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BOARD OF TRADE

THE REPORT ON THE CENSUS OF PRODUCTION FOR 1958

Part 56
ELECTRICAL MACHINERY

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

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1961

TWO SHILLINGS NET

NOTES

These notes give only the main information which is needed for interpreting the census figures. Fuller explanations are given in a separate booklet of Introductory Notes (Part 1 of the Report on the Census of Production for 1958).

CHANGES IN THE 1958 CENSUS

Some changes were introduced in the 1958 census, which affect the comparability between 1954 and 1958 figures.

Returns in full detail were required only from firms employing 25 or more persons, instead of, as previously, from firms employing 11 or more persons.

The coverage of firms' returns for 1958 was in many cases rather wider than for 1954. In both years 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 offices, warehouses, laboratories, etc. at addresses separate from the works were treated as part of the establishment. For 1958, but not for 1954, firms were asked to include also, in all sections of their returns, particulars relating to 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 were carried on at the same address as the works, unless

they were conducted by a separate company, or by a separate department with a separate set of accounts; building and engineering maintenance departments were treated similarly. Selling and transport departments were treated in this way both for 1954 and 1958. While the effect of including these further ancillary activities was generally to produce higher figures for employment etc., the reporting of separate figures for merchant goods led to the exclusion of some firms who proved to be merchants with only minor productive activities.

Changes made for 1958 in the instructions governing the making of returns for two or more establishments operated by the same firm permitted combined returns to be made more freely than in previous censuses. Combined returns were accepted covering establishments in the same census industry, and situated in the same country (i.e. England, Scotland or Wales).

The 1954 figures have been re-tabulated to correspond as closely as possible to those for 1958, but because of the changes described above the correspondence is not always exact.

TERMS USED IN THE CENSUS REPORTS

CAPITAL EXPENDITURE

The expenditure on new building work shown excludes the cost of land and existing buildings purchased; for plant, machinery and vehicles both new and second-hand items are included. The value is that charged to capital account during the year, including any transport and installation cost involved. Capital expenditure in respect of establishments in Great Britain where production had not started before the end of the year is included in Table 1.

CHARACTERISTIC PRODUCTS (See the description of the method of classification before List of Tables)

EMPLOYMENT

(i) 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 fixed wages or salaries; but persons working less than half the normal hours are excluded.

(ii) Employees

Employees are classified under the two main headings of (a) administrative, technical and clerical employees and (b) operatives. The figures relate to persons on the pay-roll (i.e. whose National Insurance cards were held by employers), whether full-time or part-time employees. The figures for 1958 include, but those for 1954 exclude, persons engaged in merchanting or factoring, and canteen workers.

Administrative, technical and clerical employees include managers, superintendents, and works foremen; research, experimental, development, technical and design employees (other than operatives); draughtsmen and tracers; travellers; and office (including works office) employees.

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 and, for 1958, 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 on materials

supplied by the firm in their own homes, etc.) are excluded.

(iii) Total employment

This is the sum of the average number of employees and the number of working proprietors; outworkers are excluded.

ENTERPRISE

The term enterprise is used in this report to mean one or more firms under common ownership or control as defined in the Companies Act, 1948. An enterprise normally consists either of a single firm, or of a holding company together with its subsidiary companies.

ENTRIES

The number of entries shown in Tables 4, 5 and 7 is the number of returns on which figures against a particular output or production heading were recorded. The number of entries is less than the corresponding number of establishments to the extent that combined returns were made covering more than one of the establishments concerned.

ESTABLISHMENT

In most cases an establishment comprises the whole of the premises under the same ownership or management at a particular address (e.g. a factory or mine). Offices, warehouses, laboratories and other ancillary places of business at a separate address from the works were treated as part of the establishment.

INTERMEDIATE PRODUCTS

For some industries figures are given showing the total quantities made during the year of important intermediate products, i.e. products which may be further processed in the establishments in which they are produced, whether or not they are also sometimes sold. They include also goods produced from materials supplied by other firms.

MATERIALS AND FUEL

The totals shown include the cost of all purchases of materials and components for use in production, and of fuel (including oil, gas and electricity) for all purposes including heating, lighting and transport (where carried out by firms' own staff included in the return); all packing

The Report on the Census of Production for 1958

Part 56. ELECTRICAL MACHINERY

This report on the Electrical Machinery Industry relates to establishments engaged in the manufacture of electricity generators, transformers, electric motors (including electric traction motors and transmission equipment, and associated rectifiers), switchgear, etc. Electrical equipment for motor vehicles, cycles and aircraft is excluded. The industry corresponds to minimum list heading 361 of the second (1958) edition of the Standard Industrial Classification, which has been used for the first time in the 1958 Census.

This industry corresponds to part of Industry 4K (Electrical Engineering (General)) in the reports on the last detailed Census of Production, for 1954. Electrical equipment for motor vehicles, cycles and aircraft and other electrical goods, which were also formerly reported on in Industry 4K, now form part of minimum list heading 369 and are included in the report on Miscellaneous Electrical Goods (Part 61).

For 1958, returns in full detail were required only from firms employing twenty-five or more persons and most of the tables in this report relate only to these larger firms. This is an important change from previous censuses when returns in full detail were required from firms employing eleven or more persons on productive work. Estimates for the industry as a whole are given in Table 1.

The figures given for 1954 correspond as closely as possible to those collected for 1958 but the correspondence is not exact, especially in respect of the small firms who gave only limited information. Some other changes introduced in the 1958 Census also affect the comparability between 1954 and 1958 figures; these are explained in the notes prefacing this report.

METHOD OF CLASSIFICATION

This industry is defined in terms of its 'principal products' which are those shown in Table 4. A census return was classified to this industry if the sales of the principal products of this industry accounted for a greater proportion of its output than the principal products of any other industry. Where, however, the application of this rule would have resulted in a change of classification between 1954 (on the revised basis) and 1958, the return was classified to the same industry as for 1954 unless the output of principal products in the new industry was one third more than in the old; this modification of the general rule was designed to avoid discontinuities as the result of marginal changes of output between the two censuses. Sales of merchanted products and of non-specific items such as waste products, work done and canteen takings were not taken into account in classifying returns.

materials, including the full cost of returnable cases and containers when first purchased; workshop materials; office materials; water charges; materials for repairs to firms' own buildings, plant and vehicles when carried out by their own work-people included in the return; consumable tools; and parts for machinery purchased during the year as replacements. Purchases of goods for merchancing or factoring, and canteen supplies, are included for 1958 but not for 1954. Materials supplied by customers for processing are excluded for both years.

The values shown include any duty paid (less rebate, etc.) but exclude trade discounts allowed. The cost of transport was 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 were entered at their c.i.f. cost plus any duty if the cost of transport from the docks was not included in the invoiced price, and at their full delivered cost if invoiced 'carriage paid home'.

NET OUTPUT

The net output of an industry represents the value added to materials by the process of production and includes for 1958 the gross margin on any merchanted or factored goods sold; it constitutes the fund from which wages, salaries, 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 was normally obtained by taking the total value of sales and work done (including, for 1958, the value of merchanted goods sold and canteen takings); adding the value of stocks at the end of the year and deducting their value at the beginning of the year; and deducting also the cost of materials and fuel purchased (including, for 1958, the value of goods purchased for merchancing and canteen supplies), payments for work given out to other firms, and payments for transport. The net amount of duty paid was deducted, and the net amount of subsidy received added.

NET OUTPUT PER PERSON EMPLOYED

The figures for net output per person employed are derived by dividing net output by total employment (see above).

PRINCIPAL PRODUCTS (See the description of the method of classification before List of Tables)

SALES

Sales include goods made by the business covered by the return, those 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 sold. Any machinery or other capital items produced for use in the business covered by the return are also included, the value being that adopted in the firm's capital account for income tax purposes. Goods sold without being subjected to any manufacturing process (merchanted or factored) and canteen takings are included for 1958 but not for 1954; where the total sales of merchanted or factored goods were less than £5,000, firms were permitted to include them with the figures for sales of goods of their own production.

The value shown for sales is the net selling

SYMBOLS USED

The following symbols are used throughout the reports:

- .. for not available
- for nil or negligible (less than half the final digit shown)

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. With a few exceptions, receipts for business and other services are not included.

To the extent that the finished products of one establishment constitute the materials purchased by another, total figures of the value of sales (and of materials and fuel purchased) include an element of duplication.

STOCKS AND WORK IN PROGRESS

The values shown are the income tax values of stocks of products on hand for sale, and of materials and fuel, at the beginning and end of the year of return. For 1958, but not for 1954, they include any stocks of goods held for merchancing or factoring. The value of work in progress at the two dates is also usually shown. This excludes any progress payments made to subcontractors, 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, that is 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. 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. is excluded.

Figures are also shown for average salaries etc. paid per head for the week ended 25th October, 1958. For staff paid monthly, the figures are based on payments made in October, 1958. Where payments related to periods other than a week or month, an appropriate proportion was returned. Only those bonuses and commissions actually paid in the period are included.

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.

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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Industry summary: United Kingdom

TABLE 1 Estimates for all firms (a)

	Unit	1954	1958	
Number of enterprises	No.	..	666	
Number of establishments	"	..	825	
Sales	{ goods produced and work done	£'000	256,410	352,718
	{ merchant goods and canteen takings	"	..	31,990
Purchases of materials and fuel (b)	"	110,109	163,853	
Products on hand for sale (b)	{ change during year	"	- 193	+ 2,030
	{ at end of year	"	13,252	14,906
Work in progress	{ change during year	"	+ 3,408	+ 641
	{ at end of year	"	63,344	87,219
Stocks of materials and fuel (b)	{ change during year	"	- 1,620	- 1,355
	{ at end of year	"	28,928	35,924
Payments for work done on materials given out	"	2,616	6,200	
Payments for transport	"	2,756	3,790	
Net output	"	142,525	212,182	
Average number employed (c)	{ operatives	Th.	129.1	138.7
	{ other employees	"	53.3	64.6
	{ total, including working proprietors	"	182.5	203.6
Wages and salaries	{ of operatives	£'000	56,114	77,673
	{ of other employees	"	30,298	46,681
Capital expenditure (d)				
New building work	"	2,697	4,580	
Plant and machinery	{ acquisitions	"	5,503	10,529
	{ disposals	"	153	494
Vehicles	{ acquisitions	"	624	953
	{ disposals	"	129	304

(a) For 1958, estimates in respect of returns from small firms and unsatisfactory returns accounted for about 3 per cent. of the total figures in which they were incorporated. A summary of the detailed returns received is given in Table 2.

(b) Goods for merchanting and canteen supplies are included for 1958 but excluded for 1954.

(c) Persons engaged in merchanting or factoring and canteen workers are included for 1958 but excluded for 1954.

(d) Including expenditure in Great Britain for establishments not yet in production.

Summary of returns received

TABLE 2 Firms employing 25 or more persons: United Kingdom (a)

	Unit	1954	1958
Number of enterprises	No.	231	227
Number of establishments	"	354	373
Sales	£'000	249,733	343,533
{ goods produced and work done	"	..	31,157
{ merchanted goods and canteen takings	"	..	..
Purchase of materials and fuel (b)	"	107,241	159,586
Products on hand for sale (b)	"	- 188	+ 1,977
{ change during year	"	..	12,907
{ at end of year	"	..	..
Work in progress	"	+ 3,319	+ 625
{ change during year	"	..	61,694
{ at end of year	"	..	..
Stocks of materials and fuel (b)	"	- 1,577	- 1,320
{ change during year	"	..	28,175
{ at end of year	"	..	..
Payments for work done on materials given out	"	2,548	6,039
Payments for transport	"	2,684	3,691
Net output	"	138,813	206,657
Average number employed (c)	No.	125,817	135,241
{ operatives	"	..	51,953
{ other employees	"	..	..
{ total, including working proprietors	"	..	177,781
Net output per person employed	£	781	1,042
Wages and salaries	£'000	54,696	75,710
{ of operatives	"	..	29,532
{ of other employees	"	..	..
Wages and salaries per head	£	435	560
{ operatives	"	..	568
{ other employees	"	..	..
Capital expenditure (d)	£'000	2,620	4,435
{ New building work	"	..	5,359
{ Plant and machinery	"	..	149
{ acquisitions	"	..	..
{ disposals	"	..	..
{ Vehicles	"	..	607
{ acquisitions	"	..	..
{ disposals	"	..	126

(a) The following information relates to small firms (employing fewer than 25 persons) in this industry:

	1958
Number of returns	409
Average number of persons employed including working proprietors	
Males	3,256
Females	1,034

(b) Goods for merchandising and canteen supplies are included for 1958 but excluded for 1954.

(c) Persons engaged in merchandising or factoring and canteen workers are included for 1958 but excluded for 1954.

(d) Excluding expenditure at establishments not yet in production.

Analysis by size of enterprise within the industry, 1958

TABLE 3 Firms employing 25 or more persons: United Kingdom

Average number employed by the enterprise in this industry (a)	Enterprises	Establishments	Total sales (b)	Net output	Employees		Wages and salaries		Capital expenditure (c)	Net output per person employed (a)
					Operatives	Others	Operatives	Others		
	Number	Number	£'000	£'000	Number	Number	£'000	£'000	£'000	£
25 - 49	45	52	2,876	1,438	1,270	342	603	292	71	889
50 - 99	56	58	6,350	3,286	2,998	877	1,337	594	127	848
100 - 199	38	47	10,879	5,520	4,360	1,299	2,037	933	353	975
200 - 299	20	20	9,587	4,485	3,731	1,245	1,954	953	314	901
300 - 399	7	9	3,758	2,106	1,910	613	936	447	146	835
400 - 499	12	23	9,709	5,196	3,873	1,495	1,927	1,051	226	966
500 - 749	11	15	9,367	5,642	5,075	1,633	2,378	1,251	447	841
750 - 999	11	38	18,032	8,731	6,500	2,671	3,471	1,923	416	952
1,000 - 1,499	10	23	23,725	12,202	8,939	3,253	5,025	2,464	990	1,001
1,500 - 2,499	4	12	17,433	8,046	5,416	2,657	2,711	2,001	566	997
2,500 - 3,999	4	11	22,867	13,182	8,939	3,793	5,106	2,757	988	1,035
4,000 - 7,499	4	23	42,441	22,032	13,370	7,727	7,448	5,431	1,761	1,044
7,500 and over	5	42	197,666	114,792	68,860	35,406	40,778	25,406	9,213	1,101
Total	227	373	374,690	206,657	135,241	63,011	75,710	45,501	15,616	1,042

(a) Including working proprietors.

(b) Value of sales of goods (including merchanted goods), work done, and canteen takings.

(c) Capital expenditure on new building work and on acquisition of plant, machinery and vehicles. Excluding expenditure for establishments not yet in production.

Sales of principal products of the industry by larger firms, including sales by establishments classified to other industries

TABLE 4 Firms employing 25 or more persons: United Kingdom

Kind of output (i) Complete machines (ii) Parts	1954			1958			Enter-prises	Entries
	Quantity		Value	Quantity		Value		
	Number	Th.kVA	£'000	Number	Th.kVA	£'000		
Electrical machinery (new)								
Generators								
Alternating current								
Not over 250 kVA	(i) { 17,137 6,039	287	2,383	13,320	185	1,974	29	31
	(ii) { .. ..	..	394	2,703	..	290	15	15
	(ii) { .. ..	..	248	..	..	442	15	15
251 - 10,000 kVA	(i) { 673 78	638	3,320	478	620	2,634	13	15
	(ii) { .. ..	..	149	..	..	162	8	10
	(ii) { .. ..	..	100	..	..	131	8	10
10,001 - 30,000 kVA	(i) { 25 5	505	1,426	63	778	2,449	6	7
	(ii) { .. ..	..	191	..	..	194	6	7
	(ii) { .. ..	..	238	..	..	194	6	7
Over 30,000 kVA	(i) { 68	3,483	6,559	52	5,178	8,506	..	6
	(ii) { ..	..	759	..	..	1,028	..	7
Direct current								
Not over 200 kW	(i) { 11,933 12,549	Th.kW 148	2,125	6,661	Th.kW 180	3,430	32	34
	(ii) { .. ..	..	843	4,507	..	378	14	16
	(ii) { .. ..	..	252	..	..	104	14	16
	(ii) { .. ..	..	248	..	..	334	14	16
Over 200 kW	(i) { 293 136	161	1,120	472	308	2,453	9	12
	(ii) { .. ..	..	344	27	..	65	6	9
	(ii) { .. ..	..	13	..	..	149	6	9
	(ii) { .. ..	..	173	..	..	149	6	9
Generating sets (a)	(i) { 3,373	..	2,722	2,780	..	4,404	24	26
	(ii) { ..	..	1,763	..	..	1,181	7	7
	(ii) { ..	..	253	..	..	937	7	7
Railway, tramway and trolley bus motors	(i) { 1,743	Th.h.p. 258	2,038	2,670	Th.h.p. 613	6,109	5	7
	(ii) { ..	..	200	..	..	561	5	7
Traction motors (other than railway, tramway and trolley bus)	(i) { 1,422 4,588	7.3	81	3,080	..	671	6	6
	(ii) { .. ..	..	314	..	..	208	7	7
	(ii) { .. ..	..	36	..	..	208	7	7
	(ii) { .. ..	..	266	..	..	208	7	7
Motors, other than traction, sold separately	(i) { 749,040 419,481	131	4,070	1,354,874	243	6,245	56	57
	(ii) { .. ..	..	1,323	1,692,140	..	4,145	32	34
	(ii) { .. ..	..	4,078	..	..	189	32	34
	(ii) { .. ..	..	1,282	..	..	1,115	32	34
Not over one-third h.p.	(i) { 211,370 10,903	132	1,719	234,219	168	2,422	33	34
	(ii) { .. ..	..	218	66,962	..	402	18	19
	(ii) { .. ..	..	776	..	..	65	18	19
	(ii) { .. ..	..	133	..	..	110	18	19

TABLE 4 (contd.)

Kind of output (i) Complete machines (ii) Parts	1954			1958			Enter-prises	Entries
	Quantity		Value	Quantity		Value		
	Number	Th.h.p.	£'000	Number	Th.h.p.	£'000		
Electrical machinery (new) (contd.)								
Motors, other than traction, sold separately (contd.)								
Alternating current								
1 - 50 h.p.	(i) { 331,897 23,771	1,947	10,518	416,015	3,291	15,647	46	50
	(ii) { .. ..	..	1,137	4,604	..	493	30	32
	(ii) { .. ..	..	810	..	..	1,325	30	32
	(ii) { .. ..	..	627	..	..	460	30	32
51 - 250 h.p.	(i) { 9,217 252	901	4,621	12,118	1,401	6,613	22	25
	(ii) { .. ..	..	128	542	..	515	15	16
	(ii) { .. ..	..	165	..	..	441	15	16
	(ii) { .. ..	..	285	..	..	289	15	16
251 - 1,000 h.p.	(i) { 1,861 6	582	2,631	1,330	546	2,693	14	16
	(ii) { .. ..	..	7	176	..	536	9	11
	(ii) { .. ..	..	97	..	..	262	9	11
	(ii) { .. ..	..	108	..	..	134	9	11
Over 1,000 h.p.	(i) { 209	376	1,388	177	319	1,580	10	11
	(ii) { ..	..	92	..	..	447	8	9
	(ii) { ..	..	131	..	..	111	8	9
Direct current								
1 - 50 h.p.	(i) { 19,093 4,775	171	2,390	19,896	158	2,847	32	37
	(ii) { .. ..	..	1,037	4,764	..	424	19	21
	(ii) { .. ..	..	87	..	..	827	19	21
	(ii) { .. ..	..	230	..	..	164	19	21
51 - 250 h.p.	(i) { 1,454	130	1,216	2,087	215	2,260	18	20
	(ii) { ..	..	192	47	..	57	11	12
	(ii) { ..	..	109	..	..	81	11	12
251 - 1,000 h.p.	(i) { 118 3	44.3	380	126	56.1	67.5	11	13
	(ii) { ..	..	12	10	..	18	8	9
	(ii) { ..	..	16	..	..	55	8	9
	(ii) { ..	..	30	..	..	51	8	9
Over 1,000 h.p.	(i) { 46	111	1,177	..	..	1,641	5	6
	(ii) { ..	..	10	..	..	44	..	6
	(ii) { ..	..	82	..	..	44	..	6
Converting machinery	(i) { 4,111 2,823	14.5	381	12,980	Th.kW 44.8	1,019	13	13
	(ii) { ..	..	130	3,943	..	398	5	5
	(ii) { ..	..	69	..	..	53	5	5
	(ii) { ..	..	69	..	..	33	5	5
Mercury arc rectifiers (glass bulb and steel tank)	(i) { 12,223 18,173	377	2,294	(i) { 28,761 52,652	62.4	1,699	9	9
	(ii) { .. ..	..	590	(ii) { .. ..	..	877	8	8
	(ii) { .. ..	..	3,182	(i) { ..	..	3,737	8	8
	(ii) { .. ..	..	607	(i) { ..	..	3,737	8	8
Rectifiers, other than mercury arc (including metal but excluding hot cathode mercury vapour and gas-filled rectifiers)	(i) { 28,761 52,652	62.4	1,699	(i) { ..	..	877	20	24
	(ii) { ..	..	3,737	(i) { ..	..	3,737	20	24
	(ii) { ..	..	3,737	(i) { ..	..	3,737	20	24
Transformers for lighting, heating and power including choking coils	(i) { 78,471 88,988	Th.kVA 60.5	651	175,697	Th.kVA 102	1,344	58	61
	(ii) { ..	..	382	404,573	..	669	12	12
	(ii) { ..	..	558	..	..	571	12	12
	(ii) { ..	..	51	..	..	105	12	12
Not over 5 kVA	(i) { 78,471 88,988	Th.kVA 60.5	651	175,697	Th.kVA 102	1,344	58	61
	(ii) { ..	..	382	404,573	..	669	12	12
	(ii) { ..	..	558	..	..	571	12	12
	(ii) { ..	..	51	..	..	105	12	12

TABLE 4 (contd.)

Kind of output (i) Complete machines (ii) Parts	1954			1958				
	Quantity		Value	Quantity		Value	Enter-prises	Entries
	Number	Th.kVA	£'000	Number	Th.kVA	£'000	Number	Number
Electrical machinery (new) (contd.)								
Transformers for lighting, heating and power including choking coils (contd.)								
Over 5 - 800 kVA	(i) { 18,449 2,119 } (ii) { }	2,495	5,523 283 1,625 171	36,329 4,941	3,378	8,372 1,272 1,157 158	42 16	45 17
Over 800 - 7,500 kVA	(i) { 1,803 .. } (ii) { }	9,406	12,600 341 549	(i) { 1,386 154 } (ii) { }	3,092	5,236 367 190 499	22 13	24 14
Over 7,500 - 30,000 kVA	(i) { } (ii) { .. .. }	.. .. ..	.. .. ..	(i) { 424 .. } (ii) { }	6,185	7,450 95	15 10	17 11
Over 30,000 kVA	(i) { 111 .. } (ii) { }	5,990	4,419 9 101	192 ..	14,605 ..	9,735 55	10 6	11 6
Current limiting reactors	(i) 958 (ii) ..	..	622 12	217 ..	..	424 4	11 ..	12 ..
Capacitors for power factor improvement	(i) Th. 1,167 (ii) ..	..	2,180 19	Th. 1,255 ..	..	1,731 11	10 ..	13 ..
Starting and controlling gear for marine, traction and other electric motors	(i) .. (ii) ..	..	19,598 1,537	.. ..	..	29,513 2,175	63 31	67 35
Switchgear and switchboards (other than telegraph and telephone)								
Not exceeding 660 volts	(i) .. (ii) ..	..	14,190 896	.. ..	..	25,991 1,569	103 45	113 52
Over 660 volts and not exceeding 15,000 volts or 350 mVA	(i) .. (ii) ..	..	17,788 828	.. ..	..	19,095 881	25 15	31 20
Over 15,000 volts or 350 mVA	(i) .. (ii) ..	..	10,988 343	.. ..	..	19,229 517	14 10	16 12
Fuses and fuse gear	(i) .. (ii) ..	..	6,371 485	.. ..	..	10,827 725	50 18	55 21
✓ Electricity meters								
Complete								
Pre-payment type AC and DC				74.7		655	7	7
Singlephase credit type AC				1,047		3,491	9	11
Polyphase credit type AC		1,360	5,254	85.8		1,024	10	11
Other integrating meters AC and DC				28.3		400	9	11
Parts			598	..		486	13	17
Other electrical machinery (new) (b)	(i) .. (ii) ..	..	4,296 469	.. ..	..	6,624 1,233	47 31	52 33
Electrical machinery (reconditioned)	(i) .. (ii) ..	..	642 87	.. ..	..	851 45	17 5	17 5
Electrical machinery, unclassified	(ii) ..	..	1,590	..	..	1,320	10	10
Other products	..	..	4,848	..	..	6,126	37	42

TABLE 4 (contd.)

	1954		1958			
	Quantity	Value	Quantity	Value	Enter-prises	Entries
	Th. tons	£'000	Th. tons	£'000	Number	Number
Scrap metals sold						
Iron and steel	{ 74.0 .. }	383 111	96.5 ..	699 53	{ 106	124
Copper	{ 2.8 .. }	531 112	3.7 ..	508 69	{ 122	142
Brass	{ 3.3 .. }	457 61	2.5 ..	278 136	{ 91	110
Other metals	..	268	..	253	64	78
Other waste products sold	..	16	..	41	29	35
Work done						
Machinery purchased and installed and other installation work		2,731		9,432	23	26
Repair and maintenance work on customers' machinery, plant, apparatus and appliances		3,848		6,119	95	107
Research and development work for customers (including Government Departments)		1,612		5,620	16	20
Other work done on commission		1,105		462	23	23
Total		211,981		301,554	..	..
Sales in other industries (see Table 5)		21,810		28,626	..	..
Principal products of this industry sold by establishments in the industry		190,171		272,928	227	258(c)

- (a) Firms were asked, wherever practicable, to show separate figures for the prime mover and generator components of generating sets.
(b) Excluding welding machinery, other than tube making, and welding electrodes (other than carbon and graphite), for which see the report on the Metal-working Machine Tools Industry, and hoists and other lifting machinery, for which see the Mechanical Handling Equipment Industry.
(c) This figure represents the total number of returns made by larger firms in this industry, which is less than the total number of establishments shown in Table 2 on account of combined returns covering more than one establishment.

Sales of principal products of the industry by establishments
classified to other industries

TABLE 5 Firms employing 25 or more persons: United Kingdom

Kind of output (i) Complete machines (ii) Parts	1954		1958			
	Quantity	Value	Quantity	Value	Entries	Principal industries in which produced (a)
Electrical machinery (new)		£'000		£'000	Number	
Generators						
Alternating current (i) and (ii)	..	3,248	}	7,832	17	45, 60, 62, 63
Direct current (i) and (ii)	..	293				
Generating sets (i) and (ii)	..	2,592				
Motors, other than traction, sold separately						
Under 1 h.p. (i) and (ii)	..	2,665	..	2,487	16	50, 58, 59, 63
Alternating current and direct current (i) and (ii)	..	453	..	610	..	43, 50, 60
Mercury arc and other rectifiers (including metal, but excluding hot cathode mercury vapour and gas-filled rectifiers) (i) and (ii)	..	1,020	..	1,318	11	51, 54, 58, 66
Transformers for lighting, heating and power including choking coils (i) and (ii)	..	3,004	..	4,273	18	45, 57, 59, 61
Capacitors for power factor improvement (i) and (ii)	..	1,947	..	1,648	..	57, 58, 59
Starting and controlling gear for marine, traction and other electric motors (i) and (ii)	..	780	..	1,950	14	42, 54, 59, 61
Switchgear and switchboards (other than telegraph and telephone) (i) and (ii)	..	1,683	..	2,376	27	39, 57, 60, 61
Fuses and fuse gear (i) and (ii)	..	1,643	..	2,806	16	57, 58, 60, 61
Electricity meters	{ (i)	997	..	1,659	6	50, 53, 59, 61
	(ii)	211	..	173	8	
Other electrical machinery	{ (i)	489	..	1,094	18	
	(ii)	28	..	277	11	
Electrical machinery, unclassified (ii)	..	756	..	120	..	
Total		21,810		28,626	..	

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

Sales of other than principal products by larger firms in the industry

TABLE 6 Firms employing 25 or more persons: United Kingdom

	1954		1958	
	Quantity	Value	Quantity	Value
		£'000		£'000
Iron castings	..	977	..	1,077
Non-ferrous metals	..	91	..	194
Welding machinery				
Complete	..	838	..	630
Parts, including welding electrodes	..	403	..	398
Industrial engines				
Complete, machines	..	7,227	..	10,430
Parts	..	725	..	877
Mechanical handling equipment and parts	..	492	..	1,048
Other non-electrical machinery	..	3,023	..	2,653
Industrial plant and steelwork	..	524	..	1,015
Other mechanical engineering, not elsewhere specified	..	2,168	..	4,025
Scientific, surgical and photographic instruments, etc.	..	4,919	..	5,027
Insulated wires and cables	..	305	..	253
Telegraph and telephone apparatus	..	226	..	141
Radio and other electronic apparatus				
Valves, including cathode ray tubes	}	10,659	..	2,150
Radio and other electronic equipment			..	9,587
Domestic electrical appliances	..	5,224	..	8,645
Electrical equipment for motor vehicles, cycles and aircraft	..	1,086	..	2,271
Electric lamps, batteries and other miscellaneous electrical goods	..	10,060	..	7,980
Shipbuilding and marine engineering	..	1,557	..	2,862
Locomotives and railway track equipment	..	1,542	..	4,519
Other products	..	6,184	..	3,711
Total goods sold	..	58,230	..	69,493
Structural work carried out in Great Britain (Electrical and other contract work on buildings, civil engineering works, etc., excluding the installation of machinery, etc.)				
Work done as main or direct contractors	}	566	..	689
Work done as sub-contractors			..	176
(Less) estimated value of goods made by firms and separately recorded as sold which were used in the contract work		-		32
Total structural work carried out exclusive of the value of goods made and used in the contract work		566		833

TABLE 6 (contd.)

	1954		1958	
	Quantity	Value	Quantity	Value
Other work done		£'000 767		£'000 279
Total value of goods sold without being subjected to any manufacturing process (merchanted or factored)		..		29,940
Canteen takings		..		1,217
Total		..		101,762

TABLE 7 - Total make of intermediate products, 1958

This table is not applicable to the industry.

Employment and salaries, etc. for the week ended October 25, 1958

TABLE 8 Firms employing 25 or more persons: United Kingdom

	Males	Females	Total
	Number	Number	Number
Working proprietors	10	1	11
Operatives	106,371	29,205	135,576
Administrative, technical and clerical employees	44,386	19,255	63,641
Total employees	150,757	48,460	199,217
Average salaries, etc. paid per head for the week to administrative, technical and clerical employees	£ 16.7	£ 7.0	£ 13.8

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- 3 Stone and Slate Quarrying and Mining
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- 5 Metalliferous Mining and Quarrying
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- 7 Grain Milling
- 8 Bread and Flour Confectionery
- 9 Biscuits
- 10 Bacon Curing, Meat and Fish Products
- 11 Milk Products
- 12 Sugar
- 13 Cocoa, Chocolate and Sugar Confectionery
- 14 Fruit and Vegetable Products
- 15 Animal and Poultry Foods
- 16 Margarine
- 17 Starch and Miscellaneous Food Industries
- 18 Brewing and Malting
- 19 Spirit Distilling and Compounding
- 20 Soft Drinks, British Wines, Cider and Perry
- 21 Tobacco
- 22 Coke Ovens and Manufactured Fuel
- 23 Mineral Oil Refining
- 24 Lubricating Oils and Greases
- 25 Dyestuffs
- 26 Fertilizers, and Chemicals for Pest Control
- 27 Coal-tar Products
- 28 Chemicals (General)
- 29 Pharmaceutical Preparations
- 30 Toilet Preparations
- 31 Explosives and Fireworks
- 32 Paint and Printing Ink
- 33 Vegetable and Animal Oils and Fats
- 34 Soap, Detergents, Candles and Glycerine
- 35 Synthetic Resins and Plastics Materials
- 36 Polishes
- 37 Gelatine, Adhesives, etc.
- 38 Iron and Steel (General)
- 39 Steel Tubes
- 40 Iron Castings, etc.
- 41 Non-ferrous Metals
- 42 Agricultural Machinery (except Tractors)
- 43 Metal-working Machine Tools
- 44 Engineers' Small Tools and Gauges
- 45 Industrial Engines
- 46 Textile Machinery and Accessories
- 47 Contractors' Plant and Quarrying Machinery
- 48 Mechanical Handling Equipment
- 49 Office Machinery
- 50 Miscellaneous (Non-electrical) Machinery
- 51 Industrial Plant and Steelwork
- 52 Ordnance and Small Arms
- 53 General Mechanical Engineering
- 54 Scientific, Surgical and Photographic Instruments, etc.
- 55 Watches and Clocks
- 56 Electrical Machinery
- 57 Insulated Wires and Cables
- 58 Telegraph and Telephone Apparatus
- 59 Radio and Other Electronic Apparatus
- 60 Domestic Electrical Appliances
- 61 Miscellaneous Electrical Goods
- 62 Shipbuilding and Marine Engineering
- 63 Motor Vehicle Manufacturing
- 64 Motor Cycle, Three-wheel Vehicle and Pedal Cycle Manufacturing
- 65 Aircraft Manufacturing and Repairing
- 66 Locomotives and Railway Track Equipment
- 67 Railway Carriages and Wagons and Trams
- 68 Perambulators, Hand-trucks, etc.
- 69 Tools and Implements

Part

- 70 Cutlery
- 71 Bolts, Nuts, Screws, Rivets, etc.
- 72 Wire and Wire Manufactures
- 73 Cans and Metal Boxes
- 74 Jewellery, Plate and Refining of Precious Metals
- 75 Miscellaneous Metal Manufactures
- 76 Production of Man-made Fibres
- 77 Spinning and Doubling of Cotton, Flax and Man-made Fibres
- 78 Weaving of Cotton, Linen and Man-made Fibres
- 79 Woollen and Worsted
- 80 Jute
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- 83 Lace
- 84 Carpets
- 85 Narrow Fabrics
- 86 Household Textiles and Handkerchiefs
- 87 Canvas Goods and Sacks
- 88 Textile Finishing
- 89 Asbestos
- 90 Miscellaneous Textile Industries
- 91 Textile Converting
- 92 Leather (Tanning and Dressing) and Fellmongery
- 93 Leather Goods
- 94 Fur
- 95 Weatherproof Outerwear
- 96 Men's and Boys' Tailored Outerwear
- 97 Women's and Girls' Tailored Outerwear
- 98 Overalls and Men's Shirts, Underwear, etc.
- 99 Dresses, Lingerie, Infants' Wear, etc.
- 100 Hats, Caps and Millinery
- 101 Corsets and Miscellaneous Dress Industries
- 102 Gloves
- 103 Footwear
- 104 Bricks, Fireclay and Refractory Goods
- 105 Pottery
- 106 Glass
- 107 Cement
- 108 Abrasives
- 109 Miscellaneous Building Materials, etc.
- 110 Timber
- 111 Furniture and Upholstery
- 112 Bedding, etc.
- 113 Shop and Office Fitting
- 114 Wooden Containers and Baskets
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- 118 Miscellaneous Manufactures of Paper and Board
- 119 Printing and Publishing of Newspapers and Periodicals
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CENSUS OF PRODUCTION REPORTS FOR OTHER RECENT YEARS

The census reports for earlier years include some items which are not included in the Report on the Census of Production for 1958. The most recent reports are listed below, with an indication of any important items they contain which do not appear in the 1958 Reports. The data in all these earlier reports is analysed in accordance with the original (1948) edition of the Standard Industrial Classification.

Census of Production for 1951: Summary Tables, Part I (H.M.S.O., 1956. Price 6s. net).

No important items which do not appear in the 1958 Reports.

Census of Production for 1951: Summary Tables, Part II (H.M.S.O., 1956. Price 6s. net).

Channels of sales, 1948

Payments for services, 1948

Shift working, 1951

Power equipment, 1951

Prime movers, 1951

Analysis of periods covered by census returns, 1948 and 1951.

The Report on the Censuses of Production for 1952 and 1953. Introductory Notes and 5 volumes. (These volumes are now out of print.)

No important items which do not appear in the 1958 Reports.

The Report on the Census of Production for 1954. Introductory Notes, Index of Products, and 154 booklets relating to individual industries (H.M.S.O., 1956-59. Prices vary, usually from 1s. 6d. to 2s. net for each booklet).

Detailed information about materials and fuel purchased.

Census of Production for 1954: Summary Tables, Part I (H.M.S.O., 1958. Price 9s. net).

Fuel purchased

Gas produced in certain industries

Electricity generated, purchased and sold

Materials purchased: iron and steel; non-

ferrous metals; paint; plastics materials;

cotton and rayon, nylon, etc. textiles; timber;

packing materials; replacement parts for plant

etc. (Information about purchases of other

materials is given in The Report on the Census

of Production for 1954.)

Census of Production for 1954: Summary Tables, Part II (H.M.S.O., 1959. Price 7s. net).

Regional analyses of gross output, net output and capital expenditure.

Census of Production for 1954: Summary Tables, Part III (H.M.S.O., 1959. Price 8s. net).

Sales of particular products by certain industries in Scotland and Wales.

The Report on the Censuses of Production for 1955, 1956 and 1957. Introductory Notes and 5 volumes (H.M.S.O., 1959. Prices 1s. 6d. to 3s. 6d. net according to size of volume).

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