

THE FERTILISER, DISINFECTANT, GLUE AND ALLIED TRADES

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

These trades comprise firms that were engaged wholly or mainly in the manufacture of fertilisers, disinfectants, insecticides, glue and gelatine.

At the 1930 Census, firms that made returns on schedules for the Fertiliser, Disinfectant, Glue and Allied Trades were required to state the total quantity and selling value of each specified kind of simple fertiliser manufactured by them in the year, whether sold as simple fertilisers or used with other ingredients for making compound manures in the firms' own works; the value recorded in respect of compound manures was that of the compounding work, i.e. the selling value of the compound manures *less* the value of the simple fertilisers used as ingredients, whether these were manufactured in the firms' works or were purchased. The cost of purchased fertilisers was also excluded from the sum of "Materials used". At the 1924 Census, firms were required to state the total quantity of basic slag, superphosphates and sulphate of ammonia manufactured by them for all purposes, but the value was returned only in respect of that part that was not used in the firms' works for making compound manures. Compound manures were valued on the basis of the net selling value, and the cost of all purchased fertilisers used as ingredients was included both in the output and in the sum of "Materials used".

This change has resulted in the gross output and the total cost of materials used by these trades being understated for 1930 relatively to 1924 by the cost of the simple fertilisers purchased (whether from firms in this country or from abroad) and used in the manufacture of compound manures. The net output was not affected.

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 (Gross output)	£'000	5,717	7,695
Cost of materials used	"	3,114	4,921
Paid for work given out to other firms	"	2	*
Net output	"	2,601	2,774
Average number of persons employed	No.	8,548	9,661
Net output per person employed	£	304	287
Power available :—			
Prime movers	H.P.	11,863	15,592
Electric motors driven by purchased electricity	"	23,378	18,552
Number of returns	No.	140	183
Number of establishments	"	155	†

* 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 1,128, the corresponding figure for 1924 being 1,105*. In addition, 10 firms to which schedules were sent at the 1930 Census and 30 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.

The value of the gross output of the small firms in 1924 was £652,000*, and particulars of the items included in this figure are given below :—

	Th. tons	£'000
Basic slag	6.0	7
Superphosphates	34.4	103
Compound manures and other manufactured fertilisers	39.1	227
Disinfectants, insecticides, weed killers, etc.	5.0	108
Glue and size	5.6	104
Other goods		103
TOTAL		652

About 9 per cent. of the total output of superphosphates, 8 per cent. of compound manures, 11 per cent. of disinfectants, etc., and 19 per cent. of glue and size were recorded by the small firms at the 1924 Census.

* These figures are inclusive of particulars regarding 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	43	402	187	745	251
25- 49	41	903	414	1,345	308
50- 99	32	1,667	707	2,227	318
100-199	17	1,596	716	2,186	327
200-499	7	1,149	577	2,045	282
TOTAL	140	5,717	2,601	8,548	304

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 these trades 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 19 1924 26	1,342 1,320	629 575	1,463 1,482	430 388
2	1930 25 1924 28	1,016 1,071	464 414	1,574 1,200	294 345
3	1930 6 1924 12	136 303	59 112	259 516	227 217
4	1930 10 1924 8	259 199	102 82	398 296	257 277
5	1930 6 1924 13	112 439	56 155	308 598	181 259
6	1930 46 1924 60	2,095 2,713	998 945	3,306 3,683	302 257
7	1930 5	166	54	266	203
7 and 8	1924 4	192	50	283	177
9	1930 6 1924 9	215 469	60 171	281 449	216 381
10	1930 17 1924 23	376 989	179 270	693 1,154	258 234
TOTAL { 1930 140 1924 183		5,717 7,695	2,601 2,774	8,548 9,661	304 287

* For particulars see page xviii.

Northern Ireland.—Owing to the possible disclosure of information relating to the business of individual firms, particulars of the production of fertilisers, disinfectants, etc. in Northern Ireland in 1930 were included in aggregates covering the manufacture of chemicals, fertilisers, paints and oils (see page 264).

Production

Fertilisers.—For convenience of reference the particulars recorded for 1930 and for 1924 in respect of each class of fertiliser are shown in the following table but it should be borne in mind that the figures for the two years are not closely comparable.

Kind of fertiliser	1930						1924	
	Returned on schedules for						Total	
	The Fertiliser, Disinfectant, Glue and Allied Trades			All trades				
	Quantity*	Value	Enter-ies	Quantity*	Value	Enter-ies	Quantity†	Value
Th. tons	£'000	No.	Th. tons	£'000	No.	Th. tons	£'000	
Simple manures :—								
Basic slag	138·2	178	8	253·7	294	21	302·8	445
Superphosphates	342·0	890	45	357·0	933	48	269·7	779
Sulphate of ammonia	1·5	11	3	672·9	3,891	349	416·1	4,818
Phosphate rock, ground for sale as such but not for dissolving	58·3	129	40	61·0	134	41	‡	‡
Other nitrogenous fertilisers (including phosphate of ammonia, nitrolim, cyanamide, etc.)	12·9	56	7	33·6	199	9	‡	‡
Other manufactured fertilisers (guano, bonemeal, fish meal, etc.), including manufactured fertilisers not separately distinguished	54·9	375	41	117·4	460	70	‡	‡
Compound manures ... ..	...	646§	70	...	757||	80	‡	‡
Manufactured guano, bonemeal, fish meal, ground phosphate rock, etc., and compound fertilisers ... ..	...	...	...	...	...	...	462·5	3,094¶
TOTAL—Fertilisers ... ..	...	2,285	...	...	6,668	...	...	9,136

* Total quantity manufactured (i.e. including amounts used for making compound manures in the same works).

† Quantity made and sold (i.e. excluding amounts used for making compound manures in the same works).

‡ Not recorded separately.

§ This figure represents the value of the compounding work done, i.e. the selling value of the manures compounded in the year less the value of the fertilisers used as ingredients.

|| The value (£111,000) of compound manures returned on schedules for trades other than the Fertiliser, etc., Trades represents the selling value of the manures manufactured.

¶ Compound manures are included at their net selling values.

At the 1924 Census, firms that made returns on schedules for the Fertiliser, Disinfectant, Glue and Allied Trades were required to state their total output of basic slag, superphosphates and sulphate of ammonia, including the quantities used in their own works for making compound manures, and the particulars recorded by firms employing more than ten persons are shown below. These particulars are comparable with the output figures shown above for 1930, which are added for reference :—

Kind of fertiliser	1930		1924	
	Returned on schedules for		Returned on schedules for	
	The Fertiliser, Disinfectant, Glue and Allied Trades	All trades	The Fertiliser, Disinfectant, Glue and Allied Trades	All trades
	Th. tons	Th. tons	Th. tons	Th. tons
Basic slag	138·2	253·7	101·2	303·4
Superphosphates	342·0	357·0	286·1	351·7
Sulphate of ammonia... ..	1·5	672·9	5·4	416·1

The figures given for superphosphates represent mainly the output in the fertiliser year (i.e., the twelve months ended 30th June), about 65 per cent. of the total for 1930 relating to that period. Included in the totals for sulphate of ammonia are the output particulars returned by firms in the Chemicals, etc., Trades (pages 288 and 291) and by owners of coke ovens and gas undertakings.* From the above table it will be seen that there was a substantial increase in the later year in the production of basic slag and superphosphates by firms in this trade, though the total output of basic slag declined by one-sixth and the total output of superphosphates was about the same in each year. The tendency towards a concentration of output in the hands of the trades in which the principal output was returned is also observable in the figures for sulphate of ammonia.

Disinfectants, glue, gelatine and other principal products.—The following table gives particulars of the output of these goods in 1930 and 1924 :—

* The reports on these two industries appear in a separate volume (Part IV).

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Fertiliser, Disinfectant, Glue and Allied Trades			All trades				
	Quantity	Value	Ent-ries	Quantity	Value	Ent-ries	Quantity	Value
Th. tons	£'000	No.	Th. tons	£'000	No.	Th. tons	£'000	
Disinfectants, insecticides, weed killers and sheep and cattle dressings:—								
Returned in tons ...	23.4	1,206	36	31.3	1,515	103	40.5	2,109
Returned in gallons ...	1,287.2	151	4	1,613.3	174	15		
Glue and size ...	28.1	917	34	30.8	1,002	60	23.9	822
Gelatine ...	1.3	190	13	2.4	272	21	1.5	232
Bones and horns for manufacturing purposes ...	7.0	48	17	16.3	120	41	17.7	143
Bone by-products, not included elsewhere, including bones for manure ...	...	60	15	...	92	34	...	146
TOTAL—Disinfectants, etc.	...	2,572	...	...	3,175	...	...	3,452

Prices.—The following table shows the average selling values in 1930 and 1924, as calculated from the Census returns, of those products of the Fertiliser, Disinfectant, Glue and Allied Trades for which comparable figures are available:—

Kind of goods	Average value		1930 as a percentage of 1924
	1930	1924	
	£ per ton	£ per ton	Per cent.
Basic slag ...	1.16	1.47	78.9
Superphosphates ...	2.61	2.89	90.3
Sulphate of ammonia ...	5.78	11.58	49.9
Glue and size ...	32.5	34.4	94.5
Gelatine ...	114.1	153.8	74.2
Disinfectants, insecticides, weed killers and sheep and cattle dressings ...	48.3	52.1	92.7
Bones and horns for manufacturing purposes ...	7.37	8.02	91.9

Volume of production in 1930 and 1924.—The following table compares the volume of production of fertilisers, disinfectants, etc., in 1930 and 1924. In order to bring the results for the two years to a comparable basis, the total make of superphosphates in 1924 is shown in column (3), valued at the average value of all super-

phosphates made for sale. The figure given in column (3) for compound manures and other manufactured fertilisers for 1924 represents the total sum recorded for these goods less the estimated value of the simple fertilisers included in that sum.

Kind of goods	Total production			1930 as a percentage of 1924
	1930	1924		
	As returned	As returned	At 1930 average values	
(1)	(2)	(3)	(4)	(5)
	£'000	£'000	£'000	Per cent.
Basic slag ...	294	445	351	84
Superphosphates ...	933	1,016	918	102
Sulphate of ammonia ...	3,891	4,818	2,404	162
Glue and size ...	1,002	822	777	129
Gelatine ...	272	232	172	158
Disinfectants, insecticides, weed killers and sheep and cattle dressings ...	1,689	2,109	1,955	86
Bones and horns for manufacturing purposes ...	120	143	131	92
Other manufactured fertilisers ...	793	2,000	1,820	85
Compound manures ...	757*			
Bone by-products, not included elsewhere, including bones for manure ...	92	146	107†	88
TOTAL ...	9,843	11,731	8,635	114

* Value of compounding work done. See also footnote (||) to table on page 304.

† Based on average value of preceding items.

Production, exports and imports

Fertilisers.—The following table gives details of the exports and retained imports of the principal classes of manufactured fertilisers in 1930 and 1924:—

Kind of fertiliser	1930		1924	
	Exports	Retained imports	Exports	Retained imports
	Th. tons	Th. tons	Th. tons	Th. tons
Basic slag ...	11.6	22.3	24.8	66.3
Superphosphates ...	17.8	101.1	25.7	115.5
Sulphate of ammonia ...	557.9	2.0	277.7	—
Other and compound fertilisers ...	88.6	40.4	66.2	28.5
Nitrate of soda ...	0.2	44.5	0.9	76.8
Kainite ...	0.5	112.8	0.6	177.8
Potassium sulphate ...	1.0	14.6	0.1	8.5
Potassium chloride ...	0.1	27.4	0.1	18.7
Nitrolim ...	—	0.8	—	1.1
TOTAL ...	677.7	365.9	396.1	493.2

The total make of simple fertilisers in the United Kingdom in 1924 was estimated as about 1,330,000 tons and the total available supply of all manufactured fertilisers, after allowing for exports and retained imports, as about 1,427,000 tons, of which between two-thirds and three-fourths was manufactured or compounded in the United Kingdom. Some uncertainty attaches to a similar estimate for the year 1930 owing to the absence of particulars of the output of the small firms and of firms in Northern Ireland, but assuming that the relative importance of the output of these firms was the same in both years, it may be estimated that the total make of simple fertilisers in 1930 was of the order of 1,650,000 tons. Making allowance for exports and retained imports, the total supply of manufactured fertilisers in the United Kingdom in 1930 amounted to about 1,340,000 tons, of which nearly 73 per cent. represented goods manufactured or compounded in this country. These estimates indicate that the total supply of manufactured fertilisers available in the United Kingdom in 1930 was less by about 6 per cent. than in 1924.

Disinfectants, glue and gelatine.—The following table shows, in relation to production, the quantities of disinfectants, glue and gelatine exported from the United Kingdom in 1930 and 1924, together with the quantities imported and retained. As regards the 1930 figures of production, the deficiencies referred to on page 302 of this report should be borne in mind; 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		
					Th. tons	Per cent.	
	Th. tons	Th. tons	Per cent.	Th. tons	Th. tons	Per cent.	
Disinfectants, insecticides, weed killers and sheep and cattle dressings* ...	1930	34.9†	19.5	55.9	1.0	16.4	94.1
	1924	46.8	20.8	44.5	1.0	27.0	96.3
Glue and size ...	1930	30.8	4.8	15.6	9.0	35.0	74.3
	1924	30.0	8.4	28.0	6.5	28.1	76.9
Gelatine ...	1930	2.4	0.3	12.5	2.5	4.6	45.7
	1924	1.6	0.4	25.0	0.9	2.1	57.1

* Figures for exports and retained imports exclude tobacco offal.

† Includes an estimate of the weight of the output returned in gallons.

Other products.—In addition to the output shown in the tables of principal products on pages 304 and 306, the following goods were produced in 1930 and 1924 by firms that made their returns on

schedules for the Fertiliser, Disinfectant, Glue and Allied Trades. These goods are dealt with in the reports on those trades in which the principal output was recorded.

Kind of goods	1930		1924	
	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000
Sulphuric acid (as 100 per cent. acid)*	25.9	87	91.6	331
Animal oils, fats and greases:—				
Refined	1.9	43	...	70
Not refined	15.5	442	...	853
Feeding stuffs, etc., for animals and poultry	6.8	67	...	263
Chemical products ... ..	...	68	...	60
Soap, perfumery, etc. ... ..	...	74	...	48
Other goods ... ..	...	79	...	131
TOTAL ... ..	...	860	...	1,756

* The total make of sulphuric acid recorded on schedules for the Fertiliser, etc., Trades was 128,312 tons in 1930 and 164,600 tons in 1924, both in terms of 100 per cent. acid.

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)	353	5,889	312	1,153	665	7,042
Administrative, technical and clerical staff (as at 18th October)	85	1,124	50	382	135	1,506
TOTAL	438	7,013	362	1,535	800	8,548
1924						
Operatives (average for the year)	376	6,711	312	1,388	688	8,099
Administrative, technical and clerical staff (as at 18th October)	86	1,225	38	337	124	1,562
TOTAL	462	7,936	350	1,725	812	9,661

Wages.—The available information as to the amount of wages paid in 1930 and 1924 is given on pages 252 and 253.

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 ...	5,119	1,709	6,828	7,774	3,096	10,870
Steam turbines ...	5	—	5	100	30	130
Internal combustion engines :—						
Gas ...	2,111	599	2,710	3,467	650	4,117
Petrol, kerosene, or other light oils ...	95	262	357	62	5	67
Heavy oils ...	1,494	430	1,924	296	10	306
Water engines ...	33	6	39	102	—	102
TOTAL ...	8,857	3,006	11,863	11,801	3,791	15,592
ELECTRIC GENERATORS	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by						
Reciprocating steam engines ...	2,055	485	2,540	2,067	700	2,767
Steam turbines ...	—	—	—	80	—	80
Internal combustion engines :—						
Gas ...	331	110	441	548	216	764
Petrol, kerosene, or other light oils ...	27	7	34	15	—	15
Heavy oils ...	816	240	1,056	17	—	17
TOTAL ...	3,229	842	4,071	2,727	916	3,643
ELECTRIC MOTORS	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by						
Electricity generated in same works ...	5,857	1,281	7,138	3,913	309	4,222
Electricity generated in other works under same ownership ...	118	29	147	7	—	7
Purchased electricity	19,948	3,430	23,378	16,886	1,666	18,552
TOTAL ...	25,923	4,740	30,663	20,806	1,975	22,781

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	37,219	108,436*	9,505
Coke	228	5,554*	111
			B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—			
Generated in same works			5,139
Generated in other works under same ownership			420
Purchased			15,112
TOTAL—Electricity			20,671

* These figures were recorded by firms representing 81.9 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 (Gross output) ...	£'000	5,126	591	5,717
Cost of materials used ...	"	2,762	352	3,114
Paid for work given out to other firms...	"	2	—	2
Net output ...	"	2,362	239	2,601
Average number of persons employed...	No.	7,574	974	8,548
Net output per person employed ...	£	312	246	304
Power available:—				
Prime movers ...	H.P.	10,726	1,137	11,863
Electric motors driven by purchased electricity ...	"	18,538	4,840	23,378

II. Production

A.—TOTAL MAKE.

The *total make* of Sulphuric Acid (in terms of 100 per cent. acid) returned on schedules for the Fertiliser, etc. Trades was 128,312 tons. Separate particulars of the production in England and Wales and in Scotland cannot be published owing to the risk of disclosing information relating to individual firms. The *total make* of basic slag, superphosphates and sulphate of ammonia is shown in the following table.

B.—OUTPUT FOR SALE OR FOR STOCK

Kind of goods made	Unit	England and Wales	Scotland	Great Britain
Simple manures:—				
Basic slag* ...	<i>Th. tons</i>	138.2	—	138.2
	£'000	178	—	178
Superphosphates* ...	<i>Th. tons</i>	292.8	49.2	342.0
	£'000	767	123	890
Sulphate of ammonia* ...	<i>Th. tons</i>	1.5	—	1.5
	£'000	11	—	11
Phosphate rock, ground for sale as such but not for dissolving ...	<i>Th. tons</i>	†	†	58.3
	£'000	†	†	129
Other nitrogenous fertilisers (including phosphate of ammonia, nitrolim, cyanamide, etc.) ...	<i>Th. tons</i>	12.9	—	12.9
	£'000	56	—	56
Other manufactured fertilisers (guano, bonemeal, fish meal, etc.) ...	<i>Th. tons</i>	†	†	54.9
	£'000	†	†	375
Compound manures ...	£'000	545‡	101‡	646‡
TOTAL—Fertilisers ...	£'000	2,027	258	2,285

Kind of goods made	Unit	England and Wales	Scotland	Great Britain
Disinfectants, insecticides, weed killers and sheep and cattle dressings:—				
Returned in tons ...	<i>Th. tons</i>	18.9	4.5	23.4
	£'000	1,080	126	1,206
Returned in gallons ...	<i>Th. galls.</i>	1,146.7	140.5	1,287.2
	£'000	137	14	151
Glue and size ...	<i>Th. tons</i>	†	†	28.1
	£'000	†	†	917
Gelatine ...	<i>Th. tons</i>	†	†	1.3
	£'000	†	†	190
Bones and horns for manufacturing purposes ...	<i>Th. tons</i>	†	†	7.0
	£'000	†	†	48
Bone by-products, not included elsewhere ...	£'000	†	†	60
	<i>Th. tons</i>	†	†	25.9
Sulphuric acid (as 100 per cent. acid) ...	£'000	†	†	87
	<i>Th. tons</i>	†	†	—
Animal oils, fats and greases:—				
Refined ...	<i>Th. tons</i>	1.3	0.6	1.9
	£'000	31	12	43
Not refined ...	<i>Th. tons</i>	15.2	0.3	15.5
	£'000	435	7	442
Feeding stuffs, etc., for animals and poultry ...	<i>Th. tons</i>	5.3	1.5	6.8
	£'000	54	13	67
Chemical products ...	£'000	65	3	68
	£'000	65	9	74
Soap, perfumery, etc. ...	£'000	67	12	79
	£'000	67	12	79
TOTAL VALUE OF GOODS MADE (GROSS OUTPUT) ...	£'000	5,126	591	5,717

* The figures include the quantity and value of the fertilisers compounded as well as of those sold as such or added to stock.

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

‡ These figures represent the value of the compounding work done, i.e., the selling value of the manures compounded in the year less the value of the fertilisers used as ingredients.

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	320	4,988	288	1,052	608	6,040
Administrative, etc.* ...	77	975	46	344	123	1,319
TOTAL	397	5,963	334	1,396	731	7,359
<i>Scotland :—</i>						
Operatives	20	685	13	59	33	744
Administrative, etc.* ...	8	149	4	38	12	187
TOTAL	28	834	17	97	45	931
<i>Great Britain :—</i>						
Operatives	340	5,673	301	1,111	641	6,784
Administrative, etc.* ...	85	1,124	50	382	135	1,506
TOTAL	425	6,797	351	1,493	776	8,290

* 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 ...	6,139	851	6,990	July 19 ...	5,662	513	6,175
Feb. 15 ...	6,633	804	7,437	Aug. 16 ...	5,682	572	6,254
Mar. 15 ...	7,621	1,023	8,644	Sept. 13...	5,747	667	6,414
April 12 ...	7,380	1,056	8,436	Oct. 18 ...	6,040	744	6,784
May 17 ...	6,254	997	7,251	Nov. 15...	6,063	777	6,840
June 21 ...	5,732	576	6,308	Dec. 13 ...	6,104	865	6,969
AVERAGE FOR THE TWELVE MONTHS					6,255	787	7,042

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.
5,119	1,709	651	110	5,119	1,709	
Steam turbines	5	—	—	—	5	—
Internal combustion engines :—						
Gas	1,943	574	168	25	2,111	599
Petrol, kerosene, or other light oils ...	95	262	—	—	95	262
Heavy oils	1,394	360	100	70	1,494	430
Water engines	20	6	13	—	33	6
TOTAL	7,925	2,801	932	205	8,857	3,006
TOTAL OF PRIME MOVERS INSTALLED	10,726		1,137		11,863	
ELECTRIC GENERATORS						
Driven by	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Reciprocating steam engines	1,805	485	250	—	2,055	485
Internal combustion engines :—						
Gas	331	110	—	—	331	110
Petrol, kerosene, or other light oils ...	27	7	—	—	27	7
Heavy oils	809	240	7	—	816	240
TOTAL	2,972	842	257	—	3,229	842
TOTAL OF ELECTRIC GENERATORS INSTALLED	3,814		257		4,071	
ELECTRIC MOTORS						
Driven by	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Electricity generated in same works ...	5,350	1,170	507	111	5,857	1,281
Electricity generated in other works under same ownership	118	29	—	—	118	29
Purchased electricity	16,236	2,302	3,712	1,128	19,948	3,430
TOTAL	21,704	3,501	4,219	1,239	25,923	4,740
TOTAL OF ELECTRIC MOTORS INSTALLED	25,205		5,458		30,663	

V. Consumption of fuel

Kind of fuel used	England and Wales	Scotland	Great Britain
	Tons	Tons	Tons
Coal used for power*	35,545	1,674	37,219
Coke used for power*	1	227	228
	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	4,591	548	5,139
Generated in other works under same ownership	420	—	420
Purchased	13,467	1,645	15,112
TOTAL—Electricity	18,478	2,193	20,671

* In addition, 9,505 tons of coal and 111 tons of coke (all in England and Wales) were recorded as used for power and for other purposes, not separately distinguished.