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 Minister of Trade and Cormerce. DOMINION BUREAU OF STATISTICS
MINING, METALLURGICAL AND CHEMIC AL BRANCH OTTATH - CANADA

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## CUNSUMPTION OF COKE IN CLNADA, 1933 and 1934.

The apparent consumption of coke in Canuda during 1934 amountad to 3,061,305 tons compared with 2,597,888 tons in 1933.

Production of coke (including potroleum coke) during 1934 was reported at 2,305,180 tons and imports totalled 884,471 tons, making an available supply of 3,189,651 tons. But exports amounted to 34,924 tons and producers' stocks increased 93,422 tons, leaving $3,061,305$ tons as the quantity available for use in Canada during the year. The distribution of this tonnage by areas was as follows:Maritimes, 253,057 tons; Quebuc, 421,649 tons; Ontario, 2,171,231 tons; and the Western Provinces, 215,368 tons. This calculation, of course, does not take into consideration any interprotincial shipments of coke or any changes in stocks held by dealers or users as no records are available concerning such movements.

An analysis of consumption figures for 1934 based on returns to the annual Census of Industry, shows that in 1934 a total of 750,118 tons of coke were used as blast furnace or cupola charges, 198,514 tons were used as raw material in menufacturing and 325,502 tons were used as fuel in manufacturing end mining plants. Thus a total of $1,274,134$ tons can be accounted for in the available rocords of industrial uses and the difference of $1,787,171$ tons must represent the quantity available for use as domestic fuel or in industrial establishments such as retall stores, repair shops, warehouses, etc., which arc not coverad by the industrial census.

The distribution of the domestic consumption of $1,787,171$ tons by areas was as follows:- Maritimes, 47,468 tons: Quebec, 272,336 tons; Ontario, 1,385,577 tons; and the Western provinces, 81,790 tons. But here again, any interprovincial ahipments have not been taken into considuration. In 1932 a special survey by the Mines Branch showed that about 34,790 tons of Quebec coke were used in Ontario and about 10,585 tons of Ontario coke were used in Manitoba; in addition, about 40,000 tons of the importod coke used in Manitobe mere brought in at Ontaric ports and in the above celculation would, of course, bo credited to ontario.

Furnace charges of cuke during 1934 totalled 750,118 tons of which 415,462 tons were charged to iron blast furnaces, 2,197 tons to steel furnaces, 11,898 tons to ferro-alloy plants, 58,604 tons to foundry cupoias and 261,897 tons to non-ferrous metal furnaces. By districts, the consumption for these purposes was as follows:Maritimes, 157,977 tons; Quebec, 14, 761 tons; Ontario, 490,266 tons; and the Western provinces, 87,114 tons.

Consumption of coke as a raw material in manufacturing in 1934 amounted to 188,514 tons of which 86,727 tons were used in the manufacture of calcium carbide, 1,888 tons in the manufacture of carbon dioxide, 81,712 tons in the manufacture of gas, 18,392 tons in making artificial abrasives, and 9,815 tons in making carbon electrodes. Plants in Ontario used 106,697 tons; in Quebec, 87,870 tons; in the Maritimes, 208 tons, and in the Western provinces, 3,739 tons.

Coke used for fuel purposes in manuracturing and mining plants totalled 325,502 tons in 1934. Works in the Maritimes used 47,404 tons for this purpose; in Ontario, 188,691 tons; in Queboc, 46,682 tons; and in the West, 42,725 tons.

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Table 1 - PRODUCTIOIV OF COKH IN CANAD, 1933 and 1934.

|  | $\begin{aligned} & \text { P.E.I., } \\ & \text { N.S. } \\ & \text { ans } \\ & \text { M.B. } \end{aligned}$ | Quebec | Ontario | Manitoba, Sask., Alberta and B.C. | CANADA |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 833 (short tons) |  |  |  |  |  |
| Coke and Gas Industry ... Tons | $\begin{array}{r} 194,634 \\ 1,055,023 \end{array}$ | $\begin{array}{r} 251,121 \\ 1,785,410 \end{array}$ | $\begin{aligned} & 1,153,509 \\ & 8,428,360 \end{aligned}$ | $\begin{array}{r} 172,900 \\ 1,196,102 \end{array}$ | $\begin{array}{r} 1,772,164 \\ 12,466,195 \end{array}$ |
| Petroleum Refining Industry ................ Tons葉 | $\begin{array}{r} 358 \\ 1,519 \\ \hline \end{array}$ | $\begin{array}{r} 1,310 \\ 10,972 \\ \hline \end{array}$ | $\begin{array}{r} 62,601 \\ 344,686 \\ \hline \end{array}$ | $\begin{array}{r} 9,956 \\ 80,602 \\ \hline \end{array}$ | $\begin{array}{r} 74,725 \\ 437,779 \\ \hline \end{array}$ |
| TOTAL . . . . . . . . . . . . Tors | $\begin{array}{r} 194,902 \\ 1,056,542 \end{array}$ | $\begin{array}{r} 252,931 \\ 1,796,382 \end{array}$ | $\begin{aligned} & 1,216,110 \\ & 8,774,346 \end{aligned}$ | $\begin{array}{r} 182,856 \\ 1,276,704 \end{array}$ | $\begin{array}{r} 1,846,889 \\ 12,903,974 \end{array}$ |
| 1934 |  |  |  |  |  |
| Coke and Gas Industry ... Tons | $\begin{array}{r} 249,826 \\ 1,400,8665 \end{array}$ | $\begin{array}{r} 404,479 \\ 2,368,285 \end{array}$ | $\begin{array}{r} 1,388,708 \\ 10,200,363 \end{array}$ | $\begin{array}{r} 200,406 \\ 1,292,244 \end{array}$ | $\begin{array}{r} 2,243,420 \\ 15,861,757 \end{array}$ |
| Petroleum Refining |  |  |  |  |  |
| Industry . ............. Tons | $\begin{array}{r} 316 \\ 1.404 \\ \hline \end{array}$ | $\begin{array}{r} 2,337 \\ 19,865 \\ \hline \end{array}$ | $\begin{array}{r} 49,011 \\ 174,222 \\ \hline \end{array}$ | $\begin{aligned} & 10,096 \\ & 62,982 \end{aligned}$ | $\begin{array}{r} 61,760 \\ 258,473 \end{array}$ |
| TOTAL . . . . . . . . . . . . . Tons | 250:142 | $\therefore 00,816$ | 1,437,720 | 210,502 | 2,305,180 |
| ir | 1,402,269 | 2,983,150 | 10,374,565 | 1,355,226 | 16,120,230 |

Table 2 - APPRENT CONSURTTON OF COKH TN C4N\&DA, BY PFOVINCES, 1933 and 1934.
P.E.I.,

NOE.
and Quabec Ontario Alberta CANADA
N. B.

Mianitaba,
Sask., und B.C.


NOTHS - 1. Import figures arg anounta "intered for consumption" or cleared from customs ports; these figures may be slightly difforent from the actual imports into the country.
2. No allowance has been made for changes during the yoar in stocks of ouke hold by dealers or users.
-3-
Table 3 - ANALYSIS OF COKE CONSUAPTION IN CANADA, BY PFINCIPAL USES, 1933 and 1934.

|  | $\begin{aligned} & \text { P.E.I. } \\ & \text { N.S. } \\ & \text { and } \\ & \text { N.B. } \end{aligned}$ | Quebec | Ontario | Manitoba, Sask., Alberta and B.C. | CANADA |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | (short tons) |  |  |  |  |
| Furnace charges $\frac{193}{}$ | 137,485 | 10 | 4 | 704 | 1 |
| Manufacturing material | 138 | 102,656 | 55,460 | 6,109 | 194,383 |
| Industrial fuel ... | 33,588 | 38,688 | 180,377 | 43,294 | 295,847 |
| Available for domestic use ( by difference ) | 58,326 | 211, 154 | 1,286,844 | 212,133 | 1,668,457 |
| APPARENT CONSUMPTION | 229,557 | 363,336 | 1,813,755 | 191, 240 | 2,597,888 |
| 1834 |  |  |  |  |  |
| Furnace charges | 157,977 | 14,761 | 490,266 | 87,114 | 750,118 |
| Manufacturing material | 208 | 87,870 | 106,697 | 3,739 | 198,514 |
| Industrial fuel | 47,404 | 46,682 | 188,691 | 42,725 | 325,502 |
| Available for domestic use (by difference) | 47,468 | 272,336 | 1,385,577 | 81,790 | 1,787,171 |
| APPARENT CONSUMPTION . . . . . . . . . . | 253,057 | 421,649 | 2,171,231 | 215,368 | 3,061,305 |

NOTES - 1. Figures showing the tonnage of coko available for domestic use are obtained by differsnce and include the coke used for purposes other than specified in these tables.
2. No allowance has been made for changes during the year in stocks of coke held by doalers or users.

Table 4-CONSUMPTION OF COKE IN CANADi $4 S$ MANUFACTURING METERIAL, BY INDUSTRIES,
1933 and 1934.

| Industries | $\begin{aligned} & \text { P.E.I. } \\ & \text { N.S. } \\ & \text { and } \\ & \text { N.B. } \end{aligned}$ | queboc | Ontario | Manitoba Sask: Alberta and B.C. | CGNADA |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | nort tons |  |  |
| 1933 |  |  |  |  |  |
| Acids, alkalies and salts ......tons | - . | 32,015 | 29,301 | . . | 61,046 |
| $4$ |  | 224,156 | $173,008$ |  | $397,164$ |
| Compressed gases ............. tor | 158 | 803 | 286 | 358 | 1,605 |
|  | 2,315 | 7,639 | 2,188 | 4,442 | 16,584 |
| Artificial abrasives .......... ton | , | 3,083 | 6,064 | ... | 8, 147 |
|  |  | 39,618 | 63,537 |  | 103,156 |
| Artificial graphite and carbon tons electrodes | . . | 8,386 | 931 | . . | 9,317 |
|  |  | 99,825 | 11,696 | -•• | 111,521 |
| Coke and gas .................... tons$\qquad$ | ... | 58,369 | 49,148 | 5,751 | 113,268 |
|  | . | 401,145 | 326,081 | 48,779 | 776,005 |
| TOTAL ....................... tons | 158 | 102,656 | 85,460 | 6,109 | 194,383 |
| 岛 | 2,315 | 772,384 | 576,510 | 53,221 | $1,404,430$ |
| 1934 |  |  |  |  |  |
| hcids, alkalies and salts .... tons | -.. | 33,261 | 53,466 | -. | 86,727 |
|  |  | 240,279 | 329,327 |  | 569,606 |
| Compressed geser .............. | 208 | 781 | 525 | 354 | 1,868 |
|  | 3,126 | 7,171 | 5,215 | 4,341 | 19,853 |
| brificial abrasives.......... tons | .... | 6,633 | 11,759 | ... | 18,392 |
|  |  | 90,572 | 140,938 |  | 231,510 |
| artificial graphito and carbon ton | ... | 9,353 | 462 | -. | 9,815 |
| electrodes ..................... \$ |  | 104,169 | 5,854 |  | 110,023 |
| Coke and gas .................. | . . | 37,842 | 40,485 | 3,385 | 81,712 |
|  | ... | 258,530 | 280,626 | 33,791 | 572,947 |
| TOTAL . . . . . . . . . . . . . . . . . . . . | 208 | $87,870$ | 106,697 | 3,739 | 198,514 |
|  | 3,126 | 700,721 | 761,960 | 38,132 | 1,503,939 |

-4-
Teble 5 - CONSUNPTION OF COKE IN CANaDA AS FURNaCE CHLRGES, BY INDUSTRIES, 1933 and


| Pig iron, ferro-alloys and <br> steel ingots and castings ...... tons 155,288 273,961 243 428,557 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Castings and forgings | 1,758 | 6,328 | 21,352 | 1,938 | 31,876 |
|  | 21,930 | 70,971 | 241,551 | 27,438 | 361,890 |
| Botlers, | 123 | 1,391 | 2,783 | 55 | 4,357 |
|  | 1,795 | 16,015 | 29,917 | 713 | 43,440 |
| Agricultural implements | , | 56 | 4,187 | ... | 4,243 |
|  | . . | 552 | 42,110 | ... | 42,662 |
| Machinory . . . . . . . . . . . . . . . . . . . . | ... | 1,561 | 1,365 | 281 | 3,507 |
|  |  | 19,852 | 14,491 | 3,484 | 37,827 |
| Railway rolling stock ........... to | 828 | 4,914 | 7,512 | 1,196 | 14,450 |
|  | 12,272 | 45,645 | 77,965 | 16,127 | 152,009 |
| Other iron and steel | ... | 1 | 94 | 136 | 231 |
|  | . . . | 19 | 1,048 | 2,044 | 3,111 |
| Non-ferrous motallurgical works . | ... | 125 | $178,507$ | $03,265$ | $281,897$ |
|  | ... | 1,641 | 1,709,105 | 765,535 | $2,476,281$ |
| TOTAL | 157,977 | 14,761 | 490,266 | 87,114 | 750,118 |
|  | 916,451 | 155,522 | 3,495,539 | 820,795 | 5,388,307 |

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-5-
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Table 6 - CONSUMPTION OF COKE IN CLNADA, $4 S$ INDUSTRIAL FUEL, IN THE MANUFACTURING AND MINING INDUSTRIES, 1933 and 1834.


| B. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MANUFACTURING - |  |  |  |  |  |
| Chemicals and allied products.. tons | 57 | 2,713 | 2,878 | 243 | 5,891 |
| ¢ | 588 | 15,064 | 18,883 | 2,487 | 37,022 |
| Iron and steol and their ... tons | 20,406 | 3,537 | 47,279 | 494 | 71,716 |
| products . .................. | 47,370 | 34,245 | 169.948 | 6,097 | 257,660 |
| Non-ferrous metal products tons | 128 | 2,139 | 3,503 | 259 | 6,030 |
| (excluding smelters) ......... $\downarrow$ | 1,670 | 13,799 | 28,379 | 3,586 | 47,434 |
| Non-metallic mineral products . tons | 7,856 | 16,747 | 74,807 | 38,125 | 137,535 |
| (excluding cament, cley and limolk | 36,366 | 71,820 | 395,854 | 189,186 | 693,236 |
| Animal products ............. tons | 5 | 156 | 1,792 | 47 | 2,000 |
| \% | 75 | 1,737 | 8,654 | 471 | 10,937 |
| Textile products .............. tons | 4 | 826 | 11,795 | 42 | 12,667 |
| K | 46 | 8,457 | 40,222 | 474 | 49,198 |
| Vegetable products ............ tons | 4,215 | 6,660 | 27,449 | 3,539 | 41,863 |
| Vog | 39,591 | 57,821 | 256,340 | 37,571 | 391,323 |
| Wood and paper products ...... tons | 68 | 396 | 2,012 | 250 | 2,726 |
| W | 699 | 4,033 | 15,905 | 2,103 | 22,740 |
| Miscellaneous products ........ tons | 18 | 778 | 236 | 70 | 1,104 |
| - | 168 | 3,249 | 2,113 | 861 | 6,381 |
| Central eluctric stations ..... tons | ... | , | 1,827 | ... | 1,827 |
| $\leqslant$ | $\cdots$ | $\cdots$ | 4,111 | ... | 4,111 |
| TOTAL MANUFACTURING INDUSTRIES tons | 32,759 | 33,953 | 173,578 | 43,068 | 283,359 |
| $\stackrel{ }{*}$ | 126,573 | 210,225 | 940,409 | 242,846 | 1,520,053 |
| MINING INDUSTRIES ............. tons | 829 | 4,735 | 6,799 | 225 | 12,588 |
| $\dot{\$}$ | 4,804 | 35,557 | 46,449 | 2,051 | 88,861 |
| TOTAL . . . . . . . . . . . . . . . . tons | 33,588 | 38,683 | 180,377 | 43,294 | 295,947 |
|  | 131,377 | 245,782 | 986.858 | 244,897 | $1,608,914$ |

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