

PA491

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Business Monitor

A publication of the Government Statistical Service

Report on the Census of Production

Rubber



Department of Industry
Business Statistics Office

HMSO

PA491

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A publication of the Government Statistical Service

Report on the Census of Production 1972

Rubber

Presented by the Secretary of State for Industry
to Parliament in pursuance of the Statistics of Trade Act 1947
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Department of Industry
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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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(ii)

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 re-treading solid and pneumatic tyres of all types and inner tubes; rubber sheeting, soles and heels, 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

Input and output, 1970, 1971 and 1972

All United Kingdom establishments classified to the industry (a)

	Unit	1970	1971	1972
Enterprises	Number	416	405	402
Establishments	"	495	507	504
Sales of goods produced and work done	£'000	592,287	618,742	622,063
Services rendered to other organisations (b)	"			849
Goods merchanted or factored	"			76,910
Canteen takings	"	1,512	1,505	1,459
Total sales and work done	"	656,390	684,268	701,280
Increase during the year, work in progress and goods on hand for sale	"	2,793	18,159	-4,994
Gross output	"	659,182	702,428	696,286
Cost of purchases	"	323,376	339,891	326,976
Increase during the year, stocks of materials, stores and fuel	"	3,987	1,160	2,150
Payments to other organisations for work done on materials given out	"	2,013	2,626	2,230
for transport by road	"	9,709	12,090	10,371
for transport by rail, water, air and Post Office parcel services	"	967	1,264	910
Total costs	"	332,076	354,710	338,337
Net output	"	327,106	347,717	357,949
Total employment (including working proprietors) (c)	Thousands	127.5	127.8	120.4
Net output per head	£	2,565	2,721	2,972

- (a) For 1972, estimates for establishments not making satisfactory returns and for establishments employing less than 25 persons, accounted for 12 per cent of the total figures in which they were incorporated: of this unsatisfactory returns accounted for 10 per cent.
- (b) Amounts charged for hiring out plant, machinery or other goods, for providing transport, or for any technical or other services rendered.
- (c) Average number employed (full and part time; see table 6) during the year (including working proprietors) by the establishment.

TABLE 2

PA491 3

Capital expenditure and stocks, 1970, 1971 and 1972

All United Kingdom establishments classified to the industry (a)

£'000

	1970	1971	1972	
Capital expenditure (b)				
New building work	5,988	12,309	9,406	
Land and existing buildings				
Acquisitions	1,600	2,272	2,022	
Disposals	526	876	3,812	
Plant and machinery				
Acquisitions	29,408	37,214	34,381	
Disposals	910	1,190	1,083	
Vehicles				
Acquisitions	1,924	2,867	2,561	
Disposals	719	799	899	
Total net capital expenditure (c)	36,764	51,798	42,575	
Increase in stocks and work in progress, 1970, 1971 and 1972 and value of stocks and work in progress at end of 1972	Increase	Increase	Increase	Value at end of year
Materials, stores and fuel	3,987	1,160	2,150	38,910
Work in progress	2,923	222	944	17,511
Goods on hand for sale	-130	17,937	-5,939	64,593
Total	6,780	19,319	-2,844	121,015

- (a) Including estimates for establishments not making satisfactory returns and for establishments employing less than 25 persons.
- (b) Capital expenditure in respect of manufacturing establishments where production had not commenced before the end of the year, is included.
- (c) Acquisitions less disposals.

TABLE 3

Analysis of establishments by size, 1972

All United Kingdom establishments classified to the industry (a)

Size group (b)	Estab-lish-ments	Enter-prises (c)	Total employment (b)	Employees		Wages and salaries		Wages and salaries per head		Total sales and work done (e)	Gross output	Net output	Net output per head	Capital expend-iture (net) (f)	Total stocks and work in progress at end of year
				Operatives	Others (d)	Operatives	Others (d)	Operatives	Others (d)						
	Number	Number	Number	Number	Number	£'000	£'000	£	£	£'000	£'000	£'000	£	£'000	£'000
1-10	142	131	780	5,891	1,613	7,576	2,787	1,286	1,728	44,112	44,027	21,293	2,719	3,555	4,566
11-24	126	121	2,083												
25-49	39	39	1,454												
50-99	49	49	3,515												
100-199	45	38	5,552	4,363	1,179	5,377	2,228	1,232	1,890	32,367	32,384	16,801	3,026	968	4,145
200-299	23	22	6,439	4,812	1,627	6,204	2,765	1,289	1,699	30,814	30,752	16,320	2,535	1,180	4,423
300-499	38	35	14,296	10,469	3,823	14,003	6,376	1,338	1,668	73,044	73,818	36,701	2,567	2,874	12,315
500-749	8	8	4,833	3,521	1,309	4,827	2,354	1,371	1,798	30,143	30,429	15,350	3,176	1,304	3,908
750-1,499	20	15	21,696	16,156	5,540	23,844	9,712	1,476	1,753	116,383	115,225	57,292	2,641	4,649	17,677
1,500-2,499	5	3	9,535	6,979	2,556	10,114	4,836	1,449	1,892	41,454	41,777	20,597	2,160	1,158	6,598
2,500-3,999	3	3	8,975	6,538	2,437	9,893	4,882	1,513	2,003	50,895	50,864	28,161	3,138	1,801	10,488
4,000 and over	6	4	41,270	28,673	12,597	48,505	25,138	1,692	1,996	282,068	277,011	145,435	3,524	25,086	56,894
Total	504	402	120,428	87,402	32,681	130,344	61,078	1,491	1,869	701,280	696,286	357,949	2,972	42,575	121,015

(a) Including estimates for establishments not making satisfactory returns and for establishments employing less than 25 persons.

(b) Average number employed (full and part time; see table 6) 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 will therefore exceed the total for the industry.

(d) Administrative, technical and clerical employees.

(e) Including sales of goods merchanted or factored, canteen takings and services rendered to other organisations (amounts charged for hiring out plant, machinery or other goods, for providing transport, or for any technical or other services rendered).

(f) Acquisitions less disposals.

TABLE 4

PA491 5

Regional distribution of employment, net capital expenditure and net output, 1972
All United Kingdom establishments classified to the industry

Area	Average number employed (a)		Net capital expenditure (b)		Net output and employment in the region of establishments with more than 80 per cent of their employment in the region (c)		
					Estimated net output	Average number employed as a percentage of total average number employed in the industry in the region	Net output as percentage of total of the industry in the United Kingdom
	Thousands	per cent of United Kingdom	£'000	per cent of United Kingdom	£'000		
Standard regions of England							
North	3.8	3.1	841	2.0	*	*	*
Yorkshire and Humberside	3.9	3.2	792	1.9	6,757	73.4	1.9
East Midlands	6.3	5.2	446	1.0	12,119	80.7	3.4
East Anglia	1.3	1.1	408	1.0	*	*	*
South East	25.8	21.5	6,147	14.4	44,128	62.3	12.3
South West	8.3	6.9	1,939	4.5	15,806	71.1	4.4
West Midlands	30.9	25.7	9,710	22.8	41,758	27.4	11.7
North West	23.2	19.3	6,507	15.3	35,883	60.9	10.0
England	103.6	86.0	26,789	62.9	159,111	52.0	44.5
Wales	4.1	3.4	1,798	4.2	10,410	85.3	2.9
Scotland	6.3	5.3	9,816	23.1	19,050	75.6	5.3
Great Britain	114.0	94.7	38,403	90.2	188,571	54.5	52.7
Northern Ireland	6.4	5.3	4,171	9.8	14,581	99.9	4.1
Unallocated (d)	-	-	-	-	154,796	-	43.2
United Kingdom	120.4	100.0	42,575	100.0	357,949		100.0

- (a) Average number employed (full and part time; see table 6) during the year (including working proprietors) by the establishment.
- (b) New building work plus acquisitions less disposals of land and existing buildings, plant and machinery and vehicles.
- (c) 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.
- (d) Includes estimates of net output for establishments not making satisfactory returns and establishments employing less than 25 employees, and unallocated net output of establishments covering addresses in two or more regions.

TABLE 5

PA491 6

Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 25 or more persons, 1972

Accounting year ended	Percentage of total returns received	Percentage of total number employed
	per cent	per cent
1972 April (a)	2.1	0.9
May	0.5	0.1
June	1.6	0.4
July	2.1	1.3
August	1.0	1.0
September	11.3	7.8
October	4.1	7.1
November	0.5	0.1
December	57.2	70.4
1973 January	0.5	0.0
February	0.0	0.0
March(b)	19.1	10.9
	100.0	100.0

(a) From 6th April

(b) Including returns made for twelve-month period ended 1st to 5th April 1973

TABLE 6

Percentage analysis of employees, by full and part time employment and sex, 1972 (a)

Sex	Full time	Part time	All employees
	per cent	per cent	per cent
Male	76	1	77
Female	18	5	23
	94	6	100

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at mid-June, 1972

TABLE 7

PA491 7

Sales of principal products of the industry by establishments employing 25 or more persons, including sales by establishments classified to other industries, 1972

	1972	
TYRES AND TUBES:		
NEW COVERS:		
CROSS PLY - CAR AND VAN	THOUS	13,028
	£ THOUS	51,038
RADIAL PLY - CAR AND VAN	THOUS	14,813
	£ THOUS	72,505
COMMERCIAL VEHICLE	THOUS	3,701
	£ THOUS	88,816
TRACTOR, EARTHMOVER AND LAND/ROAD	THOUS	1,084
	£ THOUS	24,250
OTHER (EXCLUDING SOLID)	£ THOUS	7,101
TOTAL NEW COVERS	£ THOUS	243,710
TYRES, RETREADED (OTHER THAN THOSE RETREADED ON COMMISSION):		
CAR AND VAN	THOUS	7,270
	£ THOUS	17,510
COMMERCIAL VEHICLE	THOUS	936
	£ THOUS	12,658
OTHER	£ THOUS	3,098
TOTAL RETREADED TYRES	£ THOUS	33,266
TUBES:		
CAR AND VAN	THOUS	5,190
	£ THOUS	3,222
COMMERCIAL VEHICLE	THOUS	2,482
	£ THOUS	4,200
TRACTOR, EARTHMOVER AND LAND/ROAD	THOUS	729
	£ THOUS	1,097
OTHER (INCLUDING AERO, MOTOR CYCLE, SCOOTER AND BICYCLE)	£ THOUS	1,000
TOTAL TUBES	£ THOUS	9,517
BELTING:		
CONVEYOR BELTING OF RUBBER:		
ROUGH TOP	TH M	54
	£ THOUS	182
FOOD QUALITY	TH M	28
	£ THOUS	116
HEAT AND OIL RESISTANT		
WITH CLEATS, CHEVRONS, RAISED EDGES AND OTHER SIMILAR MOULDINGS	TH M	188
	£ THOUS	1,337
OTHER	TH M	1,394
	£ THOUS	8,338
CONVEYOR BELTING OF PLASTICS:		
FOOD		
FIRE RESISTANT	TH M	899
	£ THOUS	4,620
OTHER		
BALATA	£ THOUS	284

	1972	
BELTING: (continued)		
TRANSMISSION BELTING (OF RUBBER OR PLASTICS):		
AUTOMOTIVE BELTS:		
V-BELTS	THOUS	13,351
TIMING BELTS	£ THOUS	2,322
INDUSTRIAL BELTS:		
V-BELTS	THOUS	9,462
FLAT RUBBER BELTING	£ THOUS	4,284
TIMING BELTS	TH M	3,718
OTHER	£ THOUS	3,013
BELTS FOR DOMESTIC APPLIANCES	THOUS	7,518
	£ THOUS	531
TOTAL BELTING	£ THOUS	25,029
HOSE AND TUBING (OF RUBBER OR PLASTICS):		
UNREINFORCED RUBBER (WHOLLY OF RUBBER)		
	TH M	11,310
	£ THOUS	1,012
ALL TYPES OF FIBRE REINFORCED RUBBER LONG LENGTH HOSE, KNITTED OR SPIRALLY WOUND OR BRAIDED AND LEADED:		
OXYACETYLENE	TH M	2,250
	£ THOUS	311
GARDEN/AIR/WATER	TH M	11,025
	£ THOUS	2,953
OTHER	TH M	8,897
	£ THOUS	3,413
MANDREL-MADE RUBBER HOSE, WRAPPED PLY OR YARN BRAIDED OR SPIRAL REINFORCED UP TO 40 METRE (131 FT.) IN LENGTH:		
AIR	TH M	2,511
	£ THOUS	1,477
WATER	TH M	1,679
	£ THOUS	1,397
OIL AND PETROLEUM SPIRITS	TH M	735
	£ THOUS	451
OXYACETYLENE	TH M	13,582
OTHER	£ THOUS	5,165
SUCTION AND DISCHARGE HOSE (OF RUBBER OR PLASTICS):		
OIL AND PETROLEUM SPIRITS UP TO AND INCLUDING 4 INCHES DIAMETER		
	TH M	267
	£ THOUS	870
OIL AND PETROLEUM SPIRITS ABOVE 4 INCHES DIAMETER	TH M	262
	£ THOUS	4,168
WATER	TH M	985
	£ THOUS	1,611
OTHER	TH M	2,094
	£ THOUS	1,668

	1972	
HOSE AND TUBING (OF RUBBER OR PLASTICS): (continued)		
WIRE REINFORCED, HIGH PRESSURE RUBBER HOSE:		
HYDRAULIC:		
ALL BRAIDED	TH M	16,232
SPIRAL BRAIDED	£ THOUS	11,393
ALL SPIRAL	TH M	202
OTHER THAN HYDRAULIC	£ THOUS	87
PLASTICS HOSE AND TUBING NOT ELSEWHERE SPECIFIED:		
REINFORCED	TH M	7,368
	£ THOUS	2,456
UNREINFORCED	THOUS	83,330
	£ THOUS	3,684
TOTAL HOSE AND TUBING	£ THOUS	42,116
COATED FABRICS AND UNSUPPORTED SHEETING AND ARTICLES MADE THEREOF:		
PIECE GOODS:		
TEXTILE REINFORCED:		
OF RUBBER, NATURAL OR SYNTHETIC	TH YARDS (b)	41,906
OF LATEX FOAM OTHER THAN CARPET UNDERLAY	£ THOUS	8,532
UNSUPPORTED SHEETING:		
OF RUBBER, NATURAL OR SYNTHETIC, OTHER THAN SOLING AND HEELING SHEET	TONNES	12,661
	£ THOUS	4,001
INFLATABLE PRODUCTS OF RUBBER WHETHER REINFORCED OR NOT:		
LIFE RAFTS	THOUS	10
	£ THOUS	2,481
DINGHIES	THOUS	14
LEISURE CRAFT	£ THOUS	1,432
OTHER INFLATABLE PRODUCTS (EXCLUDING FOOTBALL BLADDERS AND PLAYBALLS)	THOUS	736
	£ THOUS	1,732
PRINTERS' BLANKETS	£ THOUS	3,326
CELLULAR PRODUCTS (EXCLUDING SHEETING BUT INCLUDING CARPET UNDERLAY):		
CARPET UNDERLAY	TH SQ M	27,600
	£ THOUS	10,660
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	4,781
	£ THOUS	3,624
FOOTWEAR COMPONENTS:		
PARTS OF BOOTS AND SHOES:		
RUBBER SOLES, FULL AND HALF SOLES	THOUS PAIRS	20,165
	£ THOUS	2,332
RUBBER HEELS AND HEEL TIPS	THOUS PAIRS	21,163
	£ THOUS	1,011
SOLING AND HEELING SHEET	TH TONNES	17
	£ THOUS	3,346

1972

FLUID SEALS MAINLY OF RUBBER:

'O' RING SEALS	THOUS	116,394
	£ THOUS	1,873
RECIPROCATING SEALS	THOUS	97,629
	£ THOUS	3,782
RECTANGULAR SECTION SEALS	THOUS	115,669
	£ THOUS	1,062
FACE SEALS	£ THOUS	568
ROTARY SHAFT LIP SEALS	THOUS	401,770
OTHER TYPES	£ THOUS	6,255

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 TAPE (INCLUDING FILMIC):		
FOR INSULATING PURPOSES	£ THOUS	3,147
OTHER	£ THOUS	6,236
PRESSURE SENSITIVE SELF-ADHESIVE CLOTH		
OTHER INSULATING MATERIALS INCLUDING CABLE CLOTH AND VARNISHED AND NON-ADHESIVE TAPE	£ THOUS	3,097

RUBBER GLOVES AND GAUNTLETS:

MANUFACTURED BY DIPPING PROCESS:		
INDUSTRIAL		
OTHER, INCLUDING HOUSEHOLD AND SURGICAL	£ THOUS	8,310
HAND BUILT AND MOULDED		

ROLLER COVERINGS OF RUBBER:

FOR PAPER	£ THOUS	792
FOR PRINTING	£ THOUS	868
OTHER, INCLUDING WRINGER ROLLERS	£ THOUS	2,967

RUBBER THREAD	TONNES	2,144
	£ THOUS	1,792

RUBBER TOYS:

TOY BALLOONS	£ THOUS	1,961
OTHER TOYS WHOLLY OR MAINLY OF RUBBER		

OTHER PRODUCTS:

RUBBER LININGS (FOR INDUSTRIAL PLANT)	£ THOUS	2,295
RUBBER FLOORING, TILING AND MATTING, EXCLUDING MOULDED AND CELLULAR PRODUCTS	£ THOUS	1,240
HOT WATER BOTTLES OF RUBBER	THOUS	4,792
	£ THOUS	1,466
BATHING CAPS OF RUBBER	THOUS	14,120
	£ THOUS	2,076

1972

OTHER PRODUCTS: (continued)

SPORTS GOODS (INCLUDING FOOTBALL BLADDERS, GOLF BALL CENTRES, PLAYBALLS, ETC. BUT EXCLUDING COMPLETED GOLF OR TENNIS BALLS)	£ THOUS	954
MANUFACTURES OF VULCANITE, EBONITE OR HARD RUBBER	£ THOUS	4,249
SOLID RUBBER TYRES EXCLUDING THOSE MOULDED AND BONDED	£ THOUS	1,275
TYRE REPAIR MATERIALS AND KITS	£ THOUS	2,532
RUBBERISED HAIR	TONNES	628
	£ THOUS	709
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	£ THOUS	44,425
MOULDED AND BONDED PRODUCTS:		
METALLIC BONDINGS	£ THOUS	20,213
NON-METALLIC BONDINGS	£ THOUS	1,240
EXTRUSIONS (WHERE THE PRINCIPAL MANUFACTURING PROCESS IS EXTRUDING AND THE ARTICLE IS NOT SUBSEQUENTLY MOULDED)	£ THOUS	14,250
HAND BUILT PRODUCTS (EXCLUDING GLOVES AND GAUNTLETS)	£ THOUS	9,383
DIPPED AND CAST PRODUCTS (EXCLUDING GLOVES AND GAUNTLETS BUT INCLUDING DIPPED SHEETING)	£ THOUS	8,711
RUBBER COMPOUNDS (SOLD AS SUCH)	TH TONNES	112
	£ THOUS	16,823
WASTE RUBBER SOLD (WHETHER GROUND OR NOT)	TH TONNES	28
	£ THOUS	521
OTHER RUBBER GOODS (INCLUDING RECLAIMED RUBBER)	£ THOUS	7,835
UNCLASSIFIED SALES (INCLUDING DIVING SUITS AND UNDERWATER SWIMMING SUITS AND WATER SKI SUITS)	£ THOUS	5,282
WASTE PRODUCTS, RESIDUES, ETC. SOLD	£ THOUS	365
WORK DONE:		
COMMISSION PROOFING (COATING ONLY):		
OF RUBBER, NATURAL OR SYNTHETIC		
OF PVC	£ THOUS	6,408
OF LATEX FOAM OR POLYURETHANE FOAM		
RETREADING TYRES	£ THOUS	1,475
ALL OTHER WORK DONE	£ THOUS	3,277
TOTAL SALES OF PRINCIPAL PRODUCTS OF THE RUBBER INDUSTRY (MLH 491) AND WORK DONE	£ THOUS	595,830

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; purchase tax, trade discounts and commissions are excluded.

(b) The unit of quantity became THOUS SQ METRES in 1973.

Notes

These notes give the main information needed for interpreting the figures in the industry reports, (more detailed information about the census is given in a separate booklet—"Introductory Notes", Part PA 1001 of the Report on the Census of Production for 1972).

GENERAL INFORMATION Changes made for 1972

There were only minor changes in the scope of certain industry reports compared with 1971. Any such changes are explained in the introductions to the industry reports concerned or by footnotes to the tables.

Industrial classification

The Annual Censuses of Production are conducted on the Business Statistics Office's Production Register. Normally establishments on the Register are classified to industries on the basis of major activity in conformity with the Standard Industrial Classification (revised 1968). Generally an establishment is classified to an industry if its sales of the principal products of that industry accounts for a greater proportion of its total sales than its sales of the principal products of any other industry; classification is generally based on an establishment's returns to the quarterly production inquiry. Where this is not possible—for example where a quarterly production inquiry has not been introduced—the classification of an establishment reflects its return to the Census of Production, 1968. Establishments for which information is not available either from the quarterly inquiries or the 1968 Census are classified on the basis of the description of the business given by the establishments to the Business Statistics Office, for instance, in the course of registration.

Coverage

Detailed census returns were generally sought only from establishments employing on average 25 or more persons, but in some industries where firms employing less than 25 persons account for a relatively high proportion of total employment and output the exemption limit was lowered to 11. Census returns were also sent to establishments whose employment was not known to the Business Statistics Office at the time of dispatch.

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 and (b) all other employees (operatives). Averages could be calculated from 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 establishments) 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 managing and other directors in receipt of a definite wage, salary or commission, managers, superintendents and works foremen; research, experimental development, technical and design employees (other than operatives); draughtsmen and tracers; editorial staff, staff reporters, canvassers, competition and advertising staff; travellers; and office (including works office) employees.

Operatives include all other classes of employees, that is, broadly speaking, all manual wage earners. They include those employed in and about the factory or works; operatives employed in power houses, transport work (including roundsmen), stores, warehouses, shops and canteens; inspectors, viewers and similar workers; maintenance workers and cleaners. Operatives engaged in outside work of erecting, fitting etc. are also included, but out-workers 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 both 1970, 1971 and 1972. Establishments were asked to include in the value of capital expenditure, amounts received under the Local Employment Acts, 1960 to 1971 and any investment grants received under the Industrial Development Act, 1966 or regional development grants under the Industry Act, 1972.

(a) New building work

This represents the cost incurred during the year of new building and other constructional work (including office buildings, canteens and the like used in connection with the business covered by the return, but not dwelling houses for employees). The value is that charged to capital account during the year of return; it includes expenditure on new buildings or on the extension of 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 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. 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.

Enterprise

The term enterprise is used in this report to mean one or more establishments under common ownership or control (as defined in the Companies Act 1948) making returns to the census. An enterprise may consist of a single establishment, or of more than one establishment owned by one legal unit, usually a company, or of a number of establishments owned by a parent company and subsidiary company or companies. Information about the relationship between constituent companies of enterprises was obtained mainly from published sources such as the Stock Exchange Year Book supplemented by information from company reports and information supplied by establishments. The information available is not complete but covers the largest and most important groups of industrial establishments and is believed sufficient to provide a worthwhile basis for analysis.

Establishment

The definition of an establishment in 1970, 1971 and 1972 was that of the Standard Industrial Classification (revised 1968): "the smallest unit which can provide the information normally required for an economic census, for example, employment, expenses, turnover, capital formation". Sometimes activities which are conducted as a single business are carried on at a number of addresses, termed local units. Where the activities of such a business are closely integrated, and detailed census information is not available for each unit, it is treated as a multi-unit establishment and a single return accepted. Separate figures are obtained, however, of employment and net capital expenditure at each unit.

Gross output

Gross output measures the total value of production (including work done) by establishments during the year. It is calculated as follows:—

Value of sales and work done
Plus/Less: Increase/decrease in value of stocks of goods on hand for sale
Plus/Less: Increase/decrease in value of work in progress
= Gross output.

Net output

Net output represents the value added to materials by the process of production (including the margin on selling any merchanted or factored goods). It is calculated as follows:—

Gross output
Less: Purchases adjusted for change in value of stocks of fuel and raw materials
Less: Payments for work given to other establishments
Less: Payments for transport
Less: Net amount of any duties, subsidies, allowances and levies payable
= Net output.

Net output per person employed

The figures of net output per person employed are derived by dividing the net output by the average number of persons employed (full time 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, plants 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. In general, purchases of goods for merchanting or factoring and canteen supplies are included. Materials supplied by customers for processing are excluded, as are all purchases charged to capital account.

The values shown include any duty paid (less rebate, etc.) but 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 was 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

Sales are in respect of goods made by the business covered by the return, goods made for it by outworkers or by other establishments from materials given out to them (sometimes described as goods made on commission) and waste products. Any machinery or other capital items produced for use in the business covered by the return are included, the value being that adopted in the establishment's asset accounts. Goods sold without being subjected to any manufacturing process (i.e. merchanted or factored) and canteen takings are included.

The value shown for sales is the net selling value, defined as the amount charged to customers whether on an ex-works or delivered basis excluding any trade discounts, agents' commissions, allowances for returnable cases, purchase tax, etc.; the net amount charged for packaging materials is included. Goods charged on a delivered basis to customers overseas are included at the f.o.b. value.

Goods produced in one establishment and transferred to another establishment of the same firm not covered by the return were 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 were kept were valued on the same basis.

To the extent that sales of finished products of one establishment constitute the materials purchased by another, total figures of

the value of sales (and of materials and fuel purchased) include an element of duplication. In some industries, e.g. motor vehicle manufacturing, and woollen and worsted, this duplication is substantial; and aggregates for a number of industries contain significant amounts of duplication. For work done on commission, sub-contract work, etc., the value shown is the total amount charged for the work, including the value of any materials bought and used in such work.

Services rendered

This represents the amounts charged for hiring out plant, machinery and other goods, providing transport, or for any technical or other services rendered to other organisations. It includes amounts credited for similar services rendered to other establishments of the same enterprise not covered by the return.

Standard Industrial Classification

Industry classification is based on the Standard Industrial Classification (revised 1968). It is published by HM Stationery Office together with a separate index in the form of an alphabetical list of industries.

Stocks and work in progress

Values are given of stocks of goods on hand for sale, and of materials and fuel, at the end of the year of return, including any stocks of goods held for merchanting or factoring. Values of the change during the year are also shown. The values include duty in the case of dutiable goods held out of bond.

The value of work in progress at the end of, and the change during the year are also usually shown. This excludes any progress payments made to sub-contractors, and no deduction is made on account of progress payments received.

Transport payments

These represent the total amount paid or credited during the year for both outwards transport of finished goods sold and inwards transport of materials and fuel purchased. They include payment to other establishments, and to any separate transport organisation of the same establishment not covered by the return, but exclude the value of transport services provided by the business covered by the return. The items included are payments for hired cartage and for inwards and outwards carriage by all forms of inland transport, i.e. railways, road haulage, canals, coastwise shipping, air, etc. Payments made for sea and air freight on goods sold to customers overseas and on materials and fuel purchased from overseas suppliers are excluded.

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 is excluded.

Work given out

The figures shown represent the total amount paid for work done by other establishments (whether part of the same enterprise or not) on materials supplied to them. They do not include payments to individual outworkers or payments for business and other services.

SYMBOLS USED

The following symbols are used throughout the report:

- .. 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 be an apparent slight discrepancy between the sum of the constituent items and the total shown.

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