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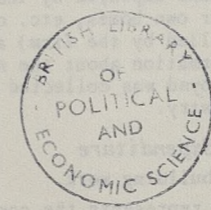
31 Paint and printing ink

BOARD OF TRADE

Report on the Census of Production 1963

31 Paint and printing ink

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

Working Proprietors

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

Employees

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

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

Capital Expenditure

(i) New building work.

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

31 Paint and printing ink

This Report on the Paint and Printing Ink Industry relates to establishments engaged wholly or mainly in manufacturing paint, varnish, enamel, distemper, wood stain, french polish, white lead (in paste form), artists' colours, printing ink and printers' rollers.

This industry corresponds to minimum list heading 274 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).

LIST OF TABLES

Table No.	Title	Page
1	Industry summary: United Kingdom. Estimates for all firms, 1958 and 1963	31/3
2	Analysis of larger firms by sub-divisions within the industry, 1958 and 1963	31/4
3	Analysis of larger firms by size of enterprise within the industry, 1963	31/5
4	Percentage analysis of employees, by age and sex, all firms, 1963: United Kingdom	31/6
5	Sales of principal products of the industry by larger firms, including sales by establishments classified to other industries, 1958 and 1963	31/7
6	Sales of principal products of the industry by establishments classified to other industries, 1958 and 1963	31/10
7	Sales of other than principal products by larger firms in the industry, 1958 and 1963	31/11
8	Production of certain principal products of the industry by larger firms, including production by establishments classified to other industries, 1958 and 1963	DOES NOT APPLY
9	Purchases of selected principal products of the industry by larger firms, 1963	31/12
10	Purchases by larger firms in the industry, 1954 and 1963	31/13
11	Transport costs and employment of larger firms, 1963	31/15
12	Payments for certain services, etc. by larger firms, 1963	31/15
13	Percentage analysis of twelve-month periods covered by returns from larger firms, 1963	31/16
14	Sales of all parts of machinery and plant by larger firms, including sales by establishments classified to other industries, 1958 and 1963	DOES NOT APPLY

TABLE 1 Industry summary: United Kingdom

Estimates for all firms, 1958 and 1963 (a)

	Unit	1958	1963	
Number of enterprises	No.	546	458	
Number of establishments	"	650	589	
Gross output	£'000	160,387	180,464	
Net output	"	65,857	80,497	
Net output per head	£	1,438	1,858	
Sales and work done	goods produced and work done	£'000	152,096	168,229(b)
	merchanted goods and canteen takings	"	8,135	11,702
Purchases	materials for processing and packaging, and fuel	"	90,668	88,419
	goods for merchandising and canteen purchases	"			9,120
Payments to other organisations	for work done on materials given out	"	9	172
	for transport	"	2,741	2,697
Stocks and work in progress				
Total stocks and work in progress	change during year	"	- 956	+ 973
	at end of year	"	28,736	32,110
Goods on hand for sale	change during year	"	+ 155	+ 492
	at end of year	"	14,754	17,079
Work in progress	change during year	"	+ 1	+ 40
	at end of year	"	1,880	2,736
Materials, stores and fuel	change during year	"	- 1,112	+ 441
	at end of year	"	12,102	12,295
Average number employed	total, including working proprietors	Th.	45.8	43.3
	operatives	"	24.3	21.8
	other employees (c)	"	21.4	21.1
Wages and salaries	of operatives	£'000	12,710	14,360
	of other employees (c)	"	15,355	19,116
Employers' contributions to National Insurance and private pension schemes, etc. (d)	"	..	2,791	
Capital expenditure (e)				
Total	"	..	3,386	
New building work	"	2,048	1,788	
Land and existing buildings (f)	"	..	- 1,089	
Plant and machinery (f)	"	2,516	1,814	
Vehicles (f)	"	921	873	

(a) For 1963, estimates for small firms and for firms not making satisfactory returns accounted for about 7 per cent. of the total figures in which they were incorporated. (For 1958 the comparable figure was 9 per cent.) A summary of the detailed returns received is given in Table 2.

(b) 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).

(c) Administrative, technical and clerical employees.

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

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

(f) 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)				Total			
		Paint and varnish, mastics, etc. 01, 02		Printers' inks, printers' rollers and compositions 03					
		1958	1963	1958	1963	1958	1963		
Number of enterprises (c)	No.	173	134	26	30	198	162		
Number of establishments	"	248	217	51	63	299	280		
Gross output	£'000	131,721	147,240	14,934	20,196	146,654	167,435		
Net output	"	52,975	64,623	7,244	10,062	60,218	74,686		
Net output per head	£	1,410	1,821	1,689	2,136	1,438	1,858		
Sales and work done	£'000	goods produced and work done		124,558	137,185(d)	14,516	18,900(d)	139,073	156,084(d)
		merchanted goods and canteen takings		7,037	9,582	401	1,275	7,438	10,857
Sales of characteristic products	"	114,300	128,218	12,373	17,883	(e)	(e)		
Index of specialisation (f)	Per cent.	92	93	85	95	96	96		
Purchases	£'000	materials for processing and packaging, and fuel		75,424	73,235	7,481	8,801	82,904	82,036
		goods for merchandising and canteen purchases			7,339		1,122		8,461
Payments to other organisations	"	for work done on materials given out		4	142	4	18	8	160
		for transport		2,299	2,275	208	227	2,507	2,502
Stocks and work in progress									
Goods on hand for sale	"	change during year		+ 119	+ 449	+ 23	+ 8	+ 142	+ 457
		at end of year		12,795	15,025	696	820	13,491	15,846
Work in progress	"	change during year		+ 7	+ 24	- 6	+ 13	+ 1	+ 37
		at end of year		1,628	2,380	91	158	1,719	2,539
Materials, stores and fuel	"	change during year		- 1,019	+ 374	+ 2	+ 35	- 1,017	+ 409
		at end of year		9,857	9,970	1,210	1,438	11,066	11,408
Average number employed	No.	total, including working proprietors		37,583	35,489	4,290	4,711	41,873	40,200
		operatives		19,542	17,804	2,702	2,576	22,244	20,380
		other employees (g)		18,033	17,623	1,588	2,121	19,621	19,744
Wages and salaries	£'000	of operatives		9,914	11,151	1,738	2,301	11,652	13,451
		of other employees (g)		12,546	15,433	1,531	2,473	14,077	17,907
Wages and salaries per head	£	operatives		507	626	643	893	524	660
		other employees (g)		696	876	964	1,166	717	907
Employers' contributions to National Insurance (h)	£'000	..	984	..	159	..	1,144		
Employers' contributions to private pension schemes, etc. (i)	"	..	1,290	..	181	..	1,470		
Capital expenditure (j)									
New building work	"	1,740	1,417	134	243	1,873	1,659		
Land and existing buildings	"	acquisitions		..	..	..	..	..	..
		disposals		..	- 1,012(k)	..	+ 2(k)	..	- 1,011(k)
Plant and machinery	"	acquisitions		2,177	1,482	196	307	2,372	1,789
		disposals		70	73	2	33	72	106
Vehicles	"	acquisitions		1,294	1,308	120	162	1,414	1,469
		disposals		527	601	45	59	572	659

For notes to this table - see page 31/6

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

(i) Output, employment, capital expenditure and stocks

Firms employing 25 or more persons: United Kingdom

Average number employed by the enterprise in the industry (a)	Enterprises	Establishments	Average number employed (a)	Gross output	Net output	Net output per head	Capital expenditure (b)	Total value of stocks and work in progress at end of year
	Number	Number	Number	£'000	£'000	£	£'000	£'000
25-49	57	66	2,070	7,814	3,230	1,560	201	1,046
50-99	37	48	2,445	10,254	4,378	1,791	298	1,456
100-199	39	51	5,424	19,876	8,640	1,593	661	3,634
200-299	5	10	1,196	5,118	2,089	1,747	164	787
300-399	4	6	1,434	4,083	2,151	1,500	44	872
400-499	3	8	1,331	5,245	2,545	1,912	120	610
500-749	4	8	2,588	10,101	4,202	1,623	183	2,030
750-999	3	19	2,610	9,176	4,514	1,729	252	1,652
1,000-1,999	6	42	9,305	34,925	15,282	1,642	876	6,712
2,000 and over	4	22	11,797	60,843	27,656	2,344	344	10,993
Total	162	280	40,200	167,435	74,686	1,858	3,142	29,792

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

Firms employing 25 or more persons: United Kingdom

Average number employed by the enterprise in the industry (a)	Employees		Wages and salaries		Employers' contributions		Wages and salaries per head	
	Operatives	Others (c)	Operatives	Others (c)	National Insurance (d)	Private pension schemes, etc. (e)	Operatives	Others (c)
25-49	1,114	925	753	898	61	46	676	971
50-99	1,309	1,115	847	1,121	78	68	647	1,005
100-199	2,987	2,422	1,753	2,224	155	186	587	918
200-299	667	529	487	494	35	57	730	934
300-399	782	652	490	531	42	64	626	814
400-499	687	644	531	678	40	52	772	1,052
500-749	1,443	1,145	812	1,036	66	118	563	905
750-999	1,524	1,086	1,004	1,064	77	81	659	980
1,000-1,999	4,352	4,944	2,849	3,971	242	293	655	803
2,000 and over	5,515	6,282	3,927	5,890	347	507	712	938
Total	20,380	19,744	13,451	17,907	1,144	1,470	660	907

(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 £384,000.

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	2	3	5
18 and over	69	26	95
All ages	71	29	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 2 per cent. of the employment shown for 1963 and 7 per cent. for 1958.

	1958	1963
Number of firms	348	305
Average number employed:		
Working proprietors	} 3,753	{ 417
Other persons employed			} 2,505

(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) 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.

(d) 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).

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

(f) 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.

(g) Administrative, technical and clerical employees.

(h) Including both flat rate and graduated contributions.

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

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

(k) Acquisitions less disposals.

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

Firms employing 25 or more persons: United Kingdom

Industry sub-division (a)	1958		1963			
	Quantity	Value	Quantity	Value	Enterprises	Entries
	Th.gal.	£'000	Th.gal.	£'000	Number	Number
01 Paint						
Oil and/or synthetic based, non-acqueous, except varnishes, lacquers and thinners						
Air-drying						
Finishers			23,122	41,106	123	150
Undercoats			7,460	13,262	118	142
Primers, surfacers and sealers			4,168	6,262	112	136
Stoving						
Finishers			6,648	9,545	86	108
Undercoats			738	967	48	59
Primers, surfacers and sealers			3,467	3,899	55	74
Catalysed materials, one or two pack, for priming and finishing		(b)	990	2,076	69	81
01 Oil and/or synthetic based, aqueous, except varnishes and lacquers						
Air-drying						
Finishers			196	294	19	20
Undercoats, primers, surfacers and sealers			39.3	63	10	10
Stoving						
Finishers			18.7	27	7	7
Undercoats, primers, surfacers and sealers			76.5	96	9	9
01 Bituminous			3,459	1,727	89	101
Total oils and/or synthetic based and bituminous paints except varnishes, lacquers and thinners	50,858	75,344	50,383	79,323	..	..
01 Varnishes and lacquers, except cellulose based						
Oil and/or synthetic based, non-acqueous						
Air-drying			2,004	2,590	105	125
Stoving		(b)	1,289	1,907	57	67
Oil and/or synthetic based, aqueous			..	58	5	5
Spirit based			1,543	1,766	89	102
01 Spirit based stains			183	171	41	49
01 Colours and stainers in dry, liquid and paste form			333	395	46	53
			..	300		
Total varnishes, lacquers and stains, except cellulose based and thinners	6,404	6,898	5,352	6,829	..	..
	..	1,535	..	358		

Continued on next page

TABLE 5 (continued)

Industry sub-division (a)	1958		1963				
	Quantity	Value	Quantity	Value	Enter-prises	Entries	
	Th.gal.	£'000	Th.gal.	£'000	Number	Number	
Paint (continued)							
01	Emulsion	5,247	8,509	9,685	15,553	104	121
01	Water distempers in dry or paste form (c)	6,569	4,566	4,568	3,370	79	92
01	Cellulose based, except thinners						
	Varnishes, lacquers and clear solutions	7,457	9,810	3,378	3,425	46	58
	Pigmented			4,363	6,999	42	54
01	Anti-fouling and anti-corrosive paints and compositions for marine use (i.e. materials for use below the water line only) (d)	1,335	1,955	1,346	2,078	34	37
02	Artists' paints and colours (including oil and water colours) and complete paint boxes and stencil outfits	..	1,772	..	1,903	6	7
01	Other and unclassified paints (excluding artists' paints and colours), varnishes, lacquers and stains	-	-	286	583	24	24
				..	679		
01	Thinners						
	For oil and/or synthetic based non-aqueous paints			4,271	2,574	100	121
	For cellulose based paints		(b)	4,895	3,424	47	60
	For spirit based paints			186	125	46	52
01	Paint removers and strippers			700	708	80	92
	Total thinners, paint removers and strippers	8,677	5,771	10,052	6,831	..	..
01	Petrifying liquid for water paints (e)	..	2,331	160	79	34	39
01	Liquid driers (e)	..		69.0	58	59	64
				..	208		
01	Paste fillers (f)	..		187	261	55	67
01	Mastic and other adhesive cements and putty	..	2,958	Th.cwt.			
				629	2,086	60	67
				..	663		
03	Printers' inks						
	News inks and other mineral oil inks	Th.cwt. 394	1,534	430	1,665	14	18
	Photogravure, aniline, evaporative and other inks, drying by solvent evaporation	148	3,491	225	5,339	19	23
	Letterpress and lithographic ink	159	6,419	201	8,827	28	33
	Display colours and silkscreen inks			58.0	1,309	15	18
	Other printers' inks and printing ink makers' materials not elsewhere specified	42.0	968	..	1,156	25	31
03	Printers' rollers and compositions	..	1,977	..	2,121	19	21
	Total printers' inks, rollers and compositions	..	14,389	..	20,416	..	..

TABLE 5 (continued)

Industry sub-division (a)	1958		1963				
	Quantity	Value	Quantity	Value	Enter-prises	Entries	
		£'000		£'000	Number	Number	
	Other products	..	1,903	..	1,891	57	69
	Waste products	..	15	..	14	18	20
	Work done on commission, sub-contract work, etc.		118		34	*	*
	Total		137,874		153,643	..	..
	Sales in other industries (see Table 6)		4,014		3,808	..	..
	Principal products of this industry sold by establishments in the industry		133,861		149,835	162	199(g)

(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) Not separately distinguished in 1958.

(c) For 1963 firms were asked to return the quantity in gallons using a conversion factor of 20lb. to 1 gallon: a similar estimate has been made for 1958 when the quantity was returned by weight.

(d) Described in 1958 as 'Ships' bottom compositions'.

(e) Included in a heading described as 'Paint and varnish makers' materials, not elsewhere specified, including gum copal', for 1958.

(f) For 1963 firms were asked to return the quantity in gallons using a conversion factor of 18lb. to 1 gallon.

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

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

Firms employing 25 or more persons: United Kingdom

	1958		1963			
	Quantity	Value	Quantity	Value	Entries	Principal industries in which produced (a)
	Th.gal.	£'000	Th.gal.	£'000	Number	
Paint						
Emulsion and water distempers in dry or paste form	..	71	16.5	23	*	108
Varnishes and lacquers, excluding cellulose based, and colours and stainers in dry, liquid and paste form	Th.gal. { 286 ..	274 873	..	211	5	28,34,35,119
Oil and/or synthetic based paint and cellulose based varnishes and lacquers			245	290	6	27,34,107
Bituminous	{ 1,411 ..	813 676	1,208	470	25	24,27,107
Other and unclassified paints (excluding artists' paints and colours) varnishes, lacquers and stains			{ 279 ..	565 316	*	27,34,107,124
Thinners, paint removers and strippers	..	166	120	108	7	27,33
Liquid driers						
Mastic and other adhesive cements and putty	..	248(b)	..	764	9	24,27,52,119
Printers' inks, rollers and compositions and printing ink makers' materials	..	893	..	1,062	13	27,48,49,119
Total		4,014		3,808	..	

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

(b) Including for 1958 any other paint and varnish makers' materials, not elsewhere specified, including gum copal.

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	
	Quantity	Value	Quantity	Value
		£'000		£'000
General chemicals (including coal tar products)				
Inorganic and organic pigments	..	702	..	405
Bituminous products (other than paints)			Th.tons	
Other chemicals and chemical products	..	1,772	19.6	672
Synthetic resins and plastics materials				
Alkyds (including styrenated alkyds) and unsaturated polyesters (a)	..	1,154	7.5	1,498
Other			1.1	325
Other products	..	1,585	..	1,269
Services rendered to other organisations (b)			..	313
Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored)	..	7,156	..	10,629
Canteen takings		282		229
Total		12,651(c)		17,106

(a) The total quantity of alkyds (including styrenated alkyds) produced in 1963 by establishments classified to this industry amounted to 102,000 tons. Similar information is not available for 1958.

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

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

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

This table is not applicable to this industry.

TABLE 9 Purchases of selected principal products of the industry by larger firms in 1963 (a)

Firms employing 25 or more persons: United Kingdom

Standard Industrial Classification Minimum List Heading	Purchasing industry (b)	Paint and varnish (including lacquers and stains)		
		Quantity	Quantity	Cost
		Th.gal.	Th.cwt.	£'000
339	Miscellaneous (non-electrical) machinery	982	..	1,420
		..	..	285
341	Industrial plant and steelwork	351	..	520
		..	..	61
361	Electrical machinery	954	..	1,279
		..	9.8	66
364	Radio and other electronic apparatus	369	..	523
		..	11.9	16
		..	..	89
365	Domestic electrical appliances	711	..	1,061
		..	..	255
369/5	Miscellaneous electrical goods	387	..	534
		..	..	228
370	Shipbuilding and marine engineering	859	..	1,410
		..	30.2	201
		..	..	43
381	Motor vehicle manufacturing	8,403	..	10,029
		..	16.1	85
		..	..	1,386
383	Aircraft manufacturing and repairing	502	..	782
		..	1.6	24
395	Cans and metal boxes	1,361	..	1,765
399	Miscellaneous metal manufactures	2,955	..	3,652
		..	19.4	106
		..	..	401
471	Timber	337	..	472
		..	2.5	17
		..	..	78
472	Furniture and upholstery	2,700	..	3,003
		..	..	663
500	Construction	6,985	..	12,407
		..	153	566
		..	..	4,154
	Other industries	3,603	..	4,918
		..	42.3	198
		..	..	934
	Total	31,459	..	43,775
		..	287	1,282
		..	..	8,573

(a) The figures include purchases of imported as well as of home produced goods.

(b) Specified Census industries for which purchases are one per cent. or more of the total of the commodity heading.

TABLE 10 Purchases by larger firms in the industry, 1954 and 1963

Firms employing 25 or more persons: United Kingdom

	1954		1963	
	Quantity	Cost	Quantity	Cost
Materials for processing		£'000		£'000
Metallic lead and metallic lead powders	..	907	..	297
Dyestuffs and pigments (dry or in pulp form)				
Lithopone	..	1,528	..	801
Titanium dioxide	..	4,533	..	9,502
Zinc oxide	..	602	..	219
Synthetic organic pigments and dyestuffs pure or reduced (including pigment dyestuffs, lakes and toners)	..	1,813	..	4,253
Other pigments and earth colours (including white lead, blacks, mineral or carbon metallic powders other than lead powders)	..	5,915	..	3,824
Extenders (including barytes, china clay, whiting, etc.)	..	1,135	..	1,729
Vegetable and seed oils (raw, refined or boiled)				
Linseed oil	..	4,239	..	3,564
Soya bean oil	..	(a)	..	647
Other drying oils	..	1,879	..	1,704
Mineral oils other than for use as fuels (including petroleum solvents, but excluding lubricating oils)	..	4,306	..	4,350
Heavy chemicals (acids, alkalis, alcohols, other inorganic and organic chemicals, compressed gases, etc.)				
Inorganic chemicals (acids, alkalis, etc., including metallic salts)	..	(a)	..	1,435
Organic chemicals				
Solvents and diluents (including benzoles, solvent naphthas, alcohols, esters, ketones, etc.)	..	7,471	..	9,687
Cellulose esters and ethers (including cellulose nitrate)	..	1,107	..	1,647
Phthalic anhydride	..	337(b)	..	1,021
Maleic anhydride	..	(a)	..	18
Vinyl acetate (monomer)	255
Other organic chemicals (including monomers for plastics, not elsewhere specified)	..	402	..	3,143
Rubber, natural and synthetic (including rubber compound and rubber latex)	..	16	..	333
Glycerine	..	224(b)	..	572
Natural gums and resins (including rosin and shellac)	..	2,861	..	1,344
Synthetic resins and plastics materials				
Alkyds (including styrenated alkyds) solid and liquid resins including solutions, emulsions and dispersions	..	(a)	Th. tons 26.7	5,696
Polyvinyl acetate emulsions	..	398(b)	..	2,083
Other synthetic resins and plastics materials	..	5,248	..	4,947
Lubricating oils and greases	Th.gal. 58.2	17 9
Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement	..	705	..	654
All other materials for processing	..	10,290	..	5,258

Continued on next page

TABLE 10 (continued)

	1954		1963	
	Quantity	Cost	Quantity	Cost
		£'000		£'000
Packaging materials				
Boxes, cartons, packing cases, and drums and canisters (with or without metal ends) of paper, cardboard and fibreboard	..	(c)	..	1,008
Metal				
Cans and boxes	..	6,250	..	6,512
Barrels, kegs and drums			Thousands	
			{ 5,660	1,993
			..	373
Aluminium collapsible tubes, aluminium foil, and any laminates incorporating aluminium foil and aluminium foil labels and closures	..	(c)	..	61
Other packaging materials of metal including crown corks, wire, foil and any laminates incorporating foil (other than aluminium foil), foil labels and foil closures, tensional steel strappings, etc.			..	150
Containers wholly or mainly of wood, including plywood boxes and drums, baskets and wickerwork crates	..	292	..	189
Glass containers			Th.gross	
			{ 54.8	57
			..	24
Plastics moulded and fabricated packs and containers (e.g. bottles and bottle caps) wholly or mainly of polyethylene	..	(c)	..	116
All other packaging materials	..	2,046	..	339
Fuel and electricity (d)				
Coal	Th.tons	200	Th.tons	106
	45.5		16.5	
Coke (including screenings) and manufactured fuel	16.5	94	7.9	71
Derv fuel and motor spirit for use in road vehicles	Th.gal.	392	Th.gal.	485
	1,917		2,330	
Other liquid fuels (including creosote/pitch mixtures, etc., and liquefied petroleum gases)	5,588	243	11,321	457
Gas	Th.therms	164	Th.therms	204
	2,859		2,913	
Electricity	Th.kWh	551	Th.kWh	750
	85,968		108,373	131
			..	
Total cost of materials and fuel		66,147		82,036
Goods purchased for merchanting		..		8,242
Canteen purchases		..		219
Total cost of purchases		..		90,497

(a) Not recorded separately for 1954.

(b) So far as recorded separately in 1954.

(c) Included in 'All other packaging materials'.

(d) The total quantity of electricity generated in firms' own establishments in this industry in 1954 was 761 Th.kWh. Owing to the risk of disclosure of information relating to individual firms separate particulars cannot be given for 1963.

TABLE 11 Transport costs and employment of larger firms, 1963

Firms employing 25 or more persons: United Kingdom

	Unit	1963
Average number employed mainly on transport	No.	1,600
Transport costs		
Wages and salaries	£'000	1,174
Derv fuel and motor spirit	"	485
Payments to other organisations for transport	"	2,502
Costs of operating road goods vehicles		
Insurance	"	72
Vehicle licences	"	66
Depreciation	"	334
Payments to other organisations for repairs and maintenance	"	263
Total	"	4,897

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	306
Road goods vehicles	263
Plant, machinery, and other capital equipment	435
Insurance, licensing and depreciation of road goods vehicles (b)	472
Rates, excluding water rates	1,103
Hire of plant and machinery	67
Postage, telephone, telegrams and cables	782
Total	3,429

(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)	0.4	November	1.1
May	0.1	December	50.6
June	8.6		
July	0.7	1964	
August	0.1	January	1.3
September	6.1	February	0.7
October	9.1	March	20.4
		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 merchanting or factoring, canteens operated by them and other

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

Gross Output

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

Larger Firms

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

Net Output

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

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

Net output per person employed

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

Principal Products

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

Production

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

Purchases

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

List of Industry Reports, etc

Part No. and title

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

Part No. and title

- 69 Cutlery
- 70 Bolts, Nuts, Screws, Rivets, etc.
- 71 Wire and Wire Manufactures
- 72 Cans and Metal Boxes
- 73 Jewellery, Plate and Refining of Precious Metals
- 74 Miscellaneous Metal Manufactures
- 75 Production of Man-made Fibres
- 76 Spinning and Doubling of Cotton, Flax and Man-made Fibres
- 77 Weaving of Cotton, Linen and Man-made Fibres
- 78 Woollen and Worsted
- 79 Jute
- 80 Rope, Twine and Net
- 81 Hosiery and Other Knitted Goods
- 82 Lace
- 83 Carpets
- 84 Narrow Fabrics
- 85 Household Textiles and Handkerchiefs
- 86 Canvas Goods and Sacks
- 87 Textile Finishing
- 88 Asbestos
- 89 Miscellaneous Textile Industries
- 90 Leather (Tanning and Dressing) and Fellmongery
- 91 Leather Goods
- 92 Fur
- 93 Weatherproof Outerwear
- 94 Men's and Boys' Tailored Outerwear
- 95 Women's and Girls' Tailored Outerwear
- 96 Overalls and Men's Shirts, Underwear, etc.
- 97 Dresses, Lingerie, Infants' Wear, etc.
- 98 Hats, Caps and Millinery
- 99 Corsets and Miscellaneous Dress Industries
- 100 Gloves
- 101 Footwear
- 102 Bricks, Fireclay and Refractory Goods
- 103 Pottery
- 104 Glass
- 105 Cement
- 106 Abrasives
- 107 Miscellaneous Building Materials, etc.
- 108 Timber
- 109 Furniture and Upholstery
- 110 Bedding and Soft Furnishings
- 111 Shop and Office Fitting
- 112 Wooden Containers and Baskets
- 113 Miscellaneous Wood and Cork Manufactures
- 114 Paper and Board
- 115 Cardboard Boxes, Cartons and Fibre-board Packing Cases
- 116 Miscellaneous Manufactures of Paper and Board
- 117 Printing and Publishing of Newspapers and Periodicals
- 118 General Printing, Publishing, Bookbinding, Engraving, etc.
- 119 Rubber
- 120 Linoleum, Leathercloth, etc.
- 121 Brushes and Brooms
- 122 Toys, Games and Sports Equipment
- 123 Miscellaneous Stationers' Goods
- 124 Plastics Moulding and Fabricating
- 125 Miscellaneous Manufacturing Industries
- 126 Construction
- 127 Gas
- 128 Electricity
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- 132 Summary Volume
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