

"Our mission is to improve decision making, stimulate research and inform debate within government and the wider community by providing a quality statistical service"

# Report on the Census of Production 1993

PA28.3

Manufacture of steam generators, except central heating hot water boilers

# **BUSINESS MONITOR**

A publication of the Government Statistical Service

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

# **BUSINESS MONITORS MAKING UP THE COMPLETE CENSUS REPORT**

PA1001 PA10.1	Introductory notes Mining and agglomeration of hard coal	PA27.3	Other first processing of iron and steel and production of non
PA11.1	Extraction of crude petroleum and natural gas	PA27.4	ECSC ferro-alloys  Manufacture of basic precious and non-ferrous metals
PA14.1	Quarrying of stone	PA27.5	Castings of metals
PA14.2	Quarrying of sand and clay	PA28.1	Manufacture of structural metal products
PA14.3	Mining of chemical and fertilizer minerals	PA28.2	Manufacture of tanks, reservoirs and containers of metal;
PA14.4	Production of salt		manufacture of central heating radiators and boilers
PA15.1	Production, processing and preserving of meat and meat products	PA28.3	Manufacture of steam generators, except central heating
PA15.2	Processing and preserving of fish and fish products		hot water boilers
PA15.3	Processing and preserving of fruit and vegetables	PA28.4	Forging, pressing, stamping and roll forming of metal;
PA15.4	Manufacture of vegetable and animal oils and fats		powder metallurgy
PA15.5 PA15.6	Manufacture of dairy products  Manufacture of grain mill products, starches and starch products	PA28.5	Treatment and coating of metals; general mechanical
PA15.7	Manufacture of prepared animal feed	PA28.6	engineering
PA15.8	Manufacture of other food products	PA28.7	Manufacture of cutlery, tools and general hardware Manufacture of other fabricated metal products
PA15.9	Manufacture of beverages	PA29.1	Manufacture of machinery for the production and use of
PA16.0	Manufacture of tobacco products	112,.1	mechanical power, except aircraft, vehicle and cycle engines
PA17.1	Preparation and spinning of textile fibres	PA29.2	Manufacture of other general purpose machinery
PA17.2	Textile weaving	PA29.3	Manufacture of agricultural and forestry machinery
PA17.3	Finishing of textiles	PA29.4	Manufacture of machine tools
PA17.4	Manufacture of made-up textile articles, except apparel	PA29.5	Manufacture of other special purpose machinery
PA17.5	Manufacture of other textiles	PA29.6	Manufacture of weapons and ammunition
PA17.6	Manufacture of knitted and crocheted fabrics  Manufacture of knitted and crocheted articles	PA29.7	Manufacture of domestic appliances not elsewhere classified
PA17.7 PA18.1	Manufacture of leather clothes	PA30.0	Manufacture of office machinery and computers
PA18.2	Manufacture of other wearing apparel and accessories	PA31.1 PA31.2	Manufacture of electric motors, generators and transformers
PA18.3	Dressing and dyeing of fur; manufacture of articles of fur	PA31.2 PA31.3	Manufacture of electricity distribution and control apparatus Manufacture of insulated wire and cable
PA19.1	Tanning and dressing of leather	PA31.4	Manufacture of insulated wife and cable  Manufacture of accumulators, primary cells and primary
PA19.2	Manufacture of luggage, handbags and the like, saddlery and	1101.4	batteries
	harness	PA31.5	Manufacture of lighting equipment and electrical lamps
PA19.3	Manufacture of footwear	PA31.6	Manufacture of electrical equipment not elsewhere classified
PA20.1	Sawmilling and planing of wood; impregnation of wood	PA32.1	Manufacture of electronic valves and tubes and other
PA20.2	Manufacture of veneer sheets; manufacture of plywood, lamin-		electronic components
	board, particle board, fibre board and other panels and boards	PA32.2	Manufacture of television and radio transmitters and apparatus
PA20.3	Manufacture of builders' carpentry and joinery		for line telephony and line telegraphy
PA20.4	Manufacture of wooden containers	PA32.3	Manufacture of television and radio receivers, sound or video
PA20.5	Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	DA22 1	recording or reproducing apparatus and associated goods
PA21.1	Manufacture of pulp, paper and paperboard	PA33.1	Manufacture of medical and surgical equipment and orthopaedic appliances
PA21.2	Manufacture of articles of paper and paperboard	PA33.2	Manufacture of instruments and appliances for measuring,
PA22.1	Publishing	1105.2	checking, testing, navigating and other purposes, except
PA22.2	Printing and service activities related to printing		industrial process control equipment
PA22.3	Reproduction of recorded media	PA33.3	Manufacture of industrial process control equipment
PA23.1	Manufacture of coke oven products	PA33.4	Manufacture of optical instruments and photographic
PA23.2	Manufacture of refined petroleum products		equipment
PA24.1	Manufacture of basic chemicals	PA33.5	Manufacture of watches and clocks
PA24.2	Manufacture of pesticides and other agro-chemical products	PA34.1	Manufacture of motor vehicles
PA24.3	Manufacture of paints, varnishes and similar coatings, printing ink and mastics	PA34.2	Manufacture of bodies (coachwork) for motor vehicles;
PA24.4	Manufacture of pharmaceuticals, medicinal chemicals and	DA242	manufacture of trailers and semi-trailers
11124.4	botanical products	PA34.3	Manufacture of parts and accessories for motor vehicles and their engines
PA24.5	Manufacture of soap and detergents, cleaning and polishing	PA35.1	Building and repairing of ships and boats
	preparations, perfumes and toilet preparations	PA35.2	Manufacture of railway and tramway locomotives and
PA24.6	Manufacture of other chemical products		rolling stock
PA24.7	Manufacture of man-made fibres	PA35.3	Manufacture of aircraft and spacecraft
PA25.1	Manufacture of rubber products	PA35.4	Manufacture of motorcycles and bicycles
PA25.2	Manufacture of plastic products	PA35.5	Manufacture of other transport equipment not elsewhere
PA26.1	Manufacture of glass and glass products		classified
PA26.2	Manufacture of non-refractory ceramic goods other than for	PA36.1	Manufacture of furniture
	construction purposes; manufacture of refractory ceramic	PA36.2	Manufacture of jewellery and related articles
DA262	Month of the state	PA36.3	Manufacture of musical instruments
PA26.3 PA26.4	Manufacture of bricks tiles and construction products in	PA36.4	Manufacture of sports goods
11120.4	Manufacture of bricks, tiles and construction products, in baked clay	PA36.5 PA36.6	Manufacture of games and toys Miscellaneous manufacturing not elsewhere classified
PA26.5	Manufacture of cement, lime and plaster	PA40.1	Production and distribution of electricity
PA26.6	Manufacture of articles of concrete, plaster and cement	PA40.1 PA40.2	Manufacture of gas; distribution of gaseous fuels through
PA26.7	Cutting, shaping and finishing of stone	1110.2	mains
PA26.8	Manufacture of other non-metallic mineral products	PA41.0	Collection, purification and distribution of water
PA27.1	Manufacture of basic iron and steel and of ferro-alloys (ECSC)	PA45.0	Construction
PA27.2	Manufacture of tubes	PA1002	Summary volume
		2	

# PA 28.3

The information in this report relates to businesses classified to the Manufacture of steam generators industry, Group 28.3 in the Standard Industrial Classification Revised 1992. The Industry Group covers the following Class:

# 28.30 Manufacture of steam generators

# This class includes:

- manufacture of steam or other vapour generators
  manufacture of auxiliary plant for use with steam generators: condensers, economizers, super-heaters, steam collectors and accumulators
- manufacture of nuclear reactors
- pipe system construction comprising further processing of tubes generally to make pressure pipes or pipe systems together with the associated design and construction work

For a full description of the 1992 classification see Standard Industrial Classification of economic activities 1992, obtainable from HMSO, price £19.95.

In interpreting the data in the tables it is essential to bear in mind the notes and definitions which commence on page 4.

# LIST OF CONTENTS

			Page
Explanatory no	tes and definitions		4-9
Table 1	Output and costs, 1993		10
Table 2	Capital expenditure, 1993		11
Table 3	Stocks and work in progress, 1993		11
Table 4	Employment, labour costs, output, net capital expenstocks and work in progress by size of total employn		12-13
Table 5	Percentage analysis of twelve-month periods covered received for the 1993 Census by number of returns a employment		14
Table 6	Operating ratios, 1993		14
Table 7	Regional distribution of employment, net capital expoutput and gross value added at factor cost, 1993	enditure, net	15

# EXPLANATORY NOTES AND DEFINITIONS INTRODUCTION

- 1. These notes give basic information to help with the interpretation of tables in this Industry Report. More general information about the Census is given in a separate Business Monitor Report on the Census of Production, Introductory Notes (PA1001).
- 2. Since 1980, Censuses have been conducted on the Standard Industrial Classification Revised 1980 SIC(80). The Standard Industrial Classification exists to promote uniformity and comparability in the official statistics of the United Kingdom. The SIC(80) is the result of an attempt to align the United Kingdom classification with the General Industrial Classification of Economic Activities within the European Communities (NACE). It is based on activity rather than commodities produced. A full description of SIC(80) is given in Standard Industrial Classification Revised 1980, obtainable from HMSO, price £4.25.
- 3. In 1990, however, the first revision of NACE was made by EC regulation. This regulation makes it necessary for the UK to introduce a new Standard Industrial Classification, SIC(92), based on NACE Rev 1. The regulation guarantees comparability between national and Community classifications and therefore between national and Community statistics. Full details of SIC(92) are given in 'Standard Industrial Classification 1992', obtainable from HMSO, price £17.50, reference ISBN 0 11 620551 2.

The 1993 census is the first conducted on SIC (92) and business monitors published in respect of 1993 will contain data for that year only and are being issued, whenever possible, for each 3 digit Group of SIC (92). However, a limited range of 1991 and 1992 data reworked to SIC(92) Section and Sub-Section level has been published as a supplement to the Census Summary Volume (PA1002).

# REPORTING UNIT

- 4. From the earliest censuses of production until that for 1986 the reporting unit to the census was the establishment. This was defined as the smallest unit which could provide the full range of data required for an economic census. Establishments were asked where possible to exclude from their returns to the census any non-production activity.
- 5. In 1987, for a number of administrative and statistical reasons, a new system of company-based reporting was introduced. Under the new system the reporting unit to the census is, generally, the company, but there are some exceptions. These arise, for example, for large mixed activity companies which are asked to make separate returns to the census for each of their production activities on an establishment basis. Throughout this monitor this mixture of reporting units are referred to as "businesses". These businesses are no longer asked to exclude non-production activities.
- 6. In practice, since most businesses, both before and after the change, reported for the company as a whole, little difference to the main economic series has resulted from the change.
- 7. For most businesses, the returned data are appropriate to a

single activity heading of SIC (80) and fall within a single geographical region. Where information covers a mixture of activities, the business is classified according to the main activity. Where the business operates at a number of different addresses then, in order to enable regional data to be compiled, separate information on employment and capital expenditure is sought for each address.

### THE REGISTER

- 8. A register of businesses throughout the United Kingdom is held on the CSO computer and provides the basis for CSO inquiries. For each business the register contains identification particulars and information about its eligibility for inclusion in an inquiry, its relationship with other businesses in common ownership, its industrial classification, the nationality of its parent and location indicators for regional analyses. Regional and size analyses of manufacturing units are published in Business Monitor PA1003 Size analyses of United Kingdom businesses.
- 9. The Annual Census and other CSO inquiries provide a major source of information for checking the register and updating employment data. Where businesses do not make returns to these inquiries, estimates of employment are imputed from VAT turnover. For businesses which have an imputed employment of 11 or more, the estimates are checked by means of register proving forms. For businesses on the register making returns to the Quarterly or Annual Sales Inquiries, industrial classification is reviewed annually and is derived from an analysis of their commodity sales. For other businesses the classification is obtained either from VAT sources or from the register proving forms. Estimates of employment made by the CSO and the Department of Employment differ because they are derived from two separate inquiries and use different procedures and employment definitions.

# COVERAGE

- 10. The Census covers United Kingdom businesses engaged in industrial production, ie mining and quarrying, manufacturing, construction, and gas, electricity and water supply industries (Divisions 1 to 5 of SIC(80)). Businesses in the Channel Islands and the Isle of Man are excluded.
- 11. Under the sampling arrangements agreed for the 1993 Census, forms were despatched to all businesses with 100 or more employed and, for most production industries, samples of 1 in 5 and 1 in 2 respectively being taken for businesses in the 20 to 49 and 50 to 99 employment size bands. In addition, sampling was extended to the 10-19 size band and to the 1-9 size band in selected industries. It was necessary to increase the sample in those industries where there were few businesses in the sample size band or where response in earlier years was poor. About 15,700 forms were despatched in the United Kingdom for the 1993 Census.

# PERIOD COVERED

12. Businesses were asked to make returns for the calendar year 1993 but, where this was not possible, returns for business years ending between 6 April 1993 and 5 April 1994 were accepted. Returns covering fewer than twelve months were accepted for

businesses which had started or ceased trading during the year.

# ESTIMATION

- 13. All published Census results include estimates for nonresponders, unsatisfactory returns and businesses not selected for the Census. Estimates are also made for items not covered in the shorter form sent to smaller businesses.
- 14. For the 1993 census a change in estimation procedures was introduced. This meant that within employment size groups in each industry, the "average per head" is calculated for each census variable by dividing the total returned value for each variable by the total selected employment of each responding business. This value is multiplied by the employment thought to exist in each non-responding or non-selected business to yield an estimated value for that business. Estimates for items not collected on the shorter form are made in a similar way using selected employment.
- 15. The accuracy of the totals produced by adding together estimates and returned data is mainly dependent on the level of response. The extent to which businesses making satisfactory returns account for the total employment of any industry is shown as a percentage in footnote (a) to table 1. Thus the accuracy of the data published in an Industry Report where 95 per cent of the employment in the industry is covered by the returns made will, in general, be better than that in an Industry Report where the coverage is only 70 per cent.
- 16. Additionally, the extent to which individual headings in an Industry Report are related to employment should be taken into account in assessing the accuracy of estimated data. Thus an estimate of total earnings which bears a close relationship to total employment is likely to be more accurate than an estimate of capital expenditure where the relationship to employment is not so clearly marked.

# SUPPRESSION OF INFORMATION RELATING TO INDIVIDUAL UNDERTAKINGS

17. Sub-section 9(5)(b) of the Statistics of Trade Act 1947 states that:

"The following provisions shall have effect with respect to any report, summary or other communication to the public of information obtained under the foregoing provisions of this Act -

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

person who alleges that the disclosure thereof would enable particulars relating to him or to an undertaking carried on by him to be deducted from the total disclosed."

18. Figures which would be likely to disclose particulars relating to an individual undertaking are not published unless the contributor has given written consent for their publication.

# **CHANGES MADE FOR 1993**

19. The 1993 census like that for 1992 was a slimline one. Changes in Standard Industrial Classification, sampling and estimation procedures have been detailed in previous paragraphs. The additional question identifying those businesses with employees engaged in Research and Development work and the break down on capital and current costs associated with pollution prevention and solid waste management, were retained. As for the 1992 Census the breakdown of questions on capital expenditure and stocks were excluded. Data for the stocks variables in the 1993 results have been estimated from information collected in the CSO Quarterly Stocks Inquiries. No individual asset types have been published for the capital expenditure variables.

# SYMBOLS USED

- 20. The following symbols are used throughout the PA series of Business Monitors:
  - .. not available
  - nil or less than half the final digit shown
  - \* information suppressed to avoid disclosure
  - R revised

### **ROUNDING OF FIGURES**

21. Figures in the tables have been rounded to the nearest final digit where necessary and, in these instances, the sum of the constituent items may not always agree exactly with the total shown.

# **EXPLANATION OF TERMS USED IN THE CENSUS REPORT**

22. The notes and definitions given in this section are based on the instructions given to respondents as to the way in which returns were to be completed.

### CAPITAL EXPENDITURE

23. This represents the value charged to capital account together with any other amounts which ranked as capital items for taxation purposes during the year to which each return related. The value is inclusive of any amounts received or expected to be received in grants and/or allowances from government sources, statutory bodies or local authorities. Capital expenditure during

the year in respect of production units where production had not started before the end of the year and the value of CAPITAL GOODS PRODUCED FOR USE WITHIN THE BUSINESS by its own staff are included. The value of any assets acquired in taking over an existing business is excluded. The figures include non-deductible VAT but exclude deductible VAT. No allowance is made for depreciation, amortisation or obsolescence.

### a. on LAND AND EXISTING BUILDINGS

24. This represents the value of freeholds and the value or premium payable or receivable for leaseholds acquired or disposed of. The figures for acquisitions include architects' and surveyors' fees, legal fees, stamp duties, agents' commissions and Land Registry fees. The figures for disposals are net of any such professional fees payable.

# b. on NEW BUILDING WORK

25. This represents the value of new building and other constructional work such as the extension and reconstruction of old buildings, and the value of any newly constructed buildings acquired. The figures include architects' and surveyors' fees, legal fees, stamp duties, agents' commissions and Land Registry fees.

# c. on PLANT AND MACHINERY, VEHICLES

26. This represents the value of new and second-hand plant and machinery and vehicles acquired or disposed of. The figures for acquisitions are net of any discounts received but include the cost of transport and installation and Customs and Excise car tax. The figures for disposals exclude amounts written off for capital assets which are scrapped.

# CAPITAL GOODS PRODUCED FOR USE WITHIN THE BUSINESS

27. This represents the value of all work of a capital nature carried out during the year by the staff of, and for use in, the businesses covered by the returns.

# COST OF INDUSTRIAL SERVICES RECEIVED

28. This includes amounts payable to other organisations for work done on materials supplied by the business completing the return, for repairs and maintenance including those in respect of rented buildings, and for contracts which have been sublet. Direct payments to outworkers and amounts charged to capital account are excluded.

# **COST OF NON-INDUSTRIAL SERVICES RECEIVED**

29. This includes commercial insurance premiums, bank charges and amounts payable to other organisations for the hire of vehicles, plant and machinery, for the rent of industrial and commercial buildings, for the services of accountants, auditors, agents, solici-

tors and surveyors other than in connection with the acquisition or disposal of capital assets, for postal and telecommunications services, for carriage by all forms of transport within the United Kingdom, for advertising, market research etc, for the right to use patents, trade marks, copyrights etc., for manufacturing and quarrying rights and technical knowledge. Interest payments and amounts payable for sea and air freight on goods exported and on materials and fuel imported are excluded.

# EMPLOYERS' NATIONAL INSURANCE CONTRIBU. TIONS ETC

30. This includes employers' national insurance contributions under the Social Security Pensions Act 1975, commercial insurance premiums for policies providing pensions, superannuation or other retirement benefits, sickness benefits, personal accident benefits, disability benefits or death benefits for employees, including former employees, or their dependants. Also included are contributions to canteens, social centres, children's and holiday homes etc and the cost of supplying luncheon vouchers.

### **EMPLOYMENT**

31. This is the average number of ADMINISTRATIVE, TECHNICAL AND CLERICAL EMPLOYEES AND OPERATIVES on the payroll and the number of WORKING PROPRIETORS employed during the year of return. Full-time and part-time employees are included but outworkers (ie people who worked in their own homes on materials supplied by the business) and casual employees such as jobbers are excluded. The average number of employees returned by individual businesses may have been calculated by, for example, the average of the number of employees on the payroll for the last week of each calendar month.

# a. ADMINISTRATIVE, TECHNICAL AND CLERICAL EMPLOYEES

32. This includes directors who received a definite wage, salary or commission, managers, foremen, draughtsmen, editorial and advertising staff, travellers, all office employees and research and design employees except operatives.

# b. OPERATIVES

33. This includes all manual wage earners including operatives in power stations, operatives engaged in outside work of erecting, fitting etc, inspectors, maintenance workers and cleaners. Staff engaged in transport (including roundsmen) and employed in warehouses, stores, shops and canteens are included.

# c. WORKING PROPRIETORS

34. These are people who are regarded as self-employed for national insurance purposes, members of their families who worked in the business without receiving a definite wage or salary for at

least half the normal working hours and directors who worked in the business but did not receive a definite wage, salary or commission. Part-time Directors paid by fee only and directors who received a definite wage, salary or commission are excluded.

# ENTERPRISE

35. This is defined as one or more businesses under common ownership or control.

# GROSS OUTPUT

36. This is calculated by adjusting the value of TOTAL SALES AND WORK DONE by the changes during the year of WORK-ING PROGRESS and GOODS ON HAND FOR SALE.

# GROSS VALUE ADDED AT FACTOR COST

37. This is calculated by deducting from NET OUTPUT the COST OF NON-INDUSTRIAL SERVICES RECEIVED, RATES and the cost of LICENSING OF MOTOR VEHICLES. This estimate of gross value added approaches more closely than NET OUTPUT the definition of net output or value added in national accounts statistics.

# GROSS VALUE ADDED AT FACTOR COST PER HEAD

38. This is calculated by dividing GROSS VALUE ADDED AT FACTOR COST by total EMPLOYMENT.

# NET CAPITAL EXPENDITURE

39. Comprises of the values of NEW BUILDING WORK acquisitions less disposals of LAND AND EXISTING BUILDINGS, VEHICLES and PLANT AND MACHINERY. These individual asset types are not collected separately.

# NET OUTPUT

40. This is calculated by deducting from GROSS OUTPUT the cost of PURCHASES OF MATERIALS FOR USE IN PRODUCTION AND PACKAGING AND FUEL and PURCHASES OF GOODS FOR MERCHANTING OR FACTORING, the COST OF INDUSTRIAL SERVICES RECEIVED and is adjusted for net duties and levies etc where applicable. Purchases are adjusted for changes during the year of STOCKS OF MATERIALS, STORES AND FUEL.

# **NET OUTPUT PER HEAD**

41. This is calculated by dividing NET OUTPUT by total EMPLOYMENT.

# NON-INDUSTRIAL SERVICES RENDERED

42. This includes amounts charged for the hire of vehicles, plant and machinery, for the rent of industrial and commercial buildings, for the right to use patents, trade marks, copyrights etc, for manufacturing and quarrying rights, for technical know-how and for the provision of transport to other organisations. It also includes revenue from staff facilities such as canteens.

# **OPERATING RATIOS**

43. These ratios are calculated using industry totals, ie including the estimates for businesses not responding to or not selected for the Census. Respondents are able to compare the ratios for their own businesses with those for the industry as a whole.

# PURCHASES OF MATERIALS FOR USE IN PRODUCTION, AND PACKAGING AND FUEL. PURCHASES OF GOODS FOR MERCHANTING OR FACTORING

44. These include the cost of raw materials, components, semimanufactured goods and workshop materials, replacement parts and consumable tools not charged to capital account, packaging materials of all types, stationery and printed matter, fuel, electricity and water, materials of all types used by the business or given out to others, for the production of machinery or other capital items used in the business, and materials used when working on goods supplied by customers. The figures exclude VAT, purchases of machinery and plant, which are included in CAPITAL EXPENDI-TURE, and amounts payable to transport firms or credited to the business's own transport departments for delivery of materials. The figures are net of the value of goods or packaging materials returned to suppliers and trade discounts receivable. Materials purchased duty-paid are included at their duty-paid value less drawbacks, rebates etc. Imported goods are included at their full delivered cost. If the transport from docks or airport of imported goods is not included in the cost of goods purchased, the cost is entered at c.i.f. plus duty, if applicable. Transfers of goods from other departments of the business not covered by the return are included at the estimated selling value recorded by the other

# REMUNERATION PAID TO OUTWORKERS

45. This represents amounts paid to outworkers, ie people who do work in their own homes generally on a piece-work basis, whose names appear on the payroll. Amounts paid to outworkers by subcontractors are included in the COST OF INDUSTRIAL SERVICES RECEIVED. Estimates are not made for remuneration of outworkers for businesses not completing Census returns.

# SALES OF GOODS PRODUCED

46. This represents sales of goods during the year, whether or not they were produced in the year of the return. It also includes sales of goods made from materials given out to other firms or to

outworkers and sales of waste products and residues. The value of sales is the 'net selling value', ie the amount charged to customers whether valued 'ex-works' or 'delivered' less VAT, trade discounts, agents' commissions etc and allowances on returned goods. Where products attract Excise duty, the value includes duty if the goods are sold 'duty-paid', but excludes it if they are sold in bond or exported. The cost of packaging materials less allowances for returnable containers is included. Sales of fixed assets and exceptional receipts are excluded. Transfers of goods produced by a business to departments not covered by the return (including other businesses in the same enterprise group) are treated as sales, valued as if sold to an independent purchaser.

### STOCKS

47. This represents the value of goods on hand for sale, including goods for merchanting or factoring and of materials, stores and fuel held by businesses, whether held in the United Kingdom or abroad. Values include any duty payable but exclude VAT.

### WAGES AND SALARIES

48. This represents amounts paid during the year to ADMIN-ISTRATIVE, TECHNICAL AND CLERICAL EMPLOYEES and to OPERATIVES. All overtime payments, bonuses, commissions, holiday pay and redundancy payments, less any amounts reimbursed for this purpose from government sources, are included. No deduction is made for income tax or employees'

national insurance contributions etc. Payments to WORKING PROPRIETORS, payments in kind, travelling expenses, lodging allowances etc and EMPLOYERS' NATIONAL INSURANCE CONTRIBUTIONS ETC are excluded.

# WORK DONE AND INDUSTRIAL SERVICES RENDERED

49. This includes amounts charged for work carried out including that done by sub-contractors on customers' materials and amounts charged for materials supplied in the course of such work. Industrial services such as repairs and maintenance, installation work and technical research and studies rendered to other organisations is also included. For certain industries this heading covers a wide variety of activities, for example, butter packed on commission in the food industries, making up of garments, fur dressing and textile finishing in the textile industries, and preparatory work on typesetting, block making and binding in the printing and publishing industries. Work done is an important part of the activities of the electrical machinery and heavy engineering industries, and includes erection, installation and repair and jobbing work.

# **WORK IN PROGRESS**

50. This represents materials which have been partially processed and are awaiting further processing before being sold or transferred. Progress payments made to sub-contractors are excluded and progress payments received from other organisations are not deducted.

8

.

Output and costs, 1993 All United Kingdom businesses classified to the industry(a)

were at compressions and and afterward on the	recursion contact Where	CONTRIBUTIONS ETC as extended.
	Unit	1993
	MO <u>ES basi</u> tate experses.	ANNAN PERSE EMPERENTED A PERSENTE
Enterprise groups	Number	405
Businesses	II a separate to	410
Sales of goods produced	£ million	748.3
Work done and industrial services rendered	enica, volence as a scentia.	259. 7
Capital goods produced for use within the business	п	0. 2
Non-industrial services rendered	n .	4.7
Goods merchanted or factored	II .	62. 6
Total sales and work done	e San Harrison Landson	1, 075. 5
Increase during the year, work in progress and goods on hand for sale	of spaceristic system and by The mod Wang boson or	-14. 6
Gross output		1, 060. 9
Purchases of materials for use in production, packaging and fuel	п	278. 3
Purchases of goods for merchanting or factoring	п	60.8
Increase during the year, stocks of materials, stores and fuel	п	4.8
Cost of industrial services received	II .	277. 4
Net output	n - a - a - a - a - a - a - a - a - a -	449. 2
Total employment	Thousand	15. 7
Net output per head	£	28, 579
Cost of non-industrial services received		
Hire of vehicles, plant and machinery	£ million	14. 4
Rents of industrial and commercial buildings	п	4.4
Commercial insurance premiums	п	6. 6
Bank charges	п	0.5
Other non-industrial services	п	51.8
icensing of motor vehicles	п	0. 2
Rates, excluding water rates	п	4. 1
Gross value added at factor cost	п	367. 1
Gross value added at factor cost per head	£	23, 355

<sup>(</sup>a) Satisfactory returns accounted for 62 per cent of employment within the industry in 1993.

TABLE 2	
Capital expenditure, 1993(a) All United Kingdom businesses classified	to the industry

			asitissalo saseanisud (£)	million
Greek Greek to the acquisit	6-14	Repoyolatile	1993	Total Mathematics
			and the property of	
otal acquisitions			11. 6	
otal proceeds from disposals			7. 0	
Total net capital expenditure			4. 7	

(a) See paragraph 39 of the explanatory notes for changes in collection.

# TABLE 3

Stocks and work in progress, 1993 All United Kingdom businesses classified to the industry

							£ million
8.8	15, 606	12.9	2.0	8.5	1 4 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1993	Value at end of 1993
						M. K. S. C. S.	eat-oge
						increase during year	
Materials, stores and fu	iel					4. 8	22. 8
Work in progress						-14. 6	91. 5
Goods on hand for sale						_	2. 9
Total						- 9. 8	117. 3

TABLE 4

Employment, labour costs, output, net capital expenditure and stocks and work in progress by size of total employment,1993

All united Kingdom businesses classified to the industry(a)

Size group(b)	Busin- esses	Enterprise groups(c)	Employmen	t		Wages and	salaries(d)	enoina	400 400 400 400
			Total Including working proprietors	Opera- tives	Administr ative,tech- nical and clerical	Operatives	eleso estati	Administrati technical an clerical	ve,
						Total	per head	Total	per
	Number	Number	Thousand	Thousand	Thousand	£ million	£	£ million	£
1-9	296	295	1. 4)						
10-19	47	47	1. 4)	4. 2	1. 7	110. 9	26, 480	49. 5	28, 3
20-49	40	40	2. 6)						,0
50-99	10	10	0. 7)						
100-299	8	7	1. 2	0.8	0. 4	12.9	15, 505	6. 8	17, 0
300-749	4	3	1. 2	0. 7	0. 5	12. 0	17, 117	11.5	21, 8
750-Plus	5	4	7. 2	4. 6	2. 6	109. 2	23, 852	55. 7	21, 4

									AND THE PARTY OF T
Total	410	405	15. 7	10.3	5. 3	245. 0	23, 789	123. 4	23, 442
									CONTRACTOR OF THE PARTY OF THE

<sup>(</sup>a) Businesses employing fewer than 10 persons are not required to complete census returns. Because of this, data for these businesses should be regarded merely as best estimates available and used with caution.

PA283

Total per head  E million  E f million  E mi	head head  £ million	Total sales and work done	Gross output	Net output		Gross value added at factor cost		Net capital expenditure	Total stocks and work in progress at end of year
244.5 244.3 134.5 22,088 (e) (e) 1.9 31.2 55.4 53.7 29.8 24,203 147.8(e) 20,194(e) 0.7 8.8 106.5 105.3 40.9 33,418 32.3 26,375 0.5 1.3	244.5 244.3 134.5 22,088 (e) (e) 1.9 31.2 55.4 53.7 29.8 24,203 147.8(e) 20,194(e) 0.7 8.8 106.5 105.3 40.9 33,418 32.3 26,375 0.5 1.3			Total	per head	Total	per head		
244.5 244.3 134.5 22,088 (e) (e) 1.9 31.2 55.4 53.7 29.8 24,203 147.8(e) 20,194(e) 0.7 8.8 106.5 105.3 40.9 33,418 32.3 26,375 0.5 1.3	244.5 244.3 134.5 22,088 (e) (e) 1.9 31.2 55.4 53.7 29.8 24,203 147.8(e) 20,194(e) 0.7 8.8 106.5 105.3 40.9 33,418 32.3 26,375 0.5 1.3	£ million	£ million	£ million	£	£ million	£	£ million	£ million
55.4     53.7     29.8     24,203     147.8(e)     20,194(e)     0.7     8.8       106.5     105.3     40.9     33,418     32.3     26,375     0.5     1.3	55.4     53.7     29.8     24,203     147.8(e)     20,194(e)     0.7     8.8       106.5     105.3     40.9     33,418     32.3     26,375     0.5     1.3	244.5		134.5	22,088	(e)	(e)	1.9	31.2
25, 440	70.0	55.4	53.7	29.8	24,203	147.8(e)	20,194(e)	0.7	8.8

367.1

28,579

449.2

1,060.9

1,075.5

23,355

4.7

117.3

<sup>(</sup>b) The size groups above are based on the recorded employment of businesses at the time of their selection. The employment column is however based upon that returned to the census, which may differ in some cases from employment at selection.

<sup>(</sup>c) The count of enterprises groups shown in each row represents the number of enterprise groups, irrespective of size, owning the businesses shown in each size group. Because an enterprise group may own businesses in more than one size group the sum of the individual enterprise group counts may exceed the total for the industry.

<sup>(</sup>d) The cost of employers' contributions to the national insurance pensions and welfare schemes and the running costs of canteens are excluded from the table but were estimated for the industry at £28.0 million.

<sup>(</sup>e) Gross value added data relate to businesses employing 1-299.

Total sales and work done	Gross output	Net output		Gross value added at factor cost		Net capital expenditure	Total stocks and work in progress at end of year
		Total	per head	Total	per head		
£ million	£ million	£ million	£	£ million	£	£ million	£ million
49. 5	28, 352. 7	49. 5	28, 353	(e)	(e)		31. 2
6. 8	17, 015. 8	6. 8	17, 016	55. 4(e)	54(	(e) 29.8	8. 8
11. 5	21, 898. 7	11. 5	21, 899	106. 5	105	40. 9	1. 3
55. 7	21, 440. 3	55. 7	21, 440	669. 1	658	244. 1	76. 0
123. 4	23, 442. 3	123. 4	23, 442	1, 075. 5	1, 061	449. 2	117.3

TABLE 7

Percentage analysis of twelve-month periods covered by returns received for the 1993 Census by number of returns and total employment

Accounting year ended		F	Percentage of tot eceived	tal returns		Percentage of total employment		
1993	tota ansitumine		18 DADOS		Jugiteo	Necton .	Nacial New	
	April 6-30		Model Topical			_		
	May		4. 2			1.8		
	June		-			_		
	July		_			<u>_</u>		
	August							
	September		16. 7			13. 7		
	October					_		
	November		mail <u>U</u> like ik			maillim a		
	December		50. 0			36. 6		
1994								
	January		8. 3			4. 3		
	February		<u>-</u>					
	1 March - 5 April		20. 8			43. 6		
						2 212 51		

TABLE 6

Operating ratios, 1993

All United Kingdom businesses classified to the industry

	Unit		1993
Gross output per head	£		67, 498
Net output per head	£		28, 579
Gross value added per head	£		23, 355
Gross value added as a percentage of gross output	%		35
Ratio of gross output to stocks			9. 0
Nages and salaries as a percentage of gross value added	%		100
Ratio of operatives to administrative, echnical and clerical employees			2. 0
Vages and salaries per operative	£		23, 789
Nages and salaries per administrative, echnical and clerical employee	£		23, 442
Net capital expenditure per head	£		298
Net capital expenditure as a percentage of gross value added	%		1

Regional distribution of employment, net capital expenditure, net output and gross value added at factor cost, 1993 All United Kingdom businesses classified to the industry

Area	Total employm	Total employment(a)		Net capital expenditure(b)		Net output(c)		Gross value added at factor cost(c)	
	Thousand	per cent of United Kingdom	£ million	per cent of United Kingdom	£ million	per cent of United Kingdom	£ million	per cent of United Kingdom	
Standard regions of England									
North	1. 6	10. 5	0. 5		56. 6	12. 6	43. 8	11.9	
Yorkshire and Humberside	1. 5	9. 8	0. 7		40. 9	9. 1	30. 8	8. 4	
East Midlands	3. 2	20. 4	1. 4		91. 8	20. 4	76. 1	20. 7	
East Anglia	0. 2	1. 2	0. 1		3. 9	0. 9	3. 6	1. 0	
South East	1. 7	10.8	0. 6		38. 5	8. 6	33. 4	9. 1	
South West	0.4	2. 8	0. 2		10. 3	2. 3	9. 4	2. 6	
West Midlands	0. 6	3. 8	0. 2		13. 1	2. 9	11. 9	3. 2	
North West	1. 3	8. 0	-0. 2		26. 7	5. 9	22. 1	6. 0	
	10. 6	67. 2	3. 6	sing.	281. 8	62. 7	231. 1	62. 9	
Vales	0. 4	2. 8	0. 1		10. 1	2. 2	9. 2	2. 5	
Scotland	4. 6	29. 1	0. 9		154. 2	34. 3	124. 0	33. 8	
	15. 6	99. 1	4. 6		446. 1	99. 3	364. 3	99. 2	
Northern Ireland	0. 1	0. 9	0. 1		3. 1	0. 7	2. 8	0.8	
United Kingdom	15. 7	100. 0	4. 7	non	449. 2	100.0	367. 1	100.0	

<sup>(</sup>a) Average number employed during the year, including full and part-time employees and working proprietors.

<sup>(</sup>b) Total acquisitions less total proceeds from disposals.

<sup>(</sup>c) Where a census return covered addresses in two or more regions, an estimate of the net output attributable to each address was made by assuming that net output was proportionate to employment. An estimate for each region was obtained by aggregating estimates of net output for addresses located in that region. Gross value added at factor cost was treated similarly.