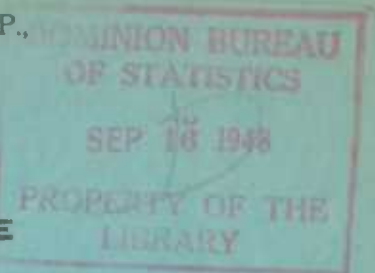


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**CANADA**

**DEPARTMENT OF TRADE AND COMMERCE**

**DOMINION BUREAU OF STATISTICS**

*+++ Census of Industry +++*

**MINING, METALLURGICAL & CHEMICAL STATISTICS**

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**THE**  
**PRIMARY IRON AND STEEL INDUSTRY**  
**IN**  
**CANADA**  
**1946**

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



OTTAWA  
1948

Price 25 cents



Dominion Statistician:  
Director - Division of Census of Industry and Merchandising:  
Chief - Mining, Metallurgical and Chemical Statistics:

A68-13-8-48  
Herbert Marshall  
W. H. Losee  
H. McLeod

Annual Industry Report

Iron and Steel and Their products Group

THE PRIMARY IRON AND STEEL INDUSTRY, 1946

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-five firms were included in this industry in 1946 and reports were received for 59 different plants or departments, including 4 blast furnace departments, 4 ferro-alloy plants, 35 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 20.4 per cent lower in 1946 than in 1945, the values being \$153,082,616 and \$192,279,159 respectively. Twenty-seven works in Ontario accounted for 75 per cent of the total for Canada, or \$114,303,838; 5 plants in Nova Scotia accounted for 10 per cent or \$14,942,738; 14 plants in Quebec for 12 per cent or \$19,097,206; while the remaining \$4,728,854 or 3 per cent was accounted for by 4 plants in Manitoba, 7 in British Columbia and 2 in Alberta.

In 1946 an average of 24,196 people were employed in this industry, this being a decrease of 17.6 per cent from the 1945 average of 29,378. About 1,399 persons worked in the blast furnace departments during the year, 8,278 in the steel furnaces, 13,240 in the rolling mills, and 1,279 in ferro-alloy plants (exclusive of those producing ferro-alloys as a by-product). Sixty-two per cent of the employees, or 15,078, worked in plants in Ontario, 3,691 in Quebec, 4,377 in Nova Scotia, 788 in Manitoba and 262 in Alberta and British Columbia. Payments in salaries and wages during 1946 amounted to \$50,515,897, a decrease of 12.7 per cent from the previous year's total of \$57,862,489. Salaries advanced to \$7,413,359 from \$6,464,082 and wages declined to \$43,102,538 from \$51,398,407.

Materials used in manufacturing processes cost \$68,468,433 in 1946 compared with \$86,417,375 in 1945, and the cost of fuel and electricity was \$13,052,123 against \$16,002,441, a decreased expenditure of 20.4 per cent for materials, fuel and power.

Pig Iron - Output of 1,406,252 net tons of pig iron in 1946 was 21 per cent less than the 1,777,949 tons reported for the previous year. Production of basic iron amounted to 1,108,795 tons or 79 per cent of the total; foundry iron amounted to 151,223 tons, and malleable iron to 146,234 tons.

Producers' sales of pig iron totalled 320,525 tons at \$8,087,403 in 1946 compared with 428,902 tons at \$9,527,026 in 1945.

Charges to iron blast furnaces during the year included 2,167,900 tons of imported iron ore; 358,173 tons of Canadian ore; 1,320,620 tons of coke; 433,153 tons of imported limestone and 189,794 tons of Canadian limestone.

Imports of pig iron during the calendar year increased to 12,125 tons from 7,589 tons in 1945, and exports decreased to 939 tons from 21,854 tons.

Producers' stocks of pig iron at the end of 1946 totalled 52,112 tons compared with 25,193 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 1,390,519 tons in 1946 or 22.2 per cent less than in 1945 when the apparent domestic supply was 1,788,106 tons.

Producers of pig iron in Canada had 14 blast furnaces at the end of 1946 which could produce 2.8 million net tons a year if operated at rated capacity. Actual production of 1,406,252 net tons in 1946 showed an operating rate of about 50 per cent. Eleven furnaces were in blast during the year.

Note: This report was prepared by J. J. Parchelo, Statistician, Metal and Chemical Products.



**Ferro-alloys** - Ferro-alloys were made in 1946 by 10 different concerns, 5 of which recovered ferrosilicon as a by-product in the manufacture of abrasives. Output of ferro-alloys in 1946 amounted to 145,022 net tons, a decrease of 18.5 per cent from the 178,109 reported for 1945.

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

**Steel Ingots and Castings** - Steel production decreased 19 per cent to 2,327,285 tons in 1946 from 2,877,927 tons in 1945, the output of steel ingots going to 2,251,741 from 2,757,149 tons, and steel castings to 75,544 tons from 120,778 tons. Factory sales of ingots and castings totalled 117,863 tons at \$20,969,581.

Thirty-five steel plants were in operation during the year. At the end of 1946 these plants had 131 furnaces, including 49 basic open hearth with an annual capacity of 2,796,876 tons, 79 electric furnaces rated at 751,941 tons, and 3 converters at 10,100 tons. There were just 11 makers of steel ingots with capacity of 3,216,290 net tons per annum. The total annual steel capacity of all plants, including ingots and castings, was 3,558,917 tons at the year end.

Operating steel furnaces in 1946 used 1,085,005 net tons of pig iron, 1,517,014 tons of scrap iron or steel, 132,613 tons of iron ore, 181,440 tons of limestone, 70,050 tons of dolomite, 50,936 tons of lime, 57,873 tons of silica sand, 12,311 tons of magnesite, and 33,001 tons of ferro-alloys.

**Rolled and Drawn Steel** - In 1946 there were 13 mills occupied chiefly in hot rolling of steel products and 3 mills making only cold drawn and cold rolled shapes. Ten of these mills were in Ontario, 2 in Nova Scotia, 3 in Quebec and 1 in Manitoba.

Rolling mill sales declined 15 per cent to \$112,861,591 from \$133,385,310 in 1945. The main items sold during the year under review were: 377,250 tons of hot rolled bars at \$28,448,498; 165,356 tons of plates at \$9,480,384; 291,576 tons of sheets, hoops, bands and strips at \$26,667,286; 263,105 tons of rails and rail fastenings at \$14,066,801; 225,859 tons of semi-finished rolled forms, such as blooms, billets, etc., at \$10,227,549; 131,900 tons of structural shapes at \$7,697,043, and 82,006 tons of wire rods at \$3,670,356.

**Note:** Data for the year under review as shown in this report reflect the results of the 1946 steel strike. This strike, which took place at the plants of the three largest producers of iron and steel, seriously curtailed production during the months of July, August and September, and to a lesser extent during the months of October, November and December.

Table 1 - PROVINCIAL DISTRIBUTION OF ACTIVE PLANTS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1946

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 .....	3	1	4	2	17	2	...
Quebec .....	13	...	...	10	22	3	1
Ontario .....	17	3	10	11	74	10	3
Manitoba .....	3	...	...	3	5	1	...
Alberta .....	2	...	...	2	2	...	...
British Columbia .....	7	...	...	7	11	...	...
CANADA .....	45(b)	4	14	35	131	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, 1936-1946

Year	Number of plants	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
			\$	\$	\$	\$
1936 .....	55	11,138	13,830,377	5,440,129	21,424,052	46,636,892
1937 .....	55	14,054	19,926,498	6,934,008	33,805,631	74,580,669
1938 .....	55	13,100	18,256,627	5,529,833	24,786,761	59,606,150
1939 .....	54	13,827	20,410,517	6,069,661	29,629,376	75,934,481
1940 .....	54	17,774	29,207,036	9,582,791	54,045,692	114,598,409
1941 .....	60	23,735	45,037,095	13,888,384	78,824,366	164,566,392
1942 .....	61	33,245	60,874,818	18,734,178	110,551,516	252,105,755
1943 .....	63	34,222	65,654,468	18,985,135	101,413,749	223,951,059
1944 .....	64	30,763	60,837,031	17,276,424	92,214,866	212,509,681
1945 .....	63	29,378	57,862,489	16,002,441	86,417,375	192,279,159
1946 -						
Nova Scotia ....	5	4,377	7,752,182	1,711,984	9,176,713	14,942,738
Quebec .....	14	3,691	6,978,934	1,477,899	5,217,082	19,097,206
Ontario .....	27	15,078	34,064,990	9,415,101	52,829,743	114,303,838
Manitoba .....	4	788	1,257,032	365,680	1,068,935	3,696,512
Alberta .....	2)	262	462,759	61,459	175,960	1,032,322
British Columbia	7)					
CANADA .....	59	24,196	50,515,897	13,032,123	68,468,433	153,082,616
Per cent change, 1946 from 1945.	..	-17.6	-12.7	-18.6	-20.8	-20.4

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 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1945 and 1946

Province	Average Number of Employees				Total employ- ees	Salaries  \$	Wages  \$	Total Salaries and Wages  \$
	On Salaries		On Wages					
	Male	Female	Male	Female				
<b>1 9 4 5</b>								
Nova Scotia ....	187	111	5,036	87	5,421	727,365	9,258,065	9,985,430
Quebec .....	384	146	5,175	40	5,745	1,298,678	10,050,157	11,348,835
Ontario .....	841	635	14,680	851	17,007	4,109,457	30,337,759	34,447,216
Manitoba .....	42	13	637	6	698	184,193	988,176	1,172,369
Alberta .....	8	4	204	...	216	23,472	317,340	340,812
British Columbia	37	14	238	2	291	120,917	446,910	567,827
CANADA .....	1,499	923	25,970	986	29,583	6,464,082	51,398,407	57,862,489
<b>1 9 4 6</b>								
Nova Scotia ....	176	64	4,137	...	4,377	593,125	7,159,057	7,752,182
Quebec .....	398	122	3,159	12	3,691	1,200,600	5,778,334	6,978,934
Ontario .....	1,159	601	13,136	182	15,078	5,340,160	28,724,830	34,064,990
Manitoba .....	45	18	725	...	788	190,013	1,067,019	1,257,032
Alberta .....	36	10	216	...	262	89,461	373,298	462,759
British Columbia)								
CANADA .....	1,814	815	21,373	194	24,196	7,413,359	43,102,538	50,515,897

## Primary Iron and Steel

- 4 -

Table 4 - WAGE-EARNERS, BY MONTHS, 1945 and 1946 (On the last work-day of each month)

Month	1 9 4 5			1 9 4 6		
	Male	Female	Total	Male	Female	Total
January .....	28,013	1,207	29,220	22,877	295	23,172
February .....	28,095	1,257	29,352	23,193	219	23,412
March .....	27,840	1,276	29,116	23,421	193	23,614
April .....	27,504	1,301	28,805	23,529	189	23,718
May .....	26,859	1,230	28,069	23,637	191	23,828
June .....	26,513	1,209	27,722	23,262	195	23,457
July .....	25,775	1,143	26,918	18,016	172	18,188
August .....	24,916	913	25,829	15,542	170	15,712
September .....	24,398	749	25,147	15,588	164	15,752
October .....	24,140	633	24,773	22,472	183	22,655
November .....	23,980	486	24,466	22,472	180	22,652
December .....	23,617	374	23,991	22,400	173	22,573
AVERAGE .....	25,970	986	26,956	21,373	194	21,567

Table 5 - FUEL AND ELECTRICITY USED, 1945 and 1946

Kind	Unit of measure	1 9 4 5		1 9 4 6	
		Quantity	Cost at works \$	Quantity	Cost at works \$
Bituminous coal: Canadian .....	ton	296,192	1,766,348	198,472	1,190,284
Imported .....	ton	68,571	548,917	65,290	538,935
Sub-bituminous coal (from Alberta mines only) .....	ton	140	1,637	1,108	10,862
Anthracite coal .....	ton	24,274	199,978	13,384	121,021
Lignite coal .....	ton	1,886	6,858	1,121	4,531
Coke (for fuel only) .....	ton	55,853	202,234	44,211	165,257
Gasoline .....	Imp.gal.	196,918	48,780	174,646	42,688
Kerosene or coal oil .....	Imp.gal.	29,215	4,064	26,803	3,848
Fuel oil .....	Imp.gal.	60,201,871	4,099,371	61,442,517	3,855,113
Wood .....	cord	654	7,207	598	6,624
Gas: Manufactured (*) .....	M cu.ft.	69,938,378	3,243,062	55,760,689	2,580,291
Natural .....	M cu.ft.	297,812	58,465	27,214	15,312
Other fuel .....	...	..	61,283	...	23,732
Electricity purchased .....	K.W.H.	1,518,339,630	5,754,237	1,111,914,510	4,473,625
TOTAL .....	...	...	16,002,441	...	13,032,123
Electricity generated for own use	K.W.H.	109,665,150	...	88,427,528	...

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

Table 6 - POWER EQUIPMENT, 1945 and 1946

Kind	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
1 9 4 5				
Steam engines and steam turbines .....	84	59,528	32	4,901
Diesel engines .....	7	1,350	1	95
Gasoline, gas and oil engines .....	18	19,625	6	2,240
Hydraulic turbines or water wheels .....	3	1,150	1	150
Total Primary .....	112	81,653	40	7,386
Electric motors operated by purchased power	9,135	231,030	788	11,840
TOTAL .....	9,247	312,683	828	19,226
Electric motors operated by power generated by above primary units .....	1,591	55,095	10	315
Stationary power boilers .....	111	53,869	11	3,850
Motor-generator sets .....	165	97,493	8	1,715



Table 6 - POWER EQUIPMENT, 1945 and 1946 (Concluded)

Kind	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
<u>1946</u>				
Steam engines and steam turbines .....	71	50,006	13	2,052
Diesel engines .....	9	1,871	1	95
Gasoline, gas and oil engines .....	18	19,500	4	1,950
Hydraulic turbines or water wheels .....	1	150	1	150
Total Primary .....	99	71,527	19	4,247
Electric motors operated by purchased power	8,500	227,686	398	6,149
TOTAL .....	8,599	299,213	417	10,396
Electric motors operated by power generated by above primary units .....	1,579	55,088	10	315
Stationary power boilers .....	104	109,721	5	990
Motor-generator sets .....	156	100,986k.v.a.	9	359 k.v.a.

(a) Pig Iron

Table 7 - MATERIALS CHARGED TO IRON BLAST FURNACES, 1945 and 1946

Material	<u>1945</u>		<u>1946</u>	
	Quantity	Cost at furnace	Quantity	Cost at furnace
	Net tons	\$	Net tons	\$
Iron ore: Canadian (crude) .....	56,082	245,636	82,461	368,506
Imported (crude) .....	2,228,075	9,707,841	1,644,113	6,764,781
Canadian (beneficiated) .....	179,675	759,447	275,712	1,208,210
Imported (beneficiated) .....	569,622	2,484,705	523,787	2,141,401
Mill cinder, roll scale, flue dust, etc.	281,189	1,255,914	161,679	643,321
Scrap (net charge) .....	37,067	374,158	23,070	271,000
Limestone: From Canadian quarries .....	240,247	346,000	189,794	280,911
From foreign sources .....	516,931	699,477	433,153	559,384
Dolomite .....	39,418	56,520	20,955	27,056
Coke .....	1,631,852	15,447,205	1,320,620	13,422,208
Other materials .....	...	269,277	...	309,841
TOTAL .....	...	31,646,180	...	25,996,619

Table 8 - PRODUCTION OF PIG IRON AND SALES BY PRODUCERS, 1945 and 1946

Grade	Delivered in molten condition	Machine cast	Total tonnage made	S a l e s	
				Quantity	Income from sales
	Net tons	Net tons	Net tons	Net tons	\$
<u>1945</u>					
Basic .....	1,292,264	127,941	1,420,205	82,329	1,676,071
Foundry .....	...	198,244	198,244	195,371	4,195,823
Malleable .....	...	159,500	159,500	151,202	3,655,132
TOTAL .....	1,292,264	485,685	1,777,949	428,902	9,527,026
<u>1946</u>					
Basic .....	1,012,842	95,953	1,108,795	26,202	617,806
Foundry .....	...	151,223	151,223	148,119	3,565,819
Malleable .....	...	146,234	146,234	146,204	3,903,778
TOTAL .....	1,012,842	393,410	1,406,252	320,525	8,087,403

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

Table 9 - PRODUCTION OF PIG IRON, BY GRADES, 1936-1946

Year	Basic	Foundry	Malleable	T O T A L
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	31,877	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	153,067	1,758,269
1944 .....	1,534,140	143,763	174,725	1,852,628
1945 .....	1,420,205	198,244	159,500	1,777,949
1946 .....	1,108,795	151,223	146,234	1,406,252

Table 10 - PRODUCTION OF PIG IRON, BY PROVINCES, 1936-1946

Year	Nova Scotia	Ontario	T O T A L
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
1944 .....	395,802	1,456,826	1,852,628
1945 .....	374,302	1,403,647	1,777,949
1946 .....	317,180	1,089,072	1,406,252

Table 11 - PRODUCTION OF PIG IRON, BY MONTHS, 1945 and 1946

Month	1 9 4 5			1 9 4 6		
	For own use	For sale	Total	For own use	For sale	Total
January .....	122,002	33,967	155,969	114,389	29,296	143,685
February .....	118,457	31,030	149,487	117,340	25,831	143,171
March .....	120,404	45,413	165,817	120,677	37,259	157,936
April .....	119,962	36,108	156,070	114,086	28,154	142,240
May .....	120,561	35,013	155,574	127,635	31,466	159,101
June .....	121,012	38,034	159,046	95,410	34,480	129,890
July .....	111,122	39,265	150,387	51,796	12,676	64,472
August .....	107,129	32,683	139,812	34,027	12,467	46,494
September .....	96,585	38,642	135,227	31,900	13,178	45,078
October .....	97,155	43,538	140,693	50,634	24,324	74,958
November .....	94,745	39,906	134,651	103,216	32,053	135,269
December .....	106,714	28,502	135,216	123,642	40,316	163,958
TOTAL .....	1,335,848	442,101	1,777,949	1,084,752	321,500	1,406,252

Table 12 - SALES OF PIG IRON BY THE PRODUCERS, 1936-1946

Year	Tonnage sold	Income from sales	Year	Tonnage sold	Income from sales
		\$			\$
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	2,961,639	1944 .....	400,010	8,641,495
1939 .....	192,614	3,757,573	1945 .....	428,902	9,527,026
1940 .....	277,311	5,868,769	1946 .....	320,525	8,087,403
1941 .....	338,066	7,080,242			



Table 13 - IRON ORE, FUEL AND FLUX CHARGED TO IRON BLAST FURNACES, 1936-1946

Year	Iron Ore	Mill cinder, scale, etc.	Scrap	Coke	Limestone	Dolomite
			(Net tons)			
1936 .....	1,365,082	54,982	22,832	672,210	345,622	
1937 .....	1,796,562	134,299	18,443	890,384	470,549	Not
1938 .....	1,382,565	74,608	21,418	697,615	345,182	
1939 .....	1,476,106	119,654	21,204	775,869	357,377	avail-
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	able
1942 .....	3,612,692	177,343	64,624	1,795,875	860,793	
1943 .....	3,258,451	125,477	43,032	1,646,191	785,938	32,064
1944 .....	3,493,189	96,243	27,604	1,687,967	754,192	57,822
1945 .....	3,033,454	281,189	37,067	1,631,852	757,178	39,418
1946 .....	2,526,073	161,679	23,070	1,320,620	622,947	20,955

Table 14 - IMPORTS INTO CANADA AND EXPORTS OF PIG IRON, 1936-1946

Year	Imports		Exports	
	Net tons	\$	Net tons	\$
1936 .....	4,435	74,589	15,572	304,682
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
1944 .....	8,516	235,666	5,698	123,681
1945 .....	7,589	231,062	21,854	493,159
1946 .....	12,125	344,529	939	23,673

Table 15 - STOCKS OF PIG IRON HELD BY PRODUCERS IN CANADA, 1936-1946

Year	Net Tons	Year	Net Tons
1936 .....	86,048	1942 .....	87,955
1937 .....	125,761	1943 .....	28,230
1938 .....	143,258	1944 .....	49,615
1939 .....	69,174	1945 .....	25,193
1940 .....	76,560	1946 .....	52,112
1941 .....	27,049		

Table 16 - APPARENT SUPPLY OF PIG IRON IN CANADA, 1936-1946

Year	Production	Add imports	Deduct exports	Add or deduct changes in producers' stocks (*)	Apparent supply (x)
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	909,143
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
1944 .....	1,852,628	8,516	5,698	- 21,385	1,834,061
1945 .....	1,777,949	7,589	21,854	+ 24,422	1,788,106
1946 .....	1,406,252	12,125	939	- 26,919	1,390,519

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

(\*) 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.

Table 17 - CONSUMPTION OF PIG IRON IN CANADA, BY INDUSTRIES AND BY PROVINCES, 1943-1946 (as reported by consumers)

	1943	1944	1945	1946
	(net tons)			
(a) By Industries				
Steel ingots and castings .....	1,518,548	1,513,586	1,416,844	1,085,005
Iron castings .....	169,272	171,397	173,185	173,557
Boilers, tanks and platework ....	27,593	27,897	36,476	36,002
Agricultural implements .....	17,483	17,511	26,521	27,288
Machinery .....	21,011	21,170	22,149	25,784
Automobiles .....	2,444	5,197	5,197	7,372
Automobile parts .....	12,785	35,540	10,641	9,740
Railway rolling stock .....	24,518	31,638	28,234	21,526
Brass and copper products .....	1,461	1,104	2,170	3,851
Shipbuilding .....	1,233	1,749	3,488	939
Hardware and tools .....	1,966	2,205	3,223	3,480
Miscellaneous iron and steel ....	713	673	775	1,167
Heating and cooking apparatus ...	24,601	23,087	26,321	22,393
Electrical apparatus and supplies	2,150	2,954	4,426	2,782
TOTAL .....	1,825,778	1,855,708	1,759,650	1,420,886
(b) By Provinces				
Prince Edward Island .....	65	80	97	45
Nova Scotia .....	384,528	393,008	393,291	295,705
New Brunswick .....	3,723	3,450	4,413	3,786
Quebec .....	73,992	73,022	101,107	74,961
Ontario .....	1,352,748	1,378,233	1,245,198	1,031,843
Manitoba .....	4,948	2,770	7,679	11,347
Saskatchewan .....	...	115	58	70
Alberta .....	120	76	164	221
British Columbia .....	5,654	4,954	7,643	2,908
CANADA .....	1,825,778	1,855,708	1,759,650	1,420,886

Table 18 - BLAST FURNACES IN CANADA, 1944-1946

Name of Company	Location of Plants	Number of stacks	Total daily capacity (24 hours)	Number of days in blast		
				1944	1945	1946
Dominion Steel and Coal Corporation, Ltd.	Sydney, Nova Scotia	1	616	329	365	365
		1	644	366	365	365
		1	370	128	...	156
		1	370	...	...	...
Total .....		4	2,000	...	...	...
Canadian Furnace Company, Limited	Port Colborne, Ontario	1	466	313(*)	296(*)	336½(*)
		1	147	...	...	...
Total .....		2	613	...	...	...
The Steel Company of Canada, Limited	Hamilton, Ontario	1	364	342	364	266
		1	728	366	364	328
		1	980	363	364	219
		3	2,072	...	...	...
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ontario	1	353	...	...	...
		1	353	...	...	209
		1	723	348	358	257
		1	556	218	200	40
		1	1,059	360	361	265
Total .....		5	3,044	...	...	...
TOTAL FOR CANADA .....		14	7,729	...	...	...

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

Table 19 - WORLD PIG IRON (1) PRODUCTION (Figures taken from "The Iron Age", published by McGraw-Hill Publishing Co. Ltd., New York, U.S.A.)

	1942	1943	1944	1945	1946
	(Thousands of net tons)				
United States .....	60,115	61,895	62,073	53,200	45,450
Germany .....	24,506	26,718	20,990	4,400	2,024
Poland .....	106	118	76	65	799
Belgium .....	1,386	1,802	623	650	2,292
France .....	1,746	2,345	1,214	848	3,571
Luxemburg .....	...	...	...	425	1,454
U.S.S.R. ....	7,700	11,100	16,800	18,800	20,000
United Kingdom .....	8,300	7,919	7,421	7,840	8,779
Japan .....	4,530	4,184	2,820	552	157(2)
Canada .....	1,975	1,758	1,852	1,778	1,407(3)
Sweden .....	813	872	903	950	740
Spain .....	638	659	680	540	540(2)
Brazil .....	195	225	265	236	309
India .....	2,069	1,975	1,599	1,545	1,666
South Africa .....	403	524	509	618	588
TOTAL .....	114,482	122,094	117,825	92,447	89,776

(1) Includes charcoal, iron and ferro-alloys made in blast furnaces.

(2) Last six months estimated.

(3) Does not include ferro-alloys.

(b) Ferro-alloys

Table 20 - PRODUCTION OF FERRO-ALLOYS, 1936-1946

Year	Net tons	Year	Net tons
1936 .....	85,438	1942 .....	209,017
1937 .....	91,921	1943 .....	197,094
1938 .....	62,637	1944 .....	171,323
1939 .....	85,540	1945 .....	178,109
1940 .....	149,394	1946 .....	145,022
1941 .....	204,354		

Table 21 - PRODUCERS OF FERRO-ALLOYS IN CANADA, 1946

Name of Company	Plant Location	Products Made
Simonds Canada Abrasive Co. Limited	Arvida, Quebec	Ferrosilicon (by-product)
Canadian Carborundum Company, Limited	Niagara Falls, Ontario	Ferrosilicon (by-product)
Canadian Furnace, Limited	Port Colborne, Ontario	Silvery ferrosilicon
Chromium Mining & Smelting Corp., Limited	Sault Ste. Marie, Ontario	Ferrosilicon, sil-x, chrom-x, riser-x
Electro Metallurgical Company of Canada, Limited	Welland, Ontario	Ferrosilicon, ferrochrome, ferromanganese, silicomanganese, spiegeleisen, silico-spiegeleisen and calcium manganese silicon
Electric Reduction Company of Canada, Limited	Buckingham, Quebec	Ferrophosphorus
Exolon Company	Thorold, Ontario	Ferrosilicon (by-product)
Lionite Abrasives, Limited	Stamford, Ontario	Ferrosilicon (by-product)
Morton Company	Chippawa, Ontario	Ferrosilicon (by-product)
St. Lawrence Alloys and Metals, Limited	Beauharnois, Quebec	Ferrosilicon, calcium silicon, silicon metal



## (c) Steel Ingots and Direct Steel Castings

Table 22 - MATERIALS USED IN STEEL FURNACES, 1945 and 1946

Material	1945		1946	
	Quantity	Cost of purchased materials	Quantity	Cost of purchased materials
	Net tons	\$	Net tons	\$
Pig iron - Own make .....	1,363,495	...	1,062,013	...
Purchased .....	53,349	1,243,241	22,992	587,308
Scrap iron or steel - Own make .....	876,275	...	723,365	...
Purchased .....	865,620	15,370,285	793,849	14,701,571
Spiegeleisen .....	3,404	171,614	3,319	166,156
Silicospiegeleisen .....	176	14,670	130	11,019
Ferromanganese - High carbon .....	5,585	656,257	4,088	495,606
Medium carbon .....	14,046	1,726,290	9,285	1,185,983
Low carbon .....	565	96,335	450	80,393
Silicomanganese .....	7,967	899,689	5,131	580,570
Ferrosilicon - 15% .....	2,319	124,723	2,225	103,669
25% .....	1,049	63,059	95	5,500
50% .....	6,426	427,822	4,845	311,148
75% .....	202	24,897	94	11,215
85-90% .....	212	30,815	153	24,459
Ferrochrome (including chrom-x) - High carbon .....	1,582	323,694	752	137,701
Low carbon .....	1,173	436,469	879	316,225
Ferromolybdenum .....	71	110,897	166	186,271
Ferrophosphorus .....	423	37,101	310	26,717
Ferroselenium .....	1	2,277	2	3,196
Ferrotitanium .....	656	123,975	416	73,485
Ferrotungsten .....	138	455,317	260	402,174
Ferrovanadium .....	57	188,661	46	139,197
Ferrozirconium .....	5	836	34	2,617
Calcium silicon .....	206	67,130	22	6,431
Calcium manganese silicon .....	589	193,020	299	95,986
Other ferro-alloys .....	...	943	...	40,476
Aluminum ingot and shot .....	828	197,132	678	160,925
Copper ingots, cakes, shot, etc. ....	131	30,023	264	59,054
Nickel .....	1,523	916,645	577	340,552
Other metals .....	...	75,189	...	28,824
Ore, iron .....	106,614	1,068,504	132,613	1,094,071
Ore, manganese .....	...	...	2	125
Ore, chrome .....	745	35,998	424	22,591
Ore, tungsten .....	197	395,674	1	278
Bentonite .....	3,161	83,424	2,786	64,912
Coal - Anthracite .....	309	4,005	340	4,428
Bituminous .....	323	3,655	437	4,332
Coke .....	4,512	53,032	6,919	82,029
Charcoal .....	145	6,713	111	4,634
Dolomite - Crude .....	71,060	209,716	66,262	203,328
Calcined .....	6,146	111,581	3,788	66,473
Fluorspar .....	19,462	669,813	13,805	456,443
Ganister .....	5,568	17,948	3,783	13,179
Graphite .....	526	53,955	811	80,312
Lime .....	64,294	436,239	50,936	344,619
Limestone - Canadian .....	94,010	158,008	79,863	136,054
Imported .....	123,489	159,971	101,577	126,376
Magnesite .....	17,016	680,588	12,311	503,298
Electrodes .....	...	929,529	...	755,375
Silica sand - For moulds .....	75,619	512,848	53,967	358,899
For sand blasting .....	5,260	51,508	3,906	41,593
Other foundry sands .....	...	80,691	...	32,722
Firebrick, fireclay and other refractories ..	...	2,287,145	...	1,433,935
Calcium molybdate .....	115	116,753	17	26,352
Molybdenum trioxide (molybdic oxide)				
briquettes .....	314	517,138	37	52,347
All other materials .....	...	2,936,078	...	1,154,431
TOTAL VALUE OF METALS, ORES AND OTHER MATERIALS USED .....	...	35,589,520	...	27,347,564

Table 23 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS AND SALES BY THE PRODUCERS, 1945 and 1946

Table 25 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS AND SALES BY THE PRODUCERS, 1945 and 1946

	1945			1946		
	Total tonnage of steel made (all kinds) including alloys	Quantity	S a l e s Income from sales	Total tonnage of steel made (all kinds) including alloys	Quantity	S a l e s Income from sales
	Net tons	Net tons	\$	Net tons	Net tons	\$
Steel Ingots -						
Basic open hearth ...	2,399,858	23,488	882,918	1,897,960	38,903	1,496,658
Electric .....	357,291	21,784	2,490,922	353,781	3,685	815,617
Total Steel Ingots ..	2,757,149	45,272	3,373,840	2,251,741	42,588	2,312,275
Steel Castings -						
Basic open hearth ...	31,216	31,365	6,532,300	24,566	23,482	5,153,218
Converter .....	942	974	276,265	600	620	197,491
Electric .....	88,620	70,636	17,939,318	50,378	51,173	13,306,597
Total Steel Castings.	120,778	102,975	24,747,883	75,544	75,275	18,657,306
TOTAL STEEL INGOTS AND CASTINGS .....	2,877,927	148,247	28,121,723	2,327,285	117,863	20,969,581
Any other products ....	...	23,033	3,242,415	...	...	893
TOTAL ALL PRODUCTS ..	...	171,280	31,364,138	...	...	20,970,474
Alloy steel included in above -						
Ingots .....	305,542	4,569	702,610	100,016	533	80,000
Castings .....	14,022	10,563	3,369,705	10,697	10,335	2,855,062
TOTAL .....	319,564	15,132	4,072,315	110,713	10,868	2,935,062

Table 24 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS, BY GRADES, 1936-1946

Year	Steel Ingots		Steel Castings			Total steel ingots and castings
	Open hearth	Electric	Open hearth	Con- verter	Electric	
	(Net tons)					
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	135,633	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 .....	2,623,853	335,053	26,627	6,515	117,803	3,109,851
1943 .....	2,484,544	362,192	28,895	4,003	124,490	3,004,124
1944 .....	2,517,894	355,974	35,032	2,470	104,792	3,016,162
1945 .....	2,399,858	357,291	31,216	942	120,778	2,877,927
1946 .....	1,897,960	353,781	24,566	600	50,378	2,327,285

Table 25 - PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS, BY MONTHS, 1942-1946

Month	1942	1943	1944	1945	1946
	(Net tons)				
January .....	257,516	207,008	242,186	268,722	244,623
February .....	241,421	245,588	229,852	250,464	233,893
March .....	264,403	270,962	275,539	277,461	249,117
April .....	263,488	264,357	260,825	274,213	247,519
May .....	270,747	271,737	263,431	267,643	259,626
June .....	252,663	240,501	240,750	257,115	214,861
July .....	256,560	251,508	234,418	229,161	135,914
August .....	248,868	247,820	246,755	224,928	88,729
September .....	244,922	242,255	242,725	198,508	76,564
October .....	271,127	272,976	272,775	205,846	123,841
November .....	270,812	260,444	266,174	207,981	222,644
December .....	267,324	228,968	240,732	215,885	229,954
TOTAL .....	3,109,851	3,004,124	3,016,162	2,877,927	2,327,285



Table 26 - ANNUAL PRODUCTION OF STEEL INGOTS AND STEEL CASTINGS, BY PROVINCES, 1936-1946

Year	Nova Scotia	Quebec	Ontario	Manitoba	Alberta	British Columbia	CANADA
				(net tons)			
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 .....	379,096	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 .....	633,203	138,721	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
1944 .....	578,346	117,638	2,253,685	42,149	18,085	6,259	3,016,162
1945 .....	590,365	108,779	2,116,066	44,284	13,156	5,277	2,877,927
1946 .....	425,863	63,763	1,781,701	52,064	430	3,464	2,327,285

Table 27 - SALES OF STEEL INGOTS AND STEEL CASTINGS BY THE PRODUCERS, 1936-1946

Year	Tonnage sold	Income from sales	Year	Tonnage sold	Income from sales
	Net tons	\$		Net tons	\$
1936 .....	31,394	4,788,296	1942 .....	286,007	38,014,454
1937 .....	72,696	10,616,508	1943 .....	151,924	30,057,984
1938 .....	48,256	7,780,163	1944 .....	171,072	34,848,365
1939 .....	63,354	9,169,097	1945 .....	148,247	28,121,723
1940 .....	143,927	12,616,483	1946 .....	117,863	20,969,581
1941 .....	333,855	22,508,948			

Table 28 - PRODUCTION OF ALLOY STEEL INGOTS AND CASTINGS, 1939-1946

Year	Ingots	Castings	TOTAL
		(net tons)	
1939 .....	51,883	5,700	57,583
1940 .....	95,150	9,876	105,026
1941 .....	207,631	11,219	218,850
1942 .....	374,457	25,879	400,336
1943 .....	393,491	19,992	413,483
1944 .....	328,640	19,263	347,903
1945 .....	305,542	14,022	319,564
1946 .....	100,016	10,697	110,713

Table 29 - METAL, ORE AND FLUX CHARGED TO STEEL FURNACES, 1936-1946

Year	Pig iron	Ferro- manganese and spiegeleisen	Other ferro- alloys	Scrap iron and steel	Iron ore	Limestone	Dolomite	Fluorspar
				(Net tons)				
1936 ...	584,912	15,062	6,525	777,268	73,013	109,200	43,562	7,942
1937 ...	747,747	18,003	9,281	1,003,791	97,625	125,922	53,066	9,039
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	1,327,510	145,658	165,975	81,233	15,307
1941 ...	1,340,441	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	20,133
1943 ...	1,518,548	19,463	19,800	1,751,779	171,040	242,032	89,056	20,790
1944 ...	1,513,586	21,932	16,891	1,642,250	154,415	237,167	85,601	20,024
1945 ...	1,416,844	23,600	23,244	1,741,895	106,614	217,499	77,206	19,462
1946 ...	1,085,005	17,142	15,859	1,517,014	132,613	181,440	70,050	13,805



Table 30 - STEEL FURNACES IN CANADA, DECEMBER 31, 1946

	Type	Number of units	Size (net tons)	Total annual capacity (net tons)
<u>Nova Scotia -</u>				
Dominion Steel & Coal Corp. Ltd., Sydney .....	O.H.	10	56	320,000
	O.H.	5	112	402,400
	Elec.	1	11	28,000
Total .....	...	16	...	750,400
Maritime Steel Foundries Ltd., New Glasgow .....	Elec.	1	4	3,000
<u>Quebec -</u>				
Canadian Brake Shoe & Foundry Co. Ltd., Montreal	Elec.	2	2	1,800
Canadian Car & Foundry Co. Ltd., Montreal .....	O.H.	3	28	51,576
	Elec.	1	4	7,728
	Elec.	1	23	40,320
Total .....	...	5	...	99,624
Canadian Tube & Steel Products Ltd., Montreal ..	Elec.	1	5	13,400
	Elec.	2	5	31,200
Total .....	...	3	...	44,600
Joliette Steel Limited, Joliette .....	Elec.	1	1½	2,000
	Elec.	1	1½	4,000
Total .....	...	2	...	6,000
La Compagnie F. X. Drolet Ltd., Quebec .....	Conv.	1	1	300
Lynn MacLeod Metallurgy Ltd., Thetford Mines ...	Elec.	1	1½	2,400
Manganese Steel Castings Ltd., Sherbrooke .....	Elec.	1	2	1,500
Shawinigan Chemicals Ltd., Shawinigan Falls ....	Elec.	1	½	468
	Elec.	1	2	1,872
	Elec.	1	1	936
Total .....	...	3	...	3,276
Sorel Industries Limited, Sorel .....	Elec.	1	8	11,200
	Elec.	1	4	5,600
	Elec.	1	20	28,000
Total .....	...	3	...	44,800
Sorel Steel Foundries Ltd., Sorel .....	Elec.	1	4	9,400
<u>Ontario -</u>				
Algoma Steel Corp. Ltd., Sault Ste. Marie .....	O.H.	8	66	400,000
	O.H.	4	123	360,000
Total .....	...	12	...	760,000
Atlas Steels Limited, Welland .....	Elec.	1	6	7,200
	Elec.	1	10	12,000
	Elec.	4	25	120,000
Total .....	...	6	...	139,200
Burlington Steel Company Ltd., Hamilton .....	Elec.	1	6	24,000
Canada Electric Castings Ltd., Orillia .....	Elec.	2	2	6,000

Table 30 - STEEL FURNACES IN CANADA, DECEMBER 31, 1946 (Continued)

	Type	Number of units	Size (net tons)	Total annual capacity (Net tons)
<u>Ontario (Concluded) -</u>				
Dominion Foundries & Steel Ltd., Hamilton .....	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	50	55,000
	Elec.	1	2 $\frac{1}{2}$	9,000
Total .....	...	9	...	318,050
Fahralloy Canada Ltd., Orillia .....	Elec.	1	1 $\frac{1}{2}$	1,524
	Elec.	1	1 $\frac{1}{2}$	2,286
	Elec.	1	2	3,048
Total .....	...	3	...	6,858
Federal Foundries & Steel Co., London .....	Elec.	2	6	13,140
Ford Motor Co. of Canada Ltd., Windsor .....	Elec.	1	1 $\frac{1}{4}$	625
	Elec.	1	5	10,500
	Elec.	17	4	99,875
	Elec.	1	1 $\frac{1}{2}$	750
Total .....	...	20	...	111,750
William Kennedy & Sons Ltd., Owen Sound .....	Conv.	1	2	4,800
	Elec.	1	4	9,000
Total .....	...	2	...	13,800
Steel Company of Canada, Hamilton .....	O.H.	1	45	38,500
	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
Welland Electric Steel Foundry Ltd., Welland ...	Elec.	1	1 $\frac{1}{2}$ )	5,400
	Elec.	1	1 $\frac{1}{2}$ )	
	Elec.	1	1 $\frac{1}{2}$ )	
Total .....	...	3	...	5,400
<u>Manitoba -</u>				
Manitoba Rolling Mill Co. Ltd., Selkirk .....	O.H.	2	18 $\frac{1}{2}$	40,000
	Elec.	1	3	15,000
Total .....	...	3	...	55,000
Manitoba Steel Foundries Ltd., Selkirk .....	Elec.	1	5	4,000
Vulcan Iron Works Ltd., Winnipeg .....	Elec.	1	3	2,664
<u>Alberta -</u>				
Riverside Iron Works Ltd., Calgary .....	Elec.	1	1	900
Foothills Steel Foundry & Iron Works, Calgary ..	Elec.	1	1 $\frac{1}{2}$	275
<u>British Columbia -</u>				
A-1 Steel and Iron Foundry, Vancouver .....	Elec.	1	1 $\frac{1}{4}$	1,975
Britannia Mining & Smelting Co. Ltd., Britannia Beach .....	Elec.	1	5	4,200

Table 30 - STEEL FURNACES IN CANADA, DECEMBER 31, 1946 (Concluded)

	Type	Number of units	Size (net tons)	Total annual capacity (Net tons)
British Columbia (Concluded) -				
Consolidated Mining & Smelting Co. of Canada, Trail .....	Elec.	1	4	2,250
Reliance Foundry Co. Ltd., Vancouver .....	Elec.	1	$\frac{1}{4}$	430
	Elec.	1	$1\frac{1}{2}$	2,600
Total .....	...	2	...	3,030
Vancouver Engineering Works Ltd., Vancouver ....	Elec.	1	3	2,250
	Elec.	1	1	250
	Conv.	1	2	5,000
Total .....	...	3	...	7,500
Victoria Machinery Depot Co. Ltd., Victoria ....	Elec.	1	$1\frac{1}{4}$	625
Westland Iron & Steel Foundries Ltd., Vancouver.	Elec.	1	5	3,000
	Elec.	1	$1\frac{1}{4}$	2,700
Total .....	...	2	...	5,700

Table 31 - SUMMARY OF STEEL FURNACE CAPACITY, DECEMBER 31, 1946

	Number of furnaces	Total annual capacity (net tons)
Basic open hearth .....	49	2,796,876
Electric .....	79	751,941
Converter .....	3	10,100
TOTAL .....	131	3,558,917
Steel ingots - Basic open hearth .....	...	2,745,300
Electric .....	...	470,990
TOTAL .....	...	3,216,290
Steel castings .....	...	342,627
TOTAL INGOTS AND CASTINGS .....	...	3,558,917

Table 32 - WORLD INGOT AND CASTINGS PRODUCTION (Figures taken from "The Iron Age", Published by The McGraw-Hill Publishing Co. Ltd., New York, U.S.A.)

	1942	1943	1944	1945	1946
	(Thousands of net tons)				
United States .....	86,032	88,936	89,642	80,100	65,900
Germany .....	31,684	33,706	28,481	5,500	2,746
Poland .....	262	284	184	150	1,274
Belgium .....	1,578	1,862	622	550	2,400
France .....	2,429	2,662	1,407	1,280	4,570
Luxemburg .....	...	...	...	358	1,381
U.S.S.R. ....	12,200	13,300	15,400	19,800	21,500
United Kingdom .....	14,263	14,361	13,422	13,238	14,372
Japan .....	7,748	8,616	6,433	1,173	547(1)
Canada .....	3,109	3,004	3,016	2,878	2,370
Sweden .....	1,360	1,337	1,322	1,350	1,290
Spain .....	602	660	706	600	709(1)
Brazil .....	145	167	199	205	273
Mexico .....	110	...	201	209	262(1)
India .....	1,505	1,572	1,532	1,518	1,505
South Africa .....	376	456	537	591	491

(1) Last 6 months estimated.



Table 33 - MATERIALS USED FOR ALL PURPOSES IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1945 and 1946

Material	Companies' own make	Purchased	
		Quantity Net tons	Cost at works \$
<u>1945</u>			
Steel ingots .....	2,721,907	19,324	660,765
Steel blooms .....	76,663	20,465	895,196
Steel slabs .....	...	32,822	1,341,873
Steel billets .....	54,718	52,700	2,346,683
Steel bars .....	5	42,917	2,745,972
Rails, old .....	...	42,579	842,017
Axles, old .....	...	1,354	27,719
Scrap iron and steel, other .....	4,027	1,730	29,830
Tin .....	...	990	1,247,299
Zinc spelter .....	...	3,800	391,624
Ammonium chloride .....	...	224	25,930
Sulphuric acid, 66° Bé .....	...	7,973	126,603
Silica sand .....	...	711	4,965
All other materials and supplies .....	...	...	516,196
TOTAL .....	...	...	11,202,672
<u>1946</u>			
Steel ingots .....	2,189,808	...	...
Steel blooms .....	58,397	...	...
Steel slabs .....	...	71,704	2,959,941
Steel billets .....	75,749	18,864	685,212
Steel bars .....	577	54,653	2,324,291
Rails, old .....	...	47,867	1,041,473
Axles, old .....	...	2,014	40,810
Scrap iron and steel, other .....	2,188	692	13,777
Tin .....	...	1,479	1,864,159
Zinc spelter .....	...	3,890	395,268
Ammonium chloride .....	...	259	30,000
Sulphuric acid, 66° Bé .....	...	17,246	250,332
Silica sand .....	...	631	4,237
All other materials and supplies .....	...	...	777,081
TOTAL .....	...	...	10,386,581

Table 34 - PRODUCTS MADE IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1945 and 1946

Product	Total tonnage made Net tons	Factory Sales	
		Tonnage sold in Canada or for export Net tons	Income from tonnage sold \$
<u>1945</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 .....	1,572,489	88,950	3,425,864
Blooms, billets and axle blanks, for forging purposes only, excluding all those intended for further rolling .....	227,577	211,468	14,306,145
Total Semi-finished Rolled Forms .....	1,800,066	300,418	17,732,009
<u>Rails and rail fastenings -</u>			
Rails .....	291,651	288,630	14,229,922
Splice bars or fish plates .....	10,847	10,836	778,664
Tin plates, rail joints, frogs, etc. ....	40,129	40,784	2,271,313
Total Rails and Rail Fastenings .....	342,627	340,250	17,279,899
<u>Wire rods of iron or steel, including chain rods .....</u>	257,606	105,648	4,417,200
<u>Structural steel shapes (including angles of all sizes, beams, channels, tees, etc., but excluding plates and bars) -</u>			
Over 35 pounds per yard .....	75,737	70,999	3,798,363
Up to, and including, 35 pounds per yard ....	116,170	119,051	6,601,140
Total Structural Steel Shapes .....	191,907	190,050	10,399,503

Table 34 - PRODUCTS MADE IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1945 and 1946 (Continued)

Product	Total tonnage made	Factory Sales	
		Tonnage sold in Canada or for export	Income from tonnage sold
	Net tons	Net tons	\$
<u>1945 (Concluded)</u>			
<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 .....	485,354	400,053	29,380,594
Bars for concrete reinforcing, including twisted and other deformed bars .....	39,610	38,569	2,299,615
Long angle splice bars, tie plate bars and all other long rail joint bars .....	49,482	...	...
Total Hot Rolled Bars .....	574,446	438,622	31,680,209
<u>Cold rolled and cold drawn bars .....</u>	34,587	34,003	3,994,957
<u>Plates, all kinds (iron or steel flats over 14 inches in width, and thicker than No. 7 U.S. standard gauge) ...</u>	282,592	275,674	16,687,112
<u>Sheets, hoops, bands and strips, including plain sheets, hot rolled strips, cold rolled strips, galvanized sheets (*), tinplate (*), terne plate (*) and bonder- ized plate (*) .....</u>	212,621	213,050	18,624,564
Total Plates, Sheets, Hoops, Bands and Strips .....	495,213	488,724	35,311,676
<u>Other rolled forms, including mine arches, sheet piling, etc. ....</u>	12,143	12,142	805,493
<u>Miscellaneous products (not rolled) made in rolling mills, including horseshoes, grinding balls, washers, forged axles, railway spikes, pressed spikes, etc. ...</u>	63,043	60,974	11,766,364
TOTAL VALUE OF PRODUCTION .....	...	...	133,385,310
<u>1946</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 .....	1,589,256	188,224	7,979,155
Blooms, billets and axle blanks, for forging purposes only, excluding all those intended for further rolling .....	45,599	37,635	2,248,394
Total Semi-finished Rolled Forms .....	1,634,855	225,859	10,227,549
<u>Rails and rail fastenings -</u>			
Rails .....	206,374	210,020	10,716,361
Splice bars or fish plates .....	11,918	11,988	876,209
Tie plates, rail joints, frogs, etc. ....	38,778	41,097	2,474,231
Total Rails and Rail Fastenings .....	257,070	263,105	14,066,801
<u>Wire rods of iron or steel, including chain rods .....</u>	210,548	82,006	3,670,356
<u>Structural steel shapes (including angles with a side of 3 inches and over, beams, channels, tees, etc., but excluding plates and bars) -</u>			
Over 35 pounds per yard .....	57,855	58,933	3,374,615
Up to, and including, 35 pounds per yard .....	74,039	72,967	4,322,428
Total Structural Steel Shapes .....	131,894	131,900	7,697,043

Table 34 - PRODUCTS MADE IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1945 and 1946 (Concluded)

Product	Total tonnage made	Factory Sales	
		Tonnage sold in Canada or for export	Income from tonnage sold
	Net tons	Net tons	\$
<u>1946 (Concluded)</u>			
<u>Bars of iron or steel -</u>			
Bars, hot rolled, of all grades and of all sections, including light angles with sections of less than 3 inches, but omitting all bars reported under the items immediately below .....	393,365	328,188	25,308,031
Bars for concrete reinforcing, including twisted and other deformed bars .....	50,675	49,062	3,140,467
Long angle splice bars, tie plate bars and all other long rail joint bars .....	48,815	...	...
Total Hot Rolled Bars .....	492,853	377,250	28,448,498
<u>Cold rolled and cold drawn bars .....</u>	25,666	25,919	3,525,220
<u>Plates, all kinds (iron or steel flats over 14 inches in width, and 3/16 inches or thicker) .....</u>	170,043	165,356	9,480,384
<u>Sheets, hoops, bands and strips, including plain sheets, hot rolled strips, cold rolled strips, galvanized sheets (*), tinplate (*), terne plate (*) and bonder- ized plate (*) .....</u>	295,720	291,576	26,667,286
Total Plates, Sheets, Hoops, Bands and Strips ....	465,763	456,932	36,147,670
<u>Other rolled forms, including mine arches, sheet piling, etc. ....</u>	44,472	22,654	1,370,489
<u>Miscellaneous products (not rolled) made in rolling mills, including horseshoes, grinding balls, washers, forged axles, railway spikes, pressed spikes, etc. ..</u>	...	...	7,707,965
TOTAL VALUE OF PRODUCTION .....	...	...	112,861,591

(\*) Includes the tonnages made in rolling mills only.

Table 35 - ALLOY STEEL PRODUCTS MADE AND SOLD BY ROLLING MILLS, 1945 and 1946

	1945		1946	
	Tonnage Made	Tonnage Sold	Tonnage Made	Tonnage Sold
	(net tons)			
Rails .....	1,269	1,095	...	...
Bars .....	122,302	95,766	62,598	60,253
Other products, including plates, billets and forgings, shell steel, gun forgings, sheet piling and wire rods .....	120,424	86,973	44,923	9,646
TOTAL ALLOY STEEL .....	243,995	183,834	107,521	69,899

Table 36 - PRODUCTS ROLLED FROM OLD RAILS, AXLES, ETC., 1945 and 1946

	1945		1946	
	Tonnage Made	Tonnage Sold	Tonnage Made	Tonnage Sold
	(net tons)			
Rails .....	...	...	1,128	1,128
Bars .....	20,184	14,482	31,419	30,333
Other products .....	16,480	13,175	11,948	9,431
TOTAL .....	36,664	27,657	44,495	40,892



Table 37 - PIG IRON, STEEL INGOTS AND CASTINGS, AND SEMI-FINISHED ROLLED FORMS SHIPPED FOR EXPORT BY PRODUCERS, 1945 and 1946

	1945	1946
	(net tons)	
Pig iron .....	22,153	808
Steel ingots .....	19,066	35,709
Steel castings .....	1,785	2,179
Semi-finished rolled forms .....	39,769	36,198
TOTAL .....	82,773	74,894

Table 38 - NET PRODUCTION (\*) IN CANADA OF HOT ROLLED IRON AND STEEL PRODUCTS, 1944-1946

	1944	1945	1946
	(net tons)		
Blooms, billets and slabs .....	231,737	251,229	81,673
Rails .....	325,486	291,651	206,374
Rail fastenings .....	56,409	50,976	50,696
Wire rods .....	244,270	257,606	210,548
Structural shapes .....	155,908	191,907	131,894
Bars .....	480,371	524,964	444,040
Plates, sheets, hoops, bands and strips	617,408	522,621	455,148
Other hot rolled forms .....	29,379	12,143	44,472
TOTAL .....	2,140,968	2,103,097	1,624,845

(\*) Inter-mill shipments have been excluded.

Table 39 - PRODUCTION AND FACTORY SALES OF STEEL RAILS, 1936-1946

Year	Tonnage	Factory Sales	
	made	Tonnage sold	Income from sales
	Net tons	Net tons	\$
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	7,839,858
1941 .....	137,298	131,128	5,575,492
1942 .....	183,430	184,016	8,216,125
1943 .....	263,920	261,483	12,309,676
1944 .....	325,486	324,052	15,921,875
1945 .....	291,651	288,630	14,229,922
1946 .....	206,374	210,020	10,716,361

Table 40 - PRODUCTION AND FACTORY SALES OF FINISHED RAIL FASTENINGS, 1936-1946

Year	Tie Plates			Fish Plates and Splice Bars		
	Quantity made	Factory Sales		Quantity made	Factory Sales	
		Quantity	Income from sales		Quantity	Income from sales
		Net tons	\$		Net tons	\$
1936 .....	26,228	25,571	1,136,175	5,634	5,812	333,712
1937 .....	23,284	24,394	1,123,923	7,125	7,180	430,204
1938 .....	22,190	20,629	1,090,726	5,543	4,978	335,396
1939 .....	24,548	23,183	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	1,393,375	14,510	14,963	1,018,651
1943 .....	27,214	27,057	1,486,184	14,376	14,554	1,002,902
1944 .....	41,826	38,351	2,123,629	14,583	14,324	997,004
1945 .....	40,129	40,784	2,271,313	10,847	10,836	778,664
1946 .....	38,778	41,097	2,474,231	11,918	11,988	876,209

Table 41 - PRODUCTION AND FACTORY SALES OF WIRE RODS OF IRON OR STEEL, 1936-1946

Year	Total	Factory Sales		Year	Total	Factory Sales	
	tonnage	Tonnage	Income from		tonnage	Tonnage	Income from
	made	sold	sales		made	sold	sales
	Net tons	Net tons	\$		Net tons	Net tons	\$
1936 .....	230,927	98,364	3,132,811	1942 .....	256,457	105,475	4,347,189
1937 .....	242,092	96,518	3,568,873	1943 .....	255,583	88,848	3,621,772
1938 .....	191,803	77,554	3,075,006	1944 .....	244,270	105,046	4,300,337
1939 .....	240,194	98,070	3,954,970	1945 .....	257,606	105,648	4,417,200
1940 .....	300,785	131,255	5,305,124	1946 .....	210,548	82,006	3,670,356
1941 .....	293,476	121,422	5,214,493				

Table 42 - PRODUCTION AND FACTORY SALES OF BLOOMS, PILLETS AND SLABS, 1936-1946

Year	Except for Forging (*)			For Forging		
	Total	Factory Sales		Total	Factory Sales	
	tonnage	Tonnage	Income from	tonnage	Tonnage	Income from
	made	sold	sales	made	sold	sales
	Net tons	Net tons	\$	Net tons	Net tons	\$
1936 .....	788,506	123,913	2,902,013	6,980	5,557	249,554
1937 .....	1,401,043	181,711	5,128,779	41,730	27,807	1,171,280
1938 .....	868,083	99,908	3,037,373	26,451	23,732	979,797
1939 .....	1,109,145	147,978	4,702,975	29,203	27,036	1,233,754
1940 .....	1,591,238	175,254	6,821,949	41,232	41,404	1,885,903
1941 .....	1,604,520	174,463	6,882,562	111,712	102,317	5,796,472
1942 .....	1,608,969	162,171	5,650,983	226,541	178,897	10,692,911
1943 .....	1,694,930	134,000	6,320,193	165,999	145,492	7,586,292
1944 .....	1,643,679	125,159	4,849,949	226,114	211,800	12,191,804
1945 .....	1,572,489	88,950	3,425,864	227,577	211,468	14,306,145
1946 .....	1,589,256	188,224	7,979,155	45,599	37,635	2,248,394

(\*) Includes sheet and tinplate bars and muck and scrap bars for 1936 and 1937. Shipments to other Canadian rolling mills are included.

Table 43 - PRODUCTION AND FACTORY SALES OF HOT ROLLED BARS (\*) OF ALL KINDS, 1936-1946

Year	Total	Factory Sales	
	tonnage made	Tonnage sold	Income from sales
	Net tons	Net tons	\$
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 .....	314,050	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
1944 .....	534,196	428,982	30,099,216
1945 .....	574,446	438,622	31,680,209
1946 .....	492,853	377,250	28,448,498

(\*) Includes light angles prior to 1939.

Table 44 - PRODUCTION OF STRUCTURAL STEEL SHAPES (\*) OF ALL KINDS, 1936-1946

Year	Total	Factory Sales	
	tonnage made	Tonnage sold	Income from sales
	Net tons	Net tons	\$
1936 .....	41,537	40,797	1,835,257
1937 .....	93,279	94,461	4,605,796
1938 .....	65,633	67,730	3,589,905
1939 .....	90,810	91,921	4,554,201
1940 .....	183,728	180,278	8,667,678
1941 .....	189,783	193,251	9,600,490
1942 .....	184,701	191,319	10,540,658
1943 .....	146,965	151,674	8,802,273
1944 .....	155,908	159,241	9,380,379
1945 .....	191,907	190,050	10,399,503
1946 .....	131,894	131,900	7,697,043

(\*) Includes light angles since 1939.

Table 45 - PRODUCTION AND FACTORY SALES OF STEEL PLATES, 1939-1946

Year	Total	Factory Sales	
	tonnage made	Tonnage sold	Income from sales
	Net tons	Net tons	\$
1939 .....	75,655	76,189	3,770,927
1940 .....	82,481	83,392	4,338,799
1941 .....	194,647	191,620	13,161,884
1942 .....	391,887	385,314	30,095,754
1943 .....	395,298	391,202	27,919,833
1944 .....	390,343	389,671	26,566,575
1945 .....	282,592	275,674	16,687,112
1946 .....	170,043	165,356	9,480,384

## DIRECTORY OF FIRMS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1946

Name of Firm	Location of Plants
(a) <u>Pig Iron</u>	
Dominion Steel & Coal Corporation, Limited	Sydney, Nova Scotia
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ontario
Canadian Furnace Limited	Port Colborne, Ontario
Steel Company of Canada, Limited	Hamilton, Ontario
(b) <u>Ferro-alloys (*)</u>	
Canadian Furnace, Limited	Port Colborne, Ontario
Chromium Mining & Smelting Corporation, Limited	Sault Ste. Marie, Ontario
Electro Metallurgical Company of Canada, Limited	Welland, Ontario
St. Lawrence Alloys and Metals, Limited	Beauharnois, Quebec
(c) <u>Steel Ingots and Steel Castings</u>	
Maritime Steel and Foundries, Limited	379 Glasgow St., New Glasgow, Nova Scotia
Dominion Steel & Coal Corporation, Limited	Sydney, Nova Scotia
Canadian Brake Shoe & Foundry Company, Limited	101 Belvidere St., Sherbrooke, Quebec
Canadian Car & Foundry Company, Limited	Longue Pointe, Montreal, Quebec
Canadian Tube & Steel Products, Limited	5900 St. Patrick St., Montreal, Quebec
Joliette Steel, Limited	Laval St., Joliette, Quebec
La Compagnie F. X. Drolet	206 rue du Pont, Quebec, Quebec
Lynn MacLeod Metallurgy Limited	Notre Dame St., Thetford Mines, Quebec
Manganese Steel Castings, Limited	Abenakis St., Sherbrooke, Quebec
Shawinigan Chemicals, Limited (Stainless Steel Division)	Shawinigan Falls, Quebec

(\*) Not including the firms which made ferro-alloys as a secondary product.



DIRECTORY OF FIRMS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1946  
(Concluded)

Name of Firm	Location of Plants
<u>(c) Steel Ingots and Steel Castings (Concluded)</u>	
Sorel Industries, Limited	Sorel, Quebec
Sorel Steel Foundries, Limited	7 Limoges St., Sorel, Quebec
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ontario
Atlas Steels, Limited	East Main St., Welland, Ontario
Burlington Steel Company, Limited	Sherman Avenue North, Hamilton, Ontario
Canada Electric Castings, Limited	West St., Orillia, Ontario
Dominion Foundries & Steel, Limited	Depew St., Hamilton, Ontario
Fahralloy, Canada, Limited	Barrie Road, Orillia, Ontario
Federal Foundries and Steel Co., Limited	London, Ontario
Ford Motor Company of Canada, Limited	Windsor, Ontario
Kennedy & Sons, Limited, The Wm.	Second Avenue West, Owen Sound, Ontario
Steel Company of Canada, Limited	Wilcox St., Hamilton, Ontario
Welland Electric Steel Foundry Limited	123 Victoria St., Welland, Ontario
Manitoba Rolling Mill Company, Limited	Selkirk, Manitoba
Manitoba Steel Foundries, Limited	Selkirk, Manitoba
Vulcan Iron Works, Limited	Pt. Douglas Ave., Winnipeg, Manitoba
Foothills Steel Foundry & Iron Works	1439 17th Ave. East, Calgary, Alberta
Riverside Iron Works, Limited	803 24th Ave. S.E., Calgary, Alta.
Britannia Mining and Smelting Company, Limited	Britannia Beach, British Columbia
Consolidated Mining & Smelting Company of Canada, Limited	Tadanac, British Columbia
Reliance Foundry Company, Limited	149 Fourth Avenue West, Vancouver, British Columbia
Vancouver Engineering Works, Limited	519 Sixth Avenue West, Vancouver, British Columbia
Westland Iron and Steel Foundries, Limited	1395 Franklin St., Vancouver, British Columbia
A-1 Steel & Iron Foundry Ltd.	29 West 3rd Ave., Vancouver, British Columbia
Victoria Machinery Depot Co. Ltd.	33 Dallas Road, Victoria, British Columbia
<u>(d) Hot Rolled Iron and Steel</u>	
Canadian Car & Foundry Company, Limited	Amherst, Nova Scotia
Dominion Steel & Coal Corporation, Limited	Sydney, Nova Scotia
Canadian Tube & Steel Products, Limited	5900 St. Patrick St., Montreal, Quebec
Pack Rolling Mills, Limited	851 Mill St., Montreal, Quebec
Steel Company of Canada, Limited	Notre Dame St. West, Montreal, Quebec
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ontario
Atlas Steels, Limited	Welland, Ontario
Burlington Steel Company, Limited	Sherman Avenue North, Hamilton, Ontario
Dominion Foundries & Steel, Limited	Depew Street, Hamilton, Ontario
Federal Foundries & Steel Company Limited	529 Philip St., London, Ontario
Steel Company of Canada, Limited	Queen St. North, Hamilton, Ontario
Steel Company of Canada, Limited	Wilcox St., Hamilton, Ontario
Manitoba Rolling Mill Company, Limited	Selkirk, Manitoba
<u>(e) Cold Rolled Steel</u>	
Stanley Steel Company, Limited	57 Gerrard St., Hamilton, Ontario
<u>(f) Cold Drawn Steel</u>	
Canadian Drawn Steel Company, Limited	Gerrard St., Hamilton, Ontario
Union Drawn Steel Company, Limited	Victoria Avenue South, Hamilton, Ontario

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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