

THE WROUGHT IRON AND STEEL TUBE 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 wrought iron and steel tubes and fittings.

As separate particulars for England and Wales and for Scotland cannot be published for 1930 owing to the risk of disclosure of information relating to individual firms, the summary table (I) and the tables showing details of power equipment (IV), and coal, coke and electricity used (V) are not appended to this report. The whole of this information is available in the tables given in the report itself.

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	13,252	13,760
Cost of materials used	"	7,543	8,378
Paid for work given out to other firms	"	55	*
Net output	"	5,654	5,382
Average number of persons employed	No.	25,796	24,845
Net output per person employed	£	219	217
Power available :—			
Prime movers	H.P.	17,576	26,075
Electric motors driven by purchased electricity	"	107,206	68,819
Number of returns	No.	65	62
Number of establishments	"	78	†

* 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 85, the corresponding figure for 1924 being 54. The value of the gross output of the small firms in 1924 was £21,000, of which £6,000 related to cased tubes, £13,000 to fittings for wrought tubes and £2,000 to other goods.

At both Censuses returns were received from all firms to which schedules were sent.

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 ...	5	27	14	94	146
25-49 ...	8	82	41	279	146
50-99 ...	17	554	213	1,245	171
100-199 ...	12	797	322	1,571	205
200-299 ...	7	865	384	1,743	221
300-749 ...	8	1,858	774	3,923	197
750 and over ...	8	9,069	3,906	16,941	231
TOTAL ...	65	13,252	5,654	25,796	219

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.	£	
5 ...	1930	48	6,773	2,926	13,841	211
	1924	51	7,357	2,892	13,283	218
Other areas.	1930	17	6,479	2,728	11,955	228
	1924	11	6,403	2,490	11,562	215
TOTAL	1930	65	13,252	5,654	25,796	219
	1924	62	13,760	5,382	24,845	217

Northern Ireland.—No production of wrought iron or steel tubes or fittings was recorded for Northern Ireland in 1930 or 1924.

Production

Principal products.—The following table shows the value and quantity of wrought iron and steel tubes and fittings made in 1930 and 1924 :—

* For particulars see page xviii.

Kind of goods	1930						1924	
	Returned on schedules for						Total	
	The Wrought Iron and Steel Tube Trade			All trades				
	Quantity	Value	Ent-ries	Quantity	Value	Ent-ries	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000	No.	Th. tons	£'000
Wrought iron and steel tubes :—								
Weldless tubes ...	164.8	5,127	22	165.5	5,169	25	109.2	4,053
Welded tubes ...	292.1	6,314	33	300.8	6,536	38	297.7	7,741
Other tubes (including cased and close-joint) ...	6.3	128	6	8.3	180	12	17.9	635
Tubes finished, screwed, bent or otherwise manipulated for sale	4.3	309	5	4.6	328	7		
Fittings for wrought tubes :—								
Wrought ...	12.4	653	26	12.8	667	30	11.9	949
Malleable cast ...	1.2	68	6	1.2	68	6	1.8	118
TOTAL—Wrought iron and steel tubes and fittings ...	481.1	12,599	...	493.2	12,948	...	438.5	13,496
Flexible metallic tubing*	...	110	3	...	110	3	...	151
TOTAL VALUE—PRINCIPAL PRODUCTS ...	...	12,709	...	...	13,058	...	...	13,647

* So far as recorded separately.

The figures shown for 1930 in respect of "Tubes finished, screwed, etc.", represent to some extent goods purchased and fabricated by firms that were not themselves manufacturers of tubes. In so far as the purchased tubes were obtained from manufacturers in this country duplication is involved with the figures shown for the three specified classes of tubes.

In addition to the output shown in the above table, firms that made returns on the schedule for the Electrical Engineering Trade recorded an output of *electrical conduits and fittings therefor*, valued at £881,000 in 1930 and £430,000 in 1924.

Prices.—The average selling values of wrought iron and steel tubes and fittings in 1930 and 1924, as calculated from the Census returns, are shown in the following table :—

Kind of goods	Average value		1930 as a percentage of 1924
	1930	1924	
	£ per ton	£ per ton	Per cent.
Wrought tubes :—			
Weldless tubes ...	31.23	37.11	84.2
Welded tubes ...	21.73	26.00	83.6
Fittings for wrought tubes :—			
Wrought ...	52.25	79.60	65.6
Malleable cast ...	59.09	63.21	93.5

Volume of production in 1930 and 1924.—The following table compares the volume of production of wrought iron and steel tubes and fittings 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.
Wrought tubes :—				
Weldless tubes	5,169	4,053	3,411	152
Welded tubes	6,536	7,741	6,471	101
Fittings for wrought tubes :—				
Wrought	667	949	623	104
Malleable cast	68	118	110	62
Other principal products	618	786	698*	83
TOTAL	13,058	13,647	11,313	115

* Based on average values so far as returned in each year.

Production, exports and imports.—The following table shows, in relation to production, the quantities of the principal classes of wrought tubes and fittings exported from the United Kingdom in 1930 and 1924, together with the quantities imported and retained :—

Kind of goods	Production		Proportion of production exported	Retained imports	Available for use in the United Kingdom		Share of home market held by British products
	Th. tons	Th. tons			Th. tons	Th. tons		Per cent.
Wrought tubes :—							
Weldless ... { 1930	165.5	57.9	35.0	23.9	131.4	81.8	
{ 1924	109.2	32.4	29.7	14.4	91.2	84.2	
Welded ... { 1930	300.8	167.1	55.6	25.6	159.3	83.9	
{ 1924	297.7	128.5	43.2	18.4	187.6	90.2	
Fittings for wrought tubes :—							
Wrought ... { 1930	12.8	4.8	37.5	3.2	11.2	71.4	
{ 1924	12.3	6.0	48.8	0.5	6.8	92.6	
Malleable cast { 1930	1.2	0.3	29.9	3.5	4.3	18.6	
{ 1924	1.8	0.1	8.3	1.5	3.2	53.1	

Other products.—In addition to the output shown in the table of principal products on page 133, the following goods were produced in 1930 and 1924 by firms that made their returns on schedules

for the Wrought Iron and Steel Tube Trade. These goods are dealt with in the reports on those trades in which the principal output was recorded.

Kind of goods	1930	1924
	Value	Value
	£'000	£'000
Iron and steel manufactures, other than tubes and fittings	244	191
Goods of other metals	11	307
TOTAL	255	498

Waste products sold.—The following sales of manufacturers' scrap and other waste products were recorded by firms in the Wrought Iron and Steel Tube Trade for 1930 and 1924 :—

	1930		1924	
	Th. tons	£'000	Th. tons	£'000
Iron and steel scrap	97.5	255	78.6	280
Scrap of non-ferrous metals	0.5	2	...	15
Other waste and by-products... ..	...	31	...	...
TOTAL VALUE ... ..	...	288	...	295

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)	1,910	22,108	174	677	2,084	22,785
Administrative, technical and clerical staff (as at 18th October)	229	2,317	99	694	328	3,011
TOTAL	2,139	24,425	273	1,371	2,412	25,796
1924						
Operatives (average for the year)	2,114	21,315	119	593	2,233	21,908
Administrative, technical and clerical staff (as at 18th October)	185	2,250	74	687	259	2,937
TOTAL	2,299	23,565	193	1,280	2,492	24,845

Wages.—The available information as to the amount of wages paid in 1930 and 1924 is given on pages 18 and 19.

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	10,352	3,012	13,364	14,023	7,016	21,039
Steam turbines	2,480	670	3,150	3,766	—	3,766
Internal combustion engines :—						
Gas	320	352	672	949	90	1,039
Petrol, kerosene, or other light oils ...	110	—	110	31	—	31
Heavy oils	230	—	230	200	—	200
Other prime movers ...	—	50	50	—	—	—
TOTAL	13,492	4,084	17,576	18,969	7,106	26,075
ELECTRIC GENERATORS	Kw.	Kw.	Kw.	Kw.	Kw.	Kw.
Driven by						
Reciprocating steam engines	52	780	832	2,199	1,568	3,767
Steam turbines	1,800	—	1,800	2,600	—	2,600
Internal combustion engines :—						
Gas	28	84	112	59	—	59
Petrol, kerosene, or other light oils ...	100	—	100	—	—	—
Heavy oils	73	—	73	—	—	—
TOTAL	2,053	864	2,917	4,858	1,568	6,426
ELECTRIC MOTORS	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
Driven by						
Electricity generated in same works ...	4,199	1,055	5,254	13,197	2,122	15,319
Purchased electricity	94,960	12,246	107,206	57,964	10,855	68,819
TOTAL	99,159	13,301	112,460	71,161	12,977	84,138

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	72,748	215,110*	179
Coke	2,482	31,322*	776
			B.T.U. (Kw.-hrs.) '000
Electricity used for all purposes :—			
Generated in same works			4,736
Purchased			69,979
TOTAL—Electricity			74,715

* These figures were recorded by firms representing 88·0 per cent. of the net output of the whole trade.

TABLES

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

I. Summary of results (see page 131)

II. Production

Goods sold or added to stock	Quantity	Value
Wrought tubes :—	Th. tons	£'000
Weldless tubes	164·8	5,127
Welded tubes	292·1	6,314
Other tubes (including cased and close-joint)... ..	6·3	128
Tubes finished, screwed, bent or otherwise manipulated for sale	4·3	309
Fittings for wrought tubes :—		
Wrought	12·4	653
Malleable cast	1·2	68
Flexible metallic tubing ... ..	...	110
Iron and steel manufactures, other than tubes and fittings ... ..	...	244
Goods of other metals ... ..	...	11
Iron and steel scrap sold	97·5	255
Scrap of non-ferrous metals sold	0·5	2
Other waste and by-products sold ... ..	...	31
TOTAL VALUE OF GOODS MADE (GROSS OUTPUT)	...	13,252

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
Operatives	1,864	21,572	170	661	2,034	22,233
Administrative, technical and clerical staff	229	2,317	99	694	328	3,011
TOTAL	2,093	23,889	269	1,355	2,362	25,244

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

Week ended	Males and females	Week ended	Males and females
January 18	24,138	July 19	22,558
February 15	24,277	August 16	23,050
March 15	24,176	September 13	22,125
April 12	23,036	October 18	22,233
May 17	23,739	November 15	20,936
June 21	22,908	December 13	20,250
AVERAGE FOR THE 12 MONTHS ... ..	...	...	22,785

IV. Power (see page 136)

V. Consumption of fuel (see page 137)