



BOARD OF TRADE

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[HA 251]

Report on the Census of Production 1963

58 Radio and other electronic apparatus



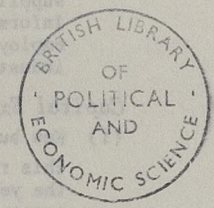
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Report on the Census of Production 1963

58 Radio and other electronic apparatus

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



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Notes

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

GENERAL INFORMATION

Changes in the 1963 census

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

Industrial Classification

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

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

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

TERMS USED IN THE CENSUS REPORT

Average number employed

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

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

Working Proprietors

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

Employees

- (i) Administrative, technical and clerical employees include managers, superintendents and works foremen; research, experimental, development, technical and design employees (other than operatives); draughtsmen and tracers; editorial staff, staff reporters, canvassers, competition and advertising staff; travellers; and office (including works office) employees. For Great Britain, but not for Northern Ireland, they include also managing and other directors in receipt of a definite wage, salary or commission.
- (ii) Operatives include all other classes of employees, that is, broadly speaking, all manual wage earners. They include those employed in and about the factory or works; operatives employed in power houses, transport work, stores, warehouses, shops and canteens; inspectors, viewers and similar workers; maintenance workers; and cleaners. Operatives engaged in outside work of erection, fitting, etc. are also included, but outworkers (i.e. persons employed by the firm who worked in their own homes, etc. on materials supplied by the firm) are excluded. Information about the numbers of outworkers employed was collected only for the gloves industry.

Capital Expenditure

- (i) New building work.

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

58 Radio and other electronic apparatus

This Report on the Radio and Other Electronic Apparatus Industry relates to establishments engaged wholly or mainly in manufacturing electronic valves (including cathode-ray tubes, semi-conductors and electronic rectifiers); radio and television receivers; sound reproducing and recording equipment, including gramophones, gramophone records and tape recordings; radio and television transmitters; radio communication receivers; radar and electronic navigational aids; electronic computers; industrial electronic equipment; electronic medical equipment; high frequency heating apparatus; electronic testing and measuring equipment; X-ray apparatus etc. (but not other electro-medical equipment); and radio and electronic components and assemblies such as resistors, capacitors, inductors, circuit breakers for electronic equipment, sound reproduction components and printed circuits.

This industry corresponds to minimum list heading 364 in the Standard Industrial Classification (Consolidated edition, 1963).

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

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TABLE 1 Industry summary: United Kingdom

Estimates for all firms, 1958 and 1963 (a)

	Unit	1958	1963	
Number of enterprises	No.	491	737	
Number of establishments	"	712	1,072	
Gross output	£'000	325,894	587,542	
Net output (b)	"	149,282	320,168	
Net output per head (b)	£	853	1,322	
Sales and work done	{ goods produced and work done { merchanted goods and canteen takings	£'000	303,134	532,355(c)
Artistes' royalties, fees and copyright payments, etc.	"	15,809	44,973	
Performing rights, royalties and copyright receipts, etc.	"	2,101	3,039	
	"	..	765	
Purchases	{ materials for processing and packaging, and fuel { goods for merchanding and canteen purchases	"	163,727	214,527
Payments to other organisations	{ for work done on materials given out { for transport	"	5,753	15,386
	"	2,652	2,283	
Stocks and work in progress				
Total stocks and work in progress	{ change during year { at end of year	"	+ 4,571	+ 14,121
	"	107,989	216,560	
Goods on hand for sale	{ change during year { at end of year	"	+ 2,096	+ 2,172
	"	21,320	36,336	
Work in progress	{ change during year { at end of year	"	+ 4,855	+ 8,042
	"	61,610	131,354	
Materials, stores and fuel	{ change during year { at end of year	"	- 2,380	+ 3,906
	"	25,059	48,870	
Average number employed	{ total, including working proprietors { operatives { other employees (d)	Th.	175.0	242.1
	"	119.7	157.8	
	"	55.3	83.5	
Wages and salaries	{ of operatives { of other employees (d)	£'000	54,130	88,404
	"	40,821	75,221	
Employers' contributions to National Insurance and private pension schemes, etc. (e)	"	..	10,723	
Capital expenditure (f)				
Total	"	..	18,715	
New building work	"	2,071	3,760	
Land and existing buildings (g)	"	..	- 407	
Plant and machinery (g)	"	7,408	14,678	
Vehicles (g)	"	446	584	

(a) For 1963, estimates for small firms and for firms not making satisfactory returns accounted for about 2 per cent. of the total figures in which they were incorporated. (For 1958 the comparable figure was also 2 per cent.)

A summary of the detailed returns received is given in Table 2.

(b) Net output for 1958 and 1963 is not strictly comparable. For 1958 receipts for performing rights, royalties and copyright, etc. were not collected separately but for 1963 such receipts were taken into account in the calculation of net output.

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

(d) Administrative, technical and clerical employees.

(e) Including pensions and gratuities paid other than from pension funds.

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

(g) Acquisitions less disposals.

TABLE 2 Analysis of larger firms by sub-divisions within the industry, 1958 and 1963

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

	Unit	Sub-divisions of the industry (b)	
		Electronic valves (including cathode ray tubes) and semi-conductor devices	
		1958	1963
Number of enterprises (d)	No.	14	19
Number of establishments	"	42	52
Gross output	£'000	38,640	70,580
Net output (e)	"	22,576	46,923
Net output per head (e)	£	1,002	1,374
Sales and work done	£'000	35,070	67,518(f)
	"	1,750	3,656
Sales of characteristic products	"	32,778	54,689
Index of specialisation (i)	Per cent.	93	81
Artistes' royalties, fees and copyright payments, etc.	£'000	..	-
Performing rights, royalties and copyright receipts, etc.	"	..	-
Purchases	"	15,805	19,533
	"		3,159
Payments to other organisations	"	188	355
	"	204	395
Stocks and work in progress			
Goods on hand for sale	"	+ 1,555	- 350
	"	3,917	5,761
Work in progress	"	+ 265	- 243
	"	1,730	5,717
Materials, stores and fuel	"	+ 133	- 215
	"	2,490	4,490
Average number employed	No.	22,529	34,151
	"	16,945	23,600
	"	5,584	10,542
Wages and salaries	£'000	7,718	13,122
	"	4,156	9,751
Wages and salaries per head	£	455	556
	"	744	925
Employers' contributions to National Insurance (k)	£'000	..	872
Employers' contributions to private pension schemes, etc. (l)	"	..	858
Capital expenditure (m)			
New building work	"	173	647
Land and existing buildings	"	..	5
	"	..	37
Plant and machinery	"	1,993	2,811
	"	70	440
Vehicles	"	68	45
	"	6	16

For notes to this table - see page 58/7

Sub-divisions of the industry (b)						Total	
Radio and other electronic equipment and gramophones							
Total	Total	Broadcast receiving equipment and gramophones 20	Radio, radar and electronic capital goods 30	Radio and electronic components 40			
1958(c)	1963				1958	1963	
250	271	49	96	154	257	281	
432	546	93	233	220	474	598	
281,239	502,732	172,393	245,158	85,181	319,878	573,313	
123,950	265,492	72,833	141,928	50,731	146,526	312,414	
830	1,313	1,342	1,489	966	853	1,322	
262,469	451,945(f)	152,015(f)	218,772(f)	81,158(f)	297,539	519,463(f)	
13,767	40,229	17,168	20,135	2,926	15,517	43,884	
236,859(g)	399,909	129,958	163,904	66,298	(h)	(h)	
90	88	85	75	82	91	88	
2,062	2,966	*	*	-	2,062	2,966	
..	747	*	*	-	..	747	
144,900	189,798	82,451	75,228	32,119	160,705	209,331	
	32,760	14,436	16,132	2,192		35,919	
5,459	14,658	1,233	12,628	797	5,647	15,013	
2,399	1,833	874	504	455	2,603	2,228	
+ 502	+ 2,469	- 394	+ 2,363	+ 500	+ 2,057	+ 2,119	
17,009	29,695	12,562	13,787	3,345	20,926	35,456	
+ 4,501	+ 8,092	+ 3,605	+ 3,889	+ 598	+ 4,765	+ 7,848	
58,743	122,455	55,096	61,422	5,937	60,473	128,172	
- 2,469	+ 4,026	+ 1,619	+ 1,296	+ 1,111	- 2,336	+ 3,812	
22,106	43,197	10,688	24,213	8,296	24,596	47,687	
149,286	202,082	54,274	95,279	52,529	171,815	236,233	
100,575	130,731	36,635	51,938	42,158	117,520	154,331	
48,697	71,179	17,607	43,310	10,262	54,281	81,721	
45,442	73,363	19,329	34,745	19,289	53,160	86,485	
35,933	63,837	15,481	39,644	8,712	40,090	73,588	
452	561	528	668	458	452	560	
738	896	879	915	849	739	900	
..	5,307	1,348	2,660	1,299	..	6,179	
..	3,454	904	2,098	452	..	4,312	
1,860	3,022	428	1,819	775	2,033	3,669	
..	643	31	347	265	..	648	
..	1,008	225	685	98	..	1,045	
5,757	13,473	2,903	7,974	2,595	7,750	16,284	
408	1,521	754	648	119	478	1,961	
618	1,152	304	499	349	685	1,198	
241	514	173	193	148	247	531	

TABLE 3 Analysis of larger firms by size of enterprise within the industry, 1963

(i) Output, employment, capital expenditure and stocks

Firms employing 25 or more persons: United Kingdom

Average number employed by the enterprise in the industry (a)	Enterprises	Estab-lishments	Average number employed (a)	Gross output	Net output	Net output per head	Capital expendi-ture (b)	Total value of stocks and work in progress at end of year
	Number	Number	Number	£'000	£'000	£	£'000	£'000
25-49	62	66	2,284	5,737	2,969	1,300	167	1,282
50-99	71	80	4,932	10,980	5,761	1,168	356	2,699
100-199	56	72	7,882	19,625	10,150	1,288	1,020	5,109
200-299	16	29	4,000	9,642	4,461	1,115	137	2,360
300-399	14	18	4,596	12,150	5,961	1,297	243	2,652
400-499	6	7	2,698	6,430	3,824	1,417	176	1,943
500-749	14	32	8,284	18,236	9,672	1,168	358	5,900
750-999	7	16	6,360	13,903	9,486	1,492	539	3,084
1,000-1,499	8	20	9,441	20,949	11,625	1,231	1,132	5,442
1,500-1,999	6	18	10,741	20,657	12,003	1,117	659	9,841
2,000-2,499	3	17	6,994	15,280	6,965	995	671	4,695
2,500-2,999	3	19	8,385	30,078	16,753	1,998	146	7,945
3,000-3,999	3	10	10,205	23,080	17,241	1,689	788	7,839
4,000-7,499	4	39	23,194	58,944	34,931	1,506	1,164	19,497
7,500 and over	8	155	126,237	307,622	160,614	1,272	10,706	131,028
Total	281	598	236,233	573,313	312,414	1,322	18,262	211,316

(ii) Employees, wages and salaries, and employers' contributions

Firms employing 25 or more persons: United Kingdom

Average number employed by the enterprise in the industry (a)	Employees		Wages and salaries		Employers' contributions		Wages and salaries per head	
	Oper-atives	Others (c)	Oper-atives	Others (c)	National Insurance (d)	Private pension schemes, etc. (e)	Oper-atives	Others (c)
25-49	1,672	570	874	605	62	17	523	1,062
50-99	3,649	1,213	1,918	1,099	129	31	526	906
100-199	5,629	2,217	2,771	2,244	195	84	492	1,012
200-299	2,937	1,054	1,653	1,048	109	65	563	994
300-399	3,052	1,537	1,443	1,403	116	65	473	913
400-499	2,108	589	1,212	557	69	48	575	946
500-749	6,155	2,128	3,592	1,822	217	109	584	856
750-999	5,211	1,148	2,765	1,261	183	129	531	1,099
1,000-1,499	5,853	3,588	3,385	3,553	296	115	578	990
1,500-1,999	8,470	2,271	5,086	2,109	326	189	600	929
2,000-2,499	4,664	2,330	2,151	1,693	166	61	461	726
2,500-2,999	6,109	2,276	3,387	1,744	214	90	554	766
3,000-3,999	7,831	2,365	3,939	2,042	199	224	503	864
4,000-7,499	13,692	9,502	8,417	9,196	688	453	615	968
7,500 and over	77,299	48,933	43,891	43,210	3,210	2,633	568	883
Total	154,331	81,721	86,485	73,588	6,179	4,312	560	900

(a) Including working proprietors.

(b) Acquisitions less disposals.

(c) Administrative, technical and clerical employees.

(d) Including both flat rate and graduated contributions.

(e) Including pensions and gratuities paid other than from pension funds. These amounted in total to £294,000.

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

Ages	Males	Females	All employees
	Per cent.	Per cent.	Per cent.
Under 18	3	4	7
18 and over	53	40	93
All ages	56	44	100

Source: Ministry of Labour

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

Footnotes to Table 2.

(a) The following information relates to small firms (employing fewer than 25 persons) in this industry. It includes an estimate for small firms not making satisfactory returns, which account for 7 per cent. of the employment shown for 1963 and 3 per cent. for 1958.

	1958	1963
Number of firms	217	451
Average number employed:		

Working proprietors	} 2,503 {	622
Other persons employed		3,514

(b) The method of classifying returns to sub-divisions of the industry is explained in the notes; the characteristic products of each sub-division are identified in Table 5.

(c) Total figures only are available for 1958.

(d) The sum of the figures for the sub-divisions exceeds the total for the industry to the extent that enterprises made returns for more than one sub-division.

(e) Net output for 1958 and 1963 is not strictly comparable. For 1958 receipts for performing rights, royalties and copyright, etc. were not collected separately but for 1963 these receipts were taken into account in the calculation of net output.

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

(g) Excluding repair work carried out on radio, television and other electronic appliances which is no longer a characteristic product of the industry.

(h) Characteristic products relate only to sub-divisions of the industry.

(i) For sub-divisions of the industry, this is the ratio of sales of characteristic products to total sales of goods produced and work done. For the industry as a whole, this is the ratio of total sales of principal products by the industry to total sales of goods produced and work done.

(j) Administrative, technical and clerical employees.

(k) Including both flat rate and graduated contributions.

(l) Including pensions and gratuities paid other than from pension funds.

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

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

Firms employing 25 or more persons: United Kingdom

Industry sub-division (a)	1958		1963			
	Quantity	Value	Quantity	Value	Enter-prises	Entries
10		£'000	Thousands	£'000	Number	Number
Valves, electronic (other than X-ray valves), electronic stabilising tubes and cathode ray tubes, sold separately						
Complete						
Thyratons and hot cathode mercury vapour gas-filled rectifiers (excluding mercury arc rectifiers) (b)	..	849	762	1,126	6	6
Photo-electric cells, (excluding photo semi-conductors), stabilising tubes and cold cathode valves (excluding discharge lamps not over 5 watts)(c)	Thousands					
	1,143	1,564	2,701	1,310	8	11
Magnetrons and klystrons	51.5	1,587	53.8	3,447	8	10
Cathode ray tubes including rebuilt tubes:						
Domestic television receiving tubes including industrial monitor tubes	2,622	15,162	2,390	11,797	5	6
Industrial tubes			91.0	1,282	11	11
Other						
Not over 50 watts anode dissipation	63,285	13,176	74,363	15,189	12	14
Over 50 watts anode dissipation	104	1,215	212	2,263	7	7
Parts (except glass envelopes)	..	1,115	..	2,152	8	10
10						
Semi-conductor devices (excluding power rectifiers)						
Photo-sensitive transistors			145	103	*	*
Semi-conductor transistors			45,219	9,390	11	13
Semi-conductor signal diodes not exceeding 200 milliamperes current rating	10,872	3,484	13,252	1,946	7	8
Semi-conductor rectifiers, diodes, controlled rectifier elements and cells, singly or as part of stacks above 200 milliamperes current rating			27,192	5,035	12	14
			..	4,028		
30						
Transmitters, sound and vision, for public broadcasting	..	2,202	..	5,636	9	10
30						
Industrial television equipment (including equipment for teaching and demonstration purposes)	..	201	..	940	8	12
30						
Radio communication equipment including radio relay link equipment, complete	..	11,495	..	32,617	30	40
30						
Radar and electronic navigational aid equipment, complete	..	17,044	..	54,924	34	47
20						
Television receiving sets, complete, (whether or not sound reception or radiogram is incorporated)	1,948	62,851	1,757	56,833	15	18
20						
Television terminal units (excluding industrial types) and television chassis, substantially assembled	104	2,631	100	3,199	5	7

TABLE 5 (continued)

Industry sub-division (a)	1958		1963			
	Quantity	Value	Quantity	Value	Enter-prises	Entries
	Thousands	£'000	Thousands	£'000	Number	Number
20						
Radio receiving sets, domestic, including car radios, complete						
Transistor including valve/transistor	1,416	11,418	2,613	18,124	23	29
Other			169	1,686	7	7
20						
Radiograms, complete						
Transistors, including valve/transistor	196	5,080	73.5	1,929	8	9
Other			175	4,183	15	17
20						
Radio receiver and radiogram chassis, substantially assembled	..	275	32.5	232	6	6
30						
X-ray apparatus, industrial and medical (including parts other than tubes and valves)	..	1,691	..	4,655	13	17
10						
X-ray tubes and valves	7.2	444	..	301	5	5
30						
Electronic measuring and testing instruments						
Mainly used in the testing of radio, radar and television equipment	..	5,453	..	8,311	40	50
Other, not elsewhere specified, including medical, surgical and surveying instruments but excluding industrial process control equipment (d)	..	3,931	..	7,174	54	65
30						
Nucleonic instruments	..	2,088	..	8,012	33	40
30						
Industrial radio-frequency induction and dielectric heating equipment (valve type)	..	1,347	..	1,630	7	8
30						
Electronic data processing and handling equipment (including computers and machine tool position controls) (e)	..	6,905	..	40,141	44	52
30						
Other electronic industrial process control equipment	..	(f)	..	11,526	51	58
Gramophones and record players, tape recorders and reproducers						
20						
Gramophones with built-in electrical amplification	524	4,885(g)	489	4,948	22	25
20						
Turntable units without built-in amplification, including those complete with cabinet	3,865	12,798	3,798	11,636	14	14
40						
Parts and accessories of gramophones and record players	..	1,922	..	2,821	17	21
20						
Magnetic (tape, wire, magnetic discs, etc.) sound recorders, complete with built-in amplification	40.3	1,507	407	6,727	28	29
	..	512				
20						
Tape decks and similar machines	38.6	493	314	1,500	13	14
20						
Recording tape, wire and magnetic discs, etc.	..	923	..	2,186	5	5
40						
Other parts and accessories of magnetic reproducers and recorders, other than electric motors (h)	..	670	..	854	22	22

Continued on next page

TABLE 5 (continued)

Industry sub-division (a)	1958		1963			
	Quantity	Value	Quantity	Value	Enter-prises	Entries
20 Gramophone records pre-recorded tape, wire, etc.	Thousands	£'000	Thousands	£'000	Number	Number
Gramophone records	56,373	12,251	73,660	15,816	8	8
Pre-recorded tape and wire			..	272	*	*
Matrices impressed for the re-production of gramophone records and biscuits			..	448	7	7
20 Dictating machines, complete	..	1,197(i)	26.1	1,620	6	6
Other electrical sound reproducing and recording apparatus						
Complete						
30 For public address	25.0	432	4.4	264	16	16
..	..	306		1,096		
30 For sound films	..	601	..	..	..	..
40 Loudspeakers and microphones sold separately	6,699	3,870	7,450	4,393	29	33
..	..	..	..	480	..	..
40 Other descriptions	20.4	319	70.2	924	23	26
..	..	87	..	707	..	..
40 Parts	..	426	..	933	14	17
40 Other electronic equipment	..	14,163	..	19,402	94	101
40 Radio, television, and other electronic components, not elsewhere specified						
Capacitors						
Complete						
Fixed	414,235	11,173	471,088	13,637	23	27
..	..	..	..	1,624	..	..
Variable (including drives and couplings)	4,967	713	9,513	1,391	10	10
Parts	..	(f)	..	1,954	5	6
Resistors, sold separately						
Fixed	388,164	4,505	791,089	6,656	22	23
Variable	20,931	2,772	25,746	3,936	24	24
..	..	437	..	599	..	..
Transformers, other than for lighting, heating and power						
Instrument	341	1,288	448	1,543	26	28
..	..	188	..	265	..	..
Other	5,168	2,821	3,229	2,498	39	41
..	..	..	..	3,102	..	..
Other components	..	28,178	..	30,235	85	104
Other products	..	524	..	2,335(j)	21	21
Scrap metals sold			Th. tons			
Iron and steel	..	56	13.3	75	49	70
..	..	..	..	13	..	..
Copper	..	45	0.9	132	65	83
Brass	..	151	1.5	218	61	81
Other metals	..	199	..	327	65	93
Other waste products	..	121	..	126	36	59
Total goods sold		283,738		471,374		

TABLE 5 (continued)

Industry sub-division (a)	1958		1963			
	Quantity	Value	Quantity	Value	Enter-prises	Entries
Work done		£'000		£'000	Number	Number
Machinery purchased and installed and other installation work		1,845		3,674	14	19
Repair and maintenance work on customers' machinery, plant apparatus and appliances		657		2,259	42	49
Research and development work for customers (including Government Departments)		18,151		25,103	47	69
Other work done on commission		1,444		4,162	43	51
Total work done		22,098(k)		35,198		
Total		305,837(k)		506,572	..	..
Sales in other industries (see Table 6)		34,571		47,496	..	..
Principal products of this industry sold by establishments in the industry		271,266(k)		459,076	281	373(1)

- (a) The number given is that of the sub-division of which the item is a characteristic product. The sales shown are total sales by larger firms, not merely sales by establishments classified to the sub-division.
- (b) Described as 'Thyratons and hot cathode mercury vapour and gas-filled rectifiers' for 1958.
- (c) For 1958 photo semi-conductors and discharge lamps not over 5 watts were not specifically excluded.
- (d) For 1958 medical and surgical instruments were excluded.
- (e) Described as 'Data processing and handling equipment (including electronic computers and machine tool position controls) and parts' for 1958. Data processing and handling equipment other than electronic, including card punching machines and verifiers is included in the report on Office Machinery and the sales were recorded as £11,941,000 for 1958 and £19,354,000 for 1963.
- (f) Not recorded separately for 1958.
- (g) Including some acoustic gramophones for 1958.
- (h) For 1958 electric motors were not specifically excluded.
- (i) Including parts.
- (j) Including Government contracts not further defined.
- (k) Revised figure. Radio repairs (including repairs to television and all electronic apparatus) included in this table in the 1958 report on this industry are now shown in Table 7.
- (l) 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.

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

Firms employing 25 or more persons: United Kingdom

	1958		1963			
	Quantity	Value	Quantity	Value	Entries	Principal industries in which produced (a)
	Thousands	£'000	Thousands	£'000	Number	
Valves, electronic (other than X-ray valves), electronic stabilising tubes and cathode ray tubes, sold separately						
Complete						
Thyratrons and hot cathode mercury vapour gas-filled rectifiers (excluding mercury arc rectifiers)	37.3	193	700	1,179	*	55,57
Photo-electric cells (excluding photo semi-conductors) stabilising tubes and cold cathode valves (excluding discharge lamps not over 5 watts)	393	363				
Magnetrons and klystrons	11.3	374				
Cathode ray tubes including rebuilt tubes						
Domestic television receiving tubes including industrial monitor tubes	..	4,501	..	4,509	*	55,57,60,64
Industrial tubes						
Other including semi-conductor devices						
Radio communication equipment including radio relay link equipment, complete	..	3,332	..	4,091	7	57,64,124
Transmitters, sound and vision, for public broadcasting	..	1,390(b)	..	3,173	10	53,55,57,60
Radio receiving sets, domestic, including car radios, complete						
Radiograms, complete						
X-ray apparatus, industrial and medical (including tubes, valves and other parts)	..	660				
Radar and electronic navigational aid equipment, complete	..	2,123	..	6,341	13	53,55,57,64
Electronic measuring and testing instruments						
Mainly used in the testing of radio, radar and television equipment	..	719	..	736	14	53,55,57,60
Other, including medical, surgical and surveying instruments but excluding industrial process control equipment	..	852(c)	..	2,177	27	53,55,57,64
Nucleonic instruments	..	651	..	1,719	18	30,49,55,64
Electronic data processing and handling equipment (including computers and machine tool position controls)	..	4,552(d)	..	4,194	19	53,55,57,64
Other electronic industrial process control equipment	..	(e)	..	2,344	23	44,49,53,55

TABLE 6 (continued)

	1958		1963			
	Quantity	Value	Quantity	Value	Entries	Principal industries in which produced (a)
		£'000		£'000	Number	
Gramophones and record players, tape recorders and reproducers						
Gramophones with built-in electrical amplification, parts and accessories of gramophones and record players, other than electric motors and records	..	243(f)	..	310	6	52,53,57,68
Magnetic sound recorders, tape decks and similar machines, recording tape wire and magnetic discs etc., and other parts and accessories other than electric motors	..		..	181	8	49,52,55
Other electrical sound reproducing and recording apparatus and parts except gramophone records, pre-recorded tape, wire, etc.						
For public address	..	263	..	146	*	57,59,60
Other (including loudspeakers, microphones, dictating machines and parts)	..	405	..	515	12	53,55,57,59
Other electronic equipment	..	6,045	..	5,911	38	53,55,57,60
Radio, television and other electronic components	Thousands		Thousands			
Capacitors (other than for power factor improvement) complete	2,244	1,032(g)	5,773	1,783	*	56,57,73
Resistors, sold separately	..	402	..	691		
Fixed	..	866	31,969	529	5	55,57,59,60
Variable	..	295	..	433	*	49,53,60
Transformers (other than for lighting, heating and power)						
Instrument	135	787	174	1,196	14	53,55,57,60
Other	..	188	..	75		
Other components	81.5	429	380	728	14	55,56,60,107
	..	92	..	504		
Other components	..	3,813	..	4,032	32	53,57,60,74
Total		34,571		47,496		

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

(b) Including television receiving sets.

(c) For 1958 medical and surgical instruments were excluded.

(d) For 1958 described as 'Data processing and handling equipment and parts thereof'.

(e) Not recorded separately for 1958.

(f) Including gramophone records and biscuits.

(g) Including parts.

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

Firms employing 25 or more persons: United Kingdom

	1958	1963		
	Value	Value		
	£'000	£'000		
Metal-working machine tools	2,240	1,984		
Engineers' small tools and gauges		107		
Office machinery		1,299		
Miscellaneous non-electrical machinery		6,270		
Ordnance and small arms		6,083		
General mechanical engineering				
Scientific, surgical and photographic instruments		1,739	3,956	
Electrical machinery		1,831	895	
Transformers for lighting, heating and power including choking coils and parts thereof				
Not over 5kVA				422	882
5-800kVA	24			72
Capacitors for power factor improvement and parts thereof	365			351
Switchgear and switchboards	117			
Fuses and fuse gear				
Battery chargers	98			382
Other	382			895
Telegraph and telephone equipment	104(a)			1,198
Testing equipment and signalling apparatus				
Line apparatus for long distance communication and speech input equipment				
Other	753	3,989		
Domestic electrical appliances	2,261	2,849		
Miscellaneous electrical goods	5,294	9,118		
Plastics moulding and fabricating	2,182	2,881		
Miscellaneous metal manufactures	2,875	1,703		
Other products		7,319		
Total goods sold	20,486	51,552		
Work done	5,788(c)	5,322		
Structural work carried out by main or direct contractors and sub-contractors (b)				
Repair work to radio (including television and all electronic apparatus)				
Total work done	5,788(c)	5,322		
Services rendered to other organisations (d)	..	3,511		
Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored)	14,211	41,531		
Canteen takings	1,306	2,354		
Total	41,791(c)(e)	104,270		

(a) Described for 1958 as 'Testing equipment excluding electronic'.

(b) Excluding the estimated value of goods made and recorded as being sold which were used in the contract work.

(c) Revised figure; see footnote (k) in Table 5.

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

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

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

Firms employing 25 or more persons: United Kingdom

	1958		1963					
	Returned in this industry	Returned in all industries	Returned in this industry			Returned in all industries		
	Quantity	Quantity	Quantity	Enterprises	Entries	Quantity	Enterprises	Entries
	Thousands	Thousands	Thousands	Number	Number	Thousands	Number	Number
Valves, electronic (other than X-ray valves), electronic stabilising tubes and cathode ray tubes								
Complete								
Magnetrons and klystrons	2,592	57.1	(a)	*	*	59.0	8	10
Cathode ray tubes including rebuilt tubes		2,771	(a)	*	*	2,508	11	13
Thyratrons and hot cathode mercury vapour gas-filled rectifiers (excluding mercury arc rectifiers)	511	552						
Photo-electric cells (excluding photo semi-conductors), stabilising tubes and cold cathode valves (excluding discharge lamps not over 5 watts)	768	1,205	(a)	*	*	76,182	13	20
Other								
Not over 50 watts anode dissipation	(a)	73,900						
Over 50 watts anode dissipation	(a)	214						
Semi-conductor devices (excluding power rectifiers)								
Photo-sensitive transistors	9,189	11,663	(a)	*	*	46,580	11	13
Semi-conductor transistors								
Semi-conductor signal diodes not exceeding 200 milliamperes current rating			(a)	*	*	14,506	7	8
Semi-conductor rectifiers, diodes, controlled rectifier elements and cells, singly or as parts of stacks above 200 milliamperes current rating			28,507	*	*	31,072	12	14

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

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

This table is not applicable to this industry.

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

	1954		1963	
	Quantity	Cost	Quantity	Cost
	Th. tons	£'000	Th. tons	£'000
Materials for processing				
Iron				
Pig iron, including refined pig iron, and other irons for re-melting	{ 0.5	61	1.6	87
Castings	{ ..	17	..	24
Steel				
Ingots, blooms, billets, slabs, and sheet and tinplate bars	4.3	247	1.4	144
Bars and rods (including wire rods), angles, shapes and sections, girders, beams, joists and pillars rolled (not fabricated), including tube rounds and squares (a)	{ 7.5	427	13.8	1,368
	{ ..	73		
Plates, 3mm. thick and over	{ 6.2	348	1.5	113
	{ ..	53	..	32
Hoop and strip (including tape of all thicknesses)	{ ..		15.1	1,117
Sheets under 3mm. thick (including electrical sheets)	{ 16.6	1,109	31.1	2,270
	{ ..	182		
Tinplate, terneplate and blackplate	1.7	111	0.2	23
Forgings (except drop forgings)	..	31	0.2	51
Castings	..	34	5.1	977
Iron and steel not elsewhere specified except finished parts, wire and scrap				
Wrought tubes and fittings for wrought tubes (including welded, seamless, conduits, etc.)	0.1	18	1.0	134
			..	78
Other	{ 1.0	43	5.3	759
	{ ..	100	..	163
Steel wire and wire manufactures, including wire cables and ropes but excluding insulated wires and cables (b)	{ 0.4	24	0.9	65
	{ ..	10	..	36
Springs, laminated and other types (c)	..	113	..	484
Light metals and non-ferrous metals in all forms except finished parts, wire and scrap				
Aluminium and aluminium alloys	{ 5.8	1,852	9.1	3,784
	{ ..	683		
Brass and other copper alloys (including nickel silver and cupro-nickel, but excluding all other nickel alloys)	4.9	1,561	4.5	1,571
			..	265
Copper (excluding blister) (d)	{ 0.7	258	1.2	556
	{ ..	35		
Lead and alloys of lead (excluding solder)	..	21	..	25
Zinc and alloys of zinc	{ 0.8	79	3.2	271
	{ ..	13		
	Th.cwt.		Th.cwt.	
Tin	{ 0.3	11	0.5	28
	{ ..	4		
Solder, soft	..	256	..	498
Uninsulated wire and cables of non-ferrous metals				
Copper (e)	..	381	..	720
Other non-ferrous metals (e)	..	345	..	1,006
Bitumen and bitumastic compound	..	8	..	34

TABLE 10 (continued)

	1954		1963	
	Quantity	Cost	Quantity	Cost
		£'000		£'000
Materials for processing (continued)				
Glass in all forms, including finished parts	..	5,265	..	5,678
Ferrite	..	(f)	..	564
Insulating oils	..	52	..	100
Mica				
Block and splittings	..	213	..	474
Built-up (Micanite)	..	36	..	192
	Th.gal.		Th.gal.	
Paint and varnish (including lacquers and stains)	{ 260	299	369	523
	{ ..	53	11.9	16
			..	89
Paper and paperboard, including press-board and paper yarn, tubes, etc. (excluding packaging materials)	..	673	..	1,004
Synthetic resins and plastics materials (excluding leathercloth and reinforced plastics)				
Polyethylene and polypropylene and co-polymers: granules, moulding and extrusion compounds			14.2	193
			..	428
Polyvinyl chloride (including co-polymers): resins, solutions, emulsions, dispersions, moulding and extrusion compounds			124	978
			..	218
Polystyrene moulding and extrusion compounds			10.1	140
			..	703
Phenolics and cresylics	..	(f)		
Resins, solutions, emulsions, dispersions, moulding and extrusion compounds			23.5	234
			..	365
Industrial laminates, cast sheet, laminated or cast rod, tube and profile shapes			56.5	974
			..	267
Thermosetting polyesters (including epoxide resins and resin glass fibre mixtures)			8.6	255
			..	29
Porcelain and other ceramics in all forms	..	700	..	1,568
Rubber, including hard rubber, balata, gutta-percha and synthetic rubber in all forms, including finished parts	..	608	..	856
Timber				
Softwood and hardwood, manufactured or semi-manufactured (i.e. further prepared than sawn or planed)	..	185	..	572
	Th.sq.ft.		Th.sq.ft.	
Plywood, including blockboard, laminboard and battenboard	{ 3,598	204	4,234	282
	{ ..	22		
Textiles (excluding packaging materials)				
Yarn, thread, tape and cloth, not oiled or otherwise coated or impregnated with insulating materials	Th.lb.		Th.lb.	
			52.1	25
Of cotton	{ 81.4	43	122	25
	{ ..	146	..	17
			Th.lb.	
			47.6	32
Of man-made fibres (rayon, nylon, etc.)	{ 30.7	21	99.4	20
	{ ..	46	..	16

Continued on next page

TABLE 10 (continued)

	1954		1963	
	Quantity	Cost	Quantity	Cost
Materials for processing (continued)		£'000	Th.sq.yds.	£'000
Textiles (excluding packaging materials) (continued)				
Yarn, thread, tape and cloth, not oiled or otherwise coated or impregnated with insulating materials (continued)				
Of silk	..	4	15.5	13
Electrical insulating materials not elsewhere specified	..	142	..	738
Insulated wires, cables, strips and strands (e)	..	2,921	..	4,818
Purchased components for incorporation in firms' own products				
Ball and roller bearings and parts thereof	..	143	..	431
Batteries and accumulators	..	36	..	644
Fractional horse-power electric motors (i.e. less than one horse-power)	..	109	..	1,596
Internal combustion engines	..	1,349	..	2,268
Loudspeakers and microphones	..	1,175	..	1,055
Magnets, permanent	..	680	..	4,007
Measuring and control instruments including ammeters, voltmeters, thermostats, etc.	..	7,441	..	10,518
Radio, radiogram and television cabinets	..	562	..	854
Of wood	..		..
Of plastics materials	..		..
Valves, electronic (other than X-ray valves), electronic stabilising tubes and cathode ray tubes, excluding mercury pool rectifiers	Thousands		Thousands	
Transmitting and industrial	290	125	8,725	4,830
	..	604	..	993
Other (including cathode ray tubes)	26,347	11,364	7,297	8,838
			..	5,592
Semi-conductor devices	..	(f)	42,076	7,737
			..	2,093
Electrical machinery not included above, e.g., generators, motors (other than fractional horse-power motors), converting machinery, static rectifiers, transformers for lighting, heating and power, starting control and switchgear, etc., and parts thereof	..	589	..	5,849
Other purchased electrical components, including parts and accessories (pick-ups, automatic record changers, etc.) for gramophones and radiograms, not elsewhere specified	..	17,060	..	44,498
Other finished parts not elsewhere specified				
Wholly or mainly of plastics materials	..	1,852	..	4,605
Other, except those of rubber and glass	..	11,258	..	26,589
	Th.gal.		Th.gal.	
	162	37	375	138
Lubricating oils and greases (including cutting oils and emulsions)	Th.cwt.		Th.cwt.	
	..	25	0.9	13
			..	73
Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement	..	2,020	..	3,882
All other materials for processing	..	18,813	..	21,427

TABLE 10 (continued)

	1954		1963	
	Quantity	Cost	Quantity	Cost
Packaging materials		£'000		£'000
Paper and board				
Boxes, cartons, packing cases, and drums and canisters (with or without metal ends) of paper, cardboard and fibreboard	..	1,667	..	3,258
Wrapping paper (including paper coated with plastics and any laminates incorporating paper but not metal), moulded pulp units, labels and other packaging materials of paper, cardboard and fibreboard (except multiwall sacks)	..		..	733
Timber				
Containers wholly or mainly of wood, including plywood boxes and drums, baskets and wickerwork crates	..		..	865
Timber (sawn or planed) for manufacture into packing cases, etc.	..	588	Th.cu.ft.	55
			..	16
Plywood for manufacture into packing cases	..		Th.sq.ft.	17
			..	7
Sheet, film, foams, etc. wholly or mainly of polyethylene (including bags and lay flat tubing)	..	560	..	147
All other packaging materials	..		..	245
Fuel and electricity (g)	Th.tons		Th.tons	
Coal	72.2	306	41.0	233
Coke (including screenings) and manufactured fuel	18.7	108	9.2	78
			..	24
Derv fuel and motor spirit for use in road vehicles	Th.gal.		Th.gal.	
	1,215	248	1,716	337
			..	180
Other liquid fuels (including creosote/pitch mixtures, etc., and liquefied petroleum gases)	5,700	256	24,799	1,037
Gas	Th.therms		Th.therms	
	9,049	539	10,428	811
Electricity	Th.kWh		Th.kWh	
	232,820	1,359	489,015	2,896
			..	748
Total cost of materials and fuel		101,010		209,331
Goods purchased for merchanting		..		33,972
Canteen purchases		..		1,947
Total cost of purchases		..		245,250

(a) 'Pillars rolled (not fabricated) including tube rounds and squares' not included for 1954.

(b) Main heading for 1954 covered 'Iron and steel'.

(c) Described for 1954 as of 'steel' only.

(d) 'Blister' was not specifically excluded for 1954.

(e) Including 'flexibles' for 1954.

(f) Not recorded separately for 1954.

(g) The total quantity of electricity generated in firms' own establishments cannot be given owing to the risk of disclosure of information relating to individual firms.

TABLE 11 Transport costs and employment of larger firms, 1963

Firms employing 25 or more persons: United Kingdom

	Unit	1963
Average number employed mainly on transport	No.	1,393
Transport costs		
Wages and salaries	£'000	1,019
Derv fuel and motor spirit	"	518
Payments to other organisations for transport	"	2,228
Costs of operating road goods vehicles		
Insurance	"	114
Vehicle licences	"	60
Depreciation	"	722
Payments to other organisations for repairs and maintenance	"	196
Total	"	4,857

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

Firms employing 25 or more persons: United Kingdom

	Amounts payable
Repairs and maintenance to	£'000
Buildings	982
Road goods vehicles	196
Plant, machinery, and other capital equipment	1,487
Insurance, licensing and depreciation of road goods vehicles (b)	897
Rates, excluding water rates	2,535
Hire of plant and machinery	764
Postage, telephone, telegrams and cables	2,404
Total	9,266

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

(b) For details see Table 11.

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

Firms employing 25 or more persons: United Kingdom

Year ended	Percentage of total number employed	Year ended	Percentage of total number employed
1963	Per cent.	1963 (contd.)	Per cent.
April (a)	9.8	November	1.2
May	0.3	December	34.0
June	18.1		
July	0.5	1964	
August	1.0	January	1.2
September	5.3	February	0.8
October	0.7	March	27.1
		Total	100

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

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

This table is not applicable to this industry.

Capital Expenditure (continued)

(ii) Land and existing buildings.

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

(iii) Plant, machinery and vehicles.

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

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

Characteristic Products

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

Enterprise

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

Entries

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

Establishment

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

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

Gross Output

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

Larger Firms

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

Net Output

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

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

Net output per person employed

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

Principal Products

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

Production

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

Purchases

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

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

Sales

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

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

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

Services rendered

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

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

Small Firms

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

Stocks and Work in Progress

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

Transport Payments

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

Wages and Salaries

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

Work given out

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

Symbols used

The following symbols are used throughout the report:

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

Rounding of Figures

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

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