CANADA

DOMINION BUREAU OF STATISTICS

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Monthly Report

of the

Production of Iron and Steel

in Canada

January, 1921.

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Prefatory Note:

The present bulletin is published by the Dominion Bureau of Statistics in continuance of the service provided for many years past by the Mines Branch of the Department of Mines. A few changes have been inaugurated, notably the reporting on a monthly basis instead of quarterly; and the record of pig iron production by grades, which formerly was only shown in the annual report. All quantities have also been reported in gross tons of 2240 pounds, whereas formerly the figures of pig iron and steel production were always reported in short tons. The thanks of the Bureau may be here expressed to the operators who have, without exception, promptly furnished the data necessary for the preparation of this report, and assurance may be given that no effort will be spared to make reports on iron and steel statistics for Canada comprehensive and in every way possible, adequate to the requirements of the trade.

The delay in publishing the present Bulletin has been due to the fact that thedecision to issue a monthly report was only reached at the end of March, and as a consequence, returns for the months of the first quarter were all collected durin the month of April. Reports for the months of February, March and April will follow this publication immediately, and beginning with the record for the month of May, prompt issuance of the "Monthly Report of the Production of Iron and Steel in Canada," may be expected.

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THE PRODUCTION OF IRON AND STEEL IN CANADA

during January, 1921.

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PIG IRON AND FERRO-ALLOYS

With only seven blast furnaces operating in Canada during January, out of a total of twenty furnaces installed, the total production of pig iron, exclusive of ferro-alloys was the lowest on record since 1904, and amounted to only 41,249 long tons of which 28,326 tons were made for the use of the firms producing, and the remainder or 12,923 tons for sale.

The 28,326 tons made by firms for their own use was produced by the basic process, using coke. Of the 12,923 tons made for sale, 137 tons was basic, 3,027 tons foundry, and 9,759 tons was reported as malleable.

The entire production of pig iron above recorded was made in blast furnaces, there being no output during the month of low phosphorus pig from electric furnace plants. Blast furnaces were operated in January at Sault Ste. Marie, Midland, Port Colbourne, in Ontario, and at Sydney in Cape Breton.

Spiegeleisen was produced from the blast furnaces at Sault Ste. Marie and ferro-silicon in the several grades (15%, 25% and 50%) was made in Ontario at Welland, Niagara Falls, Chippawa, and Hamilton. The Total Production of spiegeleisen and ferro-alloys during the month was 5,284 long tons.

The production of pig iron and ferro-alloys during January is shown in the following table:

	Made in Blast Furnaces (Tons of 2240 lbs.)		
PIG IRON:	For Maker's Own Use	For Sale	TOTAL PRODUCTION.
Basic	28,326	137	28,463
Foundry	...	3,027	3,027
Malleable	...	9,759	9,759
TOTAL	28,326	12,923	41,249

Ferro-Alloys - Total Production - 5284 long tons.

No. of blast furnaces

Active at end of month 7

Idle at end of month 13

20

In order that the value of the current figures regarding the output of pig iron may be studied in relation to data for previous years a table has been prepared in which the average monthly production is shown for the ten-year period from 1907 to 1916, inclusive, and the actual production by months for the years 1917 to 1920, inclusive. This table will be kept up to date in subsequent issues of this Report.

AVERAGE MONTHLY PRODUCTION OF PIG IRON IN CANADA - 1907 - 1916

(In 1000's of Long Tons).

YEAR	MONTHLY AVERAGE	YEAR	MONTHLY AVERAGE
1907	48	1912	75
1908	47	1913	84
1909	56	1914	58
1910	60	1915	63
1911	68	1916	87

TOTAL PRODUCTION OF PIG IRON IN CANADA BY MONTHS

from 1917 to Date

(In 1000's of Long Tons)

MONTH	1917	1918	1919	1920	1921
January	89	96	93	73	41
February	75	90	78	64	
March	93	86	82	69	
April	90	93	83	77	
May	97	94	94	83	
June	89	92	99	82	
July	83	98	84	84	
August	90	96	80	93	
September	90	85	81	94	
October	92	96	90	103	
November	87	95	85	94	
December	78	96	90	84	
TOTAL	1044	1067	819	974	
Monthly Average	87	89	68	81	

When the data given in the foregoing tables are plotted in the form of a curve, and the average daily production of pig iron in the United States is similarly recorded, the two curves are found to be practically parallel, the average daily United States production being somewhat higher than the Canadian monthly average. The close relation between the iron industry of Canada and that of the United States is very strikingly presented in this way.

STEEL INGOTS AND CASTINGS

The decline in production noted in the pig iron industry is reflected in the steel industry, the output of steel ingots and castings in Canada during January amounting to only 40,058 long tons. This constitutes the lowest record since 1904.

Practically the entire production of steel ingots was made for use in further processes of manufacture by the producing firms only 371 long tons being made for sale. By far the greater part of the steel ingots was made in basic open hearth furnaces, the amount credited to this source being 36,410 tons.

Acid open hearth production amounted to only 107 tons while a total of 393 tons of ingots was made in electric furnaces.

Direct steel castings produced during the month amounted to 3,127 tons, of which 2,515 tons were made directly for sale. Most of the output came from electric furnaces, and the major part of the remainder from basic open hearths. Small quantities were made by the acid process, and some 200 tons in Bessemer converters.

The totals for the month by classes and grades are shown in the following table:

KIND.	QUANTITY MADE, IN TONS OF 2240 LBS. FOR OWN USE	FOR SALE	TOTAL PRODUCTION
STEEL INGOTS:			
Open hearth (a) Basic	36,410	...	36,410
Open hearth (b) Acid	107	...	107
Bessemer, (inc. all converters)	7	14	21
Crucible	...	...	...
Electric	36	357	393
TOTAL STEEL INGOTS	36,560	371	36,931
DIRECT STEEL CASTINGS			
Open hearth (a) Basic	57	957	1,014
Open hearth (b) Acid	...	59	59
Bessemer, (inc. all converters)	77	155	232
Crucible	...	...	...
Electric	478	1,344	1,822
TOTAL DIRECT STEEL CASTINGS	613	2,515	3,127

In order that comparisons may be drawn with pig iron production data, a table, similar to that given in the preceding section, has been made, in which the average monthly output of steed ingots and direct steel castings is shown for the years 1907 to 1916, inclusive, and the actual monthly figures are given for succeeding years. For convenience, the data show the production in thousands of gross tons (2240 lbs.).

AVERAGE MONTHLY PRODUCTION OF STEEL INGOTS AND DIRECT STEEL CASTINGS IN CANADA - 1907-1916

(In 1000's of Long Tons)

YEAR	MONTHLY AVERAGE	YEAR	MONTHLY AVERAGE
1907	53	1912	71
1908	44	1913	87
1909	56	1914	62
1910	61	1915	76
1911	66	1916	106

TOTAL PRODUCTION OF STEEL INGOTS AND CASTINGS IN CANADA BY MONTHS

From 1917 to Date

(In 1000's of Long Tons)

	1917	1918	1919	1920	1921
January	117	130	107	92	
February	108	124	90	84	
March	136	141	100	97	
April	125	149	75	93	
May	139	136	69	90	
June	122	148	68	91	
July	124	147	666	94	
August	130	132	54	135	
September	135	149	60	99	
October	134	164	66	121	
November	141	136	82	97	
December	132	105	87	96	
TOTAL	1553	1681	924	1209	
MONTHLY AVERAGE	130	140	77	92	