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IRON AND STEEL MILLS

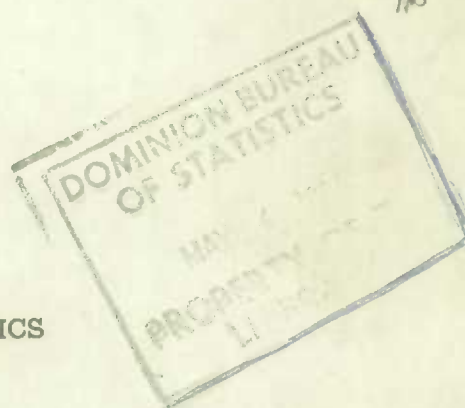
1961

The list of firms normally included in this report has been omitted from this issue, along with certain tables. See introductory text for details.

ANNUAL CENSUS OF MANUFACTURES

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SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.

EXPLANATORY NOTES

This report is one in a series of about 140 publications which present the results of the 1961 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and for major industry groups. Implementation of the new definition of the establishment in the 1961 Census has resulted in certain changes and necessitated some adjustments to the statistics for previous years in order to maintain comparability of the data. (See following note on "Establishment".)

Industry statistics given in these reports refer to number of establishments, employees, salaries and wages, cost of materials, supplies, fuel and electricity, gross value of shipments, inventories and value added by manufacturing. Details of materials used and products shipped are also given. Descriptions of the principal industry statistics, with special reference to 1961, are as follows:

Period Covered

Firms are asked to submit figures for the calendar year, if at all possible, and most reports are on this basis. Financial year reports for periods differing from the calendar year are accepted in instances where the firms find it impossible to supply calendar year data from accounting records. However the data on employees, salaries and wages are requested on a calendar year basis in all cases.

Establishment

The reporting unit in the Census of Manufactures is the **establishment**. Beginning with the 1961 Census, the establishment is defined as follows:

The smallest unit which is a separate operating entity capable of reporting all the following:

- Materials and supplies used,
- Goods purchased for resale as such,
- Fuel and power consumed,
- Number of employees and their pay,
- Inventories,
- Shipments or sales.

The establishment is to be distinguished from smaller subdivisions or departments which do not have records which permit them to report all items required of an establishment. Prior to 1961, some establishments were required to submit two or more separate reports when they were engaged in operations which were classifiable to different industries. Beginning with 1961, separate reports for such operations will be required only in cases where accounting records can provide all the elements of principal statistics enumerated above. Special reporting arrangements were made with respondents when the acceptance of combined reports would have seriously affected the statistics for particular industries or areas. Where continuity of industry statistics was affected by this change in reporting procedures, adjustments to the data were made back to 1957 in order to maintain comparability of the series for recent years.

A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing operations. Prior to 1961, the Census of Manufactures attempted to cover the manufacturing activities of all establishments, whether or not they were principally engaged in manufacturing operations. Beginning with the 1961 Census, establishments (accounting entities) which are not primarily engaged in manufacturing are no longer included as manufacturing establishments in the basic industry statistics. Again adjustments to the industry statistics were made to reflect the removal of such reporting units for the period 1957-1960. These reporting units are now listed as establishments in other Bureau industry surveys, such as Wholesale Trade, Construction, etc. In order, however, to maintain complete coverage of certain commodity items produced mainly in manufacturing establishments, many non-manufacturing establishments are now surveyed for commodity shipments only and the latter are included in those tables of industry reports showing shipments of certain commodities "from all industries".

Many firms have more than one manufacturing establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements described earlier.

Prior to 1961, the main emphasis in the Census of Manufactures was on manufacturing activity whereas, beginning with 1961, each establishment reports on the total operations carried out within its accounting boundaries (except income from investments such as rent, interest and dividends). However, data on different activities (manufacturing, selling, construction by own labour force etc.) are requested separately. The 1961 statistics in this report are confined to manufacturing activity in order to maintain comparability with previous years. In the 1962 reports it is planned to show both 1961 and 1962 data on the "total activity" basis in addition to the data on manufacturing operations.

Employees

Administrative and office employees include all executives and supervisory officials such as presidents, vice-presidents, secretaries, treasurers, etc., together with managers, professional and technical employees, superintendents and factory supervisors above the working foremen level, and clerical employees. Working owners and partners are also included in this category but will be shown separately in subsequent years.

Production and related workers include all other factory workmen whether paid on a monthly, weekly, hourly or piece-work basis. Working foremen doing work similar to that of the employees they supervise are included, as are maintenance, handling, warehousing and delivery staff. Employees on new construction work, in retail or wholesale operations, on outside piece work, etc, are not included.

Production workers are reported by months, an average for the year being obtained by summing the monthly figures and dividing by twelve. This procedure is followed even though the plant did not operate in all months. Figures on employment refer to the calendar year whether or not some establishments reported other data on a financial year basis.

Salaries and Wages

Salaries and wages refer to gross earnings of the employees described above, including salaries, wages, commissions, bonuses, the value of room and board where provided, deductions for income tax and social services such as sickness and unemployment insurance, pensions, etc., as well as any other allowances forming part of the employees' wages. Payments for overtime are included.

Salaries refer to amounts paid to administrative and office employees. Withdrawals by working owners or partners for normal living expenses for self and family are included with salaries, but will be shown separately in subsequent years. Wages refer to the amounts paid to production and related workers as defined above. Data on earnings refer to the calendar year whether or not some establishments reported other data on a financial year basis.

Cost of Fuel and Electricity

Figures for fuel refer to amounts actually used (including fuel used in cars and trucks), not to purchases unless the quantities are the same. Values refer to the laid-down cost at the establishment including freight, duty, etc.

Materials and Supplies Used

Figures represent quantities and laid-down cost values, at the establishment, of materials, supplies and components actually used during the year whether purchased from others or received as transfers from other plants of the reporting company. Amounts paid to other manufacturers for work done on materials owned by the reporting company are included. Returnable containers or any other items charged to capital account are not included. Fuels are not included. Goods bought from others or received as transfers from other plants or reporting companies for resale without further processing are not included. Maintenance and repair supplies not chargeable to capital account are included.

Factory Shipments

Factory shipments generally refer to shipments of goods made from own materials either in the reporting establishments or by other manufacturers on the basis of a charge to the reporting establishment for work done. All products and by-products shipped from the establishment are included whether for domestic use, export, or for government departments. Transfer shipments to sales outlets, distributing warehouses or to other manufacturing units of the reporting firm which are treated as separate establishments are included. Goods bought or received as transfers and resold without further processing are not included. Values are requested

on f.o.b. establishment basis, and do not include sales tax or excise duties. Values of containers not returnable are included. Amounts received in payment for work done on materials owned by others are included.

In a few industries such as shipbuilding, aircraft, etc., where work on principal products extend over a relatively long period, the value of production is recorded rather than the value of shipments. For those industries production is computed from the value of deliveries of complete units during the year plus the value of work done during the year on unfinished units less the value of work done in previous years on finished units delivered in the year under review.

Inventories

Values represent the book value of manufacturing inventory. Figures consist of inventory at the plant and at warehouses or selling outlets which are treated as extensions of the plants for the purpose of reporting shipments.

Value added by Manufacturing

Value added is compiled by deducting the cost of materials, fuel and electricity consumed from the value of production (value of shipments adjusted for changes in the value of inventories of finished goods and goods in process). Value added is sometimes referred to as net production.¹

Standard Industrial Classification

The revised Standard Industrial Classification which was introduced with the 1960 Census of Manufactures provides for a breakdown of the universe into 140 industries arranged in 20 major groups compared with 135 industries in 17 major groups in the old classification which was used in the compilations for the years 1949 to 1959 inclusive. Full details are contained in the Standard Industrial Classification Manual, Catalogue No. 12-501, which is available from either the Queen's Printer or the Dominion Bureau of Statistics. Reporting establishments are classified or allotted to specific industries on the basis of the value of principal products made or shipped.

Establishments engaged solely in repair work are not included in manufacturing industries (except in the case of furniture, shipbuilding, boat building, aircraft and railroad rolling stock industries) but establishments principally engaged in assembling parts into complete units are included.

¹ To arrive at the National Accounts concept of "gross domestic product at factor cost", it would be necessary to subtract also the cost of advertising, insurance and other business costs which are not collected in the annual Census of Manufactures. Value added figures for the primary industries, manufacturing and construction are published in D.B.S. publication 61-202, Survey of Production.

Short Forms

Since 1949, in order to ease the reporting burden for smaller firms, a one-page short form has been used asking only for certain principal items of shipments. For purposes of publication, missing data were estimated on the basis of appropriate ratios. For the 1959 and 1960 censuses the general limit for short forms was raised from \$50,000 to \$100,000 value of shipments and a new intermediate form was used. This form is a shortened version of the long form in that some of the general questions were pared down and the detailed lists of materials and products were limited to the more important items. The general limits for firms in this category were set at between \$100,000-\$500,000 value of shipments, but in the case of both the short and inter-

mediate forms there are lower cut-offs for a number of industries in which the smaller firms account for a larger share of total shipments.

In the 1961 Census, in addition to the question on shipments of goods of own manufacture, questions on employment and payroll and on total revenue were added on all short forms. The other elements of principal statistics, viz. value of materials, fuel and electricity, and inventories, are generally estimated by using ratios based on the change in the value of shipments from year to year. This is to permit the complete compilation of basic industry statistics by industry and by geographic location. The proportion of the estimated data is generally less than 5 per cent of the total in each category of principal statistics.

THE HISTORY OF THE

REPUBLIC OF THE UNITED STATES

The history of the Republic of the United States is a story of growth and development. It begins with the first settlers who came to the New World in search of a better life. They found a land of opportunity and freedom, and they built a nation that has become a model for the world. The story is one of struggle and triumph, of challenges and achievements. It is a story that has inspired generations and will continue to inspire for many years to come.

The early years of the Republic were marked by a period of rapid expansion. The United States grew from a small colony to a vast nation, covering a large portion of the North American continent. This growth was driven by a combination of factors, including the desire for land, the search for new markets, and the pursuit of freedom. The early years were also a time of great challenge, as the young nation struggled to establish its identity and defend its interests.

Despite the challenges, the Republic of the United States emerged as a powerful and influential nation. It has played a leading role in the world, shaping the course of human history and promoting the values of freedom, democracy, and justice. The story of the Republic is a testament to the power of the human spirit and the ability of a people to overcome adversity and build a better future.

IRON AND STEEL MILLS

1961

Data presented in this report under the heading of Iron and Steel Mills reflect implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept which are being used by the Dominion Bureau of Statistics in its compilation of 1961 industry statistics—see items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes section of this report. For statistical purposes the industry titled Iron and Steel Mills in the revised Standard Industrial Classification covers four main types of establishments: (1) Establishments primarily engaged in manufacturing pig iron and ferro-alloys. (2) Steel works primarily engaged in manufacturing ingots, steel castings and in continuous castings of steel. (3) Rolling mills primarily engaged in hot and cold rolling of steel into primary shapes. (4) Coke ovens operated in connection with blast furnaces. In some cases the blast furnace, steel mill, rolling mill and coke oven or some combination of two or more of them are carried on as one integrated operation and the manufacturing processes may be carried on beyond the rolling mill stage.

In many instances, adoption of the new Standard Industrial Classification effected a radical shifting of manufacturing establishments as between industry groupings. Significant elements in the shift in the case of the industry reviewed in this report were covered in the 1960 report. Further changes in reporting procedures as a result of the implementation of the New Establishment Concept especially in the matter of combinations had a considerable effect on the statistics for this industry. Prior to 1961, some of the reports filed in this industry related only to the foundry division of a particular establishment. The New Establishment Concept implemented in 1961 recommends the consolidation of this type of divisional foundry operation with the major activity and, therefore, in 1961 a single report combining all divisions was filed in the appropriate industry. It might be noted, however, that in the overall, the effect of the changes due to the introduction of the new Standard Industrial Classification was partially compensated for by the changes resulting from the implementation of the New Establishment Concept so that the net effect of the new concepts was relatively minor as evidenced in the comparative series presented in Tables 1 A and 1 B. Table 1 A shows data according to the "old" concept while Table 1 B reflects the implementation of the "new" or revised Standard Industrial Classification and the New Establishment Concept for the years 1957 to 1961.

As a result of increased work loads and staff shortages it has been necessary to suspend publication of certain tables normally contained in this report. It is planned to resume publication of these tables in the 1962 report. In general the tables affected are the following: Directory of firms—Imports—Exports—Capital and Repair Expenditures.

TABLE 1A. Principal Statistics of the Primary Iron and Steel Industry, Significant Years, 1929 - 59
Basis: Standard Industrial Classification in use prior to 1960

Year and province	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at plant	Cost at plant of materials used	Value added by manufacture	Selling value of factory shipments
	number			dollars			
1929	45	11,218	18,534,681	6,691,961	32,514,596	33,025,438	72,231,995
1933	50	5,200	6,049,189	2,699,837	7,598,931	8,193,781	18,492,549
1937	55	14,054	19,926,498	6,934,008	33,805,631	33,841,030	74,580,669
1939	54	13,827	20,410,517	6,069,661	29,629,376	40,235,444	75,934,481
1942	61	33,245	60,874,818	18,734,178	110,551,516	102,820,061	232,105,755
1945	63	29,378	57,862,439	16,002,441	86,417,375	89,859,343	192,279,159
1949	55	29,097	82,958,229	22,352,965	147,229,391	136,152,628	305,734,984
1955	50	32,507	136,879,403	31,182,580	212,288,266	281,030,420	526,318,453
1956	50	36,043	162,880,867	38,311,951	301,298,582	352,522,996	680,860,470
1957	51	35,944	170,779,346	36,755,262	329,582,384	344,565,954	704,565,791
1958	50	30,261	148,023,062	28,905,568	250,699,538	304,923,587	590,317,696
1959	49	34,942	183,000,151	36,076,238	354,160,093	393,807,515	782,494,003

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 1B. Principal Statistics, Iron and Steel Mills, by Provinces, 1957 - 61

Basis: Revised Standard Industrial Classification and New Establishment Concept

Year and province	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at plant	Cost at plant of materials used	Value added by manufacture	Selling value of factory shipments
	number			dollars			
1957							
Nova Scotia and Quebec	14	8,326	34,548,265	5,859,186	62,154,041		115,450,714
Ontario	17	26,175	131,318,991	20,990,924	257,524,258		571,634,020
Other provinces	11	1,503	6,125,383	1,202,606	13,115,289		24,031,039
Canada	42	36,004	171,992,639	28,052,716	332,793,588		711,115,773
1958							
Nova Scotia and Quebec	15	7,025	29,747,992	4,117,089	43,922,546	46,325,384	97,083,584
Ontario	18	22,193	114,213,022	16,290,057	203,008,078	254,683,672	476,333,270
Other provinces	9	1,352	5,812,473	1,000,926	9,550,036	10,384,489	21,379,268
Canada	42	30,570	149,773,487	21,408,072	256,480,660	311,393,545	594,796,122
1959							
Nova Scotia and Quebec	13	6,785	31,230,260	4,485,174	51,675,840	46,837,602	102,691,928
Ontario	18	26,947	146,407,720	20,630,591	297,463,729	342,460,972	658,668,816
Other provinces	9	1,588	7,635,855	1,324,458	12,808,533	14,093,746	28,449,919
Canada	40	35,320	185,273,835	26,440,223	361,948,102	403,392,320	789,810,663
1960							
Nova Scotia and Quebec	12	7,227	34,449,330	6,035,297	52,774,156	55,775,437	114,116,276
Ontario	17	26,555	146,192,191	20,704,858	277,941,097	300,097,405	593,813,393
Manitoba, Saskatchewan, Alberta	6	1,152	5,680,891	1,065,073	8,697,610	8,503,208	16,018,573
British Columbia	4	430	2,260,059	533,675	6,626,830	3,617,814	10,534,975
Canada	39	35,364	188,582,471	28,338,903	346,039,693	367,993,864	734,483,217
1961							
Nova Scotia and Quebec	12	5,966	29,602,552	5,325,528	43,166,875	43,133,090	89,880,573
Ontario	18	26,572	152,998,085	21,824,005	285,839,374	353,503,358	661,271,241
Manitoba, Saskatchewan, Alberta	6	1,436	7,321,732	1,789,583	12,092,430	9,713,648	22,390,528
British Columbia	6	572	3,189,529	795,249	10,247,480	5,144,301	15,728,728
Canada	42	34,546	193,111,898	29,734,365	351,346,159	411,494,397	789,271,070

¹ Because of lack of inventory data "Value added" is not available for 1957.

TABLE 2. Inventories,¹ Iron and Steel Mills, 1961

	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total
	dollars			
Opening:				
Nova Scotia and Quebec	15,395,744	3,164,883	3,542,839	22,103,466
Ontario	64,789,769	25,742,552	33,603,057	124,135,378
Manitoba, Saskatchewan, Alberta	9,724,191	2,509,482	941,612	13,175,285
British Columbia	1,353,156	38,648	429,403	1,821,207
Canada	91,262,860	31,455,565	38,516,911	161,235,336
Closing:				
Nova Scotia and Quebec	16,672,109	4,035,918	4,416,724	25,124,751
Ontario	81,278,370	27,827,460	31,413,645	140,519,475
Manitoba, Saskatchewan, Alberta	8,690,746	2,269,470	2,386,757	13,346,973
British Columbia	1,551,903	86,900	839,453	2,478,256
Canada	108,193,128	34,219,748	39,056,579	181,469,455

¹ (a) Book value of all manufacturing inventories owned and held at plant and plant warehouses.

(b) The opening inventory for 1961 does not necessarily agree with the closing inventory for 1960 because of the receipt of revised data, changes in classification and the implementation of the New Establishment Concept.

TABLE 3. Materials Used: Iron and Steel Mills, 1961

Material	Quantity	Cost at plant
		\$
Coke, gas and by-products section		
Bituminous coal carbonized in ovens or retorts:		
From Canadian mines	ton	434,036
Imported	"	4,355,155
Absorbing and wash oil	Imp. gal.	290,802
Caustic soda	lb.	2,547,377
Sodium nitrate	"	200,190
Sulphur	ton	1,417
Sulphuric acid, 100% - Purchased	"	19,579
Own make	"	2,297
(Sinter plant and blast furnace section)		
Sinter plant:		
Crude iron ore:		
From Canadian mines	ton	407,976
Imported	"	1,025,947
Pyrite cinder	"	45,776
Millcinder, scale, fluedust, etc. (not sintered, pelletized, etc.):		
Purchased	"	8,643
Own make	"	393,396
Scrap iron and steel (own make)	"	16,808
Limestone (including fines)	"	48,865
Dolomite (including fines)	"	188,015
Coke (including breeze) - Purchased	"	18,600
Own make	"	89,379

TABLE 3. Materials Used: Iron and Steel Mills, 1961 - Continued

Material	Quantity	Cost at plant \$
Sinter plant and blast furnace section - Concluded		
Blast furnace:		
Crude iron ore:		
From Canadian mines	ton 946,398	8,930,127
Imported	" 2,075,089	20,771,631
Iron ore (sintered, pelletized, etc.):		
From Canadian mines	" 1,354,098	16,115,327
Imported	" 1,786,286	24,222,576
From own processing (does not include mine sinter plant)	" 1,726,515	...
Mill cinder, roll scale, slag and flue dust (not sintered, pelletized, etc.):		
Purchased	" 31,865	414,349
Own make	" 206,688	...
Scrap iron and steel - Purchased		
Own make	" 78,404	778,093
Own make	" 22,278	...
Limestone - From Canadian quarries		
Imported	" 421,394	1,147,169
Imported	" 348,741	593,101
Dolomite	" 300,046	552,184
Coke - Purchased		
Own make	" 149,453	3,174,745
Own make	" 3,138,380	...
Firebrick, fireclay and other refractories .....	...	467,633
Steel ingots and steel castings		
Pig iron - Purchased		
Own make	ton 8,081	340,499
Own make	" 4,048,682	...
Scrap iron and steel - Purchased		
Own make	" 1,292,322	42,956,992
Own make	" 1,733,268	...
Sinter - Purchased		
Own make	" 9,662	136,194
Own make	—	—
Coke (charged to furnace; not for fuel) - Purchased		
Own make	ton 1,258	49,823
Own make	" 870	...
Spiegeleisen	—	—
Ferromanganese - High carbon (over 3 per cent carbon)		
Medium carbon	ton 38,638	6,861,651
Medium carbon	" 4,030	1,283,766
Low carbon (maximum 0.75 per cent carbon)	" 392	232,967
Silico manganese	" 9,056	1,923,806
Ferro-silicon - Low silicon grade (under 45 per cent silicon)		
Medium silicon grade	" 189	18,296
Medium silicon grade	" 9,783	1,416,335
High silicon grade (over 55 per cent silicon)	" 1,311	366,097
Sil-x	" 57	15,447
Ferrochrome (including chrom-X) - High carbon		
Low carbon (maximum 2 per cent carbon)	" 1,887	759,895
Low carbon (maximum 2 per cent carbon)	" 4,992	2,345,969
Ferromolybdenum	" 230	516,237
Ferrophosphorus	" 247	25,950
Ferroselenium	" 3	31,033
Ferrotitanium	" 236	109,615
Ferrotungsten	" 58	137,078
Ferrovandium	" 161	565,937
Ferrozirconium	" 50	19,888
Calcium silicon	" 264	109,429
Calcium manganese silicon	" 85	47,826

TABLE 3. Materials Used: Iron and Steel Mills, 1961 - Continued

Material	Quantity	Cost at plant
		\$
Steel ingots and steel castings section - Concluded		
Other ferro-alloys	ton 1,584	615,617
Iron ore, crude	" 102,326	1,699,860
Iron ore, calcined, roasted or treated	" 293,905	4,536,183
Manganese ore	—	—
Chrome ore	ton 558	42,745
Tungsten ore	" 226	285,958
Aluminum ingots, shot, etc.	" 1,787	907,390
Copper ingots, cakes, shot, etc.	" 649	373,430
Nickel ingots, cathodes, shot, etc.	" 2,212	3,386,437
Other metals	" 211	272,625
Coal (charged to steel furnaces, not for fuel)	" 53	497
Charcoal	" 34	3,217
Bentonite	" 3,217	125,784
Dolomite - Raw, crushed	" 111,489	419,854
Calcined	" 82,565	2,112,961
Fluorspar	" 24,310	791,451
Ganister	" 4,777	54,304
Graphite	" 712	46,997
Lime	" 198,122	3,118,180
Limestone	" 137,424	374,549
Linseed oil	Imp. gal. 25,112	28,162
Magnesite	ton 7,889	540,665
Electrodes .....	...	2,288,043
Silica sand - For moulds	ton 64,856	575,103
For sand blasting	" 186	9,785
Other foundry sands	" 3,674	108,150
Sulphur	" 131	16,546
Firebrick, fireclay and other refractories .....	...	11,320,942
Molybdenum trioxide (molybdic oxide) briquettes	" 557	942,258
Ingot moulds (including hot tops) and stools .....	...	9,372,113
Rolled steel products section		
Steel ingots - Purchased	ton 83,909	5,363,712
Own make	" 6,026,316	...
Steel billets and slabs	" 96,332	9,725,455
Steel bars	" 32,151	5,130,044
Wire rods	" 3,149	452,816
Rails, old (include reject rails)	" 62,371	3,136,233
Steel sheet and strip	" 28,407	3,652,039
Scrap iron and steel incl. old axles	" 4,242	223,505
Tin	" 2,220	4,735,746
Zinc spelter	" 23,012	5,642,979
Acids - Chromic	lb. 253,200	71,499
Hydrochloric (muriatic), 100%	" 1,703,398	92,187
Sulphuric, 100%	ton 32,730	763,562
Ammonium chloride (salammoniac)	—	—
Cleaners (Pennsalt, etc.) .....	...	196,082
Inhibitors (Rodine, etc.) .....	...	11,427
Phenone	lb. 45,013	51,695

TABLE 3. Materials Used: Iron and Steel Mills, 1961 — Concluded

Material	Quantity	Cost at plant
		\$
Rolled steel products section — Concluded		
Rolling oils .....	...	891,288
Zinc ammonium chloride ton	203	52,503
Refractories .....	...	701,600
Rolls and dies .....	...	5,286,599
Silica sand ton	112	1,017
Ferro-alloys section		
Coal — Anthracite net ton	9,752	137,424
Bituminous "	33,262	516,081
Coke — Petroleum "	69,781	1,166,635
Other "	39,055	574,294
Dolomite "	4,524	19,932
Electrodes .....	...	756,848
Firebrick, fireclay and other refractories .....	...	128,299
Lime net ton	3,559	52,111
Limestone "	2,434	12,431
Linseed oil Imp. gal.	7,782	14,867
Magnesite net ton	249	19,985
Millscale	—	—
Pitch net ton	7,033	320,215
Quartzite "	29,598	230,224
Silica sand "	3,795	29,913
Steel scrap (borings, turnings, etc.)	28,225	497,862
Woodchips "	25,562	207,652
Miscellaneous		
All other materials (including chrome ore and manganese ore)		45,237,215
Containers and other packaging materials and supplies		4,449,624
Total		351,346,159

Note: Figures in above table do not include materials charged to furnaces by firms reclassified under the new Standard Industrial Classification or in accordance with the New Establishment Concept.

TABLE 4. Production¹ of Pig Iron and Sales¹ by Producers, 1960 and 1961 (from All Industries)

Grade	Total tonnage made	Sales	
		Quantity	Income from sales
1960	net tons		\$
Basic	3, 598, 595	79, 892	4, 113, 058
Foundry ²	290, 050	264, 541	13, 018, 467
Malleable	410, 204	332, 531	19, 029, 128
Totals	4, 298, 849	676, 964	36, 160, 653
1961			
Basic	4, 203, 578	120, 253	5, 568, 395
Foundry ²	396, 644	308, 276	14, 844, 645
Malleable	355, 799	354, 659	19, 553, 875
Totals	4, 946, 021	783, 188	39, 966, 915

¹ Commencing with 1959 includes the "remelt iron" product produced in the smelting of titanium ores.

² Includes silvery pig.

TABLE 5. Production¹ of Pig Iron, by Grades, 1952 - 61

Year	Basic	Foundry	Malleable	Total
net tons				
1952	2,053,691	220,754	407,140	2,681,585
1953	2,436,504	182,821	392,943	3,012,268
1954	1,740,712	167,797	302,520	2,211,029
1955	2,591,662	176,710	446,995	3,215,367
1956	2,990,222	150,354	427,627	3,568,203
1957	3,209,411	104,830	404,109	3,718,350
1958	2,665,705	43,755	350,119	3,059,579
1959 ²	3,552,926	228,843	401,006	4,182,775
1960	3,598,595	290,050	410,204	4,298,849
1961	4,203,578	386,644	355,799	4,946,021

¹ Includes silvery pig.² Commencing with 1959 includes the "remelt iron" product produced in the smelting of titanium ores.TABLE 6. Production¹ of Pig Iron, by Months, 1960 and 1961

Month	1960			1961		
	For own use	For sale	Total	For own use	For sale	Total
net tons						
January	338,143	36,380	374,523	308,734	22,294	331,028
February	319,265	38,078	357,343	299,570	23,754	323,324
March	383,894	35,267	419,161	363,529	25,322	388,851
April	351,098	44,020	395,118	378,002	34,020	412,022
May	341,967	51,119	393,086	320,436	99,310	419,746
June	253,948	81,584	335,532	325,666	92,654	418,320
July	281,234	55,784	337,018	347,403	93,925	441,328
August	284,032	44,732	328,764	339,924	97,884	437,808
September	258,036	83,750	341,786	365,877	75,291	441,168
October	266,919	101,124	368,043	358,174	100,564	458,738
November	275,380	58,031	333,411	388,331	57,844	446,175
December	247,321	47,319	294,640	349,669	57,218	406,887
Totals	3,601,237	677,188	4,278,425	4,145,315	780,080	4,925,395

¹ See footnotes to Table 4.

Note: Above breakdown developed from a special monthly report on primary iron and steel and does not reconcile precisely with total shown on Table 4 or 5 because of the preliminary status of monthly figures.

TABLE 7. Sales¹ of Pig Iron by Producers, 1952 - 61

Year	Tonnage sold	Income from sales	Year	Tonnage sold	Income from sales
	net tons	\$		net tons	\$
1952	752,963	37,998,156	1957	734,353	40,953,372
1953	626,624	31,510,562	1958	429,708	24,878,802
1954	455,552	22,142,040	1959	662,341	36,280,610
1955	609,978	30,539,000	1960	676,964	36,160,653
1956	649,213	34,501,520	1961	783,188	39,966,915

¹ See footnotes to Table 4.TABLE 8. Stocks of Pig Iron Held at Year-End by Producers¹ in Canada, 1952 - 61

Year	Net tons	Year	Net tons
1952	58,959	1957	233,569
1953	135,781	1958	239,598
1954	127,894	1959	165,846
1955	136,415	1960	220,588
1956	113,629	1961	187,987

¹ Does not include stocks held by smelters of titanium ores in the production of titanium slag.

TABLE 9. Consumption of Pig Iron in Canada by Industries and by Provinces, 1960 and 1961
(As Reported by Consumers)

	1960	1961
	net tons	
By industries		
Agricultural implements	10,322	6,398
Boiler and plate works	1,404	1,154
Electrical products	6,092	4,925
Fabricated structural metal	550	617
Hardware, tool and cutlery	126	172
Heating equipment	11,385	4,524
Iron and steel mills	3,510,892	4,056,763
Iron foundries	139,586	120,690
Machinery	7,959	7,544
Miscellaneous metal fabricating	10,813	10,850
Motor vehicles	4,397	3,794
Motor vehicle parts and accessories	30,144	31,764
Railroad rolling stock	1,801	2,805
Shipbuilding and repair	390	348
Miscellaneous	36,299	46,695
Totals	3,772,160	4,299,043
By provinces		
Prince Edward Island and Newfoundland	90	45
Nova Scotia	531,341	371,940
New Brunswick	2,121	2,231
Quebec	31,597	22,761
Ontario	3,202,283	3,897,774
Manitoba	3,037	2,972
Saskatchewan	—	—
Alberta	519	393
British Columbia	1,172	927
Canada	3,772,160	4,299,043

Note: Data in Table 11 by industry reflect classification in accordance with new Standard Industrial Classification adopted in 1960 and the New Establishment Concept adopted in 1961.

TABLE 10. Blast Furnances in Canada, 1959 - 61

Name of company	Location of plant	Number of stacks	Total annual capacity	Number of days in blast		
				1959	1960	1961
Dominion Foundries & Steel Ltd.	Hamilton, Ont.	1	320,000	—	241	—
		1	320,000	365	365	365
		1	320,000	365	130	365
		3	960,000	—	—	—
Dominion Steel & Coal Corporation, Limited ...	Sydney, Nova Scotia ...	1	237,000	365	365	263
		1	265,000	365	365	362
		1	182,000	63	251	—
		3	684,000	—	—	—
Canadian Furnance Company, Limited	Port Colborne, Ont.	1	190,000	243	193	277
		1	190,000	—	—	—
The Steel Company of Canada, Limited ...	Hamilton, Ont.	1	123,000	304	362	361
		1	349,000	364	221	298
		1	525,000	285	286	349
		1	603,000	288	347	354
		4	1,600,000	—	—	—
Algoma Steel Corporation, Limited	Sault Ste. Marie, Ont. ...	—	—	—	—	—
		1	218,000	315	279	240
		1	177,000	259	167	222
		1	595,000	352	302	365
		1	595,000	365	366	361
		4	1,585,000	—	—	—
Totals for Canada		15	5,019,000	—	—	—

Note: Data in above table do not include details on other producers of pig iron in Canada as follows:

1. Electric furnace operations used in smelting titanium ores rated at approximately 300,000 tons pig iron per annum operated by Quebec Iron and Titanium Corporation at Sorel, Quebec.
2. One electric furnace used in direct reduction of iron ore rated at 37,000 tons pig iron per annum operated by the Consolidated Mining and Smelting Co. of Canada Ltd., Kimberley, British Columbia.

TABLE 11. Production of Steel Ingots and Steel Castings, and Sales by the Producers, 1960 and 1961 (from All Industries)

	1960			1961		
	Total tonnage of steel made (all kinds), including alloys	Sales		Total tonnage of steel made (all kinds), including alloys	Sales	
		Quantity	Income from sales		Quantity	Income from sales
	net tons		\$	net tons		\$
Steel ingots:						
Basic open-hearth ¹	5,089,660	131,506	8,868,866	5,712,846	156,325	9,585,598
Electric	618,943	83,765	7,386,920	663,261	109,136	10,016,698
Totals steel ingots	5,708,603	215,271	16,255,786	6,376,107	265,461	19,602,296
Steel castings:						
Basic open-hearth	2,611	1,182	527,926	2,830	541	267,275
Electric	97,894	96,536	42,409,233	109,370	104,058	41,717,569
Totals, steel castings	100,505	97,718	42,937,159	112,200	104,599	41,984,844
Totals, steel ingots and castings	5,809,108	312,989	59,192,945	6,488,307	370,060	61,587,140
Alloy steel included in above:						
Ingots	237,393	5,340	2,588,487	252,867	6,200	3,537,054
Castings	24,241	23,579	19,111,930	26,268	25,097	19,107,835
Totals	261,634	28,919	21,700,417	279,135	31,297	22,694,889

¹ Includes production from oxygen vessels.

TABLE 12. Production of Steel Ingots and Steel Castings by Grades, 1952-61 (from All Industries)

Year	Steel ingots		Steel castings			Total steel ingots and castings
	Open-hearth ¹	Electric	Open-hearth	Converter	Electric	
	net tons					
1952	3,017,692	560,066	34,680	379	90,294	3,703,111
1953	3,522,039	487,509	30,406	254	75,860	4,116,068
1954	2,727,730	386,061	22,364	95	58,780	3,195,030
1955	3,917,151	529,190	25,953	165	62,213	4,534,672
1956	4,628,777	551,644	32,107	307	88,367	5,301,202
1957	4,500,737	430,673	27,076	20	109,643	5,068,149
1958	3,875,470	386,652	15,880	20	81,444	4,359,466
1959	5,267,282	532,074	14,834	7	87,290	5,901,487
1960	5,089,660	618,943	2,611	—	97,894	5,809,108
1961	5,712,846	663,261	2,830	—	109,370	6,488,307

¹ Commencing with 1954, includes production from oxygen vessels.

TABLE 13. Production of Steel Ingots and Steel Castings, by Months, 1957-61
(from All Industries)

Month	1957	1958	1959	1960	1961
net tons					
January	467,505	402,915	461,113	570,057	457,388
February	424,168	375,267	436,932	551,557	472,409
March	475,146	412,432	476,154	595,715	565,198
April	450,065	377,965	487,885	516,318	554,168
May	436,593	413,431	489,387	498,408	562,067
June	428,013	403,310	467,607	443,423	565,244
July	427,848	366,139	482,256	440,803	539,337
August	434,889	270,511	487,271	431,469	582,961
September	403,060	247,900	503,146	450,575	562,306
October	380,335	261,133	536,909	485,865	588,221
November	358,639	387,696	542,858	451,659	534,325
December	351,103	426,592	550,210	353,721	482,700
Totals	5,037,864	4,345,291	5,921,728	5,789,570	6,466,324

Note: Above breakdown developed from a special monthly report on primary iron and steel and does not reconcile precisely with total shown in Tables 11, 12 or 14 because of the preliminary status of monthly figures.

TABLE 14. Annual Production of Steel Ingots and Steel Castings, by Provinces, 1952-61
(from All Industries)

Year	Nova Scotia	Quebec	Ontario	Manitoba and Saskatchewan	Alberta	British Columbia	Canada
net tons							
1952	649,359	122,627	2,801,706	85,213	1,574	42,632	3,703,111
1953	638,097	97,450	3,263,633	76,180	699	40,009	4,116,068
1954	462,594	84,777	2,536,952	65,912	676	44,119	3,195,030
1955	583,340	99,122	3,716,833	84,055	5,042	46,280	4,534,672
1956	706,264	131,266	4,267,179	113,056	31,945	51,492	5,301,202
1957	740,364	157,251	4,004,620	76,243	43,827	45,844	5,068,149
1958	597,752	117,907	3,504,215	68,921	36,046	34,625	4,359,466
1959	674,226	120,274	4,905,424	98,954	56,235	46,374	5,901,487
1960	796,878	169,672	4,609,221	93,921	68,378	71,038	5,809,108
1961	523,627	179,534	5,431,212	197,100	69,029	87,805	6,488,307

TABLE 15. Sales of Steel Ingots and Steel Castings by Producers, 1952 - 61
(from All Industries)

Year	Tonnage sold	Income from sales	Year	Tonnage sold	Income from sales
	net tons	\$		net tons	\$
1952	265,723	57,178,291	1957	187,806	65,553,873
1953	133,389	44,745,077	1958	105,251	42,581,094
1954	86,066	35,434,713	1959	298,249	59,005,124
1955	201,114	43,682,247	1960	312,989	59,192,945
1956	164,288	55,326,132	1961	370,060	61,587,140

TABLE 16. Production of Alloy Steel Ingots and Castings, 1952 - 61

Year	Ingots	Castings	Total
	net tons		
1952	217,577	25,298	242,875
1953	191,977	23,874	215,851
1954	132,976	20,852	153,828
1955	217,207	21,928	239,135
1956	218,611	27,774	246,385
1957	213,101	29,110	242,211
1958	182,902	19,470	202,372
1959	270,991	22,936	293,927
1960	237,393	24,241	261,634
1961	252,867	26,268	279,135

TABLE 17. Metal, Ore and Flux Charged to Steel Furnaces, 1952 - 61

Year	Pig iron	Ferro-manganese alloys ¹	Other ferro-alloys	Scrap iron and steel	Iron ore	Lime-stone	Dolomite	Fluorspar
	net tons							
1952	1,958,258	36,486	16,513	2,122,270	277,804	276,202	149,310	22,576
1953	2,311,378	39,055	15,167	2,200,518	275,883	301,078	171,525	22,730
1954	1,767,307	29,571	11,962	1,629,866	203,119	182,972	135,987	16,002
1955	2,554,433	39,870	17,443	2,366,107	405,709	219,147	182,803	18,610
1956	2,902,367	46,556	20,567	2,865,563	472,476	232,065	202,352	18,979
1957	2,875,324	46,220	21,787	2,625,963	421,755	199,681	190,039	16,935
1958	2,610,517	37,699	15,539	2,112,355	373,143	124,189	152,290	14,539
1959	3,511,207	48,230	22,809	2,951,186	419,945	140,736	188,041	20,063
1960 ²	3,510,892	46,584	23,083	2,887,566	393,036	163,362	164,074	21,029
1961 ²	4,056,763	52,116	20,788	3,025,590	396,231	137,424	194,054	24,310

¹ Including spiegeleisen, silicospiegeleisen, ferromanganese (all grades) and silicomanganese.

² (a) 1960 does not include materials charged to furnaces by firms reclassified under the new Standard Industrial Classification.

(b) In addition to changes effected in 1960, (see 2(a) above), totals for 1961 exclude materials charged to furnaces by firms reclassified in accordance with the New Establishment Concept.

TABLE 18. Steel Furnaces in Canada, December 31, 1961

	Type	Number of units	Size	Total annual capacity
				tons
Nova Scotia:				
Dominion Steel and Coal Corporation, Ltd., Sydney	O.H.	2	225	390,000
	O.H.	4	195	580,000
	Elec.	1	11	33,000
Totals		7	—	1,003,000
Maritime Steel Foundries Ltd., New Glasgow	Elec.	1	4	3,000
Quebec:				
Canadian Unitcast Steel Ltd., Sherbrooke	Elec.	1	4	7,000
Canadian Steel Foundries, Montreal	O.H.	3	25	45,900
	Elec.	1	2½	4,700
	Elec.	1	4	7,000
	Elec.	1	30	52,800
Totals		6	—	110,400
Canadian Steel Wheel Ltd., Montreal	Elec.	2	45	145,800
Dominion Brake Shoe Co. Ltd., Joliette	Elec.	1	3	9,000
	Elec.	1	4	16,200
Totals		2	—	25,200
Dominion Engineering Works Ltd., Lachine	Elec.	1	5	5,000
	Elec.	1	15	10,000
Totals		2	—	15,000
Dominion Steel and Coal Corporation Ltd., Montreal	Elec.	2	28	90,000
Griffin Steel Foundries Ltd., St. Hyacinthe	Elec.	2	6	29,000
La Compagnie F.X. Drolet Ltd., Quebec	Conv.	1	1	300
Lynn MacLeod Metallurgy Limited, Thetford Mines	Elec.	1	3	6,000
Manganese Steel Castings Ltd. Sherbrooke	Elec.	1	3	1,800
Shawinigan Chemicals Ltd., Shawinigan Falls	Elec.	1	½	900
	Elec.	1	2	3,600
	Elec.	1	1	1,800
Totals		3	—	6,300
Crucible Steel of Canada Ltd., Sorel	Elec.	1	4	2,650
	Elec.	1	13	8,800
	Elec.	1	30	20,350
Totals		3	—	31,800
Sorel Steel Foundries Limited, Sorel	Elec.	2	6	14,500
Ontario:				
Algoma Steel Corporation Limited, Sault Ste. Marie	O.H.	4	180	450,000
	O.H.	2	360	450,000
	Oxygen vessels	2	100	700,000
Totals		8	—	1,600,000
Atlas Steels Limited, Welland	Elec.	1	6	7,200
	Elec.	1	10	12,000
	Elec.	2	25	64,000
	Elec.	2	45	86,400
	Elec. (Induction)	1	—	800
Totals		7	—	170,400
Burlington Steel Co. Ltd., Hamilton	Elec.	1	7½	30,150
Canada Electric Castings Ltd., Orillia	Elec.	2	2	6,000
Dominion Foundries and Steel Ltd., Hamilton	Elec.	1	2½	9,000
	Elec.	2	10	36,000
	Elec.	1	50	70,000
	Oxygen vessels	3	100	1,170,000
Totals		7	—	1,285,000

TABLE 18. Steel Furnaces in Canada, December 31, 1961 — Concluded

	Type	Number of units	Size	Total annual capacity tons
Ontario — Concluded:				
Fahralloy Canada Limited, Orillia	Elec.	4	1/10-2	7,800
Ford Motor Co. of Canada Ltd., Windsor	Elec.	1	3	8,300
	Elec.	15	6½	179,100
Totals		16	—	187,400
The Indiana Steel Products Co. of Canada Ltd., Kitchener	Elec.	1	¼	1,950
Black Clawson — Kennedy Ltd., Owen Sound	Elec.	1	4	8,000
	Elec.	1	1¾	2,400
Totals		2	—	12,350
Neelon Steel Limited, Lebel	Elec.	1	6	15,000
Steel Co. of Canada Ltd., Hamilton	O.H.	4	115	428,000
	O.H.	5	190	832,000
	O.H.	4	315	1,240,000
	O.H.	1	500	625,000
Totals		14	—	3,125,000
Welland Electric Steel Foundry Limited, Welland	Elec.	1	3½	11,000
	Elec. (Induction)	1	½	
	Elec. (Induction)	1	½	
Totals		3	—	11,000
Manitoba:				
Manitoba Rolling Mills, Selkirk	O.H.	2	20	50,000
	Elec.	1	6	23,000
	Elec.	1	9	35,000
Totals		4	—	108,000
Dominion Brake Shoe Co. Ltd., Selkirk	Elec.	1	3	3,000
	Elec.	1	5	4,000
Totals		2	—	7,000
Griffin Steel Foundries Limited, Transcona	Elec.	2	7	36,000
Saskatchewan:				
Interprovincial Steel and Pipe Corp. Ltd., Regina	Elec.	2	30	121,600
Alberta:				
Foothills Steel Foundry & Iron Works Ltd., Calgary	Elec.	1	1½	1,000
	Elec.	1	2	1,500
Totals		2	—	2,500
Premier Steel Mills Ltd., Edmonton	Elec.	2	15	87,600
British Columbia:				
A-1 Steel & Iron Foundry Ltd., Vancouver	Elec.	1	½	2,600
	Elec.	1	1½	1,600
Totals		2	—	4,200
Consolidated Mining & Smelting Company of Canada Ltd., Trail	Elec.	1	1	2,500
	Elec.	1	3	6,000
Totals		2	—	8,500
Reliance Foundry Co. Ltd., Vancouver	Elec.	1	1	2,000
	Elec.	2	1½	6,000
Totals		3	—	8,000
Vancouver Steel Co. Ltd., Vancouver	Elec.	1	30	86,000
Esco Ltd., Port Coquitlam	Elec.	1	4	11,500
Victoria Machinery Depot Co. Ltd., Vancouver	Elec.	2	2	5,000
Canadian Sumner Iron Works Ltd., Vancouver	Elec.	2	1	3,700

TABLE 19. Summary of Steel Furnace Capacity, December 31, 1961

	Number of furnaces	Total annual capacity net tons
Basic open-hearth	31	5,090,900
Oxygen vessels	5	1,870,000
Electric	92	1,469,550
Converter	1	300
Totals	129	8,430,750
Steel ingots:		
Basic open-hearth.....	28	5,045,000
Oxygen vessels	5	1,870,000
Electric	27	969,350
Totals	60	7,884,350
Steel castings	69	546,400
Total ingots and castings	129	8,430,750

TABLE 20. Summary of Steel Furnace Capacity, by Provinces, December 31, 1957-61

	Total annual capacity				
	1957	1958	1959	1960	1961
	net tons				
Nova Scotia	934,500	933,000	963,000	963,000	1,006,000
Quebec	340,900	298,000	269,700	491,500	483,100
Ontario	4,771,700	5,182,700	5,461,300	5,636,600	6,452,050
Manitoba	121,000	121,000	154,200	151,000	151,000
Saskatchewan	—	—	—	125,000	121,600
Alberta	77,300	77,300	79,300	89,500	90,100
British Columbia	72,700	74,500	73,200	114,800	126,900
Canada	6,318,100	6,686,500	7,000,700	7,571,400	8,430,750

TABLE 21. Production and Factory Shipments of Steel Shapes, 1960 and 1961
(from All Industries)

Product	Total tonnage made	Factory sales	
		Tonnage sold in Canada or for export	Income from tonnage sold
	net tons		\$
1960			
A. Hot-rolled products			
Semi-finished rolled forms:			
All semi-finished forms intended for further rolling, including blooms, billets, slabs and sheet bars:			
(a) For sale in Canada	190,728	17,554,378	
(b) For export	262,995	21,891,439	
Blooms, billets and axle blanks for forging purposes only, whether for own use or for sale to others including export	149,353	16,837,034	
Rounds or billets for seamless tubes including export			
Total semi-finished rolled forms	412,348	620,114	56,282,851
Rails	224,306	223,033	25,385,347
Wire rods, No. 5 gauge to 47/64 inch in diameter (excluding straight lengths over 5/16 inch in diameter)	343,052	347,629	42,949,477
Structural steel shapes:			
Heavy, including sheet piling, beams, angles, channels, tees, zeos, etc., having one leg or web of 3" and over, and a thickness of 1/8" and over	173,292	21,396,409	
Light, including light shapes angles, channels, etc., having a section smaller than that provided under previous item	68,100	8,679,217	
Total structural steel shapes	241,392	234,530	30,075,626
Bars:			
Bars, hot-rolled, of all grades and of all sections, including bolt, nut, rivet, spike, chain, horseshoe and other miscellaneous bars, but omitting all bars reported immediately below	404,752	62,420,403	
Bars for concrete reinforcing, including twisted and other deformed bars	354,672	43,483,111	
Long angle splice bars, tie plate bars and all other long rail joint bars	48,351	-	
Total hot-rolled bars	807,775	723,753	105,903,514
Plates (excluding plate for pipes and tubes)	387,947	387,993	52,275,933
Skelp¹ (hot and cold rolled plate, sheets, strip and bars for pipes and tubes)	347,152	332,897	38,091,098
Other hot-rolled sheets and strip including material for further cold reduction and all other hot-rolled forms	1,773,562	428,103	54,356,848
B. Cold-rolled and coated products¹			
Bars, cold-rolled and cold-drawn	40,437	13,350,163	
Cold-rolled strip	47,932	15,162,828	
Other cold-rolled and coated products, including cold-reduced sheets, black plate for tinning and other black plate, galvanized sheets and strip, tin plate, silicon sheet and strip, but excluding cold-rolled skelp	1,691,992	174,205,603	
C. Other products			
Rail fastenings—Rail joints, including splice bars and fish plates ..	11,256	1,684,824	
Tie plates	36,028	4,787,831	

¹ Note that skelp as listed provides for both hot-rolled and cold-rolled material.

TABLE 21. Production and Factory Shipments of Steel Shapes, 1960 and 1961
(from All Industries) - Concluded

Product	Total tonnage made	Factory sales	
		Tonnage sold in Canada or for export	Income from tonnage sold
	net tons		\$
1961			
A. Hot-rolled products			
Semi-finished rolled forms:			
All semi-finished forms intended for further rolling, including blooms, billets, slabs and sheet bars:			
(a) For sale in Canada		187,478	16,093,109 ✓
(b) For export	137,549	139,417	9,596,928 ✓
Blooms, billets and axle blanks for forging purposes only, whether for own use or for sale to others including export	180,709	156,637	18,461,303
Rounds or billets for seamless tubes including export			
Total semi-finished rolled forms	318,258	483,532	44,151,340
Rails	197,416	190,760	21,555,997
Wire rods, No. 5 gauge to 47/64 inch in diameter (excluding straight lengths over 5/16 inch in diameter)	356,574	354,119	46,362,123
Structural steel shapes:			
Heavy, including sheet piling, beams, angles, channels, tees, zeos etc., having one leg or web of 3" and over, and a thickness of 1/8" and over	249,073	238,784	29,932,352
Light, including light shapes, angles, channels, etc., having a section smaller than that provided under previous item	80,499	79,880	10,480,602
Total structural steel shapes	329,572	318,664	40,412,954
Bars:			
Bars, hot-rolled, of all grades and of all sections, including bolt, nut, rivet, spike, chain, horseshoe and other miscellaneous bars but omitting all bars reported immediately below	437,941	387,120	62,154,751
Bars for concrete reinforcing, including twisted and other deformed bars	402,861	396,194	45,284,452
Long angle splice bars, tie plate bars and all other long rail joint bars	58,993	—	—
Total hot-rolled bars	899,795	783,314	107,439,203
Plates (excluding plate for pipes and tubes)	410,267	403,080	51,542,066
Skelp ¹ (hot and cold-rolled plate, sheets, strip and bars for pipes and tubes)	482,881	483,727	54,435,407
Other hot-rolled sheets and strip including material for further cold reduction and all other hot-rolled forms	1,891,100	436,704	55,416,724
B. Cold-rolled and coated products¹			
Bars, cold-rolled and cold-drawn	41,339	41,218	14,053,870
Cold-rolled strip	48,268	48,820	14,550,921
Other cold-rolled and coated products, including cold-reduced sheets, black plate for tinning and other black plate, galvanized sheets and strip, tin plate, silicon sheet and strip, but excluding cold-rolled skelp	1,881,501	1,178,160	194,365,792
C. Other products			
Rail fastenings—Rail joints, including splice bars and fish plates ..	7,493	7,736	1,150,140
Tie plates	44,401	43,022	5,683,593

¹ Note that skelp as listed provides for both hot-rolled and cold-rolled material.

TABLE 22. Net Production¹ in Canada of Hot-rolled Steel Products, 1957-61

Item	1957	1958	1959	1960	1961
	net tons				
Blooms, billets and slabs	158,924	172,804	232,052	412,348	318,258
Rails	393,926	365,429	286,989	224,306	197,416
Bars for rail fastenings	102,114	72,955	95,346	48,351	58,993
Wire rods	291,300	268,848	382,106	343,052	356,574
Structural shapes	347,693	217,137	268,573	241,392	329,572
Bars	763,419	632,118	854,519	759,424	840,802
Plates (excluding plates for pipes and tubes)	349,626	230,309	416,099	387,947	410,267
Sheets, hoops, bands and strips (excluding skelp) ..	1,194,670	1,147,238	1,772,395	1,773,562	1,891,100
Other hot-rolled forms (including hot-rolled skelp) ..	363,032	349,755	359,635	308,605	486,728
Totals	3,964,704	3,456,593	4,667,714	4,498,987	4,889,710

¹ Inter-mill shipments have been excluded.

TABLE 23. Alloy Steel Products Made and Sold by Rolling Mills, 1960 and 1961

	1960		1961	
	Tonnage made	Tonnage sold	Tonnage made	Tonnage sold
	net tons			
Bars	82,671	71,341	76,840	76,534
Other products, including plates, billets, forgings, sheet piling and wire rods, etc.	123,320	60,507 ¹	142,942	54,012 ¹
Total alloy steel	205,991	131,848	219,782	130,546

¹ Commencing with 1958, includes alloy grinding balls.

TABLE 24. Products Rolled from Axles, etc., 1960 and 1961

	1960		1961	
	Tonnage made	Tonnage sold	Tonnage made	Tonnage sold
	net tons			
Bars	54,743	53,575	40,564	39,773
Other products	8,183	7,129	18,941	18,478
Totals	62,926	60,704	59,505	58,251

TABLE 25. Production and Factory Sales of Steel Rails, 1952-61

Year	Tonnage made	Factory sales	
		Tonnage sold	Income from sales
	net tons		\$
1952	253,675	251,894	21,223,964
1953	303,318	299,808	26,465,922
1954	241,922	232,484	21,421,531
1955	228,991	241,254	22,352,384
1956	336,662	333,979	33,027,029
1957	393,926	383,174	39,978,592
1958	365,429	377,604	41,586,604
1959	286,989	286,419	31,638,649
1960	224,306	223,033	25,385,347
1961	197,416	190,760	21,555,997

TABLE 26. Production and Factory Sales of Finished Rail Fastenings, 1952-61

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		\$
1952	74,519	73,605	7,822,057	16,344	15,803	1,891,455
1953	50,181	50,202	5,530,240	14,939	14,159	1,754,308
1954	39,386	38,027	4,152,574	13,175	12,786	1,545,914
1955	66,856	67,683	7,272,282	15,582	16,812	1,986,547
1956	88,590	86,592	10,103,650	18,487	18,675	2,465,669
1957	78,555	80,575	10,148,065	17,022	16,793	2,502,295
1958	56,118	56,189	7,338,111	14,078	14,088	2,066,753
1959	70,378	70,351	8,970,082	14,853	14,818	2,212,917
1960	36,028	36,108	4,787,831	11,256	11,133	1,684,824
1961	44,401	43,022	5,683,593	7,493	7,736	1,150,140

TABLE 27. Production and Factory Sales¹ of Wire Rods of Iron or Steel, 1952-61

Year	Total tonnage made	Factory sales	
		Tonnage sold	Income from sales
	net tons		\$
1952	315,789	128,900	10,554,693
1953	286,471	113,095	10,687,946
1954	275,121	274,870	26,848,014
1955	357,775	362,258	33,296,084
1956	403,834	403,602	42,565,418
1957	291,300	292,563	34,408,714
1958	268,848	270,210	30,592,181
1959	382,106	380,132	46,182,505
1960	343,052	347,629	42,949,477
1961	356,574	354,119	46,362,123

¹ Beginning with 1954, includes shipments transferred to own mills of producing firms.

TABLE 28. Production and Factory Sales of Blooms, Billets and Slabs, 1952-61

Year	Except for forging ¹			For forging ²		
	Total tonnage made	Factory sales		Total tonnage made	Factory sales	
		Tonnage sold	Income from sales		Tonnage sold	Income from sales
	net tons		\$	net tons		\$
1952	2,587,942	277,588	22,385,697	141,490	122,165	12,560,467
1953	2,760,518	176,515	14,803,628	110,342	103,471	10,424,976
1954	2,201,222	91,378	6,821,716	72,503	59,539	5,927,220
1955	2,864,919	227,833	16,552,854	77,806	70,813	6,561,780
1956	3,490,564	133,991	9,290,169	113,328	102,978	11,282,967
1957		141,062	11,153,452	156,065	146,407	17,108,405
1958		101,343	8,245,163	171,217	166,079	20,274,609
1959		131,574	11,303,743	197,415	194,419	21,518,211
1960		479,229	39,445,817	149,353	140,885	16,837,034
1961		—	—	180,709	156,637	18,461,303

¹ Shipment to other Canadian rolling mills are included.² Includes blanks or pierced billets for seamless tubes.³ Not collected since 1957.

TABLE 29. Production and Factory Sales of Hot-rolled Bars of All Kinds, 1952-61

Year	Total tonnage made	Factory sales	
		Tonnage sold	Income from sales
	net tons		\$
1952	786,972	600,302	81,124,625
1953	732,275	592,078	75,013,792
1954	528,521	445,519	56,525,130
1955	742,494	621,819	79,841,771
1956	947,979	795,675	112,281,656
1957	865,533	718,864	107,391,265
1958	705,073	585,016	86,215,757
1959	949,865	795,274	116,993,886
1960	807,775	723,753	105,903,514
1961	899,795	783,314	107,439,202

TABLE 30. Production and Factory Sales of Structural Steel Shapes,¹ of All Kinds, 1952-61

Year	Total tonnage made	Factory sales	
		Tonnage sold	Income from sales
	net tons		\$
1952	231,091	223,071	23,248,170
1953	283,203	273,591	28,725,067
1954	193,673	190,521	20,056,183
1955	241,698	249,762	26,694,977
1956	316,000	315,564	36,361,986
1957	347,693	341,975	42,823,449
1958	217,137	225,295	29,140,873
1959	268,573	265,194	34,528,656
1960	241,392	234,530	30,075,626
1961	329,572	318,664	40,412,954

¹ In 1956 this category was revised to include sheet piling. Data in above table for previous years have been revised to accommodate this change in classification.

TABLE 31. Production and Factory Sales of Steel Plate,¹ 1952 - 61

Year	Total tonnage made	Factory sales	
		Tonnage sold	Income from sales
	net tons		\$
1952	234,115	234,799	26,071,334
1953	221,818	220,539	23,136,938
1954	201,939	201,524	20,568,611
1955	253,640	251,870	26,162,331
1956	326,208	319,666	36,936,168
1957	349,626	344,616	45,017,409
1958	230,309	226,750	30,618,858
1959	416,099	408,835	53,394,313
1960	387,947	387,993	52,275,933
1961	410,267	403,080	57,542,066

¹ Excludes plate for pipes and tubes.

TABLE 32. Factory Shipments of Ferro-alloys, 1954 - 61 (from All Industries)

Year	Net tons	Year	Net tons
1954	116,141	1958	112,589
1955	189,805	1959	135,526
1956	240,480	1960	137,535
1957	204,483	1961	118,000

TABLE 33. Production and Factory Shipments of Coke Oven Products: Iron and Steel Mills, 1961

Product	Quantity made (including amounts for own use)	Factory shipments	
		Quantity shipped	Value of shipments
			\$
Coke (including breeze)	ton 3,488,575	326,700	4,712,133
Coke oven gas	M cu. ft. 49,670,192	4,731,616	971,510
Tar	Imp. gal. ...	35,082,158	4,646,547
Ammonium sulphate	ton ...	22,420	736,367
Benzol (all grades)	Imp. gal. ...	6,409,368	2,411,740
Toluol	" ...	1,814,239	503,545
Xylol	" ...	1,064,082	387,699
All other products			477,068
Total			14,846,609

Note: Comprehensive details on operations of coke plants, regardless of industrial classification, are published in a monthly report "Coal and Coke Statistics", Catalogue No. 45-002, and in an annual report "The Coal Mining Industry", Catalogue No. 26-206.

TABLE 34. Coke Ovens: Iron and Steel Mills, December 31, 1961

Name of company and location of plant	Coke-making equipment, including reserve equipment (Rated annual capacity, in tons of coal carbonized, given in brackets)
The Algoma Steel Corporation Limited, Sault Ste. Marie, Ontario	In use—57 Wilputte ovens (505,525 tons), and 143 Koppers ovens (1,302,320 tons). In reserve or idle—53 Wilputte ovens (357,700 tons).
Dominion Foundries and Steel Limited, Hamilton, Ontario	In use—105 Koppers ovens (850,000 tons).
Dominion Steel and Coal Corporation Limited, Sydney, Nova Scotia	In use—114 Koppers Becker Under Jet Fired ovens (988,690 tons).
The Steel Company of Canada Limited, Hamilton, Ontario	In use—191 Wilputte ovens (1,660,000 tons).

TABLE 35. Producers of Ferro-alloys, 1961

Name of company	Plant location	Kind of ferro-alloy made
Canadian Carborundum Company, Limited	Niagara Falls, Ontario	Ferrosilicon (by-product)
Chromium Mining & Smelting Corp., Limited	Melocheville, Quebec	Ferrosilicon, silico manganese, ferromanganese, chrom-x, chrome sil-x
Union Carbide Canada Ltd. (Metal & Carbon Div.)	(a) Beauharnois, Quebec	Ferrosilicon, spiegeleisen
	(b) Welland, Ontario	Ferrochrome, ferromanganese, silico manganese, spiegeleisen, ferrochrome-silicon
Electric Reduction Company of Canada, Limited	Buckingham, Quebec	Ferrophosphorus
Exolon Company	Thorold, Ontario	Ferrosilicon (by-product)
Lionite Abrasives Limited	Niagara Falls, Ontario	Ferrosilicon (by-product)
Norton Company	Chippawa, Ontario	Ferrosilicon (by-product)
Simonds Canada Abrasive Co., Limited	Arvida, Quebec	Ferrosilicon (by-product)
Strategic-Udy Metallurgy Limited	Niagara Falls, Ontario	Ferrochrome

TABLE 36. Principal Statistics classified according to Type of Ownership: Iron and Steel Mills, 1961

Type	Establishments	Employees	Salaries and wages	Cost at plant of materials used	Selling value of factory shipments
	number			dollars	
Incorporated companies	42	34,546	193,111,898	351,845,076	789,271,070
Totals	42	34,546	193,111,898	351,845,076	789,271,070

TABLE 37. Principal Statistics grouped according to Selling Value of Factory shipments: Iron and Steel Mills, 1961

Establishments reporting value of factory shipments	Establishments	Employees	Salaries and wages	Cost at plant of materials used	Selling value of factory shipments
	number			dollars	
\$ 100,000 to \$ 199,999	1	127	609,650	353,224	1,298,109
200,000 " 499,999	3		2,984,335	2,395,609	6,089,416
500,000 " 999,999	8		11,032,532	26,795,459	47,974,868
1,000,000 " 4,999,999	16	2,422	178,409,981	322,300,784	733,908,677
5,000,000 and over	14	31,305	75,400	—	—
Head offices	—	16	—	—	—
Totals	42	34,546	193,111,898	351,845,076	789,271,070



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TABLE 38. Employees and Earnings by Provinces: Iron and Steel Mills, 1961

Province	Employees					Earnings			
	Supervisory and office		Production workers		Total	Supervisory and office	Production workers	Total	
	Male	Female	Male	Female					
	number					dollars			
Nova Scotia	}	947	134	4,885	—	5,966	6,115,444	23,487,108	29,602,552
Quebec		3,593	1,045	21,759	175	26,572	32,288,014	120,710,071	152,998,085
Ontario	}	183	26	1,227	—	1,436	1,171,532	6,150,200	7,321,732
Manitoba		91	8	473	—	572	594,957	2,594,572	3,189,529
Saskatchewan									
Alberta									
British Columbia									
Canada		4,814	1,213	28,344	175	34,546	40,169,947	152,941,951	193,111,898

TABLE 39. Production Workers, by Months: Iron and Steel Mills, 1961

Month	Male	Female	Total
	number		
January	25,801	166	25,967
February	25,947	163	26,110
March	27,188	174	27,362
April	28,039	173	28,212
May	28,511	181	28,692
June	29,337	174	29,511
July	29,477	175	29,652
August	30,180	182	30,362
September	29,709	180	29,889
October	29,279	179	29,458
November	28,442	176	28,618
December	28,153	184	28,337
Averages	28,344	175	28,519

TABLE 40. Fuel and Electricity Used: Iron and Steel Mills, 1961

Kind	Quantity	Cost at plant
		\$
Bituminous coal—Canadian	ton	77,844
Imported	"	50,099
Coke	"	7,665
Gasoline	Imp. gal.	776,836
Fuel oil, including kerosene		124,720,485
Wood	cord	150
Gas—Liquefied petroleum gases	Imp. gal.	114,167
Natural	M cu. ft.	5,775,188
Other fuel .....		...
Electricity purchased	kwh.	2,486,988,632
Total .....		...
Electricity generated for own use	kwh.	128,455,690