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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
1943

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



OTTAWA
1944

Price 25 cents

Dominion Statistician:
Chief - Mining, Metallurgical and Chemical Branch:
Statistician - Metal and Chemical Products:

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ANNUAL INDUSTRY REPORTIRON AND STEEL AND THEIR PRODUCTS GROUPTHE PRIMARY IRON AND STEEL INDUSTRY, 1943

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. Forty-six firms were included in this industry in 1943 and reports were received for 63 different plants or departments, including 4 blast furnace departments, 4 ferro-alloy plants, 37 steel furnace divisions, and 18 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 3.6 per cent lower in 1943 than in 1942, the values being \$223,951,059 and \$232,105,755 respectively. Twenty-seven works in Ontario accounted for 71 per cent of the total for Canada or \$159,789,576; 6 plants in Nova Scotia accounted for 11 per cent or \$23,931,519; 16 plants in Quebec for 14 per cent or \$32,341,735, while the remaining \$7,888,229 or 3 per cent was accounted for by 4 plants in Manitoba, 7 in British Columbia and 3 in Alberta.

Fixed and working capital employed in this industry amounted to \$235,386,238, including \$149,293,756 for the value of land, buildings and plant equipment; \$47,998,199 for the value of raw and finished materials on hand and in process, and \$88,094,283 for operating capital, such as cash, bills and accounts receivable. For works in Ontario, the capital was \$145,658,861; in Nova Scotia, \$49,399,083; in Quebec, \$36,242,566; in Manitoba, \$2,516,811 and in Alberta and British Columbia, \$1,568,917.

In 1943 an average of 34,222 people were employed in this industry, this being an increase of 3 per cent over the 1942 average of 33,245. About 1,637 persons worked in the blast furnace departments during the year, 13,095 in the steel furnaces, 16,942 in the rolling mills and 2,548 in ferro-alloy plants (exclusive of those producing ferro-alloys as a by-product). Fifty-six per cent of the employees or 19,127 worked in plants in Ontario, 6,482 in Quebec, 6,899 in Nova Scotia, 959 in Manitoba and 755 in Alberta and British Columbia.

Payments in salaries and wages during 1943 amounted to \$65,654,468, a gain of 8 per cent over the previous year's total of \$60,874,818. Salaries advanced to \$6,263,581 from \$5,283,722 and wages to \$59,590,887 from \$55,591,096.

Materials used in manufacturing processes cost \$101,413,794 in 1943 compared with \$110,551,516 in 1942, and the cost of fuel and electricity was \$18,985,135 against \$18,734,178, a decreased expenditure of 8 per cent for materials and an increase of 1 per cent for fuel and power.

PIG IRON - Output of 1,758,269 net tons of pig iron in 1943 was 11 per cent under the 1,975,014 tons reported for the previous year. Production of basic iron amounted to 1,456,549 tons or 83 per cent of the total; foundry iron amounted to 148,653 tons and malleable iron to 153,067 tons.

Producers' sales of pig iron totalled 387,109 tons at \$8,328,322 in 1943 compared with 387,997 tons at \$8,366,356 in 1942.

Charges to iron blast furnaces during the year included 2,955,671 tons of imported iron ore, 702,780 tons of Canadian ore, 1,646,191 tons of coke, 321,441 tons of imported limestone and 464,497 tons of Canadian limestone.

Imports of pig iron during the calendar year increased to 7,118 tons from 1,536 tons in 1942 and exports increased slightly to 438 tons from 427 tons.

Producers' stocks at the end of 1943 totalled 28,230 tons compared with 87,955 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 1,824,674 tons in 1943 or 5 per cent less than in 1942 when the apparent domestic supply was 1,915,217 tons.

Producers of pig iron in Canada had 14 blast furnaces at the end of 1943 which could produce 2.7 million net tons a year if operated at rated capacity. Actual production of 1,758,269 net tons in 1943 showed an operating rate of about 64 per cent. Fourteen furnaces were in blast during the year.

FERRO-ALLOYS - Ferro-alloys were made in 1943 by 10 different concerns, 5 of which recovered ferro-silicon as a by-product in the manufacture of abrasives. Output of ferro-alloys in 1943 amounted to 197,094 net tons, a decrease of 6 per cent over the 209,017 tons reported for 1942.

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

STEEL INGOTS AND CASTINGS - Steel production declined 5 per cent to 3,004,124 tons in 1943 from 5,109,851 tons in 1942, the output of steel ingots going to 2,846,736 tons from 2,958,906 tons and steel castings to 157,388 tons from 150,945 tons. Factory sales of ingots and castings totalled 151,924 tons at \$50,057,984.

Thirty-seven steel plants were in operation during the year. At the end of 1943 these plants had 157 furnaces, including 51 basic open hearth with an annual capacity of 2,825,400 net tons, 85 electric furnaces rated at 786,000 tons, and 3 converters at 8,000 tons. There were just 12 makers of steel ingots with capacity of 5,305,900 net tons per annum. The total annual steel capacity of all plants, including ingots and castings, was 3,619,400 tons at the year end.

Operating steel furnaces in 1943 used 1,518,548 net tons of pig iron, 1,751,779 tons of scrap iron or steel, 171,040 tons of ores, 242,052 tons of limestone, 89,056 tons of dolomite, 65,856 tons of lime, 25,605 tons of silica sand, 19,427 tons of magnesite and 19,800 tons of ferro-alloys.

ROLLED AND DRAWN STEEL - In 1943 there were 15 mills occupied chiefly in hot rolling of steel products and 5 mills making only cold drawn and cold rolled shapes. Ten of these mills were in Ontario, 3 in Nova Scotia, 3 in Quebec, 1 in Manitoba and 1 in Alberta.

Rolling mill sales advanced 0.1 per cent to \$158,138,483 from \$157,973,074 in 1942. The main items sold during the year under review were: 489,879 tons of hot rolled bars at \$45,253,796; 391,202 tons of plates at \$27,919,853; 213,908 tons of sheets, hoops, bands and strips at \$17,257,901; 505,094 tons of rails and rail fastenings at \$14,798,762; 279,492 tons of semi-finished rolled forms, such as blooms, billets, etc., at \$15,906,485; 151,674 tons of structural shapes at \$8,802,273 and 88,848 tons of wire rods at \$3,621,273.

Table 1 - PROVINCIAL DISTRIBUTION OF ACTIVE PLANTS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1943

Province	Number of firms	Pig Iron		Steel Ingots and Castings		Rolling and drawing mills	Ferro- alloys (a)
		Number of plants	Number of blast furnaces	Number of plants	Number of steel furnaces		
Nova Scotia	4	1	4	2	17	3	...
Quebec	15	...	...	12	28	3	1
Ontario	16	3	10	11	72	10	3
Manitoba	3	...	...	3	5	1	...
Alberta	2	...	...	2	3	1	...
British Columbia	7	...	...	7	12	...	...
CANADA (b)	46	4	14	37	137	18	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, 1933-1945

Year	Number of plants	Capital employed	Average number of em- ployees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross sell- ing value of products at works
			\$	\$	\$	\$	\$
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	5,969,156	12,675,398	29,101,465
1935	55	86,465,490	9,525	12,279,590	4,845,550	18,539,072	38,700,961
1936	55	92,103,774	11,138	15,830,577	5,440,129	21,424,052	46,656,892
1937	55	96,875,377	14,054	19,926,498	6,934,008	33,805,651	74,580,669
1938	55	100,272,104	13,100	18,256,627	5,529,855	24,786,761	59,606,150
1939	54	113,660,251	13,827	20,410,517	6,069,661	29,622,376	75,934,481
1940	54	135,844,814	17,774	29,207,086	9,582,791	54,045,692	114,598,409
1941	60	168,750,544	23,735	45,037,095	15,888,584	78,824,566	164,566,392
1942	61	205,804,671	33,245	60,874,818	18,734,178	110,551,516	232,105,755
<u>1943 -</u>							
Nova Scotia	6	49,399,085	6,899	11,176,181	2,189,508	12,199,604	23,951,519
Quebec	18	56,242,566	6,482	12,299,476	3,460,979	12,534,428	32,341,755
Ontario	27	145,658,861	19,127	39,265,015	12,724,046	74,591,575	159,789,576
Manitoba	4	2,516,811	959	1,499,389	435,069	1,513,557	4,154,981
Alberta	3	875,751	350	522,535	78,927	407,118	1,471,116
British Columbia	7	693,166	425	891,872	96,606	367,714	2,262,152
CANADA	63	235,386,238	34,222	65,654,468	18,985,135	101,413,794	223,951,059
Per cent change 1943 from 1942.	..	+14.4	+2.9	+7.9	+1.3	-9.0	-5.6

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, 1942 and 1943 (On the last day of the year)

Province	Present value of land, buildings, machinery, tools, and other equip- ment	Value of Inventories				TOTAL CAPITAL EMPLOYED
		Raw materials, fuel and other sup- plies on hand and stocks in process	Finished products on hand	Cash, bills and accounts receiv- able, prepaid expenses, etc.)	\$	
<u>1942</u>						
Nova Scotia	51,408,505	7,517,949	1,901,813	5,895,558	44,723,425	
Quebec	12,473,712	6,401,726	837,232	8,787,057	28,499,707	
Ontario	77,060,877	24,771,982	2,780,556	24,007,082	128,620,497	
Manitoba	974,855	917,488	58,019	614,017	2,544,377	
Alberta	706,290	224,742	49,386	436,247	1,416,865	
British Columbia.)						
CANADA	122,624,037	39,833,887	5,607,006	37,739,741	205,804,671	
<u>1943</u>						
Nova Scotia	52,548,516	7,922,088	1,803,488	7,124,931	49,399,085	
Quebec	18,502,854	7,223,361	826,051	9,890,500	56,242,566	
Ontario	96,809,702	20,851,617	7,890,522	20,107,020	145,658,861	
Manitoba	855,835	1,040,765	74,921	545,290	2,516,811	
Alberta	776,849	270,581	94,805	426,682	1,568,917	
British Columbia.)						
CANADA	149,293,756	37,308,412	10,689,787	38,094,285	235,386,238	

Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1942 and 1943

Province	Average Number of Employees				TOTAL EMPLOYEES	Salaries \$	Wages \$	TOTAL SALARIES and WAGES \$				
	On Salaries		On Wages									
	Male	Female	Male	Female								
1942												
Nova Scotia	206	108	6,497	125	6,936	602,093	10,822,981	11,425,074				
Quebec	333	123	6,172	51	6,679	990,689	11,110,944	12,101,635				
Ontario	882	582	16,400	283	18,147	3,463,802	31,551,382	35,015,184				
Manitoba	34	8	888	3	935	148,367	1,257,021	1,405,388				
Alberta and British Columbia	50	5	513	2	550	78,771	848,768	927,539				
CANADA	1,485	826	30,470	464	33,245	5,283,722	55,591,096	60,874,818				

1943

Nova Scotia	196	120	6,300	283	6,899	587,375	10,588,806	11,176,181
Quebec	466	156	5,818	42	6,482	1,280,014	11,019,462	12,299,476
Ontario	989	656	16,316	1,166	19,127	4,099,407	35,165,603	39,265,015
Manitoba	38	11	906	4	959	149,905	1,349,484	1,499,389
Alberta and British Columbia	45	12	692	6	755	146,880	1,267,527	1,414,407
CANADA	1,754	955	30,032	1,501	34,222	3,263,581	59,390,887	65,654,468

Table 5 - WAGE-EARNERS, BY MONTHS, 1942 and 1943 (On the last work-day of each month)

Month	1942			1943		
	Male	Female	TOTAL	Male	Female	TOTAL
January	28,445	237	28,682	31,780	1,262	33,042
February	28,962	243	29,205	31,443	1,326	32,769
March	29,654	270	29,924	31,094	1,364	32,458
April	30,119	247	30,366	30,507	1,480	31,987
May	30,834	210	31,044	30,259	1,608	31,867
June	31,136	298	31,434	29,904	1,662	31,566
July	31,445	453	31,898	29,713	1,575	31,288
August	32,085	613	32,698	29,356	1,614	30,970
September	31,212	627	31,839	28,826	1,640	30,466
October	30,122	669	30,791	29,455	1,589	31,044
November	30,767	845	31,612	29,686	1,518	31,204
December	30,820	833	31,653	28,337	1,397	29,734
AVERAGE	30,470	464	30,934	30,032	1,501	31,533

Table 6 - HOURS WORKED BY WAGE-EARNERS, 1942 and 1943 (In one week of month of highest employment; overtime included)

Hours worked per week	Number of Wage-Earners		Hours worked per week	Number of Wage-Earners	
	1942	1943		1942	1943
50 hours or less	1,504	1,710	55 hours	912	1,340
51-43 hours	4,054	3,759	56-64 hours	8,003	8,334
44 hours	1,878	1,637	65 hours or more	2,578	2,017
45-47 hours	1,299	1,649	TOTAL	34,178	34,169
48 hours	9,221	8,154	Total wages paid in		
49-50 hours	1,651	1,829	selected week	\$ 1,081,796	1,257,559
51-54 hours	5,278	5,740			

Table 7 - FUEL AND ELECTRICITY USED, 1942 and 1943

Kind	Unit of measure	1 9 4 2		1 9 4 3	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal--Canadian	ton	291,507	1,917,262	282,076	1,366,158
Imported	ton	115,023	764,465	108,295	864,264
Anthracite coal	ton	30,629	241,795	50,305	388,445
Coke (for fuel only)	ton	47,655	157,215	58,655	178,452
Gasoline	Imp.gal.	166,951	38,765	190,950	45,504
Kerosene or coal oil	Imp.gal.	351,417	34,689	17,363	3,101
Fuel oil	Imp.gal.	74,394,890	5,385,097	79,042,867	5,512,271
Wood	cord	1,196	11,876	1,179	12,272
Gas—Manufactured (x)	M cu.ft.	64,790,543	2,909,103	68,372,537	3,034,651
Natural	M cu.ft.	409,852	74,930	417,283	78,024
Other fuel .....	...	...	24,920	...	30,040
Electricity purchased	K. W. H.	1,655,573,509	7,174,058	1,890,908,198	7,671,973
TOTAL .....	...	...	18,734,178	...	18,985,135
Electricity generated for own use	K. W. H.	112,933,771	...	126,862,452	...

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

Table 8 - POWER EQUIPMENT, 1942 and 1943

Kind	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
<u>1 9 4 2</u>				
Steam engines and steam turbines	73	59,515	26	5,150
Diesel engines	1	165	2	225
Gasoline, gas and oil engines	16	19,196	10	2,665
Hydraulic turbines or water wheels	4	1,300	...	...
Total Primary	100	80,176	38	8,040
Electric motors operated by purchased power	8,269	185,270	345	6,484
TOTAL	8,369	265,446	383	14,524
Electric motors operated by power generated by above primary units	1,166	46,507	8	116
Stationary boilers	127	55,791	20	2,282
Motor generator sets	130	68,646	12	615
<u>1 9 4 3</u>				
Steam engines and steam turbines	82	59,998	30	5,525
Diesel engines	6	1,200	5	825
Gasoline, gas and oil engines	16	19,520	8	2,200
Hydraulic turbines or water wheels	4	1,300	...	...
Total Primary	108	82,018	43	8,550
Electric motors operated by purchased power	8,587	204,215	362	8,787
TOTAL	8,695	286,233	405	17,337
Electric motors operated by power generated by above primary units	1,454	52,495	10	315
Stationary boilers	143	58,014	7	2,250
Motor generator sets	134	67,374	5	1,240

(a) PIG IRON

Table 9 - MATERIALS CHARGED TO IRON BLAST FURNACES, 1942 and 1943

Material	1 9 4 2		1 9 4 3	
	Quantity Net tons	Cost at furnace \$	Quantity Net tons	Cost at furnace \$
Iron ore—Imported (crude)	3,383,439	13,726,346	2,955,671	12,247,784
Canadian (beneficiated)	229,253	798,974	198,244	737,276
Canadian (crude) .....	...	...	104,536	460,160
Mill cinder, roll scale, flue dust, etc.	177,343	586,750	125,477	515,483
Scrap (net charge)	64,624	803,172	43,052	543,950
Limestone -				
From Canadian quarries	301,143	447,107	464,497	867,146
From foreign sources	559,650	799,302	321,441	562,195
Dolomite .....	...	...	52,064	71,945
Coke	1,795,875	13,402,828	1,646,191	13,989,052
Other materials .....	...	163,675	...	515,061
TOTAL .....	...	30,528,134	...	29,910,032

Table 10 - PRODUCTION OF PIG IRON AND SALE BY THE PRODUCERS, 1942 and 1943

Grade	Delivered in molten condition	Machine cast	Total tonnage made	Sales	
	Net tons	Net tons	Net tons	Quantity	Income from sales \$
<u>1 9 4 2</u>					
Basic	1,487,581	158,420	1,646,001	67,242	1,307,715
Foundry .....	...	159,724	159,724	157,991	3,439,405
Malleable .....	...	169,289	169,289	162,764	3,619,816
TOTAL	1,487,581	487,433	1,975,014	387,997	8,366,936
<u>1 9 4 3</u>					
Basic	1,338,913	117,636	1,456,549	84,575	1,697,774
Foundry .....	...	148,653	148,653	145,713	3,128,780
Malleable .....	...	153,067	153,067	156,821	3,501,768
TOTAL	1,338,913	419,356	1,758,269	387,109	8,328,322

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

Table 11 - PRODUCTION OF PIG IRON, BY GRADES, 1933-1943

Year	Basic	Foundry	Malleable	T O T A L
1933	212,159	25,013	17,423	254,595
1934	247,906	57,034	48,654	453,594
1935	524,433	69,769	77,658	671,860
1936	594,640	95,248	69,731	759,619
1937	808,316	118,059	80,343	1,006,718
1938	624,487	90,818	74,772	790,078
1939	734,227	80,314	51,877	846,418
1940	1,091,584	120,875	96,640	1,309,099
1941	1,272,171	115,791	140,091	1,528,053
1942	1,646,001	159,724	169,289	1,975,014
1943	1,456,549	148,653	155,067	1,758,269

Primary Iron and Steel

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Table 12 - PRODUCTION OF PIG IRON, BY PROVINCES, 1933-1943

Year	Nova Scotia	Ontario	T O T A L
1933	132,736	121,859	254,595
1934	149,365	304,251	453,594
1935	232,962	438,898	671,860
1936	288,006	471,613	759,619
1937	358,756	647,961	1,006,718
1938	270,879	519,199	790,078
1939	290,232	556,186	846,418
1940	441,741	867,358	1,309,099
1941	421,296	1,106,757	1,528,053
1942	467,951	1,507,063	1,975,014
1943	345,722	1,412,547	1,758,269

Table 13 - PRODUCTION OF PIG IRON, BY MONTHS, 1940-1943 - (Net tons)

Month	1 9 4 0	1 9 4 1	1 9 4 2	1 9 4 3		
	For own use	For sale		TOTAL		
January	117,267	115,455	163,156	94,753	21,574	116,327
February	97,476	102,105	143,973	112,294	25,946	138,240
March	102,785	114,282	167,116	122,349	37,752	160,101
April	94,315	115,725	160,408	121,877	28,609	150,486
May	104,444	127,259	171,386	118,415	36,351	154,746
June	99,295	125,790	167,961	108,184	39,705	147,889
July	107,435	114,246	172,153	120,018	51,351	151,569
August	99,551	118,490	162,578	124,454	40,472	164,906
September	117,622	125,168	155,900	115,649	32,253	147,902
October	122,511	153,568	175,424	128,894	17,900	146,794
November	122,725	149,783	170,578	125,570	16,679	142,249
December	123,673	166,182	164,381	101,142	36,120	137,260
TOTAL	1,309,099	1,528,053	1,975,014	1,393,579	364,690	1,758,269

Table 14 - SALES OF PIC IRON BY THE PRODUCERS, 1933-1943

Year	Tonnage sold	Income from sales	Year	Tonnage sold	Income from sales
	\$	\$		\$	\$
1933	85,688	1,402,903	1939	192,614	3,757,573
1934	109,133	1,856,284	1940	277,311	5,868,769
1935	147,559	2,650,990	1941	358,066	7,080,242
1936	188,220	3,327,716	1942	387,997	8,366,936
1937	252,802	5,146,017	1943	387,109	8,328,322
1938	145,113	2,961,659			

Table 15 - IRON ORE, FUEL AND FLUX CHARGED TO IRON BLAST FURNACES, 1933-1943

Year	Iron ore	Mill cinder, scale, etc.	Scrap	Coke	Limestone
	Net tons	Net tons	Net tons	Net tons	Net tons
1933	448,325	20,151	12,184	247,974	132,235
1934	804,425	41,488	13,956	415,462	209,104
1935	1,163,942	61,901	34,400	577,355	278,469
1936	1,365,082	54,982	22,832	672,210	545,622
1937	1,796,562	134,299	18,443	890,384	470,549
1938	1,382,565	74,608	21,418	697,615	345,182
1939	1,476,106	119,654	21,204	775,869	357,377
1940	2,342,717	130,171	28,691	1,223,173	579,451
1941	2,709,089	136,698	47,271	1,362,530	648,565
1942	3,612,692	177,543	64,624	1,795,875	860,793
1943	3,258,451	125,477	43,032	1,646,191	785,938(x)

(x) Furnace charges in 1943 also included 52,064 tons of dolomite.

Table 16 - IMPORTS INTO CANADA AND EXPORTS OF PIG IRON, 1933-1943

Year	Imports		Exports	
	Net tons	\$	Net tons	\$
1933	2,754	45,298	13,331	214,195
1934	7,189	108,300	10,327	176,093
1935	9,990	143,726	15,410	287,396
1936	4,435	74,589	15,572	504,682
1937	7,135	144,354	43,138	851,701
1938	2,377	62,494	11,811	224,261
1939	657	15,176	12,015	221,787
1940	29,703	672,489	4,113	101,126
1941	4,729	131,112	380	10,090
1942	1,536	42,718	427	12,175
1943	7,118	173,598	438	11,163

Table 17 - STOCKS OF PIG IRON HELD BY PRODUCERS IN CANADA, 1933-1943

Year	Net tons	Year	Net tons
1933	122,648	1939	69,174
1934	73,401	1940	76,560
1935	97,827	1941	27,049
1936	86,048	1942	87,955
1937	125,761	1943	28,230
1938	143,258		

Table 18 - APPARENT SUPPLY OF PIG IRON IN CANADA, 1933-1943

Year	Production	Add imports	Deduct exports	Add or deduct changes in producers' stocks (xx)	Apparent supply (x)
1933	254,595	2,754	13,331	+ 4,740	248,758
1934	453,594	7,189	10,327	+ 49,134	499,590
1935	671,860	9,990	15,410	- 24,314	642,126
1936	759,619	4,435	15,572	+ 11,779	760,261
1937	1,006,718	7,135	43,138	- 39,713	931,002
1938	790,078	2,377	11,811	- 17,497	763,147
1939	846,418	657	12,015	+ 74,083	909,113
1940	1,309,099	29,703	4,113	- 7,385	1,327,304
1941	1,528,053	4,729	380	+ 49,511	1,581,913
1942	1,975,014	1,536	427	- 60,906	1,915,217
1943	1,758,269	7,118	438	+ 59,725	1,824,674

(x) No allowance made for changes in consumers' stocks of which there is no record.

(xx) In this column the + indicates a decline in stocks or that this tonnage was released for consumption; the - sign indicates an increase in stocks or that this amount was withheld from consumption.

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Table 19 - CONSUMPTION OF PIG IRON IN CANADA, BY INDUSTRIES AND BY PROVINCES, 1939-1942 (as reported by consumers)

	1939	1940	1941	1942
	(Net tons)			
(a) By Industries				
Steel ingots and castings	733,096	1,083,190	1,340,441	1,615,396
Iron castings	60,052	83,821	157,884	176,199
Boilers, tanks and platework	11,445	15,530	18,459	18,867
Agricultural implements	9,956	17,856	26,772	21,884
Machinery	13,171	22,912	24,927	23,449
Automobiles		(not available)		
Automobile parts	7,014	12,096	15,640	16,014
Railway rolling stock	22,600	32,144	19,228	25,517
Brass and copper products	1,941	2,343	3,056	2,247
Shipbuilding	101	274	206	743
Hardware and tools	3,585	3,219	2,358	2,548
Miscellaneous iron and steel	552	1,152	1,005	203
Heating and cooking apparatus ...	18,273	22,593	18,725	18,846
Electrical apparatus and supplies	1,662	2,153	2,865	2,148
TOTAL	883,428	1,299,063	1,631,566	1,930,642
(b) By Provinces				
Prince Edward Island	34	79	35	40
Nova Scotia	500,431	455,854	450,028	441,815
New Brunswick	2,310	3,177	3,053	3,211
Quebec	28,766	39,538	62,461	67,255
Ontario	548,125	815,324	1,128,703	1,411,531
Manitoba	2,053	3,840	6,264	5,270
Saskatchewan .....	...	...	2	43
Alberta	105	116	165	177
British Columbia	1,064	1,135	855	1,302
CANADA	883,428	1,299,063	1,631,566	1,930,642

Table 20 - BLAST FURNACES IN CANADA, 1941-1943

Name of Company	Location of Plants	Number of stacks	Total daily capacity (24 hours)	Number of days in blast		
				1941	1942	1943
Dominion Steel and Coal Corporation, Ltd.	Sydney, N.S.	1	616	...	...	180
		1	616	565	365	358
		1	392	365	365	16
		1	336	298	365	326
TOTAL		4	1,960	...	...	...
Canadian Furnace Company, Limited	Port Colborne, Ont.	1	466	279x	304½	196½
		1	147	...	289	332
		2	615	...	...	...
The Steel Company of Canada, Limited	Hamilton, Ont.	1	364	365	365	347
		1	728	365	365	365
		1	980	110	365	365
TOTAL		3	2,072	...	...	...
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ont.	1	356	365	360	317
		1	356	...	184	277
		1	616	262	349	346
		1	504	365	361	346
		1	1,120	...	...	52
TOTAL		5	2,912	...	...	...
TOTAL FOR CANADA		14	7,557	...	...	...

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

(b) FERRO-ALLOYS

Table 21 - PRODUCTION OF FERRO-ALLOYS, 1933-1943

Year	Net tons	Year	Net tons
1933	33,749	1939	85,540
1934	35,751	1940	149,594
1935	63,410	1941	204,354
1936	85,438	1942	209,017
1937	91,921	1943	197,094
1938	62,637		

Table 22 - PRODUCERS OF FERRO-ALLOYS IN CANADA, 1943

Name of Company	Plant location	Products made
Abrasive Company of Canada, Limited	Hamilton, Ont.	Ferrosilicon (by-product)
Canadian Carborundum Company, Limited	Niagara Falls, Ont.	Ferrosilicon (by-product)
Canadian Furnace, Limited	Port Colborne, Ont.	Spiegeleisen and silvery ferrosilicon
Chromium Mining & Smelting Corp., Limited	Sault Ste. Marie, Ont.	Ferrosilicon, sil-x, chrom-x
Electro Metallurgical Company of Canada, Limited	Welland, Ont.	Ferrosilicon, ferrochrome, ferromanganese, silicomanganese, ferromanganese silicon, spiegeleisen, silicospiegeleisen and calcium manganese silicon
Electric Reduction Company of Canada, Limited	Buckingham, Que.	Ferrophosphorus
Exolon Company	Thorold, Ont.	Ferrosilicon (by-product)
Lionite Abrasives, Limited	Stamford, Ont.	Ferrosilicon (by-product)
Norton Company	Chippawa, Ont.	Ferrosilicon (by-product)
St. Lawrence Alloys and Metals, Limited	Beauharnois, Que.	Ferrosilicon, calcium silicon, silicon metal

(c) STEEL INGOTS AND DIRECT STEEL CASTINGS

Table 23 - MATERIALS USED IN STEEL FURNACES, 1942 and 1943

Material	Quantity	1 9 4 2		Quantity	1 9 4 3	
		Cost of purchased materials	Net tons		Cost of purchased materials	Net tons
Pig iron—Own make	1,525,853	...	1,455,020			
Purchased	89,543	2,039,095	85,528	1,873,372		
Scrap iron or steel—Own make	864,537	...	947,683			
Purchased	962,374	21,377,022	804,096	17,554,265		
Spiegeleisen	2,911	153,054	367	31,474		
Silicospiegeleisen	439	51,827	...	...
Ferromanganese	19,190	2,484,783	19,096	2,356,754		
Silicomanganese	8,065	918,774	9,568	1,094,239		
Ferrosilicon	12,150	841,900	11,545	757,911		
Ferrochrome—High carbon	3,666	724,819	4,669	702,817		
Low carbon	1,965	720,270	1,828	714,398		
Ferromolybdenum	150	223,233	...	280,815		
Ferrophosphorus	290	25,826	380	33,967		
Ferroselanium	5	10,323	2	5,793		
Ferrotitanium	439	66,555	614	118,416		
Ferrotungsten	646	1,440,141	550	1,721,967		
Ferrovanadium	203	524,007	204	558,717		
Ferrozirconium	51	7,337	8	2,153		
Calcium silicon	421	135,680	515	166,923		
Calcium manganese silicon	289	93,191	215	70,914		

Table 23 - MATERIALS USED IN STEEL FURNACES, 1942 and 1943 (Concluded)

Material	1 9 4 2		1 9 4 3	
	Quantity	Cost of purchased materials	Quantity	Cost of purchased materials
Net tons	\$	Net tons	\$	
Other ferro-alloys	154	258,301	...	35,761
Aluminium ingot and shot	807	285,025	951	544,785
Copper ingots	59	10,190	37	8,467
Nickel	3,592	2,025,604	2,775	1,867,729
Other metals .....	...	152,756	...	141,285
Ore, iron, crude	98,986	616,617	107,619	671,079
Ore, iron, calcined, roasted or treated	98,156	1,757,451	62,052	668,843
Ore, manganese	32	1,600	...	...
Ore, chrome	1,232	58,095	1,569	63,858
Bentonite	3,582	101,211	3,853	97,975
Coal, anthracite	755	8,055	1,195	9,475
bituminous	219	1,916	133	1,264
Coke—Own make	706	...	...	...
Purchased	6,115	74,555	5,158	60,770
Charcoal	224	10,333	...	7,457
Dolomite, Crude	79,091	225,393	78,746	243,793
Calcined	22,550	179,427	10,310	99,740
Fluorspar	20,133	562,480	20,790	715,991
Lime—Own make	36,226	...	29,776	...
Purchased	23,075	315,470	36,080	344,488
Limestone—Canadian	120,573	239,838	125,058	242,328
Imported	123,035	128,605	116,974	136,371
Magnesite	20,665	786,321	19,427	744,716
Electrodes .....	...	989,222	...	1,075,799
Silica sand	99,384	712,516	95,605	703,167
Other foundry sand	35,340	105,042	...	154,707
Firebrick, fireclay and other refractories .....	...	2,469,239	...	2,634,711
Calcium molybdate and molybdenum oxide briquettes ..	1,145	1,167,579	522	813,861
All other materials .....	...	3,570,856	...	3,323,942
TOTAL VALUE OF METALS, ORES AND OTHER MATERIALS USED	...	48,611,494	...	43,257,235

Table 24 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS AND SALES BY THE PRODUCERS, 1942 and 1943

	1 9 4 2			1 9 4 3		
	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
	Net tons	Net tons	\$	Net tons	Net tons	\$
<u>STEEL INGOTS -</u>						
Basic open hearth	2,623,853	70,412	2,329,967	2,484,544	9,605	321,640
Electric	335,053	70,087	6,264,711	362,192	18,454	1,554,159
Total Steel Ingots	2,958,906	140,499	8,594,678	2,846,736	28,059	1,875,779
<u>STEEL CASTINGS -</u>						
Basic open hearth	26,627	24,547	4,949,407	28,895	27,417	5,389,425
Converter	6,515	6,515	1,394,874	4,003	4,172	1,006,767
Electric	117,803	114,446	23,075,495	124,490	92,276	21,786,015
Total Steel Castings	150,945	145,508	29,419,776	157,388	123,865	28,182,205
<u>TOTAL STEEL INGOTS AND CASTINGS</u>	3,109,851	286,007	38,014,454	3,004,124	151,924	30,057,984
Any other products	413	443	23,249	1,529	1,507	215,577
<u>TOTAL ALL PRODUCTS</u>	3,110,264	286,450	38,037,703	3,005,655	153,451	30,273,361
Alloy steel included in above:						
Ingots	374,457	24,288	2,375,711	393,491	145	13,556
Castings	25,879	26,129	2,868,008	19,992	15,294	5,438,228
TOTAL	400,336	50,417	11,243,719	413,483	15,439	5,451,564

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Table 25 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS, BY GRADES, 1933-1943 - (Net tons)

Year	Steel Ingots		Steel Castings			Total steel ingots and castings
	Open hearth	Electric	Open hearth	Con- verter	Electric	
1933	424,106	17,240	5,619	322	11,889	459,176
1934	798,814	26,758	7,232	568	15,344	848,716
1935	977,137	41,151	10,213	722	25,286	1,054,509
1936	1,162,238	49,096	11,433	644	26,261	1,249,672
1937	1,427,991	68,584	26,686	1,138	46,828	1,571,227
1938	1,172,867	62,598	17,388	850	40,109	1,293,812
1939	1,410,339	79,718	17,473	934	42,590	1,551,054
1940	2,041,947	155,633	21,085	2,268	52,786	2,253,769
1941	2,394,098	199,414	29,401	3,371	85,867	2,712,151
1942	2,625,853	355,053	26,627	6,515	117,803	3,109,851
1943	2,484,544	362,192	28,895	4,003	124,490	3,004,124

Table 26 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS, BY MONTHS, 1939-1943 - (Net tons)

Month	1939	1940	1941	1942	1943
January	87,478	186,476	208,659	257,516	207,008
February	86,440	157,184	193,422	241,421	245,588
March	107,101	176,205	218,939	264,403	270,962
April	111,750	171,865	224,762	263,488	264,357
May	136,010	195,547	230,843	270,747	271,737
June	120,857	186,159	209,623	252,663	240,501
July	124,597	189,926	220,994	256,560	251,508
August	136,585	192,875	227,075	243,868	247,820
September	139,265	184,257	224,626	244,922	242,255
October	167,915	207,302	249,595	271,127	272,976
November	164,826	197,246	247,931	270,812	260,444
December	168,232	208,927	255,682	267,324	228,968
TOTAL	1,551,054	2,253,769	2,712,151	3,109,851	3,004,124

Table 27 - ANNUAL PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS, BY PROVINCES, 1933-1943 - (Net tons)

Year	Nova Scotia	Quebec	Ontario	Manitoba	Alberta	British Columbia	CANADA
1933	159,029	21,187	288,529	9,530	231	670	459,176
1934	292,124	31,073	512,398	11,101	434	1,586	848,716
1935	354,621	39,285	660,305	18,204	414	1,680	1,054,509
1936	424,500	44,567	756,993	21,503	305	1,804	1,249,672
1937	478,356	68,113	994,455	27,480	402	2,421	1,571,227
1938	579,096	54,591	836,585	20,256	419	2,865	1,293,812
1939	451,314	56,702	1,014,003	25,043	445	3,547	1,551,054
1940	623,021	73,631	1,512,495	39,789	381	4,452	2,253,769
1941	635,203	158,721	1,872,345	54,489	7,400	5,993	2,712,151
1942	637,993	180,637	2,207,208	55,067	22,264	6,682	3,109,851
1943	576,578	157,662	2,182,802	55,555	22,217	9,310	3,004,124

Table 28 - SALES OF STEEL INGOTS AND STEEL CASTINGS BY THE PRODUCERS, 1933-1943

Year	Tonnage sold	Income from sales	Year	Tonnage sold	Income from sales
	Net tons	\$		Net tons	\$
1933	16,726	2,565,171	1939	63,354	9,169,097
1934	22,556	5,228,451	1940	143,927	12,616,483
1935	39,639	4,196,922	1941	333,855	22,508,948
1936	51,394	4,788,296	1942	286,007	38,014,454
1937	72,696	10,616,508	1943	151,324	30,057,984
1938	48,256	7,780,165			

Table 29 - PRODUCTION OF ALLOY STEEL INGOTS AND CASTINGS, 1938-1943

Year	Ingots	Castings (net tons)	TOTAL
1938	42,624	2,921	45,545
1939	51,883	5,700	57,583
1940	95,150	9,876	105,026
1941	207,651	11,219	218,850
1942	374,457	25,879	400,336
1943	393,491	19,992	413,483

Table 30 - METAL, ORE AND FLUX CHARGED TO STEEL FURNACES, 1935-1943 - (Net tons)

Year	Pig iron	Ferro-	Other ferro- alloys	Scrap iron and steel	Ore	Limestone	Dolomite	Fluorspar
		manganese and spiegelisen						
1935	175,797	4,656	3,564	345,325	20,529	34,532	6,876	2,949
1934	394,627	7,583	4,526	558,360	39,025	77,815	14,748	4,555
1935	499,824	12,021	4,351	718,658	56,582	91,412	18,394	5,859
1936	584,912	15,062	6,525	777,268	75,015	109,200	43,562	7,942
1937	747,747	18,003	9,281	1,003,791	97,625	125,922	53,066	9,059
1938	634,920	15,935	5,665	747,340	83,523	106,881	40,540	7,128
1939	733,096	18,761	8,885	927,018	91,650	121,007	55,450	7,972
1940	1,083,190	21,385	14,686	1,527,510	145,658	165,975	81,233	15,307
1941	1,540,441	26,566	25,063	1,599,124	155,273	202,609	92,695	17,054
1942	1,615,396	22,101	28,632	1,826,911	198,890	243,608	101,641	20,135
1943	1,518,548	19,463	19,800	1,751,779	171,040	242,032	89,056	20,790

Table 31 - STEEL FURNACES IN CANADA, DECEMBER 31, 1943

	Type	Number of units	Size (net tons)	Total annual capacity
				net tons
Steel Company of Canada, Hamilton, Ont.	O.H.	1	45	58,500
	O.H.	3	55	139,500
	O.H.	4	100	292,000
	O.H.	5	180	550,000
	Elec.	1	70	85,500
Total		14	...	1,105,500
Canadian Car & Foundry Co. Ltd., Montreal, Que.	O.H.	5	28	51,576
	Elec.	1	51	7,728
	Elec.	1	22	40,520
Total		5	...	99,624
Dominion Steel & Coal Corp. Ltd., Sydney, N.S.	O.H.	10	56	319,995
	O.H.	5	112	402,405
	Elec.	1	11	28,000
Total		16	...	750,400
Atlas Steels Limited, Welland, Ont.	Elec.	1	6	7,200
	Elec.	1	10	12,000
	Elec.	4	25	120,000
Total		6	...	139,200
Manitoba Rolling Mill Co. Ltd., Selkirk, Man.	O.H.	2	20	40,000
	Elec.	1	5	12,000
Total		3	...	52,000
Dominion Bridge Co. Ltd., Calgary, Alta.	O.H.	1	20	20,400
	O.H.	1	20	20,400
Total		2	...	40,800

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Table 51. - STEEL FURNACES IN CANADA, DECEMBER 31, 1943 - (Continued)

	Type	Number of units	Size (net tons)	Total annual capacity net tons
Dominion Foundries & Steel Ltd., Hamilton, Ont.	O.H.	2	55	108,900
	O.H.	1	50	49,450
	O.H.	1	45	44,550
	Elec.	2	10	26,400
	Elec.	1	25	24,750
	Elec.	1	45	44,550
	Elec.	1	2 $\frac{1}{2}$	9,000
Total ....	....	9	...	307,600
Algoma Steel Corp. Ltd., Sault Ste. Marie, Ont.	O.H.	8	62	384,000
	O.H.	4	112	336,000
Total ....	....	12	...	720,000
Canadian Tube & Steel Products Ltd., Montreal, Que.	Elec.	1	5	13,400
	Elec.	2	5	31,200
Total ....	....	3	...	44,600
Burlington Steel Company Ltd., Hamilton, Ont.	Elec.	1	6	24,000
Federal Foundries & Steel Co., London, Ont. .	Elec.	2	6	13,140
Sorel Industries Limited, Sorel, Que.	Elec.	1	8	8,500
	Elec.	1	4	4,200
	Elec.	1	20	28,000
Total ....	....	3	...	40,700
Sorel Steel Foundries Ltd., Sorel, Que.	Elec.	1	4	5,000
Fahralloy Canada Ltd., Orillia, Ont.	Elec.	1	1	360
	Elec.	1	1 $\frac{1}{2}$	1,500
Total ....	....	2	...	1,860
Maritime Steel Foundries Ltd., New Glasgow, N.S.	Elec.	1	4 $\frac{1}{2}$	3,360
Lynn MacLeod Metallurgy Ltd., Thetford Mines, Que.	Elec.	1	1 $\frac{1}{2}$	2,400
Shawinigan Chemicals Ltd., Shawinigan Falls, Que.	Elec.	1	2	1,872
	Elec.	1	1	936
Total ....	....	2	...	2,808
William Kennedy & Sons Ltd., Owen Sound, Ont.	Conv.	1	2	4,800
	Elec.	1	4	9,000
Total ....	....	2	...	13,800
Electric Steels Limited, Cap de la Madeleine, Que.	Elec.	1	10	12,000
	Elec.	2	6 $\frac{1}{2}$)	26,400
	Elec.	1	6)	
Total ....	....	4	...	38,400
Canada Electric Castings Ltd., Orillia, Ont.	Elec.	2	2	6,000
Manganese Steel Castings Ltd., Sherbrooke, Que.	Elec.	1	2	1,848
Canadian Brake Shoe & Foundry Co. Ltd., Montreal, Que.	Elec.	2	2	2,264

Table 31 - STEEL FURNACES IN CANADA, DECEMBER 31, 1943 - (Concluded)

	Type	Number of units	Size (net tons)	Total annual capacity net tons
Joliette Steel Limited, Joliette, Que.	Elec.	1	1	2,000
	Elec.	1	1½	4,000
Total .....	.....	2	...	6,000
Riverside Iron Works Ltd., Calgary, Alta. ...	Elec.	1	1	900
Vulcan Iron Works Ltd., Winnipeg, Man.	Elec.	1	3	3,000
Reliance Foundry Co. Ltd., Vancouver, B.C. ...	Elec.	1	1	430
	Elec.	1	1½	1,000
	Elec.	1	1½	2,600
Total .....	.....	3	...	4,030
Ford Motor Co. of Canada Ltd., Windsor, Ont.	Elec.	1	5	10,500
	Elec.	17	4	99,875
	Elec.	1	1½	750
Total .....	.....	19	...	111,125
La Compagnie F. X. Drolet Ltd., Quebec, Que.	Conv.	1	1	300
Manitoba Steel Foundries Ltd., Selkirk, Man.	Elec.	1	5	4,000
Consolidated Mining & Smelting Co. of Canada, Trail, B.C.	Elec.	2	5	4,500
Vancouver Engineering Works Ltd., Vancouver, B.C.	Elec.	1	2	2,500
	Elec.	1	1	1,200
	Conv.	1	2	3,100
Total .....	.....	3	...	6,800
Hull Iron & Steel Foundries Ltd., Hull, Que.	Elec.	1	7	8,500
	Elec.	1	1	2,680
	Elec.	1	2	3,300
Total .....	.....	3	...	14,480
Welland Electric Steel Foundry Ltd., Welland, Ont.	Elec.	1	1½)	
	Elec.	1	1½)	6,600
	Elec.	1	1½)	
Total .....	.....	3	...	6,600
Britannia Mining & Smelting Co. Ltd., Britannia Beach, B.C.	Elec.	1	5	5,200
Victoria Machinery Depot Co. Ltd., Victoria, B.C.	Elec.	1	1½	2,000
A-I Pattern & Brass Foundry, Vancouver, B.C. .	Elec.	1	½	1,600
Westland Iron & Steel Foundries Ltd., Vancouver, B.C.	Elec.	1	1½	2,700

Table 32 - SUMMARY OF STEEL FURNACE CAPACITY, DECEMBER 31, 1943

	Number of furnaces	Total annual capacity (net tons)
Basic open hearth	51	2,825,400
Electric	83	786,000
Converter	3	8,000
Total	137	3,619,400
Steel ingots - Basic open hearth		2,813,400
Electric		492,500
Total		3,305,900
Steel castings		515,500
TOTAL INGOTS AND CASTINGS		3,619,400

Table 33 - MATERIALS USED FOR ALL PURPOSES IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1942 and 1943

Material	Companies' own make	PURCHASED	
		Quantity Net tons	Cost at works \$
<u>1 9 4 2</u>			
Steel ingots	2,894,267	55,853	1,988,104
Steel billets	59,634	193,744	7,795,518
Steel bars .....	...	50,315	3,381,532
Rails, old	923	39,933	785,818
Axles, old .....	...	4,658	95,528
Scrap iron and steel, other	3,358	901	17,550
Tin .....	...	869	1,042,159
Zinc spelter .....	...	2,351	242,499
Ammonium chloride .....	...	294,607	17,401
Sulphuric acid, 66° Be .....	...	13,065,781	111,194
All other materials and supplies .....	...	...	965,732
TOTAL .....	...	...	16,443,050
<u>1 9 4 3</u>			
Steel ingots	2,787,412	59,682	1,926,356
Steel blooms	78,122	5,952	170,629
Steel slabs .....	...	26,624	1,123,895
Steel billets	48,171	130,813	4,914,506
Steel bars .....	...	52,055	3,547,078
Rails, old	101	29,680	505,138
Axles, old .....	...	774	16,411
Scrap iron and steel, other	4,051	289	5,818
Tin .....	...	464	770,398
Zinc spelter .....	...	2,108	220,819
Ammonium chloride .....	...	121	13,916
Sulphuric acid, 66° Be .....	...	3,640	93,818
All other materials and supplies .....	...	...	1,047,235
TOTAL .....	...	...	14,556,017

Table 34 - PRODUCTS MADE IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1942 and 1943

Product	Total tonnage made	Factory Sales		
		Net tons	Tonnage sold in Canada or for export	Income from tonnage sold
1 9 4 2				
<u>Semi-finished rolled forms of iron and steel -</u>				
Blooms, billets and slabs, except those for forging, but including sheet and tinplate bars	1,608,401	162,171	5,650,983	
Muck and scrap bars	114	...	...
Blooms, billets and axle blanks, for forging purposes only, excluding all those intended for further rolling..	222,109	178,897	10,692,911	
Total Semi-Finished Rolled Forms	1,830,624	541,068	16,343,624	
<u>Rails and rail fastenings -</u>				
Rails	185,450	184,016	8,216,123	
Splice bars or fish plates	14,510	14,963	1,018,651	
Tie plates, rail joints, frogs, etc.	25,187	25,685	1,393,375	
Total Rails and Rail Fastenings	223,127	224,664	10,628,149	
<u>Wire rods of iron or steel, including chain rods</u>				
<u>Structural steel shapes (including angles of all sizes, beams, channels, tees, etc., but excluding plates and bars</u>				
	184,701	191,519	10,540,658	
<u>Bars of iron or steel -</u>				
Bars, hot rolled, of all grades and of all sections, but omitting all bars reported under the items immediately below	512,959	455,963	35,084,070	
Bars for concrete reinforcing, including twisted and other deformed bars, except bars rolled from old rails or axles	39,911	38,349	2,558,780	
Long angle splice bars, tie plate bars and all other long rail joint bars	39,166	...	...
Total Hot Rolled Bars	592,016	474,512	37,442,850	
<u>Cold rolled and cold drawn bars</u>				
<u>Plates, all kinds (iron or steel flats over 14 inches in width, and thicker than No. 7 U.S. standard gauge)</u>				
	591,887	585,514	30,095,754	
<u>Sheets, hoops, bands and strips, including plain sheets, hot rolled strips, cold rolled strips, galvanized sheets (x), tinplate (x), terne plate (x) and bonderized plate (x)</u>				
	415,505	245,908	18,598,051	
Total Plates, Sheets, Hoops, Bands and Strips	807,590	651,222	48,493,805	
<u>Other rolled forms, including mine arches, sheet piling, etc.</u>				
	13,556	13,507	852,669	
<u>Miscellaneous products (not rolled) made in rolling mills, including horseshoes, grinding balls, washers, forged axles, railway spikes, pressed spikes, etc.</u>				
	115,919	110,854	23,052,551	
TOTAL VALUE OF PRODUCTION .....	...	...	157,973,074	

(x) Includes the tonnages made in rolling mills only.

Table 34 - PRODUCTS MADE IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1942 and 1943 - (Concluded)

Product	Total tonnage made	Factory Sales		
		Tonnage sold in Canada or for export	Income from tonnage sold	Net tons
	Net tons	\$		
<u>1 9 4 3</u>				
<u>Semi-finished rolled forms of iron and steel -</u>				
Blooms, billets and slabs, except those for forging, but including sheet and tinplate bars	1,694,930	134,000	6,320,195	
Much and scrap bars	59	...	...
Blooms, billets and axle blanks, for forging purposes only, excluding all those intended for further rolling..	165,999	145,492	7,586,292	
Total Semi-Finished Rolled Forms	1,860,988	279,492	13,906,485	
<u>Rails and rail fastenings -</u>				
Rails	263,920	261,463	12,309,676	
Splice bars or fish plates	14,376	14,554	1,002,902	
Tie plates, rail joints, frogs, etc.	27,214	27,057	1,486,184	
Total Rails and Rail Fastenings	305,510	303,094	14,796,762	
<u>Wire rods of iron or steel, including chain rods</u>	235,583	88,848	3,621,772	
<u>Structural steel shapes (including angles over 3 inches by 5 inches; beams, channels, tees, sheet piling, etc., but excluding plates and bars)</u>	146,965	151,674	8,802,273	
<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	537,413	470,556	42,081,805	
Bars for concrete reinforcing, including twisted and other deformed bars, except bars rolled from old rails or axles	18,947	19,323	1,151,991	
Long angle/splice bars, tie plate bars and all other long rail joint bars	41,753	...	...
Total Hot Rolled Bars	598,113	489,879	43,233,796	
<u>Cold rolled and cold drawn bars and shapes</u>	52,214	49,394	7,104,974	
<u>Plates, all kinds (iron or steel flats over 14 inches in width, and thicker than No. 7 U.S. standard gauge)</u>	395,298	391,202	27,919,833	
<u>Sheets, hoops, bands and strips, including plain sheets, hot rolled strips, and galvanized sheets (x) and tinplate (x)</u>	376,706	213,908	17,257,901	
Total Plates, Sheets, Hoops, Bands and Strips	772,004	605,110	45,177,754	
<u>Other rolled forms, including mine arches, sheet piling, etc.</u>	21,787	19,793	1,245,151	
<u>Miscellaneous products (not rolled) made in rolling mills, including horseshoes, grinding balls, washers, forged axles, railway spikes, pressed spikes, etc.</u>	79,771	72,277	20,247,536	
TOTAL VALUE OF PRODUCTION .....	...	...	158,138,483	

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

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Table 55 - ALLOY STEEL PRODUCTS MADE AND SOLD BY ROLLING MILLS, 1943

	Tonnage Made (net tons)	Tonnage Sold
Rails .....	...	...
Bars	159,271	155,245
Other products, including plates, billets for forging, shell steel, gun forgings, sheet piling and wire rods	75,514	67,565
TOTAL ALLOY STEEL	212,785	202,808

Table 56 - PRODUCTS ROLLED FROM OLD RAILS, AXLES, ETC., 1943

	Tonnage Made (net tons)	Tonnage Sold
Rails	90	90
Bars	2,852	990
Other products	18,512	...
TOTAL FROM OLD RAILS, ETC.	21,454	1,080

Table 57 - PIG IRON, STEEL INGOTS AND CASTINGS, AND SEMI-FINISHED ROLLED FORMS SHIPPED FOR EXPORT BY
PRODUCERS, 1943

	Net tons
Pig iron	101
Steel ingots .....	...
Steel castings	3,165
Semi-finished rolled forms	7,027
TOTAL	10,293

Table 58 - NET PRODUCTION IN CANADA OF HOT ROLLED IRON AND STEEL PRODUCTS, 1941-1943 - (Net tons)

	1941	1942	1943
Blooms, billets and slabs	191,667	230,470	178,299
Rails	157,298	185,450	263,920
Rail fastenings	41,620	39,697	41,590
Wire rods	293,475	256,457	235,583
Structural shapes	189,783	184,701	146,965
Bars	511,105	552,850	556,360
Plates, sheets, hoop bands and strips	478,050	648,495	619,067
Other hot rolled forms	11,573	13,356	21,846
TOTAL	1,854,571	2,109,456	2,063,630

Table 59 - PRODUCTION AND FACTORY SALES OF STEEL RAILS, 1933-1945

Year	Tonnage made Net tons	Factory Sales	
		Tonnage sold Net tons	Income from sales \$
1933	75,975	77,338	2,899,750
1934	108,292	98,586	3,660,274
1935	122,302	122,349	4,484,594
1936	130,135	131,212	4,885,388
1937	86,932	86,514	3,422,501
1938	126,479	121,612	5,002,610
1939	123,023	127,694	5,182,146
1940	199,998	197,626	7,859,858
1941	157,298	151,128	5,575,492
1942	183,430	184,016	8,216,125
1943	263,920	261,483	12,309,676

Table 40 - PRODUCTION AND FACTORY SALES OF FINISHED RAIL FASTENINGS, 1933-1943

Year	Tie Plates			Fish Plates and Splice Bars		
	Quantity made	Factory Sales		Quantity made	Factory Sales	
		Net tons	Net tons	\$	Net tons	Net tons
1933	4,559	4,563	229,942	5,491	1,215	78,047
1934	17,923	18,460	834,258	3,573	3,913	224,457
1935	20,420	20,650	944,342	6,113	6,014	344,711
1936	26,228	25,571	1,156,175	5,634	5,812	333,712
1937	25,284	24,594	1,123,925	7,125	7,180	430,204
1938	22,190	20,629	1,090,726	5,543	4,978	335,596
1939	24,548	25,185	1,181,086	10,314	10,784	716,985
1940	24,371	26,544	1,388,150	14,040	13,702	907,832
1941	28,747	28,765	1,492,488	12,873	12,566	847,039
1942	25,187	25,685	1,595,375	14,510	14,963	1,018,651
1943	27,214	27,057	1,486,184	14,376	14,554	1,002,902

Table 41 - PRODUCTION AND FACTORY SALES OF WIRE RODS, OF IRON OR STEEL, 1933-1943

Year	Total	Factory Sales		Year	Total	Factory Sales	
	tonnage made	Tonnage sold	Income from sales		tonnage made	Tonnage sold	Income from sales
	Net tons	Net tons	\$		Net tons	Net tons	\$
1933	99,335	52,604	1,104,532	1939	240,194	98,070	3,954,970
1934	196,655	86,281	2,705,167	1940	300,785	131,255	5,305,124
1935	205,485	76,606	2,412,244	1941	293,476	121,422	5,214,495
1936	250,927	98,564	3,132,811	1942	256,457	105,475	4,347,189
1937	242,092	96,518	3,568,873	1943	235,583	88,848	3,621,772
1938	191,803	77,554	3,075,006				

Table 42 - PRODUCTION AND FACTORY SALES OF BLOOMS, BILLETS AND SLABS, 1933-1943

Year	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	
Net tons	Net tons	\$	Net tons	Net tons	Net tons	\$	
1933	251,395	9,781	260,978	1,677	1,298	69,457	
1934	565,940	61,343	1,440,318	3,509	2,270	110,118	
1935	747,535	80,316	1,899,030	6,115	3,702	173,298	
1936	788,506	123,913	2,902,015	6,980	5,557	249,554	
1937	1,401,043	181,711	5,128,779	41,730	27,807	1,171,280	
1938	868,085	99,908	3,057,373	26,451	23,732	979,797	
1939	1,109,145	147,978	4,702,975	29,203	27,036	1,253,754	
1940	1,591,238	175,254	6,821,949	41,232	41,404	1,885,903	
1941	1,604,520	174,465	6,882,562	111,712	102,817	5,796,472	
1942	1,608,969	162,171	5,650,983	226,541	178,897	10,692,911	
1943	1,694,950	134,000	6,320,193	165,999	145,492	7,586,292	

(x) Includes sheet and tinplate bars and muck and scrap bars for 1933 to 1937. Shipments to other Canadian rolling mills are included.

Table 43 - PRODUCTION AND FACTORY SALES OF HOT ROLLED BARS (x), OF ALL KINDS, 1933-1943

Year	Total	Factory Sales		
	tonnage made	Tonnage sold	Income from sales	
	Net tons	Net tons	\$	
1933	94,088		85,474	4,121,813
1934	185,212		133,068	6,642,341
1935	243,574		149,705	9,052,553
1936	283,146		216,441	10,374,417
1937	388,662		321,515	18,066,438
1938	277,783		215,830	12,295,300
1939	514,050		251,040	14,216,981
1940	453,788		365,434	23,078,104
1941	542,575		444,634	29,786,195
1942	592,016		474,312	37,442,850
1943	598,113		489,879	43,233,796

(x) Includes light angles prior to 1939.

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Table 44 - PRODUCTION OF STRUCTURAL STEEL SHAPES (x), OF ALL KINDS, 1933-1945

Year	Total tonnage made	Factory Sales	
		Tonnage sold	Income from sales
1933	18,091	16,771	740,200
1934	25,888	26,049	1,104,524
1935	42,529	45,756	1,937,695
1936	41,537	40,797	1,835,257
1937	95,279	94,461	4,605,796
1938	65,635	67,730	3,589,905
1939	90,810	91,921	4,554,201
1940	185,728	180,278	8,667,678
1941	189,783	193,251	9,600,490
1942	184,701	191,519	10,540,658
1943	146,965	151,674	8,802,273

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

Table 45 - PRODUCTION AND FACTORY SALES OF STEEL PLATES, 1938-1945

Year	Total tonnage made	Factory Sales	
		Tonnage sold	Income from sales
1938	79,406	79,030	5,590,846
1939	75,655	76,189	5,770,927
1940	82,481	85,392	4,538,799
1941	194,647	191,620	15,161,884
1942	391,887	385,514	30,095,754
1943	395,298	391,202	27,919,835

Table 46 - PRODUCTION AND FACTORY SALES OF HOT ROLLED STEEL SHEETS AND STRIPS, 1938-1945

Year	Total tonnage made	Factory Sales	
		Tonnage sold	Income from sales
1938	119,689	115,566	9,459,555
1939	182,297	177,279	15,843,544
1940	255,150	252,018	18,804,499
1941	425,532	278,049	23,121,654
1942	415,505	245,908	18,396,051
1943	576,706	213,908	17,257,901

DIRECTORY OF FIRMS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1945

Name of Firm	Location of Plants
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(a) PIG IRON

Dominion Steel & Coal Corporation, Limited
 Algoma Steel Corporation, Limited
 Canadian Furnace Limited
 Steel Company of Canada, Limited

Sydney, N.S.
 Sault Ste. Marie, Ont.
 Port Colborne, Ont.
 Hamilton, Ont.

(b) FERRO-ALLOYS (x)

Canadian Furnace, Limited
 Chromium Mining & Smelting Corporation, Limited
 Electro Metallurgical Company of Canada, Limited
 St. Lawrence Alloys and Metals, Limited

Port Colborne, Ont.
 Sault Ste. Marie, Ont.
 Welland, Ont.
 Beauharnois, Que.

(c) STEEL INGOTS AND STEEL CASTINGS

Maritime Steel and Foundries, Limited
 Dominion Steel & Coal Corporation, Limited
 Canadian Brake Shoe & Foundry Company, Limited
 Canadian Car & Foundry Company, Limited

379 Glasgow St., New Glasgow, N.S.
 Sydney, N.S.
 101 Belvidere St., Sherbrooke, Que.
 Longue Pointe, Montreal, Que.

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

DIRECTORY OF FIRMS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1943 - (Concluded)

Name of Firm	Location of Plants
(c) STEEL INGOTS AND STEEL CASTINGS (Concluded)	
Canadian Tube & Steel Products, Limited	5900 St. Patrick St., Montreal, Que.
Electric Steels, Limited	Cap de la Madalaine, Que.
Hull Iron & Steel Foundries, Limited	207 Montcalm St., Hull, Que.
Joliette Steel, Limited	Laval St., Joliette, Que.
La Compagnie F. X. Drolet	206 rue du Pont, Quebec, Que.
Lynn MacLeod Metallurgy Limited	Notre Dame St., Thetford Mines, Que.
Manganese Steel Castings, Limited	Abenaquis St., Sherbrooke, Que.
Shawinigan Chemicals, Limited (Stainless Steel Division)	Shawinigan Falls, Que.
Sorel Industries, Limited	Sorel, Que.
Sorel Steel Foundries, Limited	7 Limoges St., Sorel, Que.
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ont.
Atlas Steels, Limited	East Main St., Welland, Ont.
Burlington Steel Company, Limited	Sherman Avenue North, Hamilton, Ont.
Canada Electric Castings, Limited	West St., Orillia, Ont.
Dominion Foundries & Steel, Limited	Depew St., Hamilton, Ont.
Fahralloy, Canada, Limited	Barrie Road, Orillia, Ont.
Federal Foundries and Steel, Limited	London, Ont.
Ford Motor Company of Canada, Limited	Windsor, Ont.
Kennedy & Sons, Limited, The Wm.	Second Avenue West, Owen Sound, Ont.
Steel Company of Canada, Limited	Wilcox St., Hamilton, Ont.
Welland Electric Steel Foundry Limited	123 Victoria St., Welland, Ont.
Manitoba Rolling Mill Company, Limited	Selkirk, Man.
Manitoba Steel Foundries, Limited	Selkirk, Man.
Vulcan Iron Works, Limited	Pt. Douglas Avenue, Winnipeg, Man.
Dominion Bridge Company, Limited (Calgary Rolling Mill Dept.)	32nd Ave. and 17th St. E., 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.
Westland Steel Foundry Ltd.	1335 Franklin St., Vancouver, B.C.
A-1 Pattern Shop & Brass Foundry	29 West 3rd Ave., Vancouver, B.C.
Victoria Machinery Depot Co. Ltd.	33 Dallas Road, Victoria, 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, Que.
Peck Rolling Mills, Limited	851 Mill St., Montreal, Que.
Steel Company of Canada, Limited	Notre Dame St. West, Montreal, Que.
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.
Federal Foundries & Steel Company Limited	529 Philip St., London, Ont.
Steel Company of Canada, Limited	Queen St. North, Hamilton, Ont.
Steel Company of Canada, Limited	Wilcox St., Hamilton, Ont.
Manitoba Rolling Mill Company, Limited	Selkirk, Man.
Dominion Bridge Company, Limited (Calgary Rolling Mill Dept.)	17th Street East and 32nd Ave., Winnipeg, Man.
(e) COLD ROLLED STEEL	
Stanley Steel Company, Limited	57 Gerrard St., Hamilton, Ont.
(f) COLD DRAWN STEEL	
Canadian Drawn Steel Company, Limited	Gerrard St., Hamilton, Ont.
Union Drawn Steel Company, Limited	Victoria Avenue South, Hamilton, Ont.

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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