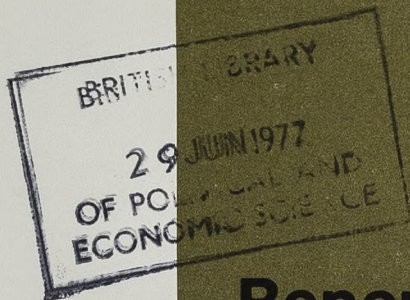


PA491

Business Monitor

A publication of the Government Statistical Service



1973

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42
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Report on the Census of Production

Rubber



HMSO

Department of Industry
Business Statistics Office

PA491

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Report on the Census of Production 1973

Rubber

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

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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).

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PA491 RUBBER

PA491 1

The information in this report relates to establishments classified to the Rubber industry, minimum list heading 491 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

Manufacturing and retreading solid and pneumatic tyres of all types and inner tubes; rubber belting, rubber sheeting, soles and heels, fluid seals, sponge rubber, rubber tubing and hose, cellular rubber, rubber gloves, bathing caps, underwater equipment, inflatable goods, toys, uncovered balls, matting, flooring and tiling, components and accessories not elsewhere specified. The manufacture of plastics belting, plastics hose, and synthetic rubber products and the backing of carpets with rubber on plastics materials on commission are also included. The manufacture of synthetic rubber, rubber footwear and moulded parts of footwear, weatherproof outerwear, covered rubber mattresses and pillows, rubber adhesives and covered rubber thread are all excluded.

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

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TABLE 1

PA491 2

Output and costs, 1970, 1971, 1972 and 1973
All United Kingdom establishments classified to the industry (a)

	Unit	1970	1971	1972	1973
Enterprises (b)	Number	416	405	402	478
Establishments (b)	"	495	507	504	573
Sales of goods produced, work done and industrial services rendered (c)	£'000				690,428
Capital goods produced for establishments' own use (d)	"	593,799	620,928	624,371	6,728
Non-industrial services rendered (e)	"				4,399
Goods merchanted or factored	"	62,591	63,340	76,910	99,238
Total sales and work done (c) (e)	"	656,390	684,268	701,280	800,794
Increase during the year, work in progress and goods on hand for sale	"	2,793	18,159	-4,994	9,995
Gross output (c) (e)	"	659,182	702,428	696,286	810,789
Purchases of materials for use in production, and packaging and fuel (d)	"	323,376	339,891	326,976	314,787
Purchases of goods for merchenting or factoring (d)	"				80,438
Increase during the year, stocks of materials, stores and fuel	"	3,987	1,160	2,150	15,378
Cost of industrial services received (f)	"	2,013	2,626	2,230	12,790
Net output (g)	"	337,782	361,071	369,230	418,153
Total employment (h)	Thousands	127.5	127.8	120.4	120.6
Net output per head (g)	£	2,649	2,825	3,067	3,467
Payments for non-industrial services (j)	£'000				
Rents, hire of plant, machinery and vehicles	"				5,307
Commercial insurance premiums	"				3,949
Bank charges	"				318
Other non-industrial services	"				34,242
Licensing of motor vehicles (k)	"				268
Rates, excluding water rates (k)	"				5,316
Gross value added at factor cost	"				368,753
Gross value added at factor cost per head	£				3,058

- (a) For 1973, estimates for establishments not making satisfactory returns and for establishments employing less than 20 persons accounted for 13 per cent of the total figures in which they were incorporated: of this unsatisfactory returns accounted for 11 per cent.
- (b) Increase from 1972 to 1973 largely attributable to improved estimates of the number of establishments with less than 20 employees — see notes on page (iii).
- (c) The figures for 1970-1972 do not include receipts for repairs and maintenance.
- (d) Not recorded separately for 1970-1972.
- (e) The figures for 1970-1972 do not include revenue from rents for industrial buildings.
- (f) The figures for 1970-1972 exclude the amounts payable for repairs and maintenance.
- (g) The definition of net output used in previous census reports provided for the deduction of amounts payable to other organisations for transport of goods within the United Kingdom. The net output and net output per head figures on that basis were:-
- | Year | Net output
£'000 | Net output per head
£ |
|------|---------------------|--------------------------|
| 1970 | 327,106 | 2,565 |
| 1971 | 347,717 | 2,721 |
| 1972 | 357,949 | 2,972 |

Additionally, the figures for 1970-1972 do not reflect revenue from rents or amounts payable for repairs and maintenance (see footnotes e and f).

- (h) Average number employed (full and part-time; see table 7) during the year (including working proprietors) by the establishment.
- (j) Not collected for 1970-1972 except for amounts payable to other organisations for transport of goods within the United Kingdom.
- (k) Not collected for 1970-1972.

TABLE 2

PA491 3

Capital expenditure, 1970, 1971, 1972 and 1973
All United Kingdom establishments classified to the industry (a)(b)

	£'000			
	1970	1971	1972	1973
Land and buildings				
New building work	5,988	12,309	9,406	6,608
Land and existing buildings				
Acquisitions	1,600	2,272	2,022	641
Disposals	526	876	3,812	1,045
Vehicles				
Acquisitions				
Motor cars (c)				1,836
Other vehicles (c)	1,924	2,867	2,561	793
Disposals				
Motor cars (c)				696
Other vehicles (c)	719	799	899	56
Plant and machinery				
Acquisitions	29,408	37,214	34,381	35,687
Disposals	910	1,190	1,083	428
Total net capital expenditure (d)	36,764	51,798	42,575	43,341

- (a) Including estimates for establishments not making satisfactory returns and for 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 1970-1972.
- (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, 1970, 1971, 1972 and 1973
All United Kingdom establishments classified to the industry (a)

	£'000			
	1970	1971	1972	1973
	Increase			
	Value at end of year			
Materials, stores and fuel	3,987	1,160	2,150	15,378
Work in progress	2,923	222	944	5,428
Goods on hand for sale	-130	17,937	-5,939	4,567
Total	6,780	19,319	-2,844	25,372
				145,643

- (a) Including estimates for establishments not making satisfactory returns and for establishments exempted by virtue of size.

TABLE 4

PA491 4

Analysis of establishments by size, 1973
All United Kingdom establishments classified to the industry (a)

Size group (b)	Estab-lish-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	Number	£'000	£	£'000	£
1-10	220	214	1,199	6,090	1,622	8,698	1,428	3,202	1,974
11-19	90	89	1,273						
20-49	59	58	1,946						
50-99	53	52	3,628						
100-199	50	43	6,946	5,571	1,364	7,926	1,423	2,647	1,941
200-299	21	19	5,232	4,037	1,195	6,072	1,504	2,159	1,807
300-399	23	20	7,952	6,140	1,810	9,687	1,578	3,407	1,882
400-499	14	13	6,310	4,476	1,834	7,425	1,659	3,671	2,002
500-749	12	11	7,118	5,442	1,671	8,301	1,525	3,040	1,819
750-999	7	7	6,410	4,662	1,748	7,972	1,710	3,484	1,993
1,000-1,499	8	8	10,223	7,840	2,383	13,610	1,736	5,318	2,232
1,500-2,499	6	5	10,607	6,986	3,621	11,831	1,694	6,918	1,911
2,500-3999	5	5	15,329	11,608	3,721	20,345	1,753	8,242	2,215
4,000 and over	5	4	36,429	24,805	11,624	49,989	2,015	24,623	2,118
Total	573	478	120,602	87,657	32,593	151,856	1,732	66,712	2,047

- (a) Including estimates for establishments not making satisfactory returns and for establishments exempted by virtue of size.
 (b) Average number employed (full and part-time; see table 7) during the year (including working proprietors) by the establishment.
 (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.
 (d) Administrative, technical and clerical employees.

PA491 5

Total sales and work done (f)	Gross output	Net output		Gross value added at factor cost		Net capital expenditure (g)	Total stocks and work in progress at end of year
		Total	per head	Total	per head		
£'000	£'000	£'000	£	£'000	£	£'000	£'000
48,588	48,973	24,710	3,071	(h)	(h)	1,909	5,414
46,255	46,458	23,363	3,364	43,215(h)	2,883(h)	2,138	5,846
31,585	31,869	16,041	3,066	14,417	2,755	1,160	4,592
43,549	43,988	23,947	3,011	20,974	2,638	1,981	6,949
38,929	39,389	20,065	3,180	17,862	2,831	1,643	8,064
37,265	38,025	20,406	2,867	18,757	2,635	2,062	6,768
36,354	36,815	19,705	3,074	17,990	2,807	919	5,829
78,858	79,582	37,889	3,706	34,133	3,339	2,875	11,551
51,358	52,681	29,114	2,745	26,107	2,461	2,171	8,714
92,618	93,052	51,878	3,384	45,450	2,965	6,717	18,266
295,436	299,958	151,034	4,146	129,848	3,564	19,765	63,649
800,794	810,789	418,153	3,467	368,753	3,058	43,341	145,643

- (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 £22,460 thousand. In addition, for 1973 the remuneration of outworkers on returns received was £520 thousand.
 (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.

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 10

TABLE 5

PA4916

Regional distribution of employment, net capital expenditure and net output, 1973
All United Kingdom establishments classified to the industry (a)

Area	Employment (b)		Net capital expenditure (c)				Net output and employment in the region of establishments with more than 80 per cent of their employment in the region (e)		
	Thousands	per cent of United Kingdom	£'000	per cent of United Kingdom	£'000	Other (d) £'000	Estimated net output £'000	Average number employed as a percentage of total average number employed in the industry in the region	Net output as a percentage of total of the industry in the United Kingdom
Standard regions of England									
North	5.0	4.1	2,649	6.1	*	*	*	*	*
Yorkshire and Humberside	3.9	3.2	792	1.8	*	*	6,890	66.7	1.6
East Midlands	6.3	5.2	1,744	4.0	20	1,724	11,847	68.0	2.8
East Anglia	0.9	0.8	289	0.7	*	*	*	*	*
South East	27.5	22.8	6,630	15.3	*	*	56,986	61.7	13.6
South West	8.9	7.4	3,921	9.0	*	*	22,974	81.2	5.5
West Midlands	29.7	24.6	12,842	29.6	*	*	46,762	31.1	11.2
North West	23.7	19.7	4,973	11.5	*	*	36,960	53.5	8.8
England	105.9	87.8	33,840	78.1	*	*	192,387	53.3	46.0
Wales	3.9	3.2	2,837	6.5	21	2,816	5,018	36.7	1.2
Scotland	4.7	3.9	3,711	8.6	*	*	16,195	70.4	3.9
Great Britain	114.5	94.9	40,389	93.2	*	*	213,600	53.5	51.1
Northern Ireland	6.1	5.1	2,953	6.8	-	2,953	20,867	99.8	5.0
Unallocated (a) (f)	-	-	-	-	-	-	183,685	-	43.9
United Kingdom	120.6	100.0	43,341	100.0	-404	43,745	418,153		100.0

(a) Including estimates for establishments not making satisfactory returns and for establishments exempted by virtue of size.

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

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

(d) Acquisitions less disposals.

(e) 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 proportionate to employment at the address. The establishment's residual net output was included in unallocated net output.

(f) Includes unallocated net output of establishments covering addresses in two or more regions.

TABLE 6

PA4917

Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 20 or more persons, 1973

Accounting year ended		Percentage of total returns received	Percentage of total number employed
		per cent	per cent
1973	April (a)	2.0	1.0
	May	0.5	0.1
	June	1.0	0.1
	July	2.0	0.3
	August	2.0	1.0
	September	13.4	10.6
	October	4.0	7.2
	November	1.0	0.1
	December	54.5	66.8
1974	January	0.0	0.0
	February	0.5	0.1
	March (b)	19.1	12.7
		100.0	100.0

(a) From 6th April.

(b) Including returns made for twelve-month period ended 1st to 5th April 1974.

TABLE 7

Percentage analysis of employees, by full and part-time employment and sex, 1973 (a)

Sex	Full-time	Part-time	All employees
	per cent	per cent	per cent
Male	77	-	77
Female	18	5	23
	95	5	100

Source: Department of Employment

(a) The percentage relate to the numbers employed (excluding working proprietors) in the United Kingdom at mid-June, 1973.

TABLE 8

PA491 8

Sales of principal products of the industry by establishments employing 25 or more persons, including sales by establishments classified to other industries, 1973(a)

	Quantity	Value
	Thous	£'000
Tyres and tubes:		
New covers:		
Cross ply — car and van	9,528	41,093
Radial ply — car and van	17,125	85,638
Commercial vehicle	3,798	97,746
Tractor, earthmover and land/road	1,144	27,914
Other (excluding solid)	..	7,752
Total: New covers	..	260,143
Tyres, retreaded (other than those retreaded on commission):		
Car and van	6,947	15,759
Commercial vehicle	1,110	15,295
Other	..	3,329
Total: Retreaded tyres	..	34,383
Tubes:		
Car and van	4,694	3,194
Commercial vehicle	2,641	4,722
Tractor, earthmover and land/road	835	1,350
Other (including aero, motor cycle, scooter and bicycle)	..	1,035
Total: Tubes	..	10,301
Belting:		
Conveyor belting of rubber:		
	Th m	
Rough top	99	345
Food quality	45	174
Heat and oil resistant	}	167
With cleats, chevrons, raised edges and other similar mouldings		
Other	1,505	9,910
Conveyor belting of plastics:		
Food	}	1,129
Fire resistant		
Other		
Balata	..	477

TABLE 8 (continued)

PA491 9

	Quantity	Value
	Thous	£'000
Belting: (continued)		
Transmission belting (of rubber or plastics):		
Automotive belts:		
V-Belts	}	14,320
Timing belts		
Industrial belts:		
V-Belts	10,852	5,339
Flat rubber belting	}	4,733
Timing belts		
Other		
Belts for domestic appliances	9,035	663
Total belting	..	30,944
Hose and tubing (of rubber or plastics):		
	Th m	
Unreinforced rubber (wholly of rubber)	12,851	1,218
All types of fibre reinforced rubber long length hose, knitted or spirally wound or braided and leaded:		
Oxyacetylene	3,825	532
Garden/air/water	10,928	3,116
Other	10,429	4,390
Mandrel-made rubber hose, wrapped ply or yarn braided or spiral reinforced up to 40 metre (131 ft) in length:		
Air	2,771	1,770
Water	2604	1584
Oil and petroleum spirits	758	514
Oxyacetylene	}	15,105
Other		
Suction and discharge hose (of rubber or plastics):		
Oil and petroleum spirits up to and including 102 mm diameter	298	925
Oil and petroleum spirits above 102 mm diameter	309	5,402
Water	1,114	1,510
Other	2,494	1,946
Wire reinforced, high pressure rubber hose:		
Hydraulic:		
All braided	}	19,553
Spiral braided		
All spiral		
Other than hydraulic		

TABLE 8 (continued)

PA491 10

	Quantity		Value	
	Th m		£'000	
Hose and tubing (of rubber or Plastics): (continued)				
Plastics hose and tubing not elsewhere specified:				
Reinforced	10,987		3,537	
Unreinforced	92,971		4,540	
Total hose and tubing	..		50,825	
Coated fabrics and unsupported sheeting and articles made thereof:				
Piece goods:				
Textile reinforced:				
Of rubber, natural or synthetic	}	Th sq m	11,781	
Of latex foam other than carpet underlay		17,645		
Unsupported sheeting:				
Of rubber, natural or synthetic, other than soling and heeling sheet		Tonnes	4,762	
		13,712		
Inflatable products of rubber whether reinforced or not:				
Life rafts	}	23	4,378	
Dinghies				
Leisure craft				
Other inflatable products (excluding football bladders and playballs)		989	2,108	
		Th m		
Printers blankets		624	3,812	
Cellular products (excluding sheeting but including carpet underlay):				
Carpet underlay		Th sq m	10,884	
		24,066		
Other manufactures of cellular rubber including uncovered mouldings and sheeting of sponge and foam rubber for mattresses, bolsters, pillows, cushions and upholstery, (excluding those for motor vehicles)		Tonnes	3,796	
		5,150		
Footwear components:				
Parts of boots and shoes:				
Rubber soles, full and half soles		Thous pairs	2,584	
		19,787		
Rubber heels and heel tips		17,491	981	
Soling and heeling sheet		Th tonnes	3,791	
		19		
Fluid seals mainly of rubber:				
'O' ring seals		230,533	2,466	
Reciprocating seals		109,095	4,709	
Rectangular section seals		136,407	1,282	
Other types		..	7,560	

TABLE 8 (continued)

PA491 11

	Quantity		Value	
	Th tonnes		£'000	
Insulating materials and pressure sensitive self-adhesive cloth (other than for medical and surgical dressings) with the adhesive mainly of rubber:				
Pressure sensitive self-adhesive cloth	}	..	(b)	
Other insulating materials including cable cloth and varnished and non-adhesive tape				
Rubber gloves and gauntlets:				
Manufactured by dipping process:				
Industrial	}	..	(b)	
Other, including household and surgical				
Handbuilt and moulded				
Roller coverings of rubber:				
For paper		..	720	
For printing		..	1,134	
Other, including wringer rollers		..	3,600	
		Tonnes		
Rubber thread		2,447	2,086	
Rubber toys:				
Toy balloons	}	..	1,916	
Other toys wholly or mainly of rubber				
Other products:				
Rubber linings (for industrial plant)		..	2,231	
Rubber flooring, tiling and matting, excluding moulded and cellular products		..	1,556	
Hot water bottles of rubber		
Sports goods (including football bladders, golf ball centres, playballs, etc. but excluding completed golf or tennis balls)		..	1,223	
Manufactures of vulcanite, ebonite or hard rubber		..	4,953	
Solid rubber tyres excluding those moulded and bonded		..	919	
Tyre repair materials and kits		..	2,068	
Rubberised hair		656	733	
Moulded, bonded, extruded, hand built, dipped and cast products not elsewhere specified (including rubber components and accessories for use in vehicles, aircraft and ships, medical, surgical and dental products, and rubber valves, washers and other components and accessories not elsewhere specified):				
Moulded products		..	51,623	

TABLE 8 (continued)

PA491 12

	Quantity	Value
	Tonnes	£'000
Other products: (continued)		
Moulded, bonded, extruded, hand built, dipped and cast products not elsewhere specified (including rubber components and accessories for use in vehicles, aircraft and ships, medical, surgical and dental products, and rubber valves, washers and other components and accessories not elsewhere specified):		
Moulded and bonded products:		
Metallic bondings	..	22,307
Non-metallic bondings	..	2,522
Extrusions (where the principal manufacturing process is extruding and the article is not subsequently moulded)	..	15,356
Hand built products (excluding gloves and gauntlets)	..	12,784
Dipped and cast products (excluding gloves and gauntlets but including dipped sheeting)	..	9,221
	Th tonnes	
Rubber compounds (sold as such)	108	19,487
Waste rubber sold (whether ground or not)	26	615
Other rubber goods (including reclaimed rubber)	..	9,867
Unclassified sales (including diving suits and underwater swimming suits and water ski suits and bathing caps)	..	36,635
Waste products, residues, etc. sold	..	258
Work done:		
Commission proofing (coating only):		
Of rubber, natural or synthetic	}	.. 5,515
Of PVC		
Of latex foam or polyurethane foam		
Retreading tyres	}	.. 4,954
All other work done		
Total sales of principal products of the Rubber industry (MLH 491) and work done		665,773

Source: Business Monitor (PQ491). Quarterly Statistics

- (a) Sales are deliveries on sale for home or abroad; forward sales are excluded. Values are net selling values, value added tax (or purchase tax where previously applicable) trade discounts and commissions are excluded.
- (b) Figures included in unclassified sales.

Notes

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 (Introductory Notes) of the Report on the Census of Production, 1973.

GENERAL INFORMATION

Changes made for 1973

The Census for 1973 was the first to be modified to bring it into line with similar inquiries being conducted in other member countries of the European Economic Communities. One modification has made possible the publication for the first time in the Annual Censuses of data on a number of additional items. These include:

- Capital goods purchased for establishments' own use (previously included with sales of goods produced etc.)
- Purchases of goods for merchandising or factoring (previously included with purchases of materials etc.)
- Payments for non-industrial services
- Licensing of motor vehicles
- Rates, excluding water rates
- Gross value added
- Amounts paid to outworkers (where applicable)
- Employers' national insurance contributions etc.

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 P A 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. There may, therefore, be an apparent slight discrepancy between a sum of constituent items and a 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 PQ1000 in the Business Monitor Series.

The SIC is revised every 10 years or so and is to be revised to bring it more closely into line with the General Industrial Classification of Economic Activities within the European Communities (NACE).

Statistical units

The statistical unit for the purpose of the Census 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 on 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. merchandising, 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 census 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 census 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

(iii)

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 1973 Census 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 do not take account of the boundary changes arising out of the Local Government Act 1972 and the Local Government Act (Scotland) 1973. As these boundary changes did not come into effect until April 1974 in England and Wales and in May 1975 in Scotland, the regions defined for these analyses are consistent with boundaries which existed in 1973.

TERMS USED IN THE CENSUS REPORT

Average number employed

Establishments were required to state the number of persons on the payroll (i.e. whose national insurance cards were held by them) on the 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 merchandising 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 1970 to 1973. 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 also asked to include a total net capital expenditure figure for the calendar year 1973.

(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 or 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 of 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.

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 workers 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 (rent of buildings and capital equipment, commercial insurance premiums, bank charges and amounts paid for professional services, postal etc. services, transport, advertising etc.). 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.

Purchases

Purchases include the cost of materials and components bought for use in production; of fuel and electricity for all purposes; of packaging materials including the cost of returnable cases and containers when first purchased; of workshop materials; office materials and materials for repairs to establishment's own buildings, plant and vehicles when carried out by their own work people included in the returns; of consumable tools; and of parts for machinery purchased during the year as replacements. Water charges are also

included. Purchases of goods for merchandising or factoring were collected separately for 1973. Materials supplied by customers for processing are excluded, as are all purchases charged to capital account. The values shown exclude value added tax but include any duty paid (less rebate etc.), values exclude trade discounts allowed. The cost of transport is included only if included in the cost of materials as invoiced; amounts paid to transport organisations, including an establishment's own separate transport organisations for delivery of materials and fuel are, therefore, excluded. Materials purchased overseas are included at the c.i.f. cost plus any duty payable if the cost of transport from the docks are not included in the invoiced price, but at their full delivery cost if invoiced "carriage paid home". Materials and fuel transferred from another department of the establishment not covered by the same return are included at the estimated selling value recorded by the other department.

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 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 establishments' 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 basis.

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 are also included.

Goods merchanted or factored

Merchandised 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 merchandising 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.

Wages 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 any payments in kind, travelling expenses, lodging allowances, etc. and employers' contributions to national insurances and pension schemes are 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 sub-contractors are excluded.

Employers' insurance and welfare contributions

This item includes employers' contributions to national insurance and graduated pensions 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.

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