PA 104
Business Statistics Office

## Business Monitor

## 1978



Report on the Census of Production

## Petroleum and natural

 gas

Special Note for Purchasers
Commencing with the 1971 Census, the Census of Production reports are being numbered in a uniform series embracing al industrial inquiries in the Busines production) followed first by $A$ (indicating that it is a minal series) or $O$ (occasional) or $Q$ (quaterly) an annual series) or O (occasional) or Q (quarterly) or M (monthly): and then by a number indicating th 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 on standing order (details on application to Her
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Report on the Census of Production 1978

Petroleum and natural gas

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 )

[^0]List of Industry Reports, etc.

| PA1001 | Introductory notes |
| :--- | :--- |
| PA |  |

The information in this report relates to the Petroleum and natural gas industry, mimum list heading 104 in the Standard Industria Classification (revised 1968). The activities of the industry include:-

Exploration for and extraction of petroleum on land and offshore; 'petroleum' in this context includes mineral oil, natural gas and natural Explorationstens. The Heading includes the activities of holders of petroleum exploration and production licences. Also included are the
 classification, e.g. well drilling, seismic survey ing specifically for petroleum deposits and offshore pipelay ing. (The provision of oiner
services e.g. manufacturing, repairing, catering, transport, procurement or hiring should be included in the appropriate Headings elsewhere services, e.g. manua.
in the classification.)
of oil shale are included under this heading: also included is the operation of land terminals for stabilisation Mining and retorting of oil shale are included under this heading: also included is the operation tand pipelines are classified to Heading 262 if feeding a refinery, Heading 601 if part of the distribution of gas or Heading 811 if part of the distribution of fuel.

She The Departments of This report relates to Great Britain and the United Kingdo

In interpreting the data in the tables it is ossomia to bear
mind the notes and definitions which come (iii)

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No
Capital expenditure, 1974-19783
3 . ..... 3

TABLE 1
Output and costs 1974-1978

|  | Unit | 1974 | 1975 | 1976 | 1977 | 1978 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sales of petroleum and goods produced | £'000 | .. | .. | 903,110 | 2,544,019 | 3,237,229 |
| Exploration and other work done, and services rendered (a) | " | .. | .. | 98,943 | 103,389 | 95,293 |
| Goods merchanted or factored | " | . | * | 669 | 112 | (b) |
| Total sales and work done | " | . | . | 1,002,722 | 2,647,520 | 3,332,522 |
| Increase during year, work in progress and goods on hand for sale | " | . | 7.066 | 14,400 | 2,900 | -1,500 |
| Gross output | " | 199,457 | 296,951 | 1,017.122 | 2,650,420 | 3,331,022 |
| Purchases of materials, goods and services for exploration and operating activities | " | 182,744 | 300,605 | 447,902 | 599,931 | 619,281 |
| Royalties etc: due or payable | " | 18,925 | 23,539 | 75,000 | 233,700 | 286,300 |
| Gross value added | " | -2,212 | -27,193 | 494,220 | 1,816,789 | 2,425,441 |
| Total employment (c) | Thousands | 4.6 | 5.4 | 7.2 | 9.1 R | 9.9 |
| Wages and salaries (d) | £'000 | 14,000 | 21,000 | 38,588 | 63,028 | 83,262 |

(a) Prior to 1976, receipts for exploration work undertaken outside the United Kingdom mainland and Continental Shelf were not included
(b) Included in Exploration and other work done, and services rendered.
(c) Average number employed (full and part-time; see table 3). 1978 figures estimated.
(d) The cost of employers' contributions to national insurance, graduated pensions, other pensions and welfare schemes and the running
costs of canteens, is estimated for the industry at $£ 7,000$ thousand.

TABLE 2
Capital expenditure, $1974-1978$
All United Kingd om establ ishments classified to the industry (a) (b)

|  | 1974 | 1975 | 1976 | 1977 | 1978 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Land and buildings |  |  |  |  |  |
| New building work (c) | 585,400 | 1,135,100 | 1,370,295 | 1,240,314 | 1,217.842 |
| Land and existing buildings |  |  |  |  |  |
| Acquisitions | - | - | 1.230 | 845 | 1.891 |
| Disposals (c) | - | - | 346 | 58,088 | 11 |
| Plant and machinery (d) ${ }^{\text {d }}$ ( ${ }^{\text {a }}$ |  |  |  |  |  |
| Acquisitions | 131,000 | 304,000 | 626,865 | 757,675 | 880,326. |
| Disposals | - | - | 84 | 14.461 | 408 |
| Vehicles, ships, mobile drilling rigs and special ised floating equipment |  |  |  |  |  |
| Acquisitions | - | 28,000 | 119,959 | 17,379 | 26.515 |
| Disposals | - | - | 16 | 50 | 1,410 |
| Total net capital equipment | 716,400 | 1,467,100 | 2,117,903 | 1,943,614 | 2,124,745 |

(a) The figures in this table differ from those published elsewhere for Gross Domestic Fixed Capital Formation of the industry. Imported The figures in this table ediffer from those published elsewhere for Gross Domestic Fixed Capital formation of same period as payment
items are included in capital tormation when they arrive in this country. In most cases this happens during the causing the two series to diverge.
-
Including off-shore production platforms, production and appraisal wells, tanker off-shore loading systems, pipelines and terminals The cost of installing these items is also included
d) Including platform modules and equipment and their installation
tABLE 3
Percentage analysis of employees, by full and part-time employment and sex, 1977(a)

| Sex | Full-time |  | Part-time |  |
| :--- | :--- | :--- | :--- | :--- |
|  | per cent |  |  | All employees |
|  | 86 | 1 |  | per cent |
| Male | 13 | 0 | 87 |  |
| Female |  |  | 13 |  |

Source: Department of Employment
(a) The percentages relate to the numbers employed (excluding working proprietors) in the United Kingdom at midJune, 1977

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Notes
These notes give the main information needed for
interpreting the figures in the industry Business Monitors: more detal led information about the census is given in a separate Business Monitor
PA 1001 (Introductory Notes) of the Report on the ensus of Production, 1978.
general information
Changes made for 1978
The Census for 1978 is in line with similar Inquiries being conducted in other member countries
of the European Economic Commities. of the European Economic Communitios.
espects. Sampling was introduced censuses in three espects. Sampling was introduced for estab-
Isments employing 20 to 49 and a sample of smaller units was selected. A new question on the
easing of capital assets was included for 1978 only. This wll provide register information for use in related inquiries into leasing.
Specific changes are explained in the introductions
to the industry reports or by footnotes to the to the
tables.

Suppression of information relating to individual undertakings
Section $9(5)(b)$ of the Statistics of Trade Act 1947 states 9 "The following provisions shall have communication to the public of information obtained under the foregoing provisions of this Act
In compliling any such report, summary or commun-
ication the competent authority shall so arrang it as to prevent any particulars publishe 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 that undertaking, as the case may be; but this
provision shall not prevent the disclosure of the provision shall not prevent the disclosure of the
total quantity or value of any articles produced sold or dell vered; so, however, that before
disclosing any such total the competent authority disclosing any such total the competent authority
shall have regard to any representations made to 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 If a him to be deduced from the total disclosed. concerned was sometimes asked to give permission
for its publication. In the majority of cases permission was given. When it was refused and
where contributors were not approached the figur has been suppressed, either by combining it with other figures, or as in the regional tables, by

Symbols used
The following symbols are used throughout the PA
series of Business Monitors:
.. not aval lable

* nil or less than half the final digit shown figures cannot be shown owing to the risk of
disclosing information about individua enterprises

Rounding of figures
Figures in the tab
Figures in the tables have, where necessary, been have been so rounded, the sum of the constituent items may not always agree exactly with the total

Industrial classification
The United Kingdom Standard Industrial Classifi-
cation (SIC) was first issued in 1948 and
subsequently revised in 1958 and 1968 it ox to promote uniformity and comparability in
official statistics of the United King
or official statistics of the United Kingdo
The general principles followed are those of
International Standard Industrial classiticatlon Chatal Industrial Classificat
of al Economic Activitios of the United Nat Statistical Office but the United Kingdom
reflects the organlsation and structure of in try and trade as It exists in the United King he SIC is a classification by activity and Is
commodity classification. However, an index commodity classification. However, an index provided in the Quarterly Busin sess Monitors,
published in Business Monitor PQ 1000 .

Statistical units
The statistical unit for the purpose of the Cens
is the establishment which is defined in the is the establishment which is defined in the sans as the smallest unit which can provide the inf
mation normally required for an economic ansis mation normaly required for an economic censu,
for example, employment, expenses, turnover,
capital formation. Usually the principal act capital formation. Usually the principal actily
ties carried on in an establishment fall within single heading of the classification leg ste making or sugar refining). Typically the sta lishment embraces all the activities carried on a single address eg a mine or a factory, inclual
those which are ancillary to the princl Frequently distinct activiti
activities.
characteristic of different Industries are carri characteristic of different Industries are carr
on at one address, but normally these are on as one address, but normally these are s classifled according to the main activity. however, the required range of data can be provid
for each activity, each is taken to constitute separate establishment. Sometimes activities whic are conducted as a single business are carried a number of addresses. Where this is
businesses are asked to provide the full range information In respect of each address, whether not the activities are different. Their activities may, however, be integrated to such an extent thai
they constitute a single establishment. In the latter case the establishment is defined to cover
the combined activities at these addresses (termed the combined activities at these addresses (termed
local units). Separate figures are obtained local units).
Semploparate figment and are obtained
net capital expenditure at each unit in order to compile regional tables.
 (BSO) to ensure, by negotiating with respondents,
that the return from an establishment does no oover local units in more than one of the countris of the United Kingdom.
stablishments are asked to exclude from their
returns particulars relating to any department engaged in production eg merchanting, transpot varehousing, for which they keep a separate se accounts. Transfers of goods produced to sor
departments are treated as sales and responde are asked to value them as far as possible as sold to an independent purchaser. Where separat
ccounts are not kept they are asked to Inclue accounts are not kept they are asked to incl
detalis of all these activities in their return. particulars relating to head offices mal engaged in the administration of the product included. Where more than one return was made the information in respect of the head office was apportloned among them. for certain purposes in the annual censuses of
production (especially the enterprise analyses of
 are combined. An enterprise group is defined as a
business consisting of el ther a single establishbusiness consisting of elther a singie estabilin
ment or two or more establishments under cmmon
ownership or control. Bringing together establishents into enterprise groups is also necessary to the purpose of ensuring that there wlll be
disclosure of the activities of any one enterpris
oup. Information about the relationship of roup. is infor, the changing structure of groups of
stablishment about common ownership links is ompanies from many sources, including the stock xchange year Book, company reports, press reports
information supplied by individual and establishments.
THE REGISTER
HE REGISTER
he register permits a questionnaire to be sent irect to the reporting establishment on which the
atter can include information relating to all the atter caring (or local) units which it comprises. he inquiries provide a major source of information or
nd act as a check on its detail and structure.
the establishments on the register making or the establishments on the register making
erturns to the quarterly inquiries, the industrial
lassification is derived from an analysis of their sales of commodities and is reviewed annually.
mployment data are entered on the register from mployment data are entered on the register from
eturns to the annual census of production. In
eter as
ases where an establishment does not make a return
these inquirles the employment data are based on ase
othese inquirles the employment data are based on
onformation provided by the Department of information provided by the emp loyment and to the register are obtained from
lew and
including the Department of and
arious sources including the Department of
mployment and HM Customs and Excise. The 1973 Employment and HM Customs and Excise. lists of
inance Act allows the later to pass list BSO.
usinesses registered for VAT to the Bit Where necessary details are sought directly from
Units which cease to trade are new businesses. Units which
removed from the live register.
coverage
censuses returns have been required from In recent censuses returns have been required for the
al1 establishments employ ing 20 or more. For
1978 Census in 68 selected manufacturing industries 1978 Census in 68 selected manufacturing industries
coverage of establishments in the 20 to 49 emp loycoverage of establishments in the 20 to 49 emp loy
ment size band has been reduced to a 1 in 2 sample.
The change has relieved some 5,800 firms of the
 ncluded for the first time a small sample (around
10 per cent) of units employing al to 19 to meet an ECC requirement to oollect a limi
from smaller units every 5 years.

TERMS USED IN THE CENSUS REPORT
Average number employed
Establishments were required to state the average number of persons on the payroll during the year of
eturn. Separate figures were required for: (a) administrative, technical and clerical (b) amployees

Averages could be calculated from the figures relating to the last week of each calendar month 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.

Emp loyees
Employees
Administrative, technical and clerical employees include directors in receipt of a definite wage research and design employees (other than opera-
 Operatives include all other classes of employees
that is, broadly speaking, all manual wage earners that is, broady speaking, all manual wage earners.
They Include operatives emp loyed in power stations;
transport transport (including roundsmen), warehouses,
stores, shops and canteens, inspectors, maintenance stores, shops and canteens, inspectors, maintenance
workers and cleaners. $\begin{aligned} & \text { operatives engaged in } \\ & \text { outside work of erecting, fitting etc are also }\end{aligned}$ outside
included.

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. started before the end of the year is included.
Establishments were asked not to deduct from the value of capital expenditure amounts recel ved or
expected to be received in grants or allowances expected to be recel ved in grants or allowances
from the Government or any statutory body or local from the Government or any statutory body or macal
author ity.
Establishments with 100 or more employees were asked to include a total net capital
expenditure figure for each calendar year and to expenditure figure for each calendar year and to
state whether any of the investment shown in cost state wew building work, vehicles or plant and
of new
machingry included goods for letting out on hire or machinery included goods for letting out on hire or
leasing. leasing.
(a) New building work This represents the cost incurred during the year
of new building and other constructional work to be of new building and other constructional work to be
used in connection with the business covered by the return. The value is that charged to capltal account during the year of return; it includes
expenditure on new buildings and on the extension
the value of expenditure on new buildings and on the extension
or reconstruction of old buildings, the value of
tor works of a capital nature carried out by the estab-
Iishment's own staff and the cost of any newly lishment's own staft and the cost of any newly
constructed buildings purchased. Figures shown constructed buildings purchased. Figures shown
include legal charges, stamp duties, agents' commissions, et
(b) Land and existing buildings
The tems shown are the capita
rchased and the the capital cost of freeholds purchased and the capital cost or premium payable
for leaseholds acquired (excluding the value of assets acquired in taking over an existing or leaseholds disposed of. The value is that
charged to capital account during the year of charged
return.
(c) Plant, machinery and vehicles etc
the items shown are the value of plant and
the the nachinery and of vehicles acquired, both new and
second-hand, and the amount recei ved for items second-hand, ar aring the year. The value of plant
disposed of during
and machinery acgulred includes plant, etc which and machinery accuired
firms produced for their own use in connection with
the business covered by the return. The value of firms produced for their own use in connection whe value of
the business covered by the return. The plant, etc acquired is the expenditure charged to
capital account during the year of return less any capital account during the year of return less any
discounts recei ved, but including the cost of transport and instailation. Deductible value added tax is excluded but non-deductible value added tax
on motor cars acquired is included. No deduction on motor cars acquired is included. No deduction
is made for depreciation, amortization or is made for The proceeds of amert disposed of
obsolescence. Temear exclude amounts written-off for
during the year during the year
items scrapped.
Cost of industrial services
This includes amounts payable to other firms for work done on materials supplied by the establish(including those in respect of rented buildings) and amounts pald to
have been sublet.
Cost of non-industrial services
This includes rents of industrial and cormercial buildings, hire of plant, machinery and vehicles (excluding vehicles hired with drivers), cormercia insurance premiums, bank charges and amounts paid
for professional services, post office services, transport (within the United Kingdom), advertising etc. Amounts payable on royalties for the right to facturing, mining and quarrying rights and facturing, mining and quarrying
technical "know-how" are also included.

Gross output
In the calculation of gross output the value of (or reduced by the done is increased by the rise value of work in progress and goods on hand for sale.

Net output
Net output, a customary census measure, is calcula-
ted by deducting from gross output the cost of ted by deducting from gross output the cost of
purchases (reduced by the rise, or increased by the purchases (reduced by the rise, or increased by the
fall, during the year of stocks of materials etc) and the cost of industrial services received, and

Net output per head
The figures of net output per head are derived by
dividing the net output by the average number of dividing the net output by the average number of activities covered by the returns, including operatives, administrative, technical and clerical

Gross value added at factor cost $\dagger$
Gross value added at factor cost is calculated by inducting from net output the cost of nonplant, machinery and vehicles (excluding vehicles hired with drivers), commercial insurance premiums, bank charges and amounts paid for professional
services, post office services, transport (within services, post office services, transport (within
the United Kingdom) and advertising, rates (excluditg water rates) and the cost of it rensing ootor vehicles. This estimate of gross value added approaches more closely than census net output to
the definition of net output or value added in national accounts statistics.
Gross value added at factor cost per head The figures of gross value added at factor cost per by the average number of persons employed (full and part-time) on all activities covered (full and eturns, including operatives, administrative,

Purchases
Purchases include the cost of raw materials, components, semi-manufactured goods and workshop materials; of replacement parts and consumable tools not charged to capital account; of packaging
materials of all types; of stationery and printed matter; of fuel, electricity and water; of materials to be used by the establishment or given
out to other establishments for the production of out to other establishments for the production of
machinery or other capital items for the establishment's own use; of materials for use by the establishment when working on goods supplied by
customers; and of food, etc for any canteen covered customers; and of food, etc for any canteen covered
by the establishment's return. Transfers of by the establishment 's return. Transfers of goods
to the establishment from another department of the same firm not covered by the establishment's return are included at a cost corresponding to the
estimated selling value recorded by the other stimated selling value recorded by the other
department. Amounts payable to transport firms or credited to Ame firm's own transport department for delivery of materials are excluded, as are all
purchases of machinery and plant charged to capital ccount. Purchases of goods for merchanting or account. Purchases of goods for merchanting or
factoring have been collected separately since 1973. The values shown exclude VAT. They include, n addition to the actual purchase price, the value of packaging material charged to the establishment.
The value of returned goods or packaging material eturned to suppliers and any trade discounts are xcluded. Materials purchased duty-paid are
ncluded at their duty-pald value, less any ncluded at their duty-pald value, less any
rawback, rebate, etc. The cost of transport is included only if it is included with the purchase
price in the firm's accounts. Imported goods are
ncluded at their full delivered cost. If in the irm's accounts the transport from docks or airpor oost is entered at cif plus duty (if applicable). Leasing, renting and hire purchase charges ar
excluded.

Sales for goods produced etc
eans deliveries on sale of minerals raised and goods made by establishments in Great Britain an绪 ishments by other establishments from material iven out to them and sales of waste products are capital items produced by establishments for hiring ut or leasing are regarded as sales, the value included in the return being that adopted in the ales and canteen takings are accounts. Forwar n the period of the inguiry are included All salespec ive of when the goods were manufactured. Goods ither to ancillary departments not engaged roduction for which there are separate accounts or to another establishment of the same firm no
covered by the return, are treated as sales by the producing establishment and valued as far as possible as if they had been sold to an independent
purchaser. Goods transferred to wholesale urchaser. Goods transferred to wholesale or accounts are kept are valued on the same basis. The value shown for sales is the "net selling value" defined as the amount (excluding VAT delivered basis, after any trade discounts and agents' commissions have been deducted. The cost of packing materials less allowance for returnable

Receipts for work done and industrial services rendere
Figures for work done represent the amount charged for work carried out on materials supplied by bought and used in such work. Activities within erection and installation repair and jobbing work, exploration work, and research and development. Industrial services rendered include repairs and
maintenance, installation work, and technical maintenance, installation work, and technical
research and studies for other organisations. Capital goods produced for establishments' own use by the establishments : staff for their own use.
Non-industrial services rendered
This includes rents recei ved for commercial and
industrial buildings, amounts charged for hiring out plant, machinery and vehicles and other goods and amounts charged to other organisations for the
provision of transport. It also provision of transport. It also includes amounts
received for the right to use patents, trademarks copyrights etc, manufacturing, mining and quarrying
rights and technical "know-how" and revenue from rights and technical "know-how"
such staff facilities as canteens.

Goods merchanted or factored
Merchanted
Merchanted goods are those (excluding canteen sales) sold without having been subjected to any
manufacturing process by the seller.

Stocks and work in progress
Values are given of stocks of goods on hand for change during the year, including any and of the goods held for merchanting or factoring. Work in
progress is defined as materials which have been partially processed by the establishment but which are not usually sold or transferred to another
establishment without further processing. The estues include the cost of materials consumed and
valued.
progress payments made to sublabour used. Progress payments made to sub-
contractors are excluded and progress payments contractors are excluded and progress payments
received from other organisations are not deducted.

## lages and salarles

hese are amounts paid during the year to operaives and to administrative, technical and clerical ayments, bonuses and shown Include all overtime egularly or not, and no deduction is made for ncome tax, insurances, contributory pensions etc. The value of redundancy payments less any amounts eimbursed from covernment sources is included. The value of any payme
expenses etc is excluded.
Employers' insurance and welfare contributions Employers ins includes employers' contributions to
This Item insuration inder the Social Security
national insurace Pensions Act, 1975 as well as commercial Insurance premiums to provide penslons, superannuat lon or other retirement benefits, sickness benetits,
personal accident benefits, disability or death beneflits for employees or former emp loyees or their dependants. Contributions to the running costs of canteens, social centres, chl Idren's and holl day homes, etc for employees, former

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