

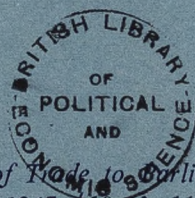
BOARD OF TRADE

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*The Report on the
Census of Production
for 1954*

Volume 4: Industry I

MECHANICAL ENGINEERING (GENERAL)



*Presented by the Board of Trade to Parliament in pursuance of the
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The Report on the Census of Production for 1954

VOLUME 4 INDUSTRY I

MECHANICAL ENGINEERING (GENERAL)

THIS REPORT on the Mechanical Engineering (General) Industry relates to establishments engaged wholly or mainly in the manufacture of mechanical engineering products, other than Marine Machinery, Machine Tools, Textile Machinery and Accessories, Small Arms, Constructional Engineering, Mechanical Handling Equipment, Printing and Bookbinding Machinery or in Mechanical Engineering (Repairing) which are covered by separate reports (Volume 4, Industries B,C,D,E,F,G,H and J respectively).

This industry, together with part of the Mechanical Engineering (Repairing) Industry, corresponds to minimum list headings 52, 53, 55, 57 (ordnance establishments only) and 69 (1 - 6, 9 - 12) in the Standard Industrial Classification.

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IMPORTANT NOTES and definitions appear on the next page. In interpreting the data in the tables, it is essential to bear these in mind.

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The following notes describe terms in general use in the tables of the report. More detailed explanations of the terms used and a description of the scope and method of taking the census are given in the separate booklet entitled 'The Report on the Census of Production for 1954 - Introductory Notes' (price 1s. 6d. net).

Industrial Classification: Establishments are classified to industries according to the nature of their output and, as far as possible, in conformity with the Standard Industrial Classification. Certain products are identified as the principal products of individual industries, the principal products for a given industry being of a similar nature or commonly associated in production. The principle of classification normally followed is that an establishment is classified to an industry if its output of the principal products of that industry accounted for a greater proportion of the value of its output than did its output of the principal products of any other industry.

Specialist producers normally comprise those establishments 50 per cent. or more of whose total output by value is accounted for by the characteristic products of the specialist group.

Intermediate products: For some industries figures are given showing the total quantities made during the year of intermediate products, i.e., products which may be further processed in the establishments in which they are produced.

Larger establishments: The information given in the report relates mainly to 'larger establishments', i.e., establishments of firms employing on the average more than 10 persons. In most cases an establishment comprises the whole of the premises under the same ownership or management at a particular address (e.g., a mine or factory). Offices, warehouses, laboratories and other ancillary places of business situated apart from the producing works are not regarded as separate establishments and are included in the return for the works.

Small firms are those employing on the average 10 or fewer persons.

The estimates for the industry as a whole given in Table 1 are normally obtained by increasing the other items shown in the same proportion as total employment.

Gross output (production) is the total value of goods made and other work done during the year; it is obtained by adjusting the value of sales and work done during the year for changes in the value of stocks of products on hand for sale and work in progress.

Net output is the amount left after deducting from the value of gross output the aggregate of the cost of materials and fuel used, the amount paid for work given out, and, for 1951 and 1954, any transport payments made. This represents the value added to materials by the process of production, and 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.

Sales means sales during the year of goods made in the establishment covered by the return or made on commission for it, whether produced in the year or not. The value of sales is the net selling value, i.e., the amount charged to customers, whether on an ex-works or delivered basis, and net of any trade discounts, agents' commissions, allowances for returnable cases, purchase tax, etc. For goods charged on a delivered basis to customers overseas, firms were required to give the f.o.b. value.

Materials and fuel: The total cost of materials and fuel purchased includes all purchases during the year of materials for use in production, and of fuel (includ-

ing oil, gas and electricity) for all purposes; packing materials, including the full cost of returnable cases when first purchased; workshop and office materials; water charges; materials for repairs to buildings, plant and vehicles when carried out by firms' own work-people included in their returns; consumable tools; and parts for machinery purchased as replacements. Purchases of goods for merchandising are excluded. The cost of materials and fuel used, given in Table 2, is obtained by adjusting purchases for changes during the year in the value of stocks.

Stocks: Firms were required to give stocks of materials and fuel, products on hand for sale, and work in progress, at income tax values.

Customs and Excise Duty paid on materials purchased is normally included in the cost of materials. Finished goods are similarly valued as they were sold, duty-paid or duty-free. The net amount of any duty paid is deducted in arriving at net output.

Employment: Total employment includes working proprietors, administrative, technical and clerical employees, and operatives, but excludes outworkers, canteen employees and persons engaged in merchandising or any other activity not covered by a firm's return, who are shown separately as excluded employees. Employees are persons on the pay-roll (i.e., persons whose National Insurance cards were held by employers), whether employed full-time or part-time.

Working proprietors are proprietors of businesses other than limited companies, together with members of their families who worked in the business without receiving fixed wages or salaries. Any persons working less than half the normal hours are excluded. For Northern Ireland directors of limited companies (other than those paid by fee only) are also included.

Administrative, technical and clerical employees include directors, other than those paid by fee only (except in Northern Ireland); 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, i.e., broadly speaking, all manual workers.

Outworkers are persons employed by the firm who work on materials supplied by the firm in their own homes.

Wages and salaries include all overtime payments, bonuses and commissions without any deductions for income tax, insurances, contributory pensions etc. They exclude payments to working proprietors.

Capital expenditure includes expenditure on new building work, and on plant, machinery and vehicles, charged to capital account during the year, including any transport and installation costs involved. It includes expenditure in respect of establishments in Great Britain which had not begun production before the end of the year (which has not previously been included in the Census of Production reports for individual industries).

Symbols used:

.. for not available

- for nil or negligible (less than half the final digit shown).

Where figures are rounded, e.g., given to the nearest £ thousand, there may be apparent slight discrepancies between the sums of constituent items and the totals shown. In some cases, figures have been combined with others of a similar nature where publication of separate details might disclose information relating to an individual undertaking.

Industry summary

Estimates for the industry as a whole

TABLE 1

	United Kingdom			Scotland 1954	Wales 1954
	1948	1951	1954		
	£ million	£ million	£ million	£ million	£ million
Gross output (production)	496.0	763.6	986.7	136.37	19.24
Net output	271.1	381.4	514.1	72.01	9.67
Total stocks and work in progress					
At beginning of year	174.5	239.5	372.8	56.63	5.90
Change during year	+ 29.9	+ 57.0	+ 2.3	+ 0.65	+ 0.50
Capital expenditure less disposals (a)	17.5	31.4	36.8	5.33	0.88
Wages and salaries	164.1	226.2	299.3	41.40	5.82
Total employment (including working proprietors)	Thousands	Thousands	Thousands	Thousands	Thousands
	486.4	555.8	598.9	83.95	11.55

(a) Capital expenditure on new building work, and on plant, machinery and vehicles (including (except in 1948) that incurred in Great Britain for establishments not yet in production), less amounts received for plant, machinery and vehicles disposed of.

Summary of returns received

TABLE 2

	Unit	Great Britain 1948	United Kingdom	
			1951	1954
FIRMS EMPLOYING ON AVERAGE MORE THAN 10 PERSONS				
Number of establishments	No.	2,765	2,955	3,084 (b)
Total value of sales and work done	£'000	453,694	709,940	946,959
Products on hand for sale	"	114,575	164,253	251,925
and work in progress	"	+ 19,111	+ 29,865	+ 6,192
Gross output (production) (b)	"	468,951	739,805	953,150
Purchases of materials and fuel	"	211,269	370,284	416,316
Stocks of materials and fuel	"	50,427	67,819	108,231
Cost of materials and fuel used	"	+ 9,129	+ 25,314	- 3,986
Payment for work done on materials given out	"	202,140	344,970	420,302
Payment for transport (c)	"	10,466	16,073	25,194
Net output	"	3,854	9,252	11,030
Average number of employees	No.	256,345	369,509	496,624
Total employment (e)	"	358,379	413,783	436,856
Net output per person employed (e)	"	101,085 (d)	124,345	141,448
Wages and salaries	£'000	459,818	538,477	578,586
Capital expenditure	"	557	686	858
New building work (f)	"	113,473	158,852	206,195
Plant and machinery	"	41,647	60,283	82,904
Vehicles	"	3,793	6,579	8,023
	"	13,136	22,616	26,132
	"	1,507	1,751	2,077
	"	1,318	2,782	3,107
	"	222	542	874
FIRMS EMPLOYING ON AVERAGE 10 OR FEWER PERSONS				
Number of returns	No.	3,042	2,334 (g)	2,785
Total employment, including working proprietors	"	17,047	14,327 (g)	16,846

(a) Including 149 establishments employing 10 or fewer persons, particulars of which were included with those of larger establishments on single returns. For 1948 and 1951 such establishments were not separately counted; on the same basis the number of establishments in 1954 is 2,935.

(b) For the year 1948 gross output excludes payments for transport services outwards on finished goods sold. For subsequent years gross output includes payments to other firms and undertakings and to firms' own separate transport organisations for transport services.

(c) Payments to other firms and undertakings and to firms' own separate transport organisations. For the year 1948 payments cover only transport outwards of finished goods sold. For subsequent years they cover payments for transport of both finished goods sold and materials and fuel purchased.

(d) Number in week ended September 25, 1948.

(e) Excluding outworkers and including working proprietors.

(f) Excluding expenditure for establishments not yet in production.

(g) Excluding Northern Ireland. No information about small firms was collected in Northern Ireland for 1951.

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

Larger establishments in the United Kingdom

TABLE 5

	1951		1954		
	Quantity	Value £'000	Quantity	Value £'000	Entries Number
PARTS OF MACHINERY, SOLD SEPARATELY					
Bearings and parts thereof					
Ball and roller bearings and parts thereof (excluding non-precision balls for ball-point pens, etc.)	..	22,288	..	28,491	67
Other bearings (e.g. plain) and bushes	..	8,326	..	9,452	78
Burners					
Oil fuel burning equipment	..	2,021	..	3,002	50
Other	..	102	..	550	23
Chains					
Steel transmission					
Roller type					
Up to and including 0.625 in. pitch					
Not over 0.2 in. width between plates	..	1,453	..	1,115	9
Over 0.2 in. width between plates	..	1,652	..	2,341	7
Over 0.625 in. pitch	..	1,778	..	2,375	23
Other than roller type	..	255	..	270	27
Precision chains, other than transmission chains	..	582	..	739	8
Transmission chains of iron	..	(a)	..	440	5
	Thousands		Thousands		
Cylinder liners and inserts	1,541	1,006	1,360.9	1,101	27
Gears and gear wheels					
For vehicles	..	1,131	..	1,284	32
Other than for vehicles	..	7,254	..	8,445	199
Unclassified	..	841	..	1,235	13
Oil seals	..	2,208	..	2,510	31
Pistons	..	3,924	..	3,944	40
Piston rings, packing rings, etc.	..	2,072	..	2,836	45
Pulleys and pulley wheels	..	1,442	..	1,385	107
Rolls of iron or steel					
For metal-rolling mills					
Cast iron	39,650	2,797	43,467	3,992	33
Cast steel	17,773	1,458	21,672	2,620	22
Other	19	5	99	8	5
			..	20	
For machinery, other than metal-working					
Cast iron	7,423	637	6,092	593	46
Other	269	35			
Valves and cocks for the control of liquids, steam and gases (excluding inlet and exhaust valves for internal combustion engines)					
Wholly or mainly of iron or steel	35,501	11,333	..	18,901	171
Wholly or mainly of other metals and alloys (excluding domestic cocks and taps of brass and other copper alloys)	..	12,728 (b)	..	10,876	248

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		
	Quantity No.	Value £'000	Quantity No.	Value £'000	Entries Number
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED					
Agricultural machinery, other than tractors					
Ploughs	{ (i) 69,108 (ii) ..	2,492 1,097	33,285 ..	1,701 863	12 25
Cultivators and grubbers	{ (i) 31,429 (ii) ..	2,707 23	23,305 ..	2,198 559	29 39
Disc harrows	{ (i) 14,730 (ii) ..	770 555	4,709 ..	344 401	10 15
Planters, drills and seeders	{ (i) 20,006 (ii) ..	1,241 14	7,453 ..	433 205	33
Insecticide and similar spraying machines	{ (i) 31,513 (ii) ..	651 298	32,720 ..	989 206	23 23
Hay and grass mowers, including mowing attachments for tractors, other than rotary blade type	{ (i) 32,948 (ii) ..	1,678 20	10,167 ..	585 1,095	17
Reapers and binders	{ (i) 1,645 (ii) ..	313 377	506 ..	122 333	.. 23
Combine harvester-threshers	{ (i) 5,720 (ii) ..	5,384 26	4,874 ..	5,649 1,062	6 22
Potato and sugar beet lifters	{ (i) 4,596 (ii) ..	253 11	2,710 ..	302 116	21 24
Threshers	{ (i) 1,377 (ii) ..	474 104	984 ..	317 52	8 12
Hay and corn elevators	{ (i) 4,635 (ii) ..	459 57	3,548 ..	454 61	25 25
Grain and grass driers	{ (i) 679 (ii) ..	645 88	829 ..	501 151	28
Sheep shearers and clipping machines	{ (i) 32,960 (ii) ..	245 197	16,376 ..	232 202	....
Milking machines	{ (i) 9,447 (ii) ..	1,338 30	5,725 ..	747 558	8
Other agricultural machinery	{ (i) .. (ii) ..	899 11,540	.. ..	933 13,252	18 243
Unclassified agricultural machinery		1,720	..	2,827	211
Complete	..	1,357	..	993	12
Parts	..	2,485	..	1,952	12
Unclassified	..	530	-	-	-
Air and gas compressors and exhausters and other pneumatic appliances					
Air compressors and exhausters, other than compressors supplied with paint spraying equipment					
Stationary					
Reciprocating					
Under 200 cu.ft. per minute	{ (i) 24,280 (ii) ..	2,085 108	21,205 ..	2,293 270	44
		322	..	435	34
200 cu.ft. per minute and over	{ (i) 835 (ii) ..	1,177 131	1,554 ..	1,884 557	20 20

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		
	Quantity	Value	Quantity	Value	Entries
	No.	£'000	No.	£'000	Number
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Air and gas compressors and exhausters and other pneumatic appliances (contd.)					
Air compressors and exhausters, other than compressors supplied with paint spraying equipment (contd.)					
Stationary (contd.)					
Rotary	{ (i) 15,335 (ii) ..	{ 631 112	{ 14,605 ..	{ 922 180	{ 29 21
Turbo-types	{ (i) 30 (ii) ..	{ 363 118	{ 5,591 ..	{ 689 71	{ 12 7
Portable	{ (i) 5,943 (ii) ..	{ 2,119 740 427	{ 4,921	{ 2,959 718 900	{ 26 27
Gas compressors and exhausters	{ (i) 1,308 (ii) ..	{ 1,028 269	{ 1,609 ..	{ 1,779 225	{ 27 21
Other pneumatic appliances, not elsewhere specified					
Complete	..	313	..	1,388	51
Parts	..	372	..	321	27
Unclassified	..	167	-	-	-
Air conditioning, space heating and ventilating plant and appliances, including waste, dust, fumes, heated air, steam or vapour collecting and extracting, but excluding fans sold as such and gas appliances					
Boilers for central heating (c)	{ (i) 2,909 (ii) ..	{ 279 23 69	{ 7,532	{ 828 474 191	{ 40 26
Hot air, water and steam radiators, other than those for use with gas or electricity (d)	{ (i) 15,356 (ii) ..	{ 166 354 63	{ 34,370	{ 370 798 87	{ 22 11
Heater batteries and unit heaters	{ (i) 28,962 (ii) ..	{ 761 157 70	{ 37,806	{ 1,126 295 225	{ 42 22
Air filters, washers and scrubbers	..	(a)	{ (i) 21,315 (ii) ..	{ 439 848 253	{ 39 28
Plenum systems (e)	{ (i) .. (ii) ..	{ 5,008 519	{	{ 2,057 180	{ 12 8
Ventilators, hoods, booths, cowls, ducting and similar sheet metal work for air-conditioning, etc. plant					
Other descriptions, not of cast iron, not elsewhere specified	..	3,743	..	8,038	405
Space heating plant and appliances	{ (i) .. (ii) ..	{ 850 336	{	{ 1,750 317	{ 37 18
Other	{ (i) .. (ii) ..	{ 3,673 477	{	{ 3,527 510	{ 56 47
Automatic slot machines, other than weighing machines	{ (i) 1,137 (ii) ..	{ 23 159 16	{ 2,271	{ 52 154 31	{ 8 6
Battery and cell making machinery, not elsewhere specified	{ (i) .. (ii) ..	{ 61 87	{	{ 191 109	{ .. 14
Boilers and boiler-house plant, other than boilers for ships and locomotives, burners and furnaces					
Boilers	{ (i) .. (ii) ..	{ 9,484 1,215	{	{ 15,130 1,258	{ 31 33

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		
	Quantity	Value	Quantity	Value	Entries
	No.	£'000	No.	£'000	Number
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Boilers and boiler-house plant, other than boilers for ships and locomotives, burners and furnaces (contd.)					
Boilers (contd.)					
Other boilers, including sectional boilers for steam, and locomotive type boilers for stationary purposes, but excluding boilers for central heating	{ (i) .. (ii) ..	{ 5,267 743	{	{ 5,833 532	{ 61 52
Boiler-house plant, sold separately					
Fuel economisers, feed water heaters and steam superheaters	{ (i) .. (ii) ..	{ 5,310 462	{	{ 5,892 634	{ 26 28
Boiler firing plant					
Mechanical stokers	{ (i) .. (ii) ..	{ 2,039 1,092	{	{ 2,688 1,340	{ 33 30
Other boiler firing plant	{ (i) .. (ii) ..	{ 773 209	{	{ 1,759 329	{ 23 27
Other boiler-house plant	{ (i) .. (ii) ..	{ 6,321 1,740	{	{ 9,742 2,112	{ 61 88
Bottle-washing machinery	{ (i) .. (ii) ..	{ 2,015 339	{	{ 1,455 385	{ 23 41
Boot and shoe making and repairing machinery other than sewing machines	{ (i) .. (ii) ..	{ 1,105 1,140	{	{ 1,338 1,259	{ 24 33
Bottling, packing, canning, packeting and labelling machinery					
Bottling and capping	{ (i) .. (ii) ..	{ 2,129 420	{	{ 1,802 508	{ 38 46
Canning	{ (i) .. (ii) ..	{ 349 88	{	{ 629 245	{ 13 22
Filling and closing machinery for solids and semi-solids	{ (i) .. (ii) ..	{ 595 70	{	{ 880 126	{ 20 13
Labelling	{ (i) .. (ii) ..	{ 759 195	{	{ 2,903 534	{ 53 49
Packing and wrapping	{ (i) .. (ii) ..	{ 3,545 515	{	{ 2,903 534	{ 53 49
Brick, tile and cement block making machinery, other than kilns	{ (i) .. (ii) ..	{ 912 925	{	{ 1,240 1,161	{ 55 94
Cable making machinery	{ (i) .. (ii) ..	{ 637 172	{	{ 2,034 398	{ 20 36
Cement making machinery, other than kilns	{ (i) .. (ii) ..	{ 521 413	{	{ 1,896	{ 41
Centrifuges, other than cream separators and hydro-extractors for use in laundries	{ (i) 3,039 (ii) ..	{ 1,812 17 534	{	{ 1,982 780	{ 20 18
Chemical making machinery and plant, not elsewhere specified					
Mineral-oil refining	{ (i) .. (ii) ..	{ 761 437	{	{ 4,115 252	{ 15 33
Oil (other than mineral) extraction and refining	{ (i) .. (ii) ..	{ 887 737	{	{ 1,512 273	{ 23 24
Paint, varnish and ink making	{ (i) .. (ii) ..	{ 549 154	{	{ 627 183	{ 31 34
Soap and fatty acid making	{ (i) .. (ii) ..	{ 446 28	{	{ 320 73	{ 20 26
Other chemical machinery and plant	..	(f)	{ (i) .. (ii) ..	{ 7,440 2,622	{ 127 173
Unclassified					
Complete	..	257	..	4,229	29
Parts	..	227	..	121	..
Unclassified	..	4,495	-	-	-

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		
	Quantity	Value	Quantity	Value	Entries
	No.	£'000	No.	£'000	Number
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Civil engineering and contracting machinery and plant, new					
Excavators, trenchers, ditchers and similar digging machinery, other than cable-way dragline excavators and rope-hauled dragcrappers	{ (i) 2,218 (ii) ..	7,737 3,850	3,916 ..	14,574 4,514	20 48
Earth-moving, earth-levelling and land-clearing machinery					
Angledozers, bulldozers, calf-dozers and muledozers (i.e. equipment without tractors)	{ (i) 2,701 (ii) ..	1,154 275	2,108 ..	989 359	13 23
Graders, including motor graders, levellers, scrapers (other than rope-hauled dragcrappers), loaders and loading shovels	{ (i) 2,608 (ii) ..	2,584 435	2,570 ..	4,687 762	18 28
Other, including dumpers	{ (i) 2,156 (ii) ..	3,048 542	2,850 ..	4,209 688	17 34
Concrete mixing, placing and finishing, etc. machinery					
Mixers (fixed, portable, truck, etc.)	{ (i) 12,422 (ii) ..	2,532 33	9,182 ..	2,426 863	33 37
Other	{ (i) 5,706 (ii) ..	718 7	1,766 ..	431 57	23 27
Tar, bitumen and asphalt plant, with or without mixing gear	{ (i) .. (ii) ..	885 333	.. ..	1,313 305	22 36
Other civil engineering and contracting plant (including mechanical handling plant for civil engineering and contracting) not elsewhere specified					
Complete	..	1,234	..	2,271	52
Parts	..	393	..	635	75
Unclassified	..	17	-	-	-
Civil engineering and contracting machinery and plant, reconditioned	{ (i) .. (ii) ..	1,164 40	.. ..	686 288	24 24
Cloth cutting and other garment making machinery, not elsewhere specified	{ (i) .. (ii) ..	241 54	.. ..	(g) ..	.. ..
Coal preparation plant	..	(a)	{ (i) .. (ii) ..	5,205 1,629	42 71
Condensers, steam, other than marine					
For steam turbines	{ (i) 172 (ii) ..	3,283 255	173 ..	5,868 461	15 13
Other	{ (i) 55 (ii) ..	45 13	90 ..	120 27	15 16
Crushing, washing and screening machinery for quarry products	{ (i) .. (ii) ..	2,612 1,409	.. ..	4,028 1,458	67 80
Dishwashing machinery	{ (i) .. (ii) ..	281 54	.. ..	336 46	10 10
Drying machinery, not elsewhere specified	{ (i) .. (ii) ..	1,552 204	.. ..	1,629 241	48 39
Electric lamp and electronic valve making machinery	{ (i) .. (ii) ..	228 114	.. ..	331 121	18 32
Fans, with or without motors, other than desk and ceiling fans	..	(a)	{ (i) .. (ii) ..	2,503 288	49 26
Filter presses	{ (i) .. (ii) ..	370 121	.. ..	417 128	16 15

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		
	Quantity	Value	Quantity	Value	Entries
	No.	£'000	No.	£'000	Number
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Food and drink preparation, processing and sterilising machinery, not elsewhere specified other than portable mechanical appliances, electrically operated					
Bakery and biscuit ovens	{ (i) 910 (ii) ..	600 1,255	562 ..	756 1,331	27
Bakery, biscuit and flour confectionery machinery	{ (i) .. (ii) ..	4,406 722	.. ..	5,981 1,284	58 67
Cocoa preparation, chocolate and sugar confectionery making machinery	{ (i) .. (ii) ..	1,326 216	.. ..	1,403 319	43 45
Sugar making and refining machinery, other than centrifuges	{ (i) .. (ii) ..	1,603 1,323	.. ..	2,994 1,568	22 32
Dairy machinery and plant, other than milking machines	{ (i) .. (ii) ..	2,648 306	.. ..	2,863 601	48 55
Mineral water making machinery and plant	{ (i) .. (ii) ..	649 187	.. ..	248 73	13 15
Brewing and distilling machinery and plant	{ (i) .. (ii) ..	1,898 429	.. ..	1,897 353	34 48
Other machinery for the preparation, processing and sterilising					
Of food	{ (i) .. (ii) ..	5,206 1,009	.. ..	4,437 883	116 133
Of drink	{ (i) .. (ii) ..	782 114	.. ..	1,134 107	36 28
Founding and diecasting machinery	{ (i) .. (ii) ..	1,544 371	.. ..	1,429 366	33 35
Furnaces and kilns					
Blast furnaces	{ (i) .. (ii) ..	777 827	.. ..	2,200 1,239	6 18
Other metallurgical furnaces					
Electric	{ (i) 2,078 (ii) ..	2,039 56	1,417 ..	2,626 662	22 31
Gas	{ (i) 1,189 (ii) ..	914 216	1,003 ..	1,742 422	32 29
Oil	{ (i) 788 (ii) ..	713 38	625 ..	635 262	27 25
Other descriptions					
Complete	{ 505	167	394	159	17
Parts	..	35	..	365	
Unclassified	..	95	..	42	
Boiler furnaces	{ (i) 550 (ii) ..	89 36	366 ..	89 133	6 14
Other furnaces and kilns					
Complete	{ 546	275	601	563	40
Parts	..	813	..	638	
Unclassified	..	169	..	466	
Gas appliances, other than meters, pipes and fittings					
Water heaters, other than of cast iron	{ (i) 214,377 (ii) ..	1,841 34	376,369 ..	3,262 415	14
Other	{ (i) .. (ii) ..	855 187	.. ..	531 195	20 18

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		Entries Number
	Quantity No.	Value £'000	Quantity No.	Value £'000	
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Gas meters					
Domestic	{ (i) { 1,013,972	5,883	{ 752,142	4,654	40
	{ (ii) { ..	30	{ ..	1,120	34
	{ (i) { 11,846	544	{ 5,579	469	28
Other	{ (ii) { ..	45	{ ..	131	14
	{ (i) { ..	138	{ ..	116	15
Gas-works plant, not elsewhere specified					
Gas producers	{ (i) { ..	1,288	{ ..	1,557	15
	{ (ii) { ..	789	{ ..	891	24
Water gas plant	{ (i) { ..	500	{ ..	760	7
	{ (ii) { ..	349	{ ..	207	15
Other (including by-products plant for use at gas works) (h)	{ (i) { ..	9,727	{ ..	7,214	50
	{ (ii) { ..	3,669	{ ..	2,286	91
Glass making and glass working machinery and plant, other than furnaces					
Complete	..	513	..	935	29
Parts	..	551	..	633	54
Unclassified	..	319	-	-	-
Grain processing machinery and plant	{ (i) { ..	3,393	{ ..	2,769	33
	{ (ii) { ..	787	{ ..	738	40
Laundering and dry-cleaning machinery, including hydro-extractors and other drying machines used in laundries, excluding machinery for textile finishing					
Washing machines, excluding electrically-operated machines of 250 lb. net weight or less, all hand-operated machines and dry-cleaning washers (i)	{ (i) { 1,482	710	{ 868	318	19
	{ (ii) { ..	65	{ ..	45	22
	{ (i) { ..	112	{ ..	75	13
Dry-cleaning washers	{ (ii) { 196	215	{ 246	287	11
	{ (i) { ..	10	{ ..	8	17
Wringers and mangles for domestic use	{ (i) { 783,986	2,984	{ 739,956	2,768	11
	{ (ii) { ..	24	{ ..	33	27
	{ (i) { 1,541	524	{ 1,288	690	26
Other drying machines	{ (ii) { ..	48	{ ..	146	15
	{ (i) { 8,139	526	{ 4,780	490	14
Ironing machines	{ (ii) { ..	96	{ ..	31	18
	{ (i) { 1,671	475	{ 1,927	468	15
Steam presses	{ (ii) { ..	33	{ ..	60	15
	{ (i) { ..	99	{ ..	168	35
Other laundering and dry-cleaning machinery (j)	{ (ii) { ..	1,290	{ ..	674	44
	{ (i) { ..	203	{ ..	207	
Lawn mowers					
Hand driven	{ (i) { 671,096	1,771	{ 732,761	2,116	11
	{ (ii) { ..	16	{ ..	240	19
	{ (i) { ..	193	{ ..	240	23
Animal and mechanically driven, including gang mowers	{ (ii) { 51,516	1,865	{ 49,687	1,970	22
	{ (i) { ..	407	{ ..	324	5
Lighting appliances, not elsewhere specified	{ (ii) { ..	352	{ ..	210	8
	{ (i) { ..	91	{ ..	82	
Machine tools, woodworking, new, other than portable power tools and small tools for use in machine tools					
Sawing	{ (i) { 8,995	1,421	{ 6,566	1,186	55
	{ (ii) { ..	230	{ ..	154	41
	{ (i) { ..	189	{ ..	154	

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		Entries Number
	Quantity No.	Value £'000	Quantity No.	Value £'000	
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Machine tools, woodworking, new, other than portable power tools and small tools for use in machine tools (contd.)					
Planing and moulding	{ (i) { 4,254	1,224	{ 2,656	1,101	33
	{ (ii) { ..	48	{ ..	158	20
	{ (i) { 1,606	398	{ 1,241	348	28
Mortising and tenoning	{ (ii) { ..	40	{ ..	14	17
	{ (i) { 287	89	{ 489	192	6
Veneer and plywood	{ (ii) { ..	152	{ ..	16	6
	{ (i) { 6,897	1,237	{ 6,391	1,224	59
Other	{ (ii) { ..	238	{ ..	171	42
	{ (i) { 762	154	{ 1,228	196	31
Machine tools, woodworking, reconditioned	{ (ii) { ..	156	{ ..	133	13
	{ (i) { ..	11	{ ..	6	31
Cutting tools for use on woodworking machines, except saw blades	..	373	..	582	48
Mechanical power transmission plant, not elsewhere specified	{ (i) { ..	3,743	{ ..	3,935	42
	{ (ii) { ..	1,061	{ ..	2,598	
Mining machinery, other than portable power tools					
Coal cutters, power operated	{ (i) { 701	1,183	{ 1,056	1,919	11
	{ (ii) { ..	2	{ ..	2,363	18
Conveyors, underground	{ (i) { 2,784	3,371	{ 3,525	5,091	18
	{ (ii) { ..	3	{ ..	6,080	37
Power loaders	{ (i) { 211	335	{ 283	486	11
	{ (ii) { ..	256	{ ..	415	12
Winding machinery	{ (i) { ..	1,121	{ ..	1,049	18
	{ (ii) { ..	418	{ ..	596	25
Hauling engines (stationary)	{ (i) { 852	438	{ 254	431	20
	{ (ii) { ..	14	{ ..	933	23
Other, except coal preparation plant (k)	{ (i) { ..	3,851	{ ..	4,052	51
	{ (ii) { ..	1,694	{ ..	3,571	105
Unclassified	{ (i) { ..	134	{ ..	482	5
	{ (ii) { ..	22	{ ..	34	6
Office machinery (l)					
Adding and listing machines	{ (i) { 9,161	949	{ 26,284	1,487	7
	{ (ii) { ..	23	{ ..	43	9
	{ (i) { 35,087	1,313	{ 22,984	1,625	9
Other calculating machines	{ (ii) { ..	88	{ ..	229	7
	{ (i) { ..	57	{ ..	57	
Accounting, book-keeping, billing or posting machines or any combination thereof (not being machines operated in conjunction with punched cards), including typewriters incorporated therein	{ (i) { 6,776	3,300	{ 7,331	4,187	5
	{ (ii) { ..	138	{ ..	217	13
Punched card machines, including card punching machines and verifiers	..	(a)	{ (i) { ..	5,786	9
			{ (ii) { ..	1,035	11
Duplicators, excluding litho-offset machines (l)	{ (i) { 47,504	1,585	{ 50,554	2,155	8
	{ (ii) { ..	81	{ ..	459	11
Addressing machines	{ (i) { 10,080	805	{ 10,753	911	..
	{ (ii) { ..	358	{ ..	263	8

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		
	Quantity	Value	Quantity	Value	Entries
	No.	£'000	No.	£'000	Number
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Office machinery (1) (contd.)					
Letter opening, coin sorting, counting and wrapping, letter sealing, stamp affixing, postage franking, perforating and cheque writing machines	{ (i) { 9,524	319	..	511	17
	{ (ii) { ..	5			
	{ (ii) { ..	66			
Typewriters					
New					
Not exceeding 22 lb. in weight	{ (i) { 57,491	803	106,706	1,543	7
	{ (ii) { ..	23	..	93	9
Exceeding 22 lb. in weight <i>inc elect</i>	{ (i) { 122,514	3,374	134,710	3,920	7
	{ (ii) { ..	166	..	182	11
Reconditioned	{ (i) { 4,984	142	5,919	140	12
	{ (ii) { ..	56	..	12	..
Dictating machines, complete, i.e. recording and reproducing machines and record shavers including dictaphones (e)	..	(a)	9,127	368	10
			..	893	
Other office machinery					
Complete	..	7,442	..	2,009	26
Parts	..	1,651(m)	..	622	24
Unclassified	..	394	-	-	-
Paint spraying, metal spraying and similar machines, other than agricultural spraying machines	{ (i) { ..	1,091	..	1,163	25
	{ (ii) { ..	291	..	474	23
Plantation machinery, not elsewhere specified	{ (i) { ..	890	..	705	19
	{ (ii) { ..	203	..	136	14
Plastics working machinery, other than presses	{ (i) { ..	834	..	691	36
	{ (ii) { ..	87	..	178	45
Portable power tools					
Of the hand-held type (including flexible shaft drive tools) as employed in the general engineering, metal-working, woodworking, stone-working and building industries					
Pneumatic	{ (i) { 49,713	648	64,964	1,292	17
	{ (ii) { ..	384	..	666	15
	{ (ii) { ..	550	..	1,146	
Petrol	{ (i) { 3,715	239	..	249	10
	{ (ii) { ..	33			
	{ (ii) { ..	69			
Of the type, including hand-held, employed in civil engineering, mining and quarrying					
Pneumatic	{ (i) { 22,116	965	16,754	762	19
	{ (ii) { ..	353	..	315	17
	{ (ii) { ..	1,133	..	884	
Petrol	{ (i) { 2,938	208	2,657	201	5
	{ (ii) { ..	92	..	94	..
Detachable tools (drilling bits, etc.) used in rock drilling machinery	..	1,756	..	1,154	14
Pottery and other ceramic making machinery, other than furnaces and kilns	{ (i) { ..	408	..	484	20
	{ (ii) { ..	179	..	54	20
Presses, other than metal-working					
Tableting and pelleting presses, other than for powder metallurgy	{ (i) { 156	82	..	321	..
	{ (ii) { ..	84			
Plastics moulding, other than tableting and pelleting	{ (i) { 1,353	977	879	1,391	23
	{ (ii) { ..	9	..	447	26
	{ (ii) { ..	243	..	376	
Baling presses	{ (i) { 766	280	562	225	24
	{ (ii) { ..	36	..	124	19
	{ (ii) { ..	51	..	64	

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951			1954		
	Quantity	Value	Quantity	Value	Entries	
	No.	B.h.p.	£'000	No.	B.h.p.	£'000
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)						
Prime movers						
Internal combustion, new, other than engines for aircraft, road vehicles (including agricultural tractors), ships and boats (n)						
Gas turbines	{ (i) { 2	9,664	419	{ 10	7,800	252
	{ (ii) { 2	..	115	{ 2	..	170
	{ (ii) { ..	..	83	..	..	532
	{ (ii) { ..	..	212	..	..	..
Reciprocating						
Compression ignition (diesel and dual fuel)						
Not exceeding 50 b.h.p.	{ (i) { 83,763	1,052,184	14,224	61,802	706,214	9,368
	{ (ii) { 8,875	..	879	..	..	2,121
	{ (ii) { ..	..	2,322	..	..	2,121
Over 50 b.h.p., not exceeding 300 b.h.p.	{ (i) { 5,141	512,346	7,639	2,805	312,705	5,032
	{ (ii) { ..	..	1,434	..	..	1,194
Over 300 b.h.p., not exceeding 1,500 b.h.p.	{ (i) { 630	369,557	5,308	585	311,681	6,464
	{ (ii) { ..	..	1,003	..	..	1,470
Over 1,500 b.h.p.	{ (i) { 31	55,250	977	72	154,771	2,432
	{ (ii) { ..	..	116	..	..	496
Paraffin, petrol and other spirit						
Not exceeding 10 b.h.p.	{ (i) { 64,009	229,112	2,169(o)	{ 46,911	127,700	1,390
	{ (ii) { 99,697	..	1,338	{ (i) { 171,028	..	3,004
	{ (ii) { ..	..	20	{ (ii) { ..	..	745
	{ (ii) { ..	..	492(o)	..	..	..
Over 10 b.h.p.	{ (i) { 1,877	38,492	326	..	..	..
	{ (ii) { ..	..	156	..	..	..
Other (including gas and semi-diesel)	{ (i) { 967	13,764	245	25	1,134	22
	{ (ii) { ..	..	83	4,448	..	289
				..	..	131
Internal combustion, reconditioned, other than engines for aircraft, road vehicles (including agricultural tractors), ships and boats						
	{ (i) { ..	..	54	..	..	96
	{ (ii) { ..	..	177	..	..	..
Steam reciprocating, other than marine and winding engines for mining machinery						
	{ (i) { 343	31,764	537	244	23,180	458
	{ (ii) { 29	..	22	..	..	326
	{ (ii) { ..	..	303	..	..	..
Turbines, other than gas and marine						
Steam	{ (i) { 256	981,472	3,548	359	686,105	3,611
	{ (ii) { 129	..	5,741	..	..	8,795
	{ (ii) { ..	..	1,476	..	..	2,385
Other (e.g. water turbines)	{ (i) { 112	697,830	762	138	1,051,188	2,012
	{ (ii) { 2	..	15	..	..	434
	{ (ii) { ..	..	533	..	..	..
Other prime movers						
	{ (i) { ..	..	1,623	..	..	40
	{ (ii) { ..	..	2,795	..	..	208
Unclassified						
	{ (i) { ..	..	..	..	..	4,425
	{ (ii) { ..	..	..	..	..	3,498
Pulpmaking and paper and board making machinery, including finishing machinery						
	{ (i) { ..	3,269	..	..	..	3,975
	{ (ii) { ..	2,875	..	..	..	4,816
Pulverising machinery and plant, other than crushing machinery for quarry products						
	{ (i) { ..	651	..	..	..	968
	{ (ii) { ..	365	..	..	..	555

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		
	Quantity	Value	Quantity	Value	Entries
	No.	£'000	No.	£'000	Number
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Pumps					
Petrol and oil measuring	{ (i) { 23,298	2,661	} 26,962	3,070	11
	{ (ii) { ..	57			
		724		1,226	31
Hand pumps, other than petrol and oil measuring	{ (i) { 98,259	388	} 44,166	182	33
	{ (ii) { ..	24			
		27		195	
				45	22
Other kinds					
Reciprocating	{ (i) { 20,534	3,205	} 16,216	4,914	75
	{ (ii) { ..	64			
		954		519	70
				1,936	
Centrifugal and turbine (p)	} (i) { 98,576	9,366	} { (i) { 79,694	11,455	95
		143		1,248	
Axial flow (p)	{ (ii) { ..	2,051		2,832	93
				2,384	11
				690	16
Rotary	{ (i) { 29,880	1,950	} 25,143	2,314	58
	{ (ii) { ..	32			
		250		457	50
Other	{ (i) { 61,667	2,730	} 41,129	1,632	83
	{ (ii) { ..	182			
		762		185	
				486	82
Pumps, unclassified	{ (i) { 992	68	} ..	1,216	..
	{ (ii) { ..	286			
		366		38	7
Refrigerating machinery					
Power operated refrigerators of a storage capacity of not over 12 cu.ft. and automatic heat operated refrigerators (q)					
Complete	{ 307,548	13,921	} 327,628	13,265	23
		145			
Mechanical units, complete	{ 200,277	3,445	} 301,926	5,583	18
		66			
Parts	{ ..	2,180		2,043	40
Automatic power operated refrigerators of a storage capacity over 12 cu.ft.					
Complete					
Not over 10 h.p.	{ 15,185	1,877	} 11,693	1,551	16
		173			
				364	
Over 10 h.p.	{ 265	504	} 598	1,133	10
		497			
				622	
Mechanical units, complete	{ 35,306	1,789	} 35,929	1,754	14
		26			
Parts	{ ..	741		1,469	35
Non-automatic refrigerating machinery					
	{ (i) { ..	4,601	} ..	3,573	5
	{ (ii) { ..	750			
				557	11
Unclassified refrigerating machinery					
	{ (i) { ..	62	} ..	126	5
	{ (ii) { ..	402			
				362	15
Refuse and sewage disposal machinery					
	{ (i) { ..	1,073	} ..	1,824	24
	{ (ii) { ..	127			
				225	30
Rubber-working machinery					
	{ (i) { ..	2,095	} ..	1,865	54
	{ (ii) { ..	484			
				687	86
Sewing machines (including machine heads) and parts thereof other than needles					
New					
Industrial					
	{ (i) { 140.6	2,286	} 92.9	2,436	17
	{ (ii) { ..	991			
				1,229	29
Domestic					
	{ (i) { 617.7	5,332	} 640.2	7,542	7
	{ (ii) { ..	555			
				526	..
Reconditioned					
	{ (i) { 0.9	64	} 0.9	27	8
	{ (ii) { ..	38			
				14	..
				1	..

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		
	Quantity	Value	Quantity	Value	Entries
	No.	£'000	No.	£'000	Number
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Steel-works and non-ferrous machinery and plant (excluding iron or steel rolls sold separately), not elsewhere specified					
Cold drawing plant for bars and tubes, and other tube making machinery, except extrusion presses	{ (i) { ..	519	} ..	975	10
	{ (ii) { ..	206			
				161	14
Rolling mills (hot and cold), other than tube making					
For steel	{ (i) { ..	1,927	} ..	3,496	16
	{ (ii) { ..	1,455			
				2,092	32
For non-ferrous metals	{ (i) { ..	715	} ..	875	7
	{ (ii) { ..	196			
				164	11
Other steel-works and non-ferrous machinery and plant	{ (i) { ..	3,797	} ..	2,467	49
	{ (ii) { ..	1,818			
				2,223	59
Stone-working machinery, not elsewhere specified	{ (i) { ..	81	} ..	114	10
	{ (ii) { ..	129			
				49	20
Tanning and leather working machinery, other than boot and shoe making and repairing machinery					
	{ (i) { ..	805	} ..	546	17
	{ (ii) { ..	463			
				315	26
Tobacco processing and cigar and cigarette making machinery					
	{ (i) { ..	3,128	} ..	4,829	27
	{ (ii) { ..	767			
				1,184	38
Water meters	{ (i) { No. 141,193	826	} No. 103,018	709	12
	{ (ii) { ..	750			
		183		592	15
				176	
Water treatment plant, other than plant for waterworks					
Water softeners, water filters and water sterilising equipment					
Domestic	{ (i) { ..	276	} ..	208	13
	{ (ii) { ..	13			
Other	{ (i) { ..	1,141	} ..	3,085	30
	{ (ii) { ..	122			
				288	25
Other water treatment plant (e)	{ (i) { ..	705	} ..	363	5
	{ (ii) { ..	111			
Waterworks equipment and plant					
	{ (i) { ..	1,618	} ..	1,424	19
	{ (ii) { ..	463			
				260	35
Weighing machines and parts thereof, other than ribbon spools with or without ribbons					
	{ (i) { ..	5,553	} ..	6,301	44
	{ (ii) { ..	380			
				333	41
Well-drilling machinery					
Petroleum	{ (i) { ..	763	} ..	1,233	5
	{ (ii) { ..	1,541			
				1,644	13
Other					
Complete	{ ..	63	} ..	146	8
Parts	{ ..	182			
				197	14
Unclassified	{ ..	54	} -	-	-
Wire-making machinery					
	{ (i) { ..	726	} ..	856	12
	{ (ii) { ..	86			
				191	20
Wire-working and wire-winding machinery, other than cable-making machinery					
Complete	{ ..	547	} ..	540	31
Parts	{ ..	98			
				88	26
Unclassified	{ ..	97	} -	-	-
Other machinery and parts thereof (r)					
Hydraulic, including hydraulic accumulators but excluding presses and pumps					
	{ (i) { ..	1,355	} ..	2,237	36
	{ (ii) { ..	511			
				520	37
Other	{ (i) and (ii) { ..	8,996	} ..	11,765	475

TABLE 5 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1951		1954		
	Quantity	Value	Quantity	Value	Entries
		£'000		£'000	Number
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)					
Reconditioned machinery and plant, not elsewhere specified (s)	..	1,873	..	1,159	26
Plant and machinery, unclassified (i) and (ii)	..	2,842	..	5,480	167
OTHER PRODUCTS OF THE INDUSTRY					
Arms, ammunition and naval, military and air force stores, not elsewhere specified (t)	..	45,952	..	104,682	637
Carpet sweepers, not electrically operated					
	No.		No.		
Complete	{ 273,365	513	{ 485,289	913	7
Parts	..	21	..	25	..
Fairground equipment	..	227	..	73	15
Filters, other than water filters and filter presses					
Oil	{ 311,957	478	{ 235,305	262	26
Other	..	1,116	..	852	23
Unclassified	..	427	..	1,219	5
Fire-extinguishing apparatus (other than fire engines, etc. and hand-operated chemical extinguishers sold separately)	..	3,263	..	46	28
Garage equipment and plant, not elsewhere specified	..	1,424	..	2,009	61
Lubricators and parts, other than of railway wagon, etc. axle boxes, not elsewhere specified	..	599	..	1,445	17
Metal moulds (other than moulds and dies for use as engineers' small tools, moulds for use in civil engineering and ingot moulds and bottoms)	{ Tons		{ Tons		
	{ 1,348	336	{ 3,506	512	55
	..	809	..	637	..
Moulding boxes and parts thereof	{ 3,221	395	{ 3,463	411	28
	Thousands		Thousands		
Pressure gauges	{ 1,406	1,166	{ 1,239	1,246	61
	..	179	..	545	..
Railway and tramway equipment, not elsewhere specified	..	(a)	{ 798	320	53
			..	757	..
Storage tanks of iron or steel, assembled or not, 3/16 in. and over in thickness	{ Tons		{ Tons		
	{ 113,943	8,533	{ 98,053	9,861	169
	..	1,017	..	2,689	..
Heavy plate work, not elsewhere specified (s)					
Buoys and flotation vessels	{ 240	52	{ 238	66	5
	..	28	..	..	..

TABLE 5 (contd.)

	1951		1954		
	Quantity	Value	Quantity	Value	Entries
	Tons	£'000	Tons	£'000	Number
OTHER PRODUCTS OF THE INDUSTRY (contd.)					
Heavy plate work, not elsewhere specified (s) (contd.)					
Bunkers, bins and silos	{ 3,263	258	{ 1,130	115	10
	..	50	..	33	..
Heat exchangers	{ 582	140	{ 552	139	12
	..	66	..	159	..
Pipes and chimneys	{ 8,327	795	{ 5,710	616	25
	..	449	..	323	..
Pressure vessels	{ 6,133	861	{ 4,559	692	21
	..	111	..	338	..
Sundry vessels	{ 12,689	1,556	{ 9,849	1,448	17
	..	..	..	1,176	..
Pressure and sundry vessels, unclassified	{ 1,232	175	{ ..	28	..
	..	190	..	..	..
Other and unclassified welded and rivetted built-up plate work	{ 25,821	2,151	{ 26,361	2,495	38
	..	1,175	..	826	..
Canteen and cafe boiler, etc. sets (excluding purely sheet metal catering equipment) and parts (s)	{ 135	186	{ ..	416	..
	..	170	..	..	..
Heavy duty cooking apparatus (not purely cast iron products) (s)					
Gas	{ 738	204	{ 302	115	..
	..	212	..	370	..
Steam	{ 776	210	{ 622	131	..
	..	189	..	..	..
Electric	{ 61	32	{ ..	..	..
	..	270	..	..	..
Oil	{ 11	3	{ ..	587	9
	..	6	..	..	..
Unclassified	{ 405	79	{ ..	..	..
	..	53	..	..	..
Wood and metal patterns	..	2,309	..	2,621	235
Other and unclassified products of the industry	..	24,304	..	31,329	..
Waste products other than scrap metals	..	149	..	404	206
Machinery purchased and installed and other installation work (u)					
Air conditioning, heating and ventilating plant and appliances	..	1,563	..	4,209	67
Other (excluding marine machinery)	..	14,023	..	17,404	207
Thermal insulation of plant, machinery, etc. (e)	..	(a)	..	386(u)	..
Research and development work (s) (u)	..	2,091	..	3,452	47
Repair and jobbing work (u) (v)	..	19,873	..	21,696	1,015

TABLE 5 (contd.)

	1951		1954		Entries Number
	Quantity	Value £'000	Quantity	Value £'000	
OTHER PRODUCTS OF THE INDUSTRY (contd.)					
Other work done for the trade or on commission (u)	..	7,971	..	19,095	560
Total		736,123 (o)		970,158	..
Sales in other industries (see Table 6)		112,356		152,140	..
Principal products of this industry sold by establishments in the industry		623,767 (o)		818,018	2,614

(a) Not recorded separately.

(b) Recorded as:

Valves, other than for motor vehicles, and cocks (excluding domestic cocks and taps of brass or other copper alloys)

Industrial valves so far as recorded separately

Other

Quantity Tons	Value £'000	Entries Number
35,501	11,333	243
..	11,512	
..	1,216	

(c) Described in 1951 as 'Sectional boilers, other than for steam.'

(d) Excludes radiators of cast iron made in iron foundries, for which see Iron Foundries Industry (Volume 3, Industry C).

(e) So far as recorded separately in 1954.

(f) Not recorded separately. (See footnote (h)).

(g) Owing to the risk of disclosure of information relating to individual firms, separate figures cannot be given.

(h) The figures shown for 1951 include both other gas making and other chemical making machinery and plant not elsewhere specified. (See footnote (f)).

(i) Described in 1951 as 'Other than for domestic use'.

(j) Recorded in 1951 as:

Quantity Number	Value £'000
(i) 58,948	864
(ii) ..	68
(i) ..	426
(ii) ..	135

Washing machines, other than dry cleaning washers, for domestic use, hand operated

Other laundering and dry cleaning machinery

(k) Not specified as excluding coal preparation plant in 1951.

(l) Litho-offset machines are included in the Printing and Bookbinding Machinery Industry (Volume 4, Industry H).

(m) Including ribbon spools (with or without inked ribbons), sold separately, for use in all types of office machinery, weighing machines and time recorders.

(n) Excluding, in 1951, internal combustion engines for locomotives.

(o) Corrected figures.

(p) Recorded in 1951 as:

Quantity Number	Value £'000
(i) 97,526	8,807
(ii) ..	143
(i) 1,050	559
(ii) ..	193

Centrifugal and axial flow

Turbine

(q) Recorded in 1951 as:

Quantity Number	Value £'000
(i) 209,262	10,727
(ii) ..	145
(i) 144,263	3,001
(ii) ..	9
(i) 98,286	3,194
(ii) 56,014	444
(i) ..	57
(ii) ..	198

Automatic power operated refrigerators
Of a storage capacity not over 12 cu.ft.
Complete

Mechanical units, complete

Parts

Automatic heat operated refrigerators
Complete

Mechanical units, complete

Parts

(r) Excluding marine, textile, printing and bookbinding machinery, metal working machine tools and mechanical handling equipment. (See introductory note).

(s) So far as recorded separately.

(t) Excluding small arms and parts thereof for which see the Small Arms Industry (Volume 4, Industry E).

(u) Amount charged.

(v) Exclusive of the value of goods made by firms and used in this work, which was recorded as sales.

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

Larger establishments in the United Kingdom

TABLE 6

Kind of output (i) Complete machines, etc. (ii) Parts	1954			Principal industries in which produced (a)
	Quantity	Value £'000	Entries Number	
PARTS OF MACHINERY, SOLD SEPARATELY				
Bearings and parts thereof				
Ball and roller bearings and parts thereof (excluding non-precision balls for ball-point pens, etc.)	..	51	16	4C, 4D, 5E, 5G
Other bearings (e.g. plain) and bushes	..	758	33	3G, 4G, 5G, 11A
Chains, steel transmission and other precision chains	..	41	19	3I, 4G, 5C
Cylinder liners and inserts	No. 1,480	113	13	4B, 4G, 5F
	..	32		
Gears and gear wheels	..	1,076	68	4B, 4C, 4D, 4K
Pistons	..	117	19	4B, 4G, 4J
Piston rings, packing rings, etc.	..	23	17	4B, 4J
Pulleys and pulley wheels	..	104	36	4D, 4F, 4G, 5C
Rolls of iron or steel	Tons 13,133	1,736	27	3B, 3C, 4J
	..	3		
For metal rolling mills	2,831	174	23	3C, 4D, 4K
For machinery, other than metal working				
Valves and cocks for the control of liquids, steam and gases (excluding inlet and exhaust valves for internal combustion engines)				
Industrial				
Wholly or mainly of iron or steel	..	281	30	3F, 4B, 4J
Wholly or mainly of other metals and alloys, including copper alloys	..	3,163	110	3F, 4B, 4J
Unclassified	..	287	17	5F
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED				
Agricultural machinery, other than tractors				
Potato and sugar beet lifters (i) and (ii)	..	21	5	3I, 4G
Hay and corn elevators (i) and (ii)	..	8	7	4J
Grain and grass driers (i) and (ii)	..	139	10	3C, 4D, 4F, 4G
Other agricultural machinery (i) and (ii)	..	5,616	55	3I, 3M, 4G, 4J
	..	630	66	3I, 4F, 4G, 4J
Unclassified (i) and (ii)	..	687	9	3B, 3I, 5C
	..	1,916	7	3I, 5C, 5E
Air and gas compressors and exhausters and other pneumatic appliances				
Air compressors and exhausters, other than compressors supplied with paint spraying equipment (i) and (ii)	No. 129	45	7	3I, 4C, 4J
	..	26		
	..	145	7	3G, 3I, 4J
Other pneumatic appliances, not elsewhere specified, including gas compressors and exhausters (i) and (ii)	..	262	9	4K
	..	34	6	3I, 4B
Air conditioning, space heating and ventilating plant and appliances, including waste, dust, fumes, heated air, steam or vapour collecting and extracting, but excluding fans sold as such and gas appliances				
Boilers for central heating (i) and (ii)	84	43	7	4C, 4F, 4G
	..	30		
	..	21	..	4F

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TABLE 6 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1954			Principal industries in which produced (a)
	Quantity	Value £'000	Entries Number	
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)				
Air conditioning, space heating and ventilating plant and appliances, including waste, dust, fumes, heated air, steam or vapour collecting and extracting, but excluding fans sold as such and gas appliances (contd.)				
Hot air, water and steam radiators, other than those for use with gas or electricity (i) and (ii)	..	340	7	3M, 4F, 4K
Air filters, washers and scrubbers (i) and (ii)	..	40	7	4C, 4G, 5E
Ventilators, hoods, booths, cowls, ducting and similar sheet metal work for air conditioning, etc. plant	..	1,937	221	4A, 4F, 4J, 5E
Other descriptions, not of cast iron, not elsewhere specified				
Space heating plant and appliances, heater batteries and unit heaters (i)	..	261	12	4F, 5E, 5F
(ii)	..	118	5	4D, 5F
Other (i) and (ii)	..	392	13	4D, 4F, 5E
Boilers and boiler-house plant, other than boilers for ships and locomotives, burners and furnaces				
Boilers				
Water tube (i) and (ii)	..	212	12	4B, 4F, 4G
Other boilers, including sectional boilers for steam, and locomotive type boilers for stationary purposes, but excluding boilers for central heating (i)	..	526	18	4B, 4F, 4G, 4J
(ii)	..	104	11	4B, 4F, 4K
Boiler-house plant, sold separately				
Fuel economisers, feed water heaters and steam superheaters (i) and (ii)	..	33	7	4F, 5E
Boiler firing plant				
Mechanical stokers (i) and (ii)	..	355	10	3C, 4C, 4G, 12A
Other boiler firing plant (i) and (ii)	..	10	7	
Other boiler-house plant (i)	..	38	7	4F, 4G
(ii)	..	133	17	3I, 4D, 4F
Bottle-washing machinery (i) and (ii)	..	18	6	4F
Boot and shoe making and repairing machinery other than sewing machines (i)	..	16	6	4G, 4J
(ii)	..	5	11	
Bottling, packing, canning, packeting and labelling machinery				
Bottling, capping and canning (i)	..	120	11	4C
(ii)	..	39	10	4C
Filling and closing machinery for solids and semi-solids (i) and (ii)	..	48	..	3F, 3K, 4H
Packing, wrapping and labelling (i) and (ii)	..	222	15	3L, 4D, 4H, 5E
Brick, tile, and cement blockmaking machinery, other than kilns				
(i) and (ii)	..	261	17	1F, 4C, 4I
Cable making machinery				
(i)	..	1,259	6	4A, 4D, 4L
(ii)	..	134	7	4A, 4D, 4L
Cement making machinery, other than kilns				
(i) and (ii)	..	3	6	
Centrifuges, other than cream separators and hydro-extractors for use in laundries				
(i) and (ii)	..	43	..	4B, 4H, 5E
Chemical making machinery and plant, not elsewhere specified				
Mineral-oil refining (ii)	..	36	5	4A

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TABLE 6 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1954			Principal industries in which produced (a)
	Quantity	Value £'000	Entries Number	
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)				
Chemical making machinery and plant, not elsewhere specified (contd.)				
Oil (other than mineral) extraction and refining (i) and (ii)	..	76	..	2P, 3F
Paint, varnish and inkmaking (i) and (ii)	..	6	5	
Other, including soap and fatty acid making (i)	..	2,604	25	2C, 4C, 4F, 4G
(ii)	..	80	28	4D, 4F, 4G, 4J
Unclassified				
Complete	..	4,229	29	2B, 2E, 2J, 3G
Parts	..	119	..	3C
Civil engineering and contracting machinery and plant, new				
No.				
Excavators, trenchers, ditchers and similar digging machinery, other than cableway dragline excavators and rope-hauled dragcrappers (i)	867	490	6	3L, 4F, 4G
(ii)	..	68	11	3I, 3L, 4D, 4F
Earth-moving, earth-levelling and land-clearing machinery				
Angledozer, bulldozers, calldozers and muledozers (i.e. equipment without tractors) (i) and (ii)	..	165	13	3L, 4J
Graders, including motor graders, levellers, scrapers (other than rope-hauled dragcrappers), loaders and loading shovels (i) and (ii)	..	103	7	3C, 4F
Other, including dumpers (i)	372	196	6	3L, 5E, 12A
(ii)	..	116	12	3L, 4F, 5E
Concrete mixing, placing and finishing, etc. machinery (i) and (ii)				
(i) and (ii)	..	526	18	3L, 4F, 4G
Tar, bitumen and asphalt plant, with or without mixing gear (i) and (ii)				
(i) and (ii)	..	94	9	4F, 4G, 4J, 5E
Other civil engineering and contracting plant (including mechanical handling plant for civil engineering and contracting), not elsewhere specified (i)				
(ii)	..	446	13	4F, 4G, 4J
(i)	..	147	19	4F, 4G, 4J
(ii)	..	97	6	3H, 4C, 4G, 12A
Civil engineering and contracting machinery and plant, reconditioned (i)				
(ii)	..	6	6	
(i)	..	532	7	4A, 4D, 4F, 4G
(ii)	..	283	16	4B, 4C, 4F, 4G
Coal preparation plant (i)				
(ii)	..	618	13	1B, 3B, 4G, 4J
(i)	..	66	14	4G, 4J, 5A
(ii)	..	66	14	4G, 4J, 5A
Crushing, washing and screening machinery for quarry products (i)				
(ii)	..	66	14	4G, 4J, 5A
Drying machinery, not elsewhere specified (i) and (ii)				
(i) and (ii)	..	231	9	4D, 4F, 4H, 5E
Electric lamp and electronic valve making machinery (i)				
(ii)	..	42	..	4B
(i)	..	7	..	4J
Food and drink preparation, processing and sterilising machinery, not elsewhere specified other than portable mechanical appliances, electrically operated				
(i)	95	55	6	3K, 4D, 4J, 5E
(ii)	..	17	8	3K, 4D, 4J
(i)	..	31	8	3K, 4D, 4J
(ii)	..	46	11	3L, 4J, 8C
(i)	..	5	8	
(ii)	..	5	8	
(i)	..	189	8	4C, 4J, 5E, 8I
(ii)	..	19	8	4C, 4J
(i)	..	593	5	4A, 4G, 8H
(ii)	..	55	7	4D, 4F, 4G, 4J

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TABLE 6 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1954			Principal industries in which produced (a)
	Quantity	Value £'000	Entries Number	
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)				
Food and drink preparation, processing and sterilising machinery, not elsewhere specified other than portable mechanical appliances, electrically operated (contd.)				
Dairy machinery and plant, other than milking machines (i) and (ii)	..	214	12	4F, 4J, 4K, 5E
Other machinery for the preparation, processing and sterilising				
Of food	{ (i) .. { (ii) ..	229 20	21 19	4F, 4J, 4K 4J
Of drink	{ (i) .. { (ii) ..	301 7	8 10	4J, 5E
Founding and diecasting machinery	{ (i) .. { (ii) ..	230 53	10 9	2K, 3G, 4C, 4G 3G, 4B, 4G
Furnaces and kilns				
Metallurgical furnaces				
Electric (i) and (ii)	..	113	..	4G, 4H
Gas (i) and (ii)	..	6	..	
Oil (i) and (ii)	..	9	..	4C
Other descriptions, including blast furnaces (i) and (ii)	..	374	6	2E, 3C, 4G
Boiler furnaces (ii)	..	54	..	4F, 4J
Other furnaces and kilns (i) and (ii)	..	677	17	1H, 4F, 4J
Gas appliances including meters, but excluding pipes and fittings (i) and (ii)	..	727	10	5E, 5F
Gas-works plant, not elsewhere specified	{ (i) .. { (ii) ..	1,494 1,070	10 24	4F, 4G, 4M, 5K 4F, 4G, 5E
Glass making and glass working machinery and plant, other than furnaces (i) and (ii)	..	443	14	1H, 1I, 4C, 4F
Grain processing machinery and plant	{ (i) .. { (ii) ..	396 91	7 9	4B, 4G, 4K 4G, 4J, 4K
Laundering and dry-cleaning machinery, including hydro-extractors and other drying machines used in laundries, excluding machinery for textile finishing				
Washing machines, excluding electrically-operated machines of 250 lb. net weight or less, all hand operated machines and dry-cleaning washers (i) and (ii)	..	39	..	3I, 4G
Wringers and mangles for domestic use (i) and (ii)	..	38	5	4D, 4K, 5E
Other laundering and dry-cleaning machinery, including steam presses, parts of ironing machines, dry-cleaning washers, and drying machines (i) and (ii)	..	139	18	3I, 4G, 4K
Lawn mowers				
Hand driven (i) and (ii)	..	113	6	3I, 4D, 4J, 5E
Animal and mechanically driven, including gangmowers (i) and (ii)	..	152	9	3I, 3K, 4J
Machine tools, woodworking, new, other than portable power tools and small tools for use in machine tools				
	No.			
Sawing	{ (i) 1,156 { (ii) ..	66 6	16 9	4C, 4F, 4J 4C
Planing and moulding (i) and (ii)	..	11	7	
Other woodworking machine tools, including mortising and tenoning and veneer and plywood machines	{ (i) 3,262 { (ii) ..	218 10	25 11	3I, 4C, 4F, 5E 4C
Machine tools, woodworking, reconditioned (i) and (ii)	..	35	13	4C, 5E

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TABLE 6 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1954			Principal industries in which produced (a)
	Quantity	Value £'000	Entries Number	
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)				
Mechanical power transmission plant, not elsewhere specified	{ (i) .. { (ii) ..	247 27	16 ..	4D, 4G, 4J, 5C 4G, 5F
Mining machinery, other than portable power tools				
Coal cutters, power operated (i) and (ii)	..	51	7	3I, 4F, 4J
Conveyors, underground (i) and (ii)	..	420	8	3C, 4C, 4G, 4J
Winding machinery (i) and (ii)	..	42	7	3L, 4G, 4J
Other mining machinery, except coal preparation plant, but including power loaders and hauling engines (stationary)	{ (i) .. { (ii) ..	150 187	14 21	3B, 4C, 4G, 12A 4C, 4F, 4G, 4K
Unclassified	{ (i) .. { (ii) ..	482 25	5 5	4G, 4K, 5A, 5E 3I, 5C
Office machinery				
Adding and listing machines (i) and (ii)	..	16	..	3I, 4K
Duplicators, excluding litho-offset machines (i) and (ii)	..	10	..	4J
	No.			
Typewriters, new and reconditioned	{ (i) 2,110 { (ii) ..	46 67	5 ..	4C, 4J 4C, 11A
Other office machinery	{ (i) .. { (ii) ..	764 19	23 12	4K, 4M, 5H, 11F (b)
Paint spraying, metal spraying and similar machines, other than agricultural spraying machines				
	{ (i) .. { (ii) ..	26 1	8 6	4F, 4J, 4K
Plastics working machinery other than presses	{ (i) .. { (ii) ..	64 21	9 11	4D, 4K, 11I 4D
Portable power tools, other than electric				
Of the hand-held type (including flexible shaft drive tools) as employed in the general engineering, metal-working, woodworking, stone-working and building industries (i) and (ii)	..	224	6	4G, 4J, 5A, 5F
Of the type, including hand-held, employed in civil engineering mining and quarrying (i) and (ii)	..	158	7	3B, 3K, 3M, 4C
Pottery and other ceramic making machinery other than furnaces and kilns (i) and (ii)	..	15	6	1G, 4J
Presses, other than metal-working				
Tableting and pelleting presses, other than for powder metallurgy (i) and (ii)	..	16	5	(b)
Plastics moulding (other than tableting and pelleting) and baling presses	{ (i) 284 { (ii) ..	142 14	11 5	3C, 3N, 4C, 4D 4C
Prime movers				
Internal combustion, new, other than engines for aircraft, road vehicles (including agricultural tractors), ships and boats				
Reciprocating				
Compression ignition (diesel and dual fuel) over 50 b.h.p. (i) and (ii)	..	1,351	7	3I, 4B, 4K
Turbines, other than gas and marine	{ (i) .. { (ii) ..	7,954 1,200	.. 8	4C, 4K 4C, 4K
Other and unclassified	{ (i) .. { (ii) ..	6,067 2,941	19 31	3I, 4B, 4G, 4K 3I, 4B, 4K, 5E
Pulpmaking and paper and board making machinery, including finishing machinery	{ (i) .. { (ii) ..	249 278	8 16	4C, 4D, 4H, 12A 4C, 4D, 4H, 4J
Pumps				
Petrol and oil measuring (ii)	..	303	14	3I, 4C, 5E, 5I
Hand pumps, other than petrol and oil measuring (i) and (ii)	..	7	..	5A

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TABLE 6 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1954			Principal industries in which produced (a)
	Quantity	Value	Entries	
	No.	£'000	Number	
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)				
Pumps (contd.)				
Other kinds				
Reciprocating	{ (i) 178 (ii) ..	251 263	12 11	3I, 4C, 4G 4C, 4G
Centrifugal and turbine	{ (i) 2,005 (ii) ..	136 87	9	4G, 4K, 5F
Rotary	{ (i) 1,938 (ii) ..	322 87	14 13	4D, 4J 4B, 4C, 4G, 5F 4B, 4G
Other, including axial flow	{ (i) 374 (ii) ..	238 28	13	4B, 4G, 4N, 5A
Pumps, unclassified	{ (i) .. (ii) ..	1,193 36	11 ..	3I, 3K, 3M 3B, 3M, 4K
Refrigerating machinery				
Automatic power operated refrigerators				
Complete	{ 30,484 ..	1,295 111	5	4K, 5E
Mechanical units complete	{	6 7	..	..
Parts	..	143	8	4K, 5E
Automatic heat operated refrigerators and non-automatic and unclassified refrigerating machinery	{ (i) .. (ii) ..	106 350	5 17	5E, 12A 3I, 3K, 5F, 11D
Refuse and sewage disposal machinery (i) and (ii)	..	122	8	3C, 4F, 4G
Sewing machines (including machine heads) and parts thereof other than needles, new and reconditioned	..	..	..	..
New, industrial } Reconditioned }	{ (i) 469 (ii) ..	13 10	4 8	4D
Steel-works and non-ferrous machinery and plant, not elsewhere specified				
Rolling mills (hot and cold), other than tube making	{ (i) .. (ii) ..	128 64	5 5	3C, 4D 3C, 4D, 4F
Other steel-works and non-ferrous machinery and plant	{ (i) .. (ii) ..	365 64	15 10	3B, 3G, 4D, 4F 4D, 4G, 4J
Tanning and leather working machinery, other than boot and shoe making and repairing machinery	{ (i) .. (ii) ..	26 10	5 9	4D, 4J
Testing machinery and equipment	{ (i) .. (ii) ..	270 31	18 ..	3G, 4C, 4F 4J, 5E
Tobacco processing and cigar and cigarette making machinery (i) and (ii)	..	683	15	3L, 4C, 4H, 9M
Water treatment plant, other than plant for waterworks				
Water softeners, water filters and water sterilising equipment	{ (i) .. (ii) ..	26 50	6 ..	5E, 5F 4C, 4F
Weighing machines and parts thereof, other than ribbon spools with or without ribbons	{ (i) .. (ii) ..	94 59	9 11	3N, 4J, 5E, 5H 4C, 4J, 5I
Well drilling machinery	{ (i) .. (ii) ..	50 91	.. 10	4J, 12A 3C, 4F, 4G
Wire making machinery (i) and (ii)	..	100	9	4D, 5D
Wire working and wire winding machinery, other than cablemaking machinery	{ (i) .. (ii) ..	135 13	10 6	4D, 4K, 5A 4D
Reconditioned machinery and plant, not elsewhere specified	..	231	11	3K, 4C, 4K, 7A

TABLE 6 (contd.)

Kind of output (i) Complete machines, etc. (ii) Parts	1954			Principal industries in which produced (a)
	Quantity	Value	Entries	
		£'000	Number	
MACHINERY, AND PARTS THEREOF NOT ELSEWHERE SPECIFIED (contd.)				
Other machinery and parts thereof				
Hydraulic, including hydraulic accumulators but excluding presses and pumps	{ (i) .. (ii) ..	710 14	11 8	3K, 4B, 4C, 4G 4C
Other (c) (i) and (ii)	..	7,894	..	..
Plant and machinery, unclassified (i) and (ii)	..	4,955	..	..
OTHER PRODUCTS OF THE INDUSTRY				
Arms, ammunition and naval, military and air force stores, not elsewhere specified (d)				
Carpet sweepers, not electrically operated, complete and parts	..	116	..	4D, 5E, 11C
Filters, other than water filters and filter presses				
Oil	{ No. 49,804	19	6	3F, 3I, 4J, 4K
Other	..	34	6	4F, 4K, 4O
Unclassified, complete and parts	..	58	..	4K, 5E, 5F
Fire extinguishing apparatus (other than fire engines, etc. and hand operated chemical extinguishers sold separately)	..	179	13	3I, 4J, 5F
Garage equipment and plant, not elsewhere specified	..	498	23	3I, 4G, 5E
Heavy plate work, not elsewhere specified				
Bunkers, bins and silos	{ Tons 180 ..	15 26	..	4F
Welded and rivetted built-up plate work	{ 299 ..	35 134	..	4F, 5E
Lubricators and parts, other than of railway wagons, etc. axleboxes, not elsewhere specified	..	19	..	4J, 5E, 5F
Metal moulds (other than moulds and dies for use as engineers' small tools, moulds for use in civil engineering and ingot moulds and bottoms)	{ 132 ..	13 245	17	3B, 3I, 5E, 11I
Pressure gauges	{ Thousands 71 ..	226 111	33	2I, 4C, 5F, 5H
Storage tanks of iron and steel, assembled or not, 3/16 in. and over in thickness	{ Tons 11,133 ..	1,003 780	58	4F, 5E
Tools and implements (excluding engineers' small tools, saws and sawblades), not elsewhere specified				
Cutting tools for use on woodworking machines	..	207	16	4C, 5A
Detachable tools (drilling bits, etc.) used in rock-drilling machinery	..	651	7	3B, 4C, 4O, 5A
Other	..	104	7	3I, 4K, 4O, 5A
Wood and metal patterns	..	679	97	3B, 3C, 3G, 4K
Other and unclassified products of the industry (e)	..	11,243	..	..

TABLE 6 (contd.)

	1954			Principal industries in which produced (a)
	Quantity	Value £'000	Entries Number	
OTHER PRODUCTS OF THE INDUSTRY (contd.)				
Machinery purchased and installed and other installation work				
Air conditioning, heating and ventilating plant and appliances	..	108	16	4A. 4F. 4J
Other (excluding marine machinery)	..	4,408	76	4F. 4H. 4J
Repair and jobbing work (f) (g)	..	7,959	359	3C. 3L. 3M. 4A. 4F
Research and development work (f)	..	355	7	
Other work done for the trade or on commission (f)	..	7,998	99	
Total		152,140	..	

(a) The volume number and industry references given are to the industries shown in the list at the back of this report.

(b) Production is widely distributed among other industries.

(c) Including burners, transmission chains of iron, oil seals, automatic slot machines other than weighing machines, battery and cell making machinery not elsewhere specified, steam condensers other than marine, dishwashing machinery, fans with or without motors other than desk and ceiling fans, filter presses, lighting appliances not elsewhere specified, plantation machinery not elsewhere specified, pulverising machinery and plant other than crushing machinery for quarry products, rubber working machinery, stone working machinery not elsewhere specified, water meters and waterworks equipment and plant.

(d) Excluding small arms and parts thereof for which see the Small Arms Industry (Volume 4, Industry E).

(e) Including fairground equipment, moulding boxes and parts, railway and tramway equipment, heat exchangers, pipes and chimneys, pressure vessels, sundry vessels, and heavy duty cooking apparatus not purely cast iron.

(f) Amount charged.

(g) Exclusive of the value of goods made by firms and used in this work.

Sales in the industry of other than principal products
Larger establishments in the United Kingdom

TABLE 7

	1954
	Value £'000
Machine tools, metal-working (other than portable power tools), and parts	
New	
Boring and drilling	265
Grinding, other than threading	304
Lathes	471
Milling, other than threading	362
Sawing	189
Presses	3,436
Forging machinery, other than presses	190
Punching and shearing	114
Tin box and can making	206
Straightening rolls, and plate and sheet metal working machines, not elsewhere specified	76
Screwing and threading	391
Other	873
Reconditioned	440
Marine machinery and parts	
Boilers	
Water tube	2,657
Other	372
Internal combustion engines	
Compression ignition (diesel), propelling	
Not exceeding 50 b.h.p.	766
Over 50 b.h.p., not over 300 b.h.p.	1,075

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TABLE 7 (contd.)

	1954
	Value £'000
Marine machinery and parts (contd.)	
Internal combustion engines (contd.)	
Compression ignition (diesel), propelling (contd.)	
Over 300 b.h.p., not over 1,500 b.h.p.	4,576
Over 1,500 b.h.p.	305
Compression ignition (diesel), auxiliary	4,042
Steam	
Propelling	2,188
Auxiliary, reciprocating	340
Other descriptions	11,303
Mechanical handling equipment and parts, new	
Aerial transporters	610
Conveyors and elevators	
Belt	2,345
Other	1,796
Cranes and bridge transporters	
Jib	1,724
Overhead travelling	1,459
Other	212
Hoists	
Winches and capstans	1,279
Other	189
Lifts and escalators	
For passengers	363
For goods	562
Other	1,934
Mechanical handling equipment and parts, reconditioned	174
Electric portable power tools and parts	851
Printing, bookbinding, paper-working, etc. machines and parts	
Printing machinery	1,617
Other	555
Textile machinery	
For processes preparatory to spinning and twisting, including parts	232
Looms for weaving, including parts	159
Finishing machinery, including parts	1,124
Other, including parts	1,174
Accessories, sold separately	573
Welding and cutting machinery and equipment, including parts	108
Small arms and ammunition	4,190
Iron and steel fabricated	5,321
Engineers' small tools and parts thereof	
Press tools	458
Jigs and fixtures	769
Other	1,265
Tractors and industrial trucks	
Tractors	
Track-laying	423
Other	3,581
Industrial and works trucks	1,608
Parts of tractors and mechanically-propelled industrial trucks	1,128
Hand trucks and trolleys, including parts	202

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TABLE 7 (contd.)

	1954
	Value
	£'000
Electrical machinery and apparatus, including parts	
Generators and generating sets	2,235
Motors	1,869
Washing machines, vacuum cleaners and floor polishers, including parts	2,906
Other	2,338
Motor vehicles and cycles, and parts	
Parts of motor vehicles and cycles	3,507
Other descriptions, including trailers	587
Aircraft parts and accessories	2,586
Rail locomotives and parts (except axles, tyres and wheels)	2,347
Road rollers and parts	1,534
Railway carriages and wagons, and parts (except axles, tyres and wheels)	2,495
Non-mechanically propelled vehicles (except cycles) and parts	93
Tools and implements	
Engineers' hand tools	158
Other	816
Hollow-ware of wrought iron or steel	1,579
Manufactures of brass or other copper alloys, not elsewhere specified	
Engineers' and mechanics' goods	
Domestic cocks and taps	122
Other, excluding industrial valves and pressure gauges	127
Castings in the rough, sold as such	615
Other	1,030
Stampings and pressings of iron or steel	841
Scientific, surgical and photographic instruments, apparatus and appliances	867
Castings of iron or steel	
Iron	6,694
Steel	1,568
Drop forgings	279
Furniture of metal and parts thereof	425
Machinery guards of sheet metal	214
Other manufactures	8,999
Scrap metals sold	
Iron and steel	2,227
Brass	2,217
Copper	399
Other	1,230
Structural work carried out in the United Kingdom	
Work done as main or direct contractors	
Houses and flats	
Construction of new houses and flats	58
Repair and maintenance of houses and flats	13
Construction, alteration, repair or maintenance of	
Railways and light railways, tramways and trackless trolley systems, etc.	103
Gas works and mains	282
Power stations	461
All other civil engineering work including highways, harbours, airfields, etc.	143
New construction work (including site preparation, and major extensions and alterations)	
Factories, workshops and other industrial premises (e.g. oil refineries, steel works, etc.)	685
Warehouses and storage premises	115

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TABLE 7 (contd.)

	1954
	Value
	£'000
Structural work carried out in the United Kingdom (contd.)	
Work done as main or direct contractors (contd.)	
New construction work (including site preparation, and major extensions and alterations) (contd.)	
Other new construction work including hospitals, clinics, schools and college buildings, etc.	535
All repair and maintenance work not included above	313
Work done as sub-contractors	801
Total constructional engineering, etc. work	3,510
Less total value of goods made or fabricated in firms' own works and used in the work	872
Total constructional engineering, etc. work exclusive of goods made and used by firms (a)	2,638
Other work done (a)	472
Total	128,940

(a) Amount charged.

Total make of intermediate products
Larger establishments in the United Kingdom

TABLE 8

	Returned in this industry		
	1951	1954	
	Quantity	Quantity	Entries
	Th. tons	Th. tons	Number
Other than principal products			
Iron and steel castings			
Iron (a)			
Grey and high duty	517.7	442.2	329
Malleable (white or blackheart)		17.8	13
Steel (b)			
Non-alloy	27.3	30.1	17
Alloy	8.3	21.9	15

(a) For total output returned in all industries see the Iron Foundries Industry (Volume 3, Industry C).

(b) For total output returned in all industries see the Iron and Steel (Melting and Rolling) Industry (Volume 3, Industry B).

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TABLE 9

	Quantity		Cost	
	Th.tons	£'000	Th.tons	£'000
Materials				
Iron and steel				
Drop forgings	{ 25.1	3,874	..	637
Wrought tubes and fittings for wrought tubes	{ 69.9	5,755	..	752
Fabricated bridge components and other structural iron and steelwork	{ 35.4	3,214	..	764
Wire (single wire)	{ 7.5	770		
Wire manufactures, including wire cables and ropes and stranded wire of two or more ply	{ 2.7	444	..	262
Chains				
Transmission and conveyor types	{ 2.1	708	..	699
Other chains	{ 0.8	119	..	398
Iron and steel scrap	197.2	1,603		
Other iron				
Pig-iron, except refined pig-iron	275.1	4,837		
Castings in the rough or machined, except machined castings elsewhere specified	232.9	17,246		
Other iron, except finished parts	29.0	1,614		
Ferro-alloys				
Spiegeleisen and ferro-manganese (other than refined)	{ 1.2	78	..	19
Other ferro-alloys	{ 4.2	480	..	122
Other steel (alloy and non-alloy)				
Ingot, blooms, billets, and slabs, and sheet and tinplate bars	149.1	6,005		
Angles, shapes, sections, bars, rods (including wire rods) and girders, beams and joists (not fabricated)	545.5	26,181		
Castings in the rough or machined, except machined castings elsewhere specified	120.8	15,339		
Forgings, except drop forgings, in the rough or machined, except machined forgings elsewhere specified	{ 34.0	5,400	..	1,724
Tin-, terne-, and black-plates and tinned and terne sheets	{ 17.8	971	..	129
Other plates and sheets, 1/8 in. thick and over, and hoop and strip (including tape) of all thicknesses	518.1	20,680		
Other plates and sheets under 1/8 in. thick, including electrical quality sheets	130.4	7,785		
Axles, tyres and wheels (rail type)	{ 1.8	203	..	148
Springs, laminated and other types	{ 1.7	269	..	594
Light metals and non-ferrous metals in all forms, except finished parts, wire and scrap	Th.cwt.			
Aluminium and aluminium alloys	{ 436.4	6,398	..	692
Magnesium and magnesium alloys	{ 6.7	198		
Antimony	{ 4.4	52	..	15
Brass and other alloys of copper, including nickel silver and cupro-nickel, but excluding other nickel alloys				
Castings	{ 356.8	6,476	..	663
Other	{ 792.3	10,556	..	1,419

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TABLE 9 (contd.)

	Quantity		Cost	
	Th.cwt.	£'000	Th.cwt.	£'000
Materials (contd.)				
Light metals and non-ferrous metals in all forms, except finished parts, wire and scrap (contd.)				
Copper	471.8	7,293		
Lead and alloys of lead, except solder	112.4	755		
Tin	46.7	1,645		
Zinc	193.2	995		
Non-ferrous metal wire, not insulated	{ 2.2	27	..	31
Soft solder	{ 18.3	344	..	40
Scrap non-ferrous metals	92.3	681		
Insulated wires and cables	..	1,151		
Rubber in all forms, including finished parts	{ 101.2	1,886	..	2,427
Refractory materials	Th.tons			
Asbestos in all forms, including finished parts	{ 90.8	517	..	882
Other thermal insulating materials	..	529		
Paint, enamel and varnish	..	2,625		
Lubricating oils and greases (including cutting oil and emulsions)	Th.gal.			
Timber (excluding timber for making into packing cases, etc. or for repairing returnable cases)	{ 3,161.4	798	..	486
Hardwood and softwood	Th.cu.ft.			
Plywood, including battenboard, blockboard and laminboard	{ 3,012.3	2,173	..	288
Nuts, bolts, studs, screws, rivets, washers, nails, tacks, etc.	Th.sq.ft.			
Purchased components for incorporation in own products	6,485.0	375		
Ball and roller bearings and parts	..	5,612		
Internal combustion engines	Thousands			
Electric motors	{ 96.8	6,880	..	2,283
Pumps	{ 571.9	7,788	..	4,089
Industrial valves	{ 43.5	1,741	..	1,380
Gears and gearwheels of metal	..	3,094		
Measuring instruments and gauges and parts	..	3,712		
Electronic (including valves)	..	608		
Other	..	1,592		
Other purchased components				
Finished components of plastic materials	..	1,512		

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TABLE 9 (contd.)

	Quantity	Cost £'000
Materials (contd.)		
Purchased components for incorporation in own products (contd.)		
Other purchased components (contd.)		
Other, not elsewhere specified	..	78,157
Replacement parts for plant, machinery and vehicles	..	6,167
Consumable tools, including gauges, etc. bought as replacement	..	7,547
Packaging materials		
Paper and paperboard, and cardboard boxes, fibreboard packing cases, etc.	..	1,315
	Th.cu.ft. or Th.cu.ft. of timber used	
Timber and timber packing cases, etc.	{ 4,152.9 ..	{ 2,191 1,555
	Th.cwt.	
Jute piece goods, including hessian, and jute sacks and bags	{ 3.4 ..	{ 22 42
Other packing materials	..	576
All other purchased materials	..	57,351
Unclassified materials	..	13,991
Fuel and electricity		
	Th.tons	
Coal	882.0	3,559
Coke	387.1	2,466
Liquid fuels (including creosote/pitch mixtures)		
For use in internal combustion engines		
	Th.gal.	
Motor spirit (petrol) for use in road vehicles and derv. fuel	{ 7,525.1 ..	{ 1,524 277
Other	7,590.5	442
For burning in furnaces, boilers, kilns, etc.	28,147.4	1,333
Gas purchased (a)		
	Th.therms	
From Gas Boards	{ 46,044.5 ..	{ 2,317 315
	Th.cu.ft.	
From other sources, including other departments of the same firms	{ 340,473.0 ..	{ 129 25
Electricity purchased (b)		
	Th.kWh.	
From Electricity Boards	{ 1,188,064 ..	{ 6,213 633
From other sources, including other departments of the same firms	38,190	151
All other purchased fuel		242
Total cost		416,316

(a) Owing to the risk of disclosure of information relating to individual firms the total quantity of gas produced in firms' own establishments cannot be given.

(b) The total quantity of electricity generated in firms' own establishments in this industry in 1954 was 134,811 Th.kWh.

Average number of employees and wages, salaries and superannuation payments (a)

Larger establishments in the United Kingdom

TABLE 10

	1951	1954
	Number	Number
Average number of employees		
Operatives	413,783	436,856
Administrative, technical and clerical employees	124,345	141,448
Total	538,128	578,304
	£'000	£'000
Wages and salaries paid to		
Operatives	158,852	206,195
Administrative, technical and clerical employees	60,283	82,904
Total	219,135	289,100
	£	£
Wages and salaries per head		
Operatives	384	472
Administrative, technical and clerical employees	485	586
Superannuation and other pension funds for employees and dependents (b)		
Employers' contributions	..	£'000 5,359
Employees covered	..	Number 212,718
Pension, etc. payments to former employees and dependents (b)	..	£'000 860

(a) The following persons, not included above, were also employed by larger establishments in this industry ('other workers' includes, for example, employees engaged in merchanting):

	1951	1954
	Number	Number
Canteen workers		
Males	413	279
Females	5,055	5,089
Total	5,468	5,368
Other workers		
Males	3,745	3,137
Females	1,529	1,400
Total	5,274	4,537
Total excluded employees	10,742	9,905

(b) The figures given relate to larger establishments in Great Britain only.

Employment in a specified week (a)

Larger establishments in the United Kingdom

TABLE 11

	1951			1954		
	Males	Females	Total	Males	Females	Total
Working proprietors	340	9	349	268	14	282
Operatives	368,243	46,556	414,799	395,345	51,587	446,932
Administrative, technical and clerical employees	85,416	40,539	125,955	100,146	46,214	146,360
Total employees	453,659	87,095	540,754	495,491	97,801	593,292

(a) Week ended September 22, 1951, or October 30, 1954.

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