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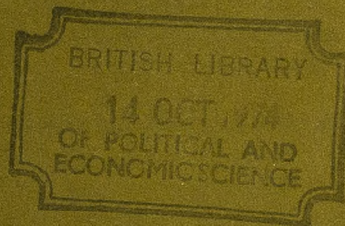
1971

# Business Monitor

A publication of the Government Statistical Service

## Report on the Census of Production

### Motor vehicle manufacturing



HMSO

Department of Industry  
Business Statistics Office

PA381

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A publication of the Government Statistical Service

## Report on the Census of Production 1971

### Motor vehicle manufacturing

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

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#### Special Note for Purchasers

Commencing with the 1971 Census, the Census of Production reports will be numbered in a uniform series embracing all industrial inquiries in the Business Monitor series. These Business Monitors will 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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PA381 MOTOR VEHICLE MANUFACTURING

PA381 1

The information in this report relates to establishments classified to the Motor vehicle manufacturing industry, minimum list heading 381 in the Standard Industrial Classification (revised 1968). The activities of the industry include:-

*The manufacture and assembly of passenger cars, commercial goods vehicles, road tractors solely for tractor-trailer combinations, buses, battery-electric vehicles, motor drawn trailers, caravans, and three wheeled vehicles; the manufacture of engines, bodies, chassis, chassis frames, seats and seat safety belts for motor vehicles, cabs for commercial vehicles and motor body shells; and manufacturing all other parts and accessories (except rough or semi-finished castings and forgings) when made wholly or primarily of metal and not reported elsewhere. Establishments specialising in reconditioning engines and gear boxes are included.*

**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

Input and output, 1970 and 1971

All United Kingdom establishments classified to the industry (a)

	Unit	1970	1971
Enterprises	Number	1,653	1,603
Establishments	"	1,855	1,892
Sales of goods produced and work done	£'000	2,970,755	3,200,712
Services rendered to other organisations (b)	"	6,311	10,173
Goods merchanted or factored	"	251,832	} 334,035
Canteen takings	"	2,731	
<b>Total sales and work done</b>	"	3,231,628	3,544,921
Increase during the year, goods on hand for sale and work in progress	"	74,122	14,239
<b>Gross output</b>	"	3,305,750	3,559,160
Cost of purchases	"	2,225,696	2,406,557
Increase during the year, stocks of materials, stores and fuel	"	40,254 <sup>R</sup>	595
Payments to other organisations for work done on materials given out	"	22,769	30,434
for transport by road	"	25,437	28,501
for transport by rail, water, air and Post Office parcel services	"	3,472	5,025
<b>Total costs</b>	"	2,237,120 <sup>R</sup>	2,471,112
<b>Net output</b>	"	1,068,631 <sup>R</sup>	1,088,048
Total employment (including working proprietors) (c)	Thousands	488.9	485.6
<b>Net output per head</b>	£	2,186 <sup>R</sup>	2,240

(a) For 1971, estimates for establishments not making satisfactory returns and for establishments employing less than 25 persons, accounted for 8 per cent of the total figures in which they were incorporated: of this unsatisfactory returns accounted for 5 per cent. For 1970 the comparable figures were 8 per cent and 6 per cent respectively.

(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 of persons employed during the year.

TABLE 2

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## Capital expenditure and stocks, 1970 and 1971

All United Kingdom establishments classified to the industry (a)

£'000

	1970	1971	
<b>Capital expenditure (b)</b>			
New building work	24,450		19,174
Land and existing buildings			
Acquisitions	2,293		3,632
Disposals	3,857		3,402
Plant and machinery			
Acquisitions	155,238		121,297
Disposals	2,930		3,134
Vehicles			
Acquisitions	6,467		6,307
Disposals	2,513		3,097
<b>Total net capital expenditure (c)</b>	<b>179,147</b>		<b>140,777</b>
Increase in stocks and work in progress, 1970 and 1971 and value of stocks and work in progress at end of 1971	Increase	Increase	Value at end of year
Materials, stores and fuel	40,254	- 595	208,434
Work in progress	52,055	-13,079	243,329
Goods on hand for sale	22,067	27,318	209,816
<b>Total</b>	<b>114,376</b>	<b>13,644</b>	<b>661,579</b>

(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, 1971

All United Kingdom establishments classified to the industry (a)

Size group (b)	Estab- lishments	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 expenditure (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	703	696	4,193	22,451	5,989	27,051	9,408	1,205	1,571	147,113	148,187	59,682	1,988	3,513	22,931
11-24	501	478	8,529												
25-49	166	153	6,134												
50-99	159	149	11,159												
100-199	124	113	16,954	13,553	3,330	16,415	5,255	1,211	1,578	85,084	84,758	36,618	2,160	2,462	13,678
200-299	56	47	14,454	11,300	3,147	14,773	5,510	1,307	1,751	89,198	90,126	33,003	2,283	3,084	18,733
300-399	28	25	9,389	7,161	2,222	8,993	3,513	1,256	1,581	50,396	51,194	22,603	2,407	3,058	8,905
400-499	16	15	7,506	5,617	1,888	6,846	3,009	1,219	1,594	43,830	44,679	19,853	2,645	637	8,048
500-749	43	38	26,733	21,365	5,359	28,783	8,636	1,347	1,611	132,461	132,998	56,913	2,129	3,596	25,537
750-999	14	12	12,541	9,985	2,556	13,427	4,199	1,345	1,643	71,547	72,072	26,073	2,079	1,356	18,413
1,000-1,499	27	18	32,232	23,528	8,704	35,689	13,820	1,517	1,588	263,874	264,635	90,601	2,811	5,880	46,615
1,500-1,999	13	13	22,813	17,150	5,662	24,655	10,504	1,438	1,855	168,748	172,552	63,385	2,778	4,797	28,227
2,000-2,499	12	10	26,532	19,943	6,589	30,623	11,296	1,536	1,714	168,240	169,879	63,889	2,408	6,093	35,134
2,500-3,999	7	5	22,923	18,528	4,395	26,107	7,234	1,409	1,646	119,120	120,359	53,772	2,346	5,299	27,960
4,000-4,999	7	4	32,468	25,531	6,937	40,163	11,548	1,573	1,665	197,172	194,136	67,734	2,086	6,772	28,424
5,000-7,499	4	4	23,501	18,359	5,142	27,933	9,220	1,521	1,793	122,303	126,291	49,693	2,115	4,032	28,014
7,500 and over	12	4	207,579	161,255	46,324	283,271	102,394	1,757	2,210	1,885,835	1,887,295	444,229	2,140	90,197	350,960
<b>Total</b>	1,892	1,603	485,640	375,726	108,244	584,730	205,546	1,556	1,899	3,544,921	3,559,160	1,088,048	2,240	140,777	661,579

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

(b) Average number employed 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

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Percentage analysis of employees, by full and part time employment and sex, 1971 (a)  
All United Kingdom establishments classified to the industry

Sex	Full time	Part time	All employees
	per cent	per cent	per cent
Male	86	-	86
Female	12	2	14
	98	2	100

Source: Department of Employment

(a) The percentages relate to the numbers employed (excluding working proprietors) at mid-June, 1971.

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TABLE 5

Regional distribution of employment, net capital expenditure and net output, 1971  
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)		
	Thousands	per cent of United Kingdom	£'000	per cent of United Kingdom	Estimated net output (£'000)	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
Standard Regions of England							
North	6.9	1.4	10,259	7.3	11,731	68.1	1.1
Yorkshire and Humberside	17.0	3.5	3,721	2.6	32,970	86.5	3.0
East Midlands	11.5	2.4	603	0.4	19,582	73.1	1.8
East Anglia	8.3	1.7	2,213	1.6	7,852	44.0	0.7
South East	146.8	30.2	57,999	41.2	160,862	40.3	14.8
South West	12.2	2.5	1,408	1.0	22,581	90.8	2.1
West Midlands	170.3	35.1	39,570	28.1	343,495	86.6	31.5
North West	73.9	15.2	18,385	13.0	85,832	50.1	7.9
England:	446.8	92.0	134,158	95.2	684,905	64.0	62.9
Wales	18.1	3.7	4,306	3.1	34,815	89.2	3.2
Scotland	19.8	4.1	2,213	1.6	44,632	91.1	4.1
Great Britain	484.7	99.8	140,676	99.9	764,353	66.1	70.2
Northern Ireland	0.9	0.2	101	0.1	978	87.6	0.1
Unallocated (d)	-	-	-	-	322,718	-	29.7
United Kingdom	485.6	100.0	140,777	100.0	1,088,048		100.0

(a) Including working proprietors.

(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 6

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Percentage analysis of twelve-month periods covered by returns received from United Kingdom establishments employing 25 or more persons, 1971

Accounting year ended	Percentage of total returns received	Percentage of total number employed
	per cent	per cent
1971 April (a)	2.3	0.2
May	2.1	0.2
June	4.5	1.7
July	5.9	5.3
August	2.4	0.7
September	12.9	32.5
October	6.3	3.9
November	2.1	5.2
December	37.3	38.4
1972 January	6.6	7.1
February	1.2	0.2
March (b)	16.4	4.6
	100.0	100.0

(a) From 6th April.

(b) Including returns made for twelve-month period ended 1st to 5th April 1972.

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## 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 PA1001 of the Report on the Census of Production for 1971).

## GENERAL INFORMATION

*Changes compared with 1970*

The questions asked in the 1971 census were the same as those in the 1970 census with one main exception: for 1971 establishments were asked to include in capital expenditure, expenditure on units that were not in production in the year of return; for 1970 this expenditure was collected in a separate inquiry. This change of method of collection does not affect the results for 1970 and 1971 because capital expenditure for units not yet in production is included in the aggregates for both years.

*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 third edition of the Standard Industrial Classification (Revised 1968). Normally an establishment was classified to an industry if its sales of the principal products of that industry accounted for a greater proportion of its total sales than in 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 was not possible—for example where a quarterly production inquiry had not then been introduced—the classification of an establishment reflects its return to the Census of Production, 1968. Establishments for which information was not available either from the quarterly inquiries or the 1968 Census were 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 fixed 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. Operators 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 and 1971.

*(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 or reconstruction of old buildings, the value of works of a capital nature carried out by the establishment's own staff and the cost of any newly constructed buildings purchased. Figures shown include any legal charges, stamp duties, agents' commissions, etc.

*(b) Land and existing buildings*

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

*(c) Plant, machinery and vehicles*

The items shown are the value of plant and machinery and of vehicles acquired, both new and second-hand, and the amount received for items disposed of during 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. An enterprise normally consists of a single establishment, more than one establishment owned by the same firm, or a number of establishments owned by a parent company and its subsidiary 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 and 1971 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 merchenting 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 of the figures for a number of industries contain significantly greater 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 merchenting 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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