

41 Printing ink

This Report on the Printing Ink Industry relates to establishments engaged wholly or mainly in manufacturing printing ink and printers' rollers.

This industry corresponds to minimum list heading 279(5) in the Standard Industrial Classification (Revised 1968) which has been used for the first time as a basis of classification in the 1968 census.

The industry was included in the Paint and Printing Ink Industry (Part 31) in the Reports on the last detailed Census of Production for 1963. The manufacture of paint shown as a sub-division of the industry in the 1963 Report is now the subject of a separate Report for 1968.

Throughout this Report the figures given for 1963 have been reclassified as far as possible, according to the Standard Industrial Classification (Revised 1968) so that data for 1963 and 1968 are on the same industrial basis. However the reclassification of small firms which provided limited information only has been arbitrary.

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

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

(d) Administrative, technical and clerical employees.

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

(f) Acquisitions less disposals.

TABLE 1 Industry summary, 1963 and 1968
United Kingdom (a) (b)

	Unit	All establishments		
		1963	1968	
Number of enterprises	No.	64	48	
Number of establishments	"	97	83	
Gross output	£'000	21,713	30,496	
Net output	"	10,856	15,609	
Net output per head	£	2,147	2,965	
Sales and work done	£'000	goods produced and work done (c)	20,375	27,887
		merchanted goods and canteen takings	1,319	2,277
Purchases	"	materials for use in production and packaging and fuel	9,462	13,039
		goods for merchandising and canteen purchases	1,167	1,737
Payments to other organisations	"	for work done on materials given out	19	19
		for transport	243	149
		by road		
	"	by rail and other means excluding postal services		115
Stocks and work in progress	"			
Total stocks and work in progress	"	change during year	+ 52	+ 504
		at end of year	2,571	3,858
Goods on hand for sale	"	change during year	+ 5	+ 258
		at end of year	864	1,369
Work in progress	"	change during year	+ 15	+ 73
		at end of year	172	341
Materials, stores and fuel	"	change during year	+ 33	+ 173
		at end of year	1,534	2,148
Number employed on average during the year	Th.	total, including working proprietors	5.1	5.3
		operatives	2.7	2.8
		other employees (d)	2.3	2.4
Wages and salaries	£'000	of operatives	2,459	3,556
		of other employees (d)	2,644	3,750
Capital expenditure (e)	"			
Total	"	680	1,439	
New building work	"	260	521	
Land and existing buildings (f)	"	2	37	
Plant and machinery (f)	"	305	720	
Vehicles (f)	"	113	161	

(a) For 1968, estimates for establishments not making satisfactory returns and for small establishments, from which only employment data were collected, accounted for 6 per cent. of the total figures in which they were incorporated: of this, unsatisfactory returns accounted for less than 1 per cent. For 1963 the comparable figures were 7 per cent. and less than 1 per cent. respectively.

(b) The following information relates to small establishments (employing fewer than 25 persons) in this industry. It includes an estimate for small establishments not making satisfactory returns.

	1963	1968
Number of establishments	51	33
Average number employed:		
Working proprietors	48	20
Other persons employed	459	331

Footnotes continued on page 41/2.

TABLE 2 Analysis by size of establishment within the industry, 1968

(i) Output and employment

All establishments: United Kingdom

Number employed on average during the year by the establishment (a)	Estab-lish-ments	Enter-prises (b)	Total number employed on average during the year (a)	Gross output	Net output	Net output per head
	Number	Number	Number	£'000	£'000	£
1-5	9	8	20	..	..	..
6-10	9	9	69	..	..	..
11-24	15	13	262	..	..	..
25-49	21	17	737	4,428	2,344	3,180
50-99	11	11	698	3,836	2,020	2,894
100-199	11	8	1,304	7,872	3,898	2,987
200 and over	6	6	2,133	12,119	6,196	2,905
Unsatisfactory returns	1	1	42	..	..	..
Total	83	48	5,265	30,496(c)	15,609(c)	2,965(c)

(ii) Employees, wages and salaries

All establishments: United Kingdom

Number employed on average during the year by the establishment (a)	Employees		Wages and salaries		Wages and salaries per head	
	Oper-atives	Others (d)	Oper-atives	Others (d)	Oper-atives	Others (d)
	Number	Number	£'000	£'000	£	£
1-5	..	..	..	..	..	..
6-10	..	..	..	..	..	..
11-24	..	..	..	..	..	..
25-49	409	320	489	535	1,196	1,673
50-99	383	314	442	481	1,154	1,533
100-199	753	549	904	879	1,201	1,601
200 and over	1,084	1,049	1,478	1,579	1,363	1,505
Unsatisfactory returns	..	..	..	..	..	..
Total	2,821(c)	2,413(c)	3,556(c)	3,750(c)	1,260(c)	1,554(c)

(a) Including working proprietors.

(b) The sum of the figures for the size groups exceeds the total for the industry to the extent that enterprises made returns for establishments in more than one size group.

(c) Including estimates for establishments employing fewer than 25 persons and for establishments not making satisfactory returns.

(d) Administrative, technical and clerical employees.

TABLE 3 Percentage analysis of employees, by age and sex, 1969 (a)

All establishments: United Kingdom

Ages	Males	Females	All employees
	Per cent.	Per cent.	Per cent.
Under 18	1	3	4
18 and over	59	37	96
All ages	60	40	100

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) in the chemical industries not elsewhere specified - minimum list heading 279 - at June 1969, the earliest date for which the information is available on the basis of the Standard Industrial Classification (Revised 1968).

TABLE 4 Analysis of larger establishments, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom (a)

	Unit	1963	1968	
Number of enterprises	No.	30	28	
Number of establishments	"	63	56	
Gross output	£'000	20,262	28,625	
Net output	"	10,131	14,651	
Net output per head	£	2,147	2,965	
Sales and work done	{ goods produced and work done (b)	£'000	19,013	26,176
	{ merchant goods and canteen takings	"	1,230	2,137
Index of specialisation (c)	Per cent.	95	97	
Purchases	{ materials for processing and packaging, and fuel	£'000	8,830	12,239
	{ goods for merchanting and canteen purchases	"	1,089	1,630
Payments to other organisations	{ for work done on materials given out	"	18	18
	{ for transport	"	226	140
	{ by road	"		
	{ by rail and other means excluding postal services	"		108
Stocks and work in progress				
Goods on hand for sale	{ change during year	"	+ 4	+ 243
	{ at end of year	"	807	1,285
Work in progress (e)	{ change during year	"	+ 14	+ 68
	{ at end of year	"	161	320
Materials, stores and fuel	{ change during year	"	+ 31	+ 162
	{ at end of year	"	1,431	2,016
Number employed on average during the year	{ total, including working proprietors	No.	4,719	4,942
	{ operatives	"	2,577	2,657
	{ other employees (d)	"	2,131	2,274
Wages and salaries	{ of operatives	£'000	2,316	3,349
	{ of other employees (d)	"	2,492	3,534
Wages and salaries per head	{ operatives	£	899	1,260
	{ other employees (d)	"	1,169	1,554
Capital expenditure (e)				
New building work	£'000	243	489	
Land and existing buildings	{ acquisitions	"	2(f)	176
	{ disposals	"		141
Plant and machinery	{ acquisitions	"	318	683
	{ disposals	"	33	7
Vehicles	{ acquisitions	"	178	256
	{ disposals	"	73	105

For notes to this table - see page 41/7.

TABLE 5 Sales of principal products of the industry by larger establishments, including sales by establishments classified to other industries, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

	1963		1968			
	Quantity	Value	Quantity	Value	Enterprises	Entries
	Th.cwt.	£'000	Th.cwt.	£'000	Number	Number
News inks and other mineral oil inks	430	1,665	..	2,332	10	13
Photogravure, aniline, evaporative and other inks, drying by solvent evaporation	225	5,339	305	8,062	20	25
Letterpress and lithographic ink	201	8,827	219	11,602	23	30
Display colours and silkscreen inks	58.0	1,309	{ 24.6 ..	{ 859 399	{ 13	{ 16
Other printers' inks and printing ink makers' materials, not elsewhere specified	..	1,156	..	3,013	23	28
Printers' rollers and compositions	..	2,121	..	2,951	13	15
Other products	..	67	..	302	*	*
Waste products	..	1	..	-	*	*
Total		20,485		29,520	..	..
Sales in other industries (see Table 6)		2,443		4,001	..	..
Principal products of this industry sold by establishments in the industry		18,042		25,519	28	35(a)

(a) This figure represents the total number of returns made for larger establishments in this industry which is less than the total number of establishments shown in Table 4 on account of combined returns covering more than one establishment.

TABLE 6 Sales of principal products of the industry by larger establishments classified to other industries, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

Sales of principal products by larger establishments classified to other industries amounted to £4,001,000 in 1968 and £2,443,000 in 1963. Owing to the risk of disclosure of information relating to individual firms, separate particulars cannot be given.

Footnotes to Table 4.

- (a) Some establishments employing fewer than 25 persons were included in returns for larger establishments. These amounted to 7 establishments in 1968 and 17 in 1963.
- (b) Including services rendered to other organisations (amounts charged for hiring out plant, machinery or other goods, for providing transport, or for technical or other services rendered).
- (c) This is the ratio of total sales of principal products by the industry to total sales of goods produced and work done.
- (d) Administrative, technical and clerical employees.
- (e) Excluding expenditure for establishments not yet in production.
- (f) Acquisitions less disposals.

TABLE 7 Sales of other than principal products by larger establishments in the industry, 1963 and 1968

Establishments employing 25 or more persons:
Analysis of returns received, United Kingdom

	1963	1968
	Value	Value
Paints, colours and stainers	723	531
Other products and work done	248	77
Services rendered to other organisations (a)	-	49
Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored)	1,197	2,099
Canteen takings	33	39
Total	2,202	2,795

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

TABLE 8 Production of certain principal products of the industry by larger establishments, 1963 and 1968

This table is not applicable to this industry.

TABLE 9 Purchases by larger establishments of selected principal products of the industry, 1968

This table is not applicable to this industry.

TABLE 10 Purchases by larger establishments in the industry, 1963 and 1968

Establishments employing 25 or more persons: Analysis of returns received, United Kingdom

	1963		1968	
	Quantity	Cost	Quantity	Cost
Materials for use in production		£'000		£'000
Rubber				
Natural including reclaimed, compounded and latex	}	153	..	22
Synthetic including latex			..	112
Gelatine, osseine, starch and dextrine		(a)	..	26
Vegetable and seed oils (raw, refined, boiled or otherwise modified)				
Linseed	..	229	..	264
Other	..	116	..	112
Refined glycerol (glycerine)	..	23	..	34
Natural gums and resins				
Alkali-soluble resins (including shellac)	}	173	..	364
Other natural gums and resins (including emulsifiable resins used in self polishing formulations)			..	259
Mineral oils other than for use as fuels				
White spirit	}	744	..	55
Other petroleum solvents			..	325
Other (excluding lubricating oils)			..	305
Waxes				
Wholly synthetic	}	(a)	..	71
Other (including vegetable and petroleum waxes)			..	22
Dyestuffs and pigments, dry or in pulp form				
Synthetic organic pigment dyestuffs, pure or reduced (including pigment dyestuffs, lakes and toners)	..	1,852	..	3,429
Other pigments and earth colours (including white lead)	..	1,010	..	1,363
General chemicals (excluding pesticide chemicals and chemicals used for photographic purposes) (b)				
Inorganic chemicals (including inorganic gases)	..	130	..	116
Organic chemicals (including organic gases)				
Alcohols (c)				
Methanol (methyl alcohol)	}	658	..	108
Ethanol (ethyl alcohol)			..	131
Ethanediol (ethylene glycol)			..	23
Other			..	177
Cellulose derivatives				
Cellulose acetates		(a)	..	132
Cellulose nitrate (nitro-cellulose)	}	165	..	68
Cellulose ethers and ether-esters (eg carboxy methyl cellulose)			..	134
Other			(a)	..	187
Benzole and solvent naphthas		(a)	..	22
Cyclic hydrocarbons (benzene, toluene, xylene, etc)		(a)	..	189
Other organic chemicals and gases	..	267	..	393
Other chemicals (eg mixtures of inorganic and organic chemicals)		(a)	..	72

Continued on next page.

TABLE 10 (continued)

	1963		1968	
	Quantity	Cost	Quantity	Cost
Materials for use in production (continued)		£'000		£'000
Synthetic resins and plastics materials (excluding leathercloth and reinforced plastics)				
Acrylics solutions, emulsions and dispersions		(a)	..	40
Alkyds (including styrenated alkyds) and unsaturated polyesters (e)	..	623	..	597
Aminoplastics (melamine and urea formaldehyde)			Th.cwt.	
Cellulose ester and ether sheet, film, foil, rod, tube, profile shapes and photographic film base, thermosetting polyesters, including epoxide resins, and resin glass fibre mixtures		(a)	8.4	94
Phenolics and allied products (including cresylic), resins (the net resin content), solutions, emulsions, dispersions, moulding and extrusion compounds			..	64
Polyvinyl acetate solutions, emulsions and dispersions (f)	..	4	33.5	374
Styrene polymers and copolymers, solutions, emulsions and dispersions, silicones and siloxenes		(a)	..	17
Light metal and non-ferrous metals in all forms except finished parts, wire and scrap			..	37
Lubricating oils and greases	Th.gal.	2	..	24
Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement	..	9	..	..
Tyres and other spare parts for firms' own road goods vehicles	..	78	..	17
Other	..		..	85
All other materials for use in production	..	1,686	..	983
Packaging materials				
Paper and board				
Boxes, cartons, drums and canisters (with or without metal ends) of paper and cardboard			..	50
Fibreboard packing cases	..	44	..	11
Other packaging materials of paper and paperboard (including moulded pulp units and labels but excluding board for converting into packaging materials)			..	22
Metal				
Cans and boxes	..	285	..	362
Barrels, kegs and drums	Thousands	464	Thousands	704
	..	167	..	306
		42		
Timber for manufacture into packing cases, etc (sawn or planed but not plywood), containers wholly or mainly of wood and other wood products for packaging (including wood wool)	..	10	..	12
Glass containers	160	3	196	2
	..	1	..	1
Plastic moulded and fabricated containers including closures and inserts (g)	..	3	..	19
All other packaging materials	..	37	..	40

TABLE 10 (continued)

	1963		1968	
	Quantity	Cost	Quantity	Cost
Fuel and electricity (h)	Th. tons	£'000		£'000
Coal	4.0	27	..	12
Coke (including screenings) and manufactured fuel	0.8	8	Th. tons	0.2
Derv fuel and motor spirit for use in road vehicles	Th.gal.		Th.gal.	381
Other liquid fuels (including creosote/pitch mixtures, etc, and liquefied petroleum gases)	238	52		102
Gas	1,082	40	1,085	54
Electricity	Th.therms		Th.therms	
	451	27	261	24
	Th.kWh		Th.kWh	
	15,837	139	23,939	240
	..	24	..	..
All other fuels		(a)	..	16
Total cost of materials and fuel		8,829		12,239
Goods purchased for merchandising		1,056		1,587
Canteen purchases		33		44
Total cost of purchases		9,918		13,869

(a) Not recorded separately for 1963.

(b) For 1963 described as 'Heavy chemicals (acids, alkalis, alcohols, other inorganic and organic chemicals, compressed gases, etc)'.

(c) For 1963 described as 'Solvents and diluents (including benzoles, solvent naphthas, alcohols, esters, ketones, etc)'.

(d) For 1963 included with 'Organic chemicals (solvents and diluents)'.

(e) For 1963 described as 'Alkyds (including styrenated alkyds) solid and liquid resins including solutions, emulsions and dispersions'.

(f) For 1963 'Polyvinyl acetate emulsions' only.

(g) For 1963 described as 'Plastics moulded and fabricated packs and containers (eg bottles and bottle caps) wholly or mainly of polyethylene'.

(h) Owing to the risk of disclosure of information relating to individual firms the total quantity of electricity generated in firms' own establishments in this industry in 1968, cannot be given. None was recorded for 1963.

TABLE 11 Transport costs and employment of larger establishments, 1963 and 1968

Establishments employing 25 or more persons:
Analysis of returns received, United Kingdom

	Unit	1963	1968
Average number mainly employed on transport	No.	174	209
Transport costs			
Wages and salaries	£'000	171	301
Derv fuel and motor spirit	"	52	102
Tyres and other spare parts for road goods vehicles	"	..	17
Payments to other organisations for transport	{ by road by rail and other means excluding postal services	{ 226	{ 140
Costs of operating road goods vehicles			108
Insurance	"	9	17
Vehicle licences	"	9	21
Depreciation	"	47	72
Payments to other organisations for repairs and maintenance	"	19	57
Total	"	532(a)	835

(a) Excluding tyres and other spare parts for road goods vehicles, not collected separately for 1963.

TABLE 12 Payments for certain services, etc by larger establishments, 1963 and 1968 (a)

Establishments employing 25 or more persons:
Analysis of returns received, United Kingdom

	Amounts payable	
	1963	1968
Repairs and maintenance to	£'000	£'000
Buildings	52	65
Road goods vehicles	19	57
Plant, machinery and other capital equipment	60	113
Insurance, licensing and depreciation of road goods vehicles (b)	64	110
Rates, excluding water rates	133	221
Hire of plant and machinery	4	10
Postage, telephone, telegrams, cables and telex (c)	95	143
Total	427	719

(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.

(c) Excluding Telex for 1963.

TABLE 13 Percentage analysis of twelve-month periods covered by returns from larger establishments, 1968

Establishments employing 25 or more persons:
Analysis of returns received, United Kingdom

Year ended	Percentage of total returns received	Percentage of total number employed
1968	Per cent.	Per cent.
April (a)	0.0	0.0
May	2.9	1.0
June	5.7	3.3
July	0.0	0.0
August	2.9	0.7
September	5.7	2.1
October	0.0	0.0
November	2.9	0.8
December	34.3	41.0
1969		
January	5.7	2.8
February	0.0	0.0
March	39.9	48.3
April (b)	0.0	0.0
	100	100

(a) From 6 April.

(b) To 5 April.

