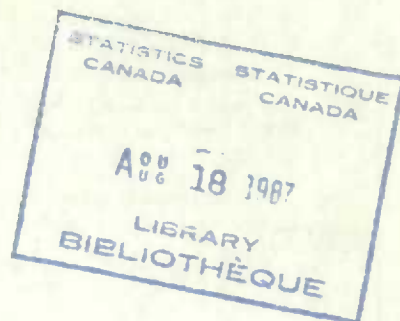


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JUN 4 1955



THE BRIDGE BUILDING AND STRUCTURAL STEEL INDUSTRY, 1954



Published by Authority of
The Right Honourable C. D. Howe, Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS
Industry and Merchandising Division
Metal and Chemical Products Section

6513-594-124

Price 25 cents

Vol. 2—Part XII—D-1

NOTICE

The annual reports prepared by the Industry and Merchandising Division of the Bureau of Statistics are divided into 3 volumes, as follows: Volume I—The Primary Industries, including mining, forestry and fisheries; Volume II—Manufacturing; Volume III—Merchandising and Services. The volumes are made up of parts, and the parts in turn are subdivided according to the industries or provinces which they comprise.

Volume II consists of the following parts, the first two of which deal with manufacturing as a whole and the balance with the major manufacturing groups.

- I—General Review of the Manufacturing Industries, \$1.50
- II—The Manufacturing Industries of Canada, (7 sections, as follows):
 - Section A. Summary for Canada, 25¢
 - Section B. Atlantic Provinces, 25¢
 - Section C. Quebec, 25¢
 - Section D. Ontario, 25¢
 - Section E. Prairie Provinces, 25¢
 - Section F. British Columbia, 25¢
 - Section G. The Manufacturing Industries of Canada, Regional Distribution, 75¢
- III—Foods and Beverages
- IV—Tobacco and Tobacco Products
- V—Rubber Products
- VI—Leather Products
- VII—Textile Mills
- VIII—Knitting Mills
- IX—Clothing
- X—Wood and Paper Products
- XI—Printing Trades
- XII—Iron and Steel Products
- XIII—Transportation Equipment
- XIV—Non-ferrous Metal Products
- XV—Electrical Apparatus and Supplies
- XVI—Non-metallic Mineral Products
- XVII—Products of Petroleum and Coal
- XVIII—Chemicals and Allied Products
- XIX—Miscellaneous Manufactures

The present report belongs in Part XII, Iron and Steel Products. It is punched to permit of filing in a ring binder along with others of the group. The reports in this group are:

- A—General Review, 25¢
- B—The Agricultural Implements Industry, 25¢
- C—The Boilers and Plate Work Industry, 25¢
- D—The Bridge Building and Structural Steel Industry, 25¢
- E—The Hardware, Tools and Cutlery Industry, 25¢
- F—The Heating and Cooking Apparatus Industry, 25¢
- G—The Machinery Industry, 25¢
- H—The Machine Shops Industry, 25¢
- I—The Iron Castings Industry, 25¢
- J—The Primary Iron and Steel Industry, 25¢
- K—The Sheet Metal Products Industry, 25¢
- L—The Wire and Wire Goods Industry, 25¢
- M—The Miscellaneous Iron and Steel Products Industry, 25¢

THE BRIDGE BUILDING AND STRUCTURAL STEEL INDUSTRY, 1954

The value of work done by concerns in the Bridge Building and Structural Steel Industry amounted to \$156,102,978 in 1954, a slight decline from the \$156,327,770 reported in the previous year.

This industry includes all concerns which were occupied chiefly in fabricating or erecting steel for bridges, buildings, etc., and in 1954 covered the operations of 43 plants, of which 21 were located in Ontario, 12 in Quebec, 4 in British Columbia, 3 in Alberta, 2 in Manitoba and 1 in Nova Scotia.

These firms gave employment to a total of 10,881 workers who were paid \$42,167,982 in

salaries and wages. Fuel and electricity cost \$1,394,349 and expenditures for use in manufacturing amounted to \$67,131,407.

The principal products were 276,590 tons of structural work for buildings at \$82,003,246; 66,067 tons of other structural work, such as bridges, transmission towers, etc., at \$24,202,786; plate and tank work at \$12,908,495 and mechanical work, including cranes, trolleys, boilers, machinery, etc., at \$9,531,749. Sales of plain materials were worth \$13,742,614.

TABLE 1. Principal Statistics of the Bridge Building and Structural Steel Industry, Significant Years 1929-1954, and by Provinces, 1953 and 1954

Year and province	Estab- lish- ments	Em- ployees	Earnings	Cost of fuel and electricity at works	Cost at plant of materials used	Value added by manufacture ¹	Gross selling value of products ²
	No.	No.	\$	\$	\$	\$	\$
1929	10	4,977	8,937,427	364,936	14,557,679	19,256,873	34,179,488
1934	18	1,659	2,089,552	170,764	2,765,535	1,763,844	4,700,143
1937	19	3,418	5,004,456	247,801	8,657,728	7,944,795	16,850,324
1939	21	2,949	4,546,648	232,377	6,786,893	8,821,322	15,840,592
1943	22	10,974	23,175,872	1,005,517	24,014,652	47,495,665	72,515,834
1946	25	6,091	15,825,390	639,503	18,896,434	20,586,758	40,122,695
1949	29	7,149	18,576,533	802,391	30,936,308	43,953,532	75,692,231
1950	33	7,434	22,382,499	968,742	36,659,245	44,375,281	82,003,268
1951	34	8,608	28,278,426	1,094,789	48,652,449	59,903,113	109,650,351
1952	38	10,824	37,418,880	1,272,630	62,135,893	76,308,313	139,716,836
1953							
Quebec	13	3,631	13,820,577	425,261	23,771,687	29,123,499	53,320,447
Ontario	22	4,489	17,067,235	563,198	22,529,468	34,551,684	57,644,350
Alberta	3	606	2,143,981	39,066	3,783,827	3,422,422	7,245,315
British Columbia	5	1,519	6,084,070	188,133	8,698,221	15,100,579	23,986,933
Nova Scotia	1	998	3,418,461	130,272	5,413,180	8,587,273	14,130,725
Manitoba	3						
Canada	47	11,243	42,534,324	1,345,930	64,196,383	90,785,457	156,327,770
1954							
Quebec	12	3,311	12,860,652	418,542	21,918,092	26,728,895	49,065,529
Ontario	21	4,614	17,997,844	582,769	23,990,122	33,294,223	57,867,114
Alberta	3	602	2,220,857	33,189	4,256,531	4,518,078	8,807,798
British Columbia	4	1,176	5,073,110	218,713	8,951,247	10,272,889	19,442,849
Nova Scotia	1	1,178	4,015,519	141,136	8,015,415	12,763,137	20,919,688
Manitoba	2						
Canada	43	10,881	42,167,982	1,394,349	67,131,407	87,577,222	156,102,978

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.

1. Gross value less cost of materials, fuel and electricity.

2. See footnote 2 to Table 3.

TABLE 2. Inventories¹ by Provinces, 1954

	Raw materials and supplies	Goods in process ²	Finished goods of own manufacture	Total
	\$	\$	\$	\$
Opening:				
Quebec	7,014,821	4,348,396	631,788	11,995,005
Ontario	12,852,635	4,131,438	961,960	17,946,033
Alberta	1,635,879	1,344,094	4,732	2,984,705
British Columbia	2,929,981	1,460,262	171,201	4,561,444
Nova Scotia and Manitoba	2,115,128	3,164,258	231,812	5,511,198
Canada	26,548,444	14,448,448	2,001,493	42,998,385
Closing:				
Quebec	6,498,080	3,656,624	561,810	10,716,514
Ontario	10,934,555	3,477,778	975,825	15,388,158
Alberta	1,334,241	1,111,068	8,943	2,454,252
British Columbia	3,365,613	1,661,240	119,625	5,146,478
Nova Scotia and Manitoba	2,460,772	2,630,021	206,846	5,297,639
Canada	24,593,261	12,536,731	1,873,049	39,003,041

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

(b) Beginning with 1954, information on the value of year-end inventory holdings at plant and plant warehouses is being collected as part of the annual Census of Industry. These data were formerly collected by a separate survey. The summarized results for the Bridge Building and Structural Steel Industry, for the year under review are shown in the above table.

2. Adjusted to allow for progress payments.

TABLE 3. Products Made in the Bridge Building and Structural Steel Work Industry, 1953 and 1954

Product	1953		1954	
	Quantity	Selling value at works	Quantity	Selling value at works
	tons	\$	tons	\$
Structural work:				
Buildings	209,520	70,001,923	276,590	82,003,246
Bridges	12,956	4,676,594	23,570	9,860,317
Transmission towers	25,776	8,206,760	23,599	6,361,876
All other	49,346	12,734,385	18,898	7,980,593
Total structural work	297,598	95,619,662	342,657	106,206,032
Other production:				
Plate and tank work, including tanks, hoppers, digesters, etc.	—	15,786,483	—	12,908,495
Mechanical work, including cranes, trolleys, boilers, machinery, etc.	—	12,650,512	—	9,531,749
Sales of plain material (channels, etc., unfabricated)	66,668	13,177,978	84,385	13,742,614
Custom work and repairs	—	615,654	—	2,796,935
Other products ¹	—	16,611,386	—	13,116,901
Work done during year on products not completed at year-end ² ..	—	46,716,578	—	41,626,800
Total value of structural work and other production	—	201,178,253	—	199,929,526
Less value of work done in previous years on products completed during the year ²	—	44,850,483	—	43,826,548
Total production for year	—	156,327,770	—	156,102,978

1. Includes barges, reinforcing steel, castings, etc.

2. Details under these headings not collected before 1953; accordingly, total production figures for 1953 and 1954 are not exactly comparable with previous years.

Note: Plate and tank work and some structural work was done also in other industries, particularly in the Boilers and Platemaking Industry.

TABLE 4. Materials Used in The Bridge Building and Structural Steel Work Industry, 1953 and 1954

Material	Unit of measure	1953		1954	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Steel (except alloy steel):					
Bars	ton	50,992	6,344,354	62,629	7,561,659
Plates (3/16 in. and thicker)	"	84,962	10,389,917	86,172	10,182,590
Sheets (under 3/16 in.):					
Black	ton	8,284	1,050,618	8,928	1,083,958
Galvanized	"	276	46,269	241	45,169
Tin plate	"	—	—	384	72,991
Strips (less than 14 in. wide)	ton	4,588	527,093	1,779	207,799
Structural shapes	"	282,740	32,685,936	292,797	34,372,909
Wire	"	1,531	265,475	930	153,676
Alloy steel in all forms:					
Carbon and alloy tool steel, including high speed:					
Billets, bars, rods	—	—	211,973	—	184,823
Other	—	—	13,413	—	15,139
Stainless — Billets, bars and rods	—	—	153,848	—	128,811
Other	—	—	421	—	20,397
Other alloy — Billets, bars and rods	—	—	—	—	—
Other	—	—	5,078	—	5,815
Pipe and fittings, iron and steel	—	—	394,135	—	361,175
Other iron and steel	—	—	2,168,638	—	1,881,738
Non-ferrous metals in all forms:					
Aluminum — Castings	pound	—	—	218	90
Sheet	pound	11,621	6,159	11,320	7,950
Other forms	"	17,420	7,926	23,248	8,422
Brass and bronze	"	23,812	6,806	41,427	12,805
Copper — Sheet	"	13,930	4,178	10,420	3,568
Wire	"	—	—	—	—
Other forms	"	1,932	857	5,837	4,153
Lead	"	—	—	1,667	636
Zinc	"	3,789,629	443,496	3,932,804	444,394
Other non-ferrous metals	—	—	2,792	—	10,009
Other materials and supplies:					
Paints, oils and varnishes	—	—	427,300	—	567,363
Lumber	M. bd. ft.	1,898	198,301	1,031	116,949
All other materials	—	—	8,841,400	—	9,676,419
Total materials and supplies	—	—	64,196,383	—	67,131,407

TABLE 5. Principal Statistics of the Bridge Building and Structural Steel Industry, Grouped According to Size of Establishment, 1953 and 1954

Establishments reporting a value of production	Establishments	Employees	Earnings	Cost of fuel and electricity	Cost at plant of materials used	Gross selling value of products
	No.	No.	\$	\$	\$	\$
1953						
Under \$10,000	1	74	221,535	14,638	235,910	636,902
\$50,000 to \$99,999	4					
\$100,000 to \$199,999	2					
\$200,000 to \$499,999	9	255	912,805	26,369	1,512,335	2,963,765
\$500,000 to \$999,999	4	246	935,346	29,789	1,151,674	2,739,723
\$1,000,000 to \$4,999,999	19	3,874	13,866,819	484,601	21,114,545	47,880,374
\$5,000,000 and over	8	6,794	26,597,819	790,533	40,181,919	102,107,006
Totals	47	11,243	42,534,324	1,345,930	64,196,383	156,327,770
1954						
\$50,000 to \$99,999	1	44	143,685	6,367	258,399	463,078
\$100,000 to \$199,999	3					
\$200,000 to \$499,999	7					
\$500,000 to \$999,999	6	413	1,626,094	59,021	2,179,397	4,547,242
\$1,000,000 to \$4,999,999	18	4,124	15,286,502	475,069	21,240,510	49,380,274
\$5,000,000 and over	8	6,062	24,342,551	817,817	42,384,190	99,654,860
Totals	43	10,881	42,167,982	1,394,349	67,131,407	156,102,978

TABLE 6. Capital and Repair Expenditures in the Bridge Building and Structural Steel Work Industry, 1950 - 1954

Year	Capital expenditures		Sub-total	Repair and maintenance expenditures		Sub-total	Total capital and repair expenditures
	Construction	Machinery and equipment		Construction	Machinery and equipment		
	\$'000						
1950.....	245	1,504	1,749	249	721	970	2,719
1951.....	885	1,514	2,399	327	1,050	1,377	3,776
1952.....	1,651	1,778	3,429	770	1,173	1,943	5,372
1953.....	1,595	2,355	3,950	553	1,201	1,754	5,704
1954 ¹	1,280	2,361	3,641	295	1,064	1,359	5,000

1. Preliminary

TABLE 7. Employees, Salaries and Wages, by Provinces, in the Bridge Building and Structural Steel Work Industry, 1953 and 1954

Province	Number of employees					Earnings		
	Supervisory and office		Production workers		Total	Supervisory and office	Production workers	Total
	Male	Female	Male	Female				
1953						\$	\$	\$
Quebec.....	758	161	2,697	15	3,631	4,706,076	9,114,501	13,820,577
Ontario.....	851	204	3,407	27	4,489	4,769,768	12,297,467	17,067,235
Alberta.....	120	19	464	3	606	572,227	1,571,754	2,143,981
British Columbia.....	263	47	1,209	—	1,519	1,313,726	4,770,344	6,084,070
Other provinces.....	205	50	743	—	998	1,000,446	2,418,015	3,418,461
Canada.....	2,197	481	8,520	45	11,243	12,362,243	30,172,081	42,534,324
1954								
Quebec.....	788	150	2,357	16	3,311	4,975,353	7,885,299	12,860,652
Ontario.....	926	216	3,452	20	4,614	5,474,861	12,522,983	17,997,844
Alberta.....	125	25	449	3	602	527,267	1,693,590	2,220,857
British Columbia.....	235	51	889	1	1,176	1,134,637	3,938,473	5,073,110
Other provinces.....	246	56	876	—	1,178	1,152,125	2,863,394	4,015,519
Canada.....	2,320	498	8,023	40	10,881	13,264,243	28,903,739	42,167,982

TABLE 8. Production Workers by Months, 1953 and 1954

Month	1953			1954		
	Male	Female	Total	Male	Female	Total
	Number					
January.....	8,317	44	8,361	8,182	35	8,217
February.....	8,265	44	8,309	8,236	35	8,271
March.....	8,348	44	8,392	7,947	35	7,982
April.....	8,387	45	8,432	7,552	36	7,588
May.....	8,385	44	8,429	7,811	36	7,847
June.....	8,528	44	8,572	8,165	37	8,202
July.....	8,703	45	8,748	8,242	37	8,279
August.....	8,864	45	8,909	8,194	37	8,231
September.....	8,992	46	9,038	8,317	37	8,354
October.....	8,573	44	8,617	8,343	37	8,380
November.....	8,603	45	8,648	7,931	37	7,968
December.....	8,418	44	8,462	7,385	37	7,422
Average.....	8,520	45	8,565	8,023	40	8,063

List of Firms in The Bridge Building and Structural Steel Work Industry, 1954

Name of firm	Location of plant
Nova Scotia:	
Robb Engineering Works Limited.....	51 La Planche St., Amherst
Quebec:	
B & H Metal Industries Co. Ltd.	4650 Notre Dame St. E., Montreal
Canadian Structural Steel Works Co. Ltd.	4500-17th Ave., Rosemount (Montreal)
Canrail Utilities Ltd.	350 Decarie Blvd., St. Laurent
Dominion Structural Steel Limited.....	6894 Clanranald Ave., Montreal
Dominion Bridge Co. Ltd.	Lachine
Eastern Canada Steel & Iron Works Ltd.....	Lesage Ave., Quebec
Leeds' Bridge and Iron Works Ltd.	175 Wanklyn St., Ville la Salle
Lord & Company Ltd.	4700 Iberville St., Montreal
Mackinnon Structural Steel Company Limited	Sherbrooke
Ross Structural Steel Ltd.	920 Papineau Ave., Montreal
Standard Structural Steel Ltd.	5330 Pare St., Montreal
Steel Structure & Services Ltd.	10,000 Rome, Montreal
Ontario:	
Brayshaws Welding Limited.....	184 Van Horne St., Port Arthur
Bridge & Tank Co. of Canada	Depew St., Hamilton
The Canadian Bridge Company Limited	1219 Walker Road, Walkerville
Central Bridge Company Limited.....	300 West St., Trenton
Disher Steel Construction Co. Limited.....	80 Commissioners St., Toronto
Dominion Bridge Company Limited	1139 Shaw St., Toronto
Dominion Bridge Company Limited	Charlevoix St., Eastview
Eansor, T.J., & Sons Limited	261 Shepherd St. E., Windsor
Frankel Steel Construction Limited	Don Roadway & Eastern Ave., Toronto
Hepburn, John T., Limited	914-948 Dupont St., Toronto
Leeds Bridge and Iron Works Limited.....	Crosby Road, Gananoque
Lock, J.H., & Sons, Ltd.	150 Perth Ave., Toronto
London Steel Construction Co., Limited	48 Burslem St., London
Newman Structural Steel Ltd.	64 North St., St. Catharines
Niagara Structural Steel Ltd.	210 Welland Ave., St. Catharines
Runnymede Steel Construction Ltd.	3382 Dundas St. W., Toronto
Sarnia Bridge Co. Limited	251 Campbell St., Sarnia
Sault Structural Steel Company Limited	150 Conmee Ave., Sault Ste. Marie
Scarboro Steel Works	102 Manville Rd., Geco
Standard Iron & Steel Works Limited.....	3430 Dundas St. W., Toronto
Standard Steel Construction Co. Division of United Steel Corporation Ltd.	Port Robinson
Manitoba:	
Dominion Bridge Company, Limited	Dublin Ave., Winnipeg
Vulcan Iron & Engineering Ltd.....	Sutherland & Maple, Winnipeg
Alberta:	
Dominion Bridge Company Limited.....	803-24th Ave. S.E., Calgary
Standard Iron & Engineering Works, Limited	120th St. and 107th Ave., Edmonton
Western Metal Fabricators Ltd.	2nd Ave. S., Lethbridge
British Columbia:	
Coast Steel Fabricators Ltd.	738 Powell St., Vancouver
Dominion Bridge Co. Ltd.	Boundary Road, Burnaby
Gilchrist Engineering Co. Ltd.	135 W. 2nd Ave., Vancouver
Western Bridge and Steel Fabricators Ltd.	145 W. 1st Ave., Vancouver

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