# THE COMPRESSED GASES INDUSTRY 

## 1958



Published by Authority of
The Honourable Gordon Churchill, 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 classified to the Chemicals and Allied Products 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.


Remitfances should be in the form of cheque or money order, mode payable to the Receiver General of Canada and forwarded to the Information Services Division, Dominion Bureau of Statistics, or to the Queen's Printer, Ottawa, Canada.

## EXPLANATORY NOTES

This report is one in a series of ahout 130 pabibations which present the resuits of the 1958 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and for major industry groups. An annual Census of Manufactures has been carrled out by the Dominion Bureau of Statistics since 1916.

Industry statistics given in these reports 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. Detalls of materials used and products shipped are also given. Descriptions of the principal industry statistics, with special reference to 1958 , are as follows:

## Period Covered

Firms are asked to submit figures for the calendar year, if at all possible, and most reports are on this basis. Financial year reports for periods 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 basls 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 flle a report for each plant. In most cases an establishment is a complete factory. Sometimes, however, a plant is divided into two or more establishments when it carries out operations classifiable to different Industries and when separate 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 retall activities carried on at the plant location, etc., are not included. Plants engaged solely in repair work (except in the case of furniture, shipbullding, boat bullding, alrcraft and pallway rolling stock industrles) are not included but plants occupled in assembling parts into complete units are included.

## Enployees

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

Pronuction and rolatec 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 retall or wholesale operations, on outside piece 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 Wages

Salaries and wages 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 or 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 quantilies are the same. Values refer to the laid-down cost at the works, including freight, duty, etc.

## Materials and Supplies Used

Figures represent quantities and laid-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 or any other items charged to capital account are not included. Fuels are not included. Goods bought from others of recelved 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 or 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 or 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, alrcraft, 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 in 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 inventofies held in warehouses or selling outlets which have been included with plant operations for purposes of reparting shipments.

## Value Added by Manufacturing

Figures are computed from value of shlpments 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. ${ }^{1}$

## 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 classifled or allotted to speciflc industries on the basis of the value of principal products made or shipped.

## Short Forms

Prior to 1949 all manufacturing firms, regardless of slze, were required to complete a standard form annually covering all census details, but for later years an effort was made to ease the reporting burden for smaller firms which usually do not maintain regular records in the required detall. A modified or short form was introduced in 1949 asking for the total value of shipments only, or in industries with a large number of small firms, for total value of shipments and quantities and values of a few principal products. Using the ratio of value of shipments in the current year to value of shipments in the base year, 1948, estimates of other census data were made for each plant for inclusion in the regular compilations. In general, the cut-off point for short forms was set at $\$ 50,000$ gross value of shipments annually, but there were lower cut-offs for a number of industrles in which the small firnis accounted for a larger share of total shipments. About 40 per cent of the total number of establishments reported on the modified or short form. They accounted for less than 3 per cent of the total value. In 1958, to establish a new base year. the small firms were again asked to report data on employees, salaries and wages, and other principal statistics together with some detail on material and products.

[^0]
## THE COMPRESSED GASES INDUSTRY

## 1958

Manufacturing plants in Canada engaged chiefly in making industrial gases, reported factory shipments in 1958 at $\$ 23,742,234$ compared with $\$ 24,280,515$ in 1957 a decrease of 2.2 per cent.

There were 57 factories in operation in this industry during 1958, 18 being located in Ontario, 15 in Quebec, 8 in British Columbia, 6 in Alberta, 3 in Manitoba, 3 in Nova Scotia, 2 in Saskatchewan and 1 each in New Brunswick and Newfoundland. The number of employees in the industry in 1958 was 1,477 including 784 supervisory and office personnel and 693 production workers. Salaries for the year amounted to $\$ 3,433,962$ and wages totalled $\$ 2,949,716$.

I'he chief products were oxygen, acetylene and satbon dioxide, for sale mainly in cylinders or in Sotie instances delivered by pipeline to adjacent consuming plants. The total output of oxygen, and excluding tonnage oxygen but including some reported in other industries, decreased 9.1 per cent to 1.204 million cubic feet and acetylene decreased 7.6 per cent to 181 million cubic feet. The output figures for carbon dioxide are not published separately since there were less than three producers.

No mention is made in this report of liquid chlorine, liquid sulphur dioxide, synthetic ammonia, or of hydrogen and nitrogen for the manufactire of
synthetic ammonia. These items were produced in works that also made other kinds of chemicals, and the statistics concerning the output of same have been included in the heavy chemicals industry which is reviewed in a separate bulletin. A similar disposition has been accorded liquefied petroleum gases produced in the petroleum industry or as byproducts in the recovery of absorption gasoline. Finally, reference should be made to firms which make hydrogen for use in the hydrogenation of fats. These firms which, in addition, produce some oxygen as a by-product, were reclassified from this group to slaughtering and meat packing industry in 1952.

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 were 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 "Gocds in process" as well as the finished goods held at plant or plant warehouse.

TABLE 1. Principal Statistics of the Compressed Gases Industry, by Significant Years, 1929-58 and by Provinces for 1957 and 1958

| Yeat | Establishments | Employees | Salaries and wages | Cost of fuel and electricity at plant | Cost at plant of materials used | Value added by manufacture ${ }^{1}$ | Gross selling value of products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | number |  | dollars |  |  |  |  |
| 1929 | 28312731384248465253 | 542 | 770,424 | 155,685 | 785,377 | 3,026, 354 | 3,967,416 |
| 1933 |  | 428 | 613, 278 | 117, 382 | 371, 204 | 2,001,629 | 2,490, 215 |
| 1937 |  | 606 | 919,773 | 140,221 | 527,410 | 3,261,611 | 3,929, 242 |
| 1939 |  | 672 | 1,037,718 | 156,372 | 501,108 | 3,352, 349 | 4,009, 829 |
| 1943 |  | 1,080 | 1, 848, 753 | 344,136 | 1,380,575 | 7,487,515 | 9, 212, 226 |
| 1946 |  | 1,064 | 1,961,493 | 314, 524 | 1,258,423 | 6, 735,081 | 8, 308, 028 |
| 1949 |  | 1. 223 | 3, 230,904 | 431,855 | 1,979, 160 | 9,680,161 | 12,091, 176 |
| 1954 |  | 1,305 | 4,355,140 | 513,145 | 2, 622,602 | 12,746, 776 | 15,873, 288 |
| 1955 |  | 1,387 | 4,759, 759 | 591,850 | 2,942,918 | 12,985, 965 | 16,501, 924 |
| 1956 |  | 1,399 | 5, 082, 994 | 698, 097 | 3,451,756 | 16,827, 975 | 20,972,581 |
| 1957 |  |  |  |  |  |  |  |
| Newfoundland |  | 1 <br> 3 <br> 1 | 112 | 391, 393 | 70,187 | 254,907 | 1,376,370 | 1,699,729 |
| Nova Scotia .... |  |  |  |  |  |  |  |  |
| New Brunswick |  |  |  | 219, 218 | 5, 971, 508$6,991,569$ |  |  |  |
| Quebec | 15 | 341 | $1,316,441$ $2,845,628$ |  |  | $\begin{array}{r} 962,247 \\ 1,769,883 \end{array}$ | $\begin{array}{r} 7,155,997 \\ 8,889,096 \end{array}$ |  |
| Ontario ........ |  | 137 | 2,85,62,417 | 32,020 |  |  |  |  |
| Manitoba | 17 |  |  |  | 332, 604 | 1,695, 914 | 2,051,698 |  |
| Alberta | 6 | $\begin{aligned} & 133 \\ & 130 \end{aligned}$ | $\begin{aligned} & 463,084 \\ & 507,083 \end{aligned}$ | $\begin{array}{r} 47,703 \\ 67,348 \end{array}$ | $\begin{aligned} & 390,050 \\ & 415,193 \end{aligned}$ | $\begin{aligned} & 1,440,724 \\ & 2,143,321 \end{aligned}$ | $\begin{aligned} & 1,867,119 \\ & 2,616,876 \end{aligned}$ |  |
| British Columbla |  |  |  |  |  |  |  |  |
| Canada | 55 | 1,624 | 5,976, 046 | 750,304 | 4,124,884 | 19, 619,406 | 24,280, 515 |  |
| 1958 |  |  |  |  |  |  |  |  |
| Newfoundland |  |  |  |  |  |  |  |  |
| Nova Scotia ..... New Brunswick | 3 1 | 114 | 392,301 | 67,823 | 255,791 | 1,260,899 | 1,585, 394 |  |
| New Brunswick ............................... | 15 | 326 | 1,287, 219 | 194,794 | 924,126 | 5,553,588 | 6,674, 84.3 |  |
| Ontario | 18 | 722 | 3,280, 884 | 378,695 | 1,744,819 | 7,069,444 | 9,359, 207 |  |
| Manitoba | 3 | 106 | 425, 622 | 30, 064 | 340,494 | 1,733, 071 | 2,112,841 |  |
| Alberta ........ | 6 | 102 | 471,171 | 47, 869 | 326,720 | 1,393,501 | 1,773, 95.1 |  |
| British Columbia ...................... | 8 | 107 | 526,481 | 50, 198 | 399, 495 | 1,785, 258 | 2, 235,998 |  |
| Canada | 57 | 1,477 | 6, 383, 678 | 769,443 | 3,991,445 | 18, 795, 761 | 23, 742, 234 |  |

${ }^{1}$ See footnote to text.

TABLE 2. Inventories, 1958

|  | $\begin{gathered} \text { Raw } \\ \text { materlals } \\ \text { and supplies } \end{gathered}$ | Goods in process | Finished goods of own manufacture | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | dol | ars |  |
| Opening: Newfoundland, Nova Scotia and New Brunswick | 76, 218 | - | 11,382 | 87,600 |
| Quebec .................................................. | 153, 768 | - | 39,199 | 192,967 |
| Ontario | 611,440 | 173,926 | 75,677 | 861,043 |
| Manitoba and Saskatchewan | 55, 136 | - | 22, 056 | 77, 192 |
| Alberta <br> British Columbia | $\begin{array}{r} 75,873 \\ 121,826 \end{array}$ | - | $\begin{aligned} & 23,598 \\ & 21,521 \end{aligned}$ | $\begin{array}{r} 99,471 \\ 143,347 \end{array}$ |
| Canada | 1, 094, 261 | 173,926 | 193,433 | 1,461,620 |
| Closing: |  |  |  |  |
| Newfoundland, Nova Scotia and New Brunswlck. | 66,056 | - | 10,501 | 76.557 |
| Quebec .............................................. | 188, 181 | - | 36, 864 | 225, 045 |
| Ontarlo ............................. | 260, 861 | - | 83,354 | 344, 215 |
| Manitoba and Saskatchewan Alberts | 45,129 65,678 | - | 12,844 <br> 17 <br> 1737 | $57,973$ |
| British Columbla. | 113,599 | - | 20, 474 | 134,073 |
| Canada | 739,504 | - | 181,774 | 921,278 |

${ }^{1}$ Book value of all manufacturing inventories owned and held at plant and plant warehouses.
Note: The opening inventory for the current year may not necessarily agree with the closing inventory published thie previous year because of changes in the composition of the industry such as: the addilion of new establishments, the disappearance of old ones, or the transfer of establishments to other industries for statistical purposes. The figure for value added by manufacture for the previous year does not need to be altered because of such changes in the composition of the industry.

TABLE 3. Products of the Compressed Gases Industry, 1957 and 1958

| Products | 1957 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value of factory shipments | Quantity | Value of factory shipments |
|  | cu. ft. | \$ | cu. ft. | \$ |
| Acetylene ${ }^{1}$ | 195.838.372 | 7. 303. 939 | 180,973, 230 | 6. 772,394 |
| Oxygen ${ }^{2}$ (liquid and gas) | 1 | 11,197, 891 | 3 | 11,007, 787 |
| Other products ${ }^{2}$ | - | 5, 778, 685 | - | 5,962, 053 |
| Canada | - | 24,280, 515 | - | 23, 742, 234 |

${ }^{1}$ In cylinders or delivered by pipeline.
${ }^{2}$ Includes nitrous oxide, carbon dioxide, nitrogen, tonnage oxygen, etc.
${ }^{3}$ See Table 5 for total production.
${ }^{4}$ Does not include tonnage oxygen.

TABLE 4. Materials Used in the Compressed Gases Industry, 1957 and 1958

| Material |  | 1957 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | Cost at works | Quantity | Cost at works |
|  |  |  | \$ |  | \$ |
| Acetone | 1b. | 631. 532 | 75. 137 | 569, 241 | 67. 327 |
| Calc lum carbide ................................................ |  | 16.634 | 1. 710.234 | 14.295 | 1.484, 388 |
| Oill (for making carbon dioxide and hydrogen) .......... | Imp. gal. | 1,983, 050 | 214, 552 | 2. 021,889 | 183, 828 |
| Potassium hydroxide ............................................ | lb. | 70.734 | 8.770 | 43.771 | 5. 955 |
| Sodium hydroxide |  | 618, 512 | 32. 406 | 592.470 | 32, 040 |
| Other materials ${ }^{1}$................................................... |  | - | 2. 083.785 | - | 2, 217.907 |
| Total ............................................................... |  | - | 4,124, 884 | - | 3, 991, 445 |
| Gylinders purchased during the year ....................... | No. | 55,429 | 2.272.906 | 13,325 | 444. 542 |

${ }^{2}$ Includes ammonium nitrate, unpurified brewery gas, lime, soda ash, condensing water, etc.

TABLE 5. Production ${ }^{1}$ of Acetylene and Oxygen, 1949-58


[^1]TABLE 6. Available Data on the Consumption of Carbon Dioxide, 1954-58

| Year | In the manufacture of carbonated beverages (soft drinks) ${ }^{1}$ |  |  |  | In the manufacture of malt liquors |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In cylinders |  | Solid |  | Quantity | Cost at works |
|  | Quantity | Cost at works | Quentity | Cost at works |  |  |
|  | pounds | \$ | pounds | \$ | pounds | \$ |
| 1954 | 13, 404, 742 | 1,003.780 | 1,862,033 | 144. 327 | 742,529 | 88,264 |
| 1955 | 13,243,990 | 1,054,444 | 1. 272,906 | 84,895 | 509, 131 | 53, 058 |
| 1956 | 14,114, 872 | 1.154. 279 | 668, 842 | 51,068 | 731,930 | 72, 737 |
| 1957 | 14,323,926 | 1,179,377 | 1, 072, 193 | 74.385 | 524.245 | 48,005 |
| $1958{ }^{2}$ | 14,850,138 | 1,269, 109 | 1,612, 791 | 99,672 | 577,445 | 55,143 |

${ }_{1}^{1}$ Includes amounts used by firms classified to the Breweries Industry which made soft drinks as a minor product.
${ }^{2}$ Preliminary.

TABLE 7. Principal Statistics of the Compressed Gases Industry in Canada, Grouped According to Size of Establishment, 1957 and 1958


TABLE 8. Employees and their Earnings in the Compressed Gases Industry, 1957 and 1958

| Province | Employees |  |  |  |  | Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Supervisory and office |  | Production workers |  | Total | Supervisory and office | Production workers | Total |
|  | Male | Female | Male | Female |  |  |  |  |
| 1957 | number |  |  |  |  | dollars |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Quebec | 97 | 39 | 205 | - | 341 | 468,381 | 848,060 | 1,316,441 |
| Ontario |  | 175 | 306 | - | 771 | 1,557,363 | 1,288, 265 | 2,845,628 |
| Alberta ... | 70 | 18 | 45 | - | 133 | 285, 183 | 177.901 | 463, 084 |
| British Columbia | 50 | 19 | 61 | - | 130 | 243, 132 | 263, 951 | 507, 083 |
| Other provinces. | 117 | 36 | 96 | - | 249 | 489,200 | 354.610 | 843, 810 |
| Canada | 624 | 287 | 713 | - | 1,624 | 3,043, 259 | 2,932,787 | 5,976,046 |

## TABLE 8. Employees and their Earnings in the Compressed Gases Industry, 1957 and 1958 - Concluded



TABLE 9. Production Workers, by Months, 1957 and 1958


TABLE 10. Capital and Repair Expenditures in the Compressed Gases Industry, 1954-58

| Year | Capital expenditures |  | Sub-total | Repait and maintenance expenditures |  | Sub-total | Total capital and repair expenditures |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Construction | Machinery and equipment |  | Construction | Machinery and equipment |  |  |
|  | thousands of dollars |  |  |  |  |  |  |
| 1954. | 1.118 | 1,731 | 2,849 | 158 | 837 | 995 | 3,844 |
| 1955 ........ | 498 | 2,337 | 2,835 | 162 | 758 | 920 | 3. 755 |
| 1956 ......... | 604 | 3, 146 | 3. 750 | 179 | 885 | 1,064 | 4,814 |
| 1957 .......... | 897 | 6,068 | 6.965 | 228 | 1,018 | 1,246 | 8, 211 |
| 1958 | 2. 238 | 5. 088 | 7,327 | 188 | 945 | 1.133 | 8.460 |

Note: Figures for the current year are preliminary.

TABLE 11. Factory Shipments and Imports of Liquefied Petroleum Gases, ${ }^{2}$ 1954-58

| Year |  | Production | Imports |
| :---: | :---: | :---: | :---: |
|  |  | pounds |  |
| 1954 |  | 371.160,000 | 265,319,000 |
| 1955 |  | 526, 709,000 | 222,223,000 |
| 1956 |  | 716.359,000 | 204, 851,000 |
| 1957 |  | 794,784, 000 | 217.242,000 |
| 1958 |  | 980, 263.000 | 82, 262, 000 |

${ }^{1}$ Includes butane-butylene as well as propane and butane.

TABLE 12. Production, Imports and Exports of Chlorine, 1954-58


TABLE 13. Fuel and Electricity Used in the Compressed Gases Industry, 1957 and 1958

| Kind | 1957 |  | 1958 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Cost at works | Quantity | Cost at works |
|  |  | \$ |  | \$ |
| Bituminous coal- Canadian ................................................................. | $\begin{array}{r} 128 \\ 12 \end{array}$ | $\begin{array}{r} 2,036 \\ 201 \end{array}$ | 6 18 | 51 293 |
| Anthractte coal .................................................... | 269 | 4.645 | 301 | 4,553 |
| Gasoline ................................................................ Imp. gal. | 90,383 | 35, 223 | 96,437 | 37, 308 |
| Fuel oil .................................................................. ${ }^{\text {. }}$ | 662,351 | 104.832 | 661,423 | 99.658 |
| Gas - Manufactured $\qquad$ M cu. ft. <br> Natural $\qquad$ | $\begin{array}{r} 1,296 \\ 16,607 \end{array}$ | $\begin{aligned} & 1,366 \\ & 5,949 \end{aligned}$ | $\begin{array}{r} 1.397 \\ 13.442 \end{array}$ | $\begin{aligned} & 1,474 \\ & 5,748 \end{aligned}$ |
| Other fuel ............................................................. | - | 3. 594 | - | - |
| Electricity purchased ............................................. 5 wh. | 73, 798, 166 | 592,458 | 76,705,585 | 620.358 |
| Total .................................................................. | - | 750, 304 | - | 769,443 |

TABLE 14. Total Horsepower Rating of Equipment in Use or Available for Use at the End of 1958

| Type of equipment | Not driving generators |
| :---: | :---: |
|  | horsepower |
| A. Prime movers: |  |
| Steam engines | 925 |
| B. Electric motors (one-quarter horsepower and over) | 13,951 |

## List of Firms in the Compressed Gases Industry, 1958

| Name of firm | Location of plant |
| :---: | :---: |
| Liquid Carbonic Canadian Corporation Limited H.O. 8375 Mayrand St., | Dartmouth, N.S.; Montreal, Que.; Quebec, Que.: Toronto, Ont.; Winnipeg, Man.; Edmonton, Alta.; Vancouver. B.C. |
| L'Air Liquide Society \& Canadian Liquid Air Co. Limited H.O. 1111 Beaver Hall Hill, Montreal, Quebec | St. John's, Nfld.; Halifax, N.S.; Sidney, N.S.: Moncton, N.B.; Montreal, Que.; Tracy, Que.; Quebec, Que.; Toronto, Ont.; London, Ont.; Sudbury, Ont.; Hamilton, Ont.; Port Arthur, Ont.; Winnipeg. Man,; Regina, Sask.; Calgary, Alta.; Edmonton, Alta.; Vancouver, B.C.; Victoria, B.C.: Kitimat, B.C.; North Vancouver, B.C.; Cranbrook, B.C.; Dawson Creek, B.C. |
| Linde Air Products Div, of Union Carbide, Canada, Ltd., <br> H.O. Canada Life Building, 340 University Ave., Toronto, Ontario | Noranda, Que,: Arvida, Que.; Quebec, Que.; Montreal, Que. (2); Shawinigan Falls, Que.; Sept. Iles, Que.; Sault Ste. Marie, Ont.; Fort William, Ont.; Toronto, Ont.; Welland, Ont.; Merritton, Ont.; Hamilton, Ont.; St. Boniface, Man.; Saskatoon, Sask.; Edmonton, Alta.; Lethbridge, Alta.; Vancouver, B.C.; London, Ont. |
| Imperial Oxygen Limited. H.O. 8375 Mayrand St. | Montreal, Que. (2); Toronto, Ont.; Windsor, Ont. |
| Ohio Chemical Canada Limited, 2535 St. James St. W., Montreal, Quebec | Montreal, Que.; Toronto, Ont. |
| Alberta Oxygen \& Acetylene Co. Ltd., 142 nd Street at 108th Avenue, Edmonton, Alberta | Eidmonton, Alta. |
| British Oxygen Canada Ltd. | Horner Ave., Etobicoke, Ont. |
| Pooples' Gas Supply Co.. Ltd. | 2-10 Mill St., Ottawa, Ont. |

1010681811


[^0]:    ${ }^{2}$ 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 prinary industries and construction" are published in D.B.S. publication 61-202. Surver of Production.

[^1]:    ${ }^{1}$ Includes only the production for sale, chiefly in cylinders, or for delivery by pipeline to adjacent consuming plants. Does not include amounts made for own use by some chemical companies.
    ${ }^{2}$ Includes production reported by firms classiffed to the slaughtering and meat packing industry in 1952.
    ${ }^{3}$ The value fo: oxygen shown in the above table for 1957 and 1958 is somewhat less than the total shown In Table 3 because of the elimination of duplication resulting from the transfer of some liquid oxygen to other plants within the induatry for further processing. The latter results in the production and subsequent shipment of some oxygen in the gaseous form which appears in the total reported in Table 3. The extent of this duplication (if any) for earlier years is not known and, therefore, totals prior to 1957 have not been revised. On this account the totals for oxygen (quantity and value) shown in the above table for 1957 and 1958 are not exactly comparable with previous years.
    *Excludes tonnage oxygen.

