# PA223 S/42(tHA 251)

# 1980

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# **Business Monitor**

Report on the Census of Production

Drawing, cold rolling and cold forming of steel



A publication of the Government Statistical Service

HMSO

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Prices of Business Monitors in 1982 have been set to make some contribution for the first time to the costs incurred at the Business Statistics Office in the preparation of Monitors.

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Reports on the Census of Production for separate industries are being published in the Business Monitor series. These Monitors have a code P (for production) followed by A (indicating an annual series) and then by a number indicating the industry covered by the report.

Commencing with the 1980 census, the first Annual Census of Production to be conducted on the Standard Industrial Classification (Revised 1980), separate reports will in general appear for each 3 digit Group of the new classification. Results for 1980 will include 1979 back data but more detailed 1979 figures based on the new classification will be published as a single separate Business Monitor (PA1002.1). This will also include the results of the 1979 Purchases Inquiry. Reports on the Census of Production for the years prior to 1980 are available at the Minimum List Heading, or sub division of a Minimum List Heading, of the Standard Industrial Classification (Revised 1968).

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A publication of the Government Statistical Service

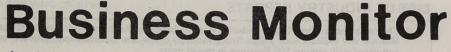
## **Report on the Census of Production** 1980

## Drawing, cold rolling and cold forming of steel

Presented by the Secretary of State for Industry to Parliament in pursuance of the Statistics of Trade Act 1947 (10 & 11 Geo.6 Cha.39 sec 7)

Department of Industry **Business Statistics Office** 

London: Her Majesty's Stationery Office



### LIST OF INDUSTRY REPORTS

The following is a list of 1980 Industry Reports based on the Standard Industrial Classification Revised 1980. The number of the Monitor will indicate each 3 digit Group industry of the new classification. This will produce about 110 Monitors in this series compared with around 165 Monitors in recent years.

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If you have any enquiries about the new classification please ring Newport (STD 0633) 56111 Extension 2455.

	Introductory notes	PA352	Motor vehicle bodies, trailers and caravans
PA111	Coal extraction and manufacture of solid fuels	PA353	Motor vehicle parts
PA120	Coke ovens	PA361	Shipbuilding and repairing
PA130	Extraction of mineral oil and natural gas	PA362	Railway and tramway vehicles
PA140	Mineral oil processing	PA363	Cycles and motor cycles
PA161	Production and distribution of electricity	PA364	Aerospace equipment manufacturing and repairing
PA162	Public gas supply	PA365	Miscellaneous vehicles
PA170	Water supply industry	PA371	Measuring, checking and precision instruments and
PA210	Extraction and preparation of metalliferous ores		apparatus
P.A221	Iron and steel industry	PA372	Medical and surgical equipment and orthopaedic
PA222	Steel tubes		appliances
PA223	Drawing, cold rolling and cold forming of steel	PA373	Optical precision instruments and photographic
PA224	Non-ferrous metals industry		equipment
PA231	Extraction of stone, clay, sand and gravel	PA374	Clocks, watches and other timing devices
PA239	Extraction of miscellaneous minerals (including salt)	PA411	Organic oils and fats
PA241	Structural clay products	PA412	Processing of bacon, meat and poultry
PA242	Cement, lime and plaster	PA413	Preparation of milk and milk products
PA243	Building products of concrete, cement or plaster	PA414	Processing of fruit and vegetables
PA244	Asbestos goods	PA415	Fish processing
PA245	Working of stone and other non-metallic minerals	PA416	Grain milling
	Abrasive products	PA419	Bread, biscuits and flour confectionery
PA247	Glass and glassware	PA420	Sugar and sugar by-products
PA248	Refractory and ceramic goods	PA421	Ice-cream, cocoa, chocolate and sugar confectione
	Basic industrial chemicals	PA422	Animal feeding stuffs
	Paints, varnishes and printing ink	PA423	Starch and miscellaneous foods
	Specialised chemical products mainly for industrial	PA424	Spirit distilling and compounding
	and agricultural purposes	PA426	Wines, cider and perry
	Pharmaceutical products	PA427	Brewing and malting
	Soap and toilet preparations	PA428	Soft drinks
	Specialised chemical products mainly for household	PA429	Tobacco industry
	and office use	PA431	Woollen and worsted industry
	Production of man-made fibres	PA432	Cotton and silk industries
	Foundries	PA432	
	Forging, pressing and stamping		Throwing, texturing, etc. of continuous filament y
	Bolts, nuts, washers, etc.; springs; non-precision	PA434	Spinning and weaving of flax, hemp and ramie
	chains; metals treatment	PA435	Jute and polypropylene yarns and fabrics
		PA436	Hosiery and other knitted goods
	Metal doors, windows, etc.	PA437	Textile finishing
	Hand tools and finished metal goods	PA438	Carpets and other textile floorcoverings
	Industrial plant and steelwork	PA439	Miscellaneous textiles
	Agricultural machinery and tractors	PA441	Leather (tanning and dressing) and fellmongery
	Metal-working machine tools and engineers' tools	PA442	Leather goods
	Textile machinery	PA451	Footwear
	Machinery for the food, chemical and related	PA453	Clothing, hats and gloves
	industries; process engineering contractors	PA455	Household textiles and other made-up textiles
	Mining machinery, construction and mechanical	PA456	Fur goods
	handling equipment	PA461	Sawmilling, planing, etc. of wood
A326 I	Mechanical power transmission equipment	PA462	Manufacture of semi-finished wood products and
	Machinery for printing, paper, wood, leather, rubber,		further processing and treatment of wood
	glass and related industries: laundry and dry cleaning	PA463	
. !	glass and related industries: laundry and dry cleaning machinery	PA463 PA464	Builders' carpentry and joinery Wooden containers
!	machinery	PA464	Builders' carpentry and joinery Wooden containers
A328 I		PA464 PA465	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles
A328 I A329 (	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition	PA464	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and
A328 1 A329 0 A330 1	machinery Miscellaneous machinery and mechanical equipment	PA464 PA465 PA466	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms
A328 1 A329 0 A330 1	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing	PA464 PA465	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and
A328 1 A329 0 A330 1 A341 1	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables	PA464 PA465 PA466 PA467	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings
A328 1 A329 0 A330 1 A341 1 A342 6	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables Basic electrical equipment	PA464 PA465 PA466 PA467 PA471	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings Pulp, paper and board
A328 1 A329 0 A330 1 A341 1 A342 6 A343 6	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables Basic electrical equipment Electrical equipment for industrial use, and batteries	PA464 PA465 PA466 PA467 PA471 PA472	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings Pulp, paper and board Conversion of paper and board
A328   A329 ( A330   A341   A342   A343   A343	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables Basic electrical equipment Electrical equipment for industrial use, and batteries and accumulators	PA464 PA465 PA466 PA467 PA471 PA472 PA475	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings Pulp, paper and board Conversion of paper and board Printing and publishing
A328 ( A329 ( A330 ( A330 ( A341 ( A342 ( A343 ( A343 ( A344 (	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables Basic electrical equipment Electrical equipment for industrial use, and batteries and accumulators Telecommunication equipment, electrical measuring	PA464 PA465 PA466 PA467 PA471 PA472 PA475 PA481	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings Pulp, paper and board Conversion of paper and board Printing and publishing Rubber products
A328   A329 ( A330   A341   A342   A343   A343   A344   C	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables Basic electrical equipment Electrical equipment for industrial use, and batteries and accumulators Telecommunication equipment, electrical measuring equipment, electronic capital goods and passive	PA464 PA465 PA466 PA467 PA471 PA472 PA475 PA481 PA483	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings Pulp, paper and board Conversion of paper and board Printing and publishing Rubber products Processing of plastics
A328 1 A329 0 A330 1 A341 1 A342 6 A343 6 A343 6 A344 7 6	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables Basic electrical equipment Electrical equipment for industrial use, and batteries and accumulators Telecommunication equipment, electrical measuring equipment, electronic capital goods and passive electronic components	PA464 PA465 PA466 PA467 PA471 PA472 PA475 PA481 PA483 PA491	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings Pulp, paper and board Conversion of paper and board Printing and publishing Rubber products Processing of plastics Jewellery and coins
A328 1 A329 0 A330 1 A341 1 A342 6 A343 6 A343 6 A344 7 6 A345 M	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables Basic electrical equipment Electrical equipment for industrial use, and batteries and accumulators Telecommunication equipment, electrical measuring equipment, electronic capital goods and passive electronic components Miscellaneous electronic equipment	PA464 PA465 PA466 PA467 PA471 PA472 PA475 PA481 PA483 PA491 PA492	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings Pulp, paper and board Conversion of paper and board Printing and publishing Rubber products Processing of plastics Jewellery and coins Musical instruments
A328 1 A329 0 A330 1 A341 1 A342 6 A343 6 A344 7 6 A345 M A346 0	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables Basic electrical equipment Electrical equipment for industrial use, and batteries and accumulators Telecommunication equipment, electrical measuring equipment, electronic capital goods and passive electronic components Miscellaneous electronic equipment Domestic-type electric appliances	PA464 PA465 PA466 PA467 PA471 PA472 PA475 PA475 PA481 PA483 PA491 PA492 PA494	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings Pulp, paper and board Conversion of paper and board Printing and publishing Rubber products Processing of plastics Jewellery and coins
A328 1 A329 0 A330 1 A341 1 A342 6 A343 6 A343 6 A344 7 6 A345 M A346 0 A347 6	machinery Miscellaneous machinery and mechanical equipment Ordnance, small arms and ammunition Manufacture of office machinery and data processing equipment Insulated wire and cables Basic electrical equipment Electrical equipment for industrial use, and batteries and accumulators Telecommunication equipment, electrical measuring equipment, electronic capital goods and passive electronic components Miscellaneous electronic equipment	PA464 PA465 PA466 PA467 PA471 PA472 PA475 PA481 PA483 PA491 PA492	Builders' carpentry and joinery Wooden containers Miscellaneous wooden articles Articles of cork and plaiting materials, brushes and brooms Wooden and upholstered furniture and shop and office fittings Pulp, paper and board Conversion of paper and board Printing and publishing Rubber products Processing of plastics Jewellery and coins Musical instruments

### PA223 DRAWING, COLD ROLLING AND COLD FORMING OF STEEL

The information in this report relates to establishments classified to the Drawing, cold rolling and cold forming of steel industry, Group 223 in the Standard Industrial Classification Revised 1980. The industry Group covers the following Activity Headings:-

### Drawing and manufacture of steel wire and steel wire products 2234

Manufacture of ferrous wire and wire products such as fabricated steel reinforcement for concrete, wire nails, wire netting and wire gauze. Upholstery springs are included, but all other springs of wire are classified to Group 313 (except motor vehicle suspension springs classified to Group 353).

### Other drawing, cold rolling and cold forming of steel 2235

Units engaged in cold rolling steel hoop, strip or sheet (over 3 mm) from purchased or transferred hot rolled sheet; cold drawing steel bars and shapes from purchased or transferred hot rolled steel bars; and the manufacture of other cold finished products (except wire and wire products) not specified in the European Coal and Steel Community Treaty.

For a full description of the 1980 classification see Standard Industrial Classification Revised 1980 obtainable from Her Majesty's Stationery Office, price £2.50.

	In interpreting the data in	the tables it is essential to bear
	in mind the notes and defini	tions which commence on page 9
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	the establishments of a making and an arriver	
T OF CONTEN	TS 8.8	
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Table Ti No	tle can t	
1 0		
r the Central	utput and costs, 1979–1980	
2 Ca	pital expenditure, 1979–1980	
3 St	ocks and work in progress, 1979–1980	the vessional states and parts
	nalysis of establishments by size, 1980	
-		
10	rcentage analysis of twelve-month periods covered I ngdom establishments, 1980	by returns received from United
6 Op	perating ratios, 1979–1980	

Page

8 8

to bear on page 9.

### TABLE 1

PA223

Output and costs, 1979–1980 All United Kingdom establishments classified to the industry (a)

Enterprises Establishments Sales of goods produced	Number " £ million	439 543	432
		543	
ales of goods produced	£ million		535
		1,098.7	1,064.4
Receipts for work done and industrial ervices rendered	a the <b>M</b> 1361 because the internation	5.4	5.2
Capital goods produced for establish- nents' own use	"sed of includes of it as	1.9	1.8
Ion-industrial services rendered	in the stand we search most stand.	the sector of the active and sector and sector at 1.6 and a	2.0
Goods merchanted or factored	"	28.0	25.6
Total sales and work done	"	1,135.6	1,099.0
ncrease during the year, work in progress and goods on hand for sale	"	19.1	-6.4
Gross output	"	1,154.6	1,092.6
Purchases of materials for use in pro- luction, and packaging and fuel	"	760.5	689.4
urchases of goods for merchanting or actoring	"	26.0	22.6
ncrease during the year, stocks of naterials, stores and fuel	"	25.6	34.3
cost of industrial services received		24.7	19.4
Net output	"	368.9	326.9
otal employment (b)	Thousand	41.3	37.6
Net output per head	£	8,938	8,699
ayments for non-industrial services			
Hire of vehicles, plant and machinery	£ million	3.8	4.1
Rents of industrial and commercial buildings	"	2.2	2.9
Commercial insurance premiums	"	4.5	4.5
Bank charges	"	0.5	0.5
Other non-industrial services		41.5	42.9
icensing of motor vehicles		0.3	0.3
ates, excluding water rates	"	6.8	8.1
Gross value added at factor cost		309.4	263.6
Gross value added at factor cost per head	£	7,496	7,014

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census. Satisfactory returns accounted for 77 per cent of employment within the industry.

4

(b) Average number employed, during the year, including full and part-time employees and working proprietors.

### TABLE 2

		1070 1000	
-nital	expenditure,	19/9-1980	

All United Kingdom establishments classified to the industry (a)(b)

							1979	1980	
Land and buildings				۶			(t)	Emann Emanns	
New building work							5.1	4.1	
Land and existing buildings							0.1	7.1	
Acquisitions							1.1	1.1	
Disposals							1.4	1.5	
lant and machinery									
Acquisitions							29.9	22.1	
Disposals							0.9	1.7	
vehicles (c)									
Acquisitions						4.6.	4.2	×3 3.5	090
Disposals							1.5	2.4	
Total net capital expendit	ure						36.6	25.1	
683 5.890	<u>1,767</u>	<u>. a cr</u>	7.17%	<u> </u>	372	a 8,750	00.0	23.1	Missour .
) Capital expenditure in resp included.	pect of manufa	ecturing es	stablishr						
<ul> <li>capital expenditure in responsible</li> <li>capital expenditure in responsible</li> <li>For 1980 the values of acceleration</li> </ul>	pect of manufa	ecturing es	stablishr						
<ul> <li>b) Capital expenditure in response</li> <li>included.</li> <li>c) For 1980 the values of according to the va</li></ul>	pect of manufa	ecturing es	stablishr						
<ul> <li>capital expenditure in response</li> <li>capital</li></ul>	pect of manufa	ecturing es	stablishr						
<ul> <li>Capital expenditure in respinctuded.</li> <li>For 1980 the values of acc thousand respectively.</li> </ul>	pect of manufa	ecturing es	stablishr						
<ul> <li>Capital expenditure in respinctuded.</li> <li>For 1980 the values of according thousand respectively.</li> <li>ABLE 3</li> <li>and work in progress, 197</li> </ul>	pect of manufa quisitions and c	acturing es	stablishr						
<ul> <li>Capital expenditure in respinctuded.</li> <li>For 1980 the values of according thousand respectively.</li> <li>ABLE 3</li> <li>Docks and work in progress, 1972</li> </ul>	pect of manufa quisitions and c	acturing es	stablishr						9 £2,231
<ul> <li>Capital expenditure in respinctuded.</li> <li>For 1980 the values of according thousand respectively.</li> <li>ABLE 3</li> <li>books and work in progress, 1972</li> </ul>	pect of manufa quisitions and c	acturing es	stablishr						£ millio Value at
<ul> <li>Capital expenditure in respinctuded.</li> <li>For 1980 the values of according thousand respectively.</li> <li>ABLE 3</li> <li>Docks and work in progress, 1972</li> </ul>	pect of manufa quisitions and c 9–1980 hts classified to	acturing es	stablishr of moto stry (a)	r cars we		separately. Thes	æ were £2,	502 thousand and	£ millio Value at end of 1980
<ul> <li>Capital expenditure in respinctuded.</li> <li>For 1980 the values of acc thousand respectively.</li> <li>ABLE 3</li> <li>Docks and work in progress, 1971</li> <li>United Kingdom establishmer</li> </ul>	pect of manufa quisitions and c 9–1980 nts classified to	the indus	stablishr of moto stry (a)	r cars we	ere collected :	separately. Thes	e were £2,	502 thousand and 1980	£ millio Value at end of 1986
<ul> <li>Capital expenditure in respinctuded.</li> <li>For 1980 the values of acc thousand respectively.</li> <li>ABLE 3</li> <li>Docks and work in progress, 1979</li> <li>United Kingdom establishmer</li> </ul>	pect of manufa quisitions and c 9–1980 nts classified to	the indus	stablishr of moto stry (a)	r cars we	ere collected :	separately. Thes	e were £2,	502 thousand and 1980 	£ millio Value at end of 1980
<ul> <li>Capital expenditure in respinctuded.</li> <li>For 1980 the values of acc thousand respectively.</li> <li>ABLE 3</li> <li>Ocks and work in progress, 1974</li> <li>United Kingdom establishmer</li> <li>Aterials, stores and fuel</li> <li>Ork in progress</li> <li>Mods on hand for sale</li> </ul>	pect of manufa quisitions and c 9–1980 Its classified to	the indus	stablishr of moto	r Cars we	ere collected :	separately. Thes <u>1979</u> Inc 25.6 7.4	e were £2,	502 thousand and 1980 ng year -34.3 -8.3 1 9	£ millic Value at end of 1980 89.1 38.7

5

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PA223
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			£ million
1	1979	1980	Size of Size
	(45)	enre marria (c)	ne n
	5.1	4.1	
	1.1	1.1	
	1.4	1.5	
	29.9	22.1	
	0.9	1.7	
	0.9	08	
			8008
	4.2	3.5	
	1.5	2.4	
	36.6	25.1	200-299
	717	20.1	1008e.one

Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

### TABLE 4

### Analysis of establishments by size, 1980 All United Kingdom establishments classified to the industry (a)

Size group (b)	Estab- lish- ments (c)	Enter- prises (d)	Employmer	Employment			Wages and salaries (g)			
			Total (e)	Opera- tives	Others (f)	Operatives	0,0	Others (f)	Eniplind	
						Total	per head	Total	per head	
Sonai sobile se nandi santonan	Number	Number	Thousand	Thousand	Thousand	£ million	£	£ million	£	
1–10	219	208	1.1 )	•						
11–19	88	84	1.3)			00.1	4 207	12.0	E FOO	
20-49	80	75	) 2.5 )	6.8	2.3	29.1	4,307	13.0	5,596	
50-99	64	52	) 4.5 )							
100—199	37	35	5.3	4.1	1.2	18.6	4,538	7.0	5,763	
200—299	15	9	3.7	2.9	0.9	13.1	4,537	4,9	5,582	
300—399	10	10	3.5	2.7	0.8	12.6	4,757	4.5	5,592	
400—499	9	8	4.1	3.0	1.1	15.6	5,196	6.5	5,816	
500—749	6	ed 0 <b>5</b> eeroor	3.5	2.3	1.1	10.9	4,653	5,5	4,994	
750 and over	7	6	8.1	6.0	2.1	35.5	5,877	14.0	6 <b>,</b> 679 <sup>°</sup>	
10.E2.231										

432 37.6 5,810 Total 535 27.8 9.5 135.4 4,875 55.4

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

(b) Average number employed during the year, including full and part-time employees and working proprietors.

(c) Establishments employing fewer than 20 persons are generally exempt from Business Statistics Office inquiries and data for these establishments are therefore of doubtful reliability. Figures for establishments employing 1-10 persons are particularly at risk. They should be regarded merely as the best estimates available and used with caution.

The count of enterprises shown in each row represents the number of enterprises, irrespective of size, owning the establishments shown in the previous column, i.e. the number of enterprises owning the establishments within the size group indicated by the row heading. It (d) should be noted that because an enterprise may own establishments in more than one size group, the sum of the individual enterprise counts may exceed the total for the industry.

(e) Including working proprietors.

Total sales and work done (h)	Gross output	Net output		Gross value added at factor cost
		Total	per head	Total
£ million	£ million	£ million	£	£ million
270.5	269.2	77.6	8,321	(k)
175.0	174.5	47.5	8,937	102.3(k)
96.7	96.4	33.5	8,929	27.3
81.9	81.6	24.7	7,129	20.1
117.2	116.0	32.0	7,748	23.4
98.3	95.2	21.3	6,156	15.8
259.4	259.6	90.4	11,099	74.6

(f) Ad	1,092.6 326.9 ministrative, technical and clerical employ	8,699	263.6	7,

The cost of employers' contributions to national insurance, pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £38.3 million.

Sales of goods produced, capital goods manufactured and buildings constructed by establishments for their own use, work done, industrial and non-industrial services rendered and merchanted goods.

New building work plus acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.

Gross value added data relate to establishments employing 1-199.

(g)

(h)

(k)

7

`		PA22
	Net capital expenditure (j)	Total stocks and work in progress at end of year
er lead		
	£ million	£ million
(k)	3.5	40.3
,991(k)	4.1	26.1
,273	2.0	15.9
,799	3.2	15,5
,675	1.2	22.3
,573	1.2	17.5
.167	9.9	51.7

,014

25.1

189.2

### TABLE 5

Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments, 1980

Accounting year end	ded	Percentag	e of total retur	ns received	Percentage of t	otal number emp	loyed
m shapay share	enuribeici xe	per cent	added at factor cost	10	per cent		Arc.+ (ct) -
1980 April (a)		0.8			0.7		
May		2.4			1.5		•
June		2.4			1.0		
			Tonsi				
July		4.8			11.2		
August		3.2			1.5		
Septembe	r	12.0	•		16.6		
October		2.4			1.3		
November	r	-			-		
December		48.8			50.4		
1981 January	2.0	4.8			6.5		
February		0.8			0.1		
March (b)		17.6			9.0		
<u>a</u> <u>a</u> xt	1.2	15/32	16,8	6,165	S21(2 (0))	05/24	2.92 F.84
(a) From 6th Ap	ril.						

Including returns made for twelve-month period ended 1st to 5th April 1981. (b)

### TABLE 6

Operating ratios, 1979-1980 All United Kingdom establishments classified to the industry (a)

· · ·	Unit			1979		198	1980	
Gross output per head	£				27,9	972	29,	077
Net output per head	£				8,9	938	8,	699
Gross value added per head	£				7,4	496	7,	014
Gross value added as a percentage of gross output	%					27		24
Ratio of gross output to stocks						5.1		5.8
Wages and salaries as a percentage of gross value added	%					59		
Ratio of operatives to administrative, technical and clerical employees						3.0		2.9
Wages and salaries per administrative, technical and clerical employee	ne £ tons solaides.				5,0	046	5,	810
Wages and salaries per operative	£				4,3	259	sector to accuracy,	875
Net capital expenditure per head	£				8	888		669
Net capital expenditure as a percentage of gross value added	%					12		10

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments not selected for the Census.

8

### NOTES

PA223

these notes give the main information needed for interpreting the figures in the industry Business Monitors: more detailed information about the census is given in a separate Business Monitor - PA1001 troductory Notes) of the Report on the Census of Production.

### GENERAL INFORMATION

### CHANGES MADE FOR 1980

the 1980 census differed from the 1979 in three main respects. stions relating to standard cost stocks and road transport costs are removed from the questionnaire. Motor cars have been separtely identified in the capital expenditure questions in order to ist in the 1980 rebasing of national accounts. Sampling arrangeassist were extended as detailed in the para headed Coverage. There are also two major changes in the presentation of census esults. Publication of the Business Monitor PA1000 showing prosional results has been discontinued, and industry reports are being ued, whenever possible, for each 3 digit Group of the SIC Revised 80. A limited range of information for most 4 digit Activity leadings is published in the Summary Volume (PA1002). Regional esults are restricted to 2 digit class level, and appear only in the nmary Volume.

### NDUSTRIAL CLASSIFICATION

The 1980 census is the first being conducted on the SIC (Revised The United Kingdom SIC was first issued in 1948 and 1080) revised in 1958, 1968 and 1980. It exists to promote uniformity and comparability in the official statistics of the United Kingdom. rior to the 1980 revision the general principles followed were those the International Standard Industrial Classification of all omic Activities of the United Nations Statistical Office but for he 1980 revision an attempt was made to align the United Kingdom ssification as closely as practicable with NACE, the classification use by the Statistical Office of the European Community. The SIC is a classification by activity and not a commodity classication

### STATISTICAL UNIT

he statistical unit for the purpose of the census is the establishant, which is defined in the SIC as the smallest unit which can rovide the information normally required for an economic census, example, employment, expenses, turnover, and capital formon. Usually the principal activities carried on in an establishment fall within a single heading of the classification (e.g. steel making or Typically the establishment embraces all the activigar refining). es carried on at a single address e.g. a mine or factory, including ose which are ancillary to the principal activities. Frequently tinct activities characteristic of different industries are carried on at one address, but normally these are not classified separately and e whole establishment is classified according to the main activity. however, the required range of data can be provided for each ivity, each is taken to constitute a separate establishment. Somemes activities which are conducted as a single business are carried n at a number of addresses. Where this is so, businesses are asked provide the full range of information in respect of each address, ether or not the activities are different. Their activities may, wever, be intergrated to such an extent that they constitute igle establishment. In the latter case the establishment is defined cover the combined activities at these addresses (termed local ts). Separate figures of employment and net capital expenditure are obtained for each local unit in order to compile regional tables. Efforts are made by the BSO to ensure, by negotiating with responts, that the return from an establishment does not cover local

nits in more than one of the countries of the United Kingdom. Establishments are asked to exclude from their returns particulars ating to any department not engaged in production e.g. meranting, transport or warehousing, for which they keep a separate set of accounts. Transfers of goods produced to such departments are treated as sales and respondents are asked to value them as far as ssible as if sold to an independent purchaser. Where separate ounts are not kept, responders are asked to include details of all se activities in their return. Particulars relating to head offices inly engaged in the administration of the production units within e scope of the census are included. Where more than one return is de the information in respect of the head office is apportioned mong them. For certain purposes in the censuses of production e.g. for disclosure testing and the preparation of the enterprise alyses shown in Business Monitor PA1002) related establishments are combined to enterprise level. An enterprise group is defined as a ness consisting of either a single establishment or two or more tablishments under common ownership or control. Information out relationships between establishments, the changing structure groups of companies and about common ownership links is ained from many sources, including the Stock Exchange Year ock, company reports, press reports, and information supplied by dividual establishments.

### THE REGISTER

annually. register proving forms.

COVERAGE

excluded mailed for the years upto 1978.

SUPPRESSION OF INFORMATION RELATING TO INDIVIDUAL UNDERTAKINGS Subsection 9(5)(b) of the Statistics of Trade Act, 1947 states that: The following provisions shall have effect with respect to any report, summary or other communication to the public of information obtained under the foregoing provisions of this act -

in compiling any such report, summary or communication the competent authority shall so arrange it as to prevent any particulars published therein from being identified as being particulars relating to any individual person or undertaking except with the previous consent in writing of that person or the person carrying on that undertaking, as the case may be; but this provision shall not prevent the disclosure of the total quantity or value of any articles produced, sold or delivered; so, however, that before disclosing any such total the competent authority shall have regard to any representations made to them by any person who alleges that the disclosure thereof would enable particulars relating to him or to an undertaking carried on by him to be deduced from the total disclosed"

Where the publication of any figure is likely to disclose particulars relating to an individual undertaking, either the contributor is approached to seek consent for publication or the figure is suppressed. Where convenient, suppression takes the form of combining the disclosive figure with adjacent cells. Steps are also taken to avoid the release of figures which may lead to disclosure by deduction when compared with other census results

SYMBOLS USED **Business Monitors;** 

- not available
- R revised

9

A computerised register of about 120,000 production units throughout the United Kingdom is held in the BSO. This register provides the basis for a wide range of BSO inquiries mailed to the production sector. For each production unit the register contains identification particulars and information about a units eligibility for inclusion in an inquiry; its relationship with other units in common ownership; industrial classification; nationality of parent company if foreign owned and location indicators permitting regional analyses. Regional and size analyses of manufacturing local units are pub-lished each year in Business Monitor PA1003 (Analyses of United Kingdom Manufacturing (local) units by employment size).

The inquiries provide a major source of information for keeping the register continuously up-to-date and act as a check on its structure. For the establishments on the register making returns to the guarterly inquiries into manufacturers' sales, industrial classification is derived from an analysis of their commodity sales and is reviewed For any other establishments for which no up-to-date information was available classification to SIC Revised 1980 was made on a pro-rota basis in line with the reclassification pattern by industry of establishments for which actual product sales data was held. Employment data are entered on the register from the guarterly inquiries and the censuses of production. Where establish ments do not make a return to these inquiries the employment data are based on information provided by the Department of Employment from censuses of employment.

New additions to the register are obtained from various sources including Value Added Tax records, the Census of Employment and

The census covers United Kingdom establishments engaged in production and construction industries (Divisions 1 to 5 of the SIC (Revised 1980)). The Channel Islands and the Isle of Man are

Under the sampling arrangements agreed for the 1980 census, forms were despatched to samples of 1 in 4 and 1 in 2 for the 20 to 49 and 50 to 99 employment size bands respectively for most production industries. For a limited number of production industries, where there were very few units in the sample size bands, all establishments with employment of 20 or more were included. Units employing fewer than 20 continued to be exempt from selection. All units employing 100 or more were subject to a full coverage, The total number of forms mailed was 18,965.

In the construction industry all undertakings employing 50 or more were selected. The 1 in 2 sample for undertakings with 20 to 49 employees introduced for the 1979 census was repeated, but the 5 per cent sample of undertakings with fewer than 20 employees was discontinued. This resulted in a reduction in the number of forms sent out to 6,500, which is about one half of the average

The following symbols are used throughout the PA series of

nil or less than half the final digit shown figures cannot be shown owing to the risk of disclosing information about individual enterprises.

### ROUNDING OF FIGURES

Figures in the tables have, where necessary, been rounded to the nearest final digit. Where figures have been so rounded, the sum of the constituent items may not always agree exactly with the total shown

### EXPLANATION OF TERMS USED IN THE CENSUS REPORT The notes and definitions given in this section are mainly based on the general instructions given to respondents as to the way in which returns were to be completed.

### CAPITAL EXPENDITURE

Capital expenditure during the year in respect of production units where production had not started before the end of the year is included. Establishments were asked not to deduct from the value of capital expenditure amounts received or expected to be received in grants or allowances from the Government or any statutory body or local authority. Establishments with 100 or more employees were asked to include a total net capital expenditure figure for the calendar vear

### New building work

This represents the cost incurred during the year of new building and other constructional work to be used in connection with the business covered by the return. The value is that charged to capital account during the year of return; it includes expenditure on new buildings and on the extension or reconstruction of old buildings, the value of works of a capital nature carried out by the establishments own staff and the cost of any newly constructed buildings purchased. Figures shown include legal charges, stamp duties, agents commissions, etc.

### 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 assets acquired in taking over an existing business), and the amounts receivable for freeholds or leaseholds disposed of. The value is that charged to capital account during the year of return.

c. 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. Deductable value added tax is excluded but nondeductible value added tax on motor cars acquired and Customs and Excise car tax are included. No deduction is made for depreciation, amortization or obsolescence. The proceeds of items disposed of during the year exclude amounts written-off for items scrapped.

### CAPITAL GOODS PRODUCED FOR AN ESTABLISHMENT'S OWN LISE

This includes all work of a capital nature carried out during the year by the establishment's own staff for their own use.

### COST OF INDUSTRIAL SERVICES

This includes amounts payable to other firms for work done on materials supplied by the establishment, payments for repairs and maintenance (including those in respect of rented buildings) and amounts paid to other firms for contracts which have been sublet. Payments to outworkers are excluded.

### COST OF NON-INDUSTRIAL SERVICES

This includes rents of industrial and commercial buildings, hire of plant, machinery and vehicles (excluding vehicles hired with drivers), commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport (within the United Kingdom), advertising, etc. Amounts payable on royalties for the right to use patents, trademarks, copyrights, etc., manufacturing and quarrying rights and technical "know-how" are also included.

### EMPLOYMENT:

### AVERAGE NUMBER EMPLOYED

Establishments were required to state the average number of persons on the pay roll during the year of return. Separate figures were required for

- administrative, technical and clerical employees h
- all other employees (operatives)

Averages could be calculated from the figures relating to the last week of each calendar month. Establishments were also required to state the number of working proprietors where appropriate and these are included in total employment figures. Full-time and part. time employees are included but outworkers (i.e. persons employed by establishments who worked in their own homes, etc. on materials supplied by the establishment) are excluded. The figures include persons engaged on 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 work in the business without receiving a wage or salary; but such persons who work less than half the normal number of working hours are excluded. Directors working in the business but not in receipt of a definite wage, salary, or commission are included under this heading: directors paid by fee only are not included.

### **EMPLOYEES**

Administrative, technical and clerical employees include directors in receipt of a definite wage, salary, or commission, managers and works foremen; research and design employees (other than operatives); draughtsmen, editorial staff, advertising staff, travellers and all office employees.

Operatives include all other classes of employees, that is, broadly speaking, all manual wage earners. They include operatives employed in power stations, inspectors, maintenance workers and cleaners. Staff engaged in transport (including roundsmen), or employed in warehouses, stores, shops and canteens, should be included only where separate accounts are not kept. Operatives engaged in outside work of erecting, fitting, etc. are also included, but outworkers are excluded.

EMPLOYERS' INSURANCE AND WELFARE CONTRIBUTIONS This item includes employers' contributions to national insurance under the Social Security Pensions Act, 1975, as well as commercia insurance premiums to provide pensions, superannuation or othe retirement benefits, sickness benefits, personal accident benefits, disability or death benefits for employees or former employees or their dependants.

Contributions to the running costs of canteens, social centres, children's and holiday homes, etc. for employees, former employees and their dependants are also included.

### GROSS OUTPUT

In the calculation of gross output the value of total sales and work done is increased by the rise (or reduced by the fall) during the year in the value of work in progress and goods on hand for sale.

### GROSS VALUE ADDED AT FACTOR COST

Gross value added at factor cost is calculated by deducting from net output the cost of non-industrial services e.g. rent of buildings hire of plant, machinery and vehicles (excluding vehicles hired with drivers), commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport (within the United Kingdom) and advertising, rates (excluding water rate and the cost of licensing motor vehicles. This estimate of gross value added approaches more closely than census net output to the definition of net output or value added in national account statistics

### GROSS VALUE ADDED AT FACTOR COST PER HEAD The figures of gross value added at factor cost per head are derived by dividing the gross value added by the average number of persons employed (full and part-time) on all activities covered by the returns, including operatives, administrative, technical and clerical

employees and working proprietors, but excluding outworkers.

### NET OUTPUT

10

Net output, a customary census measure, is calculated by deducting from gross output the cost of purchases (reduced by the rise, increased by the fall, during the year of stocks of materials, etc.), the cost of industrial services received and where applicable, duties,

### NET OUTPUT PER HEAD

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

### NON-INDUSTRIAL SERVICES RENDERED

his includes rents received for commercial and industrial buildings, amounts charged for hiring out plant, machinery and vehicles and amounts charged to other organisations for the other goods and amounts charged to other organisations for the provision of transport. It also includes amounts received for the and to use patents, trademarks, copyrights etc., manufacturing and quarrying rights and technical "know-how" and revenue from such staff facilities as canteens.

### OPERATING RATIOS

the operating ratios shown are obtained by dividing the estimate of the industry total for the quantity shown in the numerator by the corresponding estimate for the quantity shown in the denominator. these estimates cover all establishments classified to each industry, cluding establishments not selected and non-respondents. Within n industry, it is possible to compare ratios for an individual firm with the ratios shown for the relevant industry. However, it is mportant to bear in mid that various factors may affect the results .g. differences in definitions, treatment of depreciation (which is ot identified in the census data) and varying practice with regard to tock valuation, may affect comparability in some respects.

### PURCHASES

purchases include the cost of raw materials, components, seminanufactured goods and workshop materials; of replacement parts nd consumable tools not charged to capital account; of packaging naterials of all types; of stationery and printed matter; of fuel, lectricity and water; of materials to be used by the establishment given out to other establishments for the production of nachinery or other capital items for the establishment's own use; of materials for use by the establishment when working on goods supplied by customers; and of food, etc. for any canteen covered by the establishment's return. Transfers of goods to the estabhment from another department of the same firm not covered by he establishment's return are included at a cost corresponding to he estimated selling value recorded by the other department. Amounts payable to transport firms or credited to the firm's own ransport department for delivery of materials are excluded, as are Il purchases of machinery and plant charged to capital account. Purchases of goods for merchanting or factoring have been collected separately since 1973. The values shown exclude VAT. They nclude, in addition to the actual purchase price, the value of packaging material charged to the establishment. The value of returned goods or packaging material returned to the suppliers and any trade discounts are excluded. Materials purchased duty-paid are included at their duty-paid value, less any drawback, rebate, etc. The cost of ransport is included only if it is included with the purchase price the firm's accounts. Imported goods are included at their full delivered cost. If in the firm's accounts the transport from docks or airport is not included in the cost of goods purchased, the cost is ntered at cif plus duty (if applicable).

### RECEIPTS FOR WORK DONE AND INDUSTRIAL SERVICES RENDERED

Figures for work done represent the amount charged for work carried out on materials supplied by a customer and include repair work. Within certain industries this heading covers a wide variety of activities, for example, within the food sector – butter packed on commission; within the textile industries – making up of garments, fur dressing and textile finishing; within printing and publishing preparatory work on type-setting, block making and binding. Work done is also significant in the electrical machinery and heavy gineering industries, covering erection, installation and repair and obbing work. Other activities within this heading include xploration work, research and development, glass-cutting and essing and planing of timber.

Industrial services rendered include repairs and maintenance, installition work, and technical research and studies for other organisations.

### REMUNERATION PAID TO OUTWORKERS

he remuneration paid to outworkers (i.e. persons employed by the stablishment who do their work in their own homes) is generally on a piece-work basis. Only amounts paid to outworkers whose nes appear on the establishment's payroll are included. Amounts paid to outworkers by sub-contractors are excluded.

### ALES OF GOODS PRODUCED

ales for the purposes of the annual censuses means deliveries on ale of goods made by establishments in the United Kingdom vered by the inquiry. Sales of goods made for these establishnents by outworkers or by other establishments from materials iven out to them and sales of waste products are included. orward sales and canteen takings are excluded. All sales in the priod of the inquiry are included irrespective of when the goods vere manufactured.

valued on the same basis.

STOCKS AND WORK IN PROGRESS merchanting or factoring. deducted

exported

WAGES AND SALARIES expenses, etc. is excluded.

Goods produced in one establishment and transferred either to ancillary departments not engaged in production for which there are separate accounts, or to another establishment of the same firm not covered by the return are treated as sales by the producing establishment 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 are kept, are

The value shown for sales is the "net selling value" defined as the amount (excluding VAT) charged to customers, whether on an exworks or delivered basis, after any trade discounts and agents' commissions have been deducted. The cost of packing materials less allowance for returnable cases is included. In industries where products attract Excise Duty the value stated is usually of duty if sold duty-paid and exclusive of duty if sold in bond or

Values are given of stocks of goods on hand for sale and of materials, stores and fuel at the end of the year of return and of the change during the year, including any stocks of goods held for

Work in progress is defined as materials which have been partially processed by the establishment but which are not usually sold or transferred to another establishment without further processing. The values include the cost of materials consumed and labour used Progress payments made to sub-contractors are excluded and progress payments received from other organisations are not

These are 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. 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 redundancy payments less any amounts reimbursed from Government sources is included. The values of any payments in kind, travelling

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