

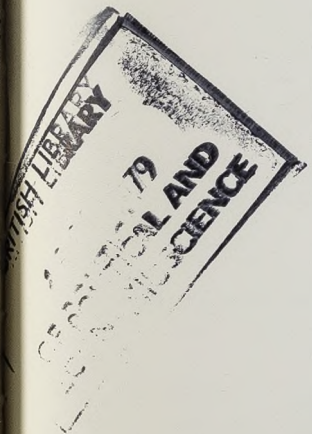
PA341

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PA338.9 Miscellaneous (non-electrical) machinery



Business Statistics Office

# Business Monitor

## Report on the Census of Production

### Industrial (including process) plant and steelwork

HMSO



A publication of the Government Statistical Service



A publication of the Government Statistical Service

## Report on the Census of Production 1976

### Industrial (including process) plant and steelwork

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

#### 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.

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PA341 INDUSTRIAL (INCLUDING PROCESS) PLANT AND STEELWORK

PA341

The information in this report relates to establishments classified to the Industrial (including process) plant and steelwork industry, minimum list heading 341 in the Standard Industrial Classification (revised 1968). The activities of the industry include:—

Manufacturing steam raising boilers of all types and accessories such as mechanical stokers, but not marine boilers and hot water boilers cast in sections; process plant and other industrial plant including lime and cement kilns, gas plant, sintering plant, metallurgical and other furnaces and other metal manufacturing plant (excluding rolling mills), degreasing and coating plant, chemical, petro-chemical and oil refining plant, nuclear reactors, water and sewage treatment plant; structural iron and steelwork for buildings and bridges (including similar work in other metals), and prefabricated buildings of steel and other metals; heavy iron and steelwork (including similar work in other metals) other than for structural uses, including storage tanks, spheres, process pressure vessels, heat exchangers, pipes, chimneys, bunkers, bins and hoppers. Parts of industrial (including process) plant and steelwork are included but industrial hollow-ware is not. Contractors responsible for the design, engineering, and procurement, construction and commissioning of complete plants for process industries such as chemicals, petro-chemicals, oil refining and gas are included, (but firms and consulting engineers responsible for only some of the fun functions are 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

PA341

Output and costs, 1973 - 1976  
All United Kingdom establishments classified to the industry (a)

	Unit	1973	1974	1975	1976
Enterprises	Number	1,611	1,789	1,885	2,028
Establishments	"	1,766	1,969	2,072	2,225
Sales of goods produced	£ thousand	1,092,980	1,385,874	1,771,821	1,419,271
Receipts for work done and industrial services rendered	"	(b)	(b)	(b)	523,167
Capital goods produced for establishments' own use	"	1,176	3,732	2,035	1,787
Non-industrial services rendered	"	6,856	4,979	6,443	6,809
Goods merchanted or factored	"	45,655	56,983	75,701	82,207
<b>Total sales and work done (c)</b>	"	<b>1,146,667</b>	<b>1,451,567</b>	<b>1,856,000</b>	<b>2,033,241</b>
Increase during the year, work in progress and goods on hand for sale	"	134,758	282,339	73,979	84,865
<b>Gross output</b>	"	<b>1,281,425</b>	<b>1,733,906</b>	<b>1,929,979</b>	<b>2,118,105</b>
Purchases of materials for use in production, and packaging and fuel	"	562,912	729,881	703,487	746,165
Purchases of goods for merchenting or factoring	"	46,034	47,099	64,504	66,642
Increase during the year, stocks of materials, stores and fuel	"	20,759	30,555	7,489	4,711
Cost of industrial services received	"	78,462	175,312	163,993	195,079
<b>Net output</b>	"	<b>614,776</b>	<b>812,170</b>	<b>1,005,483</b>	<b>1,114,931</b>
Total employment (d)	Thousands	149.8	164.9	163.2	164.1
<b>Net output per head</b>	£	<b>4,103</b>	<b>4,926</b>	<b>6,163</b>	<b>6,794</b>
Payments for non-industrial services					
Rents, hire of plant and machinery (e)(f)	£ thousand	12,634	14,621	19,969	28,247
Commercial insurance premiums	"	7,648	7,695	10,157	13,856
Bank charges	"	792	1,037	1,345	1,812
Other non-industrial services (g)	"	34,045	44,312	103,175	93,033
Licensing of motor vehicles	"	435	484	565	806
Rates, excluding water rates	"	7,790	10,735	15,354	16,578
<b>Gross value added at factor cost</b>	"	<b>551,431</b>	<b>733,286</b>	<b>854,919</b>	<b>960,598</b>
<b>Gross value added at factor cost per head</b>	£	<b>3,681</b>	<b>4,448</b>	<b>5,240</b>	<b>5,853</b>

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size. Satisfactory returns accounted for 71 per cent of employment within the industry.

(b) Included in Sales of goods produced.

(c) Details of manufacturers' sales of principal products are published regularly in Business Monitor PQ341.

(d) Average number employed, including full and part-time employees (see table 7) and working proprietors.

(e) 1973 figures include hire of vehicles.

(f) For 1973-1975 rents of industrial and commercial buildings were not recorded separately. For 1976 the amount payable was £3,592 thousand.

(g) 1974-1976 figures include the cost of hiring goods vehicles.

TABLE 2

PA341

Capital expenditure, 1973 - 1976  
All United Kingdom establishments classified to the industry (a)(b)

	£ thousand			
	1973	1974	1975	1976
Land and buildings				
New building work	9,261	7,695	15,195	8,931
Land and existing buildings				
Acquisitions	1,288	2,707	2,217	3,754
Disposals	4,594	1,628	433	1,823
Vehicles				
Acquisitions				
Motor cars	4,177	5,491 )		
Other vehicles	1,371	1,241 )	7,474	10,701
Disposals				
Motor cars	1,737	1,571 )		
Other vehicles	201	141 )	2,190	3,445
Plant and machinery				
Acquisitions	20,160	20,491	27,329	28,803
Disposals	1,859	1,697	1,509	3,207
<b>Total net capital expenditure</b>	<b>27,867</b>	<b>32,588</b>	<b>48,083</b>	<b>43,715</b>

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size. Satisfactory returns accounted for 71 per cent of employment within the industry.

(b) Capital expenditure in respect of manufacturing establishments where production had not commenced before the end of the year, is included.

TABLE 3

Stocks and work in progress, 1973 - 1976  
All United Kingdom establishments classified to the industry (a)

	£ thousand			
	1973	1974	1975	1976
			Increase	Value at end of year
Materials, stores and fuel	20,759	30,555	7,489	120,325
Work in progress	127,583	281,071	56,592	536,557
Goods on hand for sale	7,175	1,268	17,387	35,020
<b>Total</b>	<b>155,517</b>	<b>312,894</b>	<b>81,467</b>	<b>691,902</b>

(a) Including estimates for establishments not making satisfactory returns, non-response and establishments exempt because of size. Satisfactory returns accounted for 71 per cent of employment within the industry.



TABLE 4

Analysis of establishments by size, 1976  
All United Kingdom establishments classified to the industry (a)

PA341

Size group (b)	Estab-lish-ments	Enter-prises (c)	Employment			Wages and salaries (f)			
			Total (d)	Opera-tives	Others (e)	Operatives		Others (e)	
						Total	per head	Total	per head
Number	Number	Number	Number	Number	Number	£ thousand	£	£ thousand	£
1 - 10	877	865	4,609						
11 - 19	397	394	5,771						
20 - 49	426	418	13,644	26,345	11,868	79,144	3,004	43,450	3,661
50 - 99	233	225	15,631						
100 - 199	151	142	20,641	13,775	6,830	42,569	3,090	25,498	3,733
200 - 299	45	42	10,948	6,477	4,468	19,889	3,071	17,276	3,867
300 - 399	19	18	6,627	3,755	2,868	13,446	3,581	11,948	4,166
400 - 499	20	20	8,931	5,275	3,653	19,374	3,673	13,916	3,809
500 - 749	15	15	8,778	5,295	3,483	17,161	3,241	14,246	4,090
750 - 999	18	17	15,487	6,949	8,538	24,483	3,523	35,872	4,201
1,000 - 1,499	11	10	13,149	6,184	6,965	23,613	3,818	34,839	5,002
1,500 - 1,999	5	5	8,528	5,795	2,733	22,039	3,803	10,875	3,979
2,000 and over	8	6	31,363	20,007	11,356	79,227	3,960	45,681	4,023
<b>Total</b>	<b>2,225</b>	<b>2,028</b>	<b>164,107</b>	<b>99,857</b>	<b>62,762</b>	<b>340,944</b>	<b>3,414</b>	<b>253,601</b>	<b>4,041</b>

- (a) Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 employees.
- (b) Average number employed, including full and part-time employees (see table 7) and working proprietors.
- (c) The sum of the figures for the size groups may exceed the total for the industry because some enterprises control establishments in more than one size group.
- (d) Including working proprietors.
- (e) Administrative, technical and clerical employees.

PA341

Total sales and work done (g)	Gross output	Net output	Gross value added at factor cost		Net capital expenditure (h)	Total stocks and work in progress at end of year	
			Total	per head			
							Total
£ thousand	£ thousand	£ thousand	£	£ thousand	£	£ thousand	£ thousand
457,354	472,503	226,849	5,721	(j)	(j)	13,648	101,562
252,770	260,991	128,193	6,211	305,275(j)	5,063(j)	6,393	66,686
156,855	162,426	74,797	6,832	61,077	5,579	5,603	35,048
94,706	98,442	52,304	7,893	45,213	6,823	1,758	27,306
122,729	124,795	63,959	7,161	54,595	6,113	2,007	33,270
126,768	129,586	54,130	6,166	46,508	5,298	2,662	32,197
228,447	225,759	108,192	6,986	89,027	5,749	3,799	49,218
153,956	159,030	93,732	7,128	79,644	6,057	3,747	38,019
81,739	84,801	51,501	6,039	45,792	5,370	1,187	22,177
357,916	399,771	261,274	8,331	233,466	7,444	2,912	286,420
<b>2,033,241</b>	<b>2,118,105</b>	<b>1,114,931</b>	<b>6,794</b>	<b>960,598</b>	<b>5,853</b>	<b>43,715</b>	<b>691,902</b>

- (f) The cost of employers' contributions to national insurance, graduated pensions, other pensions and welfare schemes and the running costs of canteens, is estimated for the industry at £74,913 thousand.
- (g) Sales of goods produced, capital goods manufactured, buildings constructed by establishments for their own use, work done, industrial and non-industrial services rendered and merchanted goods.
- (h) New building work plus acquisitions less disposals of land and existing buildings, vehicles and plant and machinery.
- (j) Gross value added data relate to establishments employing 1-199.



TABLE 5

Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1976  
All United Kingdom establishments classified to the industry

PA341

Area	Total employment (a)		Net capital expenditure (b)(c)		Net output, gross value added and employment in the region from returns received from establishments with more than 80 per cent of their employment in the region (d)		
	Thousands	per cent of United Kingdom	£ thousand	per cent of United Kingdom	Net output £ thousand	Gross value added at factor cost £ thousand	Employment as a percentage of total regional employment in the industry
Standard regions of England							
North	21.5	13.1	4,680	10.7	137,178	123,843	78.0
Yorkshire and Humberside	12.2	7.4	5,384	12.3	37,694	33,080	52.3
East Midlands	10.1	6.2	2,895	6.6	40,060	36,726	75.0
East Anglia	3.4	2.1	905	2.1	2,997	2,657	16.5
South East	34.7	21.2	6,061	13.9	205,077	172,127	62.8
South West	4.2	2.6	1,572	3.6	17,550	15,515	57.0
West Midlands	27.5	16.7	6,769	15.5	89,110	77,822	61.3
North West	17.6	10.7	5,553	12.7	66,467	56,555	52.1
England	131.1	79.9	33,820	77.4	596,133	518,325	62.1
Wales	6.8	4.1	1,552	3.6	18,548	17,010	44.3
Scotland	25.1	15.3	8,233	18.8	78,289	67,160	49.9
Great Britain	163.0	99.3	43,605	99.8	692,970	602,495	59.5
Northern Ireland	1.1	0.7	109	0.2	4,144	3,623	78.9
Unallocated (e)	—	—	—	—	417,817	354,481	—
United Kingdom (b)	164.1	100.0	43,715	100.0	1,114,931	960,598	—

- (a) Average number employed, including full and part-time employees (see table 7) and working proprietors.
- (b) Including estimates for establishments not making satisfactory returns, non-response and establishments with fewer than 20 employees.
- (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 and gross value added 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 and gross value added at each address covered by a return was proportional to employment at the address.
- (e) Unallocated net output and gross value added covering establishments with addresses in two or more regions, plus estimates for unsatisfactory returns, non-response and establishments exempt because of size.

TABLE 6

Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 20 or more persons, 1976

PA341

Accounting year ended	Percentage of total returns received		Percentage of total number employed	
	per cent		per cent	
1976 April (a)	1.6		0.3	
May	1.0		1.0	
June	4.6		1.6	
July	2.9		1.1	
August	2.4		0.7	
September	5.7		7.0	
October	4.5		2.9	
November	2.4		1.7	
December	42.0		43.1	
1977 January	4.6		13.0	
February	2.1		0.8	
March (b)	26.2		26.9	

(a) From 6th April.

(b) Including returns made for twelve-month period ended 1st to 5th April 1977.

TABLE 7

Percentage analysis of employees, by full and part-time employment and sex, 1976(a)

Sex	Full-time		Part-time		All employees	
	per cent		per cent		per cent	
Male	89		1		90	
Female	8		2		10	

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at end June, 1976.

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## 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, 1976.

## GENERAL INFORMATION

### Changes made for 1976

The Census for 1976 is in line with similar inquiries being conducted in other member countries of the European Economic Communities. There was a small number of changes in the scope of the industry reports compared with 1975. These include separate headings for:

- Sales of goods produced
- Receipts for work done and industrial services rendered
- Amounts paid for hire of plant and machinery
- Amounts paid for rent of industrial and commercial buildings

Specific changes are explained in the introductions to the industry reports or by footnotes to the tables.

### Suppression of information relating to individual undertakings

Section 9(5)(b) of the Statistics of Trade Act 1947 states - "The following provisions shall have effect with respect to any report, summary or other communication to the public of information obtained under the foregoing provisions of this Act - in compiling any such report, summary or communication the competent authority shall so arrange it as to prevent any particulars published therein from being identified as being particulars relating to any individual person or undertaking except with the previous consent in writing of that person or the person carrying on that undertaking, as the case may be; but this provision shall not prevent the disclosure of the total quantity or value of any articles produced, sold or delivered; so, however, that before disclosing any such total the competent authority shall have regard to any representations made to them by any person who alleges that the disclosure thereof would enable particulars relating to him or to an undertaking carried on by him to be deduced from the total disclosed."

If a figure involved disclosure the contributor concerned was sometimes asked to give permission for its publication. In the majority of cases permission was given. When it was refused and where contributors were not approached the figure has been suppressed, either by combining it with other figures, or 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 in Business Monitor PQ1000.

## 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 the latter case the establishment is defined to cover the combined activities at these addresses (termed local units). Separate figures are obtained of employment and net capital expenditure at each unit in order to compile regional tables.

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 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 PA1002) related establishments are combined. For these purposes an enterprise group may be defined as a business consisting of either a single establishment or two or more establishments under common ownership or control. Bringing together 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 making returns to the quarterly inquiries, the industrial classification is derived from an analysis of their sales of commodities and is reviewed annually. Employment data are 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 are 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 with 25 or more employees provide to the quarterly inquiries. Information about establishments with fewer 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 1976 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 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 and design employees (other than operatives); draughtsmen, editorial staff, advertising staff, travellers and all office employees.

Operatives include all other classes of employees, that is, broadly speaking, all manual wage earners. They include operatives employed in power stations, 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. Establishments were asked not to deduct from the value of capital expenditure amounts received or expected to be received in grants or allowances from the Government or any statutory body or local authority. Establishments with 100 or more employees were asked to include a total net capital expenditure figure for 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 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 assets acquired in taking over an existing business), and the amounts receivable for freeholds or leaseholds disposed of. The value is that charged to capital account during the year of return.

### (c) Plant, machinery and vehicles

The items shown are the value of plant and machinery and of vehicles acquired, both new and second-hand, and the amount received for items disposed of during the year. The value of plant and machinery acquired includes plant, etc. which



firms produced for their own use in connection with the business covered by the return. The value of plant, etc. acquired is the expenditure charged to capital account during the year of return less any discounts received, but including the cost of transport and installation. 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

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

#### Cost of non-industrial services

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

#### 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, hire of plant and machinery, 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.

#### Purchases

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.

#### Sales of goods produced

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 and sales of waste products are included. 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 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.

#### Work done and industrial services rendered

Figures for work done represent the amount charged for work carried out on materials supplied by a customer and include repair work. Within certain

industries this heading covers a wide variety of activities, for example, within the food sector - butter packed on commission; within the textile industries - making up of garments, fur dressing and textile finishing; within printing and publishing - preparatory work on type-setting, block making and binding. Work done is also significant in the electrical machinery and heavy 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 include repairs and maintenance, installation work, and technical research and studies for other organisations.

Capital goods produced for establishments' own use This includes all work of a capital nature carried out during the year by the establishments' own staff for their own use.

#### Non-industrial services rendered

This 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. It also includes amounts received for the right to use patents, trademarks, copyrights etc., manufacturing and quarrying rights and technical "know-how" and revenue from such staff facilities as canteens.

#### Goods merchanted or factored

Merchantied 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.

#### 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 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 sub-contractors 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, super-annuation 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 and holiday homes, etc. for employees, former employees and their dependants are also included.



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