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CANADA
DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL & CHEMICAL BRANCH

THE
PRIMARY IRON AND STEEL INDUSTRY
IN
CANADA
1940

(including pig iron, ferro-alloys, steel ingots and
steel castings, and rolled iron and steel products.)



OTTAWA
1941

Price 25 cents

Dominion Statistician:
Chief - Mining, Metallurgical and Chemical Branch:
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ANNUAL INDUSTRY REPORTIRON AND STEEL AND THEIR PRODUCTS GROUPTHE PRIMARY IRON AND STEEL INDUSTRY, 1940

Statistics for the Primary Iron and Steel Industry include data for all establishments in Canada which were engaged chiefly in the manufacture of (a) pig iron, (b) ferro-alloys, (c) steel ingots and steel castings, (d) hot rolled iron and steel products, (e) cold rolled or cold drawn steel bars, strips and shapes. Thirty-nine firms were included in this industry in 1940 and reports were received for 54 different plants or departments, including 4 blast furnace departments, 4 ferro-alloy plants, 30 steel furnace divisions, and 16 rolling or drawing mills. Separate reports were received for blast furnace departments, for steel furnace divisions and for rolling mills even when all three were units of a single works.

Factory sales of pig iron, ferro-alloys, steel ingots and castings and finished rolled products were 50.9 per cent higher in 1940 than in 1939, the values being \$114,598,409 and \$75,934,481, respectively. Twenty-five works in Ontario accounted for 66.6 per cent of the total for Canada or \$76,335,959; six plants in Nova Scotia accounted for 19 per cent or \$21,717,799; fourteen plants in Quebec for 11.8 per cent or \$13,563,176, while the remaining \$2,981,475 or 2.6 per cent was accounted for by 4 plants in Manitoba, 4 in British Columbia and 1 in Alberta.

Fixed and working capital employed in this industry amounted to \$133,844,814, including \$80,550,988 for the value of land, buildings and plant equipment, \$30,279,428 for the value of raw and finished materials on hand and in process, and \$23,014,398 for operating capital, such as, cash, bills and accounts receivable. For works in Ontario the capital was \$87,416,818; in Nova Scotia, \$25,847,776; in Quebec, \$18,108,891; in Manitoba, \$2,132,547, and in Alberta and British Columbia, \$338,782.

In 1940, an average of 17,774 people were employed in this industry, this being an increase of 28.5 per cent over the 1939 average of 13,827. About 1,240 persons worked in the blast furnace departments during the year, 5,692 in the steel furnaces, 9,803 in the rolling mills and 1,039 in ferro-alloy plants (exclusive of those producing ferro-alloys as a by-product). Sixty-five per cent of the employees or 11,537 worked in plants in Ontario, 2,973 in Quebec, 2,579 in Nova Scotia, 547 in Manitoba and 158 in Alberta and British Columbia.

Payments in salaries and wages during 1940 amounted to \$29,207,036, a gain of 43.1 per cent over the previous year's total of \$20,410,517. Salaries advanced to \$3,488,044 from \$3,003,672 and wages to \$25,718,992 from \$17,406,845.

Materials used in manufacturing processes cost \$54,045,692 in 1940 compared with \$29,629,576 in 1939, and the cost of fuel and electricity was \$9,582,791 against \$6,174,661, an increased expenditure of 82.4 per cent for materials and 55.2 per cent for fuel and power.

PIG IRON - Output of 1,168,839 tons of pig iron in 1940 was 55 per cent over the 755,731 tons reported for the previous year. Production of basic iron amounted to 974,629 tons or 83 per cent of the total; foundry iron amounted to 107,924 tons and malleable iron to 86,286 tons.

Producers' sales of pig iron totalled 247,599 tons at \$5,868,769 in 1940 compared with 171,977 tons at \$3,757,575 in 1939, a gain of 44 per cent in quantity and 38 per cent in value.

A review of the year's output by months shows that 104,703 tons were made in January, after which the tonnage ranged between 84,000 and 95,000 until July, reached 105,020 tons in September and closed the year at the high of 110,422 tons in December.

Charges to iron blast furnaces during the year included 1,953,638 tons of imported iron ore, 153,074 tons of Canadian ore, 1,223,17 short tons of coke, 454,376 short tons of imported limestone and 25,075 short tons of Canadian limestone.

Imports of pig iron during the calendar year advanced to 26,521 tons from 587 tons in 1939 while exports dropped to 3,672 tons from 10,728 tons.

Producers' stocks at the end of 1940 totalled 68,357 tons compared with 61,763 tons at the end of the previous year.

The apparent consumption of pig iron in Canada, as calculated by deducting the exports from the sum of the production and imports, and allowing for changes in producers' stocks, amounted to 1,185,094 tons in 1940 or 46 per cent more than in 1939 when the apparent domestic supply was 811,736 tons.

Producers of pig iron in Canada have 10 blast furnaces which could produce 1.5 million tons a year if operated to their rated capacity. Actual production of 1,168,839 tons in 1940 showed an operating rate of about 78 per cent. Only 9 furnaces were put in blast during the year; the furnace remaining out of blast is rated at 300 tons a day but has been inactive for several years.

FERRO-ALLOYS - Ferro-alloys were made in 1940 by 11 different concerns, 5 of which recovered ferrosilicon as a by-product in the manufacture of abrasives. Output of ferro-alloys in 1940 amounted to 133,388 tons, a gain of 74 per cent over the 76,375 tons reported for 1939.

Altogether, ferrosilicon was made in ten different plants, spiegeleisen in two and ferrochrome in two. Other alloys produced by one firm only included ferromanganese, silicospiegel, silicomanganese, silicon metal and calcium silicon.

STEEL INGOTS AND CASTINGS - Steel production advanced 45 per cent to 2,012,294 tons in 1940 from 1,384,870 tons in 1939, the output of steel ingots going to 1,944,513 tons from 1,330,408 tons and steel castings to 67,981 tons from 54,462 tons. Factory sales of ingots and castings totalled 128,506 tons at \$12,616,483.

Thirty steel plants were in operation during the year. These plants had 97 furnaces including 46 basic open hearth with an annual capacity of 2,215,071 tons, 48 electric furnaces rated at 267,931 tons and 3 converters at 2,750 tons. Of the 30 companies, 18 made electric castings only, 3 made electric ingots only, 2 made basic open hearth ingots only, 2 made converter castings only, 1 made electric and converter castings, 1 made basic ingots and castings, 1 made basic ingots and castings and electric ingots, 2 made basic ingots and castings and electric castings.

Operating steel furnaces in 1940 used 967,134 tons of pig iron, 1,185,277 tons of scrap iron or steel, 150,052 tons of ore, 165,975 short tons of limestone, 81,233 short tons of dolomite, 69,206 short tons of lime, 52,243 short tons of silica sand, 13,673 short tons of magnesite and 32,207 tons of ferro-alloys.

ROLLED AND DRAWN STEEL - In 1940 there were 13 hot rolling mill plants in operation, 1 cold rolling plant and 2 mills making cold drawn shapes. Nine of these mills were in Ontario, 3 in Nova Scotia, 3 in Quebec and 1 in Manitoba. In addition, 1 rolling mill in Ontario and 1 in Alberta were idle throughout the year.

Rolling mill sales advanced 46 per cent to \$85,907,967 from \$58,978,429 in 1939. The main items sold during the year under review were - 326,280 tons of hot rolled bars at \$23,078,104; 281,616 tons of plate, sheet, hoop, band and strip at \$23,143,298; 212,386 tons of rails and rail fastenings at \$10,135,840; 193,445 semi-finished rolled forms, such as, blooms, billets, etc., at \$8,707,852; 160,963 tons structural shapes at \$8,667,678; 117,192 tons wire rods at \$5,305,124, etc.

Table 1 - PROVINCIAL DISTRIBUTION OF ACTIVE PLANTS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1940

Province	PIG IRON		STEEL INGOTS and CASTINGS		Rolling and drawing mills	Ferro- alloys (a)
	Number of firms	Number of plants	Number of blast furnaces	Number of plants	Number of steel furnaces	
Nova Scotia	4	1	3	2	16	5
Quebec	13	...	...	10	21	5
Ontario	16	3	7	10	46	9
Manitoba	3	...	...	3	4	1
Alberta	1	...	...	1	1	...
British Columbia	4	...	...	4	9	...
CANADA	59(b)	4	10	30	97	16
						4

(a) Not including artificial abrasive plants which made ferrosilicon as a by-product.

(b) Some firms operate in more than one province.

Table 2 - PRINCIPAL STATISTICS OF THE PRIMARY IRON AND STEEL INDUSTRY, 1929 - 1940

Years	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
1929	45	109,446,529	11,218	18,534,681	6,691,961	32,514,596	72,251,995
1930	49	112,079,926	9,723	14,934,325	5,182,136	22,765,648	52,588,955
1931	53	104,512,104	8,026	11,072,054	3,757,243	15,291,414	36,911,245
1932	52	96,523,629	4,847	6,131,057	2,567,122	6,289,483	16,197,526
1933	50	96,444,846	5,200	6,049,189	2,699,857	7,598,931	18,492,549
1934	51	90,079,004	7,400	9,009,512	3,969,156	12,675,598	29,101,463
1935	53	86,465,490	9,523	12,279,390	4,845,559	18,539,072	58,700,981
1936	55	92,103,774	11,138	13,830,577	5,440,129	21,424,052	46,636,892
1937	55	96,875,377	14,054	19,926,498	6,934,008	33,805,631	74,580,669
1938	55	100,272,104	15,100	18,256,627	5,529,833	24,786,761	59,806,150
1939	54	113,660,251	15,827	20,410,517	6,069,661	29,629,376	75,934,481
1940 -							
Nova Scotia	6	25,847,776	2,579	4,239,079	1,580,975	11,551,402	21,717,799
Quebec	14	18,108,891	2,973	4,114,286	1,239,039	4,972,518	15,563,176
Ontario	25	87,416,818	11,557	19,877,592	6,466,807	36,540,947	76,335,959
Manitoba	4	2,132,547	547	769,650	263,734	1,009,598	2,415,094
Alberta	1)						
British Columbia	4)	338,782	138	206,449	32,238	171,227	566,381
CANADA	54	133,844,814	17,774	29,207,036	9,582,791	54,045,692	114,598,409

Per cent change

1940 from 1939.. .. +17.8 +28.5 +45.1 +57.9 +82.4 +50.9

NOTE: Profits or losses cannot be calculated from above figures as data are not available for general expense items, such as, interest, rent, depreciation, taxes, insurance, advertising, etc.

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1939 and 1940

Province	Present value of lands, buildings, machinery, tools and other equipment	Inventory value of materials on hand, stocks in process, fuel and finished products on hand	Operating capital (cash, bills and accounts receivable, prepaid expenses, etc.)	TOTAL CAPITAL EMPLOYED
<u>1939</u>	\$	\$	\$	\$
Nova Scotia	14,117,970	5,021,402	2,875,858	22,015,230
Quebec	9,875,478	2,511,038	1,975,835	14,358,351
Ontario	49,742,627	14,750,052	10,777,188	76,269,867
Manitoba	731,205	479,973	521,748	1,732,926
Alberta	174,814	58,403	50,660	285,877
British Columbia ...)				
CANADA	74,640,094	22,820,868	16,199,289	114,660,251
<u>1940</u>				
Nova Scotia	15,195,919	5,544,120	5,109,757	25,847,778
Quebec	10,536,966	5,297,353	4,274,572	18,108,891
Ontario	53,869,601	20,616,424	12,930,793	87,416,818
Manitoba	775,970	730,005	626,572	2,132,547
Alberta	174,532	91,526	72,724	558,782
British Columbia ...)				
CANADA	80,550,988	30,279,428	23,014,598	133,844,814

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Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1939 and 1940

Province	Average number of employees				TOTAL EMPLOY- EES	Salaries	Wages	TOTAL SALARIES and WAGES
	On salaries		On wages					
	Male	Female	Male	Female		\$	\$	\$
1939								
Nova Scotia	60	5	2,161	26	2,252	138,492	3,109,693	3,248,185
Quebec	231	59	2,174	9	2,473	621,205	2,467,662	3,088,867
Ontario	583	161	7,802	48	8,594	2,091,554	11,287,308	13,378,862
Manitoba	31	3	371	1	406	119,233	418,994	538,227
Alberta and British Columbia	17	1	84	...	102	33,188	123,188	156,376
CANADA	922	229	12,592	84	13,827	3,003,672	17,406,845	20,410,517
1940								
Nova Scotia	64	10	2,473	32	2,579	163,812	4,075,267	4,239,079
Quebec	245	71	2,649	8	2,973	655,905	3,457,381	4,114,286
Ontario	665	244	10,561	67	11,537	2,496,556	17,381,036	19,877,592
Manitoba	31	4	511	1	547	135,973	633,657	769,630
Alberta and British Columbia	16	1	121	..	138	34,798	171,651	206,449
CANADA	1,021	330	16,315	108	17,774	3,488,044	25,718,992	29,207,036

Table 5 - WAGE-EARNERS, BY MONTHS, 1939 and 1940

Month	1939			1940		
	Male	Female	TOTAL	Male	Female	TOTAL
January	11,208	65	11,273	15,605	111	15,716
February	11,332	64	11,396	15,444	90	15,534
March	11,589	69	11,658	15,243	93	15,336
April	11,918	84	12,002	15,412	110	15,522
May	11,921	62	11,983	15,671	101	15,772
June	11,749	81	11,830	15,752	102	15,854
July	12,051	87	12,138	16,191	102	16,293
August	11,842	88	11,930	16,713	107	16,820
September	13,236	99	13,335	17,042	114	17,156
October	14,462	98	14,560	17,344	119	17,463
November	14,767	108	14,875	17,567	120	17,687
December	15,007	112	15,119	17,794	116	17,910
AVERAGE	12,592	84	12,676	16,515	108	16,423

Table 6 - HOURS WORKED BY WAGE-EARNERS, 1940 (In one week of month of greatest employment; overtime included)

Hours worked per week	Number of wage-earners	Per cent of total	Hours worked per week	Number of wage-earners	Per cent of total
30 hours or less	304	1.7	55 hours	330	1.8
31 - 43 hours	941	5.1	56 - 64 hours	4,065	21.8
44 hours	382	2.0	65 hours or more	628	3.4
45 - 47 hours	500	2.7	Total	18,610	100.0
48 hours	9,350	50.2	Total wages paid in selected week	\$541,626	
49 - 50 hours	480	2.5			
51 - 54 hours	1,630	8.8			

Table 7 - FUEL AND ELECTRICITY USED, 1939 and 1940

Kinds	Unit of measure	1939		1940	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal - Canadian	short ton	199,170	\$ 872,406	254,149	\$ 1,091,644
Imported	short ton	44,125	221,309	63,383	342,832
Anthracite coal	short ton	446	3,001	28	344
Coke (for fuel only)	short ton	40,365	134,910	55,465	184,993
Gasoline	Imp.gal.	73,763	11,080	109,003	17,759
Kerosene or coal oil	Imp.gal.	89,289	8,299	15,761	2,533
Fuel oil	Imp.gal.	30,373,506	1,330,585	46,538,208	2,431,305
Wood	cord	453	1,713	854	3,491
Gas - Manufactured (x)	M cu. ft.	37,657,095	1,533,726	52,329,292	2,028,931
Natural	M cu. ft.	14,875	8,011	22,929	12,081
Other fuel .....	...	...	12,242	...	69,058
Electricity purchased	K.W.H.	476,826,069	1,932,377	1,018,797,631	3,397,820
TOTAL .....	...	...	6,069,661	...	9,582,791
Electricity generated for own use	K.W.H.	40,823,195	...	80,773,083	...

(x) Includes blast-furnace gas and coke-oven gas which were used in iron and steel departments.

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Table 8 - POWER EQUIPMENT, 1939 and 1940

Kinds	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
<u>1 9 3 9</u>				
Steam engines and steam turbines	64	48,236	55	7,445
Gasoline, gas and oil engines	11	18,760	2	850
Hydraulic turbines or water wheels	4	1,300	...	...
Total Primary	79	68,296	55	8,295
Electric motors operated by purchased power ..	3,158	128,115	48	2,501
TOTAL	3,237	196,411	83	10,594
Electric motors operated by power generated by above primary units	1,800	74,347	5	295
Stationary boilers	129	50,539	5	1,450
<u>1 9 4 0</u>				
Steam engines and steam turbines	60	47,136	52	6,745
Diesel engines .....	...	...	1	100
Gasoline, gas and oil engines	11	18,760	3	1,450
Hydraulic turbines or water wheels	4	1,300	...	...
Total Primary	75	67,196	36	8,295
Electric motors operated by purchased power ..	3,513	140,964	97	2,954
TOTAL	3,588	208,160	133	11,247
Electric motors operated by power generated by above primary units	1,956	79,475	5	295
Stationary boilers	98	43,136	8	2,450

(a) PIG IRON

Table 9 - MATERIALS CHARGED TO IRON BLAST FURNACES, 1939 and 1940

Materials	Unit of measure	1 9 3 9		1 9 4 0	
		Quantity	Cost at furnace \$	Quantity	Cost at furnace \$
Iron ore - Imported (crude)	long ton	1,272,800	4,582,210	1,953,658	7,325,558
Canadian (beneficiated)	long ton	45,152	187,010	136,475	558,747
Canadian (crude)	long ton	...	...	1,599	4,957
Mill cinder, roll scale, flue dust, etc.	long ton	106,834	225,698	116,224	279,271
Scrap (net charge)	long ton	18,932	192,562	25,617	553,708
Limestone -					
From Canadian quarries	short ton	97,946	129,458	125,075	164,977
From foreign sources	short ton	259,431	229,194	454,376	470,293
Coke	short ton	775,869	4,474,474	1,225,173	7,466,407
Other materials .....	\$	...	51,996	...	148,097
TOTAL .....	\$	...	10,072,402	...	16,751,795

Table 10 - PRODUCTION OF PIG IRON AND SALES BY THE PRODUCERS, 1939 and 1940

Grades	Delivered in molten condition	Total tonnage made		SALES	
		Long tons	Long tons	Long tons	\$
<u>1 9 3 9</u>					
Basic	571,224	84,356	655,560	24,685	552,309
Foundry .....	...	71,709	71,709	86,738	1,891,656
Malleable .....	...	28,462	28,462	60,554	1,315,608
TOTAL	571,224	184,507	755,731	171,977	3,757,573
<u>1 9 4 0</u>					
Basic	847,558	127,071	974,629	55,032	1,232,426
Foundry	99	107,825	107,924	104,243	2,494,054
Malleable	213	86,073	86,286	88,324	2,142,289
TOTAL	847,870	320,969	1,168,839	247,599	5,868,769

NOTE: Silvery pig iron has been included with ferro-alloys.

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Table 11 - PRODUCTION OF PIG IRON, BY GRADES, 1929 - 1940 (Long tons)

Years	Basic	Foundry	Malleable	TOTAL
1929	770,478	221,644	88,038	1,080,160
1930	494,231	195,074	59,873	747,178
1931	311,850	80,892	27,296	420,038
1932	105,058	25,246	13,826	144,130
1933	189,428	22,333	15,556	227,317
1934	310,631	50,923	43,441	404,995
1935	468,244	62,294	69,337	599,875
1936	530,929	85,043	62,259	678,231
1937	721,711	105,409	71,735	898,855
1938	557,578	81,088	66,761	705,427
1939	655,560	71,709	28,462	755,731
1940	974,629	107,924	86,286	1,168,839

Table 12 - PRODUCTION OF PIG IRON, BY PROVINCES, 1929 - 1940 (Long tons)

Years	Nova Scotia	Ontario	TOTAL
1929	310,801	769,359	1,080,160
1930	212,636	534,542	747,178
1931	101,393	318,645	420,038
1932	30,697	113,433	144,130
1933	118,514	108,803	227,317
1934	133,360	271,635	404,995
1935	208,002	391,873	599,875
1936	257,148	421,083	678,231
1937	320,318	578,537	898,855
1938	241,856	463,571	705,427
1939	259,136	496,595	755,731
1940	394,412	774,427	1,168,839

Table 13 - PRODUCTION OF PIG IRON, BY MONTHS, 1936 - 1940 (Long tons)

Months	1 9 3 6	1 9 3 7	1 9 3 8	1 9 3 9	1 9 4 0
January	61,336	66,400	74,862	57,660	104,703
February	55,751	61,995	61,447	41,333	87,032
March	54,009	70,986	66,228	40,723	91,772
April	54,045	68,138	65,644	46,254	84,210
May	58,832	78,147	71,602	57,746	93,254
June	56,362	78,278	64,375	52,805	88,656
July	34,988	79,736	51,238	59,587	95,924
August	38,570	74,578	49,477	65,920	88,885
September	51,892	76,180	49,972	65,594	105,020
October	70,051	80,922	50,657	85,758	109,385
November	74,337	81,463	46,216	87,868	109,576
December	68,058	82,032	53,709	94,483	110,422
TOTAL /.....	678,231	898,855	705,427	755,731	1,168,839

Table 14 - SALES OF PIG IRON BY THE PRODUCERS, 1929 - 1940 (Long tons)

Years	Tonnage sold	Income from sales	Years	Tonnage sold	Income from sales
	\$	\$		\$	\$
1929	324,759	6,544,645	1935	131,749	2,650,990
1930	215,304	4,123,562	1936	168,054	3,327,716
1931	139,620	2,613,511	1937	225,716	5,146,017
1932	55,440	1,088,532	1938	129,565	2,961,639
1933	76,507	1,402,903	1939	171,977	3,757,573
1934	97,440	1,856,284	1940	247,599	5,368,769

Table 15 - IRON ORE, FUEL AND FLUX CHARGED TO IRON BLAST FURNACES, 1929 - 1940

Years	Iron ore Long tons	Mill cinder, scale, etc. Long tons	Scrap Long tons	Coke Short tons	Limestone Short tons
1929	1,924,579	120,779	61,955	1,171,171	559,052
1930	1,328,929	94,766	35,909	796,040	401,688
1931	745,951	56,525	16,272	448,845	224,786
1932	253,337	16,297	4,145	155,932	77,086
1933	400,290	17,992	10,879	247,974	132,235
1934	718,237	37,043	12,461	415,462	209,104
1935	1,039,234	55,269	30,714	577,355	278,469
1936	1,218,823	49,091	20,386	672,210	345,622
1937	1,604,073	119,910	16,467	890,384	470,549
1938	1,254,453	66,614	19,123	697,615	345,182
1939	1,317,952	106,834	18,932	775,869	357,377
1940	2,091,712	116,224	25,617	1,223,173	579,451

Table 16 - IMPORTS INTO CANADA, and EXPORTS OF PIG IRON, 1929 - 1940

Years	Imports		Exports	
	Long tons	\$	Long tons	\$
1929	32,548	624,891	7,478	151,967
1930	13,643	270,157	593	12,653
1931	7,912	148,051	2,787	55,183
1932	4,753	78,845	2,029	38,816
1933	2,459	43,298	11,903	214,195
1934	6,419	108,300	9,221	176,093
1935	8,920	143,726	13,759	287,396
1936	3,960	74,589	13,904	304,682
1937	6,371	144,354	38,516	851,701
1938	2,122	62,494	10,546	224,261
1939	587	15,176	10,728	221,787
1940	26,521	672,489	3,672	101,126

Table 17 - STOCKS OF PIG IRON HELD BY PRODUCERS IN CANADA, 1931 - 1940

Years	Long tons	Years	Long tons
1931	128,222	1936	76,829
1932	113,739	1937	112,287
1933	109,507	1938	127,909
1934	65,537	1939	61,763
1935	87,346	1940	68,357

Table 18 - APPARENT CONSUMPTION OF PIG IRON IN CANADA, 1929 - 1940 (Long tons)

Years	Production	Add imports	Deduct exports	Add or deduct changes in stock	Apparent consumption
1929	1,080,160	32,548	7,478	not avail-	1,105,230
1930	747,178	13,643	593	able	760,228
1931	420,038	7,912	2,787	+ 14,483	425,163
1932	144,130	4,753	2,029	+ 4,232	161,337
1933	227,317	2,459	11,903	+ 43,870	222,105
1934	404,995	6,419	9,221	- 21,709	446,059
1935	599,875	8,920	13,759	+ 10,517	573,327
1936	678,231	3,960	13,904	- 35,458	678,804
1937	898,855	6,371	38,516	- 15,622	831,252
1938	705,427	2,122	10,546	+ 66,146	681,381
1939	755,731	587	10,728	- 6,594	811,736
1940	1,168,839	26,521	3,672		1,185,094

Table 19 - CONSUMPTION OF PIG IRON IN CANADA, BY INDUSTRIES AND BY PROVINCES, 1936 - 1939
(As reported by consumers)

	1936	1937	1938	1939
	(Long tons)			
(a) By Industries				
Steel ingots and castings	522,243	667,631	566,893	654,550
Castings and forgings	49,167	72,072	51,877	53,618
Boilers, tanks and engines	10,331	9,974	8,317	10,219
Agricultural implements	16,194	23,238	14,289	8,871
Machinery	9,969	15,066	10,403	11,760
Automobiles			(Not available)	
Automobile parts	6,517	5,991	4,464	6,262
Railway rolling stock	16,362	21,921	15,108	20,179
Brass and copper products	1,022	1,580	1,350	1,733
Shipbuilding .....	...	126	149	90
Hardware and tools	2,901	2,781	2,753	3,201
Miscellaneous iron and steel	583	437	428	493
Heating and cooking apparatus	18,721	19,493	15,233	16,315
Electrical apparatus and supplies	1,496	2,507	1,393	1,484
TOTAL	655,296	842,817	692,657	788,775
(b) By Provinces				
Prince Edward Island	50	35	25	50
Nova Scotia	254,934	296,289	233,231	268,242
New Brunswick	3,073	2,402	2,007	2,063
Quebec	23,479	36,370	25,601	25,684
Ontario	371,241	504,859	429,178	489,397
Manitoba	1,478	1,632	1,588	1,833
Saskatchewan .....	...	50	...	...
Alberta	109	157	99	94
British Columbia	952	1,023	928	1,432
CANADA	655,296	842,817	692,657	788,775

Table 20 - BLAST FURNACES IN CANADA, 1938 - 1940

Names of Companies	Location of plants	Number of stacks	Total daily capacity (24 hours)	Number of days in blast		
				1938	1939	1940
(Long tons)						
Dominion Steel and Coal Corporation Ltd.	Sydney, N.S.	1	350	165	31	357
		1	300	...	265	354
		1	550	365	365	358
TOTAL		3	1,200	...	...	...
Canadian Furnace Company, Limited	Port Colborne, Ont.	1	350	193*	200*	199*
The Steel Company of Canada, Limited	Hamilton, Ont.	1	325	365	158	366
		1	650	365	365	330
TOTAL		2	975	...	...	...
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ont.	1	300	...	...	181
		1	300	...	...	...
		1	450	290	362	316
		1	550	...	85	366
TOTAL		4	1,600	...	...	...
TOTAL FOR CANADA		10	4,125	...	...	...

* For making pig iron; ferro-alloys also made in this furnace.

Table 21 - WHOLESALE PRICES OF PIG IRON IN CANADA, BY MONTHS, 1939 and 1940

Months	No. 1 foundry, base silicon 2.25 max., (price per gross ton, car lots, f.o.b. sellers' works)		Standard malleable base silicon 2.25 max., (price per gross ton, f.o.b. plant)		Basic silicon 1.50 max., (price per gross ton, f.o.b. plant)		
	1939		1940		1939		1940
	\$	\$	\$	\$	\$	\$	\$
January	22.50	25.50	20.50	23.50	20.00	23.00	
February	22.50	25.50	20.50	23.50	20.00	23.00	
March	22.50	25.50	20.50	23.50	20.00	23.00	
April	22.50	25.50	20.50	23.50	20.00	23.00	
May	22.50	25.50	20.50	23.50	20.00	23.00	
June	22.50	25.50	20.50	23.50	20.00	23.00	
July	22.50	25.50	20.50	23.50	20.00	23.00	
August	22.50	25.50	20.50	23.50	20.00	23.00	
September	22.50	25.50	23.50	23.50	23.00	23.00	
October	22.50	25.50	23.50	23.50	23.00	23.00	
November	22.50	25.50	23.50	23.50	23.00	23.00	
December	22.50	25.50	23.50	23.50	23.00	23.00	
AVERAGE	22.50	25.50	21.50	23.50	21.00	23.00	

(b) FERRO-ALLOYS

Table 22 - PRODUCTION OF FERRO-ALLOYS, 1927 - 1940

Years	Long tons	Years	Long tons
1927	56,230	1934	51,921
1928	44,842	1935	56,616
1929	89,116	1936	76,284
1930	65,223	1937	82,072
1931	46,764	1938	55,926
1932	16,161	1939	76,375
1933	30,133	1940	135,388

Table 23 - PRODUCERS OF FERRO-ALLOYS IN CANADA, 1940

Names of Companies	Plant locations	Products made
Abrasive Company of Canada, Limited	Hamilton, Ont.	Ferrosilicon
Canadian Carborundum Company, Limited	Niagara Falls, Ont.	Ferrosilicon
Canadian Furnace Limited	Port Colborne, Ont.	Spiegeleisen and ferrosilicon
Chromium Mining & Smelting Corp., Limited	Sault Ste. Marie, Ont.	Ferrosilicon and chrom-x
Electro Metallurgical Company of Canada, Limited	Welland, Ont.	Ferrosilicon, ferrochrome, ferromanganese, silico-manganese, spiegeleisen and silicospiegeleisen
Electric Reduction Company of Canada, Limited	Buckingham, P.Q.	Ferrophosphorus
Exolon Company	Thorold, Ont.	Ferrosilicon
Lionite Abrasives Limited	Stamford, Ont.	Ferrosilicon
Norton Company	Chippawa, Ont.	Ferrosilicon
Shawinigan Chemicals Limited	Shawinigan Falls, P.Q.	Ferrosilicon
St. Lawrence Alloys and Metals Limited	Beauharnois, P.Q.	Ferrosilicon.

Table 24 - IMPORTS INTO CANADA AND EXPORTS OF FERRO-ALLOYS, 1939 and 1940

Items	1 9 3 9		1 9 4 0	
	Long tons	\$	Long tons	\$
IMPORTS -				
Ferromanganese, spiegeleisen and other alloys of manganese and iron, containing not more than 1 per cent, by weight, of silicon	264	55,935	253	77,939
Silicomanganese, silicospiegeleisen and other alloys of manganese and iron, containing more than 1 per cent, by weight, of silicon	100	8,587	2	381
Ferrosilicon, being an alloy of iron and silicon, containing 8 per cent or more, by weight, of silicon and less than 60 per cent	2	294	533	20,322
Ferrosilicon, being an alloy of iron and silicon, containing 90 per cent or more, by weight, of silicon .....	...	16	...	...
Other alloys used in the manufacture of iron or steel	1,005	461,596	1,600	1,277,039
TOTAL	1,371	526,428	2,388	1,375,681
EXPORTS -				
Ferrosilicon	21,149	1,196,381	52,604	4,137,990
Spiegeleisen	36,000	1,280,526	18,654	812,292
Ferromanganese and other ferro-alloys			13,524	1,869,208
TOTAL	57,149	2,476,907	84,782	6,819,490

(c) STEEL IN OTS AND DIRECT STEEL CASTINGS

Table 25 - MATERIALS USED IN STEEL FURNACES, 1939 and 1940

Materials	Unit of measure	1 9 3 9		1 9 4 0	
		Quantity	Cost of purchased materials	Quantity	Cost of purchased materials
(a) Metals -					
Pig iron - Own make	long ton	646,158	...	908,413	...
Purchased	long ton	8,392	206,379	58,721	1,382,107
Scrap iron or steel - Own make	long ton	332,512	...	483,555	...
Purchased	long ton	495,183	7,227,009	701,722	12,469,326
Spiegeleisen	long ton	2,790	92,364	3,825	150,938
Ferovanadium	long ton	...	...	51	130,566
Ferromanganese	long ton	13,961	887,536	15,269	1,464,117
Silicomanganese	long ton	959	84,932	1,805	166,286
Ferrosilicon	long ton	5,233	255,450	8,124	465,831
Ferrochrome, high carbon	long ton	483	55,822	876	114,188
low carbon	long ton	512	119,937	1,066	222,129
Ferromolybdenum	long ton	10	18,896	12	18,950
Ferrophosphorus	long ton	478	42,203	718	66,595
Feroselenium	long ton	1	913	1	1,832
Ferrotitanium	long ton	118	23,498	118	24,233
Ferrotungsten	long ton	95	173,250	336	829,859
Ferozirconium	long ton	19	2,122	1	93
Other ferro-alloys	long ton	25	55,834	5	14,994
Aluminium ingots	short ton	249	87,837	438	171,850
Copper ingots	short ton	264	46,217	196	45,062
Nickel	short ton	300	187,001	775	459,114
Other metals	short ton	174	42,026	...	55,042
(b) Ores -					
Ore, iron, crude	long ton	81,095	501,436	121,985	1,176,064
Ore, iron, calcined, roasted or treated	long ton	403	2,480	7,590	32,563
Ore, manganese	long ton	6	287	26	1,300
Ore, chrome	long ton	326	10,255	451	20,503

Table 25 - MATERIALS USED IN STEEL FURNACES, 1939 and 1940 (Concluded)

Materials	Unit of measure	1 9 3 9			1 9 4 0		
		Quantity	Cost of purchased materials	Quantity	Cost of purchased materials		
(c) Other materials -							
Bentonite	short ton	...	...	811	24,909		
Coal, anthracite	short ton	246	2,184	401	5,801		
bituminous	short ton	99	813	257	2,502		
Coke	short ton	4,510	58,938	5,525	51,567		
Charcoal	short ton	44	1,369	69	2,176		
Dolomite, crude	short ton	40,592	78,904	59,284	123,429		
calcined	short ton	14,858	99,858	21,949	136,580		
Fluorspar	short ton	7,972	122,778	15,307	327,187		
Lime	short ton	20,540	183,807	69,206	413,756		
Limestone, Canadian	short ton	39,708	65,161	43,413	70,581		
Imported	short ton	81,299	69,565	122,562	124,077		
Magnesite	short ton	11,401	351,680	15,675	506,052		
Electrodes .....	...	...	208,565	...	307,059		
Silica sand	short ton	19,090	122,123	32,243	235,059		
Moulding sand	short ton	80	900	...	...
Other foundry sand	short ton	15,495	82,405	...	55,978		
Firebrick, fireclay and other refractories .....	...	...	620,259	...	1,099,728		
Calcium molybdate and molybdenum oxide briquettes	short ton	56	70,895	...	216,230		
Calcium silicon	short ton	124	27,925	176	48,617		
All other materials .....	...	...	794,734	...	1,552,894		
TOTAL VALUE OF METALS, ORES AND OTHER MATERIALS USED .....	...	...	15,066,527	...	24,764,970		

Table 26 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS and SALES BY THE PRODUCERS, 1939 and 1940

	1 9 3 9			1 9 4 0		
	Total tonnage of steel made (all kinds, including alloys)	SALES		Total tonnage of steel made (all kinds, including alloys)	SALES	
		Quantity	Income from sales		Quantity	Income from sales
	Long tons	Long tons	\$	Long tons	Long tons	\$
<u>STEEL INGOTS -</u>						
Basic open hearth	1,259,231	6,085	173,703	1,823,212	60,815	2,076,201
Electric	71,177	...	...	121,101	...	...
Total steel ingots	1,330,408	6,085	173,703	1,944,313	60,815	2,076,201
<u>STEEL CASTINGS -</u>						
Basic open hearth	15,601	12,637	2,168,007	18,826	17,400	3,010,348
Converter	834	834	131,474	2,025	2,025	438,803
Electric	38,027	37,010	6,635,913	47,130	48,266	7,091,151
Total steel castings	54,462	50,481	8,995,394	67,981	67,691	10,540,282
<u>TOTAL STEEL INGOTS AND CASTINGS</u>	1,384,870	56,566	9,169,097	2,012,294	128,506	12,616,483
Any other products	1,985	1,904	94,911	3,155	3,175	160,686
<u>TOTAL ALL PRODUCTS ....</u>	...	...	9,264,008	2,015,447	131,679	12,777,169
Alloy steel included in above:						
Ingots	46,324	...	...	84,955	...	...
Castings	5,089	6,515	1,497,179	8,818	8,624	2,245,915
<u>TOTAL</u>	51,413	6,515	1,497,179	93,773	8,624	2,245,915

Table 27 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS, BY GRADES, 1929 - 1940

Years	STEEL INGOTS		DIRECT STEEL CASTINGS			(Long tons) Total steel ingots and castings
	Open hearth	Electric	Open hearth	Con- verter	Electric	
1929	1,295,162	14,444	35,806	2,590	30,022	1,378,024
1930	925,427	30,051	24,772	2,314	27,014	1,009,578
1931	612,437	25,017	14,760	590	19,305	672,109
1932	508,700	19,670	2,616	846	7,514	339,346
1933	378,666	15,393	5,017	288	10,615	409,979
1934	713,227	23,891	6,457	507	13,700	757,762
1935	872,444	36,742	9,119	645	22,577	941,527
1936	1,037,713	43,836	10,208	575	23,447	1,115,779
1937	1,274,992	61,236	23,827	1,016	41,811	1,402,882
1938	1,047,203	55,891	15,525	759	35,812	1,155,190
1939	1,259,231	71,177	15,601	834	38,027	1,384,370
1940	1,823,212	121,101	18,826	2,025	47,130	1,012,294

Table 28 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS, BY MONTHS, 1926 - 1940

Months	1 9 5 6	1 9 3 7	1 9 3 8	1 9 3 9	1 9 4 0
	100,225	115,237	112,380	78,105	166,496
January	93,365	111,823	98,980	77,179	140,343
February	101,092	125,104	118,676	95,626	157,326
March	107,220	121,426	116,445	99,777	153,451
April	94,602	120,843	114,859	121,438	174,417
May	82,196	118,744	109,401	107,908	166,213
June	68,793	122,968	83,927	111,247	169,577
July	80,164	126,695	82,781	121,951	172,210
August	86,077	114,622	73,556	124,342	164,515
September	98,330	114,527	76,256	149,924	185,091
October	98,534	110,688	90,120	147,166	176,113
November	105,181	100,205	77,809	150,207	186,542
TOTAL	1,115,779	1,402,882	1,155,190	1,384,870	2,012,294

Table 29 - ANNUAL PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS, BY PROVINCES, 1929 - 1940 (Long tons)

Years	Nova Scotia	Quebec	Ontario	Manitoba	Alberta	British Columbia	CANADA
	407,062	42,212	899,911	27,425	298	1,116	1,378,024
1930	296,552	45,171	639,128	19,121	8,377	1,229	1,009,578
1931	172,529	35,834	442,231	14,020	6,685	810	672,109
1932	68,630	19,010	243,047	6,412	1,880	367	339,346
1933	124,134	18,917	257,615	8,509	206	598	409,979
1934	260,825	27,744	457,497	9,912	388	1,416	757,782
1935	298,769	35,076	589,558	16,254	370	1,500	941,527
1936	379,018	39,792	675,887	19,199	272	1,611	1,115,779
1937	427,104	60,815	887,906	24,536	359	2,162	1,402,882
1938	338,479	48,742	746,951	18,086	374	2,558	1,155,190
1939	402,959	50,627	905,360	22,360	397	3,167	1,384,870
1940	556,269	65,742	1,350,442	35,526	340	3,975	2,012,294

Table 30 - SALES OF STEEL INGOTS AND STEEL CASTINGS, BY THE PRODUCERS, 1929 - 1940

Years	Tonnage sold	Income from sales	Years	Tonnage sold	Income from sales
	Long tons	\$		Long tons	\$
1929	61,981	10,283,460	1935	35,592	4,196,922
1930	48,563	8,013,707	1936	28,030	4,738,296
1931	30,831	5,143,495	1937	64,907	10,616,508
1932	11,543	1,913,157	1938	43,086	7,780,163
1933	14,934	2,365,171	1939	56,566	9,169,097
1934	20,139	3,228,451	1940	128,506	12,616,483

Table 31 - METAL, ORE AND FLUX CHARGED TO STEEL FURNACES, 1929 - 1940

Years	Pig iron	Ferro-manganese and spiegeleisen	Other ferro-alloys	Scrap iron and steel	Ore	Lime-stone	Fluorspar and dolomite
	Long tons	Long tons	Long tons	Long tons	Long tons	Short tons	Short tons
1929	761,878	11,769	6,189	736,275	95,059	154,238	29,794
1930	520,562	9,087	5,232	573,050	61,223	109,119	19,282
1931	328,063	6,539	3,442	401,450	32,529	74,524	20,742
1932	106,951	5,878	2,363	269,202	8,750	27,706	8,978
1933	156,962	4,157	5,182	308,526	18,151	34,552	9,825
1934	352,346	6,771	4,041	480,679	34,844	77,815	19,303
1935	446,271	10,733	3,867	641,659	50,520	91,412	24,253
1936	522,243	13,448	5,826	693,989	65,190	109,200	51,504
1937	667,631	16,074	8,287	896,242	87,165	125,922	62,105
1938	566,893	14,228	5,058	667,268	74,574	106,881	47,668
1939	654,550	16,751	7,933	827,695	81,830	121,007	63,422
1940	967,134	19,094	13,113	1,185,277	130,052	165,975	96,540

Table 32 - SUMMARY OF STEEL FURNACE CAPACITY IN CANADA, 1940

Type of furnace	Number of furnaces	Total rated annual capacity
		(Long tons)
Basic open hearth	46	2,215,071
Electric	48	267,931
Converter	3	2,750
TOTAL	97	2,485,752

Table 33 - STEEL FURNACES IN CANADA, 1940

Names of companies and location of furnaces	Type	F U R N A C E S		
		Number of units	Size of each (in tons per heat)	Total rated annual capacity
		Long tons	Long tons	
Maritime Steel Foundries Company Limited, New Glasgow, N.S.	<u>Electric (Heroult)</u>	1	4	6,000
Dominion Steel and Coal Corporation, Limited, Sydney, N.S.	Basic open hearth	10	50	285,710
	Basic open hearth	4	100	289,290
	<u>Electric</u>	1	10	25,000
Canadian Brake Shoe & Foundry Company Limited, Sherbrooke, P.Q.	<u>Electric (Heroult)</u>	1	1	2,000
	<u>Electric (Heroult)</u>	2	2	2,500
Canadian Car & Foundry Company Limited, Montreal, P.Q.	Basic open hearth	3	22	32,046
	<u>Electric (Volta)</u>	1	3	5,357
Canadian Tube & Steel Products Limited, Montreal, P.Q.	<u>Electric (Volta)</u>	3	4½	40,176
Hull Iron & Steel Foundries, Limited, Hull, P.Q.	<u>Electric</u>	1	1	1,500
	<u>Electric (Heroult)</u>	1	6	7,500
Joliette Steel Limited, Joliette, P.Q.	<u>Electric (Greaves-Etchell)</u>	1	2	2,000
La Cie F. X. Brolet, Quebec, P.Q.	<u>Converter (Baillot)</u>	1	1	300
Lynn MacLeod Engineering Supplies, Ltd. Thetford Mines, P.Q.	<u>Electric (Heroult)</u>	1	1	
	<u>Electric (Volta)</u>	1	½	2,400
Manganese Steel Castings Limited, Sherbrooke, P.Q.	<u>Electric (Heroult)</u>	1	2	360

Table 33 - STEEL FURNACES IN CANADA, 1940 - (Continued)

Names of companies and location of furnaces	Type	F U R N A C E S		
		Number of units	Size of each (in tons per heat)	Total rated annual capacity
		Long tons	Long tons	
Shawinigan Chemicals Limited, Shawinigan Falls, P.Q.	Electric (Volta)	1	1	936
	Electric (Volta)	1	2	1,872
	Electric single phase tilting	1	$\frac{1}{2}$	40
Sorel Steel Foundries, Limited, Sorel, P.Q.	Electric ('Lectromelt)	1	$1\frac{1}{2}$	2,500
	Basic open hearth	8	55	300,000
Algoma Steel Corporation, Limited, Sault Ste. Marie, Ont.	Basic open hearth	3	110	300,000
	Electric ('Lectromelt)	1	$5\frac{1}{2}$	21,000
Burlington Steel Company Limited, Hamilton, Ont.	Electric (Heroult)	2	2	7,200
Canada Electric Castings, Limited, Orillia, Ont.	Electric (Heroult)	1	10	16,800
	Electric (Heroult)	1	4	7,500
Dominion Foundries & Steel, Limited, Hamilton, Ont.	Basic open hearth	1	40	41,850
	Basic open hearth	1	50	47,925
	Basic open hearth	1	58	50,625
	Basic open hearth	1	58	50,625
	Electric	1	$\frac{1}{2}$	730
	Electric	2	9	29,400
	Electric	1	20	32,600
Fahr alloy Canada Limited, Orillia, Ont.	Electric (Volta)	1	$1\frac{1}{2}$	1,500
	Electric (Volta)	1	1	360
	Electric ('Lectromelt)	1	200 pounds	experimental
Ford Motor Company of Canada, Limited, Windsor, Ont.	Electric (Swindell)	1	5	10,500
	Electric (Swindell)	1	4	5,875
	Electric (Moore)	1	4	5,875
Kennedy, William & Sons, Limited, Owen Sound, Ont.	Converter (Tropenas)	1	2	2,000
Steel Company of Canada, Limited, Hamilton, Ont.	Basic open hearth	1	40	29,000
	Basic open hearth	4	90	250,920
	Basic open hearth	3	50	105,000
	Basic open hearth	4	160	392,080
Welland Electric Steel Foundry, Welland, Ont.	Electric (Heroult)	1	$1\frac{1}{2}$	
	Electric (Heroult)	1	$\frac{2}{3}$	
	Electric (Heroult)	1	$\frac{1}{4}$	5,500
Manitoba Rolling Mill Company, Limited, Selkirk, Man.	Basic open hearth	2	$18\frac{1}{2}$	40,000
Manitoba Steel Foundries Limited, Selkirk, Man.	Electric ('Lectromelt)	1	4	3,500
Vulcan Iron Works Limited, Winnipeg, Man.	Electric (Moore 'Lectromelt)	1	$2\frac{1}{2}$	2,000

Table 33 - STEEL FURNACES IN CANADA, 1940 - (Concluded)

Names of companies and location of furnaces	Type	FURNACES			Total rated annual capacity Long tons
		Number of units	Size of each (in tons per heat) Long tons		
Riverside Iron Works, Limited, Calgary, Alta.	Electric (Moore 'Lectromelt)	1	1½		5,000
Britannia Mining & Smelting Company, Britannia Beach, B.C.	Electric (Greene)	1	2		5,500
Consolidated Mining & Smelting Company Ltd., Trail, B.C.	Electric (Greene)	1	5		4,500
Reliance Foundry Company Limited, Vancouver, B.C.	Electric	1	2		2,000
	Electric	1	1		1,000
	Electric	1	½		500
Vancouver Engineering Works, Limited, Vancouver, B.C.	Converter	1	2		450
	Electric (Greaves- Etchell)	2	2		500
	Electric (Arnold)	1	1		450

Table 34 - MATERIALS USED IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1939 and 1940

Materials	Companies' own make	PURCHASED		
		Quantity Long tons	Cost at works Long tons	\$
<u>1939</u>				
Steel ingots	1,342,627	641	23,554	
Steel billets	30,015	52,903	1,967,450	
Steel bars .....	...	23,111	1,364,890	
Rails, old	1,138	32,078	694,889	
Axles, old .....	...	4,689	100,769	
Scrap iron and steel, other	2,415	1,095	19,633	
Spelter .....	...	3,224	284,946	
Other materials and supplies .....	...	...	238,389	
TOTAL .....	...	...	4,694,520	
<u>1940</u>				
Steel ingots	1,909,230	570	20,531	
Steel billets	44,447	73,276	2,699,166	
Steel bars .....	...	30,967	2,066,047	
Rails, old	1,011	38,016	817,410	
Axles, old .....	...	4,057	93,310	
Scrap iron and steel, other	2,915	1,172	23,864	
Tin .....	...	1,069	1,257,416	
Zinc spelter .....	...	4,453	513,655	
Ammonium chloride, pound	...	580,451	31,585	
Sulphuric acid, 66° Be, pound	...	15,095,536	111,943	
All other materials .....	...	...	235,918	
TOTAL .....	...	...	7,871,345	

Table 35 - PRODUCTS MADE IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1939 and 1940

Products	FACTORY SALES		
	Total tonnage made Long, tons	Tonnage sold in Canada or for export Long tons	Income from tonnage sold \$
1 9 3 9			
<u>Semi-finished rolled forms of iron and steel</u> -			
Blooms, billets and slabs, except those for forging, but including sheet and tinplate bars	990,308 70	132,123 ...	4,702,975 ...
Muck and scrap bars			
Blooms, billets and axle blanks, for forging purposes only, excluding all those intended for further rolling	26,074	24,139	1,233,754
Total semi-finished rolled forms	1,016,452	156,262	5,936,729
<u>Rails and rail fastenings</u> -			
Rails	109,842	114,013	5,182,146
Splice bars or fish plates	9,209	9,629	716,985
Tie plates, rail joints, frogs, etc.	21,921	20,702	1,181,296
Total rails and rail fastenings	140,972	144,344	7,080,427
<u>Wire rods of iron or steel, including chain rods</u>			
<u>Structural steel shapes</u> (including angles of all sizes; beams, channels, tees, etc., but excluding plates and bars..)			
<u>Bars of iron or steel</u> -			
Bars, hot rolled, of all grades in rounds, squares, flats, but omitting all bars reported under the items immediately below	165,385	158,870	9,285,632
Bars rolled from alloy steel	29,714	21,678	2,497,961
Bars for concrete reinforcing, including twisted and other deformed bars, except bars rolled from old rails or axles..	23,538	23,295	1,362,147
Bars rolled from old rails or axles	19,034	18,765	988,904
Long angle splice bars, tie plate bars and all other long rail joint bars	32,526	...	...
All other bars, including spike rods, bolt stock, horseshoe bars, toe calk steel and all other finished rolled forms not elsewhere specified	9,705	1,535	82,337
Total hot rolled bars	280,402	224,143	14,216,981
Cold rolled and cold drawn bars	12,375	12,412	1,458,090
<u>Plates, all kinds (iron or steel flats over 14 inches in width, and thicker than No. 7 U.S. standard gauge)</u>			
<u>Sheets, hoops, bands and strips</u> , including plain sheets, hot rolled strips, cold rolled strips, and galvanized sheets (x) and tinplate (x)			
Total plates, sheets, hoops, bands and strips	162,765 230,314	158,285 226,311	13,843,344 17,614,271
<u>Other rolled forms</u> including mine arches, sheet piling, etc.			
<u>Miscellaneous products</u> (not rolled) made in rolling mills, including horseshoes, grinding balls, washers, forged axles, railway spikes, pressed spikes, etc.			
TOTAL VALUE OF PRODUCTION	13,291	12,182	785,502
	...	...	2,471,125
	...	...	58,978,429

Table 35 - PRODUCTS MADE IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1939 and 1940 (Concluded)

Products	FACTORY SALES		
	Total tonnage made Long tons	Tonnage sold in Canada or for export Long tons	Income from tonnage sold \$
1 9 4 9			
<u>Semi-finished rolled forms of iron and steel -</u>			
Blooms, billets and slabs, except those for forging, but including sheet and tinplate bars	1,420,748	156,477	6,821,949
Muck and scrap bars	155	...	...
Blooms, billets and axle blanks, for forging purposes only, excluding all those intended for further rolling ..	36,814	36,968	1,885,903
Total semi-finished rolled forms	1,457,717	193,445	8,707,852
<u>Rails and rail fastenings -</u>			
Rails	178,570	176,452	7,839,858
Splice bars or fish plates	12,536	12,254	907,852
Tie plates	21,760	23,700	1,588,150
Total rails and rail fastenings	212,866	212,386	10,135,840
Wire rods of iron or steel, including chain rods	268,558	117,192	5,305,124
Structural steel shapes (including angles over 3 inches by 3 inches; beams, channels, tees, sheet piling, etc., but excluding plates and bars	164,043	160,963	8,667,678
<u>Bars of iron or steel -</u>			
Bars, hot rolled, of all grades in rounds, squares, flats and angles up to and including 3 inches by 3 inches but omitting all bars reported under the items immediately below	213,693	196,448	12,369,226
Bars rolled from alloy steel	50,444	48,432	6,193,298
Bars for concrete reinforcing, including twisted and other deformed bars, except bars rolled from old rails or axles	32,354	31,210	1,838,105
Bars rolled from old rails or axles	23,825	17,714	1,049,750
Long anglesplice bars, tie plate bars and all other long rail joint bars	39,565	...	...
All other bars, including spike rods, bolt stock, horseshoe bars, toe calk steel and all other finished rolled forms not elsewhere specified	45,288	32,476	1,627,725
Total hot rolled bars	405,169	326,280	23,078,104
Cold rolled and cold drawn bars and shapes	24,200	25,396	3,370,338
Plates, all kinds (iron or steel flats over 14 inches in width, and thicker than No. 7 U.S. standard gauge)	75,644	74,457	4,338,799
Sheets, hoops, bands and strips, including plain sheets, hot rolled strips, and galvanized sheets (x) and tinplate, (x)	209,955	207,159	18,804,499
Total plates, sheets, hoops, bands and strips ...	283,599	281,616	23,143,298
Other rolled forms including mine arches, sheet piling, etc.	8,114	5,564	371,115
Miscellaneous products (not rolled) made in rolling mills, including horseshoes, grinding balls, washers, forged axles, railway spikes, pressed spikes, etc. .....	...	...	3,128,618
TOTAL VALUE OF PRODUCTION .....	...	...	85,907,967

(x) Includes the tonnages of galvanized sheets and tinplate made in rolling mills only.

Table 36 - AVERAGE WHOLESALE PRICES PIG IRON, STEEL BILLETS AND CERTAIN ROLLING MILL PRODUCTS, 1937, 1938, 1939 and 1940

Commodities	Unit	Average	Average	Average	Average
		1937	1938	1939	1940
		\$	\$	\$	\$
Pig iron, No. 1 foundry	per gross ton, f.o.b. works	24.92	24.00	22.50	25.50
Pig iron, malleable	per gross ton, f.o.b. works	23.25(a)	22.00	21.50	23.50
Pig iron, basic	per gross ton, f.o.b. works	22.50	21.50	21.00	23.00
Steel billets, mild, 6x6 to 9x9 base.	per gross ton, f.o.b. works	41.17	40.00	38.67	40.00
Steel bars, structural grade	per 100 pounds, f.o.b. works	2.56	2.53	2.45	2.45
Merchant bars, mild steel	per 100 pounds, f.o.b. works	2.66	2.63	2.55	2.55
Steel rails, open hearth	per gross ton, f.o.b. plant	46.67	47.00	47.00	47.00
Steel tank plates	per 100 pounds, f.o.b. Pittsburgh	2.22	2.19	2.23	2.45
Light cold rolled sheets, No. 20, U.S.G.	per 100 pounds, f.o.b. Pittsburgh	3.50	3.34	3.22	3.55
Galvanized corrugated iron sheets					
No. 28, U.S.G.	per 100 sq.ft., f.o.b. destination	6.19	6.23	5.89	4.17(b)
Hot rolled and annealed steel sheets,					
No. 24, U.S.G.	per 100 pounds, f.o.b. Montreal..	4.60	4.58	4.44	3.66(c)
Hot rolled and annealed sheets,					
No. 10, U.S.G.	per 100 pounds, f.o.b. Montreal..	4.18	3.97	3.64	2.76(d)
Mild steel tank plates, 1/4" - 1/8"					
thickness	per 100 pounds, f.o.b. Montreal..	3.88	3.76	3.72	4.08
Steel sheets, black, No. 10, U.S.G.	per 100 pounds, f.o.b. Montreal..	4.40	4.26	4.04	4.29
Iron boiler plate, $\frac{1}{2}$ inch thickness..	per pound net, f.o.b. Montreal ..	0.04	0.04	0.04	0.04
Tinplate, standard coke	per box, f.o.b. Montreal car lots	7.19	7.35	7.17	6.40(e)
Structural shapes, open hearth	per 100 pounds, f.o.b. works	2.49	2.45	2.40	2.50

- (a) New grade base silicon 2.25 max.
 (b) 1940 mill shipment, December, 1939 price - \$4.30
 Old grade " " " - \$5.60
 (c) 1940 mill shipment, December, 1939 price - \$3.70
 Old grade " " " - \$4.70
 (d) 1940 mill shipment, December, 1939 price - \$2.80
 Old grade " " " - \$3.75
 (e) New source in 1940, December, 1939 price - \$6.40
 Old " " " - \$7.75

Table 57 - PRODUCTION AND FACTORY SALES OF STEEL RAILS, 1927 - 1940

Years	Tonnage made Long tons	FACTORY SALES	
		Tonnage sold Long tons	Income from sales \$
1927	235,683	234,521	10,494,441
1928	349,189	349,007	16,109,847
1929	383,002	381,634	17,545,906
1930	233,432	232,414	10,504,700
1931	140,145	135,975	6,238,208
1932	45,090	46,220	2,123,150
1933	67,835	69,052	2,899,750
1934	96,639	88,023	3,660,274
1935	109,198	109,240	4,484,594
1936	116,192	117,154	4,885,388
1937	77,618	77,245	3,422,501
1938	112,928	108,582	5,002,610
1939	109,842	114,013	5,182,146
1940	178,570	176,452	7,839,858

Table 38 - PRODUCTION OF FINISHED RAIL FASTENINGS, 1927 - 1940

Years	TIE PLATES			FISH PLATES AND SPLICE BARS		
	Factory Sales		Quantity made	Factory Sales		Quantity made
	Quantity made	Income from sales		Quantity	Income from sales	
	Long tons	Long tons	\$	Long tons	Long tons	\$
1927	50,632	49,864	2,623,839	9,159	9,282	594,959
1928	70,613	71,523	3,910,522	17,549	15,179	957,447
1929	60,191	59,323	3,168,851	18,626	18,855	1,188,486
1930	42,205	43,017	2,359,710	12,245	15,277	849,507
1931	50,402	51,661	1,691,098	8,616	9,357	591,407
1932	7,047	6,982	353,714	2,120	1,574	103,241
1933	4,071	4,074	229,942	4,903	1,085	78,047
1934	16,003	16,482	834,258	3,190	3,499	224,457
1935	18,232	18,438	944,542	5,458	5,370	544,711
1936	23,418	22,831	1,136,175	5,030	5,189	335,712
1937	20,789	21,780	1,123,923	6,562	6,411	430,204
1938	19,813	18,419	1,090,726	4,949	4,445	355,596
1939	21,918	20,699	1,181,086	9,209	9,629	716,985
1940	21,760	23,700	1,388,150	12,536	12,254	907,832

Table 39 - PRODUCTION AND FACTORY SALES OF WIRE RODS, OF IRON OR STEEL, 1927 - 1940

Years	Total tonnage made	FACTORY SALES	
		Tonnage sold	Income from sales
		Long tons	Long tons
1927	115,245	24,184	1,040,956
1928	144,309	45,032	1,765,168
1929	142,589	33,632	1,316,546
1930	108,992	24,889	987,405
1931	78,133	18,839	726,442
1932	76,589	26,668	1,022,315
1933	88,692	29,111	1,104,532
1934	175,585	76,992	2,705,167
1935	183,469	68,598	2,412,244
1936	206,185	87,825	3,132,811
1937	216,154	86,177	3,568,873
1938	171,253	69,245	3,075,006
1939	214,459	87,563	3,954,970
1940	268,558	117,192	5,305,124

Table 40 - PRODUCTION AND FACTORY SALES OF BLOOMS, BILLETS AND SLABS, 1929 - 1940

Years	EXCEPT FOR FORGING (x)			FOR FORGING		
	Total tonnage made	FACTORY SALES		Total tonnage made	FACTORY SALES	
		Tonnage sold	Income from sales		Tonnage sold	Income from sales
	Long tons	Long tons	\$	Long tons	Long tons	\$
1929	1,159,045	74,402	2,488,945	9,058	4,558	192,504
1930	756,778	60,171	2,017,747	12,142	6,964	520,675
1931	484,437	50,499	1,601,299	3,821	2,148	92,372
1932	220,576	12,464	412,049	1,243	931	56,862
1933	224,458	8,733	260,978	1,497	1,159	69,457
1934	505,304	54,771	1,440,318	3,133	2,027	110,118
1935	667,442	71,711	1,899,030	5,460	3,305	173,298
1936	704,023	110,637	2,902,013	6,232	4,962	249,554
1937	1,250,931	162,242	5,128,779	37,259	24,828	1,171,280
1938	775,074	89,204	3,037,373	23,617	21,189	979,797
1939	990,308	152,125	4,702,975	26,074	24,139	1,233,754
1940	1,420,748	156,477	6,821,949	36,814	36,968	1,685,903

(x) Includes sheet and tinplate bars and muck and scrap bars for 1933 to 1937.

Table 41 - PRODUCTION OF HOT ROLLED BARS(x) OF ALL KINDS, 1931 - 1940

Years	Total tonnage made	FACTORY SALES	
		Tonnage sold	Income from sales
	Long tons	Long tons	\$
1931	209,802	144,968	7,508,040
1932	89,877	69,423	3,629,007
1933	84,007	74,530	4,121,813
1934	165,368	118,811	6,642,341
1935	217,477	133,665	9,032,553
1936	252,809	193,251	10,374,417
1937	347,020	287,067	18,066,438
1938	248,021	192,705	12,295,300
1939	280,402	224,143	14,216,981
1940	405,169	326,280	25,078,104

(x) Includes light angles prior to 1939.

Table 42 - PRODUCTION OF STRUCTURAL STEEL SHAPES(x), OF ALL KINDS, 1931 - 1940

Years	Total tonnage made	FACTORY SALES	
		Tonnage sold	Income from sales
	Long tons	Long tons	\$
1931	33,867	32,010	1,627,545
1932	14,290	12,896	671,702
1933	16,153	14,974	740,200
1934	25,070	23,258	1,104,324
1935	37,972	39,068	1,937,695
1936	37,087	36,426	1,835,257
1937	83,285	84,340	4,605,796
1938	58,601	60,473	3,589,905
1939	81,080	82,072	4,554,201
1940	164,043	160,963	8,667,678

(x) Includes light angles for 1939 and 1940 only.

DIRECTORY OF FIRMS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1940Names of FirmsLocation of Plants(a) PIG IRON

Dominion Steel & Coal Corporation, Limited	Sydney, N.S.
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ont.
Canadian Furnace Limited	Port Colborne, Ont.
Steel Company of Canada, Limited	Hamilton, Ont.

(b) FERRO-ALLOYS (A)

Canadian Furnace Limited	Port Colborne, Ont.
Chromium Mining & Smelting Corp. Limited	Sault Ste. Marie, Ont.
Electro Metallurgical Company of Canada, Limited	Welland, Ont.
St. Lawrence Alloys and Metals Limited	Beauharnois, P.Q.

(A) Not including the firms which made ferro-alloys as secondary products.

(c) STEEL INGOTS AND DIRECT STEEL CASTINGS

Maritime Steel Foundries Limited	Glasgow Street, New Glasgow, N.S.
Dominion Steel & Coal Corporation, Limited	Sydney, N.S.
Canadian Brake Shoe & Foundry Company Limited	101 Belvidere Street, Sault Ste. Marie, P.Q.
Canadian Car & Foundry Company Limited	Longue Pointe, Montreal, P.Q.
Canadian Tube & Steel Products, Limited	5900 St. Patrick Street, Montreal, P.Q.
Hull Iron & Steel Foundries, Limited	207 Montcalm Street, Hull, P.Q.

DIRECTORY OF FIRMS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1940
 (Concluded)

Names of FirmsLocation of Plants

(c) STEEL INGOTS AND DIRECT STEEL CASTINGS
 (Concluded)

Joliette Steel, Limited	Laval Street, Joliette, P.Q.
La Compagnie F. X. Drolet	206, rue du Pont, Quebec, P.Q.
Lynn MacLeod Engineering Supplies, Limited	Notre Dame Street, Thetford Mines, P.Q.
Manganese Steel Castings Limited	Abenaquis Street, Sherbrooke, P.Q.
Shawinigan Chemicals Limited	Shawinigan Falls, P.Q.
Sorel Steel Foundries Limited	7 Limoges Street, Sorel, P.Q.
Algoma Steel Corporation Limited	Sault Ste. Marie, Ont.
Atlas Steels Limited	East Main Street, Welland, Ont.
Burlington Steel Company Limited	Sherman Avenue North, Hamilton, Ont.
Canada Electric Castings Limited	West Street, Orillia, Ont.
Dominion Founaries & Steel Limited	Depew Street, Hamilton, Ont.
Fahralloy, Canada, Limited	Barrie Road, Orillia, Ont.
Ford Motor Company of Canada, Limited	Windsor, Ont.
Kennedy, W. & Sons, Limited	Second Avenue West, Owen Sound, Ont.
Steel Company of Canada, Limited	Wilcox Street, Hamilton, Ont.
Welland Electric Steel Foundry	123 Victoria Street, Welland, Ont.
Manitoba Rolling Mills Company Limited	Selkirk, Man.
Manitoba Steel Foundries Limited	Selkirk, Man.
Vulcan Iron Works Limited	Pt. Douglas Avenue, Winnipeg, Man.
Riverside Iron Works, Limited	803 .. 24th Avenue S. E., Calgary, Alta.
Britannia Mining and Smelting Company Limited	Britannia Beach, B.C.
Consolidated Mining & Smelting Company of Canada, Limited	Tadanac, B.C.
Reliance Foundry Company Limited	149 Fourth Avenue West, Vancouver, B.C.
Vancouver Engineering Works Limited	519 Sixth Avenue West, Vancouver, B.C.

(d) HOT ROLLED IRON AND STEEL

Canadian Car & Foundry Company Limited	Amherst, N.S.
Dominion Steel & Coal Corporation, Limited	Sydney, N.S.
Trenton Steel Works Limited	Trenton, N.S.
Canadian Tube & Steel Products Limited	5900 St. Patrick St., Montreal, P.Q.
Peck Rolling Mills Limited	851 Mill St., Montreal, P.Q.
Steel Company of Canada, Limited	Notre Dame St. W., Montreal, P.Q.
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ont.
Atlas Steels Limited	Welland, Ont.
Burlington Steel Company Limited	Sherman Avenue North, Hamilton, Ont.
Dominion Foundries & Steel Limited	Depew St., Hamilton, Ont.
Steel Company of Canada, Limited	Queen St. N., Hamilton, Ont.
Steel Company of Canada, Limited	Wilcox St., Hamilton, Ont.
Manitoba Rolling Mill Company Limited	Selkirk, Man.

(e) COLD ROLLED STEEL

57 Gerrard St., Hamilton, Ont.

Stanley Steel Company Limited

Gerrard St., Hamilton, Ont.
 Victoria Avenue South, Hamilton, Ont.

(f) COLD DRAWN STEEL

Canadian Drawn Steel Company Limited
 Union Drawn Steel Company Limited

NOTE: Detailed statistics of imports and exports of iron and steel products are available on application to the Dominion Bureau of Statistics, Ottawa, Canada.

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