

THE RUBBER TRADE

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 firms that were engaged wholly or mainly in the manufacture of rubber goods. 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 goods made and work done (Gross output)	£'000	28,868	23,834
Cost of materials used	"	14,359	12,142
Paid for work given out to other firms	"	20	*
Net output	"	14,489	11,692
Average number of persons employed	No.	52,165	47,496
Net output per person employed	£	278	246
Power available :—			
Prime movers	H.P.	46,101	51,211
Electric motors driven by purchased electricity	"	130,203	58,924
Number of returns	No.	163	201
Number of establishments	"	179	†

* Not ascertained.

† 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 1,203, the corresponding figure for 1924 being 591.* The value of the gross output of the small firms in 1924 was £190,000,* and particulars of the items included in this figure are given below :—

Rubber compounds and solutions	£'000	37
		(338 tons)
Overcoats, mackintoshes, and other proofed garments		12
Other goods made		78
Repairs and work done for the trade		63
TOTAL		190*

In addition, 29 firms to which schedules were sent at the 1930 Census and 70 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.

* These figures include particulars of the few firms in Northern Ireland for which separate information is not available for publication.

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 ...	27	231	120	492	244
25-49 ...	32	668	260	1,105	235
50-99 ...	31	988	508	2,127	239
100-199 ...	26	1,766	893	3,814	234
200-299 ...	13	1,245	621	3,057	203
300-399 ...	4	461	214	1,448	148
400-499 ...	6	1,063	448	2,685	167
500-749 ...	10	2,694	1,559	5,837	267
750-1,499 ...	6	5,171	2,236	6,381	350
1,500 and over ...	8	14,581	7,630	25,219	303
TOTAL ...	163	28,868	14,489	52,165	278

Regional distribution.—In the following table the results recorded at the Censuses of 1930 and 1924 are grouped according to the principal areas* of Great Britain in which firms in this trade are situated:—

Area	Number of returns	Gross output	Net output	Average number of persons employed	Net output per person employed	
	No.	£'000	£'000	No.	£	
1 ...	1930	51	4,325	2,252	9,206	245
	1924	60	2,971	1,667	8,366	199
2 ...	1930	56	6,972	3,547	15,589	228
	1924	80	6,756	3,142	14,226	221
9 ...	1930	10	2,111	959	3,174	302
	1924	12	1,162	422	2,222	190
10 ...	1930	6	1,443	782	5,913	132
	1924	7	1,978	1,019	5,297	192
Other areas	1930	40	14,017	6,949	18,283	380
	1924	42	10,967	5,442	17,385	313
TOTAL	1930	163	28,868	14,489	52,165	278
	1924	201	23,834	11,692	47,496	246

Northern Ireland.—No production of rubber goods was recorded for Northern Ireland in 1930. In order to avoid the disclosure of information relating to individual firms, particulars of the small output in 1924 are included in those relating to the small firms on page 219.

* For particulars see page xviii.

Production

The total quantity of *rubber in sheets, thread, etc.*, produced in 1930 was recorded as 87,301 tons (60 entries); the corresponding total for 1924 was 43,270 tons. These figures represent rubber prepared from imported rubber or latex and include such rubber used for further manufacturing purposes in the works in which it was made. Of the total output in 1930, 84,080 tons were used by manufacturers themselves in the production of more finished goods and the remainder (3,221 tons) was sold or added to stock; in 1924, 39,510 tons were used in the manufacturers' own works and 3,760 tons were sold or added to stock.

The total output of *reclaimed rubber* in 1930 was recorded as 13,894 tons (19 entries), of which 6,844 tons were used for further manufacturing purposes by the firms that produced it and the remaining 7,050 tons were sold or added to stock. Corresponding information for 1924 is not available.

Goods made for sale.—The following table shows the value and, where available, the quantity of the principal classes of rubber products made in 1930 and 1924 for sale:—

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Rubber Trade			All trades				
Quan- tity	Value	Ent- ries	Quan- tity	Value	Ent- ries	Quan- tity	Value	
	Tons	£'000	No.	Tons	£'000	No.	Tons	£'000
Rubber in sheets, threads, etc. ...	3,221	763	31	3,221	763	31	3,760	973
Reclaimed rubber ...	7,050	264	7	7,050	264	7	* 237†	
Rubber tyres and tubes:—								
Pneumatic:—								
Outer covers—	Thous.			Thous.			Thous.	
Motor car ...	5,198	11,165	20	5,198	11,165	20	1,927	4,913
Motor cycle and tri-car ...	862	637	12	862	637	12	634	617
Cycle ...	6,798	928	10	6,798	928	10	5,932	1,291
Not separately distinguished...	—	—	—	—	—	—	35	28
TOTAL—Outer covers	12,858	12,730	...	12,858	12,730	...	8,528	6,849
Inner tubes—								
Motor car ...	4,210	1,322	19	4,210	1,322	19	7,489	1,218
Motor cycle and tri-car ...	627	97	13	627	97	13		
Cycle ...	5,578	280	11	5,578	280	11		
TOTAL—Inner tubes	10,415	1,699	...	10,415	1,699	...	7,489	1,218
Solid tyres:—								
For motor cars, motor cycles and tri-cars ...	233	1,137	8	233	1,137	8	412	2,128
For other vehicles...	163	108	9	163	108	9	*	300
Not separately dis- tinguished ...	†	144	11	†	144	11	†	39
TOTAL—Solid tyres...	...	1,389	...	...	1,389	...	...	2,467

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Rubber Trade			All trades				
	Quan- tity	Value	Ent- ries	Quan- tity	Value	Ent- ries	Quan- tity	Value
Rubber accessories for motor vehicles and cycles, not elsewhere specified ... ..	...	£'000	No.	...	£'000	No.	...	£'000
...	559	36	...	559	36	...	347	
Th. doz.			Th. doz.			Th. doz.		
Rubber boots	103	312	6	106	317	9	988	1,263
Rubber shoes, overshoes and goloshes	732	761	12	796	855	14		
Tons				Tons			Tons	
Rubber heels and soles	5,043	840	32	5,043	840	32	3,699	817
Th. yds.				Th. yds.			Th. yds.	
Hose, of rubber or of rubber and other materials, armoured or not... ..	6,193	442	22	6,193	442	22	5,270	722
†	248	8	†	248	8	†		
Rubber valves, washers and rings for industrial purposes (sold separately), not included elsewhere ... ..	...	342	32	...	346	35	...	525φ
Th. sq.			Th. sq.					
Sheeting of rubber and rubberproof cloth of which the chief value is rubber	4,571	371	22	4,571	371	22		
†	76	3	†	76	3	†	*	1,101
Waterproof piece-goods	1,555	136	7	1,555	136	7		
†	279		†	279		†		
Overalls and aprons, wholly or mainly of rubber ... ..	...	15	8	...	15	8	§	§
Th. doz.			Th. doz.					
Rubber gloves	22	26	14	22	26	14	§	§
Hot water and air goods, medical, surgical and dental appliances ... ..	...	519	26	...	519	26	...	650
Machinery belting :—	Tons			Tons			Tons	
Balata	868	389	6	1,385	558	12	1,820	696
Rubber and canvas... ..	2,645	554	17	2,750	594	20	†	225
Vulcanite and ebonite in rods, tubes, sheets, etc., not elsewhere specified	2,259	450	21	2,259	450	21	*	912||
Mats, matting and tiling of rubber	3,282	371	39	3,282	371	39	*	137¶
Toys, wholly or mainly of rubber (excluding balls) ... ..	...	67	4	...	67	4	...	45
Rubber compounds and solutions	1,310	104	29	1,310	104	29	1,347	144
†	24	5	†	30	7			
Mechanical rubber goods, not included elsewhere	1,782	384	21	1,782	384	21		
†	133	13	†	134	14		4,000	1,163
Miscellaneous rubber products ... ..	...	1,327	62	...	1,354	70	†	310
TOTAL—PRINCIPAL PRODUCTS... ..	...	25,574	...	...	25,920	...	...	20,801

* Not ascertained.

† Including waste rubber.

‡ Quantity not stated.

φ So far as recorded separately.

§ Not separately recorded.

|| "Vulcanite and ebonite and articles thereof."

¶ "Rubber flooring."

Prices.—The average selling values of certain manufactures of rubber in 1930 and 1924, as calculated from the Census returns, are shown in the following table. It should be borne in mind that these comparisons do not take account of any changes that may have occurred since the earlier year in the quality or type of goods included under the specified descriptions.

Kind of goods	Average value		1930 as a percentage of 1924
	1930	1924	
Rubber in sheets, threads, etc. ...	£ per ton	£ per ton	Per cent.
	236·8	258·9	91·5
Rubber tyres and tubes :—	£ each	£ each	
Pneumatic :—			
Outer covers :—			
Motor car	2·15	2·55	84·3
Motor cycle and tri-car	0·74	0·97	76·3
s. each		s. each	
Cycle	2·73	4·35	62·8
Inner tubes :—			
Motor car	6·28	3·25	100·0
Motor cycle and tri-car	3·09		
Cycle	1·00		
Solid tyres :—	£ each	£ each	
For motor cars, motor cycles and tri-cars	4·88	5·17	94·4
£ per doz.		£ per doz.	
prs.		prs.	
Rubber boots	2·99	1·30	101·6
Rubber shoes, overshoes and goloshes	1·07		
£ per ton		£ per ton	
Rubber heels and soles	166·6	220·8	75·5
s. per yd.		s. per yd.	
Hose, of rubber or of rubber and other materials, armoured or not	1·43	2·74	52·2
£ per ton		£ per ton	
Machinery belting :—			
Balata	403·1	278·8	382·3
Rubber and canvas... ..	216·2		
Rubber compounds and solutions	78·90	106·6	74·0

Volume of production in 1930 and 1924.—The following table compares the volume of production of rubber manufactures in 1930 and 1924 :—

Kind of goods	Total production			1930 as a percentage of 1924
	1930	1924		
	As returned	As returned	At 1930 average values	
	£'000	£'000	£'000	Per cent.
Rubber in sheets, threads, etc. ...	763	973	890	86
Rubber tyres and tubes :—				
Pneumatic :—				
Outer covers :—				
Motor car	11,165	4,913	4,142	270
Motor cycle and tri-car ...	637	617	471	135
Cycle... ..	928	1,291	811	114
Not separately distinguished	—	28	22*	—
TOTAL—Outer covers ...	12,730	6,849	5,446	234
Inner tubes	1,699	1,218	1,218	139
Solid tyres :—				
For motor cars, motor cycles and tri-cars	1,137	2,128	2,009	57
For other vehicles	252	339§	320†	79
Rubber boots, shoes, overshoes and goloshes	1,172	1,263	1,283	91
Rubber heels and soles	840	817	617	136
Hose, of rubber or of rubber and other materials, armoured or not	690	722	377	183
Machinery belting of balata and rubber and canvas	1,152	921	671	175
Rubber compounds and solutions...	134	144	107	125
Other rubber goods	5,351	5,427	4,420‡	121
TOTAL	25,920	20,801	17,358	149

* Based on average value of all outer covers.

§ Including some unclassified tyres.

† Based on average value of solid tyres for motor cars, motor cycles and tri-cars.

‡ Based mainly on average value of preceding items.

Production, exports and imports.—The following table shows, in relation to production, the quantities of the principal classes of rubber goods exported from the United Kingdom in 1930 and 1924, together with the quantities imported and retained. The figures for 1924 include the output of the small firms and of the few firms in Northern Ireland.

Kind of goods	Production	Exports	Proportion of production exported	Retained imports	Available for use in the United Kingdom	Share of home market held by British products
	Tons	Tons	Per cent.	Tons	Tons	Per cent.
	Thous.	Thous.		Thous.	Thous.	
Rubber in sheets, threads, etc. ...	87,301	968	1.1	432	86,765	99.5
{ 1930	43,270	564	1.3	275	42,981	99.4
{ 1924						
Pneumatic tyres :—						
Outer covers :—						
Motor car	5,198	1,386*	26.7	96*	3,908	97.5
{ 1924	1,927	550	28.5	843	2,220	62.0
Motor cycle	862	124*	14.4	25*	763	96.7
and tri-car	634	161	25.4	20	493	95.9
{ 1930	6,798	2,238*	32.9	861*	5,421	84.1
Cycle	5,932	1,623	27.4	724	5,033	85.6
{ 1924						
TOTAL—Outer covers ...	12,858	3,748*	29.1	982*	10,092	90.3
{ 1924	8,528†	2,334	27.4	1,587	7,781	79.6
Inner tubes :—						
Motor car	4,210	1,187*	28.2	31*	3,054	99.0
Motor cycle	627	123*	19.6	17*	521	96.7
and tri-car	5,578	1,575*	28.2	1,118*	5,121	78.2
Cycle						
TOTAL—Inner tubes ...	10,415	2,885*	27.7	1,166*	8,696	86.6
{ 1924	7,489	1,935	25.8	2,039	7,593	73.1
Solid tyres for						
motor cars,	233	17	7.3	11	227	95.2
motor cycles,	419‡	62	14.8	72	429‡	83.2
and tri-cars						
{ 1930						
{ 1924						
Rubber boots and shoes	902	255	28.3	1,220	1,867	34.7
{ 1924	991	259	26.1	225	957	76.5
Rubber heels and soles	5,043	148	3.0	3,131	8,026	61.0
{ 1924	3,720	262	7.0	93	3,551	97.4

* Other than tyres or tubes exported or imported with complete vehicles or chassis as part of their equipment or fitted to wheels.

† Including 35,000 unclassified covers.

‡ Including an estimate in respect of the proportion of tyres not separately distinguished.

Imported rubber tyres for motor vehicles became liable to a Customs duty at the rate of 33½ per cent. *ad valorem* in April, 1927, and this duty was in force throughout the year 1930.

Other products.—In addition to the output shown in the table of principal products on pages 221-2, the following goods were produced in 1930 and 1924 by firms that made their returns on schedules for the Rubber Trade. These goods are dealt with in the reports on those trades in which the principal output was recorded.

Kind of goods	1930	1924
	£'000	£'000
Mackintoshes, oilskins and other proofed garments :—		
Rubber proofed... ..	677	1,959
Other descriptions	88	
Rubber balls :—		
Golf balls	535	1,052
Tennis balls	298	
Other rubber balls	81	
Other goods	519	275
TOTAL	2,198	3,286

Waste products sold.—The sum of £13,000 was recorded in 1930 for waste rubber sold by firms that made their returns on schedules for the Rubber Trade. Corresponding particulars for 1924 are not available, waste rubber being included with reclaimed rubber (see page 221).

Work done for the trade or on commission and repair work.—The total amount recorded as received for work done for the trade in 1930 was £1,083,000; the corresponding total for 1924 was £502,000, the latter figure being inclusive of £23,000 returned on schedules for other trades. The principal kinds of work included in these totals were as follows :—

Kind of work done	1930	1924
	£'000	£'000
Work done for the trade or on commission :—		
Waterproofing	995	472
Other work	59	10
Repairs to rubber, etc., goods	29	20
TOTAL	1,083	502

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)	3,013	26,663	4,220	16,657	7,233	43,320
Administrative, technical and clerical staff (as at 18th October)	618	6,037	471	2,808	1,089	8,845
TOTAL	3,631	32,700	4,691	19,465	8,322	52,165
1924						
Operatives (average for the year)	2,171	22,215	4,238	18,038	6,409	40,253
Administrative, technical and clerical staff (as at 18th October)	506	4,939	336	2,304	842	7,243
TOTAL	2,677	27,154	4,574	20,342	7,251	47,496

Wages.—The available information as to the amount of wages paid in 1930 and 1924 is given on pages 210 and 211.

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
PRIME MOVERS	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Reciprocating steam engines	14,759	2,540	17,299	23,809	5,188	28,997
Steam turbines	14,630	11,530	26,160	17,512	2,681	20,193
Internal combustion engines :—						
Gas	991	170	1,161	1,626	357	1,983
Petrol, kerosene, or other light oils	7	—	7	—	8	8
Heavy oils	1,094	300	1,394	—	—	—
Water engines	80	—	80	30	—	30
TOTAL	31,561	14,540	46,101	42,977	8,234	51,211

Power equipment	1930			1924		
	Ordinarily in use	In reserve or idle	Total	Ordinarily in use	In reserve or idle	Total
ELECTRIC GENERATORS	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by						
Reciprocating steam engines	2,095	1,351	3,446	5,161	1,617	6,778
Steam turbines	9,875	7,750	17,625	12,944	2,000	14,944
Internal combustion engines :—						
Gas	75	70	145	120	38	158
Petrol, kerosene, or other light oils	—	—	—	—	4	4
Heavy oils	669	200	869	—	—	—
Water engines	44	—	44	—	—	—
TOTAL	12,758	9,371	22,129	18,225	3,659	21,884
ELECTRIC MOTORS	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by						
Electricity generated in same works	28,588	779	29,367	33,286	3,209	36,495
Purchased electricity	121,660	8,543	130,203	55,073	4,377	59,450
TOTAL	150,248	9,322	159,570	88,359	7,586	95,945

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	90,249	281,774*	6,550
Coke	1,806	3,921*	5
			B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—			
Generated in same works			23,725
Purchased			148,482
TOTAL—Electricity			172,207

* These figures were recorded by firms representing 93·9 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 goods made and work done (Gross output)	£'000	25,314	3,554	28,868
Cost of materials used	"	12,547	1,812	14,359
Paid for work given out to other firms... ..	"	19	1	20
Net output	"	12,748	1,741	14,489
Average number of persons employed... ..	No.	43,078	9,087	52,165
Net output per person employed	£	296	192	278
Power available :—				
Prime movers	H.P.	44,543	1,558	46,101
Electric motors driven by purchased electricity	"	111,787	18,416	130,203

II. Production

A.—TOTAL MAKE OF RUBBER AS RETURNED ON SCHEDULES FOR THE RUBBER TRADE

Kind of goods	England and Wales	Scotland	Great Britain
	Tons	Tons	Tons
Rubber in sheets, threads, etc.	81,138	6,163	87,301
Reclaimed rubber	*	*	13,894

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

B.—OUTPUT SOLD OR ADDED TO STOCK AND WORK DONE

Kind of goods made and work done	Unit	England and Wales	Scotland	Great Britain
Rubber in sheets, threads, etc....	Tons	2,711	510	3,221
	£'000	714	49	763
Reclaimed rubber	Tons	*	*	7,050
	£'000	*	*	264
Rubber tyres and tubes :—				
Pneumatic :—				
Outer covers :—				
Motor car	Thous. £'000	*	*	5,198
	£'000	*	*	11,165
Motor cycle and tri-car ...	Thous. £'000	*	*	862
	£'000	*	*	637
Cycle	Thous. £'000	*	*	6,798
	£'000	*	*	928
Inner tubes :—				
Motor car	Thous. £'000	*	*	4,210
	£'000	*	*	1,322
Motor cycle and tri-car ...	Thous. £'000	*	*	627
	£'000	*	*	97
Cycle	Thous. £'000	*	*	5,578
	£'000	*	*	280
Solid tyres :—				
For motor cars, motor cycles and tri-cars	Thous. £'000	233	—	233
	£'000	1,137	—	1,137
For other vehicles ...	Quantity stated	*	*	163
	Quantity not stated	*	*	108
	"	*	*	144
Rubber accessories for motor vehicles and cycles, not elsewhere specified ...	"	*	*	559
Rubber boots	Thous. doz. prs. £'000	*	*	103
	£'000	*	*	312
Rubber shoes, overshoes and goloshes	Thous. doz. prs. £'000	362	370	732
	£'000	378	383	761
Rubber heels and soles	Tons £'000	*	*	5,043
	£'000	*	*	840
Hose, of rubber or of rubber and other materials, armoured or not...	Quantity stated	Th. yds. 5,077	1,116	6,193
	Quantity not stated	£'000 347	95	442
	"	239	9	248
Rubber valves, washers and rings, for industrial purposes (sold separately), not included elsewhere	"	*	*	342
Sheeting of rubber and rubber proof cloth of which the chief value is rubber	Quantity stated	Th. sq. yds. 2,972	1,599	4,571
	Quantity not stated	£'000 248	123	371
	"	—	76	76
Waterproof piece-goods§	Quantity stated	Th. sq. yds. *	*	1,555
	Quantity not stated	£'000 *	*	136
	"	*	*	279
Overalls and aprons, wholly or mainly of rubber	"	*	*	15

Kind of goods made and work done	Unit	England and Wales	Scotland	Great Britain
Rubber gloves	Thous. doz. prs. £'000	*	*	22
	£'000	*	*	26
Hot water and air goods, medical, surgical and dental appliances ...	"	418	101	519
Machinery belting :—				
Balata	Tons £'000	*	*	868
	£'000	*	*	389
Rubber and canvas	Tons £'000	2,506	139	2,645
	£'000	530	24	554
Vulcanite and ebonite in rods, tubes, sheets, etc., not elsewhere specified	Tons £'000	*	*	2,259
	£'000	*	*	450
Mats, matting and tiling of rubber	Tons £'000	2,630	652	3,282
	£'000	324	47	371
Toys, wholly or mainly of rubber (excluding balls)	"	67	—	67
Rubber compounds and solutions ...	Quantity stated	Tons *	*	1,310
	Quantity not stated	£'000 *	*	104
	"	*	*	24
Mechanical rubber goods, not included elsewhere	Quantity stated	Tons *	*	1,782
	Quantity not stated	£'000 *	*	384
Mackintoshes, oilskins and other proofed garments :—				
Rubber proofed	Quantity stated	Thous. £'000 544	329	873
	Quantity not stated	£'000 328	219	547
	"	130	—	130
Other descriptions	"	*	*	88
Rubber balls :—				
Golf balls	Th. doz. £'000	*	*	854
	£'000	*	*	535
Tennis balls	Th. doz. £'000	*	*	1,025
	£'000	*	*	298
Other rubber balls	"	*	*	81
Miscellaneous rubber products ...	"	1,274	53	1,327
Waste rubber	"	13	—	13
Other goods made	"	199	320	519
Repairs to rubber, etc. goods	"	29†	‡	29†
Work done for the trade or on commission :—				
Waterproofing	"	798†	197†	995†
Other work	"	*	*	59†
TOTAL VALUE OF GOODS MADE AND WORK DONE (GROSS OUTPUT) ...	£'000	25,314	3,554	28,868

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

§ So far as recorded separately.

† Amount received.

‡ Less than £500.

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	2,563	21,563	3,064	12,419	5,627	33,982
Administrative, etc.* ...	583	5,441	418	2,458	1,001	7,899
TOTAL	3,146	27,004	3,482	14,877	6,628	41,881
<i>Scotland :—</i>						
Operatives	369	4,381	1,042	3,789	1,411	8,170
Administrative, etc.* ...	35	596	53	350	88	946
TOTAL	404	4,977	1,095	4,139	1,499	9,116
<i>Great Britain :—</i>						
Operatives	2,932	25,944	4,106	16,208	7,038	42,152
Administrative, etc.* ...	618	6,037	471	2,808	1,089	8,845
TOTAL	3,550	31,981	4,577	19,016	8,127	50,997

* 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 ...	36,593	8,205	44,798	July 19...	35,012	7,793	42,805
Feb. 15 ...	36,361	8,375	44,736	Aug. 16...	34,124	7,934	42,058
Mar. 15 ...	36,301	8,291	44,592	Sept. 13...	33,977	8,144	42,121
April 12 ...	36,043	8,344	44,387	Oct. 18 ...	33,982	8,170	42,152
May 17 ...	35,771	8,034	43,805	Nov. 15...	34,485	8,310	42,795
June 21 ...	35,368	7,906	43,274	Dec. 13 ...	34,131	8,186	42,317
AVERAGE FOR THE TWELVE MONTHS					35,179	8,141	43,320

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.
13,201	2,540	1,558	—	14,759	2,540	
Steam turbines	14,630	11,530	—	—	14,630	11,530
Internal combustion engines :—						
Gas	991	170	—	—	991	170
Petrol, kerosene, or other light oils ...	7	—	—	—	7	—
Heavy oils	1,094	300	—	—	1,094	300
Water engines	80	—	—	—	80	—
TOTAL	30,003	14,540	1,558	—	31,561	14,540
TOTAL OF PRIME MOVERS INSTALLED						
	44,543		1,558		46,101	
ELECTRIC GENERATORS						
Driven by						
Reciprocating steam engines	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
1,741	1,351	354	—	2,095	1,351	
Steam turbines	9,875	7,750	—	—	9,875	7,750
Internal combustion engines :—						
Gas	75	70	—	—	75	70
Heavy oils	669	200	—	—	669	200
Water engines	44	—	—	—	44	—
TOTAL	12,404	9,371	354	—	12,758	9,371
TOTAL OF ELECTRIC GENERATORS INSTALLED						
	21,775		354		22,129	
ELECTRIC MOTORS						
Driven by						
Electricity generated in same works ...	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
28,262	779	326	—	28,588	779	
Purchased electricity	103,711	8,076	17,949	467	121,660	8,543
TOTAL	131,973	8,855	18,275	467	150,248	9,322
TOTAL OF ELECTRIC MOTORS INSTALLED						
	140,828		18,742		159,570	

V. Consumption of fuel

Kind of fuel used	England and Wales	Scotland	Great Britain
	Tons	Tons	Tons
Coal used for power*	77,653	12,596	90,249
Coke used for power*	1,806	—	1,806
	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	23,572	153	23,725
Purchased	128,093	20,389	148,482
TOTAL—Electricity	151,665	20,542	172,207

* In addition, 6,550 tons of coal and 5 tons of coke (all in England and Wales) were recorded as used for power and for other purposes, not separately distinguished.