PA461.1

12 (HA 251)

12

1974 & 75

**Business Statistics Office** 

# **Business Monitor**

Report on the Censuses of Production

**Refractory goods** 

BRITISH LIBRARY

9 MAY 1979

OF POLITICAL AND
ECONOMIC SCIENCE

ECONOMIC SCIENCE

#### Special Note for Purchasers

Commencing with the 1971 Census, the Census of Production reports are being numbered in a uniform series embracing all industrial inquiries in the Business Monitor series. These Business Monitors have a code P (for production) followed first by A (indicating that it is an annual series) or Q (quarterly) or M (monthly): and then by a number indicating the minimum list heading, or sub-division of a minimum list heading, of the Standard Industrial Classification (revised 1968).

The Census of Production (PA) reports are available on standing order (details on application to Her Majesty's Stationery Office, P.O. Box 569, London SE1 9NH. Telephone 01-928 6977), although they are not included in the global subscription arrangements for the Business Monitor series.

#### **Government Statistical Service**

A service of statistical information and advice is provided to the Government by specialist staffs employed in the statistics division of individual Departments. Statistics are made generally available through their publications and further information and advice on them can be obtained from the Departments concerned.

Enquiries:
Business Statistics Office
Newport, Gwent
NPT 1XG
Newport 56111 (STD code 0633) ext 2455
Telex 497121
Answer Back BSONPT G

# PA461.1 Business Monitor

A publication of the Government Statistical Service

Report on the Censuses of Production 1974 & 75

# **Refractory goods**

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

PA1001	Introductory notes	PA369.1	Electrical equipment for motor vehicles, cycles
PA101 PA102	Coal mining	D4000	and aircraft
PA103	Stone and slate quarrying and mining Chalk, clay, sand and gravel extraction	PA369.2	Primary and secondary batteries
PA104	Petroleum and natural gas	FA309.4	Electric lamps, electric light fittings, wiring accessories, etc.
PA109	Miscellaneous mining and quarrying	PA370	Shipbuilding and marine engineering
PA211	Grain milling	PA380	Wheeled tractor manufacturing
PA212	Bread and flour confectionery	PA381.1	Motor vehicle manufacturing
PA213 PA214	Biscuits	PA381.2	? Trailers, caravans and freight containers
PA214	Bacon curing, meat and fish products Milk and milk products	PA382	Motor cycle, tricycle and pedal cycle manufacturing
PA216	Sugar	PA383 PA384	Aerospace equipment manufacturing and repairing
PA217	Cocoa, chocolate and sugar confectionery	1 4304	Locomotives, railway track equipment, railway carriages wagons and trams
PA218	Fruit and vegetable products	PA390	Engineers' small tools and gauges
PA219	Animal and poultry foods	PA391	Hand tools and implements
PA221	Vegetable and animal oils and fats	PA392	Cutlery, spoons, forks and plated tableware, etc.
PA229.	Margarine	PA393	Bolts, nuts, screws, rivets, etc.
PA231	2 Starch and miscellaneous foods Brewing and malting	PA394 PA395	Wire and wire manufactures
PA232	Soft drinks		Cans and metal boxes Jewellery and precious metals
PA239.1	Spirit distilling and compounding	PA399.1	Metal furniture
PA239.2	2 British wines, cider and perry	PA399.5	Drop forgings, etc.
	Tobacco	PA399.6	Metal hollow-ware
PA261	Coke ovens and manufactured fuel		Miscellaneous metal manufacture
PA263	Mineral oil refining Lubricating oils and greases	PA411	Production of man-made fibres
PA271.1	Inorganic chemicals	PA412 PA413	Spinning and doubling on the cotton and flax systems Weaving of cotton, linen and man-made fibres
PA271.2	Organic chemicals	PA414	Woollen and worsted
PA271.3	Miscellaneous chemicals	PA415	Jute
PA272	Pharmaceutical chemicals and preparations	PA416	
PA273	Toilet preparations	PA417.1	Hosiery and other knitted goods
PA274 PA275	Paint Soap and detergents		Warp knitting
PA276	Synthetic resins and plastics materials and	PA418 PA419	
	synthetic rubber	PA419	Carpets Narrow fabrics
PA277	Dyestuffs and pigments		Household textiles and handkerchiefs
	Fertilizers	PA422.2	Canvas goods and sacks and other made-up textiles
PA279.1	Polishes	PA423	Textile finishing
PA279.2	Formulated adhesives, gelatine, etc.		Asbestos
ΡΔ279.3	Explosives and fireworks Formulated pesticides, etc.	PA429.2	Miscellaneous textile industries
PA279.5	Printing ink	PA431 PA432	Leather (tanning and dressing) and fellmongery Leather goods
PA279.6	Surgical bandages, etc.	PA433	Fur
PA279.7	Photographic chemical materials	PA441	Weatherproof outerwear
	Iron and steel (general)	PA442	Men's and boys' tailored outerwear
PA312 PA313	Steel tubes	PA443	Women's and girls' tailored outerwear
PA313	Iron castings, etc. Aluminium and aluminium alloys	PA444	Overalls and men's shirts, underwear, etc.
PA322	Copper, brass and other copper alloys	PA445 PA446	Dresses, lingerie, infants' wear, etc.
PA323	Miscellaneous base metals		Hats, caps and millinery Corsets and miscellaneous dress industries
PA331	Agricultural machinery (except tractors)	PA449.2	
PA332	Metal-working machine tools	PA450	Footwear
PA333	Pumps	PA461.1	Refractory goods
	Valves	PA461.2	Building bricks and non-refractory goods
PA334	Compressors and fluid power equipment Industrial engines	PA462	
PA335	Textile machinery and accessories	PA463 PA464	Glass Cement
PA336	Construction and earth-moving equipment		Abrasives
PA337	Mechanical handling equipment		Miscellaneous building materials and mineral products
PA338	Office machinery	PA471	Timber
PA339.1	Mining machinery	PA472	Furniture and upholstery
PA339.2	Printing, bookbinding and paper goods machinery	PA473	Bedding, etc.
1 7009.0	Refrigerating machinery, space-heating, ventilating and air-conditioning equipment	PA474 PA475	Shop and office fittings
PA339.5	Scales and weighing machinery and portable	PA479	Wooden containers and baskets Miscellaneous wood and cork manufactures
	power tools	PA481	Paper and board
PA339.7	Food and drink processing machinery and	PA482.1	
	packaging and bottling machinery	PA482.2	Packaging products of paper and associated materials
PA339.9	Miscellaneous (non-electrical) machinery	PA483	Manufactured stationery
PA341 PA342	Industrial (including process) plant and steelwork	PA484.1	Wallcoverings
PA349.1	Ordnance and small arms Ball, roller, plain and other bearings	PA484.2	Miscellaneous manufactures of paper and board
	Precision chains and other mechanical engineering	PA485 PA489	Printing, publishing of newspapers and periodicals General printing and publishing
PA351	Photographic and document copying equipment	PA491	Rubber
PA352	Watches and clocks	PA492	Linoleum, plastics floor-covering, leathercloth, etc.
PA353	Surgical instruments and appliances	PA493	Brushes and brooms
PA354	Scientific and industrial instruments and systems	PA494.1	Toys, games and children's carriages
PA361 PA362	Electrical machinery	PA494.3	Sports equipment
PA363	Insulated wires and cables	PA495	Miscellaneous stationers' goods
.,1000	Telegraph and telephone apparatus and equipment	PA496 PA499 1	Plastics products Musical instruments
PA364	Radio and electronic components	PA499.1	Miscellaneous manufacturing industries
PA365.1	Gramophone records and tape recordings	PA500	Construction
PA365.2	Broadcast receiving and sound reproducing	PA601	Gas
DAGGO	equipment	PA602	Electricity
PA366 PA367	Electronic computers	PA603	Water supply
PA368	Radio, radar and electronic capital goods Electrical appliances primarily for domestic use	PA1002	Summary tables
1000	2.55 . 15 dr dppridrices primarily for defliestic use		

The information in this report relates to establishments classified to the Refractory goods industry, minimum list heading 461.1 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

Manufacturing heat-resisting products such as ganister, magnesite and silica bricks, fireclay and graphite crucibles, gas retort and kiln linings, steel moulders' composition and radiants for gas and electric fires.

In interpreting the data in the tables it is essential to bear in mind the notes and definitions which commence on page (iii).

### LIST OF CONTENTS

PA 461.1 REFRACTORY GOODS

Table No	Title	Page
	Output and costs, 1971-1975	PA461.1
2	Capital expenditure, 1971-1975	PA461.1
3	Stocks and work in progress, 1971-1975	PA461.1
4	Analysis of establishments by size, 1975	PA461.1
5	Regional distribution of employment, net capital expenditure and net output, 1975	PA461.1
6	Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 20 or more persons, 1975	PA461.1
7	Percentage analysis of employees, by full and part-time employment and sex, 1975	PA461.1
8	Sales of principal products of the industry by establishments employing 25 or more persons, including sales by establishments classified to other industries, 1974-1975	PA 461.1
9	Purchases by establishments employing 50 or more persons, classified to the industry, 1974	
	Analysis of returns received, United Kingdom	PA461.1
10	Payments to other organisations for certain services received by returns received in respect of establishments with 300 or more employees, 1974	PA461.1

Output and costs, 1971-1975

All United Kingdom establishments classified to the industry (a)

	Unit	1971	1972	1973	1974	1975
Enterprises	Number	125	110	116	119	120
Establishments	"	191	166	166	157	158
Sales of goods produced, work done and industrial services rendered (b)	£ thousand			96,822	125,610	150,460
Capital goods produced for establishments' own use (c)	"	94,373	97,165 -	229	136	213
Non-industrial services rendered (d)				282	507	352
Goods merchanted or factored		5,897	5,196	4,801	7,658	6,670
Total sales and work done (b)(d)		100,270	102,361	102,134	133,911	157,695
Increase during the year, work in progress and goods on hand for sale	•	2,544	325	223	2,606	3,908
Gross output (b)(d)		102,814	102,687	102,357	136,517	161,604
Purchases of materials for use in production, and packaging and fuel (c)		40.063	E0.651	<b>42,778</b>	66,972	73,995
Purchases of goods for merchanting or factoring (c)		49,962	50,651 -	888,8	6,737	5,569
Increase during the year, stocks of materials, stores and fuel		1,193	-133	1,480	4,392	5,850
Cost of industrial services received (e)	,,	129	123	3,988	2,448	3,080
Net output		53,917	51,780	53,231	64,754	84,810
Total employment (f)	Thousands	16.8	15.7	14.4	14.0	13.1
Net output per head	£	3,209	3,298	3,704	4,620	6,451
Payments for non-industrial services (g)						
Rents, hire of plant and machinery (h)	£ thousand	]		827	962	981
Commercial insurance premiums	,,			479	508	657
Bank charges				93	134	143
Other non-industrial services				5,931	8,312	9,248
Licensing of motor vehicles (j)				45	45	49
Rates, excluding water rates (j)	"			822	1,114	1,367
Gross value added at factor cost				45,034	53,679	72,365
Gross value added at factor cost per head	£			3,134	3,830	5,504

- (a) For 1975, estimates for establishments employing less than 20 persons accounted for 5 per cent of the total employment of the industry. Estimates for unsatisfactory returns and non-response accounted for 10 per cent. For 1974, the comparable figures were 4 per cent and 12 per cent respectively.
- (b) The figures for 1971-1972 do not include receipts for repairs and maintenance.
- (c) Not recorded separately for 1971-1972.
- (d) The figures for 1971-1972 do not include revenue from rents for industrial buildings.
- (e) The figures for 1971-1972 exclude the amounts payable for repairs and maintenance.
- (f) Average number employed (full and part-time; see table 7) during the year (including working proprietors) by the establishment.
- Not collected for 1971-1972 except for amounts payable to other organisations for transport of goods within the United Kingdom.
- (h) For 1973, the figures include hire of vehicles.
- (j) Not collected for 1971-1972.

Capital expenditure, 1971-1975

TABLE 2

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

					£ thousand
	1971	1972	1973	1974	1975
Land and buildings					
New building work	964	573	614	553	650
Land and existing buildings					
Acquisitions	479	32	234	207	113
Disposals	425	321	265	40	77
Vehicles					
Acquisitions					
Motor cars (c)	432	466	397	455	696
Other vehicles (c)	432	400	277	215	) 090
Disposals					
Motor cars (c)	] 100	207	178	176	193
Other vehicles (c)	169	207	46	28	) 193
Plant and machinery					
Acquisitions	6,544	4,485	4,165	3,434	4,127
Disposals	122	128	30	169	97
Total net capital expenditure (d)	7,702	4,900	5,168	4,451	5,219

- (a) Including estimates for establishments not making satisfactory returns, non-response, and establishments exempted by virtue of size.
- (b) Capital expenditure in respect of manufacturing establishments where production had not commenced before the end of the year, is included.
- (c) Not recorded separately for 1971, 1972 and 1975.
- (d) New building work plus acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.

TABLE 3

Stocks and work in progress, 1971-1975

All United Kingdom establishments classified to the industry (a)

						£ thousand
	1971	1972	1973	1974	19	75
		Incre	ease	and the second and the second		Value at end of year
Materials, stores and fuel	1,193	-133	1,480	4,392	5,850	20,285
Work in progress	-124	50	385	679	306	3,041
Goods on hand for sale	2,668	275	-163	1,927	3,602	13,536
Total	3,737	193	1,703	6,998	9,759	36,862

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response, and establishments exempted by virtue of size.

Analysis of establishments by size, 1975
All United Kingdom establishments classified to the industry (a)

Size Estab- group lish- (b) ments		Enter- prises (c)		Employment			Wages and salaries (e)			
			Total (b)	Opera- tives	Others (d)	Operatives		Others (d)		
		-			Total	per head	Total	per head		
	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£	
1 - 10	62	58	312							
11 - 19	26	24	385							
20 - 49	20	20	641	- 2,118	598	5,121	2,418	1,820	3,043	
50 - 99	18	14	1,433							
100 - 199	13	10	1,824	1,417	401	3,732	2,634	1,182	2,948	
200 - 299	10	7	2,407	1,854	553	4,540	2,449	1,674	3,026	
300 - 499	5	4	1,963	1,390	573	3,867	2,782	1,905	3,325	
500 and over	4	3	4,182	2,929	1,253	8,761	2,991	3,624	2,892	

Total	158	120	13,147	9,708	3,378	26,021(j)	2,680	10,204(j)	3,021

<sup>(</sup>a) Including estimates for establishments not making satisfactory returns, non-response, and establishments employing less than 20 persons.

Total sales and work done (f)	Gross output	Net output	Suppose tres	Gross value added at factor cost			Total stocks and work in progress at end of year	
A SECRETARIO DE LA COMPANSION DE LA COMP	detect approved in the detection of the in- phrops real man movement and as	Total	per head	Total	per head			
£ thousand	£ thousand	£ thousand	£	£ thousand .	£	£ thousand	£ thousand	
32,271	32,786	16,357	5,903	(h)	(h)	1,047	5,123	
					4.78			
21,154	21,961	11,543	6,328	23,707(h)	5,159(h)	528	3,731	
30,633	31,264	16,330	6,785	14,126	5,869	1,826	5,328	
24,394	25,130	11,777	5,999	9,823	5,004	740	7,102	
49,243	50,462	28,802	6,887	24,709	5,908	1,078	15,578	

157,695	161,604	84,810	6,451	72,365	5,504	5,219	36,862	

(f) Comprises sales of goods produced (including capital goods manufactured, buildings constructed by establishments for their own use), work done, industrial and non-industrial services rendered, goods merchanted or factored.

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

(h) Gross value added data relates to establishments employing 1-199 persons.

(j) The estimates of total wages and salaries for the industry in 1974 were:-

	£′000
Operatives	22,018
Others	8,147

<sup>(</sup>b) Average number employed (full and part-time; see table 7) during the year (including working proprietors) by the establishment.

<sup>(</sup>c) Some enterprises control establishments in more than one size group: the sum of the figures for the size groups therefore exceeds the total for the industry.

<sup>(</sup>d) Administrative, technical and clerical employees.

<sup>(</sup>e) Another important component of labour costs, employers' national insurance contributions, graduated pensions, contributions to other pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £3,991 thousand. For 1974, the comparable figure was £2,989 thousand.

Regional distribution of employment, net capital expenditure and net output, 1975 All United Kingdom establishments classified to the industry

Area	Employmer	nt (a)	Net capital ex	kpenditure (b)(c)	of establishm	Net output and employment in the region of establishments with more than 80 per cent of their employment in the region (d)		
					Estimated net output	Average number employed as a percentage of total average number employed in the industry in the region		
100000000000000000000000000000000000000	Thousands	per cent of United Kingdom	£ thousand	per cent of United Kingdom	£ thousand	a unou participation of the second		
Standard regions of England								
North	0.6	4.5	514	9.9				
Yorkshire and Humberside	2.8	21.2	914	17.5	9,028	54.9		
East Midlands	2.1	16.0	1,217	23.3	9,598	56.9		
East Anglia		•	1977 ·	194.0	(\$100 to \$100)	10% (10 h)		
· South East	0.5	4.0	143	2.7	3,153	80.1		
South West		***************************************	- FEE - 1			TEADELL . SERVER		
West Midlands	2.6	20.1	792	15.2	11,886	80.3		
North West	0.9	7.0	617	11.8	5,085	87.9		
England	9.7	74.0	4,251	81.5	39,230	63.9		
Wales	*	*		*		•		
Scotland	2.8	21.1	840	16.1	19,371	98.8		
Great Britain	*	•	•	*				
Northern Ireland	*		*	•	•			
United Kingdom	13.1	100.0	5,219	100.0	84,810(e)			

(a) Average number employed (full and part-time; see table 7) during the year (including working proprietors).

(b) Including estimates for establishments not making satisfactory returns, non-response, and establishments employing less than 20 persons.

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

(d) Where a census return covered addresses in two or more regions an estimate was made of the net output attributable to the region only where more than 80 per cent of the establishment's employees were located in the region. The estimate was made by assuming that net output at each address covered by a return was proportional to employment at the address. The establishment's residual net output was included in unallocated net output.

(e) Includes £23,992 thousand of unallocated net output of establishments covering addresses in two or more regions, plus estimates for unsatisfactory returns, non-response, and establishments employing less than 20 persons.

Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 20 or more persons, 1975

	TOTAL STREET, ST. STREET,	Percentage of total returns received	Percentage of total number employ	
		per cent	per cent	
975 April (a	)	0.0	0.0	
May		0.0	0.0	
June		3.7	0.7	
July		1.8	0.3	
August		3.6	1.8	
Septem	per	1.8	0.7	
October		1.8	0.8	
Novemb	er	1.8	1.3	
Decemb	er	56.4	76.6	
976 January		0.0	0.0	
Februar	y	1.8	0.2	
March (	0)	27.3	17.6	
		100.0	100.0	

(a) From 6th April.

(b) Including returns made for twelve-month period ended 1st to 5th April 1976.

#### TABLE 7

TABLE 6

Percentage analysis of employees, by full and part-time employment and sex, 1975(a). Bricks, fireclay and refractory goods industry minimum list heading 461

Sex	Full-time	Part-time	All employees
	per cent	per cent	per cent
Male	88	1	89
Female	8	3	11
	96	4	100

Source: Department of Employment

<sup>(</sup>a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom in minimum list heading 461 at June 1975. In the 1975 Census of Production the employment of the Refractory goods industry represented 33 per cent of the employment of minimum list heading 461 as a whole.

Sales of principal products of the industry by establishments employing 25 or more persons, including sales by establishments classified to other industries, 1974-1975

Manufacturers' sales of the principal products of the Refractory goods industry are published regularly in Business Monitor PQ 461.1. Details of sales for 1974 will be found in the monitor for third quarter 1976 published March 1977 and for 1975 in the third quarter 1977 issue published February 1978.

Quarterly Business Monitors are available from HMSO by annual subscription.

TABLE 9

Purchases by establishments employing 50 or more persons, classified to the industry, 1974 Analysis of returns received, United Kingdom

	Quantity	Value
	baribas	£ thousand
Materials for use in production		
Stone, slate, chalk, clay, sand, brick-earth, marl, shale, silica, dolomite, sillimanite, kyanite and andalusite	Th tonnes 116	2,604 6,773
Other mined and quarried products e.g. magnesite, chrome and bauxite	454	18,527
Bricks, fireclay and refractory products e.g. jointing materials, furnace construction materials, etc.		3,264
Inorganic and organic chemicals (including gases), chemical mixtures and compounds for specific end uses e.g. sulphite, lye, glaze and materials for glaze, etc.	 _ Th gal	2,332
Lubricating oils and greases (i.e. mineral, animal and vegetable)	{ 230	138 30
Stationery		176
Packaging materials (including materials used for the manufacture of the firms' own packaging)		
Cartons and boxes wholly or mainly of cardboard (excluding fibreboard packing cases, e.g. for transit)	bandadas boler	627
Packaging products wholly or mainly of wood, and wood for conversion into packaging products		1,756
All other packaging materials		2,272
Fuel and electricity		
Derv fuel and motor spirit	Th gal 491	213 24
Fuel oil	15,835  Th tons	2,450 684
Liquefied petroleum gases (e.g. propane, butane, etc.)	66.4 Th therms	2,570
Gas	26,475  Th kWh	891 97
Electricity	{ 402,642 	1,990 419
All other fuels		1,606
Replacement parts and consumable tools		
Tyres and other spare parts for the firms' own road vehicles		161
Replacement parts for the firms' own machinery, plant and equipment		3,729
Consumable tools (including gauges)		610
Other purchases		3,055
TOTAL VALUE OF PURCHASES (other than for merchanting or factoring)		56,998

Payments to other organisations for certain services received, 1974
Returns received in respect of establishments with 300 or more employees

	£ thousand
ndustrial services received	702
Repairs and maintenance to	
Buildings	96
Road goods vehicles	41
Plant and machinery	466
Work done on materials given out	(a)
Other	99
on-industrial services received	3,728
Rent of buildings, hire of plant and machinery	462
Commercial insurance premiums	163
Bank charges	74
Postage, telephone, telegrams, cables and telex	141
Transport	
Road	1,514
Rail and other means (excluding postal services)	20
Other	1,354

<sup>(</sup>a) Work done on materials given out is included with other industrial services received.

#### Notes

These notes give the main information needed for interpreting the figures in the industry Business Monitors: more detailed information about the censuses is given in a separate Business Monitor—PA 1001 (Introductory Notes) of the Report on the Censuses of Production, 1974 and 1975.

#### **GENERAL INFORMATION**

#### Changes made for 1974 and 1975

The Censuses for 1974 and 1975 are in line with similar inquiries being conducted in other member countries of the European Economic Communities. From 1974, the Census has been extended to include the construction industry. For 1974, establishments with 300 or more employees were asked to provide additional information relating to industrial and non-industrial services. These include amounts paid:

to other organisations for repairs and maintenance to buildings (including those in respect of rented buildings), road goods vehicles, plant, machinery and other capital equipment

for postage, telephones, telegrams, cables and telex

to other organisations for transport by road, rail or other means (excluding postal services)

In a separate inquiry for 1974, larger firms in each industry were also asked to provide a breakdown of the figure of total purchases (other than purchases of goods for merchanting or factoring). See paragraph on "Purchases".

Suppression of information relating to individual undertakings. The Statistics of Trade Act 1947 provides that—"No individual estimates or returns, and no information relating to an individual undertaking, obtained under the foregoing provisions of this Act, shall, without the previous consent in writing of the person carrying on the undertaking which is the subject of the estimates, returns or information, be disclosed except—

(a) in accordance with directions given by the Minister in charge of the government department in possession of the estimates, returns or information to a government department or to the Import Duties Advisory Committee for the purposes of the exercise by that department or committee of any of their functions; or

(b) for the purposes of any proceedings for an offence under this Act or any report of these proceedings."

If a figure involved disclosure the contributor concerned was sometimes asked to give permission for its publication. In the majority of cases this permission was given but when it was refused and in cases where the contributors were not approached the figure has been suppressed, sometimes by combining it in some way with other figures, but sometimes—as in the regional tables by omitting the figure altogether.

#### Symbols used

The following symbols are used throughout the PA series of Business Monitors:

. not available

nil or less than half the final digit shown

\* figures cannot be shown owing to the risk of disclosing information about individual enterprises

R revised

#### 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.

#### Industrial classification

The United Kingdom Standard Industrial Classification (SIC) was first issued in 1948 and was subsequently revised in 1958 and 1968. It exists to promote uniformity and comparability in the official statistics of the United Kingdom. The general principles followed are those of the International Standard Industrial Classification of all Economic Activities of the United Nations Statistical Office but the United Kingdom SIC reflects the organisation and structure of industry and trade as it exists in the United Kingdom. The SIC is a classification by activity and is not a commodity classification. However, an index of all commodity headings for which sales data are provided in the Quarterly Business Monitors, is published as PQ 1000 in the Business Monitor Series.

#### Statistical units

The statistical unit for the purpose of the Censuses is the establishment which is defined in the SIC as the smallest unit which can provide the information normally required for an economic census, for example, employment, expenses, turnover, capital formation. Usually the principal activities carried on in an establishment fall within a single heading of the classification (e.g. steel making or sugar refining) Typically the establishment embraces all the activities carried on at a single address e.g. a farm, a mine, or a factory, including those which are ancillary to the principal activities. Frequently distinct activities characteristic of different industries are carried on at one address, but normally these are not classified separately and the whole establishment is classified according to the main activity. If, however, the required range of data can be provided for each activity, each is taken to constitute a separate establishment. Sometimes activities which are conducted as a single business are carried on at a number of addresses. Where this is so, businesses are asked to provide the full range of separate information in respect of each address, whether or not the activities are different. Their activities may, however, be integrated to such an extent that they constitute a single establishment. In that case the establishment is defined to cover the combined activities at these addresses (termed local units). Separate figures are obtained, however, of employment and net capital expenditure at each unit.

Efforts are made by the Business Statistics Office to ensure, by negotiating with respondents, that the return from an establishment does not cover local units or addresses in more than one of the countries of the United Kingdom.

Further information about the statistical unit appeared in an article "The statistical unit in business inquiries" in Statistical News No. 13 May 1971.

Establishments are asked to exclude from their returns particulars relating to any department not engaged in production e.g. merchanting, transport, 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 possible as if sold to an independent purchaser. Where separate accounts are not kept they are asked to include details of all these activities in their return.

Particulars relating to head offices, which were mainly engaged in the administration of the production units within the scope of the censuses were included. Where more than one return was made the information in respect of the head office was apportioned among them.

For certain purposes in the annual censuses of production (especially the enterprise analyses of Business Monitor PA 1002) related establishments are combined. For these purposes an enterprise group is defined as a business consisting of either a single establishment, or of two or more establishments under common ownership or control. The bringing together of establishments into enterprise groups is also necessary for the purpose of ensuring that there will be no disclosure of the activities of any one enterprise group. Information about the relationship of establishments, the changing structure of groups of companies and about common ownership links is obtained from many sources, including the Stock Exchange Year Book, company reports, press reports and information supplied by individual establishments.

#### THE REGISTER

The register permits a questionnaire to be sent direct to the reporting establishment on which the latter can include information relating to all the manufacturing (or local) units which it comprises.

The inquiries provide a major source of information for keeping the register continuously up-to-date and act as a check on its detail and structure. For the establishments on the register which make returns to the quarterly inquiries, the industrial classification is derived from an analysis of their sales of commodities and is reviewed annually. Employment data is entered on the register from returns to the annual censuses of production. In cases where an establishment does not make a return to these inquiries the employment data is based on information provided by the Department of Employment from the annual censuses of employment.

Establishments with 20 or more employees are included in the censuses each year and the information they supply to the census is supplemented by the returns that those of them.

with 25 or more employees provide to the quarterly inquiries. Information about establishments with less than 20 employees in most industries is less securely based, but increasing use has been made of data on these small establishments supplied by the Department of Employment. One benefit of using this information is an improvement in the estimates of the number of smaller establishments and enterprises, but there is little effect on other aggregates (e.g. employment, output, net capital expenditure).

Coverage

A return was required in the 1974 and 1975 Censuses from each establishment with 20 or more employees. Each establishment is classified to an industry, as defined in the SIC, whose principal products form the major part of the establishment's sales.

Regions

The regions defined in Table 5 take account of the boundary changes arising out of the Local Government Act 1972 and the Local Government Act (Scotland) 1973. These changes came into effect in April 1974 in England and Wales and May 1975 in Scotland.

#### TERMS USED IN THE CENSUS REPORT

Average number employed

Establishments were required to state the number of persons on the payroll on average during the year of return, whether full-time or part-time employees. Separate figures were required for:

(a) administrative, technical and clerical employees

(b) 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. 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 worked in the business without receiving a wage or salary; but such persons who worked 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, superintendents and works foremen; research, 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, transport (including roundsmen), warehouses, stores, shops and canteens, inspectors, maintenance workers and cleaners. Operatives engaged in outside work of erecting, fitting etc. are also included, but outworkers are excluded.

Capital expenditure

Capital expenditure during the year in respect of manufacturing units where production had not started before the end of the year is included in the figures for 1971 to 1975. 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. From 1973, establishments with 100 or more employees were asked to include a total net capital expenditure figure for each calendar year.

(a) 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 establishment's own staff and the cost of any newly constructed buildings purchased. Figures shown include any legal charges, stamp duties, agents' commissions, etc.

(b) Land and existing buildings

The items shown are the capital cost of freeholds purchased and the capital cost or premium payable for leaseholds acquired (excluding the value of any assets acquired in taking over an existing business), and the amounts receivable for any freeholds or leaseholds disposed of. The value is that charged to capital account during the year of return.

(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. Deductible value added tax is excluded but non-deductible value added tax on motor cars acquired is 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.

Cost of industrial services

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

Includes rent of industrial buildings and capital equipment, commercial insurance premiums, bank charges and amounts paid for professional services, postal etc., services, transport, advertising etc. Amounts payable on royalties for the right to use patents, trade-marks, copyrights etc., manufacturing and quarrying rights and technical "know-how" 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.

Net output

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

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 part-time) on all activities covered by the returns, including operatives, administrative, technical and clerical employees and working proprietors, but excluding outworkers.

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 and capital equipment, commercial insurance premiums, bank charges and amounts paid for professional services, post office services, transport and advertising), rates (excluding water rates) 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 accounts 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.

Purchase

Purchases include the cost of raw materials, components, semi-manufactured goods and workshop materials; of replacement parts and consumable tools not charged to capital account; of packaging materials of all types; of stationery and printed matter; of fuel, electricity and water; of materials to be used by the establishment or given out to other establishments for the production of machinery 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 establishment from another department of the same firm not covered by the establishment's return are included at a cost corresponding to the estimated selling value recorded by the other department. Amounts payable to transport firms or credited to the firm's own transport department for delivery of materials are excluded, as are all 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 include, 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 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 transport is included only if it is included with the purchase price in 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 entered at c.i.f. plus duty (if applicable). Leasing, renting and hire purchase charges are excluded.

The information shown in Table 9 was obtained in an inquiry carried out as a supplement to the Census of Production for 1974, in which the larger firms in each industry were asked to provide a breakdown of the figure of total purchases (other than purchases of goods for merchanting or factoring) that they contributed to the Census. No establishment with fewer than 25 employees was asked to contribute to the inquiry; and this exemption limit was raised to exclude establishments with fewer than 50 or 100 employees, in those industries in which exempted establishments were estimated to account for less than 15 per cent of the industry's total purchases. A breakdown of purchases similar to that sought in the 1974 inquiry was previously obtained as part of the Censuses of Production for 1963 and 1968, and results were published in Table 10 of the Industry Reports of those Censuses.

Sales of goods produced, work done and industrial services rendered

Sales for the purposes of the annual censuses means deliveries on sale of goods made by establishments in the United Kingdom covered by the inquiry. Sales of goods made for these establishments by outworkers or by other establishments from materials given out to them are included; as also are sales of waste products. Any new building work and machinery or other capital items produced by establishments for hiring out or leasing are regarded as sales, the value included in the return being that adopted in the establishment's capital asset accounts. Forward sales and canteen takings are excluded. All sales in the period of the inquiry are included irrespective of when the goods were manufactured. Goods produced in one establishment and transferred either to ancillary departments not engaged in production and 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 valued on the same

The value shown for sales is the "net selling value" defined as the amount (excluding value added tax) charged to customers whether on an ex-works 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 inclusive of duty if sold duty-paid and exclusive of duty if sold in bond or exported.

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 engineering industries, covering erection, installation and repair and jobbing work. Other activities within this heading include exploration work, research and development, glass cutting and dressing and planing of timber. Industrial services rendered includes repairs and maintenance, installation work, and technical research and studies rendered to other organisations.

Capital goods produced for establishments' own use

This includes all work carried out during the year by the establishments' own staff for their own use, which was of a capital nature.

Non-industrial services rendered

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

Goods merchanted or factored

Merchanted goods are those (excluding canteen sales) sold without having been subjected to any manufacturing process by the seller.

Stocks and work in progress

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 merchanting or factoring. 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, together with a margin of overhead costs and profits. Progress payments made to sub-contractors are excluded and progress payments received from other organisations are not deducted.

Nages and salaries

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 value of any payments in kind, travelling expenses etc. is excluded.

Remuneration paid to outworkers

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

Employers' insurance and welfare contributions

This item includes employers' contributions to national insurance and graduated pensions (and/or earnings related basic contributions under the Social Security Act, 1973) as well as commercial insurance premiums to provide pensions, superannuation or other 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 holiday homes, etc. for employees, former employees and their dependants are also included.

## © Crown copyright 1978

### Her Majesty's Stationery Office

Government Bookshops

49 High Holborn, London WC1V 6HB
13a Castle Street, Edinburgh EH2 3AR
41 The Hayes, Cardiff CF1 1JW
Brazennose Street, Manchester M60 8AS
Southey House, Wine Street, Bristol BS1 2BQ
258 Broad Street, Birmingham B1 2HE
80 Chichester Street, Belfast BT1 4JY

Government publications are also available through booksellers

Extracts from this publication may be reproduced provided the source is acknowledged. Proposals for complete reproduction should be addressed to the Librarian, Business Statistics Office, Newport, Gwent NPT 1XG