

49 Miscellaneous base metals

This Report on the Miscellaneous Base Metals Industry relates to establishments engaged wholly or mainly in smelting and refining lead, zinc, magnesium and titanium and manufacturing their alloys and the production in these metals and alloys of ingots, bars, billets, sheets, strip, foil, circles, sections, rods, pipes, tubes, etc, and of die castings. The manufacture of ferro-chrome, ferromolybdenum, ferro-silicon, ferro-tungsten, etc, other than in blast furnaces and the smelting, refining and melting of other non-ferrous metals, not reported on elsewhere, are also included but wire drawing and the production of finished goods such as hollow-ware are excluded.

This industry corresponds to minimum list heading 323 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 formed part of the Non-ferrous Metals Industry (Part 40) in the Reports on the last detailed Census of Production for 1963 and the remainder is now the subject of two other Reports for 1968, Aluminium and Aluminium Alloys (Part 47) and Copper, Brass and Other Copper Alloys (Part 48).

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.

There were no large establishments in this industry in Northern Ireland in 1963 and 1968.

METHOD OF CLASSIFICATION

The classification of returns to this industry followed the standard procedure as outlined in the notes on page (i). A different procedure was used in classifying returns to the sub-divisions of the industry shown in Table 4. Returns in which the combined sales of magnesium, titanium, and their alloys amounted to over half their total output were classified to 'Smelters, refiners, fabricators and founders of magnesium, titanium and their alloys'.

The remaining returns were divided into two main groups, namely 'Smelters and refiners of lead, tin, zinc, and their alloys' and 'Smelters and refiners of other metals (except magnesium, titanium and their alloys)' on the basis of major sales, unless the processing of these metals, apart from smelting and refining, amounted to ten per cent. or more of the total for smelting and refining, in which case they were classified to another group 'Fabricators, Founders and die-casters of lead, zinc and other metals' (except magnesium, titanium and their alloys).

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).

LIST OF TABLES

Table No.	Title	Page
SECTION I - Estimates for all establishments in the industry		
1	Industry summary, 1963 and 1968	49/3
2	Analysis by size of establishment within the industry, 1968	49/4
3	Percentage analysis of employees, by age and sex, 1969	49/5
SECTION II - Analysis of returns received		
4	Analysis of larger establishments, 1963 and 1968	49/6
5	Sales of principal products of the industry by larger establishments, including sales by establishments classified to other industries, 1963 and 1968	49/8
6	Sales of principal products of the industry by larger establishments classified to other industries, 1963 and 1968	49/11
7	Sales of other than principal products by larger establishments in the industry, 1963 and 1968	49/13
8	Production of certain principal products of the industry by larger establishments, 1963 and 1968	DOES NOT APPLY
9	Purchases by larger establishments of selected principal products of the industry, 1968	49/14
10	Purchases by larger establishments in the industry, 1963 and 1968	49/16
11	Transport costs and employment of larger establishments, 1963 and 1968	49/19
12	Payments for certain services, etc by larger establishments, 1963 and 1968	49/19
13	Percentage analysis of twelve-month periods covered by returns from larger establishments, 1968	49/20

Footnotes continued from page 49/3.

(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.	213	176	
Number of establishments	"	257	217	
Gross output	£'000	210,695	382,033	
Net output	"	47,266	67,615	
Net output per head	£	1,582	2,741	
Sales and work done	{ goods produced and work done (c)	£'000	184,679	293,084
	{ merchanted goods and canteen takings	"	26,947	88,313
Purchases	{ materials for use in production and packaging and fuel	"	138,000	235,116
	{ goods for merchenting and canteen purchases	"	21,985	80,332
Payments to other organisations	{ for work done on materials given out for transport	"	1,538	1,239
	{ by road	"	1,666	1,820
	{ by rail and other means excluding postal services	"		
Stocks and work in progress	{ change during year	"	- 1,171	+ 5,308
	{ at end of year	"	46,644	67,884
Goods on hand for sale	{ change during year	"	- 2,557	+ 828
	{ at end of year	"	13,628	19,975
Work in progress	{ change during year	"	+ 1,627	- 192
	{ at end of year	"	19,705	21,188
Materials, stores and fuel	{ change during year	"	- 241	+ 4,671
	{ at end of year	"	13,310	26,722
Number employed on average during the year	{ total, including working proprietors	Th.	29.9	24.7
	{ operatives	"	22.0	17.0
	{ other employees (d)	"	7.7	7.5
Wages and salaries	{ of operatives	£'000	15,401	17,211
	{ of other employees (d)	"	7,669	9,939
Capital expenditure (e)				
Total	"	5,718	6,925	
New building work	"	1,686	1,371	
Land and existing buildings (f)	"	- 214	- 118	
Plant and machinery (f)	"	4,036	5,450	
Vehicles (f)	"	210	222	

(a) For 1968, estimates for establishments not making satisfactory returns and for small establishments from which only employment data were collected, accounted for 5 per cent. of the total figures in which they were incorporated: of this, unsatisfactory returns accounted for 1 per cent. For 1963 the comparable figures were 6 per cent. and 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	140	103
Average number employed:		
Working proprietors	190	76
Other persons employed	1,343	1,014

Footnotes continued on page 49/2.

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	29	29	105	..	..	..
6-10	26	26	200	..	..	..
11-24	43	43	757	..	..	..
25-49	30	27	1,047	13,131	2,663	2,544
50-99	32	29	2,183	22,398	4,411	2,021
100-199	20	17	2,836	58,427	8,261	2,913
200-299	9	8	2,101	30,752	4,196	1,997
300-499	6	3	2,254	23,608	5,703	2,530
500-749	5	4	3,099	74,575	10,517	3,394
1,000 and over	6	5	9,818	138,536	28,164	2,868
Unsatisfactory returns	11	11	270	..	..	..
Total	217	176	24,670	382,033(c)	67,615(c)	2,741(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	777	257	682	356	877	1,387
50-99	1,726	443	1,483	625	859	1,410
100-199	1,991	840	1,973	1,131	991	1,347
200-299	1,530	569	1,599	656	1,045	1,152
300-499	1,446	808	1,445	1,006	999	1,245
500-749	2,113	986	2,291	1,310	1,084	1,329
1,000 and over	6,585	3,234	6,866	4,342	1,043	1,343
Unsatisfactory returns	..	..	..	..	..	..
Total	17,041(c)	7,518(c)	17,211(c)	9,939(c)	1,010(c)	1,322(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	2	1	3
18 and over	79	18	97
All ages	81	19	100

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) at June 1969, the earliest date for which the information is available on the basis of the Standard Industrial Classification, (Revised 1968).

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 12 in 1963.
- (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) Excluding aluminium and copper and their alloys.
- (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) 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).
- (f) Direct sales of goods (excluding canteen takings) made to, and work done for, the general public by larger establishments are included. These amounted to £3,000 in 1968. Similar information is not available for 1963.
- (g) Characteristic products relate only to specific sub-division of the industry.
- (h) 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.
- (i) Administrative, technical and clerical employees.
- (j) Excluding expenditure for establishments not yet in production.
- (k) Acquisitions less disposals.

TABLE 4 Analysis of larger establishments, 1963 and 1968

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

	Unit	Sub-divisions of the industry (b)		Sub-divisions of the industry (b)						
		Smelters and refiners of lead, tin, zinc and their alloys		Smelters and refiners of other metals except magnesium, titanium and their alloys (c)	Fabricators, founders and die-casters of lead, zinc and other metals and smelters, refiners, fabricators and founders of magnesium, titanium and their alloys (c) 03 and 04	Total				
		01	02			03 and 04	Total			
		1963	1968	1963	1968	1963	1968			
Number of enterprises (d)	No.	10	13	16	23	58	50	79	80	
Number of establishments	"	16	20	21	28	86	67	123	115	
Gross output	£'000	54,201	132,389	74,818	145,779	69,931	84,585	198,950	362,753	
Net output	"	6,721	12,681	15,606	27,521	22,305	24,001	44,631	64,203	
Net output per head	£	2,058	3,310	2,072	4,109	1,280	1,861	1,582	2,741	
Sales and work done	{ goods produced and work done (e) (f)	£'000	49,971	108,938	62,054	91,355	62,359	78,000	174,384	278,293
	{ merchanted goods and canteen takings	"	4,406	23,095	12,801	55,204	8,238	5,557	25,445	83,856
Sales of characteristic products	"	42,017	93,773	51,838	77,403	(g)	(g)	(g)	(g)	
Index of specialisation (h)	Per cent.	84	86	84	85	..	..	88	89	
Purchases	{ materials for use in production and packaging, and fuel	£'000	44,471	99,628	47,151	67,038	38,685	56,584	130,307	223,250
	{ goods for merchenting and canteen purchases	"	3,077	20,731	10,210	50,211	7,472	5,336	20,759	76,278
	{ for work done on materials given out for transport	"	19	61	764	308	670	807	1,453	1,176
Payments to other organisations	{ by road	"	419	550	388	807	766	596	1,573	1,728
	{ by rail and other means excluding postal services	"									328	553
Stocks and work in progress										
Goods on hand for sale	{ change during year	"	- 458	- 110	- 1,030	+ 278	- 926	+ 618	- 2,414	+ 786
	{ at end of year	"	1,733	3,132	6,906	10,392	4,230	5,443	12,869	18,967
Work in progress	{ change during year	"	+ 283	+ 466	+ 993	- 1,058	+ 260	+ 410	+ 1,536	- 182
	{ at end of year	"	3,761	5,954	12,221	10,604	2,625	3,560	18,607	20,118
Materials, stores and fuel	{ change during year	"	+ 505	+ 1,589	- 699	+ 106	- 33	+ 2,740	- 227	+ 4,435
	{ at end of year	"	2,955	5,711	3,485	8,383	6,129	11,278	12,568	25,373
Number employed on average during the year	{ total, including working proprietors	No.	3,265	3,831	7,533	6,693	17,422	12,896	28,220	23,425
	{ operatives	"	2,337	2,810	5,030	4,220	13,540	9,200	20,907	16,230
	{ other employees (i)	"	928	1,017	2,500	2,474	3,845	3,669	7,273	7,160
Wages and salaries	{ of operatives	£'000	1,873	2,954	4,172	4,447	8,593	8,998	14,638	16,399
	{ of other employees (i)	"	962	1,512	2,496	3,157	3,827	4,793	7,284	9,462
Wages and salaries per head	{ operatives	£	802	1,051	829	1,054	635	978	700	1,010
	{ other employees (i)	"	1,036	1,486	998	1,276	995	1,306	1,002	1,322
Capital expenditure (j)										
New building work	£'000	145	310	360	433	1,088	559	1,592	1,301	
Land and existing buildings	{ acquisitions	"	2	29(k)	221	36(k)	43	177(k)	45	88
	{ disposals	"	2								24	247	200
Plant and machinery	{ acquisitions	"	529	770	990	1,227	2,392	3,225	3,911	5,222
	{ disposals	"	11	5	44	6	45	36	100	47
Vehicles	{ acquisitions	"	54	58	32	61	208	194	294	314
	{ disposals	"	13	25	16	19	66	59	95	103

For notes to this table - see page 49/5

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

Industry sub-division (a)	1963		1968					
	Quantity	Value	Quantity	Value	Enterprises	Entries		
	Th.lb.	£'000	Th.lb.	£'000	Number	Number		
02	Cadmium	264	230	492	506	*	*	
		..	1,117	..	55			
02	Chromium metal		(b)	4,338	1,349	5	5	
	Lead and lead alloys and wrought lead	Th.tons		Th.tons				
01	Refined lead unwrought in pigs, ingots, blocks, bars, slabs and cakes	171	10,912	263	26,615	15	23	
01	Antimonial and tin/lead alloys unwrought (excluding type metal)	Th.cwt.		Th.cwt.				
		916	3,786	1,116	7,127	14	17	
04	Sheet and foil	Th.tons		Th.tons				
		39.2	3,361	38.5	5,265	11	16	
04	Pipes	13.0	1,171	10.2	1,422	8	13	
04	Collapsible tubes	..	950	Th.cwt.	704	*	7	
04	Lead shot	..	218	..	581	*	*	
04	Other manufactures of lead not elsewhere specified	19.8	1,900	..	2,636	26	28	
	Total lead and lead alloys and wrought lead		22,298		44,350	..	..
03	Magnesium and magnesium alloys	Th.cwt.						
	Ingots, notch bars, sticks, slabs and billets	..	1,863	58.7	1,510	*	*	
	Castings	28.8	2,400	18.6	1,662	6	7	
	Sheets, strip extrusions and forgings	41.9	2,454	20.8	1,277	*	*	
	Manufactures of magnesium and magnesium alloys not specified above	28.2	769	30.7	1,241	5	5	
	Total magnesium and magnesium alloys and manufactures thereof		7,487		5,689	..	..
02	Molybdenum metal		(b)	Th.lb.	198	447	*	*
	Nickel and nickel alloys (other than nickel silver and cupro-nickel)	Th.tons		Th.tons				
02	Ingots, billets, anodes, cathodes, bars, rods, plates, sheets and strip	54.4	42,943	52.7	57,607	6	7	
04	Castings	1.2	1,048	1.0	1,341	8	8	
02	Other forms of nickel alloys unwrought or partly wrought	2.3	1,428	..	2,045	6	6	
04	Other manufactures of nickel not elsewhere specified	..	2,348	0.6	933	10	11	
				..	1,861			
	Total nickel and nickel alloys and manufactures thereof		47,766		63,786	..	..

TABLE 5 (continued)

Industry sub-division (a)	1963		1968				
	Quantity	Value	Quantity	Value	Enterprises	Entries	
	Tin and tin alloys	Th.tons	£'000	Th.tons	£'000	Number	Number
01	Tin in blocks, ingots, bars and slabs	22.4	21,336	34.1	44,768	9	9
01	Solder, soft	22.2	9,629	21.2	13,983	16	19
04	Foil	0.1	111	..	39	*	*
04	Collapsible tubes	..	397	..	295	*	5
04	Other manufactures of tin and tin alloys not elsewhere specified (excluding anti-friction metal)	0.3	187	0.7	1,050	6	6
		..	41				
	Total tin and tin alloys and manufactures thereof		31,702		60,136	..	..
03	Titanium and titanium alloys	Th.cwt.		Th.cwt.			
	In primary forms (ingots) and forged products (billets and slabs)	17.6	4,027	34.6	3,917	7	7
		..	834	..			
	Sheet, strip rods, plates and other forms			..	6,601	6	9
	Total titanium and titanium alloys and manufactures thereof		4,861		10,518	..	..
02	Tungsten in all forms (except ferro-tungsten)	..	2,189	..	3,065	9	9
	Zinc and zinc alloys	Th.tons		Th.tons			
01	Zinc unwrought, in ingots, blocks, bars, slabs and cakes	112	8,997	145	16,328	10	11
04	Sheets, strip, plates, foil, discs and circles	10.8	1,631	11.0	2,513	5	6
		Th.cwt.		Th.cwt.			
04	Zinc dust and powder	286	1,634	371	2,759	6	6
01	Zinc alloy ingots (for die casting and forming)	1,152	5,611	1,148	8,658	8	9
04	Zinc alloy pressure die castings except coffin furniture	486	11,390	398	10,317	49	54
		..	2,017	..	1,401		
04	Other manufactures of zinc not elsewhere specified	3.4	599	15.3	929	18	22
		..	398	..	1,179		
	Total zinc and zinc alloys and manufactures thereof		32,277		44,085	..	..
	White metal alloys (ie alloys of tin, lead, zinc, antimony, etc, not elsewhere specified)						
02	Unwrought or partly wrought						
	Anti-friction metal	2.5	1,430	2.4	1,966	8	10
	Type metal	17.1	2,275	17.9	3,337	6	8
	Other white metal alloys unwrought or partly wrought	1.7	711	8.6	2,226	6	6
04	Wrought or manufactured						
	Printing type and hard metal powders (including tungsten-carbide powder and matrix)	..	1,556	..	1,940	6	6
	Total white metal alloys and manufactures thereof		5,972		9,468	..	..

Continued on next page.

TABLE 5 (continued)

Industry sub-division (a)	1963		1968			
	Quantity	Value	Quantity	Value	Enter-prises	Entries
02	Th.cwt.	£'000	Th.cwt.	£'000	Number	Number
Ferro alloys including ferro alloy briquettes						
Ferro-molybdenum	84.2	4,300	89.8	5,568	5	5
Ferro-titanium	8.2	96	44.9	842	5	5
Ferro-tungsten	12.6	380	13.0	1,388	5	5
Ferro-vanadium	..	823	14.2	909	6	6
Other ferro alloys (except spiegeleisen and blast furnace ferro-manganese)	563	2,230	512	4,031	10	10
	..	796				
Total ferro alloys including ferro alloy briquettes		8,624		12,739	..	..
02	Th.tons		Th.tons			
Non-ferrous metals not elsewhere specified, unwrought and worked including castings and manganese metal (c)	..	3,366	8.7	7,389	36	39
	..	641	..	804		
04	}	0.2	}	..	*	*
Flexible tubing of non-ferrous metal		..		250			425
04	}	0.2	}	0.2	*	*
Foil laminated with paper, film, etc (other than laminates incorporating aluminium foil)		..		241			281
Other products	..	1,390	..	1,785	13	14
Waste products						
Scrap metals						
Copper	2.3	482	..	813	7	8
Brass and other copper alloys (including nickel silver and cupro-nickel, but excluding all other nickel alloys)	0.1	16	..	235	13	14
Lead	1.3	152	..	50	9	9
Zinc	0.5	17	0.6	27	10	10
Aluminium and aluminium alloys	}	1,530	}	..	10	10
Other scrap metals				..	1,961	29	39
Concentrates, metallic residues, wastes, etc, not elsewhere specified	}	1,460	}	..	16	22
Other waste products				..	336	9	11
Work done						
Repair work		64		131	*	*
Other work done		384		763	21	23
Total		174,516		272,984	..	..
	Sales in other industries (see Table 6)	20,680		26,570	..	..
	Principal products of this industry sold by establishments in the industry	153,836		246,415	80	100(d)

(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 establishments, not merely sales by establishments classified to the sub-division.

(b) Not recorded separately for 1963.

(c) Excluding aluminium, copper and their alloys.

(d) 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

	1963		1968			Principal industries in which produced (a)
	Quantity	Value	Quantity	Value	Entries	
	Th.tons	£'000	Th.tons	£'000	Number	
Lead and lead alloys and wrought lead						
Refined lead unwrought in pigs, ingots, blocks, bars, slabs and cakes and antimonial and tin/lead alloys unwrought (excluding type metal)	11.1	777	5.3	723	7	27,48,72,80
Other manufactures of lead not elsewhere specified	..	962	..	1,453	27	47,48,93,147
Total lead and lead alloys and wrought lead		1,739		2,176	..	
Magnesium and magnesium alloys in all forms and manufactures thereof	..	4,969	Th.cwt.	3,303	12	47,48
52.8						
Nickel and nickel alloys (other than nickel silver and cupro-nickel) in all forms and manufactures thereof	1.1	2,226	..	1,066	16	27,47,48,97
Tin and tin alloys						
Solder, soft	0.1	40	..	19	*	48
Collapsible tubes	..	321	..	295	5	47
Tin in blocks, ingots, bars and slabs, tin foil and other manufactures of tin and tin alloys not elsewhere specified (excluding anti-friction metal)	..	177	..	163	7	47,48
Total tin and tin alloys and manufactures thereof		538		478	..	
Titanium and titanium alloys in all forms	..	2,157	..	6,094	11	29,44,47,48
Zinc and zinc alloys						
Zinc unwrought, in ingots, blocks, bars, slabs and cakes, and zinc alloy ingots (for die casting and forming)	9.1	957	Th.tons 2.9	385	7	47,48
Sheets, strip, plates, foil, discs and circles, and zinc dust and powder	14.1	1,731	10.7	1,617	7	27,35,47,48
Zinc alloy pressure die castings except coffin furniture	Th.cwt. 126	1,951	Th.cwt. 143	3,529	29	47,82,90,94
	..	588	..	710		
Other manufactures of zinc not elsewhere specified	Th.tons 3.0	459	}	1,703	14	44,47,48,93
	..	259				
Total zinc and zinc alloys and manufactures thereof		5,945		7,955	..	

Continued on next page.

TABLE 6 (continued)

	1963		1968			
	Quantity	Value	Quantity	Value	Entries	Principal industries in which produced (a)
	Th.tons	£'000	Th.tons	£'000	Number	
White metal alloys (ie alloys of tin, lead, zinc, antimony, etc, not elsewhere specified) unwrought or partly wrought and wrought or manufactured	0.5	452	0.3	234	10	47,48,87
Ferro alloys including ferro alloy briquettes	Th.cwt. 2.1	7	Th.cwt. 110	527	6	29,37,44,48
Non-ferrous metals not elsewhere specified, unwrought and worked including castings	..	2,026	..	4,423	33	27,45,48,74
Flexible tubing of non-ferrous metal and foil laminated with paper, film, etc (other than laminates incorporating aluminium foil)	..	620	Th.tons 0.3	315	*	47,52
Total		20,680		26,570	..	

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

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
General chemicals		
Inorganic	5,401	7,143
Other	840	381
Metal castings, forgings, etc and other basic forms of ferrous and non-ferrous metals		
Iron and steel	1,077	929
Aluminium		
Castings	1,242	1,092
Other	1,168	2,287
Copper	1,254	2,769
Brass and other copper alloys	2,296	3,100
Mechanical and electrical engineering products	597	160
Miscellaneous metal goods	793	505
Other products	5,785	13,088
Services rendered to other organisations (a)	95	425
Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored)	25,156	83,601
Canteen takings	289	255
Total	45,993	115,734

(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 (a)

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

Standard Industrial Classification	Purchasing industry (b)	Non-ferrous metals in all forms except finished parts, wire and scrap	
		Lead and alloys of lead (excluding solder)	
		Quantity	Cost
Minimum List Heading		Th. tons	£'000
271/1	General chemicals (inorganic)	23.5	2,327
271/3	General chemicals (other than inorganic and organic)	50.9	5,390
311	Iron and steel (general)		(d)
312	Steel tubes		(d)
321	Aluminium and aluminium alloys		(c)
322	Copper, brass and other copper alloys	5.6	599
323	Miscellaneous base metals	180	24,324
341	Industrial (including process) plant and steelwork		(c)
349	General mechanical engineering		(c)
362	Insulated wires and cables		(e)
364	Radio and electronic components		(c)
368	Electric appliances primarily for domestic use		(c)
369	Miscellaneous electrical goods	76.8	8,700
381	Motor vehicle manufacturing		(d)
394	Wire and wire manufactures		(d)
399/2 to 4 and 8 to 12	Miscellaneous metal goods		(c)
494	Toys, games, children's carriages and sports equipment		(c)
500	Construction	3.2	400
		..	680
	Other industries	92.0	9,927
		..	521
	Total	432	51,668
		..	1,201

Non-ferrous metals in all forms except finished parts, wire and scrap (continued)					
Zinc and alloys of zinc		Nickel and nickel alloys (excluding nickel silver and cupro-nickel)		Tin	
Quantity	Cost	Quantity	Cost	Quantity	Cost
Th. tons	£'000	Th. tons	£'000	Th. cwt.	£'000
..	2,467		(c)	11.1	667
	(c)	0.8	780		(c)
27.7	3,259	21.7	15,085	175	11,324
9.3	1,049		(d)		(d)
	(e)		(c)	5.4	352
59.9	7,059	2.6	2,627		(e)
97.3	11,490	14.8	13,190	232	14,304
4.3	493		(d)		(c)
	(c)		(d)	17.3	1,268
	(c)		(c)	7.3	505
	(c)	14.0	1,790		(c)
	(c)	17.5	1,549		(c)
24.0	3,074		(c)		(c)
17.6	3,066		(d)		(d)
	(e)	3.2	1,957	} 8.2	517
		..	389		
26.1	3,797	1.7	1,422	} 6.4	449
..	454	..	222		
16.1	2,214		(d)		(d)
	(d)		(d)		(d)
54.2	8,057	2.2	2,169	44.8	2,947
..	817	..	360	..	173
336	43,558	78.4	40,569	508	32,333
..	3,737	..	970	..	173

(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 at least one of the commodities shown.

(c) Included in the total for 'Other industries'.

(d) Not recorded separately.

(e) Owing to the risk of disclosure relating to individual firms particulars cannot be given and the figures are included in the total for 'Other industries'.

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	Th.tons	£'000	Th.tons	£'000
Aluminium and aluminium alloys				
Ingots and notch bars - virgin	2.7	485	6.1	1,375
..	..	442		
Ingots, notch bars and sticks - secondary	0.2	30	1.2	223
All other descriptions, including sheets, plate and strip, bars, rods and angles, but excluding finished parts, wire and scrap	..	72	..	663
Brass and other copper alloys (including nickel silver and cupro-nickel, but excluding all other nickel alloys and cadmium copper) (a)				
Ingots, blocks, slabs, billets, bars (including wire bars), rods and cast strip (b)	0.2	49	0.2	115
Plates, sheets, strip, discs, circles, foil, tube shells and other descriptions excluding finished parts, wire and scrap	0.2	51	..	165
Chrome ore and concentrates (c)	..	196	1.1	336
Cobalt ore and concentrates		(d)	0.9	1,213
Columbite	0.1	28	1.9	963
Copper unwrought (including cadmium copper); ingots, blocks, slabs, bars, billets, cakes, cathodes and anodes (including rough copper of 94 per cent. copper content or over) (e)				
Electrolytic and blister (including rough copper)	0.2	45	..	494
Fire refined	1.1	265	0.9	461
Other descriptions of copper, including copper rods and plates and broken down copper cake and tube shells, but excluding finished parts, wire and scrap	..	256	..	246
Lead ore and concentrates	33.3	1,417	79.4	5,657
Lead and lead alloys				
Lead unwrought in pigs, ingots, blocks, bars, slabs and cakes				
Imported refined lead (f)	17.9	1,230	13.5	1,358
Re-melted lead	18.2	1,237	9.3	941
English refined lead including lead refined from imported bullion	16.9	1,082	30.9	3,206
Imported bullion			81.7	12,296
English bullion	67.7	6,804	11.8	1,205
Other descriptions except finished parts, wire and scrap			33.1	5,319
magnesium and magnesium alloys (excluding finished parts, wire and scrap)	2.7	651	3.2	773
Molybdenum ore and concentrates (g)	5.7	3,539	7.6	5,909
Nickel ore, concentrates and matte	60.5	21,904	56.8	29,649
Nickel and nickel alloys (excluding nickel silver and cupro-nickel), in all forms except finished parts, wire and scrap	15.2	10,030	14.8	13,190
Tin ore and concentrates	..	14,521	142	31,526
Tin in all forms except finished parts, wire and scrap	Th.cwt.	7,869	Th.cwt.	14,304
Tungsten	Th.tons	786	Th.tons	2,649

TABLE 10 (continued)

	1963		1968	
	Quantity	Cost	Quantity	Cost
Materials for use in production (continued)	Th.tons	£'000	Th.tons	£'000
Zinc ore and concentrates	203	4,047	314	9,027
Zinc and zinc alloys				
Zinc of not less than 99.99 per cent. purity	65.8	5,425	69.4	8,676
Other electrolytic and refined zinc, and low grade prime western, debased and G.O.B. zinc	8.2	734	16.4	1,980
Re-melted zinc and other descriptions except finished parts, wire and scrap	..	1,071	11.4	834
Alloying materials not elsewhere specified (eg silicon, cadmium chrome, manganese, cobalt)	19.9	3,346	33.8	3,496
Scrap (including all forms of scrap material purchased, not elsewhere specified)	..	1,193		
Aluminium and aluminium alloys	4.0	419	7.8	1,005
Brass and other copper alloys (including nickel silver and cupro-nickel, but excluding all other nickel alloys and cadmium copper) (a)	7.6	1,720	6.3	2,333
Copper (including cadmium copper) (e)	1.6	332	2.9	1,392
Lead	127	6,852	179	15,462
Nickel alloys (other than nickel silver and cupro-nickel)	1.3	299	1.2	771
Tin	Th.cwt.		Th.cwt.	
Zinc	113	3,163	80.8	4,861
Zinc base alloys	Th.tons		Th.tons	
Zinc	5.5	325	11.7	665
Other	6.2	315	6.8	594
Iron and steel in all forms except finished parts wire and scrap	58.7	5,235	99.6	13,470
Lubricating oils and greases	67.8	825	106	1,493
Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement	..	356		
Tyres and other spare parts for firms' own road goods vehicles	Th.gal.		Th.gal.	
Other	129	39	159	50
All other materials for use in production	..	10	..	17
Packaging materials				
Wrapping and packing paper (including paper coated with plastics and any laminates incorporating paper but not metal)				
Other packaging materials of paper and paperboard (including moulded pulp units and labels, but excluding boxes, cartons, packing cases, drums, canisters, bags and multiwall paper sacks and paper and board for converting into packaging materials)	..	215	..	66
Metal barrels, kegs and drums	Thousands		Thousands	
Containers wholly or mainly of wood (including plywood boxes and drums), baskets and wickerwork crates	308	221	549	414
All other packaging materials	..	43	..	169
All other packaging materials	..	271	..	245

Continued on next page.

TABLE 10 (continued)

	1963		1968	
	Quantity	Cost	Quantity	Cost
Fuel and electricity (h)	Th.tons	£'000	Th.tons	£'000
Coal	156	1,081	119	809
Coke (including screenings) and manufactured fuel	139	1,176	190	1,845
	Th.gal.		Th.gal.	
Derv fuel and motor spirit for use in road vehicles	639	124	709	177
Other liquid fuels (including creosote/pitch mixtures, etc. and liquefied petroleum gases)	{ 17,166 ..	{ 791 114	{ 32,041	{ 1,533
	Th.therms		Th.therms	
Gas	8,986	648	10,623	811
	Th.kWh		Th.kWh	
Electricity	384,624	2,005	475,112	3,018
All other fuels	..	(d)	..	81
Total cost of materials and fuel		130,307		223,250
Goods purchased for merchanting		20,474		75,974
Canteen purchases		285		304
Total cost of purchases		151,066		299,528

(a) For 1963 cadmium copper was not specifically excluded.

(b) For 1963 rods were not specifically included.

(c) For 1963 described as 'Chrome ore'.

(d) Not recorded separately for 1963.

(e) For 1963 cadmium copper was not specifically included.

(f) For 1963 described as 'Imported virgin lead (excluding lead bullion)'.

(g) For 1963 described as 'Molybdenite'.

(h) Owing to the risk of disclosure of information relating to individual firms, total quantities of electricity generated in firms' own establishments in 1963 and 1968 cannot be given.

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.	340	367
Transport costs			
Wages and salaries	£'000	280	397
Derv fuel and motor spirit	"	124	177
Tyres and other spare parts for road goods vehicles	"	..	53
Payments to other organisations for transport	"	{ 1,573	{ 1,728
	{ by road by rail and other means excluding postal services		553
Costs of operating road goods vehicles			
Insurance	"	15	18
Vehicle licences	"	15	33
Depreciation	"	84	142
Payments to other organisations for repairs and maintenance	"	49	69
Total	"	2,139(a)	3,170

(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	201	308
Road goods vehicles	49	69
Plant, machinery and other capital equipment	485	1,245
Insurance, licensing and depreciation of road goods vehicles (b)	114	193
Rates, excluding water rates	726	1,063
Hire of plant and machinery	58	295
Postage, telephone, telegrams, cables and telex (c)	267	343
Total	1,899	3,516

(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)	1.0	0.6
May	2.0	0.4
June	8.0	9.7
July	4.0	2.9
August	1.0	0.2
September	6.0	10.7
October	1.0	0.2
November	-	-
December	55.0	59.9
1969		
January	4.0	1.5
February	-	-
March	15.0	13.0
April (b)	3.0	0.9
	100	100

(a) From 6 April.

(b) To 5 April.



