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

1935

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

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ANNUAL INDUSTRY REPORT

IRON AND STEEL AND THEIR PRODUCTS GROUP

THE PRIMARY IRON AND STEEL INDUSTRY, 1935.

Statistics for the primary iron and steel industry cover the operations of plants engaged chiefly in the manufacture of (a) pig iron, (b) ferro-alloys, (c) steel ingots and direct steel castings, (d) rolled and drawn iron and steel products such as bars, plates, sheets, strips, rails, wire rods, structural shapes, etc. Thirty-eight firms were included in this industry in 1935 and reports were received for 53 different plants or departments including 4 blast furnace departments, 3 ferro-alloy plants, 30 steel furnace divisions and 16 rolling or drawing mills.

Factory sales of pig iron, steel, ferro-alloys and rolled products were nearly 33 per cent higher in 1935 than in 1934, the values being $38,700,961 and $29,101,463, respectively. The 24 works in Ontario reported sales at $25,268,288 or 65 per cent of the total for Canada; 6 works in Nova Scotia accounted for $7,987,949 or 20 per cent, and 13 plants in Quebec had total sales worth $4,155,782 or 11 per cent of the total. There were also 4 operating plants in Manitoba, 1 in Alberta and 5 in British Columbia.

Capital employed in 1935 was reported at $86,465,290, of which $63,011,795 represented the value of land, buildings and plant equipment, $16,141,507 was the value placed on materials on hand and in process, and finished products on hand, and $7,312,188 was the total of operating capital such as cash, bills receivable, etc., as at the end of the year. The total for Ontario was $53,889,173; for Nova Scotia, $19,233,969; for Quebec, $11,262,923; for Manitoba, $1,723,715; and for Alberta and British Columbia $355,710.

The average number of employees in the primary iron and steel plants was 9,523 in 1935 compared with 7,400 in 1934. About 680 workers were employed in blast furnace departments, 293 in ferro-alloy plants, 3,150 on steel furnaces, and 5,400 in rolling mills. About 61 per cent, or 5,682 of these workers were employed in Ontario, 1,791 in Quebec, 1,630 in Nova Scotia, 304 in Manitoba and 116 in Alberta and British Columbia.

Payments in salaries and wages amounted to $12,279,390 in 1935, an increase of 36 per cent over the total of $9,009,512 for 1934. The average wage per wage-earner was $1,246 in 1935 compared with $1,136 in 1934.

Expenditures for fuel and electricity totalled $4,845,559 in 1935 compared with $3,969,136 in the previous year. Electricity alone cost $1,542,399 in 1935 and $1,148,554 in 1934.

(a) PIG IRON - Production of pig iron increased by 48 per cent in 1935 to 599,875 long tons as compared with 404,995 in 1934 and 227,317 tons in 1933. Output of basic iron was given at 468,244 or 78 per cent of the total; malleable iron amounted to 69,337 tons and the foundry grade to 62,294 tons.

Sales of pig iron by the producers totalled 131,749 tons at $2,650,990 in 1935 as against 97,440 tons at $1,856,284 in the previous year. Transfers of pig iron to the other departments of the producing companies amounted to 445,165 tons or 26 per cent more than in 1934.

Imports of pig iron during 1935 advanced to 8,920 long tons from 6,419 tons in 1934 and exports advanced to 13,759 tons from 9,221 tons. Stocks held by the producers advanced to 87,346 tons at the end of 1935 from 65,637 tons at the close of 1934. The apparent consumption of pig iron during the year, as computed from production, imports and changes in stocks, amounted to 573,327 tons compared with 446,063 tons during 1934.

Charges to furnaces in 1935 included 1,039,234 long tons of iron ore, 55,269 long tons of mill cinder, etc., 30,714 long tons of scrap, 577,355 short tons of coke, and 278,469 short tons of limestone.

The four producers of pig iron in Canada have 10 blast furnaces available for use which, if operated at capacity, could produce 1.43 million tons of pig iron per year. Actual production in 1935 at 599,875 tons was about 42 per cent of the rated capacity.

Iron furnaces in blast in January represented 34 per cent of the capacity; this percentage advanced to 37 for the months February, March, April and May; increased again to 45 for the period June to October, inclusive. In November the year's high of 52 was reached, and in December, the percentage dropped to 45 again.

Only 5 of the 10 furnaces were used during the year.

(b) FERRO-ALLOYS - Production of ferro-alloys during 1935 amounted to 56,616 long tons compared with 31,921 tons in 1934 and 30,133 tons in 1933.

In 1935, ferrosilicon was produced by 6 different plants. Four concerns recovered small tonnages of ferrosilicon as a by-product from the manufacture of fused alumina, another company made 50%, 75%, and 90% grades of ferrosilicon and a little ferrochrome, and another concern made 15%, 50%, 75%, 85%, and 90% grades of ferrosilicon, some ferrochrome, and large tonnages of ferromanganese and spiegeleisen. One of the pig iron producers made occasional runs of spiegeleisen in their blast furnace, and a chemical manufacturer made some ferrophosphorus.

Imports of ferro-alloys totalled 2,154 long tons at $273,146 in 1935 as against 1,226 tons at $247,783 in 1933.

(c) STEEL INGOTS AND CASTINGS - Steel production advanced 24 per cent in 1935 to 941,527 long tons from 757,782 tons in 1934. The 1935 output included 909,186 tons of ingots and 32,341 tons of castings. Practically all of the ingots were transferred to the producers' own rolling mills, while nearly all of the castings were made for sale. The sales of ingots and castings amounted to 35,392 tons at $4,196,922 compared with 20,139 tons at $3,228,451 in the previous year. Transfers to the producers' own works were reported at 912,075 tons as against 737,477 tons in 1934.

Inventories of steel on December 31, 1935, were reported at 20,964 tons of ingots and 2,390 tons of castings, a total of 23,354 tons.

Thirty steel plants were in operation during 1935. Four of these works operated basic open hearth furnaces only, 22 used electric furnaces only, 2 used both basic open hearth and electric furnaces and 2 used only converters. Six plants made basic open hearth steel ingots, 5 made electric ingots, 21 made electric steel castings, 3 made basic open hearth castings and 2 made converter castings. These plants reported steel furnace equipment as follows: 42 basic open hearth furnaces with a total daily capacity of 5,186 long tons; 4 converters with total capacity of 932 tons, and 37 electric furnaces with a total capacity of 758 tons. Two plants were idle during the year, 1 electric furnace in Ontario and 1 basic open hearth furnace in Alberta, with a combined capacity of about 87 tons of steel per day.

(d) ROLLED AND DRAWN STEEL - In 1935 there were 13 hot rolling mills in operation, 1 cold rolling plant and 2 works for making cold drawn shapes. Nine of these mills were in Ontario, 3 in Quebec, 3 in Nova Scotia, and 1 in Manitoba.

The value of sales from these rolling mills was reported at $29,980,003, an increase of 30 per cent over the corresponding total of $23,035,746 for 1934. Merchant bars were worth $7,195,199; plates, sheets, strips and sheet piling, $6,124,505; rails, $4,484,594; blooms, billets and slabs, $1,899,030; cold rolled and cold drawn shapes, $1,402,950; bars for reinforcing concrete, $1,597,280; structural shapes, $1,762,205; wire rods, $2,412,244; and railway tie plates, $944,342. Horseshoes, railway spikes, forgings and miscellaneous rolled products made up the remainder of the output.

About 1,031,000 long tons of iron and steel passed through the mills in 1935 and 950,000 tons of this came from the producers' own works.

Imports of rolling mill products were valued at $24,573,577 in 1935 compared with $20,801,030 in 1934. Shipments from the United Kingdom were worth $12,102,715 and the purchases from the United States were appraised at $11,538,552.

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Table 1 - PROVINCIAL DISTRIBUTION OF ACTIVE PLANTS IN THE PRIMARY IRON AND STEEL INDUSTRY, 1935.

Provinces	No. of firms	PIG IRON		STEEL INGOTS AND CASTINGS		Rolling mills (a)	Ferro-alloys
		No. of plants	No. of blast furnaces	(x) No. of plants	No. of steel furnaces (x)		
Nova Scotia	4	1	3	2	13	3	...
Quebec	12	...	...	10	17	3	...
Ontario	15	3	7	9	38	9	3
Manitoba	3	...	...	3	4	1	...
Alberta	1	...	...	1	1	...	...
British Columbia	5	...	...	5	8	...	...
CANADA	38	4	10	30	81	16	3

(x) Not including 1 plant in Ontario and 1 in Alberta (1 furnace each) which were idle in 1935.

(a) Not including 1 plant in Ontario, 1 in Quebec, and 1 in Alberta, which were idle in 1935.

Table 2 - PRINCIPAL STATISTICS OF THE PRIMARY IRON AND STEEL INDUSTRY, 1929 - 1935.

Years	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	(x) Cost of materials at works	Selling (x) value of products at works
		$		$	$	$	$
1929	45	109,446,529	11,218	18,534,681	6,691,961	32,514,596	72,231,995
1930	49	112,079,926	9,723	14,934,325	5,182,136	22,765,648	52,588,935
1931	53	104,512,104	8,026	11,072,054	3,757,243	15,291,414	36,911,245
1932	52	96,323,629	4,847	6,131,057	2,367,122	6,289,483	16,197,526
1933	50	96,444,846	5,200	6,049,189	2,699,837	7,598,931	18,492,549
1934	51	90,079,004	7,400	9,009,512	3,969,136	12,673,398	29,101,463
1935 -							
Nova Scotia	6	19,233,969	1,630	2,161,043	1,186,315	4,481,459	7,987,949
Quebec	13	11,262,923	1,791	1,673,754	516,560	1,552,773	4,155,782
Ontario	24	53,889,173	5,682	7,948,325	2,967,598	12,175,025	25,268,288
Manitoba	4	1,723,715	304	375,631	147,175	268,644	1,040,316
Alberta - 1) Br. Columbia 5)		355,710	116	120,637	27,911	61,171	248,626
CANADA	53	86,465,490	9,523	12,279,390	4,845,559	18,539,072	38,700,961

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

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1934 and 1935.

Provinces	No. of plants	Present value of lands, buildings, machinery, tools and other equipment	Inventory value of materials on hand, stocks in process, fuel and finished products on hand	Operating capital (cash, bills and accounts receivable, prepaid expenses, etc.)	TOTAL CAPITAL EMPLOYED
		$	$	$	$
1934					
Nova Scotia	6	13,545,541	3,249,070	2,178,907	18,973,518
Quebec	13	8,689,489	1,390,644	906,673	10,986,806
Ontario	22	44,249,836	8,817,863	4,735,605	57,803,304
Manitoba	4	1,053,693	423,149	199,421	1,676,263
Alberta - 2) Br. Columbia 4)		467,155	131,958	40,000	639,113
CANADA	51	68,005,714	14,012,684	8,060,606	90,079,004
1935					
Nova Scotia	6	13,700,847	4,262,884	1,270,238	19,233,969
Quebec	13	8,665,343	1,690,299	907,281	11,262,923
Ontario	24	39,619,932	9,608,569	4,660,672	53,889,173
Manitoba	4	825,116	505,653	392,946	1,723,715
Alberta - 1) Br. Columbia 5)		200,557	74,102	81,051	355,710
CANADA	53	63,011,795	16,141,507	7,312,188	86,465,290

Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1934 and 1935.

Provinces	On Salaries Male No.	On Salaries Female No.	On Wages Male No.	On Wages Female No.	TOTAL EMPLOYEES No.	Salaries $	Wages $	TOTAL SALARIES AND WAGES $
1 9 3 4								
Nova Scotia	44	4	1,235	14	1,297	83,384	1,525,970	1,609,354
Quebec	114	20	1,317	5	1,456	235,131	988,310	1,223,441
Ontario	296	69	3,938	3	4,306	865,696	4,966,887	5,832,583
Manitoba	27	3	252	1	283	74,113	212,248	286,361
Alberta and Br. Columbia	9	...	49	...	58	11,296	46,477	57,773
CANADA	490	96	6,791	23	7,400	1,269,620	7,739,892	9,009,512
1 9 3 5								
Nova Scotia	43	4	1,565	18	1,630	90,289	2,070,754	2,161,043
Quebec	166	32	1,588	5	1,791	379,923	1,293,831	1,673,754
Ontario	451	85	5,140	6	5,682	860,019	7,088,306	7,948,325
Manitoba	26	3	274	1	304	81,478	294,153	375,631
Alberta and Br. Columbia	20	1	95	...	116	29,684	90,953	120,637
CANADA	706	125	8,662	30	9,523	1,441,393	10,837,997	12,279,390

Table 5 - FUEL AND ELECTRICITY USED, 1934 and 1935.

Kinds	Unit of measure	1 9 3 4 Quantity	1 9 3 4 Cost at works $	1 9 3 5 Quantity	1 9 3 5 Cost at works $
Bituminous coal - Canadian	short ton	147,019	559,865	178,575	736,966
Imported	short ton	82,453	387,731	90,794	442,773
Anthracite coal	short ton	6,401	63,841	17	199
Coke (for fuel only)	short ton	82,258	207,980	70,214	165,707
Gasoline	Imp. gal.	820	198	68,649	10,699
Kerosene or coal oil	Imp. gal.	2,530	427	5,996	957
Fuel oil	Imp. gal.	4,600,466	300,647	8,395,446	503,172
Wood	cord	108	601	139	757
Gas - Manufactured (x)	M cu. ft.	21,242,831	1,157,764	28,977,699	1,364,700
Natural	M cu. ft.	7,663	4,323	10,472	5,773
Other fuel	xxx	...	137,205	...	71,457
Electricity purchased	K. W. H.	193,689,995	1,148,554	318,650,030	1,542,399
TOTAL	xxx	...	3,969,136	...	4,845,559
Electricity generated for own use	K. W. H.	1,840,000	...	1,573,000	...

(x) Includes blast furnace gas which was used in rolling mills, etc.

Table 6 - POWER EQUIPMENT, 1934 and 1935.

Kinds	1 9 3 4 Number of units	1 9 3 4 Total rated horse power	1 9 3 5 Number of units	1 9 3 5 Total rated horse power
Steam engines and steam turbines	149	89,701	199	95,889
Gasoline, gas and oil engines	13	19,610	13	19,610
Hydraulic turbines or water wheels	4	1,300	4	1,300
Total Primary	166	110,611	216	116,799
Electric motors operated by purchased power	2,517	110,834	2,960	128,371
TOTAL	2,683	221,445	3,176	245,170
Electric motors operated by power generated in the same plant	1,125	49,040	1,075	33,049
TOTAL ELECTRIC MOTORS	3,642	159,874	4,035	161,420
Boilers	195	59,594	195	54,659

(a) PIG IRON

Table 7 - MATERIALS CHARGED TO IRON BLAST FURNACES, 1934 and 1935.

Materials	1934 Quantity	1934 Cost at furnace	1935 Quantity	1935 Cost at furnace
		$		$
Foreign iron ore .....long tons	718,237	2,513,465	1,039,234	3,528,011
Mill cinder, scale, etc. .....long tons	37,043	78,139	55,269	107,687
Scrap (net charge) .....long tons	12,461	108,966	30,714	300,131
Limestone -				
From Canadian quarries .....short tons	69,318	84,675	94,818	117,771
From foreign sources .....short tons	139,786	155,587	183,651	179,853
Coke made in Canada -				
From Canadian coal .....short tons	155,085	879,223	239,312	1,352,244
From imported coal .....short tons	215,462	1,005,930	281,359	1,420,234
Imported coke .....short tons	44,915	285,941	56,684	364,003
Other materials xxx	...	48,233	...	110,684
TOTAL xxx	...	5,160,159	...	7,480,618

Table 8 - PRODUCTION OF PIG IRON AND SALES BY THE PRODUCERS, 1934 and 1935.

Grades	Total tonnage made	Tonnage shipped to producers' own plants	SALES Quantity	SALES Selling value at works
	Long tons	Long tons	Long tons	$
1934				
Basic	310,631	347,109	8,898	176,271
Foundry	50,923	1,596	54,422	1,023,474
Malleable	43,441	2,201	34,120	656,539
TOTAL	404,995	350,906	97,440	1,856,284
1935				
Basic	468,244	431,435	15,968	332,658
Foundry	62,294	4,016	60,414	1,212,396
Malleable	69,337	9,714	55,367	1,105,936
TOTAL	599,875	445,165	131,749	2,650,990

Table 9 - PRODUCTION OF PIG IRON, BY GRADES, 1927 - 1935 (Long tons)

Years	Basic	Foundry	Malleable	TOTAL
1927	523,701	145,787	40,209	709,697
1928	724,559	233,386	79,782	1,037,727
1929	770,478	221,644	88,038	1,080,160
1930	494,231	193,074	59,873	747,178
1931	311,850	80,892	27,296	420,038
1932	105,058	25,246	13,826	144,130
1933	189,428	22,333	15,556	227,317
1934	310,631	50,923	43,441	404,995
1935	468,244	62,294	69,337	599,875

Table 10 - PRODUCTION OF PIG IRON, BY PROVINCES, 1927 - 1935. (Long tons)

Years	Nova Scotia	Ontario	TOTAL
1927	249,549	460,148	709,697
1928	302,756	734,971	1,037,727
1929	310,801	769,359	1,080,160
1930	212,636	534,542	747,178
1931	101,393	318,645	420,038
1932	30,697	113,433	144,130
1933	118,514	108,803	227,317
1934	133,360	271,635	404,995
1935	208,002	391,873	599,875

Table 11 - PRODUCTION OF PIG IRON, BY MONTHS, 1929 - 1935. (Long tons)

Months	1929	1930	1931	1932	1933	1934	1935
January	87,764	87,079	35,592	10,305	20,209	30,677	44,416
February	93,939	70,600	46,395	10,507	6,144	12,199	37,259
March	86,176	74,582	57,110	17,989	...	12,101	44,727
April	79,341	72,339	53,792	16,898	...	27,355	43,388
May	81,464	80,505	50,511	13,339	...	38,189	45,432
June	89,873	66,081	55,822	8,163	857	37,306	44,555
July	99,786	64,676	40,303	7,317	31,689	36,759	50,513
August	112,528	57,459	23,212	5,992	35,233	41,485	54,414
September	98,816	49,395	17,585	5,709	30,738	43,019	54,360
October	91,409	40,079	11,562	6,731	27,002	46,573	45,521
November	86,516	46,360	14,292	14,149	29,592	38,968	64,562
December	72,548	38,023	13,862	27,031	36,853	40,364	70,728
TOTAL	1,080,160	747,178	420,038	144,130	227,317	404,995	599,875

Table 12 - PRODUCTION OF PIG IRON, BY GRADES AND BY METHOD OF CASTING OR DELIVERY, 1934 and 1935. (Long tons)

Grades	Delivered in molten condition	Machine cast	TOTAL
1934			
Basic	242,984	67,647	310,631
Foundry	1,057	49,866	50,923
Malleable	1,639	41,802	43,441
TOTAL	245,680	159,315	404,995
1935			
Basic	352,722	115,522	468,244
Foundry	2,025	60,269	62,294
Malleable	3,194	66,143	69,337
TOTAL	357,941	241,934	599,875

Table 13 - SALES OF PIG IRON BY THE PRODUCERS AND SHIPMENTS TO OWN WORKS, 1927 - 1935.
(Long tons)

Years	Tonnage shipped to producers' own plants	S A L E S	
		Tonnage sold	Income from sales
			$
1927	521,638	202,848	4,250,792
1928	706,700	258,479	5,085,091
1929	753,889	324,759	6,544,645
1930	510,604	215,304	4,123,562
1931	316,447	139,620	2,613,511
1932	89,256	55,440	1,088,532
1933	154,239	76,507	1,402,903
1934	350,906	97,440	1,856,284
1935	445,165	131,749	2,650,990

Table 14 - IRON ORE, FUEL AND FLUX CHARGED TO IRON BLAST FURNACES, 1927 - 1935.

Years	Imported iron ore	Mill cinder, scale, etc.	Scrap	Coke	Limestone
	Long tons	Long tons	Long tons	Short tons	Short tons
1927	1,263,990	77,826	43,120	798,803	407,403
1928	1,801,687	127,353	55,588	1,121,864	566,170
1929	1,924,579	120,779	61,955	1,171,171	559,032
1930	1,328,929	94,766	35,909	796,040	401,688
1931	745,951	56,525	16,272	448,845	224,786
1932	253,337	16,297	7,071	155,932	77,086
1933	400,290	17,992	10,879	247,974	132,235
1934	718,237	37,043	12,461	415,462	209,104
1935	1,039,234	55,269	30,714	577,355	278,469

Table 15 - IMPORTS INTO CANADA AND EXPORTS OF PIG IRON, 1927 - 1935.

Years	I M P O R T S		E X P O R T S	
	Long tons	$	Long tons	$
1927	40,922	781,832	344	7,752
1928	43,307	791,733	1,043	20,642
1929	32,548	624,891	7,478	151,967
1930	13,643	270,157	593	12,653
1931	7,912	148,951	2,787	55,183
1932	4,753	78,845	2,029	38,816
1933	2,459	43,298	11,903	214,195
1934	6,419	108,300	9,221	176,093
1935	8,920	143,726	13,759	287,396

Table 16 - STOCKS OF PIG IRON HELD BY PRODUCERS IN CANADA, 1931 - 1935.

Years	Long tons
1931	128,222
1932	113,739
1933	109,507
1934	65,637
1935	87,346

Table 17 - APPARENT CONSUMPTION OF PIG IRON IN CANADA, 1927 - 1935.

Years	Production	Add Imports	Deduct Exports	Add or deduct changes in stock	Apparent Consumption
			(Long tons)		
1927	709,697	40,922	344	Not	750,275
1928	1,037,727	43,307	1,043		1,079,991
1929	1,080,160	32,548	7,478	avail-	1,105,230
1930	747,178	13,643	593		760,228
1931	420,038	7,912	2,787	able	425,163
1932	144,130	4,753	2,029	+ 14,483	161,337
1933	227,317	2,459	11,903	+ 4,232	213,641
1934	404,995	6,419	9,221	+ 43,870	446,063
1935	599,875	8,920	13,759	- 21,709	573,327

Table 18 - CONSUMPTION OF PIG IRON IN CANADA, BY INDUSTRIES AND BY PROVINCES, 1929 - 1934

	1929	1930	1931	1932	1933	1934
			(Long tons)			
(a) By Industries						
Steel ingots and castings	761,878	528,562	328,063	106,951	156,962	352,346
Castings and forgings	200,323	149,012	114,670	55,429	37,300	52,938
Boilers, tanks and engines	1,492	1,404	657	744	3,156	6,579
Agricultural implements	48,821	26,589	11,704	4,427	4,974	6,750
Machinery	32,483	24,836	8,837	4,913	4,091	6,608
Automobiles	...	...	...	...	...	...
Automobile parts	3,823	2,718	35	1,823	2,000	4,105
Railway rolling stock	32,932	23,601	14,433	6,855	7,653	13,530
Brass and copper	...	...	...	...	...	917
Sheet metal products	11,480	272	6	...	...	...
Hardware and tools	2,504	1,713	1,130	908	872	1,418
Miscellaneous iron and steel	1,013	737	168	272	220	242
Electrical apparatus and supplies	4,982	2,862	1,585	546	427	876
TOTAL	1,101,731	754,306	481,288	182,868	217,655	446,309
(b) By Provinces						
Prince Edward Island	56	60	50	42	30	30
Nova Scotia	297,508	213,011	122,152	28,569	85,854	171,680
New Brunswick	2,258	1,677	1,287	689	971	1,926
Quebec	72,293	56,291	39,661	19,336	11,356	17,733
Ontario	712,242	478,284	315,221	132,181	117,934	253,255
Manitoba	11,549	2,761	1,415	1,274	822	880
Saskatchewan	2,000	...	...	...	...	...
Alberta	1,094	187	120	108	73	100
British Columbia	2,731	2,035	1,382	669	615	705
CANADA	1,101,731	754,306	481,288	182,868	217,655	446,309

Table 19 - BLAST FURNACES IN CANADA, 1935.

Names of companies	Location of plants	Number of stacks	Total daily capacity (24 hours)	Number of days in blast 1934	1935
Dominion Steel and Coal Corporation Ltd.	Sydney, N.S.	1	350	...	62
		1	300	...	...
		1	550	262	365
TOTAL		3	1,200	...	...
Canadian Furnace Co. Ltd.	Port Colborne, Ont.	1	300	205	238
The Steel Co. of Canada, Ltd.	Hamilton, Ont.	1	275	44	...
		1	550	278	365
TOTAL		2	825	...	...
Algoma Steel Corp. Ltd.	Sault Ste. Marie, Ont.	1	300	...	...
		1	300	...	...
		1	450	203	326
		1	550	...	...
TOTAL		4	1,600	...	...
TOTAL FOR CANADA		10	3,925	...	...

(b) FERRO-ALLOYS

Table 20 - PRODUCTION OF FERRO-ALLOYS, 1927 - 1935.

Years	Long tons	Years	Long tons
1927	56,230	1932	16,161
1928	44,842	1933	30,133
1929	89,116	1934	31,921
1930	65,223	1935	56,616
1931	46,764		

Table 21 - PRODUCERS OF FERRO-ALLOYS IN CANADA, 1935.

Names of Companies	Plant locations	Ferro-alloys made
Abrasive Co. of Canada, Ltd.	Hamilton, Ont.	Ferrosilicon
Canadian Carborundum Co. Ltd.	Niagara Falls, Ont.	Ferrosilicon
Electro Metallurgical Co. of Canada, Ltd.	Welland, Ont.	Ferromanganese, ferrosilicon, spiegeleisen, ferrochrome, silicospiegel and silicomanganese
Canadian Furnace Co. Ltd.	Port Colborne, Ont.	Spiegeleisen
Lionite Abrasives Ltd.	Stamford, Ont.	Ferrosilicon
Electric Reduction Co. Ltd.	Buckingham, P. Q.	Ferrophosphorus
Exolon Company	Thorold, Ont.	Ferrosilicon
Chromium Mining & Smelting Company of Canada, Ltd.	Sault Ste. Marie, Ont.	Ferrosilicon and ferrochrome

(c) STEEL INGOTS AND DIRECT STEEL CASTINGS.

Table 22 - MATERIALS USED IN STEEL FURNACES, 1934 and 1935.

Materials	1934 Quantity	1934 Cost of purchased materials	1935 Quantity	1935 Cost of purchased materials
	Long tons	$	Long tons	$
(a) Metals:-				
Pig iron - Own make	349,137	...	441,982	...
Purchased	3,209	65,216	4,289	94,827
Spiegeleisen and ferromanganese	6,771	345,683	10,733	449,155
Ferrosilicon	2,954	137,743	3,867	185,140
Other ferro-alloys	1,087	252,633	...	283,412
Scrap iron and steel - Own make	193,370	...	290,462	...
Purchased	287,309	3,029,549	430,763	4,454,080
Metals for making alloy steel (nickel, etc.)	...	71,141	...	109,062
TOTAL METALS	...	3,901,965	...	5,575,676
(b) Ores:-				
Crude iron ore -				
Foreign	33,739	197,087	49,717	265,439
Calcined, roasted, or treated ore -				
Foreign	220	3,644	181	2,473
Manganiferous ore -				
Foreign	751	12,235	414	6,632
Chrome, etc. -				
Foreign	134	3,892	208	6,269
TOTAL ORES	34,844	216,858	50,520	280,813
	Short tons		Short tons	
(c) General Materials:-				
Limestone -				
Canadian	31,103(x)	96,454(x)	32,898	52,889
Foreign	46,712	51,026	58,514	55,102
Fluorspar	4,555	55,643	5,859	73,047
Dolomite	14,748	69,104	18,394	79,914
Magnesite	2,733	105,072	3,891	149,987
Coke made from Canadian coal	472	4,683	863	8,832
Coke made in Canada from imported coal	404	1,150	354	1,777
Imported coke	1,321	17,541	1,529	18,081
Anthracite coal	547	4,801	256	2,106
Bituminous coal	100	802	264	2,116
Charcoal	80	2,156	159	3,922
Electrodes	...	94,125	...	144,580
Moulding sands	14,199	73,424	20,339	105,592
Firebrick	...	49,386	...	259,012
Fireclay	3,005	26,393	4,345	40,949
Other materials	...	319,296	...	432,625
TOTAL GENERAL MATERIALS	...	971,056	...	1,430,531
TOTAL VALUE OF METALS, ORES AND GENERAL MATERIALS USED	...	5,089,879	...	7,287,020

(x) Includes burned lime.

Table 23 - PRODUCTION OF STEEL INGOTS AND DIRECT CASTINGS AND SALES BY THE PRODUCERS, 1934 and 1935

Grades	Total tonnage made	Tonnage shipped to producers' own plants	SALES	
			Quantity	Income from sales
	Long tons	Long tons	Long tons	$
1934				
Steel Ingots -				
Basic open hearth	713,227	713,226	267	7,970
Electric	23,891	23,551	340	7,922
Direct Steel Castings -				
Basic	6,457	669	4,969	745,937
Bessemer, including all converters	507	...	541	100,016
Electric	13,700	31	14,022	2,366,606
TOTAL	757,782	737,477	20,139	3,228,451
1935				
Steel Ingots -				
Basic open hearth	872,444	871,614	591	18,469
Electric	36,742	35,417	45	4,052
Direct Steel Castings -				
Basic	9,119	1,640	6,281	927,561
Bessemer, including all converters	645	..	665	121,168
Electric	22,577	3,404	27,810	3,125,672
TOTAL	941,527	912,075	35,392	4,196,922

Table 24 - PRODUCTION OF STEEL INGOTS AND DIRECT STEEL CASTINGS, BY GRADES, 1927 - 1935.

Years	STEEL INGOTS		DIRECT STEEL CASTINGS			Total steel ingots and castings
	Open hearth	Electric	Open hearth	Converter	Electric	
	(Long tons)					
1927	868,440	134	17,569	2,191	19,611	907,945
1928	1,189,399	602	20,109	2,019	22,590	1,234,719
1929	1,295,162	14,444	35,806	2,590	30,022	1,378,024
1930	925,427	30,051	24,772	2,314	27,014	1,009,578
1931	612,437	25,017	14,760	590	19,305	672,109
1932	308,700	19,670	2,616	846	7,514	339,346
1933	378,666	15,393	5,017	288	10,615	409,979
1934	713,227	23,891	6,457	507	13,700	757,782
1935	872,444	36,742	9,119	645	22,577	941,527

Table 25 - PRODUCTION OF STEEL INGOTS AND DIRECT CASTINGS, BY MONTHS, 1929 - 1935.
(Long tons)

Months	1929	1930	1931	1932	1933	1934	1935
January	116,260	115,200	57,598	25,060	40,766	60,787	59,526
February	117,445	106,612	82,637	28,469	12,374	57,999	56,006
March	137,158	117,487	99,341	43,572	11,212	72,923	57,840
April	122,102	102,681	91,461	36,030	11,384	70,363	68,530
May	126,372	99,312	75,235	29,239	23,126	71,437	72,811
June	119,505	95,321	55,605	18,118	31,602	64,013	73,450
July	129,827	68,424	45,097	27,506	49,076	66,647	86,101
August	120,282	57,626	52,491	26,710	48,659	63,504	82,488
September	99,000	55,808	33,390	23,139	38,630	57,489	90,952
October	115,674	65,431	30,926	17,102	48,496	57,975	95,016
November	93,648	71,740	28,337	37,088	43,099	57,050	94,074
December	80,751	53,936	19,991	27,313	51,555	57,595	104,733
TOTAL	1,378,024	1,009,578	672,109	339,346	409,979	757,782	941,527

Slight errors in monthly production figures have been compensated in December totals.

Table 26 ANNUAL PRODUCTION OF STEEL INGOTS AND DIRECT STEEL CASTINGS, BY PROVINCES, 1927 - 1935 (Long tons)

Years	Nova Scotia	Quebec	Ontario	Manitoba	Alberta	British Columbia	CANADA
1927	297,637	22,297	567,119	20,318	...	574	907,945
1928	391,785	24,583	780,511	36,486	361	995	1,234,719
1929	407,062	42,212	899,911	27,425	298	1,116	1,378,024
1930	296,552	45,171	639,128	19,121	8,377	1,229	1,009,578
1931	172,529	35,834	442,231	14,020	6,685	810	672,109
1932	68,630	19,010	243,047	6,412	1,880	367	339,346
1933	124,134	18,917	257,615	8,509	206	598	409,979
1934	260,825	27,744	457,497	9,912	388	1,416	757,782
1935	298,769	35,076	589,558	16,254	370	1,500	941,527

Table 27 - SALES OF STEEL INGOTS AND DIRECT CASTINGS BY THE PRODUCERS AND SHIPMENTS TO OWN WORKS, 1927 - 1935.

Years	Tonnage shipped to producers own plants	S A L E S	
		Tonnage sold	Income from sales
	Long tons	Long tons	$
1927	783,580	34,287	6,157,084
1928	1,190,933	38,444	7,022,696
1929	1,313,624	61,981	10,283,460
1930	963,143	48,563	8,013,707
1931	641,880	30,831	5,143,495
1932	328,624	11,543	1,913,157
1933	394,236	14,934	2,365,171
1934	737,477	20,139	3,228,451
1935	912,075	35,392	4,196,922

Table 28 STEEL FURNACES IN CANADA, 1935.

Names of Companies and Location of Furnaces	FURNACES		
	Type	Number	Total Daily Capacity (Long tons)
J. W. Cumming Manufacturing Co. Ltd., New Glasgow, N. S.	Electric (Heroult)	1	16 - 20
Dominion Steel & Coal Corp. Ltd., Sydney, N. S.	Basic open hearth	12	1, 190
Canadian Brake Shoe & Foundry Co. Ltd., Sherbrooke, P. Q.	Electric (Heroult)	3	28
Canadian Car & Foundry Co. Ltd., Montreal, P. Q.	(Basic open hearth	3	231
	(Electric	1	24
Canadian Tube & Steel Products Limited, Montreal, P. Q.	Electric (Heroult)	2	110
Hull Iron & Steel Foundries, Ltd., Hull, P. Q.	Electric (Heroult)	1	30
Joliette Steel, Limited, Joliette, P. Q.	Electric (Greaves Etchell)	1	16
La Compagnie F. X. Drolet, Quebec, P. Q.	Converter	1	1
Lynn MacLeod Engineering Supplies, Ltd., Thetford Mines, P. Q.	Electric (Heroult)	1	1

Table 28 - STEEL FURNACES IN CANADA, 1935 (concluded)

Names of Companies and Location of Furnaces	FURNACES		
	Type	Number	Total Daily Capacity (Long tons)
Manganese Steel Castings, Limited, Sherbrooke, P. Q.	Electric (Heroult)	1	4
Shawinigan Chemicals Limited, Shawinigan Falls, P. Q.	Electric (Heroult)	2	27
Sorel Steel Foundries, Limited, Sorel, P.Q.	Electric (Electromelt)	1	10
Algoma Steel Corporation, Limited, Sault Ste. Marie, Ont.	(Basic open hearth	12	1,760
	(Converter (acid)	1	900
Burlington Steel Co. Ltd., Hamilton, Ont.	Electric (Electromelt)	1	48
Canada Electric Castings, Ltd., Orillia, Ont.	Electric (Heroult)	2	22
Canadian Atlas Steels, Ltd., Welland, Ont.	Electric (Heroult)	1	30
Dominion Foundries & Steels Ltd., Hamilton, Ont.	(Basic open hearth	2	280
	(Electric (Heroult)	3	185
Ford Motor Co. of Canada, Ltd., Windsor, Ont.	Electric	2	40
London Rolling Mills Co., Ltd., (x) London, Ont.	Electric (Heroult)	1	32
The William Kennedy & Sons, Limited, Owen Sound, Ont.	Converter	1	15
The Steel Company of Canada, Limited, Hamilton, Ont.	Basic open hearth	10	1,560
Welland Electric Steel Foundry, Welland, Ont.	Electric (Heroult)	3	14
Manitoba Rolling Mill Company, Ltd., Selkirk, Man.	Basic open hearth	2	110
Manitoba Steel Foundries, Limited, Selkirk, Man.	Electric (Moore)	1	36
Vulcan Iron Works, Limited, Winnipeg, Man.	Electric (Moore) (Electromelt)	1	20
Riverside Iron Works, Limited, Calgary, Alberta	Electric	1	4
Manitoba Rolling Mill Company Ltd., (x) Calgary, Alta.	Basic open hearth	1	55
Britannia Mining & Smelting Co., Britannia Beach, B. C.	Electric	1	3
Consolidated Mining & Smelting Co. Ltd., Trail, B. C.	Electric (Greene)	1	3
Reliance Foundry Co. Ltd., Vancouver, B. C.	Electric	2	10
Vancouver Engineering Works, Ltd., Vancouver, B. C.	Converter (acid)	1	16
	Electric (Greaves Etchell)	1	9
Wallace Foundry Co. Ltd., Vancouver, B.C.	Electric (Greene Electric)	2	32

(x) Not operating 1935.

Table 29 - SUMMARY OF STEEL FURNACE CAPACITY IN CANADA, 1935.

Type of furnace	Number of furnaces (x)	Total daily capacity (24 hours) (Long tons)
Basic open hearth	42	5,186
Electric	37	758
Converter	4	932
TOTAL	83	6,876

(x) Including 2 furnaces (1 electric and 1 B. O. H.) in plants which were idle in 1935.

Table 30 - MATERIALS USED IN IRON AND STEEL ROLLING AND DRAWING MILLS, 1934 and 1935.

Materials	1934 Companies' own make	1934 PURCHASED Quantity	1934 PURCHASED Cost at works	1935 Companies' own make	1935 PURCHASED Quantity	1935 PURCHASED Cost at works
	Long tons	Long tons	$	Long tons	Long tons	$
Steel, crude and semi-finished (ingots, blooms, billets, slabs)	767,306	20,684	766,571	943,322	34,088	1,230,403
Rails, old and scrap	739	18,594	219,088	675	20,828	277,608
Axles, scrap	...	2,445	30,251	...	3,646	60,902
Iron muck and scrap bar	1,689	...	...	1,281	...	...
Iron and steel scrap	2,721	284	4,064	2,531	6,043	63,004
Hot rolled steel for cold rolling or drawing	...	13,519	665,389	...	15,487	836,422
All other iron and steel	2,246	679	37,441	2,434	818	47,805
All other materials	...	...	215,451	...	...	310,112
TOTAL	...	...	1,938,255	...	...	2,826,256

Table 31 - PRODUCTS MADE IN THE IRON AND STEEL ROLLING AND DRAWING MILLS, AND SALES BY THE PRODUCERS, 1934 and 1935.

Products	Total tonnage made	Tonnage shipped to producers' own plants	SALES Quantity	SALES Value
	Long tons	Long tons	Long tons	$
1934				
Blooms, billets and slabs (except for forging), sheet and tinplate bars and muck and scrap bar	505,304	432,521	54,771	1,440,318
Rails	96,689	216	88,023	3,660,274
Structural shapes	23,070	560	23,258	1,104,324
Plates and sheets	93,112	22,142	69,729	4,006,712
Merchant bars, including spring steel, alloy steel, tool steel, rounds, squares, flats (6 in. and under) except flats for cold rolling and bars for reinforcing concrete	108,980	14,358	92,289	5,364,110
Bars for reinforcing concrete	24,279	1,776	24,083	1,138,554
Wire rods, including chain rods	175,585	99,089	76,992	2,705,167
Nail, washer, spike and hinge plate	630	602	1	91
Long angle splice bars, long fish plate bars, long tie plate bars and all other long rail joint shape bars	21,440	21,394	...	...
Rolled blooms, billets and axle blanks for forging purposes only, excluding all intended for further rolling	3,133	1,084	2,027	110,118
Spike rods, bolt and nut rods, horseshoe bars, and all other miscellaneous rolled (not forged) forms, not elsewhere specified	10,669	8,168	2,439	139,677

Table 31 - PRODUCTS MADE IN THE IRON AND STEEL ROLLING AND DRAWING MILLS, AND SALES BY THE PRODUCERS, 1934 and 1935, (concluded)

Products	Total tonnage made	Tonnage shipped to producers' own plants	S A L E S	
			Quantity	Value
	Long tons	Long tons	Long tons	$
1 9 3 4 -(concluded)				
Cold rolled and cold drawn steel shapes	12,733	...	12,678	1,152,885
Rail fastenings, finished -				
Tie plates	16,003	3	16,482	834,258
Angle splice bars and fish plates	3,190	4	3,499	224,457
Forgings of iron or steel	4,178	...	3,848	300,383
Scrap iron and steel	1,571	561	1,218	9,708
Other products including bolts, nuts and rivets, railway spikes, horseshoes, etc.	9,325	438	3,184	844,710
TOTAL	...	...	...	23,035,746
1 9 3 5 -				
Blooms, billets and slabs (except for forging), sheet and tinplate bars and muck and scrap bar	667,442	599,750	71,711	1,899,030
Rails	109,198	506	109,240	4,484,594
Structural shapes	34,613	231	35,726	1,762,205
Plates, sheets, strip and finished sheet piling	131,713	17,750	108,312	6,124,505
Merchant bars, including spring steel, alloy steel, tool steel, rounds, squares, flats (6 in. and under) except flats for cold rolling and bars for reinforcing concrete	139,727	16,777	126,047	7,195,199
Bars for reinforcing concrete	37,519	2,622	31,915	1,597,280
Wire rods, including chain rods	183,469	112,767	68,398	2,412,244
Nail, washer, spike and hinge plate	758	666	...	...
Long angle splice bars, long fish plate bars, long tie plate bars and all other long rail joint shape bars	25,857	25,879	11	593
Rolled blooms, billets, and axle blanks for forging purposes only, excluding all intended for further rolling	5,460	1,651	3,305	173,298
Spike rods, bolt and nut rods, horseshoe bars, and all other miscellaneous hot rolled (not forged) forms, not elsewhere specified	14,374	8,590	4,492	239,481
Cold rolled and cold drawn steel shapes	14,968	...	15,120	1,402,950
Rail fastenings, finished -				
Tie plates	18,232	1	18,438	944,342
Angle splice bars and fish plates	5,458	17	5,370	344,711
Forgings of iron or steel	5,097	...	4,287	450,726
Scrap iron and steel	2,020	621	1,578	14,81[illegible]
Other products including railway spikes, bolts, nuts and rivets, horseshoes, etc.	8,256	725	7,703	662,932
TOTAL	...	...	...	29,980,003

Table 32 - LEADING ROLLED IRON AND STEEL PRODUCTS MADE IN CANADA, 1927 - 1935. (Long tons)

Products	Years	Total tonnage	Tonnage shipped to makers' own plants	Tonnage sold
Blooms, billets and slabs (except for forging)	1927	984,627	939,605	49,429
	1928	1,058,321	874,394	80,401
	1929	1,159,045	1,012,912	74,402
	1930	756,778	690,391	60,171
	1931	484,437	483,380	50,499
	1932	220,576	196,434	12,464
	1933	187,372	177,998	8,691
	1934	450,075	378,348	54,771
	1935	594,669	528,722	71,711
Rails	1927	235,683	274	234,521
	1928	349,189	237	349,007
	1929	383,002	194	381,634
	1930	233,432	212	232,414
	1931	140,145	148	135,975
	1932	45,090	22	46,220
	1933	67,835	120	69,052
	1934	96,689	216	88,023
	1935	109,198	506	109,240
Wire rods, including chain rods	1927	115,245	92,896	24,020
	1928	144,309	99,805	45,032
	1929	142,589	111,879	33,632
	1930	108,992	85,867	24,889
	1931	78,133	61,081	18,839
	1932	76,589	49,825	26,668
	1933	88,692	61,422	29,111
	1934	175,585	99,089	76,992
	1935	183,469	112,767	68,398
Merchant bars	1927	186,916	27,533	157,559
	1928	258,773	59,633	208,144
	1929	244,593	36,191	206,605
	1930	164,541	30,666	143,398
	1931	102,247	21,513	87,442
	1932	53,422	7,143	48,439
	1933	56,474	6,949	56,667
	1934	108,980	14,358	92,289
	1935	139,727	16,777	126,047
Bars for reinforcing concrete	1927	34,146	974	32,909
	1928	51,102	3,224	46,005
	1929	59,515	3,700	60,738
	1930	63,153	2,243	64,320
	1931	50,296	1,985	51,280
	1932	20,513	1,218	19,702
	1933	16,400	686	16,019
	1934	24,279	1,776	24,083
	1935	37,519	2,622	31,915

Table 33 - AVERAGE WHOLESALE PRICES FOR PIG IRON, STEEL BILLETS AND CERTAIN ROLLING MILL PRODUCTS, 1934 and 1935.

Commodities	Unit	Average price 1934	Average price 1935
		$	$
Pig iron, No.1 foundry	per gross ton, f.o.b. works	20.46	20.50
Pig iron, malleable	per gross ton, f.o.b. works	19.00	19.00
Pig iron, basic	per gross ton, f.o.b. works	18.00	18.08
Steel billets, mild, 4x4 and larger	per gross ton, f.o.b. works	34.00	34.00
Steel bars, structural grade	per 100 pounds, f.o.b. works	2.15	2.15
Merchant bars, mild steel	per 100 pounds, f.o.b. works	2.25	2.25
Steel rails, open hearth	per gross ton, f.o.b. plant	43.33	43.00
Steel tank plates	per 100 pounds, f.o.b. Pittsburgh	1.76	1.81
Light cold rolled sheets, No. 20, U. S. G.	per 100 pounds, f.o.b. Pittsburgh	2.89	2.97
Galvanized corrugated iron sheets, No. 28, U. S. G.	per 100 sq.ft., f.o.b. destination	4.76	4.85
Hot rolled and annealed steel sheets, No. 24, U. S. G.	per 100 pounds, f.o.b. Montreal	3.38	3.39
Hot rolled and annealed sheets, No. 10, U. S. G.	per 100 pounds, f.o.b. Montreal	3.15	3.23
Mild steel tank plates, 1/4 - 1/8" thickness	per 100 pounds, f.o.b. Montreal	3.15	3.15
Steel sheets, black, No. 10, U.S.G.	per 100 pounds, f.o.b. Montreal	3.38	3.40
Iron boiler plate, ½ inch thickness	per pound net, f.o.b. Montreal	0.04	0.03
Tinplate, standard coke	per box, f.o.b. Montreal, car lots	5.83	6.08
Structural shapes, open hearth	per 100 pounds, f.o.b. works	2.00	2.00

DIRECTORY OF PRODUCERS OF PIG IRON, FERRO-ALLOYS, STEEL INGOTS AND DIRECT STEEL CASTINGS AND ROLLED AND DRAWN STEEL, 1935.

(a) PIG IRON

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

(b) FERRO-ALLOYS

(x) Abrasive Company of Canada, Ltd.	Hamilton, Ont.
(x) Canadian Carborundum Co. Ltd.	Niagara Falls, Ont.
Canadian Furnace Co. Ltd.	Port Colborne, Ont.
Electro Metallurgical Co. of Canada, Ltd.	Welland, Ont.
(x) Exolon Company	Thorold, Ont.
(x) Lionite Abrasives Company	Niagara Falls, Ont.
Chromium Mining and Smelting Co. of Canada, Ltd.	Sault Ste. Marie, Ont.

(x) These firms produce ferrosilicon as a by-product in the manufacture of fused alumina. General statistics covering their operations have not been included in the present report.

DIRECTORY OF PRODUCERS OF PIG IRON, FERRO-ALLOYS, STEEL INGOTS AND DIRECT STEEL CASTINGS AND ROLLED AND DRAWN STEEL, 1935 (continued)

(c) STEEL INGOTS AND DIRECT STEEL CASTINGS

Cumming, J. W., Manufacturing Co. Ltd.	Glasgow St., New Glasgow, N. S.
Dominion Steel & Coal Corporation, Limited	Sydney, N. S.
Canadian Brake Shoe & Foundry Co. Ltd.	101 Belvidere St., Sherbrooke, P. Q.
Canadian Car and Foundry Co., Limited	Longue Pointe, Montreal, P. Q.
Canadian Tube & Steel Products, Limited	5765 Hamilton St., Montreal, P. Q.
Hull Iron & Steel Foundries, Ltd.	207 Montcalm St., Hull, P. Q.
Joliette Steel, Limited	Laval St., Joliette, P. Q.
La Compagnie F. X. Drolet	206 rue du Pont, Quebec, P. Q.
Lynn MacLeod Engineering Supplies Ltd.	Notre Dame St., Thetford Mines, P. Q.
Manganese Steel Castings Limited	Abenaquis St., Sherbrooke, P. Q.
Shawinigan Chemicals Ltd. (Stainless Steel and Alloys Division)	Shawinigan Falls, P. Q.
Sorel Steel Foundries Limited	Limoges St., Sorel, P. Q.
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ont.
Burlington Steel Co. Ltd.	Hamilton, Ont.
Canada Electric Castings Limited	West St., Orillia, Ont.
Canadian Atlas Steels Ltd.	Welland, Ont.
Dominion Foundries & Steel Limited	Depew St., Hamilton, Ont.
Ford Motor Co. of Canada, Ltd.	Windsor, Ont.
Kennedy, William, & Sons, Limited, The	Second Ave. W., Owen Sound, Ont.
London Rolling Mills Co. Ltd. (not operating in 1934 or 1935)	Phillips St., London, Ont.
Welland Electric Steel Foundry	123 Victoria St., Welland, Ont.
Manitoba Rolling Mill Company Limited	Selkirk, Man.
Manitoba Steel Foundries Limited	Selkirk, Man.
Vulcan Iron Works Limited	Pt. Douglas Ave., Winnipeg, Man.
Manitoba Rolling Mill Company Limited (not operating in 1934 or 1935)	East Calgary, Alta.
Riverside Iron Works, Limited	803 24th Ave. S.E., Calgary, Alta.
Britannia Mining and Smelting Co. Ltd.	Britannia Beach, B. C.
Consolidated Mining & Smelting Co. of Canada Ltd.	Trail, B. C.
Steel Company of Canada, Ltd.	Wilcox Ave., Hamilton, Ont.
Reliance Foundry Co. Ltd.	149 Fourth Ave., W., Vancouver, B. C.
Vancouver Engineering Works Ltd.	519 Sixth Ave., W., Vancouver, B. C.
Wallace Foundry Co. Ltd.	Granville Island, Vancouver, B. C.

(d) HOT ROLLED IRON AND STEEL

Canadian Car & Foundry Company Limited	Amherst, N. S.
Dominion Steel & Coal Corporation, Limited	Sydney, N. S.
Nova Scotia Steel & Coal Co. Ltd.	Trenton, N. S.
Canadian Tube & Steel Products Limited	Hamilton St., Montreal, P. Q.
Peck Rolling Mills Ltd.	851 Mill St., Montreal, P. Q.
The Steel Company of Canada, Limited	2320 Notre Dame St. W., Montreal, P. Q.
The Steel Company of Canada, Limited (not operating in 1934 or 1935	1550 St. Patrick St., Montreal, P. Q.
Algoma Steel Corporation Limited	Sault Ste. Marie, Ont.
Burlington Steel Company, Limited	Sherman Ave. N., Hamilton, Ont.
Canadian Atlas Steels Ltd.	Welland, Ont.
Dominion Foundries & Steel Limited	Depew St., Hamilton, Ont.
London Rolling Mills, Limited (not operating in 1934 or 1935)	529 Phillips St., London, Ont.

DIRECTORY OF PRODUCERS OF PIG IRON, FERRO-ALLOYS, STEEL INGOTS AND DIRECT STEEL CASTINGS AND ROLLED AND DRAWN STEEL, 1935.
(concluded)

(d) HOT ROLLED IRON AND STEEL (concluded)

The Steel Company of Canada, Limited	Queen St. N., Hamilton, Ont.
The Steel Company of Canada, Limited	Wilcox Ave., Hamilton, Ont.
Manitoba Rolling Mill Company Limited	Selkirk, Man.
Manitoba Rolling Mill Company Limited (not operating in 1934 or 1935)	East Calgary, Alta.

(e) COLD ROLLED STEEL

Stanley Steel Company Limited	Gerrard St., Hamilton, Ont.

(f) COLD DRAWN STEEL

Canadian Drawn Steel Company Limited	Gerrard St., Hamilton, Ont.
Union Drawn Steel Co. Ltd.	2 Webber Ave., Hamilton, Ont.

NOTE - Detailed statistics of imports and exports of iron and steel products are published annually and quarterly in the Trade of Canada, which may be obtained on application to the Dominion Bureau of Statistics, Ottawa, Canada.