeding 50 tons gross... 1930	69	354,918	—	—
Not exceeding 50 tons gross 1930	169	1,092	21	48
TOTAL—Steam and motor vessels { 1930 1924	369	643,460	21	48
150	151,114	8	78	
Sailing vessels { 1930 1924	83	259	2	7
28	76	20	99	
Other vessels { 1930 1924	678	12,103	221	8,856
588	10,282	199	6,945	

* Displacement tonnage.

Production of marine machinery by shipbuilding firms.—As explained on page 311, shipbuilding firms that maintained their own marine engineering shops furnished separate returns at both Censuses on schedules for the Mechanical Engineering Trade. The following table shows, in summary form, the output of marine machinery and parts thereof made in these shops in 1930 and 1924. It should be understood that this output is accounted for in the aggregates for the Mechanical Engineering Trade and does not form part of the output of the Shipbuilding Trade as defined for purposes of the present report. The figures for both years relate to firms in Great Britain only.

Marine machinery	1930		1924	
	Quantity	Value	Quantity	Value
	No. of sets	£'000	No. of sets	£'000
Engines :—				
Steam reciprocating	{ Complete 199	2,008	204	2,295
	{ Replacement parts 31	31	...	8
Steam turbine	{ Complete 88	3,689	24	1,262
	{ Replacement parts 31	31	...	8
Internal combustion	{ Complete 513	5,068	1,059	1,887
	{ Replacement parts 207	207	...	28
	Number		Number	
Boilers	{ Complete 391	1,260	429	1,057
	{ Replacement parts 8	8	...	4
Other marine machinery	{ Complete 973	973	...	505
	{ Replacement parts 152	152	...	40
TOTAL ... ..	...	13,427	...	7,094

Other products.—In addition to the building of ships, boats, etc., and the manufacture of ships' fittings, the following output was recorded for 1930 and 1924 by firms that made their returns on schedules for the Shipbuilding Trade, and is dealt with in the reports on those trades in which such output was principally recorded.

Kind of output	1930	1924
	Value	Value
	£'000	£'000
Machinery and plant	32	16
Other iron and steel manufactures	42	127
Building and contracting work and constructional engineering	163	*
Other goods made	191	36
TOTAL	428	179

* Not separately recorded.

Other work done.—Apart from the constructional, repair and other work done on ships which is detailed in the preceding paragraphs, firms that made returns on schedules for the Shipbuilding Trade stated that they received a total of £355,000 for other kinds of work done in 1930, the corresponding figure for 1924 being £338,000.

Employment and Wages

Employment.--The following table shows the average numbers of persons employed in 1930 and 1924 :—

Persons employed	Males		Females		Total	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
1930						
Operatives (average for the year)	12,766	114,399	99	836	12,865	115,235
Administrative, technical and clerical staff (as at 18th October)	694	7,141	135	1,195	829	8,336
TOTAL	13,460	121,540	234	2,031	13,694	123,571
1924						
Operatives (average for the year)	12,834	123,676	107	793	12,941	124,469
Administrative, technical and clerical staff (as at 18th October)	792	8,430	136	1,422	928	9,852
TOTAL	13,626	132,106	243	2,215	13,869	134,321

Wages.--The available information as to the amount of wages paid in 1930 and 1924 is given on pages 212-3.

Power

The following table shows the capacity of prime movers, electric generators and electric motors ordinarily in use and in reserve or idle in 1930 and 1924 :—

Power equipment	1930			1924		
	Ordinarily in use	In reserve or idle	Total	Ordinarily in use	In reserve or idle	Total
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
PRIME MOVERS						
Reciprocating steam engines	6,342	2,191	8,533	11,148	5,335	16,483
Steam turbines	10,030	—	10,030	3,660	—	3,660
Internal combustion engines :—						
Gas	3,636	1,557	5,193	6,666	4,337	11,003
Petrol, kerosene or other light oils	913	447	1,360	909	1,211	2,120
Heavy oils	3,073	35	3,108	731	590	1,321
Water engines	60	—	60	—	—	—
TOTAL	24,054	4,230	28,284	23,114	11,473	34,587

Power equipment	1930			1924		
	Ordinarily in use	In reserve or idle	Total	Ordinarily in use	In reserve or idle	Total
	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
ELECTRIC GENERATORS						
Driven by						
Reciprocating steam engines	932	1,062	1,994	1,304	2,359	3,663
Steam turbines	7,000	—	7,000	2,500	—	2,500
Internal combustion engines :—						
Gas	1,420	820	2,240	2,301	2,489	4,790
Petrol, kerosene or other light oils	226	150	376	32	681	713
Heavy oils	1,121	17	1,138	408	465	873
TOTAL	10,699	2,049	12,748	6,545	5,994	12,539
ELECTRIC MOTORS						
Driven by	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Electricity generated in same works	32,557	489	33,046	16,589	1,067	17,656
Electricity generated in other works under same ownership	1,604	1,091	2,695	—	—	—
Purchased electricity	245,059	31,391	276,450	232,435	69,032	301,467
TOTAL	279,220	32,971	312,191	249,024	70,099	319,123

Consumption of fuel

The following table shows the quantities of coal, coke and electricity recorded as used in 1930 :—

Kind of fuel used	For power (driving engines)	For other purposes (so far as recorded)	For power and other purposes, not separately distinguished
	Tons	Tons	Tons
Coal	38,536	118,108*	338
Coke	1,072	45,233*	79
Electricity used for all purposes :—			B.T.U. (Kw.-hrs.) '000
Generated in same works			16,628
Generated in other works under same ownership			4,276
Purchased			95,767
TOTAL—Electricity			116,671

* These figures were recorded by firms representing 95.0 per cent. of the net output of the whole trade.

TABLES
I. Summary of results

Particulars	Unit	England and Wales	Scotland	Great Britain
Value of products and work done (Gross output)	£'000	36,293	21,006	57,299
Cost of materials used	"	17,924	12,095	30,019
Paid for work given out to other firms... ..	"	1,310	50	1,360
Net output	"	17,059	8,861	25,920
Average number of persons employed... ..	No.	85,799	37,772	123,571
Net output per person employed	£	199	235	210
Power available :—				
Prime movers	H.P.	26,505	1,779	28,284
Electric motors driven by purchased electricity	"	168,512	107,938	276,450

II. Production

Nature of output	Unit	England and Wales	Scotland	Great Britain
<i>Ships and boats wholly constructed in the year :—</i>				
War vessels	Number	2	4	6
	Displacement			
	tonnage	173	10,423	10,596
	£'000	14	1,264	1,278
	Number	164	71	235
Steam vessels	Gross tonnage	229,988	115,134	345,122
	£'000	4,695	3,805	8,500
	Number	2	3	5
	£'000	4	29	33
	£'000	6	10	16
Motor vessels :—				
	Number	28	12	40
	Gross tonnage			
Exceeding 50 tons gross ...	Number and tonnage stated ...	73,974	23,771	97,745
	£'000	2,026	825	2,851
	Number	3	5	8
	£'000	*	50	50
	£'000	4	—	4
	Number	182	48	230
Not exceeding 50 tons gross ...	Number and tonnage stated ...	1,361	455	1,816
	£'000	179	35	214
	Number	24	1	25
	£'000	17	*	17
	Number	43	225	273
Sailing vessels ...	Gross tonnage	833	347	1,185
	£'000	84	42	126
	Number	50	300	350
	£'000	10	49	59

Nature of output	Unit	England and Wales	Scotland	Great Britain
<i>Ships and boats wholly constructed in the year—cont. :—</i>				
	Number	607	65	672
	Gross tonnage	17,274	6,462	23,736
	£'000	296	259	555
Other vessels	Number	345	67	912
	£'000	59	5	64
	£'000	32	4	36
Total value of ships and boats wholly constructed in year of return ...	£'000	7,426	6,377	13,803
<i>Work of new construction done in the year on ships and boats not wholly constructed in the year :—</i>				
War vessels	£'000	2,286	470	2,756
Steam vessels	"	4,507	6,272	10,779
Motor vessels :—				
Exceeding 50 tons gross	"	3,795	5,613	9,408
Not exceeding 50 tons gross	"	2,562	2	2,564
Sailing vessels	"	†	†	30
Other vessels (including floating docks)	"	†	†	1,267
Total value of new construction work done on ships, boats, etc.	£'000	14,058	12,746	26,804
<i>Repair work done on ships, boats, etc. :—</i>				
War vessels	£'000	4	5	9
Steam vessels	"	11,150	1,380	12,530
Motor vessels :—				
Exceeding 50 tons gross	"	910	107	1,017
Not exceeding 50 tons gross	"	95	33	128
Sailing vessels	"	160	6	166
Other vessels	"	462	38	500
Vessels not separately distinguished... ..	"	779	63	842
Total value of repair work done on ships, boats, etc.	£'000	13,560	1,632	15,192
<i>Other goods made :—</i>				
Ships' and boats' fittings (blocks, masts, spars, oars, etc.)	£'000	87	28	115
Machinery and plant	"	28	4	32
Other iron and steel manufactures	"	39	3	42
Building and contracting and constructional engineering	"	151	12	163
Other goods	"	172	19	191
<i>Other work done :—</i>				
Painting, plumbing and other work on ships	"	501	101	602
Repair work other than on ships	"	150	33	183
Other work	"	121	51	172
TOTAL VALUE OF PRODUCTS AND WORK DONE (GROSS OUTPUT) ...	£'000	36,293	21,006	57,299

* Less than £500.

† Owing to the possible disclosure of information relating to individual firms, separate figures for England and Wales and for Scotland cannot be given.

III. Employment

A.—NUMBERS EMPLOYED IN WEEK ENDED 18TH OCTOBER, 1930

Persons employed	Males		Females		Males and females	
	Under 18	All ages	Under 18	All ages	Under 18	All ages
	<i>England and Wales :—</i>					
Operatives	8,031	70,966	20	375	8,051	71,341
Administrative, etc.*	449	4,996	87	721	536	5,717
TOTAL	8,480	75,962	107	1,096	8,587	77,058
<i>Scotland :—</i>						
Operatives	3,503	32,386	69	380	3,572	32,766
Administrative, etc.*	245	2,145	48	474	293	2,619
TOTAL	3,748	34,531	117	854	3,865	35,385
<i>Great Britain :—</i>						
Operatives	11,534	103,352	89	755	11,623	104,107
Administrative, etc.*	694	7,141	135	1,195	829	8,336
TOTAL	12,228	110,493	224	1,950	12,452	112,443

* Administrative, technical and clerical staff.

B.—OPERATIVES EMPLOYED IN ONE WEEK IN EACH MONTH OF 1930

Week ended	Males and females			Week ended	Males and females		
	England and Wales	Scotland	Great Britain		England and Wales	Scotland	Great Britain
Jan. 18 ...	91,746	37,025	128,771	July 19 ...	82,657	35,379	118,036
Feb. 15 ...	87,798	36,310	124,108	Aug. 16...	77,573	34,540	112,113
Mar. 15 ...	85,835	36,918	122,753	Sept. 13...	74,055	33,389	107,444
Apl. 12 ...	85,758	39,208	124,966	Oct. 18 ...	71,341	32,766	104,107
May 17 ...	84,175	37,295	121,470	Nov. 15...	71,001	32,165	103,166
June 21 ...	79,772	34,782	114,554	Dec. 13 ...	69,271	32,063	101,334
AVERAGE FOR THE 12 MONTHS ... ..	...	...	...	...	80,082	35,153	115,235

IV. Power

PARTICULARS OF PRIME MOVERS, ELECTRIC GENERATORS AND ELECTRIC MOTORS

Power equipment	England and Wales		Scotland		Great Britain	
	Ordinarily in use	In reserve or idle	Ordinarily in use	In reserve or idle	Ordinarily in use	In reserve or idle
PRIME MOVERS						
Reciprocating steam engines	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Steam turbines	5,061	2,154	1,281	37	6,342	2,191
Internal combustion engines :—						
Gas	3,504	1,557	132	—	3,636	1,557
Petrol, kerosene or other light oils ...	756	349	157	98	913	447
Heavy oils	3,034	—	39	35	3,073	35
Water engines	60	—	—	—	60	—
TOTAL	22,445	4,060	1,609	170	24,054	4,230
TOTAL OF PRIME MOVERS INSTALLED	26,505		1,779		28,284	
ELECTRIC GENERATORS						
Driven by	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines	529	1,062	403	—	932	1,062
Steam turbines	7,000	—	—	—	7,000	—
Internal combustion engines :—						
Gas	1,410	820	10	—	1,420	820
Petrol, kerosene or other light oils ...	196	110	30	40	226	150
Heavy oils	1,115	—	6	17	1,121	17
TOTAL	10,250	1,992	449	57	10,699	2,049
TOTAL OF ELECTRIC GENERATORS INSTALLED	12,242		506		12,748	
ELECTRIC MOTORS						
Driven by	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Electricity generated in same works ...	32,278	439	279	50	32,557	489
Electricity generated in other works under same ownership	51	—	1,553	1,091	1,604	1,091
Purchased electricity	152,282	16,230	92,777	15,161	245,059	31,391
TOTAL	184,611	16,669	94,609	16,302	279,220	32,971
TOTAL OF ELECTRIC MOTORS INSTALLED	201,280		110,911		312,191	

V. Consumption of fuel

Kind of fuel used	England and Wales	Scotland	Great Britain
	Tons	Tons	Tons
Coal used for power*	35,191	3,345	38,536
Coke used for power*	1,072	—	1,072
	B.T.U. (Kw.-hrs.) '000	B.T.U. (Kw.-hrs.) '000	B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—			
Generated in same works	16,596	32	16,628
Generated in other works under same ownership	3,883	393	4,276
Purchased	54,781	40,986	95,767
TOTAL—Electricity ...	75,260	41,411	116,671

* In addition, 338 tons of coal and 79 tons of coke (all in England and Wales) were recorded as used for power and for other purposes, not separately distinguished.