

DOMINION BUREAU OF STATISTICS - CANADA  
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THE PRIMARY IRON AND STEEL INDUSTRY IN CANADA, 1928.

Sales from the primary iron and steel industry (including production of pig iron, ferro-alloys, steel ingots and direct steel castings) in Canada during 1928 amounted to \$62,071,674, an increase of 36 per cent over the \$45,571,264 reported in the previous year which in turn was 11 per cent over the \$41,183,565 recorded for 1926.

Of the 40 firms engaged principally in this line of production, 16 were located in Ontario, 10 in Quebec, 6 in Nova Scotia, 4 in Manitoba, 3 in British Columbia, and 1 in Saskatchewan. These concerns reported fixed and working capital at \$114,292,363; employed a monthly average of 9,057 people and paid \$15,470,836 in salaries and wages. Manufacturing processes added \$34,907,211 to the value of purchased materials which cost \$27,164,463. An analysis of the sales values by provinces showed the following distribution: Ontario, \$36,926,646; Nova Scotia, \$15,625,206; Quebec, \$7,350,581; Manitoba, \$1,959,241; and Alberta and British Columbia, \$210,000.

(a) Pig Iron.— Blast furnace production of 1,037,727 long tons of pig iron showed a gain of 46 per cent over the 1927 output of 709,697 tons. About 70 per cent of the output, or 706,700 tons, was shipped to the makers' own plants, 258,479 tons were sold and the remainder, not otherwise accounted for, 72,548 tons, was probably in stock at the end of the year. Production for the year included 724,559 tons of basic iron, 233,386 tons of foundry iron and 79,782 tons of malleable iron.

Based on an estimated population in Canada of 9,658,000 persons in 1928, the per capita production of pig iron amounted to 241 pounds as against 167 pounds in the previous year, 178 pounds in 1926 and an average of 136 pounds in 1925.

Ontario produced 71 per cent of the Canadian output in 1928 as against 65 per cent in the previous year. Nova Scotia accounted for the remainder in each year.

Four firms in Canada produced pig iron during 1928, namely: The British Empire Steel Corporation, Sydney, N.S.; The Steel Company of Canada, Limited, Hamilton, Ont.; The Algoma Steel Corporation, Limited, Sault Ste. Marie, Ont.; and The Canadian Furnace Company, Limited, Port Colborne, Ont.

Employees in blast furnace departments numbered 959 in 1928.

Production of ferro-alloys in Canada during 1928 totalled 44,882 long tons as compared with 56,230 tons for last year. The following firms manufactured during 1928: Electro Metallurgical Company of Canada, Ltd., Welland, Ont. (including the Union Carbide Co. of Canada); Canadian Carborundum Co. Ltd., Niagara Falls, Ont.; The Abrasive





Company of Canada, Ltd., Hamilton, Ont.; and the Exolon Co., Thorold, Ont. Only the first mentioned company has been included in the iron and steel group, the others being essentially manufacturers of abrasives.

(b) Steel Ingots and Castings.— Production of steel ingots and castings in 1928 was 1,234,719 tons, an increase of 36 per cent over the total of 907,945 tons for 1927. The year's figures included 1,190,001 tons of steel ingots and 44,718 tons of steel castings; practically all the ingots were intended for the further use of the makers while most of the castings were made for sale.

Per capita production in Canada of steel ingots and castings amounted to 283 pounds during the year under review, as compared with 213 pounds in 1927, an average of 185 pounds in 1926, and 180 pounds in 1925.

During the year 23 plants had furnaces for making steel ingots and direct steel castings. Quebec had 7 plants; Ontario, 7; Manitoba, 3; British Columbia, 3; Nova Scotia, 2; and Alberta, 1.

Employees in these plants numbered 3,079 in 1928.

(c) Rolled Products.— Rolling mill sales were valued at \$46,565,831 in 1928 as compared with \$31,354,665 in 1927. During the year 1,445,081 long tons of iron and steel passed through the rolling mills and of this total 1,306,179 tons came from the producers' own plants and 138,904 tons were purchased.

The 12 rolling mills operated during 1928 were located as follows: Ontario, 5; Quebec, 3; Nova Scotia, 3; Manitoba, 1. The average number of employees in these plants in 1928 was 5,019.

Rolling mill products in 1928 included 1,058,321 tons of blooms, billets and slabs; 358,375 tons of bars, 349,189 tons of rails, 160,446 tons of rods; 70,613 tons of railway tie plates; 54,193 tons of plates and sheets; 35,659 tons of structural steel shapes; 17,549 tons of railway fish plates; 350,598 kegs of railway spikes, and many articles such as axles for railway cars and locomotives; railway track equipment, horse-shoes, washers, bolts, nuts, rivets. etc. There are, of course, some duplications in the tonnages given above; for example, most of the blooms and billets are rolled into bars, rods, etc.

Table 1.— PRINCIPAL STATISTICS OF THE PRIMARY IRON AND STEEL INDUSTRY IN CANADA, 1924-1928

Year	No. of plants	Capital employed	Average no. of employees	Salaries and wages	(x) Cost of materials at works	Selling (x) value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$
1924 ...	29	79,805,201	5,325	7,201,588	19,410,742	33,553,443	14,142,701
1925 ...	32	82,593,940	5,101	7,291,172	16,433,911	35,337,685	18,903,774
1926 ...	33	86,987,454	6,140	9,054,170	19,912,723	41,183,565	21,270,842
1927 ...	36	96,295,734	7,396	11,809,198	18,993,940	45,571,264	26,577,324
1928 ...	40	114,292,363	9,057	15,470,836	27,164,463	62,071,674	34,907,211

(x) Figures of materials used are of purchased materials only, and production figures cover sales only.





Table 2.- PRINCIPAL STATISTICS OF THE PRIMARY IRON AND STEEL INDUSTRY IN CANADA, 1927 and 1928.

Province	Year	No. of plants	Capital employed	Average no. of employ-ees	Salaries and wages	Value of sales
			\$		\$	\$
Nova Scotia.....	1927 ..	5	25,017,583	1,240	1,707,614	9,870,155
	1928 ..	6	29,978,715	2,121	3,263,144	15,625,206
Quebec.....	1927 ..	10	10,056,862	1,660	2,143,270	6,433,538
	1928 ..	10	10,282,082	1,737	2,433,334	7,350,581
Ontario.....	1927 ..	15	59,352,279	4,101	7,474,972	27,769,202
	1928 ..	16	72,098,743	4,709	9,092,742	36,926,646
Manitoba.....	1928 ..	4	1,800,911	416	579,461	1,959,241
CANADA (x)	1927 ..	36	96,295,734	7,396	11,809,198	45,571,264
	1928 ..	40	114,292,363	9,057	15,470,836	62,071,674

(x) Includes data for 4 plants in Manitoba and 2 in British Columbia for 1927; and 1 plant in Saskatchewan and 3 in British Columbia for 1928.

(a) PIG IRON

Table 3.- MATERIALS CHARGED TO IRON BLAST FURNACES IN CANADA, 1928.

Item	Quantity	Cost at furnace
		\$
Foreign iron ore.....	1,801,687 long tons	6,386,498
Mill cinder, scale, slags, etc.....	127,353 long tons	245,542
Scrap.....	55,588 long tons	577,504
Limestone.....	566,170 short tons	781,781
Coke, from Canadian coal.....	334,830 short tons	1,784,506
Coke, from imported coal.....	665,675 short tons	3,616,323
Coke, imported.....	71,359 short tons	480,138
Other materials.....	...	9,640
TOTAL.....	...	13,881,932

Table 4.- PRODUCTION OF PIG IRON IN CANADA, BY GRADES, 1928.

Item	Total tonnage made	Tonnage shipped to company's own plants	S A L E S	
			Quantity	Value
	<u>long tons</u>	<u>long tons</u>	<u>long tons</u>	\$
PIG IRON				
Basic.....	724,559	695,490	21,736	403,537
Foundry.....	233,386	8,036	185,788	3,677,754
Malleable.....	79,782	3,174	50,955	1,003,800
TOTAL.....	1,037,727	706,700	258,479	5,085,091





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(b) STEEL INGOTS AND CASTINGS

Table 5.- MATERIALS USED IN THE STEEL INGOTS AND CASTINGS INDUSTRY IN CANADA, 1928.

Item	Unit of measure	Company's own production	PURCHASED MATERIALS	
			Quantity	Cost at furnace \$
(a) Metals:				
Pig iron.....	long tons	692,185	6,607	166,756
Spiegeleisen and ferromanganese.....	long tons	...	9,834	380,276
Ferrosilicon.....	long tons	...	4,921	306,797
Other ferro-alloys.....	long tons	...	565	184,533
Metals for making alloy steels (nickel, etc.).....	...	...	...	70,886
Scrap iron or steel, including old rails not intended for rerolling.....	long tons	64,208	364,028	4,793,502
Scrap made and consumed in works reporting.....	long tons	202,581	...	...
Total Metals.....	...	...	...	6,202,750
(b) Ores:				
Crude iron ore:				
Foreign.....	long tons	...	78,000	493,237
Manganiferous ore:				
Foreign.....	long tons	...	2,966	57,173
Chrome, etc:				
Foreign.....	long tons	...	663	21,006
Total Ores.....	...	...	...	571,416
(c) General materials:				
Limestone.....	short tons	...	148,545	229,735
Fluorspar.....	short tons	...	9,201	124,768
Other fluxing material.....	short tons	...	41,876	227,243
Coke from Canadian coal.....	short tons	...	1,700	23,502
Coke made in Canada from imported coal.....	short tons	...	1,117	9,016
Imported coke.....	short tons	...	260	3,584
Anthracite coal.....	short tons	...	1,756	12,638
Bituminous coal.....	short tons	...	2,150	12,300
Charcoal.....	bushels	...	80,886	19,665
Carbon electrodes.....	-	...	...	87,635
Other materials.....	-	...	...	404,574
Total General Materials.....	-	...	...	1,154,660
TOTAL VALUE OF ALL METALS, ORES AND GENERAL MATERIALS PURCHASED.....			7,928,826	

Table 6.- PRODUCTS OF THE STEEL INGOTS AND CASTINGS INDUSTRY IN CANADA, 1928.

Item	Total tonnage made long tons	Tonnage shipped to company's own plants long tons	S A L E S	
			Quantity long tons	Value \$
<u>Steel Ingots:</u>				
Basic open hearth.....	1,189,399	1,183,799	...	...
Electric or electrically refined.....	602	...	602	59,948
<u>Direct Steel Castings:</u>				
Basic.....	20,109	7,017	13,445	2,394,750
Bessemer.....	2,019	88	1,931	432,355
Electric or electrically refined.....	22,590	29	22,466	4,135,643
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TOTAL.....	1,234,719	1,190,933	38,444	7,022,696





(c) ROLLED IRON AND STEEL PRODUCTS.

Table 7.- MATERIALS USED IN THE ROLLED IRON AND STEEL PRODUCTS INDUSTRY IN CANADA, 1928.

Item	Company's own make long tons	PURCHASED MATERIALS	
		Quantity long tons	Cost at furnace \$
Steel, crude and semi-finished (ingots, blooms, billets, slabs).....	1,296,372	76,580	2,556,194
Rails for re-rolling.....	...	52,339	897,842
Iron muck and scrap bar.....	926	1,124	37,132
Iron and steel wire rods.....	...	643	32,914
Iron and steel scrap.....	8,881	3,299	40,849
Axles, scrap.....	...	4,919	107,451
All other materials.....	...	...	85,047
TOTAL.....	...	...	3,757,429

Table 8.- PRODUCTS MADE IN THE ROLLED IRON AND STEEL PRODUCTS INDUSTRY IN CANADA, 1928.

Item	Total tonnage made long tons	Tonnage shipped to company's own plants long tons	Tonnage sold long tons	Income from sales \$
Blooms, billets and slabs.....	1,058,321	874,394	80,461	2,581,638
Bars of all kinds.....	358,375	111,877	254,149	13,271,778
Rails.....	349,189	237	349,007	16,109,847
Rods of all kinds.....	160,446	113,451	45,032	1,765,168
Structural steel shapes.....	35,659	588	32,005	1,483,768
Plates and sheets.....	54,193	15,683	38,011	2,378,364
Railway tie plates.....	70,613	4	71,523	3,910,522
Railway fish plates.....	17,549	...	15,179	957,447
Railway spikes.....kegs	350,598	...	350,598	1,258,906
Washers.....lb.	1,857,374	...	1,426,063	100,727
All other products.....	...	...	...	22,920
Products reported by only 1 or 2 firms including axles for railway cars and locomotives; railway track equipment; bolts, nuts and rivets; horseshoes, etc.	...	...	...	2,224,746
TOTAL.....	...	...	...	46,565,831

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