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# THE MISCELLANEOUS PRODUCTS OF PETROLEUM AND COAL INDUSTRY <br> 1959 



Published by Authority of
The Honourable George Mees, Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS<br>Industry and Merchandising Division

## PUBLICATIONS

The results of the annual Census of Industry are published by the Dominion Bureau of Statistics in a series of industry reports which are released each year as the compilations are completed Reports for industries in the Products Made from Petroleum and Coal Major Group are listed below, along with current and annual publications of related interest. Similar reports are issued for other industries. A complete catalogue of publications of the Bureau is available on request from the Information Services Division, Dominion Bureau of Statistics, Ottawa, or from the Queen's Printer, Ottawa.

|  | A - Annual M - Monthly S.C. - Special <br> S.A. - Semi-Annual $O-$ Occasional Compilation |  |
| :---: | :---: | :---: |
| Catalogue number | Title | Price |
| 45-201 | Products of Petroleum and Coal - General Review (A) | 50 |
| 45-203 | Coke and Gas Industry (A). | 50 |
| 45-205 | Petroleum Products Industry (A). | 50 |
| 45-207 | Miscellaneous Products of Petroleum and Coal Industry (A) | 25 |
| 26-003 | Preliminary Report on Coal Production (M).............................................. per year | 1.00 |
| 26-206 | Coal Mining Industry (A) | 1.00 |
| 45-202 | Preliminary Report on Coal and Coke Statistics (A) | 50 |
| 26-006 | Crude Petroleum and Natural Gas (M) ..................................................... per year | 1.00 |
| 26-213 | Crude Petroleum and Natural Gas Industry (A) | 50 |
| 45-004 | Refined Petroleum Products (M) ............................................................... per per year | 3.00 |
| 45-204 | Refined Petroleum Products (A) | 1.50 |
| 45-206 | Consumption of Petroleum Fuels (A) | 25 |
| 13-505 | Energy Consumption in Manufacturing and Mining Industries 1926-1953 (0) ......... | 1.00 |
| 13-507 | Energy Sources in Canada, Commodity Accounts, 1926, 1929, 1933 and 1939 (O).. | 1.00 |
| 13-506 | Energy Sources in Canada, Commodity Accounts, 1948 and 1952 (O)..................... | 1.00 |
| 55-001 | Pipe Line (Oil) Statistics (M) ................................................................. per year | 2.00 |
| 55-201 | Pipe Line (Oil) Statistics (A). | . 50 |
| 31-201 | General Review of the Manufacturing Industries (A) | 2.00 |
| 31-001 | Inventories, Shipments and Orders in Manufacturing Industries (M) .......... per year | 4.00 |
| 65-004 | Trade of Canada - Exports (M).............................................................. per year | 7.50 |
| 65-007 | Trade of Canada - Imports (M) ............................................................... per year | 7.50 |
| (S.C.) | Sales of Lubricating Oils and Greases and Motor Gasoline (A) | 25 |
| (S.C.) | Retail Outlets for Motor Gasoline (S.A.) | 25 |

Remittances should be in the form of cheque or money order, made payable to the Receiver General of Canada and forworded to the Information Services Division, Dominion Bureau of Statistics, or to the Queen's Printer, Ottowa, Canoda.

## SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:
... figures not appropriate or not applicable.

- nil or zero.
p preliminary figures.


## EXPLANATORY NOTES

This report is one in a series of about 130 publications which present the results of the 1959 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary :eparts for Canada and the provinces and for malor industry groups. An annual Census of Manufactures has been carrled out by the Dominion Bureau of Statistics since 1916.

Industry statistics given in these peports refer to number of establishments, employees, salaries and wages, cost of materials, supplies, fuel and electricity, gross value of shipments, inventories and value added by manufacturing. Details of mate:ials used and products shipped are also given. Descriptions of the principal industry statistics, with special reference to 1959 are as follows:

## Period Covered

Firns are asked to submit figures for the calendar year, if at all possible, and most reworts are on this basis. Financial year feports for peplods differing from the calendar year are accepted in instances where the firms find it impossible to supply calendar year data from accounting records. However the data on employees, salaries and wages are requested on a calendar year basis in all cases.

## Establishment

Data for the annual census is collected on an establishment basis. A firm with more than one plant is required to file a report for each plant. In most cases an establishment is a complete factory. Sometimes, however, a plant is divided into two or nore establishments when it carrles out operations classifiable to different industries and when sepafate accounting records are available. Usually the statistics for an establishment relate only to the manufacturing activities. Other activities such as construction at the plant by its own employees, wholesale or retail activities carried on at the plant location, etc., are not included. Plants engaged solely in repair work (except in the case of furniture, shipbuilding, boat building, aircraft and railway rolling stock industries) are not included but plants occupied in assembling parts into complete units are included.

## Employees

Administrative and office employees include all executives and supervisory officials such as presidents, vice-presidents, secretaries, treasurers, etc., together with managers, professional and technical employees, superintendents and factory supervisors above the working foremen level and clepical employees. Working owners and partners are also included in this category.

Production and :elated workers include all other factory workmen whether paid on a monthly, weekly, hourly or piece-work basis. Working foremen doing work similar to that of the employees they supervise are included, as are maintenance, warehousing and delivery staffs. Employees on new construction work, in retail or wholesale operations. on outside plece work etc., are not included.

Production workers are reported by months, an average for the year being obtained by summing the monthly figures and dividing by twelve. This procedure is followed even though the plant did not operate in all months. Figures on employment refer to calendar years whether or not some establishments reported other data on a financial year basis.

## Salaries and Hages

Salaries and waces refer to gross earnings of the employees described above, including salaries, wages, commissions, bonuses, the value of room and board where provided, deductions for income tax and social services such as sickness and unemployment insurance, pensions, etc., as well as any other allowances forming part of the employees' wages. Payments for overtime are included
salaries refer to amounts paid to administrative and office employees. Withdrawals by working owners of partners for normal living expenses for self and family are included but not their withdrawals for income tax. Wages refer to the amounts paid to production and related workers as defined above. Data on earnings refer to the calendar year whether or not some establishments reported other data on a financial year basis.

## Cost of Fuel and Electricity

Figures for fuel refer to amounts actually used, (including fuel used in cars and trucks), not to purchases unless the quantities are the same. Values refer to the laid-down cost at the works, including frelght, duty, etc.

## Materials and Supplies Used

Figures represent quantities and lald-down cost values, at the works, of materials and supplies actually used during the year whether purchased from others or received as transfers from other plants of the reporting company. Amounts paid to other manufacturers for work done on materials owned by the reporting company are included. Returnable containers of any other items charged to capital account are not included. Fuels are not included. Goods bought from others of received as transfers from other plants of reporting companies for resale without further processing are not included. Maintenance and repair supplies not chargeable to capital account are included.

## Factory Shipments

Factory shipments refer to shipments of goods made from own materials either in the reporting plant of by other manufacturers on the basis of a charge to the reporting plant for work done. All products and by-products shipped from the establishment are included whether for domestic use, export, or for government departments. Transfer shipments to sales outlets, distributing warehouses of to other manufacturing units of the reporting firm are included. Goods bought or received as transfers and resold without further processing are not included. Values are computed on f.o.b. plant or
plant warehouse basis, and do not include sales tax or excise duties. Values of containers not returnable are included. Amounts received in payment for work done on materials owned by others are included.

In a few industries such as shipbuilding, aircraft, etc., where work on principal products extend over a relatively long period, the value of production is recorded rather than the value of shipments. For those industries production is computed from the value of deliveries of complete units during the year plus the value of work done during the year on unfinished units less the value of work done ir: previous years on finished units delivered in the year under review.

## Inventories

Values represent the book values of manufacturing inventories owned and held at the reporting plant. Figures include inventories held in warehouses or selling outlets which have been included with plant operations for purposes of reporting shipments.

## Value Added by Manufacturing

Figures are computed from value of shipments plus or minus changes in inventories of finished goods and goods in process less cost of materials, fuel and electricity. This figure is sometimes referred to as net production. ${ }^{\text {a }}$

## Standard Industrial Classification

The Standard Industrial Classification Manual, prepared by the Dominion Bureau of Statistics, provides for 135 three-digit industries in the manufacturing sector, arranged in 17 major groups. Reporting establishments are classified or allotted tc specific industries on the basis of the value of principal products made of shipped.

## Shurt Forms

Between 1949 and 1957, in an effort to ease the reporting burden for smaller firms, a short form was used asking for the total value of shipments only or, in a few cases where losses of detail were significant, for quantities and values of principal products. For purposes of publication, missing data were estimated on the basis of appropriate ratios. In genera. the cut-off point for these short forms was set a: 550.000 value of shipments. About $40^{\circ} \mathrm{c}$ of the total number of establishments reported on the short form and accounted for less than 3 per cent of the total value of shipments.

In 1958, in order to establish a new base year, the small firms were asked to report all items of principal statistics together with some detail on materials and products.

[^0]For the 1959 Census, the short form was used again, but further steps were taken to ease the respondents' burden. First, the general limit for short forms was raised to $\$ 100,000$ value of shipments. In addition, a new intermediate form was developed. This form is a shortened version of the long form in that most of the general questions were pared down and the detailed lists of materials and products were limited to the more important items. The general limits for firms in this category were set at between $\$ 100,000-\$ 500,000$ value of shipments, but in the case of both the short and intermediate forms there were lower cut-offs for a number of industries in which the smaller firms accounted for a larger share of total shipments. On the other hand, limits were raised where this could be done without a significant loss of coverage. On most of the short forms for 1959, in addition to total value of shipments, data on principal products were requested. In a few industries, where loss of employment and earnings data were considered too large because of higher cut-offs, a question on total payroll was placed on the short form.

The intermediate and long forms provide complete data for the compilation of all elements of principal industry statistics and the details of materials and products. The one-page short form, although containing data on principal products and total value of shipments, does not request information on other elements of principal statistics such as value of inventories, materials, fuel and electricity and, in most cases, employment and salaries and wages, not does it contain detailed data on volume and value of materials used. For purposes of compiling aggregates of principal statistics by industry and by geographic location, the missing data for each establishment were estimated for 1959 by using. in general, ratios based on the change in the value of shipments between 1958 and 1959. The proportion of the estimated data was generally less than 5 per cent of the total in each category of principal statistics.

The general request for the principal items of products on the short form for 1959 permitted a fairiy complete compilation of the detailed quantities and values of commodity shipments. In the case of the detalled quantities and values of materials, fuel and electricity, however, and the monthly distribution of production workers, only the totals of data actually reported on the intermediate and long forms are contained in published reports and no attempt was made as in past years to estimate the generally small proportion of individual totals represented by detailed items omitted from the short forms.

The new approach has relieved an additional 12,000 establishments from filling out the regular long form. Establishments now receiving the short form number in excess of 20,000 and account for more than 54 per cent of the total number of establishments and a little more than 3 per cent of the total value of shipments.

# THE MISCELLANEOUS PRODUCTS OF PETROLEUM AND COAL INDUSTRY 

1959

The standard Industrial Classification adopted by the Dominion Bureau of Statistics in 1949 provides for a new group, the Miscellaneous Products of Petroleum and Coal Industry, for the first time. However, because of the small number of firms involved, no attempt was made to develop an industry grouping for statistical purposes until 1952. The group as now established includes firms, formerly classified in the Miscellaneous Non-metallic Mineral Products Industry, which are primarily engaged in manufacturing products of petroleum and coal, not elsewhere classified, including fuel briquettes, asphalt and tar paving materials and roofing coatings.

In 1959 there were 30 operating plants in this miscellaneous industry. Factory shipments from these works were valued at \$14,684,752 in 1959. Sagio, uatai ans Alicraec 432 geopie who ware
paid $\$ 2,000,636$ in salaries and wages. Materials for use in manufacturing processes cost $\$ 7,832,195$ while fuel and electricity cost $\$ 327.083$.

Note: Due to lack of inventory data, figures for value added by manufacture prior to 1954 were obtained by subtracting the cost of materials used, including fuel and electricity, from the total value of factory shipments. In 1954 and 1955 the "Value added" adjustment incorporated the increase or decrease to shipments values resulting from changes in the value of inventories over the period. For these two years, the adjustments that wete made used only the change in finished product inventory owned by manufacturers. Beginning with 1956 the calculation of the "Value added" figure was further adjusted to take into account the "Goods in process" as well as the finished goods held at plant or pitat maran5osas.

TABLE 1. Principal statistics of the Miscellaneous Products of Petroleum and Coal Industry,
1954-57, and by Provinces, 1958 and 1959


[^1]TABLE 2. Inventorles. ${ }^{1} 1959$

| Province | Raw <br> materials <br> and supplies | Goods in <br> process | Finished goods <br> of own <br> manufacture | Total |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |

${ }^{1}$ Book value of all manufacturing inventories owned and held at plant and plant warehouses.
Note: (a) Beginning with 1954, information on the value of year-end inventory holdings at plant and plant warehouses is being collected as part of the annual Census of Industry. These data were formerly collected by a separate survey. The summarized results for the Miscellaneous Products of Petroleum and Coal Industry for the yeas under review are shown in the above table.
(b) The opening inventory for the current year may not necessarily agree with the closing inventory published the previous year because of changes in the composition of the industry such as: the addition of new estahlishments, the disappearance of old ones, or the transfer of establishments to other industries for statistical purposes. The figure for value added by mancfacture for the previous year does not need to be altered because of such changes in the composition of the industry.

TABLE 3. Products Made in the Miscellaneous Products of Petroleum and Coal Industry, 1958 and 1959

| Product | 1958 |  | 1959 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value of factory shipments | Quantity | Value of factory shipments |
|  |  | \$ |  | \$ |
| Asphalt road emulsions ................................ Imp. gal. | 21,182,714 | 4,472,482 | 18,920.800 | 3,595,525 |
| Asphalt paving mixtures ................................... ton | 384,603 | 2, 395, 302 | 389,891 | 2,392,931 |
| Asphalt and hituminous coatings .................... Imp. gal. | $5,028,914$ | 2, 281, 129 | 3,677.299 | 2,073,516 |
| Coal briquettes ........................................... . ton | 199, 231 | 2, 004, 295 | 162.301 | 1,748,252 |
| All other products ${ }^{\text { }}$ | ... | 3,818,376 | ... | 4.874,528 |
| Totals |  | 14,971,584 | *. | 14.684.752 |

${ }^{2}$ Includes wood preserver, furnace cement, asphalt thle, asphalt plank and other products made by less than three firms.

TABLE 4. Materials Used in the Miscellaneous Products of Petroleum and Coal Industry, 1958 and 1959

| Materials | 1958 |  | 1959 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Cost at works | Quantity | Cost at works |
|  |  | \$ |  | \$ |
| Asphalt ........................................................ Imp. gal. | 20,690,455 | 3,091,971 | 17,742,699 | 2,516,320 |
| Asbestos .................................................... lb. | 7.384.000 | 167.156 | 7.260 .410 | 171.420 |
| Shipping containers and packing materials.... | ... | 406,034 | . | 399.319 |
| All other materials and process supplies ${ }^{1}$. ... | -•• | 4,599,639 | - | 4,745,136 |
| Totals | ... | 8,264, 800 | -'* | 7.832,195 |

[^2]TABLE 5. Principal Statistics of the Miscellaneous Products of Petroleum and Coal Industry in Canada, grouped according to Selling Value of Factory Shipments, 1958 and 1959

| Establishments reporting fuctory shipments | Estab-lishments | Employees | Salaries and wages | Cost at plant of materials used | Selling value of factory shipments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | number |  | dollars |  |  |
| Under $\$ 100,000$ | 6 | 20 | 66,013 | 148, 162 | 243,436 |
| \$100,000 to \$199,999 | 5 | 42 | 167.865 | 397,307 | 820,887 |
| 200,000 " 499,999 | 6 | 36 | 132,505 | 1,240,949 | 1,729,793 |
| 500,000 and over | 11 | 381 | 1,562,904 | 6,478,382 | 12, 177, 468 |
| Head offices | - | 3 | 45.525 | - | - |
| Totals | 28 | 482 | 1,974,812 | 8.264,800 | 14,971.584 |
| Under \$100,000 | 9 | 40 | 118,091 | 241,934 | 377.045 |
| \$100,000 to \$199,999 | 7 | 34 | 140,472 | 676,530 | 1,165,826 |
| 200,000 " 499,999 | 7 | 55 | 243.557 | 1,600,830 | 2,315, 051 |
| 500.000 and over | 7 | 329 | 1,445,226 | 5,312,901 | 10,826,830 |
|  | - | 4 | 53,290 | - | - |
| Totals | 30 | 462 | 2,000,636 | 7,832,195 | 14, 684, 752 |

TABLE 6. Principal Statistics classified according to Type of Ownership, 1958 and 1959


TABLE 7. Employees and their Earnings in the Miscellaneous Products of Petroleum and Coal Industry, 1958 and 1959

| Province | Employees |  |  |  |  | Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Supervisory and office |  | Production workers |  | Total | Supervisory and office | Production workers | Total |
|  | Male | Female | Male | Female |  |  |  |  |
|  | number |  |  |  |  | dollars |  |  |
| Ontario | 84 | 43 | 128 | - | 255 | 568, 079 | 549,592 | 1,117,671 |
| Other provinces | 51 | 10 | 166 | - | 227 | 281,966 | 575,175 | 857,141 |
| Caneda | 135 | 53 | 294 | - | 482 | 850, 045 | 1,124,767 | 1,974, 812 |
| Ontario | 79 | 40 | 126 | - | 245 | 598,547 | 562,068 | 1,160,615 |
| Orher provinces | 53 | 12 | 152 | - | 217 | 293,102 | 546,919 | 840,021 |
| Canada | 132 | 52 | 278 | - | 462 | 891,649 | 1,108,987 | 2,000,636 |

MABLE S. Production Horkers, by Months, 1959

| Month |
| :--- |

[^3]TABLF 9. Capital and Repair Expenditures in the Miscellaneous Products of Petroleum and Coal Industry, 1955-58


TABLE 10. Fuel and Electricity Used in the Miscellaneous Products of Petroleum and Cual Industry, 1959

| Kind |  |  |
| ---: | ---: | ---: |

[^4]List of Firms in the Miscellaneous Products of Petroleum and Coal Industry, 1959



[^0]:    ${ }^{1}$ To arrive at the National Accounts concept of "gross domestic product at factor cost", it would be necessary to subtract also the cost of office supplies used. advertising, insurance and other goods and services obtained from other businesses. Data on these inputs are not collected on the annual Census of Manufactures. Value added figures for "The primary industries and construction" are published in D.B.S. publication 61-202, Survey of Production.

[^1]:    ${ }^{2}$ See note to text.

[^2]:    No detailed information on materials used was collected from firms generally reporting value of shipments of less than $\$ 200,000$. The total value of materials used by these firms in 1959 was $\$ 404.982$ and this amount is included in "All other materials and process supplies".

[^3]:    ${ }^{2}$ The number of production workers, by months, was collected only for establishments generally reporting value of shipments of $\$ 200,000$ and over.
    ? For establishments generally reporting value of shipments of less than $\$ 200,000$, no data on number of workers were collected. Average was estimated by using change in value of shipments to arrive at value of payroll which was then used in conjunction with estimated average earnings to arrive at number of workers.

[^4]:    Establishments generally reporting value of shipments of $\$ 200,000$ and over.
    : Fstablishments generally reporting value of shipments of less than $\$ 200,000$.

