



BOARD OF TRADE

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[HA 251]

Report on the Census of Production 1963

50 Industrial plant and steelwork

The figures include persons engaged in... These notes give the main information needed for... more detailed information about the Census... is given in a separate booklet - 'Industrial...'

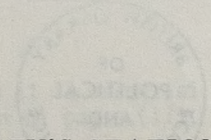
BOARD OF TRADE

Report on the
Census of Production
1963

50 Industrial plant and steelwork

Presented by the Board of Trade to Parliament in pursuance of the
Statistics of Trade Act 1947 (10 & 11 Geo. 6 Cha. 39 Sec. 7)

Notes - continued on pages 11 and 12



Notes

These notes give the main information needed for interpreting the figures in the industry reports. (More detailed information about the Census is given in a separate booklet - 'Introductory Notes': Part 1 of the Report on the Census of Production for 1963.)

GENERAL INFORMATION

Changes in the 1963 census

There were few changes resulting from amendments to the Standard Industrial Classification and only minor changes in the scope of certain industry reports compared with 1958. Any such changes are explained in the introductions to the industry reports concerned or by footnotes to the tables.

Industrial Classification

Establishments were classified to industries on the basis of major activity in conformity with the second edition of the Standard Industrial Classification (Consolidated Edition 1963, incorporating Amendment 1). Each industry was basically defined in terms of its principal products, these being of a similar nature or commonly associated in production. Normally, an establishment was classified to an industry if its sales of the principal products of that industry accounted for a greater proportion of its total sales than did its sales of the principal products of any other industry. However, where the application of this rule would have resulted in a change of classification between 1958 and 1963, the establishment was reclassified only if the sales of principal products of the newly predominant industry was more than one third greater than the sales of principal products of the previously predominant industry. This modification of the general rule was introduced for 1958 to avoid discontinuities which would result from marginal changes in sales between successive censuses.

The principle of classification by major output was also normally followed in compiling the analysis by sub-divisions of an industry.

In certain industries, classification was dealt with in a different way. Details of any non-standard treatment are given in the introductions to the relevant industry reports.

TERMS USED IN THE CENSUS REPORT

Average number employed

Firms were required to state the number of persons on the payroll (i.e. whose National Insurance cards were held by them) on the average during the year of return, whether full-time or part-time employees. Separate figures were required for (a) administrative, technical and clerical employees and (b) operatives (see below). Averages could be calculated from figures relating to the last week of each calendar month; figures shown in respect of the average number employed relate to the sum of these averages. Firms were also required to state the number of working proprietors (see below) where appropriate and these are included in total employment figures. Outworkers are excluded.

The figures include persons engaged in merchanting or factoring and canteen workers where particulars in respect of these activities could not be excluded from the return.

Working Proprietors

These include all persons regarded as 'self-employed' for National Insurance purposes, and members of their families who worked in the business without receiving a fixed wage or salary; but persons who worked less than half the normal number of working hours are excluded. For Great Britain, directors working in the business but not in receipt of a definite wage, salary or commission are included under this heading for 1963, but are excluded for 1958. For Northern Ireland, directors of limited companies, other than those paid by fee only, are included for both years. (Directors paid by fee only are not included in any of the employment figures for either year.)

Employees

(i) Administrative, technical and clerical employees include managers, superintendents and works foremen; research, experimental, development, technical and design employees (other than operatives); draughtsmen and tracers; editorial staff, staff reporters, canvassers, competition and advertising staff; travellers; and office (including works office) employees. For Great Britain, but not for Northern Ireland, they include also managing and other directors in receipt of a definite wage, salary or commission.

(ii) Operatives include all other classes of employees, that is, broadly speaking, all manual wage earners. They include those employed in and about the factory or works; operatives employed in power houses, transport work, stores, warehouses, shops and canteens; inspectors, viewers and similar workers; maintenance workers; and cleaners. Operatives engaged in outside work of erection, fitting, etc. are also included, but outworkers (i.e. persons employed by the firm who worked in their own homes, etc. on materials supplied by the firm) are excluded. Information about the numbers of outworkers employed was collected only for the gloves industry.

Capital Expenditure

(i) New building work.

This represents the cost incurred during the year of new building and other new constructional work (including office buildings, canteens and the like used in connection with the business covered by the return but not dwelling houses for employees). The value is that charged to capital account during the year of return; it includes expenditure on new buildings or on the extension or reconstruction of old buildings, the value of work of a capital nature carried out by firms' own staff, and the cost of any newly constructed buildings purchased. The figures shown include any legal charges, stamp duties, agents' commissions, etc.

50 Industrial plant and steelwork

This Report on the Industrial Plant and Steelwork Industry relates to establishments engaged wholly or mainly in manufacturing steam raising boilers of all types and accessories such as mechanical stokers, but not including marine boilers and hot water boilers cast in sections; lime and cement kilns; gas and coke oven plant; sintering plant; metallurgical furnaces and other metal manufacturing plant (excluding rolling mills); degreasing and coating plant; chemical and mineral oil refining plant; nuclear reactors; water and sewage treatment plant; industrial tanks and similar plate-work, and steelwork for buildings, bridges, etc. (including roof trusses and prefabricated buildings of steel and other metals).

The figures for 1963 and those for earlier censuses are not strictly comparable. For 1963, a number of returns classified to this industry in previous years have now been classified to the Construction Industry (Part 126); also, an element of duplication in the value of work in progress and in the value of sales and work done has been eliminated for 1963, but no similar adjustment has been made in earlier years. A measure of the duplication for 1963 is given in footnote (e) to Table 2. In addition, there has been a slight change in the method of classifying returns for 1963 as described below.

This industry corresponds to minimum list heading 341 in the Standard Industrial Classification (Consolidated edition, 1963).

TREATMENT OF PARTS

In reports for this and other mechanical engineering industries, a distinction is made between parts sold in association with the sale of complete machines, and other parts sold. The only parts shown in Table 5 are those included on returns (whether classified to this or to other industries) which also showed sales of industrial plant; where the return was classified to another industry, these parts are also shown, together with the complete plant in Table 6.

Parts of industrial plant included in returns which showed no sales of the complete plant are treated as principal products of the General Mechanical Engineering Industry (Part 52) whether made by general engineering firms or by specialist manufacturers of other types of machinery.

Sales of all parts of industrial plant (i.e. whether or not sold in association with the sale of the complete plant) are brought together in Table 14 in this report.

METHOD OF CLASSIFICATION

In classifying returns to this industry sales of parts of industrial plant and work done (other than structural and installation work), including repair work, were not taken into account unless they exceeded 80 per cent. of the total output of the return (in which case the return was classified to the General Mechanical Engineering Industry (Part 52)). Exceptionally, however, parts of industrial plant were taken into account where the return would otherwise have been classified outside the mechanical engineering group of industries. The standard classification procedure was further modified where a return would have been classified to one of the mechanical engineering industries relating to a specific class of machinery (viz. Parts 41 to 50 inclusive), but the sales of the principal products of the industry concerned accounted for less than 20 per cent. of the total output: in such cases the return was classified to the residual sub-division of the Miscellaneous (Non-electrical) Machinery Industry (Part 49). The classification of returns to sub-divisions of the industry followed the standard procedure.

For 1963, but not for earlier censuses, the amount charged for erecting and installing machinery and plant (other than air-conditioning, heating and ventilating plant) was treated as part of the selling value of these items in determining the industrial classifications of returns.

The sales of characteristic products shown in Table 2 include, besides the value of complete industrial plant which was taken into account in classifying returns, sales of parts of industrial plant and the value of installation work.

In interpreting the data in the tables it is essential to bear in mind the notes and definitions which appear on pages (ii), (iii) and (iv).



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TABLE 2 Analysis of larger firms by sub-divisions within the industry, 1958 and 1963 (a)
Firms employing 25 or more persons: United Kingdom (b)

	Unit	Sub-divisions of the industry (c)				Total	
		Boilers and boiler-house plant 10		Other industrial plant and fabricated steelwork 20		1958	1963
		1958	1963	1958	1963		
Number of enterprises (d)	No.	36	32	383	381	414	409
Number of establishments	"	45	42	464	493	509	535
Gross output	£'000	82,097	68,649	292,364	301,810	374,462	370,459
Net output	"	39,298	37,188	119,506	132,866	158,804	170,054
Net output per head	£	1,239	1,382	1,176	1,459	1,191	1,442
Sales and work done (e)	£'000	74,108	66,905(f)	280,921	283,719(f)	355,029	350,624(f)
Sales of characteristic products	"	874	1,724	13,279	13,825	14,153	15,549
Index of specialisation (h)	Per cent.	76	76	77	78	79	81
Purchases	£'000	39,328	27,880	158,392	133,809	197,720	161,689
Payments to other organisations	"	2,336	1,580	9,062	19,445	11,398	21,025
Stocks and work in progress	"	916	583	2,818	2,982	3,734	3,565
Goods on hand for sale	"	9	48	354	1,108	345	1,060
Work in progress (e)	"	7,124	28	2,190	5,374	4,935	5,346
Materials, stores and fuel	"	219	72	2,586	1,002	2,805	930
Average number employed	No.	31,719	26,912	101,592	91,048	133,311	117,960
Wages and salaries	£'000	14,622	15,712	46,559	47,448	61,182	63,160
Employers' contributions to National Insurance (j)	£'000	..	898	..	2,889	..	3,787
Employers' contributions to private pensions schemes, etc. (k)	"	..	1,010	..	2,100	..	3,110
Capital expenditure (l)	"	723	247	2,568	1,298	3,292	1,544
Land and existing buildings	"	..	12(m)	..	342(m)	..	367
Plant and machinery	"	2,465	1,257	4,365	5,504	6,829	6,761
Vehicles	"	23	40	97	328	121	368
	"	205	195	1,054	1,163	1,259	1,358
	"	56	58	342	450	398	508

For notes to this table - see page 50/6

TABLE 3 Analysis of larger firms by size of enterprise within the industry, 1963
(i) Output, employment, capital expenditure and stocks
Firms employing 25 or more persons: United Kingdom

Average number employed by the enterprise in the industry (a)	Enterprises	Establishments	Average number employed (a)	Gross output	Net output	Net output per head	Capital expenditure (b)	Total value of stocks and work in progress at end of year
	Number	Number	Number	£'000	£'000	£	£'000	£'000
25-49	114	125	4,252	11,288	5,455	1,283	375	1,655
50-99	129	142	8,964	24,234	11,808	1,317	588	3,804
100-199	74	90	10,488	28,396	13,386	1,276	451	6,295
200-299	22	34	5,391	15,274	7,238	1,343	423	3,305
300-399	15	18	5,003	12,748	5,938	1,187	198	3,160
400-499	5	13	2,182	8,000	3,513	1,610	61	2,604
500-749	17	29	9,959	34,495	15,869	1,593	446	7,064
750-999	12	26	10,559	32,870	16,098	1,525	1,058	14,962
1,000-1,999	8	20	11,001	39,100	16,138	1,467	679	6,428
2,000-2,499	4	7	8,526	33,340	15,500	1,818	509	17,340
2,500-2,999	4	13	11,152	37,703	17,608	1,579	1,789	12,771
3,000 and over	5	18	30,483	93,012	41,504	1,362	1,873	29,341
Total	409	535	117,960	370,459	170,054	1,442	8,431	108,730

(ii) Employees, wages and salaries, and employers' contributions
Firms employing 25 or more persons: United Kingdom

Average number employed by the enterprise in the industry (a)	Employees		Wages and salaries		Employers' contributions		Wages and salaries per head	
	Operatives	Others (c)	Operatives	Others (c)	National Insurance (d)	Private pension schemes, etc. (e)	Operatives	Others (c)
25-49	3,250	912	2,305	867	132	42	709	951
50-99	6,768	2,085	5,071	2,242	272	118	749	1,075
100-199	7,707	2,741	5,876	2,571	320	177	762	938
200-299	3,733	1,654	2,869	1,625	162	97	768	983
300-399	3,699	1,304	2,690	1,176	144	112	727	902
400-499	1,331	848	1,056	854	65	56	794	1,008
500-749	6,331	3,628	4,831	3,664	321	209	763	1,010
750-999	6,154	4,405	4,599	3,944	331	285	747	895
1,000-1,999	7,374	3,627	6,261	3,966	371	288	849	1,093
2,000-2,499	5,105	3,421	4,492	3,529	269	229	880	1,031
2,500-2,999	7,159	3,993	6,171	4,363	387	331	862	1,093
3,000 and over	18,297	12,186	16,939	12,129	1,013	1,165	926	995
Total	76,908	40,804	63,160	40,932	3,787	3,110	821	1,003

(a) Including working proprietors.

(b) Acquisitions less disposals.

(c) Administrative, technical and clerical employees.

(d) Including both flat rate and graduated contributions.

(e) Including pensions and gratuities paid other than from pension funds. These amounted in total to £438,000.

TABLE 4 Percentage analysis of employees, by age and sex, all firms, 1963: United Kingdom (a)

Ages	Males	Females	All employees
	Per cent.	Per cent.	Per cent.
Under 18	4	1	5
18 and over	85	10	95
All ages	89	11	100

Source: Ministry of Labour

(a) The percentages relate to the numbers employed (excluding working proprietors) at mid-June, 1963.

Footnotes to Table 2.

- (a) The figures for 1963 are not strictly comparable with those for 1958 as explained in the second paragraph of the introduction to the report.
- (b) The following information relates to small firms (employing fewer than 25 persons) in this industry. It includes an estimate for small firms not making satisfactory returns, which account for 2 per cent. of the employment shown for 1963 and 13 per cent. for 1958.
- | | | |
|--------------------------|-------|-------|
| | 1958 | 1963 |
| Number of firms | 419 | 405 |
| Average number employed: | | |
| Working proprietors | 5,093 | 573 |
| Other persons employed | | 4,111 |
- (c) The method of classifying returns to sub-divisions of the industry is explained in the introduction to the report; the characteristic products of each sub-division are identified in Table 5.
- (d) The sum of the figures for the sub-divisions exceeds the total for the industry to the extent that enterprises made returns for more than one sub-division.
- (e) An element of duplication of work in progress also included in the figures for sales and work done has been eliminated for 1963: this amounted to a total value of £14.4 million. A similar adjustment has not been carried out for 1958.
- (f) Including services rendered to other organisations (amounts charged for hiring out plant, machinery and other goods, for providing transport, or for technical or other services rendered).
- (g) Characteristic products relate only to sub-divisions of the industry.
- (h) For sub-divisions of the industry, this is the ratio of sales of characteristic products to total sales of goods produced and work done. For the industry as a whole, this is the ratio of total sales of principal products by the industry to total sales of goods produced and work done.
- (i) Administrative, technical and clerical employees.
- (j) Including both flat rate and graduated contributions.
- (k) Including pensions and gratuities paid other than from pension funds.
- (l) Excluding expenditure for establishments not yet in production.
- (m) Acquisitions less disposals.

TABLE 5 Sales of principal products of the industry by larger firms, including sales by establishments classified to other industries, 1958 and 1963

Firms employing 25 or more persons: United Kingdom

Industry sub-division (a)	1958		1963				
	Quantity	Value	Quantity	Value	Enterprises	Entries	
INDUSTRIAL PLANT	Number	£'000	Number	£'000	Number	Number	
COMPLETE MACHINES							
10	Condensers, steam, other than for steam turbines and marine use	48	270	9	37	*	*
20	Grain processing machinery and plant, including rice milling machinery	..	2,413	..	2,178	15	17
20	Refuse disposal machinery	..	441	..	636	12	12
20	Sewage disposal machinery	..	1,942	..	2,872	20	20
20	Water treatment plant, other than plant for waterworks						
	Water softeners, water filters and water sterilising equipment						
	Domestic	..	227	..	586	7	8
	Other	..	6,658	..	361	9	10
	Other water treatment plant	..		..	2,900	9	9
20	Waterworks equipment and plant	..	1,707	..	1,620	6	7
10	Boiler and boiler-house plant, other than sectional boilers for central heating, boilers for ships and locomotives, burners and furnaces						
	Boilers						
	Water tube (b)	..	35,208	..	17,372	19	19
	Other boilers, including sectional boilers for steam, and locomotive type boilers for stationary purposes, but excluding sectional boilers for central heating	..	8,920	..	9,017	32	36
	Boiler-house plant, sold separately						
	Fuel economisers, feed water heaters and steam superheaters	..	6,422	..	10,686	20	21
	Boiler firing plant						
	Mechanical stokers	..	1,351	..	1,695	22	23
	Other boiler firing plant	..		..	769	*	*
	Other boiler-house plant	..	4,891	..	2,737	20	20
20	Furnaces and kilns						
	Blast furnaces	..	4,523	..	4,565	*	*
	Other metallurgical furnaces						
	Electric	2,028	5,183	2,081	5,703	21	21
	Gas	{ 797	{ 3,654	{ 499	{ 2,714	{ 12	{ 15
		{ ..	{ 555				
	Oil	{ 95	{ 173	{ 427	{ 706	{ 11	{ 11
		{ ..	{ 626				
	Other descriptions	{ 216	{ 259	{ 538	{ 234	{ 7	{ 7
		{ ..	{ 213	{ ..	{ 41		
	Other furnaces and kilns	{ 563	{ 528	{ 1,456	{ 1,191	{ 29	{ 29
		{ ..	{ 846	{ ..	{ 575		

Continued on next page

TABLE 5 (continued)

Industry sub-division (a)	1958		1963			
	Quantity	Value	Quantity	Value	Enterprises	Entries
INDUSTRIAL PLANT (continued)		£'000		£'000	Number	Number
COMPLETE MACHINES (continued)						
20 Chemical making machinery and plant excluding centrifuges and other drying machinery, industrial mixing equipment and filter presses (c)						
Distillation plant, other than for potable spirits						
For mineral oil refining	..	672	..	1,141	*	*
Other	..	735	..	1,108	15	15
Evaporators and crystallisers			..	615	9	9
Solvent extraction equipment			..	308	6	6
Other chemical making machinery and plant and solvent recovery equipment	..	8,635	..	22,631	56	60
Unclassified chemical making machinery and parts	..	5,870	..	2,013	9	9
20 Air and gas cleaning plant, other than air-conditioning equipment						
Electro-static precipitation plant	..	2,072(d)	..	2,630	9	9
Other (e)	..	5,682	..	1,858	17	18
20 Gas making plant						
Coal carbonising plant	..	2,129	..	1,426	9	10
Water gas, producer gas and complete gasification plant	..	1,021	..	6,365	6	6
20 Iron, steel and non-ferrous metal works plant, excluding plant for rolling mills, not elsewhere specified	..	4,035	..	6,781	38	43
20 Electro-plating and other machinery and plant	..	2,395	..	1,034	*	*
PARTS sold in association with the sale of complete machines characteristic of this industry (f)	..	18,792	..	30,029	261	549
Total industrial plant		139,049		147,133	..	..
20 FABRICATED IRON AND STEELWORK, including similar work in other metals (g)	Tons		Tons			
Storage tanks of iron and steel assembled or not, 3mm. and over in thickness	156,961	18,408	107,021	10,574	193	205
	..	3,850	..	5,199		
Buoys and flotation vessels	1,042	183	1,139	225	15	15
	..	133	..	293		
Bunkers, bins and silos	7,961	890	6,721	942	97	99
	..	520	..	1,267		
Heat exchangers	8,431	2,990	13,607	4,878	63	67
	..	2,782	..	1,546		
Pipes and chimneys	25,416	3,563	27,454	3,656	120	127
	..	1,481	..	1,369		
Nuclear reactor vessels	..	(h)	1,080	630	18	18
			..	2,973		

TABLE 5 (continued)

Industry sub-division (a)	1958		1963			
	Quantity	Value	Quantity	Value	Enterprises	Entries
20 FABRICATED IRON AND STEELWORK, including similar work in other metals (g) (continued)	Tons	£'000	Tons	£'000	Number	Number
Other pressure vessels	24,460	4,822	23,076	5,176	87	92
	..	2,697	..	1,852		
Other vessels	7,880	1,927	8,366	2,356	83	85
	..	650	..	1,147		
Other welded and riveted built-up platework	35,606	5,116	74,845	9,331	174	188
	..	1,330	..	4,418		
Bridge components	17,090	2,055	24,514	3,164	38	38
	..	166	..	432		
Mast and tower components	41,464	4,864	48,066	4,702	24	26
	..	540				
Steel shuttering, including road forms	1,837	337	21,235	2,448	19	21
	..	648				
Portable or prefabricated buildings and frame-work and frame sections for prefabricated, temporary and portable buildings (including for houses)	28,568	3,267	163,835	14,883	145	148
	..	2,799	..	3,627		
Staircases of iron and steel	6,392	751	5,672	859	151	153
	..	145	..	939		
Steel tubular scaffolding, including fittings	5,858	742	13,314	1,629	17	19
	..	552	..	944		
Transformer tanks	..	(h)	4,178	968	18	19
			..	1,032		
Other fabricated iron and steelwork (i)	136,071	14,273	227,435	22,957	311	325
	..	16,461	..	13,904		
Unclassified fabricated iron and steelwork	30,992	2,402	35,787	2,882	202	236
	..	1,110	..	5,758		
Less the value of steel work fabricated and used in building and civil engineering by firms classified to the Construction Industry (MLH.500)(g)	-	-	..	30,004	..	..
Total fabricated iron and steelwork (g)		102,454		108,956	..	..
OTHER PRODUCTS	..	1,682	..	1,556	65	68
WASTE PRODUCTS						
Scrap metals	Th. tons		Th. tons			
Iron and steel	92.4	828	113	910	264	302
	..	299	..	149		
Brass	0.3	30	..	96	49	50
	..	9				
Copper	..	16	0.3	51	36	37
Other scrap metals	..	80	..	63	44	45
Other waste products	..	99	..	65	22	23

Continued on next page

TABLE 5 (continued)

Industry sub-division (a)	1958		1963			
	Quantity	Value	Quantity	Value	Enter-prises	Entries
WORK DONE		£'000		£'000	Number	Number
Machinery and plant (other than marine machinery and air-conditioning, heating and ventilating plant) erected and installed and other installation work						
Industrial plant and steelwork						
10 Water tube boilers (b)				13,472	*	*
10 Shell boilers and boiler-house plant				2,839	13	13
20 Chemical plant				30,374	18	22
20 Storage tanks of iron and steel		78,893		1,876	8	8
20 Iron, steel and non-ferrous metal works plant, other than rolling mills				1,248	7	7
20 Other industrial plant and fabricated steelwork				25,374	49	54
Other				4,738	100	117
Research and development work done for customers (including Government Departments)		1,581		1,005	12	13
Total		325,019		339,907	..	..
Sales in other industries (see Table 6)		44,103		56,089	..	..
Principal products of this industry sold by establishments in the industry		280,916		283,819	409	471(j)

(a) The number given is that of the sub-division of which the item is a characteristic product. The sales shown are total sales by larger firms, not merely sales by establishments classified to the sub-division.

(b) The figures for 1958 and 1963 are not strictly comparable owing to the inclusion of some installation charges in the 1958 figure.

(c) For 1958, described as:

	£'000
Chemical making machinery and plant, not elsewhere specified	
Mineral oil refining	672
Oil (other than mineral) extraction and refining	735
Paint, varnish and ink making	466
Soap and fatty acid making	260
Other chemical machinery and plant	7,909
Complete machinery and parts, not separately distinguished	5,870

(d) So far as recorded separately for 1958.

(e) Described in 1958 as 'Other gasworks plant not elsewhere specified including by-products plant'.

(f) For details of these parts see Table 14.

(g) For 1958, firms classified to the Construction Industry included the value of the iron and steel-work they fabricated in their building and civil engineering work but they were not asked to distinguish separately the value of such manufacture: for 1963 firms were asked to report separately the value of fabricated iron and steelwork, and space heating, ventilating equipment, etc. incorporated in their building and civil engineering work.

(h) Not recorded separately for 1958.

(i) Described in 1958 as 'Other, including steelwork separately consigned prepared ready for assembly'.

(j) This figure represents the total number of returns made by larger firms in this industry, which is less than the total number of establishments in Table 2 on account of combined returns covering more than one establishment.

TABLE 6 Sales of principal products of the industry by establishments classified to other industries, 1958 and 1963

Firms employing 25 or more persons: United Kingdom

	1958		1963			
	Quantity	Value	Quantity	Value	Entries	Principal industries in which produced (a)
		£'000		£'000	Number	
INDUSTRIAL PLANT						
Condensers, steam, other than for steam turbines and marine use, complete and parts	..	(b)	..	57	*	44,49
Grain processing machinery and plant, including rice milling machinery						
Complete	..	450	..	518	10	41,47,49
Parts	..	133	..	361	12	47,49,55
Refuse disposal machinery						
Complete	306	*	41,49
Parts	96	8	41,49
Sewage disposal machinery	..	415	..			
Complete	559	11	39,44,47,49
Parts	24	7	45,47
Water treatment plant, other than plant for waterworks						
Complete	..	3,935	..	595	13	49,52
Parts	349	11	49,52
Waterworks equipment and plant						
Complete	..	(b)	..	356	*	49,52
Parts	15	6	(c)
Boiler and boiler-house plant, other than sectional boilers for central heating, boilers for ships and locomotives, burners and furnaces						
Boilers						
Water tube						
Complete	..	2,169	..	833	8	44,47,49,52
Parts	194	9	44,47,49,52
Other boilers, including sectional boilers for steam, and locomotive type boilers for stationary purposes, but excluding sectional boilers for central heating						
Complete	..	1,901	..	2,952	14	44,46,49,60
Parts	..	109	..	622	14	44,45,49,52
Boiler-house plant, sold separately						
Fuel economisers, feed water heaters and steam superheaters						
Complete	..	555	..	1,793	10	44,46,49
Parts	..	78	..	204	6	44,46,49

Continued on next page

TABLE 5 (continued)

	1958		1963			
	Quantity	Value	Quantity	Value	Entries	Principal industries in which produced (a)
		£'000		£'000	Number	
INDUSTRIAL PLANT (continued)						
Boiler and boiler-house plant, other than sectional boilers for central heating, boilers for ships and locomotives, burners and furnaces (continued)						
Boiler-house plant, sold separately (continued)						
Mechanical stokers and other boiler firing plant						
Complete	..	172(d)	..	392	7	42,49
Parts	..	146(d)	..	266	11	42,52
Other boiler-house plant						
Complete	..	800(e)	..	688	11	44,49,52,126
Parts	..	219	..	195	11	49,52
Furnaces and kilns						
Metallurgical furnaces						
Electric			Number			
Complete	..	260	76	201	7	42,47,49,52
Parts	..	18	..	68	9	42,46,47
Gas and oil, complete and parts	..	68	..	942	15	46,47,49,52
Other descriptions including blast furnaces, complete and parts	..	338	..	301	9	46,49,52,53
Other furnaces and kilns						
Complete	..	853	{ 31 ..	{ 232 367	{ 13	{ 49,59,61,66
Parts	..	111	..	454	23	49,61
Chemical making machinery and plant excluding centrifuges and other drying machinery, industrial mixing equipment and filter presses						
Distillation plant, other than for potable spirits						
For mineral oil refining, complete and parts	..	183	..	408	10	44,49,52
Other						
Complete	..	91	{ ..	{ 375	{ 9	{ 46,49,74
Parts	{ ..	{ 150	{ 11	{ 44,49,52
Other chemical making machinery and plant including evaporators and crystallisers, solvent extraction equipment and solvent recovery equipment						
Complete	5,511	35	45,47,49,74
Parts	..	8,284	..	1,285	39	44,46,49,52
Unclassified chemical making machinery, complete and parts	379	5	49,52,62,126

TABLE 6 (continued)

	1958		1963			
	Quantity	Value	Quantity	Value	Entries	Principal industries in which produced (a)
		£'000		£'000	Number	
INDUSTRIAL PLANT (continued)						
Air and gas cleaning plant, other than air-conditioning equipment, complete	..	103	..	489	12	49,52,113
Gas making plant						
Coal carbonising plant						
Complete	..	535	..	1,333	7	22,46,47,49
Parts	..	..	..	464	20	46,47,49,52
Water gas, producer gas and complete gasification plant, complete and parts	..	94	..	479	14	44,46,47,52
Iron, steel and non-ferrous metal works plant excluding plant for rolling mills, not elsewhere specified						
Complete	..	396	..	1,792	26	27,47,49,51
Parts	..	161	..	736	25	46,47,49,52
Other machinery and plant						
Complete	..	569	..	97	*	27
Parts	..	43	-	-	-	-
Total industrial plant, complete and parts		23,187		27,438	..	
FABRICATED IRON AND STEELWORK, including similar work in other metals	Tons		Tons			
Storage tanks of iron and steel assembled or not, 3mm. and over in thickness	{ 1,975 ..	{ 218 1,349	{ 4,197 ..	{ 813 2,328	{ 98	{ 46,49,66,74
Heat exchangers	1,028	509	{ 800 ..	{ 622 784	{ 26	{ 49,52,62,126
Pipes and chimneys	{ 858 ..	{ 210 371	{ 3,672 ..	{ 785 860	{ 53	{ 49,62,74,126
Nuclear reactor vessels	..	(f)	..	673	11	44,47,49,64
Other pressure vessels	{ 7,012 ..	{ 1,482 69	{ 1,414 ..	{ 274 177	{ 25	{ 44,45,64,74
Other vessels, other than buoys and flotation vessels, bunkers, bins and silos	{ 360 ..	{ 104 169	{ 681 ..	{ 244 112	{ 19	{ 38,45,49,52
Buoys and flotation vessels	..	..	{ 80 ..	{ 31 223	{ 6	{ 49,51,62,109
Bunkers, bins and silos	{ 3,940 ..	{ 615 510	{ 2,611 ..	{ 446 369	{ 41	{ 46,47,49,74
Other welded and riveted built-up platework	..	..	{ 19,422 ..	{ 1,726 1,502	{ 72	{ 37,49,61,74
Bridge components	..	..	..	1,162	16	47,49,51,126
Mast and tower components	..	950	663	81	8	46,52
Steel shuttering, including road forms	..	..	148	17	*	49

Continued on next page

TABLE 6 (continued)

	1958		1963			Principal industries in which produced (a)
	Quantity	Value	Quantity	Value	Entries	
FABRICATED IRON AND STEELWORK, including similar work in other metals (continued)	Tons	£'000	Tons	£'000	Number	
Portable or prefabricated buildings and framework and frame sections for prefabricated, temporary and portable buildings (including for houses)	2,838	297	140,957	12,383	112	41,49,62,126
Staircases of iron and steel	764	172	3,352	455	108	40,47,74,126
Transformer tanks	..	(f)	..	154	5	46,49,51,52
Steel tubular scaffolding, including fittings	19,749	2,538	1,762	242	9	37,41,71,126
Other fabricated iron and steelwork	..	4,803	84,962	7,837	151	40,47,74,126
Unclassified fabricated iron and steelwork	27,640	2,127	28,568	2,750	225	37,39,74,126
Less the value of steel work fabricated and used in building and civil engineering by firms classified to the Construction Industry (MLH.500)	-	-	..	30,004	..	
Total fabricated iron and steelwork		17,470		23,143	..	
OTHER PRODUCTS	..	9	-	-	-	
MACHINERY AND PLANT (other than marine machinery and air-conditioning, heating and ventilating plant) erected and installed and other installation work		3,435		5,508	119	34,49,52,126
Total		44,103		56,089	..	

(a) The references given are to the list of industries at the back of this report.

(b) Included with 'Other machinery and plant'.

(c) No significant production was recorded in other industries.

(d) Excluding 'Other boiler firing plant' for 1958.

(e) Including electrostatic precipitation plant for 1958.

(f) Not recorded separately for 1958.

TABLE 7 Sales of other than principal products by larger firms in the industry, 1958 and 1963

Firms employing 25 or more persons: United Kingdom

	1958	1963
	Value	Value
Mechanical engineering products	£'000	£'000
Agricultural machinery		
Grain and grass driers, complete and parts (a)	108	165
Other machinery		
Complete	235	807
Parts (a)	110	
Metal working machine tools; and engineers' small tools and gauges		
Metal working machine tools		
Complete	759	830
Parts (a)	83	
Jigs and fixtures, other than hard metal	55	92
Other products	74	4,941
Textile machinery and accessories, complete and parts (a)	155	284
Contractors' plant and quarrying machinery		
Complete	2,114	579
Parts (a)		349
Mechanical handling equipment		
Conveyors and elevators, other than hay and corn elevators		
Belt		
Complete	1,022	602
Parts (a)	229	145
Other		
Complete	703	935
Parts (a)	142	240
Cranes and bridge transporters, complete and parts (a)	3,040	2,302
Other equipment, complete and parts (a)	1,210	446
Miscellaneous (non-electrical) machinery		
Mining machinery, complete and parts (a)	2,148	955
Refrigerating machinery, complete and parts (a)	212	156
Space heating, ventilating and air-conditioning equipment		
Ventilators, hoods, booths, cowls, ducting and similar sheet metal work	374	771
Other equipment		
Complete	3,570	1,443
Parts (a)	182	429
Pumps		
Complete	697	497
Parts (a)		128
Industrial valves and cocks for the control of liquids, steam and gases, excluding valves for internal combustion engines	411	1,069
Air and gas compressors and exhausters, complete and parts (a)	684	1,182
Drying machinery, not elsewhere specified	415	187

Continued on next page

TABLE 7 (continued)

	1958	1963
	Value	Value
Mechanical engineering products (continued)	£'000	£'000
Miscellaneous (non-electrical) machinery (continued)		
Food and drink preparation, processing and sterilising machinery		
Mineral water, complete and parts (a)	22	32
Brewing and distilling, complete and parts (a)	153	66
Other		
Complete	727	415
Parts (a)	34	146
Pulverising machinery and plant, other than crushing machinery for quarry products, complete and parts (a)	604	572
Rubber working machinery, complete and parts (a)	37	63
Steel and non-ferrous metal rolling mills machinery and plant, complete and parts (a)	287	789
Ordnance and small arms	815	89
General mechanical engineering products		
Parts sold other than in association with the sales of complete machines		
For metal working machine tools	44	57
For textile machinery	65	39
For contractors' plant and quarrying machinery	264	374
For mechanical handling equipment		
Conveyors and elevators, other than hay and corn elevators	609	142
Cranes and bridge transporters	497	352
Other	238	321
For miscellaneous (non-electrical) machinery		
Mining machinery	264	232
Space heating, ventilating and air-conditioning equipment	215	132
Pumps, valves and compressors	310	183
Food and drink preparation, processing and sterilising machinery	195	42
Other	1,445	217
For industrial plant	4,064	100
For other machinery	851	290
Other and unclassified mechanical engineering products	7,676	6,923
Other industries		
Iron and steel (general); and steel tubes	1,211	1,046
Iron castings	1,618	657
Non-ferrous metals	78	983
Electrical engineering	935	1,000
Shipbuilding and marine engineering	5,809	3,438
Motor vehicles, etc. manufacturing	1,290	2,144
Locomotives and railway track equipment; and railway carriages, wagons and trams	3,963	188
Miscellaneous metal manufacture		
Metal furniture	308	1,054
Door and window frames, and casements of metal	258	141
Stampings and pressings	308	750
Vats, tanks and cisterns	170	13
Fencing material of iron and steel, other than of wire	180	482
Other	1,068	1,481
Other products	895	3,006
Total goods sold	56,238	47,473

TABLE 7 (continued)

	1958	1963
	Value	Value
Work done	£'000	£'000
Building and civil engineering work carried out in Great Britain including structural work and the erection and installation of air-conditioning, heating and ventilating plant, but not of other industrial machinery and plant (b)		
Work done as main contractors	9,593	2,820
Work done as sub-contractors	10,351	1,971
(Less) estimated value of goods made and used in the contract work	10,022	2,341
Total work done exclusive of goods made and used in the contract work	9,922	2,450
Other work		
Machinery and plant erected and installed and other installation work (c)	..	1,988
Repair and jobbing work	6,239	8,158
Other work done, on commission, sub-contract work, etc.	1,713	4,088
Services rendered to other organisations (d)	..	2,645
Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored)	13,555	14,773
Canteen takings	598	776
Total	88,265(e)	82,351

(a) Parts sold in association with the sale of complete machines.

(b) The figures for 1963 are not strictly comparable with those for 1958 as explained in the second paragraph of the introduction to the report.

(c) Other than for principal products of the industry.

(d) Amounts charged for hiring out plant, machinery and other goods, for providing transport, or for technical or other services rendered to other organisations.

(e) Excluding amounts charged for services rendered to other organisations.

TABLE 8 Production of certain principal products of the industry by larger firms, including production by establishments classified to other industries, 1958 and 1963

This table is not applicable to this industry.

TABLE 9 Purchases of selected principal products of the industry by larger firms, 1963

This table is not applicable to this industry.

TABLE 10 Purchases by larger firms in the industry, 1954 and 1963
Firms employing 25 or more persons: United Kingdom

	1954		1963	
	Quantity	Cost	Quantity	Cost
Materials for processing	Th.tons	£'000	Th.tons	£'000
Iron				
Pig iron, including refined pig iron, and other irons for re-melting (a)	49.1	809	15.5	391
Castings	25.2	1,760	17.8	1,504
	..	343	..	254
Steel				
Ingots, blooms, billets, slabs, and sheet and tinplate bars	44.3	1,399	100	3,530
Bars and rods (including wire rods), angles, shapes and sections, girders, beams, joists and pillars rolled (not fabricated), including tube rounds and squares (b)	407	13,959	414	22,168
Plates, 3mm. thick and over	313	11,254	443	21,866
Hoop and strip (including tape of all thicknesses)			14.2	770
Sheets under 3mm. thick (including electrical sheets)	24.8	1,094	34.9	2,126
Tinplate, terneplate and blackplate	..	54	0.3	23
Forgings (except drop forgings)	3.4	478	5.2	775
	..	103	..	218
Castings	10.3	1,479	18.6	2,068
	..	276	..	458
Tyres, wheels and axles (rail type)	5.6	451	0.3	85
			..	10
Drop forgings (c)	1.9	205	4.6	396
	..	77		
Iron and steel not elsewhere specified except finished parts, wire and scrap				
Wrought tubes and fittings for wrought tubes (including welded, seamless, conduits, etc.)	40.4	3,773	46.5	5,416
			..	837
Other	9.4	752	17.2	2,686
			..	1,033
Precision chain (e.g. transmission and timing)	..	187	..	129
Springs, laminated and other types	..	94	..	99
Steel wire and wire manufactures (excluding insulated wires and cables) (d)				
Wire (single wire)	..	65	..	660
Wire manufactures including wire cables and ropes and stranded wire of two or more ply	..	136	..	87
Ferro alloys	..	58	..	779
Iron and steel scrap	..	278	..	128
Light metals and non-ferrous metals in all forms except finished parts, wire and scrap				
Aluminium and aluminium alloys	5.3	1,588	3.5	1,283
			..	228
Brass and other copper alloys (including nickel silver and cupro-nickel, but excluding all other nickel alloys)	2.7	957	2.3	762
			..	105
Copper (excluding blister) (e)	0.6	265	0.9	391
			..	85
Lead and alloys of lead (excluding solder)	2.6	377	0.5	61
			..	18
Zinc and alloys of zinc	2.1	175	2.8	237

TABLE 10 (continued)

	1954		1963	
	Quantity	Cost	Quantity	Cost
Materials for processing (continued)		£'000		£'000
Solder, soft	..	4	..	41
Non-ferrous metal wire (single wire, not insulated) (f)	..	7	..	150
Glass in all forms, including finished parts	..	(g)	..	135
Metal powders	..	(h)	..	112
Heavy chemicals (acids, alkalis, alcohols, other inorganic and organic chemicals, compressed gases, etc.)	..	(h)	..	1,279
Paint and varnish (including lacquers and stains)	..	717	Th.gal. 351	520
			..	61
Synthetic resins and plastics materials (excluding leathercloth and reinforced plastics)			Th.cwt.	
Polyethylene and polypropylene and co-polymers sheet, rod, film, foil, profile shapes and monofilament			0.1	8
			..	8
Polyvinyl chloride (including co-polymers) plasticised and unplasticised sheet, film, rod, foil, tube, profile shapes and foam			0.9	23
			..	3
Polystyrene sheet, film, tape, foil and foam			..	8
Phenolics and cresylics	..	(h)		
Resins, solutions, emulsions, dispersions, moulding and extrusion compounds			4.0	36
			..	11
Decorative and other laminated sheet, cast sheet, laminated or cast rod, tube and profile shapes			3.4	27
			..	45
Thermosetting polyesters (including epoxide resins and resin glass fibre mixtures)			3.4	49
			..	13
Refractory materials	..	2,108	..	1,950
Rubber, including hard rubber, balata, gutta-percha and synthetic rubber in all forms, including finished parts	..	553	..	583
Timber			Th.stds.	
Softwood, sawn or planed, but not further prepared or manufactured			2.9	376
			..	175
Hardwood, sawn or planed, but not further prepared or manufactured	..	1,084	Th.cu.ft. 63.2	68
Plywood, including blockboard, laminboard and battenboard	Th.sq.ft. 417	33	Th.sq.ft. 899	53
	..	30	..	11
Woven piece goods (other than narrow fabrics)	..	(h)	..	54
Asbestos in all forms, including finished parts	..	588	..	938
Other thermal insulating materials	..	132	..	257
Insulated wires, cables, strips and strands	..	179	..	403
Bolts, rivets, nuts and washers, screws, nails, tacks, etc.	..	1,803	..	2,398
Machinery bought for installation	..	(h)	..	20,729
Purchased components for incorporation in firms' own products				
Ball and roller bearings and parts thereof	..	453	..	674
Electric motors				
Of less than 1 h.p.			..	189
Of 1 h.p. and over	..	1,537	..	2,496

Continued on next page

TABLE 10 (continued)

	1954		1963	
	Quantity	Cost	Quantity	Cost
Materials for processing (continued)	Number	£'000	Th.gal.	£'000
Purchased components for incorporation in firms' own products (continued)				
Internal combustion engines	427	218	..	16
Industrial valves	..	1,282	..	3,155
Gears and gear wheels of metal	..	625	..	779
Pumps	..	576	..	1,500
Measuring instruments and gauges and parts				
Industrial process measuring and control instruments and equipment	..	743	..	3,851
Other	..	..	..	799
Plastic goods moulded and fabricated	..	170	..	183
Other components not elsewhere specified except those of rubber and asbestos (j)	..	24,961	..	20,730
Lubricating oils and greases (including cutting oils and emulsions)	Th.gal.		Th.gal.	
	200	53	358	98
	..	41	..	176
Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement	..	2,247	..	2,503
All other materials for processing	..	20,889	..	16,423
Packaging materials				
Paper and board				
Boxes, cartons, packing cases, and drums and canisters (with or without metal ends) of paper, cardboard and fibreboard	..	..	..	131
Wrapping paper (including paper coated with plastics and any laminates incorporating paper but not metal), moulded pulp units, labels and other packaging materials of paper, cardboard and fibreboard (except multiwall sacks)	..	37	..	72
Timber				
Containers wholly or mainly of wood, including plywood boxes and drums, baskets and wickerwork crates	..	..	..	176
Timber (sawn or planed) for manufacture into packing cases, etc.	..	407	Th.cu.ft.	
			{ 601	178
			{ ..	35
Plywood for manufacture into packing cases	..	..	..	..
Sheet, film, foams, etc., wholly or mainly of polyethylene (including bags and lay flat tubing)	..	(h)	..	18
All other packaging materials	..	56	..	81
Fuel and electricity (k)	Th.tons		Th.tons	
Coal	110	442	54.6	272
Coke (including screenings) and manufactured fuel	85.7	508	35.3	314
	Th.gal.		Th.gal.	50
Derv fuel and motor spirit for use in road vehicles	1,713	342	2,783	508
	..	47	..	141
Other liquid fuels (including creosote/pitch mixtures, etc., and liquefied petroleum gases)	4,041	204	11,894	595
	..	45	..	76

TABLE 10 (continued)

	1954		1963	
	Quantity	Cost	Quantity	Cost
Fuel and electricity (k) (continued)	Th.therms	£'000	Th.therms	£'000
Gas	6,228	308	11,226	775
	..	69	..	154
Electricity	Th.kWh		Th.kWh	
	220,519	1,134	332,150	1,936
			..	415
Total cost of materials and fuel		107,116		161,689
Goods purchased for merchanting		..		12,459
Canteen purchases		..		738
Total cost of purchases		..		174,885

- (a) Described in 1954 as 'Pig iron except refined pig iron'.
 (b) 'Pillars rolled (not fabricated) including tube rounds and squares' were not included in 1954.
 (c) Described in 1954 as 'Drop forgings of iron and steel'.
 (d) Described as covering 'Iron and steel' in 1954.
 (e) 'Blister' was not specifically excluded in 1954.
 (f) Not specified as 'single' wire in 1954.
 (g) Owing to the risk of disclosure of information relating to individual firms, separate particulars cannot be given, and have been included in 'All other materials for processing'.
 (h) Not recorded separately in 1954.
 (i) 'Strips and strands' were not included in 1954.
 (j) Components of rubber and asbestos were not excluded in 1954.
 (k) The total quantity of electricity generated in firms' own establishments in this industry was 925 Th. kWh in 1954; owing to the risk of disclosure of information relating to individual firms, separate particulars cannot be given for 1963.

TABLE 11 Transport costs and employment of larger firms, 1963
Firms employing 25 or more persons: United Kingdom

	Unit	1963
Average number employed mainly on transport	No.	1,321
Transport costs		
Wages and salaries	£'000	1,068
Derv fuel and motor spirit	"	648
Payments to other organisations for transport	"	3,565
Costs of operating road goods vehicles		
Insurance	"	102
Vehicle licences	"	92
Depreciation	"	436
Payments to other organisations for repairs and maintenance	"	216
Total	"	6,127

TABLE 12 Payments for certain services, etc. by larger firms, 1963 (a)

Firms employing 25 or more persons:
United Kingdom

	Amounts payable
Repairs and maintenance to	£'000
Buildings	558
Road goods vehicles	216
Plant, machinery, and other capital equipment	1,130
Insurance, licensing and depreciation of road goods vehicles (b)	630
Rates, excluding water rates	2,218
Hire of plant and machinery	958
Postage, telephone, telegrams and cables	1,469
Total	7,178

(a) No deduction is made for these payments to arrive at the figures of net output given in this report.

(b) For details see Table 11.

TABLE 13 Percentage analysis of twelve-month periods covered by returns from larger firms, 1963

Firms employing 25 or more persons:
United Kingdom

Year ended	Percentage of total number employed	Year ended	Percentage of total number employed
1963	Per cent.	1963 (contd.)	Per cent.
April (a)	1.8	November	0.1
May	0.4	December	52.7
June	2.7	1964	
July	1.0		
August	0.7	January	3.3
September	9.0	February	0.8
October	1.2	March	26.3
		Total	100

(a) Including returns made for twelve-month periods ended 1st to 5th April, 1964.

TABLE 14 Sales of all parts of industrial plant and steelwork by larger firms, including sales by establishments classified to other industries, 1958 and 1963

Firms employing 25 or more persons: United Kingdom

	1958		1963	
	(i)	(ii)	(i)	(ii)
	£'000	£'000	£'000	£'000
(i) Parts sold in association with the sale of complete machines characteristic of this industry (a)				
(ii) Other parts sold (b)				
Parts of industrial plant and steelwork				
For grain processing machinery and plant, including rice milling machinery	744	159	839	-
For refuse disposal machinery	136	-	170	54
For sewage disposal machinery	164	25	458	
For water treatment plant, other than plant for waterworks				
Water softeners, water filters and water sterilising equipment				
Domestic			34	(c)
Other	1,053	22	145	
Other			595	-
For waterworks equipment and plant	105	56	161	211
For boilers and boiler-house plant, other than sectional boilers for central heating, boilers for ships, and locomotives, burners and furnaces				
Boilers				
Water tube	2,411		4,067	66
Other boilers, including sectional boilers for steam, and locomotive type boilers for stationary purposes, but excluding sectional boilers for central heating	797	761	1,452	-
Boiler-house plant, sold separately				
Fuel economisers, feed water heaters and steam superheaters	407	-	2,130	14
Boiler firing plant	1,630	229	2,074	3,051
For furnaces and kilns				
Blast furnaces	1,194		2,188	184
Other metallurgical furnaces		2,098		
Electric	598		1,042	146
Gas	633	71	833	
Oil	144		506	
Other descriptions	76	40	251	-
Other furnaces and kilns	261	348	931	162
For chemical making machinery and plant excluding centrifuges and other drying machinery, industrial mixing equipment and filter presses				
Distillation plant, other than for potable spirits				
For mineral oil refining	891	2,680	3,438	149
Other	243		273	6
Evaporators and crystallisers			265	-
Solvent extraction equipment				
Solvent recovery equipment	2,451	668		
Other and unclassified chemical making machinery and plant			3,055	758

Continued on next page

TABLE 14 (continued)

(i) Parts sold in association with the sale of complete machines characteristic of this industry (a)	1958		1963	
	(i)	(ii)	(i)	(ii)
(ii) Other parts sold (b)	£'000	£'000	£'000	£'000
Parts of industrial plant and steelwork (continued)				
For gas making plant				
Coal carbonising plant	878	690	1,371	81
Water gas, producer gas and complete gasification plant	1,014	340	1,038	130
For electro-plating plant and machinery	2,958	349	2,712	153
For other iron, steel and non-ferrous metal works plant				530
Total	18,792	8,537	30,029	5,695

(a) Principal products of this industry.

(b) Principal products of General Mechanical Engineering.

(c) Owing to the risk of disclosure of information relating to individual firms separate particulars cannot be given and have been included with parts for other iron, steel and non-ferrous metal works plant.

Capital Expenditure (continued).

(ii) Land and existing buildings.

The items shown are the capital cost of freeholds purchased and the capital cost or premium payable for leaseholds acquired (excluding the value of any assets acquired in taking over an existing business), and the amounts receivable for any freeholds or leaseholds disposed of. The value is that charged to capital account during the year of return.

(iii) Plant, machinery and vehicles.

The items shown are the value of plant and machinery and of vehicles acquired, both new and second-hand, and the amount received for items disposed of during the year. The value of plant and machinery acquired includes plant, etc. which firms produced for their own use in connection with the business covered by the return. The value of plant, etc. acquired is the expenditure charged to capital account during the year of return less any discounts received, but including the cost of transport and installation. No deduction is made for depreciation, amortisation or obsolescence. The proceeds of items disposed of during the year exclude amounts written off for items scrapped.

Capital expenditure during the year in respect of manufacturing establishments where production had not started before the end of the year is excluded in this report for both 1958 and 1963.

Characteristic Products

The characteristic products of a sub-division are those in terms of which the sub-division is defined. They are products commonly associated in production and are usually similar in nature or manner of production. In most cases the characteristic products of each sub-division are indicated in Table 5 of the industry reports. For those industries for which an analysis by sub-divisions has been made, Table 2 shows the total sales of such characteristic products for each sub-division. The totals include, besides the products which define the sub-division, other items of output assumed to be closely related to them, e.g. waste products and work done.

Enterprise

The term enterprise is used in this report to mean one or more firms under common ownership or control. An enterprise normally consists either of a single firm, or of a parent company together with its subsidiary companies.

Entries

The number of entries shown in Tables 5, 6 and 8 against a particular output or production heading is the number of returns on which figures were recorded for that item.

Establishment

The census was based on the establishment, comprising in most cases the whole of the premises under the same ownership or management at a particular address (e.g. a factory or mine); but firms were asked to exclude from all sections of their returns particulars relating to any department not engaged in production for which they kept a separate set of accounts. Where separate accounts were not kept, they were asked to include merchanting or factoring, canteens operated by them and other

ancillary activities such as bottling, packing and the manufacture of containers for packing their own products, whether or not these activities are carried on at the same address as the works. Building and engineering maintenance departments and selling and transport departments were treated similarly.

Gross Output

The gross output of an industry is the aggregate value of goods made and other work done during the year by the establishments classified to the industry. It is derived by subtracting from the value of sales and work done, the value of stocks of goods on hand for sale and work in progress at the beginning of the year and adding the value at the end of the year.

Larger Firms

These are firms in which twenty-five or more persons were employed on the average during the year.

Net Output

The net output of an industry represents the value added to materials by the process of production. It includes the gross margin on any merchanted or factored goods sold; it constitutes the fund from which wages, salaries, insurance, pensions, hire of plant and machinery, payments for repairs and maintenance, costs of operating road vehicles, rents, rates and taxes, advertising and other selling expenses and all other similar charges have to be met, as well as depreciation and profits. There is no appreciable duplication in net output. Net output has been obtained by deducting from the gross output the cost of purchases adjusted for stock changes, payments for work given out to other firms, and payments for transport.

Normally any customs or excise duty on materials purchased is included in the cost of materials. Similarly, finished goods sold have been valued as they were sold, duty paid or duty free. The amounts of duty, subsidies, allowances and levies receivable or payable, where of substantial importance in the industry, were required to be stated separately, and these items were taken into account when calculating net output.

Net output per person employed

The figures for net output per person employed are derived by dividing the net output by the average number of persons employed (full-time and part-time) on all activities covered by the returns, including operatives, administrative, technical and clerical employees and working proprietors, but excluding outworkers.

Principal Products

The principal products of an industry are those in terms of which the industry is defined. They are products commonly associated in production, and are usually similar in nature or manner of production.

Production

This means the total quantity of a product made during the year, whether sold in the year, added to stock, transferred to another department of the same firm, or used in the manufacture of other products within the business covered by the return. It includes goods produced from materials supplied by other firms.

Purchases

Purchases include the cost of materials and components bought for use in production; of fuel and electricity for all purposes; of packing materials, including the full cost of returnable cases and containers when first purchased; of workshop materials, office materials and materials for repairs to firms' own buildings, plant and vehicles when carried out by their own workpeople included in the return; of consumable tools; and of parts for machinery purchased during the year as replacements. Water charges are also included. In general purchases of goods for merchanting or factoring and canteen supplies are included. Materials supplied by customers for processing are excluded.

The values shown include any duty paid (less rebate, etc.) but exclude trade discounts allowed. The cost of transport is included only if included in the cost of materials as invoiced; amounts paid to transport organisations, including firms' own separate transport organisations, for delivery of materials and fuel are, therefore, excluded. Materials purchased overseas are included at their c.i.f. cost plus any duty payable if the cost of transport from the docks was not included in the invoiced price, but at their full delivered cost if invoiced 'carriage paid home'. Materials and fuel transferred from another department of the firm not covered by the same return are included at the estimated selling value recorded by the other department.

Sales

Sales are in respect of goods made by the business covered by the return, goods made for it by outworkers or by other firms from materials given out to them (sometimes described as goods made on commission) and waste products. Any machinery or other capital items produced for use in the business covered by the return are included, the value being that adopted in the firm's capital asset account. Goods sold without being subjected to any manufacturing process (merchanted or factored) and canteen takings are included as in 1958.

The value shown for sales is the net selling value, defined as the amount charged to customers whether on an ex-works or delivered basis, net of any trade discounts, agents' commissions, allowances for returnable cases, purchase tax, etc.; the net amount charged for packing materials is included. Goods charged on a delivered basis to customers overseas are included at the f.o.b. value. For work done on commission or for the trade the value shown is the net amount charged.

Where goods produced in one department were transferred to another department of the same firm not covered by the return, these transfers were treated as sales by the producing department and valued as far as possible as if they had been sold to an independent purchaser. Goods transferred to wholesale or retail selling organisations for which separate accounts were kept were valued on the same basis. Estimations of a similar kind were also sometimes necessary in valuing transfers between different firms belonging to the same enterprise. To the extent that the sales of finished products of one establishment may constitute the materials purchased by another, total figures of the value of sales (and of materials and fuel purchased) include an element of duplication.

Services rendered

This represents the amounts charged for hiring out plant, machinery and other goods, providing transport, or for any technical or other

services rendered to other organisations. It includes amounts credited for similar services rendered to other departments of the same firm not covered by the return.

Small Firms

These are firms in which fewer than twenty-five persons were employed on the average during the year.

Stocks and Work in Progress

Values are given of stocks of goods on hand for sale, and of materials and fuel, at the beginning and end of the year of return, including any stocks of goods held for merchanting or factoring. The values include duty in the case of dutiable goods held out of bond. The value of work in progress at the two dates is also usually shown. This excludes any progress payments made to sub-contractors, and no deduction is made on account of progress payments received.

Transport Payments

These represent the total amount paid or credited during the year for both outwards transport of finished goods sold and inwards transport of materials and fuel purchased. They include payments to other firms, and to any separate transport organisation of the same firm, not covered by the return, but exclude the value of transport services provided by the business covered by the return. The items included are payments for hired cartage and for inwards and outwards carriage by all forms of inland transport, i.e. railways, road haulage, canals, coast-wise shipping, air, etc. Payments made for sea freight on goods sold to customers overseas and on materials and fuel purchased from overseas suppliers are excluded.

Wages and Salaries

These are the amounts paid during the year to operatives and to administrative, technical and clerical employees. Payments to working proprietors, whether called salaries or not, are excluded; in Northern Ireland this exclusion extends also to payments to directors of limited companies. The values shown include all overtime payments, bonuses and commissions, whether paid regularly or not, and no deduction is made for income tax, insurances, contributory pensions, etc. The value of any payments in kind, travelling expenses, lodging allowances, etc. and employers' contributions to National Insurance and pension schemes is excluded.

Work given out

The figures shown represent the total amount paid for work done by other firms on materials supplied to them, and also by firms' own establishments for which separate returns were made. They do not include payments to individual outworkers or payments for business and other services.

Symbols used

The following symbols are used throughout the report:

- .. Not available
- Nil or negligible (less than half the final digit shown)
- * Figures cannot be shown owing to the risk of disclosing information about individual enterprises.

Rounding of Figures

The figures in the tables have, where necessary, been rounded to the nearest final digit. There may, therefore, be apparent slight discrepancies between the sums of the constituent items and the totals shown.

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