

95 Drop forgings, etc.

This Report on the Drop Forgings, Etc Industry relates to establishments engaged wholly or mainly in manufacturing forgings by drop forging, drop stamping or hot pressing. Heavy forgings are excluded.

This industry corresponds to minimum list heading 399(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 formed part of the Miscellaneous Metal Manufactures Industry (Part 74) in the Reports on the last detailed Census of Production for 1963.

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.	142	106	
Number of establishments	"	161	138	
Gross output	£'000	92,709	108,530	
Net output	"	38,212	46,773	
Net output per head	£	1,347	1,761	
Sales and work done	£'000	goods produced and work done (c)	90,155	105,498
		merchanted goods and canteen takings	2,246	2,558
Purchases	"	materials for use in production and packaging and fuel	50,597	57,425
		goods for merchandising and canteen purchases	2,161	2,372
Payments to other organisations	"	for work done on materials given out for transport	1,361	1,450
		by road	1,003	1,195
		by rail and other means excluding postal services			94
Stocks and work in progress	"	+ 908 933	+ 1,254	
Total stocks and work in progress	"	change during year	16,210	17,695
		at end of year		
Goods on hand for sale	"	change during year	+ 49	- 132
		at end of year	1,017	1,281
Work in progress	"	change during year	+ 260	+ 606
		at end of year	5,791	6,859
Materials, stores and fuel	"	change during year	+ 625	+ 780
		at end of year	9,402	9,555
Number employed on average during the year	Th.	total, including working proprietors	28.4	26.6
		operatives	23.6	21.6
		other employees (d)	4.7	4.9
Wages and salaries	£'000	of operatives	18,738	23,896
		of other employees (d)	4,327	5,657
Capital expenditure (e)	"			
Total	"	2,858	4,287	
New building work	"	382	452	
Land and existing buildings (f)	"	- 36	919	
Plant and machinery (f)	"	2,382	2,743	
Vehicles (f)	"	129	173	

(a) For 1968, estimates for establishments not making satisfactory returns and for small establishments, from which only employment data were collected, accounted for 4 per cent. of the total figures in which they were incorporated: of this, unsatisfactory returns accounted for 2 per cent. For 1963 the comparable figures were 4 per cent. and 3 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	41	41
Average number employed		
Working proprietors	49	40
Other persons employed	320	491

Footnotes continued on page 95/2.

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	9	22	..	..	..
6-10	6	6	45	..	..	..
11-24	25	25	440	..	..	..
25-49	15	15	584	1,903	920	1,575
50-99	21	19	1,604	5,660	2,525	1,574
100-199	21	19	3,026	9,929	4,682	1,547
200-299	12	10	3,122	12,139	4,712	1,509
300-499	9	8	3,254	12,487	5,472	1,682
500 and over	13	6	14,005	62,436	26,750	1,910
Unsatisfactory returns	7	7	466	..	..	..
Total	138	106	26,568	108,530(c)	46,773(c)	1,761(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	498	79	442	98	889	1,235
50-99	1,373	221	1,126	273	820	1,237
100-199	2,527	493	2,278	582	901	1,180
200-299	2,438	684	2,458	809	1,008	1,183
300-499	2,648	606	2,721	643	1,027	1,061
500 and over	11,355	2,648	14,031	3,053	1,236	1,153
Unsatisfactory returns	..	..	..	..	..	..
Total	21,599(c)	4,904(c)	23,896(c)	5,657(c)	1,106(c)	1,154(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	4	2	6
18 and over	65	29	94
All ages	69	31	100

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) in the metal industries not elsewhere specified - minimum list heading 399 - 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) For 1963 one establishment employing fewer than 25 persons was included in a return for a large establishment. None was included for 1968.

(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) Direct sales of goods (excluding canteen takings) made to and work done for, the general public by larger establishments are included. These amounted to £1,000 in 1968. Similar information is not available for 1963.

(d) This is the ratio of total sales of principal products by the industry to total sales of goods produced and work done.

(e) Administrative, technical and clerical employees.

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

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.	87	62	
Number of establishments	"	106	91	
Gross output	£'000	88,771	104,555	
Net output	"	36,589	45,061	
Net output per head	£	1,347	1,761	
Sales and work done	{ goods produced and work done (b) (c) merchanted goods and canteen takings	£'000	86,325	101,634
Index of specialisation (d)	Per cent.	92	93	
Purchases	{ materials for processing and packaging, and fuel goods for merchandising and canteen purchases	£'000	48,448	55,322
Payments to other organisations	{ for work done on materials given out for transport by road by rail and other means excluding postal services	"	1,303	1,397
Stocks and work in progress		"	960	90
Goods on hand for sale	{ change during year at end of year	"	+ 47	- 127
Work in progress	{ change during year at end of year	"	+ 249	+ 584
Materials, stores and fuel	{ change during year at end of year	"	+ 598	+ 752
Number employed on average during the year	{ total, including working proprietors operatives other employees (e)	No.	27,161	25,595
Wages and salaries	{ of operatives of other employees (e)	£'000	17,977	23,055
Wages and salaries per head	{ operatives other employees (e)	£	795	1,106
Capital expenditure (f)		"	922	1,154
New building work	£'000	366	436	
Land and existing buildings	{ acquisitions disposals	"	113	922
Plant and machinery	{ acquisitions disposals	"	2,370	2,790
Vehicles	{ acquisitions disposals	"	89	147
		"	183	242
		"	59	75

For notes to this table - see page 95/5.

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

	1963		1968			
	Quantity	Value	Quantity	Value	Enterprises	Entries
	Th.tons	£'000	Th.tons	£'000	Number	Number
Drop forgings of steel and iron and steel stampings and pressings which are the products of drop stampings and hot pressings; not being finished products	498	80,319	582	104,139	157	183
Other products	..	285	..	491	6	9
Waste products						
Scrap metals						
Iron and steel	113	1,078	169	1,876	53	74
Other scrap metals	..	20	..	18	7	7
Other waste products	..	30	..	2	*	*
Work done		541		402	7	7
Total		91,200		106,928	..	..
Sales in other industries (see Table 6)		11,876		12,859	..	..
Principal products of this industry sold by establishments in the industry		79,325		94,069	62	83(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

	1963		1968			
	Quantity	Value	Quantity	Value	Entries	Principal industries in which produced (a)
	Th.tons	£'000	Th.tons	£'000	Number	
Drop forgings of steel and iron and steel stampings and pressings which are the products of drop stampings and hot pressings; not being finished products	64.8	10,428	61.6	12,859	100	44,52,82,97
	..	1,447				
Total		11,876		12,859	..	

(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
	£'000	£'000
Steel ingots, castings, forgings, etc	1,399	1,853
Non-ferrous metal forgings, stampings and pressings	664	310
Mechanical engineering products including industrial plant and steelwork	1,420	1,237
Motor vehicle and aerospace parts and accessories	810	990
Engineers' small tools	193	116
Hand tools and implements	450	558
Anchors and grapnels, chain cable and wire and cable gripping devices	481	541
Hooks, fasteners and shackles	11	91
Other metal products	1,498	1,752
Services rendered to other organisations (a)	75	118
Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored)	2,057	2,341
Canteen takings	94	123
Total	9,151	10,029

(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
	Th.tons	£'000	Th.tons	£'000
Materials for use in production				
Pig iron, including refined pig iron and other irons for re-melting and iron castings	0.5	30 99	..	23
Steel				
Ingots, blooms, billets, slabs (including sheet/plate mill slabs and sheet bars)	363	19,614	..	28,337
Bars and rods (including wire rods), angles, shapes and sections, girders, beams, joists and pillars rolled (not fabricated), including tube rounds and squares	249	14,915	201	12,905
Plates, 3mm. thick and over	13.7	686	8.2 ..	408 66
Sheets under 3mm. thick (including electrical sheets)	19.2	1,436	2.2	118
Hoop and strip (including tape of all thicknesses) and tinplate and blackplate (a)	5.3	326	..	255
Forgings (except drop forgings)	0.8 ..	135 228	2.7	441
Castings	0.2 ..	37 1	0.1	10
Iron and steel not elsewhere specified except finished parts, wire and scrap				
Wrought tubes and fittings for wrought tubes (including welded, seamless, conduits, etc)	..	7	..	88
Other	2.9 ..	346 100	..	625
Light metals and non-ferrous metals in all forms except finished parts, wire and scrap				
Aluminium and aluminium alloys	..	66	..	64
Brass, copper, lead, zinc, nickel and their alloys excluding solder	..	724	..	187
Scrap metal	..	4	..	228
Paint and varnish (including lacquers and stains)	Th.gal. 11.8 ..	18 1	Th.gal. 9.0	7
General chemicals (b)				
Inorganic (including inorganic gases)	..	26	..	18
Organic (including organic gases)	..	..	..	10
Other (eg mixtures of inorganic and organic chemicals)	..	..	..	5
Bolts, rivets, nuts and washers, screws, nails, tacks, etc	..	92	..	103
Purchased components not elsewhere specified	..	855	..	828
Lubricating oils and greases (including cutting oils and emulsions)	367 1.1 ..	83 3 39	513 Th.cwt. 2.1	126 13
Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement				
Tyres and other spare parts for firms' own road goods vehicles	..	2,144	..	36
Other	..	..	..	2,008
All other materials for use in production	..	1,844	..	2,332

Continued on next page.

TABLE 10 (continued)

	1963		1968	
	Quantity	Cost	Quantity	Cost
Packaging materials		£'000		£'000
Paper and board	..	25	..	21
Timber				
Containers wholly or mainly of wood (including plywood boxes and drums), baskets and wickerwork crates	..	11	..	28
Timber (sawn or planed) for manufacture into packing cases, etc	-	-	..	3
Jute and hessian piece-goods, sacks and bags	..	87	..	74
All other packaging materials	..	8	..	34
Fuel and electricity (c)	Th.tons		Th.tons	
Coal	28.6	146	15.2	82
Coke (including screenings) and manufactured fuel	5.5	47	2.8	36
	..	4	..	11
	Th.gal.		Th.gal.	
Derv fuel and motor spirit for use in road vehicles	306	63	277	72
	..	50	..	31
Other liquid fuels (including creosote/pitch mixtures, etc and liquefied petroleum gases)	25,900	1,154	30,030	1,541
	..	117		
	Th.therms		Th.therms	
Gas	10,610	669	18,506	1,124
	..	245		
	Th.kWh		Th.kWh	
Electricity	151,216	804	321,698	2,306
	..	1,157	..	665
All other fuels	..	(d)	..	51
Total cost of materials and fuel		48,448		55,322
Goods purchased for merchanting		1,944		2,099
Canteen purchases		125		186
Total cost of purchases		50,517		57,607

(a) Terneplate was specifically included for 1963.

(b) Described as 'heavy chemicals' for 1963.

(c) Owing to 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.

(d) Not recorded separately 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.	160	284
Transport costs			
Wages and salaries	£'000	126	318
Derv fuel and motor spirit	"	113	103
Tyres and other spare parts for road goods vehicles	"	..	36
Payments to other organisations for transport	"	960	1,152
	{ by road		
	{ by rail and other means excluding postal services		90
Costs of operating road goods vehicles			
Insurance	"	9	10
Vehicle licences	"	8	18
Depreciation	"	60	71
Payments to other organisations for repairs and maintenance	"	30	40
Total	"	1,306(a)	1,838

(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	285	257
Road goods vehicles	30	40
Plant, machinery and other capital equipment	502	978
Insurance, licensing and depreciation of road goods vehicles (b)	77	99
Rates, excluding water rates	406	604
Hire of plant and machinery	37	47
Postage, telephone, telegrams, cables and telex (c)	135	176
Total	1,473	2,202

(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)	2.4	0.4
May	2.4	0.6
June	4.8	2.0
July	3.6	3.0
August	3.6	2.0
September	12.0	8.8
October	9.6	4.1
November	1.2	1.0
December	32.5	51.7
1969		
January	2.4	4.9
February	6.0	4.7
March	19.3	16.7
April (b)	0.0	0.0
	100	100

(a) From 6 April.

(b) To 5 April.