

BOARD OF TRADE

## Report on the Census of Production 1963

23 Mineral ol reffining

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23 Mineral oil refining

Presented by the Board of Trade to Parliament in pursuance of the
Statistics of Trade Act 1947 (10 \& 11 Geo. 6 Cha. 39 Sec. 7)

## Notes

These notes give the main information needed for interpreting the figures in the industry rep
(More detailed information about the Census is given in a separate booklet - Introductory Notes ': Part 1 of the Report on the Census of
general information
Changes in the 1963 census
There were few changes resulting from amendments o the Standard Industrial Classification and only minor changes in the scope of certain
industry reports compared with 1958. Any suc changes are explained in the introductions to he industry reports concerned or by footnotes o the tables.
Industrial Classification
Establishments were classified to industries on the basis of major activity in conformity with
he second edition of the Standard Industrial lassif icat ion (Consolidated Edition 1963, incorporating Amendment 1). Each industry was
asically defined in terms of its principal products, these being of a similar nature or commonly, associated in production. Normally,
an establishment was classified to an industry an estabiishment was classified to an industry
if its sales of the principal products of that ndustry accounted for a greater proportion its total sales than did its sales of the principal products of any other industry. How-
ever, where the application of this rule would have resulted in a change of classification between 1958 and 1963, the establishment was
feclassified only if the sales of principal eclassified only if the sales of principal
products of the newly predominant industry was more than one third greater than the sales of principal products of the previously predominant
industry. This modification of the general nule was introduced for 1958 to avoid disrule was introuced fould result from marginal Changes principal of classiffication by major output was also normally followed in compiling the analysis by sub-divisions of an industr
In certain industries, classification was dealt with in a different way. Details of any on-standard trearment are given in the int

TERMS USED IN THE CENSUS REPORT
Average number employed
irms were required to state the number of ersons on the payroll (i.e. whose Nat ional
nsurance cards were held by them) on the average during the year of return, whether fullime or part-time employees. Separate figures
ere required for (a) administrative, technical and clerical employees and (b) operatives (see below). Averages could te calculated from
figures relating to the last week of each calendar month; figures shown in respect of the average number employed relate to the sum of
these averages.
Firms were also required to hese averages. Firms were also required to
state the number of working proprietors (see below) where appropriate and these are included
in total employment figures.
Out workers are in total employment figures. excluded.

The figures include persons engaged in erchanting or factoring and canteen workers here particulars in respect of these
could not be excluded from the return.
orking Proprietors
These include all persons regarded as selfemployed' for Nat ional Insurance purposes, and nembers of their families who worked in the
business without receiving a fixed wage or business without rece iving a fixed wage or
salary but persons who worked less than half
the normal number of working hours are excluded. the normal number of working hours are exclud
For Great Britain, directors working in the or Great Britain, directors working in the asiness but not in receipt of a derinte thag eading for 1963, but are excluded for 1958 For Northern Ireland, directors of 1 imited
companies, other than those paid by fee only, are included for both years.
(Directors paic by fee only are not included in any of
employment figures for either year.)
Employees
(i) Administrative, technical and clerical employees include managers, superintendents and works foremen; research, experimental, (other than operatives); draughtsmen and (other than operatives); draughtsmen and
tracers; editorial staff, staff reporters, canvassers, competition and advertising taff, travellers; and office (including
orks office) employees. For Great works office) employees. For Great
Britain, but not for Northern Ireland, they nclude also managing and other directors in receipt of a definite wage, salary or
commission
(ii) Operatives include all other classes of employyees, that is, broadly speaking, all
manual wage earners. They include those employed in and about the factory or houses, transport work, stores, warehouses shops and canteens; inspectors, viewers
and similar workers; maintenance workers; and cleaners. Operatives engaged in outside work of erection, fitting, etc, are also included, but outworkers (i.e.
persons employed by the firm who worked in their own homes, etc. on materials supplied by the firm) are excluded Information about the numbers of outworkers
employed was collected only for the gloves
industry employed
industry.
Capital Expenditure
This represents the cost incurred during the year of new building and other new constructional work (including of fice
buildings, canteens and the like used in buildings, canteens and the like used in
connect ion 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 it includes expenditure on new buildings or
on the extension or reconstruction of old buildings, the value of work of a capital nature carried out by firms' own staff, and
the cost of any newly constructed buildings purchased. The figures shown inc lude any legal charges, stamp duties, agents' commissions, etc.

23 Mineral oil refining

This Report on the Mineral 0il Refining Industry relates to establishments engaged and producing medicinal

This industry corresponds to minimum list heading 262 in the Standard Industrial Classification (Consolidated edition, 1963).
The figures have been compiled from returns made to the Ministry of Power. Sales are generally valued at open market prices f.o.b. in the Gulf of Mexico plus feedstock are valued at open market prices f.o.b. at the port of origin plus current rates of freight and insurance to the United Kingdom. The size of the net output is largely determined by the methods of valuation.
Lubricating oils and greases have been treated as principal products of both this industry and the Lubricating 0ils and Greases Industry in previous censuses but for 1963 they have been treated as principal products of the Lubricating 0ils and Greases Industry only
Returns in full detail were received from all firms in this industry, there being no firms with less than twenty-five persons employed in 1954, 1958 or in 1963; a no irms with less than twenty-rive persons employed in 1954 , 1958 or
the
There were no establishments in Northern Ireland in the register for this industry
in 1954, 1958 and 1963 .

In interpreting the data in the tables it is essential to bear in mind the notes and definitions which appear on pages (ii), (iii) and (iv).

TABLE 1 Industry summary: United Kingdom
All firms in the industry, 1958 and 1963

|  | Unit | 1958 | 1963 |
| :---: | :---: | :---: | :---: |
| Number of enterprises | No. | 9 | 8 |
| Number of establishments | " | 18 | 19 |
| Gross output | £'000 | 383,045 | 506,834 |
| Net output | " | 35,141 | 63,938 |
| Net output per head | \& | 1,798 | 3,114 |
| Sales and work done $\quad\{$ goods produced and work done | £'000 | 383,711 | 504,999(a) |
| (berchanted goods and canteen takings | " | .. | 4,331 |
| Index of specialisation (b) | Per cent. | 94 | 89 |
| Customs and Excise duties paid | £'000 | 2,428 | 4,048 |
| Purchases $\quad\left\{\begin{array}{l}\text { materials for processing and } \\ \text { packaging, and fuel }\end{array}\right.$ | * | 344,855 (c) | 435,572 |
|  | " |  | 4,378 |
| Payments to other $\quad\{$ for work done on materials given out | " | . | 67 |
| organisations $\quad\left\{\begin{array}{l}\text { for transport }\end{array}\right.$ | " | 621 | 777 |
| Stocks and work in progress |  |  |  |
| Total stocks and work in progress | " | - 669 | - 550 |
| progress $\{$ at end of year |  | 64,348 | 74,231 |
| Goods on hand for sale $\quad$ change during year | " | - 2,328 | - 1,815 |
| at end of year | * | 24,708 | 31,070 |
| Work in progress $\quad\{$ change during year | " | + 1,662 | - 681 |
| 俍 end of year | " | 13, 151 | 15,425 |
| Materials, stores and fuel $\{$ change during year | " | - 3 | + 1,946 |
| , at end of year | " | 26,489 | 27,736 |
| Average number $\{$ total | No. | 19,550 | 20,533 |
| Average number employed | * | 14,308 | 14,992 |
| other employees (d) |  | 5,242 | 5,541 |
| Wages and salaries $\quad\left\{\begin{array}{l}\text { of operatives }\end{array}\right.$ | £'000 | 10,024 | 14,419 |
| Of other employees (d) | " | 4,716 | 6,923 |
| Wages and salaries per head $\{$ operatives | $\varepsilon$ | 701 | 962 |
| (d) | " | 900 | 1,249 |
| Employers' contributions to National Insurance (e) | \&'000 | .. | 718 |
| Employers' contributions to private pension schemes, etc. (f) | " | .. | 2,684 |
| Capital expenditure (g) |  |  |  |
| Total | " | .. | 11,913 |
| New building work | " | 5,848 | 1,490 |
| Land and existing buildings $\{$ acquisitions | " | .. | 29 |
| disposals | " | .. | 62 |
| Plant and machinery $\quad\left\{\begin{array}{l}\text { acquisitions }\end{array}\right.$ | " | 30,113 | 10,628 |
| disposals | " | 124 | 319 |
| Vehicles $\quad\{$ acquisitions | " | 317 | 205 |
| disposals | " | 24 | 58 |

TABLE 2 Summary of returns received from larger

This table is not applicable to this industry

Footnotes to Table 1.
(a) Including services rendered to other organisations amounts charged for hiring out plant, machinery and
other goods, for providing transport, or for technical or her goods, for providing
or other services rendered)
(b) This is the ratio of total sales of principal products of the industry to total sales of goods produced and
he figures for 1958 were collected on a The 1958 figure also includes payments for work done on naterials given out.
(d) Administrative, technical and clerical employees.
(e) Including both flat rate and graduated contributions.
(f) Including pensions and gratuities paid other than from

Including pensions and gratuities paid other than fro
pension funds.
(g) Excluding expe
production.

TABLE 3 Analysis of larger firms by size of enterprise within the industry, 1963 (a) (i) Output, employment, capital expenditure and stocks

Firms employing 25 or more persons: United Kingdom

| Average number employed by he enterprise in the ndustry | $\begin{aligned} & \text { Enter- } \\ & \text { prises } \end{aligned}$ | Estab- lishments | $\begin{gathered} \text { Aver age } \\ \text { number } \\ \text { employed } \end{gathered}$ | Gross output | Net output | Net output per head | $\begin{gathered} \text { Capital } \\ \text { expendi- } \\ \text { ture (b) } \end{gathered}$ | Total <br> value of stocks and work in progress at end of year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Number | Number | £ 000 | £ 000 | \& | £ 000 | £ 000 |
| 1-999 | 4 | 5 | 2,017 | 32,718 | 8,006 | 3,969 | 1,025 | 3,996 |
| 1,000 and over | 4 | 14 | 18.516 | 474,115 | 55,933 | 3,021 | 10,888 | 70,235 |
| Total | 8 | 19 | 20,533 | 506,834 | 63,938 | 3,114 | 11,913 | 74,230 |

(ii) Employees, wages and salaries, and employers' contributions Firms employing 25 or more persons: United Kingdom

| Average number employed by he enterprise in the industry | Employees |  | Wages and salaries |  | Employers ${ }^{\text {. }}$ contributions |  | Wages and salaries per head |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Oper- } \\ & \text { atives } \end{aligned}$ | Others <br> (c) | Oper- atives | Others <br> (c) | National Insuranc <br> (d) | $\begin{array}{\|l\|} \hline \text { Private } \\ \text { pension } \\ \text { schemes, } \\ \text { etc. (e) } \\ \hline \end{array}$ | $\begin{aligned} & \text { Oper- } \\ & \text { atives } \end{aligned}$ | $\begin{aligned} & \text { Others } \\ & \text { (c) } \end{aligned}$ |
|  | Number | Number | £ 000 | £ 000 | £ 000 | £ 000 | \& |  |
| 1-999 | 1,452 | 565 | 1,367 | 627 | 72 | 103 | 942 | 1,110 |
| 1,000 and over | 13,540 | 4,976 | 13,051 | 6,296 | 646 | 2,580 | 964 | 1,265 |
| Total | 14,992 | 5,541 | 14,419 | 6,923 | 718 | 2,684 | 962 | 1,249 |

(a) This analysis is equivalent to an all-firms analysis (see introduction at the beginning
of the report). report)
(b) Acquisitions less disposals.
(c) Administrative, technical and clerical employees.
(d) Including both flat rate and graduated contributions
(e) Including pensions and gratuities paid other than from pension funds. These amounted

Including pensions and
in total to $£ 203,000$.
$\begin{array}{ll}\text { TABLE } 4 & \text { Percentage analys is of employees, by age an } \\ \text { sex, all firms, 1963: United Kingdom (a) }\end{array}$

| Ages | Males | Females | All employees |
| :---: | :---: | :---: | :---: |
| Under 18 <br> 18 and over | Per cent. | Per cent. | Per cent. |
|  | 85 | 1 | 3 |
|  | 87 | 12 | 97 |
|  | Source: Ministry of Labour |  |  |  |

(a) The percentages relate to the numbers employed
(excluding working proprietors) at mid-June, 1963.

TABLE 5 Sales of principal products of the industry by larger firms, including sales by establishments classif ied to other industries, 1958 and 1963 (a)(b) Firms employing 25 or more persons: United Kingdom

|  | 1958 |  | 1963 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | $\begin{array}{\|l\|} \text { Enter- } \\ \text { prises } \end{array}$ | Entries |
|  | Th.tons | £'000 | Th.tons | £ 000 | Number | Number |
| Finished petroleum products (c) |  |  |  |  |  |  |
| Aviation spirit |  |  |  |  |  |  |
| Motor spirit |  |  | 5,667 | 97,695 | 13 | 18 |
| Premier grades | $\}^{7,529}$ | 117,946 |  |  |  |  |
| Standard grades | ) |  | 2,426 | 29,531 | 7 | 15 |
| Industrial spirit |  | 4.751 | 61 | 2,071 | 5 | 7 |
| White spirit |  | 4,751 | 147 | 2,364 | * | 7 |
| Wide-cut gasolene (Avtag) |  |  | 731 | 5,862 | * | 7 |
| Kerosine |  |  |  |  |  |  |
| Aviation turbine fuel (Avtur) |  |  | 1,698 | 16,961 | * | 7 |
| Burning oil | 1,256 | 17,731 |  |  |  |  |
| Vaporising oil |  |  | 1,565 | 22, 288 | 5 | 11 |
| Gas/diesel oils (other than marine diesel oil) | 5,387 | 65,987 | 9,641 | 95,478 | 7 | 16 |
| Marine diesel oil | 1,262 | 13, 135 | 1,863 | 15,939 | 6 | 12 |
| Fuel oil | 13,314 | 94,711 | 21,842 | 109,040 | 8 | 15 |
| Refined hydrocarbon products for use as fuels | .. | (d) | 92 | 2,225 | 7 | 7 |
| Bitumen | 873 | 9,249(e) | 1,304 | 13,544 | 7 | 10 |
| Paraffin wax including scale and slack wax |  |  | 54 | 2,310 | * | 6 |
| Petroleum feedstocks for chemical plants and public gas supply |  | 23,579 | 3,737 | 32,042 | 5 | 10 |
| Other finished petroleum products (including petroleum coke) |  |  | 110 | 3,257 | 7 | 13 |
| Unfinished materials sent out (for further treatment) | 1,008 | 9,939 | 1,134 | 8,662 | 5 | 10 |
| Other products obtained from refinery processes |  |  | .. | 87 | * | * |
| Waste products |  |  | .. | 1,794 | 5 | 8 |
| Work done on commission, sub-contract work, etc. (f) |  | 2,895 |  | 900 | 6 | 13 |
| Total |  | 360,575 |  | 462,052 | .. | . |
| Sales in other industries (see Table 6) |  | .. |  | 8,218 | .. | . |
| Principal products of this industry sold by establishments in the industry |  | .. |  | 453,834 | 8 | 19 |

For notes to this table-see page $23 / 8$

TABLE 6 Sales of principal products of the industry by establishments classified to other industries, 1958 and 1963
Firms employing 25 or more persons: United Kingdom

Owing to the risk of disclosure of information relating to individual irms, sales of these products by establishments classified to other
ndustries cannot be given for 1958 or
For 1963 total sales of principal products by establishments classified For 1963 total sales of principal products by establishments classin
to other industries was $£ 8,218,000$. Similar information cannot be given for 1958.

## Footnotes to Table 5 .

(a) This analysis is equivalent to an all-firms analysis (see introduction at the beginning of the report).
(b) Sales by establishments classified to other industries were excluded for 1958 The selling values shown in the table are inclusive of duty if the products are sold duty paid, and exclusive of duty if the products are sold in bond or exported. The total amount of duty inclua
$\varepsilon 2,428,000$ in 1958 and $£ 4,048,000$ in 1963 .
(c) For sales of lubricating oils see Table 7-Sales of other than principal c) For sales
products.
(d) Not recorded separately in 1958
(e) Including bituminous products.
(f) Including capital work in refineries carried out by the firms' own employees, which is valued at cost of labour an
value included is the amount charged

TABLE 7 Sales of other than principal products by larger firms in the industry, 1958 and 1963 (a)
Firms employing 25 or more persons: United Kingdom

|  | 1958 |  | 1963 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value |
|  | Th.tons | £ 000 | Th.cu.ft. | £ 000 |
| Finished petroleum products |  |  |  |  |
| Butane and propane (b) | . | 3.984 | 6,884 | 5,076 |
|  |  |  | Th. tons |  |
| Lubricating oils and greases (c) | 793 | 19,152 | 988 | 25,691 |
| Aliphatic hydrocarbons, cyclic hydrocarbons (synthetic and derived from petroleum or coal carbonisation) and other products obtained from refinery processes | .. | . | . | 12.681 |
| Electricity | . | .. | . | 788 |
| Services rendered to other organisations (d) |  | .. |  | 6,928 |
| Total value of goods sold without having been subjected to any manufacturing process (merchanted or factored) | .. | .. | .. | 4,061 |
| Canteen takings |  | .. |  | 271 |
| Total |  | . |  | 55,496 |

(a) This analysis is equivalent to an all-firms analysis (see introduction at the beginning of the report).
(b) Including other gases.
(c) Shown in principal products of the industry table in 1958
(d) Amounts charged for hiring out plant, machinery or other goods, for providing transport, or
for technical or other services rendered to organisations.

TABLE 8 Production of certain principal products of the industry by larger firms, including production by establishments
classified to other industries, 1958 and 1963

This table is not applicable to this industry

TABLE 9 Purchases of selected principal products of the industry by larger firms, 1963

This table is not applicable to this industry

TABLE 10 Purchases by larger firms in the industry, 1954 and 1963 (a)
Firms employing 25 or more persons: United Kingdom

|  | 1954 |  | 1963 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | cost | Quantity | Cost |
|  | Th.tons | £'000 | Th.tons | \& 000 |
| Feedstocks |  |  |  |  |
| Indigenous crude oil |  | 3. 5611 | 121 | 2,311 |
| Indigenous shale oil |  | 3,561 | - | - |
| Imported (b) | 29,477 | 237,487 | 52,378 | 362,536 |
| Petroleum and coal tar products purchased for blending if blending is regarded as part of refinery operations | .. | 9,317 | .. | 46,232 |
|  | Th.gal. |  | Th.gal, |  |
| Tetra ethyl lead fluid purchased for blending | 1,154 | 2,478 | 2.021 | 3,637 |
| Catalysts | .. |  | 5.5 | 1,586 |
| Other chemicals purchased | . | 4.348 | .. | 4,698 |
| Water | .. | 305 | .. | 748 |
| Lubricating oils and greases | . | .. | .. | 137 |
| Replacement parts for firms' own machinery, plant and vehicles, and accessories and consumable tools bought as replacement |  | 1,836 | .. | 2,747 |
| All other purchased materials |  | 2,141 | .. | 4,529 |
| Packaging materials |  |  |  |  |
| Metal cans, boxes, barrels, kegs and drums |  |  | $\left\{\begin{array}{l}\text { Th. } \\ 803 \\ \cdots\end{array}\right.$ | $\begin{array}{r} 1,063 \\ 340 \end{array}$ |
| Moulded and fabricated packs and containers Wholly or mainly of polyethylene |  | 890 |  |  |
| Other (including polystyrene) |  |  |  | 69 |
| All other packaging materials | Th.tons |  | $\int_{\text {Th.tons }}$ |  |
| Fuel and electricity (c) |  |  |  |  |
| Coal | 71 | 221 | 0.5 | 3 |
| Coke (including screenings) and manufactured fuel | 1 | 4 | 0.6 | 5 |
|  | Th.gal. |  | Th.gal. |  |
| Derv fuel and motor spirit for use in road vehicles | 291 | 39 | 952 | 85 |


| TABLE 10 (continued) |
| :--- | 

(a) This analysis is equivalent to an all-firms analysis (see introduction at the beginning of the report).
(b) Including unfinished materials of foreign origin received from establishments in this or other
(b) industries for further processing.
(c) The total quant ity of electricity generated in firms' own establishments in this industry was

The total quant ity of electricity generated in fir
$171,733 \mathrm{Th} . \mathrm{kWh}$ in 1954 and $566,211 \mathrm{Th} . \mathrm{kWh}$ in 1963.
TABLE 11 Transport costs and employment of larger firms, 1963 (a)
Firms employing 25 or more persons: United Kingdom

|  | Unit | 1963 |
| :---: | :---: | :---: |
| Average number mainly employed on transport | No. | 339 |
| Transport costs |  |  |
| Wages and salaries |  | \& 000 | 317 |
| Derv fuel and motor spirit | - | 85 |
| Payments to other organisations for transport | * | 777 |
| Costs of operating road goods vehicles Insurance | * | 10 |
| Vehicle licences | " | 19 |
| Depreciation | * | 91 |
| Payments to other organisations for repairs and maintenance | " | 45 |
| Total | " | 1,344 |

(a) This analysis is equivalent to an all-firms analysis (see introduction at the beginning of the report).

TABLE 12 Payments for certain services, etc. by larger firms, 1963 (a) (b)
Firms employing 25 or more persons: United Kingdom

|  | Amounts <br> payable |
| :--- | ---: |
| Repairs and maintenance to <br> Buildings | $£, 000$ |
| Road goods vehicles | 149 |
| Plant, machinery, and other capital equipment | 45 |
| Insurance, licensing and depreciation of road goods <br> vehicles (c) | 2,033 |
| Rates, excluding water rates | 120 |
| Hire of plant and machinery |  |
| Postage, telephone, telegrams and cables | 2,834 |
| $\quad$ Total | 1,871 |

[^0]TABLE 13 Percentage analysis of twelve-month periods covered by returns from large firms, 1963 (a)
Firms employing
United Kingdom

| Year ended | Percentage of <br> total number <br> employed | Year ended | Percentage of <br> total number <br> employed |
| :--- | :---: | :---: | :---: |
| 1963 | Per cent. | 1963 <br> (contd.) | Per cent. |
| April (b) | 0.0 | November | 0.0 |
| May | 0.0 | December | 99.6 |
| June | 0.0 | 1964 |  |
| July | 0.0 |  |  |
| August | 0.0 | January | 0.0 |
| September | 0.4 | February | 0.0 |
| October | 0.0 | March | 0.0 |

(a) This analysis is equivalent to an all-firms analysis
b) Including returns made for twelve-month periods
ancluding returns made for tw
and 1 st to 5 th April, 1964.

TABLE 14 Sales of all parts of machinery and plant by larger firms, including sales by establ ishments classified to other industries, 1958 and 1963

This table is not applicable to this industry

Capital Expenditure (cont inued)
(ii) Land and existing buildings.
freeholds items shown are the capital cost of reeholds purchaser leaseholds acquired or premium payable for leaseholds acquired
(excluding the value of any assets acquired
 the amounts receivable for any freeholds or
leaseholds disposed of. The value is that charged to capital account during the year of return.
(iii) Plant, machinery and vehicles.

The items shown are the value of plant and
machinery and of vehicles acquired, both
nachinery and of vehicles acquired,
new and second-hand, and the amount
new and second-hand, and the amount
received for items disposed of during the
year. The value of plant and mach inery acquired includes plant, etc. which firms produced for the ir 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 dis-
counts received, but including the cost of
transport and installation. No deduct ion
is made for depreciation, amortisation or
obsolescence. The proceeds of items
disposed of during the year exclude amounts
written off for items scrapped.
Capital expenditure during the year.
Capital expenditure during the year in respect
duction had not started before the end of the
year is excluded in this report for both 1958
and 1963.
Characteristic Products
The characteristic products of a sub-division
are those in terms of which the sub-division is
defined. They are products commonly associaed in production and are usually similar in nature or manner of production. In most case the characteristic products of each sub-
division are indicated in Table 5 of the industry reports. For those industries for which an analysis by sub-divisions has been
nade. Table 2 shows the total sales of such characteristic products for each sub-division.
The totals include, besides the products which The totals include, besides the products which
def ine the sub-division, other items of output def ine the sub-division, other items of outp.
assumed to be closely related to them, e.g.
waste products and work done.
Enterprise
The term enterprise is used in this report to
mean one or more firms under common ownership o mean one or more firms under common ownership or control. An enterprise normally consists either of a single firm, or of a parent
together with its subsidiary companies.
Entries
The number of entries shown in Tables 5, 6 and
The number of entries shown in Tables 5,6 and
8 against a particular output or production heading is the number of returns on which
Establishment
The census was based on the establishment,
comprising in most cases the whole of the omprising under the same ownership or the at a particular address (e.g. a factory or mine); but firms were asked to exclude from all sections of their returns particulars relat ing to any department not engaged in pro-
duction for which they kept a separate set of accounts. Where separate accounts were not kept, they were asked to include merchant ing or
factor ing, canteens operated by them and other
ancillary activities such as botting, packing
and the manufacture of containers for packing and the manufacture of containers for pa the ir own products, whether or not these
act ivities are carried on at the same address as the works. Building and engineering maintenance departments and selling and tran
port departments were treated similarly.

Gross Output
The gross output of an industry is the aggre-
gate value of goods made and other work done gate value of goods made and other work done dur ing the year by the establishments classi-
fied to the industry. It is derived by subtracting from the value of sales and work done,
the value of stocks of goods on hand for sale the value of stocks of goods on hand for sale and work in progress at the beginning of the
year and adding the value at the end of the
year.

Larger Firms
These are firms in which twenty-five or more year
Net Output
The net output of an industry represents the value added to materials by the process of production. It includes the gross margin on any
merchanted or factored goods sold stitutes the fund from which wages, salaries, stitutes the fund from which wages, salaries
insurance, pensions, hire of plant and machinery, payments for repairs and mainten-
ance, costs of operating road vehicles, rent ance, costs of operating road vehicles, rents,
rates and taxes, advertising and other selling expenses and ali other similar charges have to be met, as well as depreciation and profits. There is no appreciable duplication in net out-
put. Net output has been obtained by deducting from the gross output the cost of purchases
adjusted for stock changes, payments for work adjusted for stock changes, payments for wor given out
transport.
Normally any customs or excise duty o materials purchased is included in the cost of materials. Similarly, finished goods sold
have been valued as they were sold, duty paid duty free. The amounts of duty, subsidies,
allowances and levies receivable or payable. allowances and levies of substantial importance in payable. where required to be stated separately, and thes items were taken into account when calculating net output
Net output per person employed
The figures for net output per person employed
are derived by dividing the net output by the are derived by dividing the net output by the
average number of persons employed (full-t ime and part-time) on all activities covered by the returns, including operat ives, administrative, technical and clerical employees and working
Principal Products
The principal products of an industry are those in terms of which the industry is defined They are products commonly associated in pro-
duction, and are usually similar in nature or manner of production
Production
This means the total quantity of a product made to stock, transferred to another department of the same firm, or used in the manufacture of other products within the business covered by materials supplied by other firms.

Purchases Purchases omponents bclude the cost of materials and fuel and electricity for all purposes; of pack-
aging materials, including the full cost of reaging materials, including the full cost
turnable cases and containers when irst purchased; of workshop materials. office materials and materials for repairs to firms'
own buildings, plant and vehicles when carried out by their own workpeople included in the return; of consumable tools; and of parts for machinery purchased during the year as replace-
ments. Water charges are also included. In general purchases of goods for merchanting or factoring and canteen supplies are included.
Materials supplied by customers for processing re excluded.
The values shown include any duty paid (less
ebate, etc.) but exclude trade discounts rebate. etc.) but exclude trade discounts
allowed. The cost of transport is included allowed. The cost of transport is included
only if included in the cost of materials as
invoiced; amounts paid to transport organisa invoiced; amounts paid to transport organisa-
tions, including firms' own separate transport tions, including firms' own separate transpor
organisations. for del ivery of materials and
fuel are therefore fuel are, therefore, excluded. Materials purchased overseas are included at their c.
cost plus any duty payable if the cost of cost plus any duty payable if the cost of
ransport from the docks was not included in the invoiced price, but at the ir full delivered cost if invoiced 'carriage paid home'. Materials
and fuel transferred from another department of the firm not covered by the same return are
included at the estimated selling value recorded included at the est timated 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 business covered by the return, goods made for
it by outworkers or by other firms from
mater ouls $g$ iven out to them ( somet imes described it by out workers or by other firms from
mater ials given out to them (somet imes described as goods made on commission) and waste product
Any machinery or other capital items produced ny machinery or other capital items produced
or use in the business covered by the return
re included, the value being that adopted in are included, the value being that adopted in
are firm's capital asset account. Goods sold the firm's capital asset account. Goods sold
ithout being subjected to any manufacturing without being subjected to any manufactur ing
process (merchanted or factored) and canteen prokss (merchanted or factored)
lakings are included as in 1958.
The value shown for sales is the net selling
value, def ined as the amount charged to customers whether on an ex-works or delivered basis, net of any trade discounts, agents'
commissions, allowances for returnable cases commissions, allowances for returnable cases,
purchase tax, etc.; the net amount charged for packing materials. is ine nuted. Goods charged n a delivered basis to customers overseas are included at the f.o.b. value. For work done on he net amount charged.
Where goods produced in one department were
transferred to another transferred to another department of the same
firm not covered by the return, these transfers were treated as sales by the producing depart-
ment and valued as far as possible as if they ment and valued as far as poss ible as if they
had been sold to an independent purchaser. had been sold to an independent purchaser.
Goods transferred to wholesale or retail sellng organisations for which separate accounts were kept were valued on the same basis.
Estimations of a similar kind were also some imes necessary in valuing transfers between ifferent firms belonging to the same enter
in
To the extent that the sales of prise. To the extent that the sales of
inished products of one establishment may constitute the mater ials purchased by another
total figures of the value of sales (and of total figures of the value of sales (and of
naterials and fuel purchased) include an aterials and fuel purchased) include an
lement of duplication.
Services rendered
This represents the amounts charged for hirirg
out plant, machinery and other goods, providing out plant, machinery and other goods, providing
ransport, or for any technical or other
services rendered to other organisations. It includes amounts credited for similar services
rendered to other departments of the same firm endered to other departmen
not covered by the return.
Small Firms
These are firms in which fewer than twenty-five
year. Work in Progres
values are given of stocks of goods on hand for alues are given of stocks of goods on hand for
sale, and of materials and fuel, at the beginning and end of the year of return, including
any stocks of goods held for merchant ing or any stocks of goods held for merchant ing or
factoring. The values include duty in the case factoring. The values include duty in the case
of dutiable goods held out of bond. The value of work in progress at the two dates is als
usually shown. This excludes any progress usually shown. This excludes any progress
payments made to sub-contractors, and no depayments made to sub-contractors, and no de-
duction is made on account of progress payments
received.

Transport Payment
These represent the total amount paid or
credited during the year for both outwards credited during the year for both outwards
transport of $f$ inished goods sold and inward transport of materials and fuel purchased. They include payments to other firms, and to
any separate transport organisation of the sam any separate transport organisation of the same
firm, 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 included are payments for hired cartage and for
inwards and outwards carriage by all forms of inland transport, i.e. railways, road haulage,
canals, coast-wise shipping, air, etc. canals, coast-wise shipping, air, etc.
Payments made for sea freight on goods sold t Payments made for sea freight on goods sold to
customers overseas and on materials and fuel purchased from overseas suppliers are excluded
Wages and Salaries
These are the amounts paid during the year to operatives and to administrative, technical
and clerical employees. Payments to working and clerical employees. Payments to working
proprietors, whether called salaries or not. proprietors, whether called salaries or no
are excluded; in Northern Ireland this xclusion extends also to payments to directors of 1 imited companies. The values
shown include all overtime payments, bonuses and comissions, wherther paid regularly or not,
and no deduction is made for income tax, and no deduction is made for income tax,
nsurances, contributory pensions, etc. The insurances, contributory pensions, etc. The
value of any payments in kind, travelling expenses, lodging allowances, etc. and
employers' contributions to National Insuranc mployers' contributions to National Insuranc Work given out
The figures shown represent the total amount paid for work done by other firms on material establishments for which separate returns wer ade. They do not include payments to
ndividual outworkers or payments for business individual outwork
and other services.
Symbols used
he following symbols are used throughout the .. Not availabl

Nil or negligible (less than half the
final digit shown)
Figures cannot be shown owing to the risk of disclosing information about
individual enterprises.

## Rounding of Figures

The figures in the tables have, where necessary,
been rounded to the nearest final digit. seen rounded to the nearest final digit. There nay, therefore, be apparent slight discrepancies
eet ween the sums of the constituent items and
the totals shown.
Part No. and tille

1. Introductory Notes
2 Coal Mining
2 Coal Mining
3 Sone and Slate Quarry ing and Mining
4 Chalk. Clay. Sand and Gravel Extraction
4 Chalk, Clay. Sand and Gravel Extraction
5 Metalliferous Mining and Quarrying
6 Salt and Miscellaneous Non-metall iferous
6 Salt and Miscellaneous Non-metallifer
Mining and Quarrying
7 Grain Mill ing
8 Bread and Flour Confectionery
In Bacon Curing, Meat and Fish Products
it Milk Products
12 Sugar, Chocolate and Sugar Confectionery
13 Cocoa, cole
I4 Fruit and
13 Cocoa, Chocolate and Sugar Confectioner
14 Fruit and Vegetable Products
15 Animal and Poultry Foods
7 Starch and Miscellaneous Foods
18 Brewing and Malting
19 Spirit Distilling and compounding
19 Spirit Distilling and Compounding
20 Soft orinks. British Wines, Cider and Perr
2 Coke Ovens and Manufactured Fue 1
22 Coke Ovens and Manufactured F
23 Mineral oil Ref ining
24 Lubricating Oils and Greases
25 Dyestuffs
6 Fertulizers and Chemicals for Pest Control
27 General Chemicals
28 Pharmaceutical Preparations
28 Pharmaceutical Preparatio
9 Toilet Preparations
2. Explosives and Firework
11 Paint and Printing Ink
3. Paint and Printing Ink
32 Vegetable and Animal Oils and Fats
32 Vegetable and Animal Oils and Fats
33 Soap, Detergents, Candles and Glycerine
34 Synthetic Resins and Plastics Materials
34 Synthetic
35 Polishes
36 Gelatine,
35 Polishes
36 Gelat ine, Adhesives, etc.
37 Iron and Steel (General)
38 Stee Tubes
39 ron Cast ings, etc
40 Non-ferrous Metals
39 Iron Castings, etc.
40 Non-ferous Metals
41 Agricultural Mach hinery (except Tractors)
41 Agicultural Machinery (except Tra
42 Mertal-working Machine Tools
43 Engineers' Small Tools and Gauges
42 Metal-working Machin
43 Engineers' Small Too
14 Industrial Eng ines

45 Textile Machinery and Accessories
46 Contractors ${ }^{\text {P }}$ Plant and Quarrying Machinery
46 Contractors Plant and Quarry
47 Mechanical Handling Equipment
47 Mechanical Handli
48 Off ice Machinery
49 Miscellaneous (No
(Niscel laneous (Non-electrical) Machinery
49 Mis
50 Industrial plant and Steelwor
51 Ordnance and Small Arms
51 Ordanance and Small Arms
52 General Mechanical Eng ineer ing
52 General Mechanical Eng ineer ing
53 Scientific. Surgical and Photographic
54 Instruments, etc.
54 Watches and Clocks
55 Electrical Machinery
56 Insulated Wires and Cables
56 Insulated Wires and Cables
57 Telegraph and Telephone Apparatus
58 Ie legraph and Telephone Apparatus
58 Radio and Other Electronic Apparatus
58 Radio and other Electronic Apparat
59 Domest ic Electrical Appliances
60 Miscellaneous Electrical Goods
60 Miscellaneous Electrical Goods
61 Shipbuilding and Mar ine Eng ineering
61 hipulding and Mar ine Eng ineering
62 Motor Vehicle Manufatur ing
63 Motor Cycle, Three-wheel Vehicle and Pedal
63 Motor Cycle, Three-wheel Vehicle and Ped
64 Aircraft Manufacturing and Repairing
65 Locomot ives and Railway
64 Aircrat Manufacturing and Repairing
65 Locomot ives and Railway Track Equipment
66 Railway Carriages and Wagons and Trams
66 Railway Carr iages and Wagons and Trams
57 Perambulators Hand
Perambulators, Hand-trucks, etc.
Tools and Implements
Cut ler
${ }^{69}$ Cutlery
70 Bolts, Nuts, Screws, Rivets.
71 Wire and Wire Manufactures
70 Bolts, Nuts, Screws, Rivets.
71 Wire and wire Manulactures
72 Cans and Meral Boxes
73 Bewellery plate and Refining
72 Cans and Meral Boxes
73 Jewellery, Plate and Refining of Precious
74 Miscellaneous Metal Manuf actures
75 Product
5 Production of Man-made Fibres
6 Spinning and Doubling of Cotton, Flax and
Man-made Fibres
Man-made Fibres
Weaving of Cotton, Linen and Man-made Fibre
7 Weaving of Cotton,
8 Woollen and Worsted
78 Woollen and Worsted
79 Jute
80 Rope, Twine and Net
80 Rope, Twine and Net
81 Hosiery and Other Knitted Goods
82 Olace
81 Hosiery
82 Lace
83 Carpets
82 Lace
83 Carpets
84 narrow
84 Narrow Fabrics
4 Narrow Fabrics
85 Household Text iles and Handkerchiefs
85 Household Textiles and
86 Canvas Goods and Sacks
87 Textile Finishing
87 Textile
88 Asbestos
89 Miscella
87 Textile Finishing
88 Asbestos
89 Miscellaneous Textile Industries
88 Asbestos
89 Miscell laneous Textile Industries
90 Leather (Tanning and Dressing) and
Fellmongery
eather Goods
91 Leather Goods
92 Fur
91 Leathe
92 Fur
93 Weath
Fur
Weatherproof outerwear
Men's and Boys' Tailore
3 Weatherproof Outerwear
4 Men's and Boys T. Tallored Outerwear
5 Women's and Girls. Ta llored Outerwear
94 Men's and Boys' Tailored Outerwear
95 Women's and Girls' Tailored outerwear
96 Overalls and Men's Shirts, Underwear, etc.
97 Dresses, Lingerie, Infants' Mear, etc.
8 Hats. Caps and Millinery
9 Corsets and Miscellaneous Dress Industries
99 Corsets
00 Gloves
01 Footwear
屋
Bricks. Fireclay and Refractory Goods
4 Glass
5 Cement
7 Abrasives
9 Furniture and Upholstery
0 Bedding and Soft Furnishings
1 Shop and office Fitting
beading and Soft Furnishings
Shop and office fitting
Wooden Conta iners and Baskets
Miscellaneous Wood and Cork Manufactures
13 Miscellaneous Yo
13 Miscellaneous Wood and Cork Manufactures
14 Paper and Board
15 Cardboard Boxes, Cartons and Fibre-board
Packing Cases
Partons and Fibre-board
Packing Cases
16 Miscell laneous Manufactures of Paper and Board
17 Pr int ing and Publishing of Newspapers and
Periodicals
18 General Printing
Engraving, etc
119 Rubber
120 Linoleum, Leathercloth, et
120 Linoleum, Leatherclot
121 Brushes and Brooms
122 Toys, Games and Spor
12 Toys, Games and Sports Equipment
123 Miscell aneous Stat ioners
Goods
124 Plastics Moulding and Fabricating
24 Plastics Moulding and Fabr icating
25 Miscellaneous Manufacturing Industries
25 Miscell aneous
127 Gas
128 Electricity
129 Water Supply
128 Electricity
129 Warer Supply
130 Index of Produc
130 Index of products
131 Sunmary Voluume
132 Summary Volume
132 Summary volume
133 Summary volume
3 and Dressing) and

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[^0]:    (a) This analysis is equivalent to an all-firms analysis (see
    introduction at the beginning of the report).
    (b) No deduction is made for these payments to arrive at the figures is report.
    (c) For details see Table 11

