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DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL AND CHEMICAL BRANCH
OTTAWA - CANADA

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ANNUAL INDUSTRY REPORT

IRON AND STEEL AND THEIR PRODUCTS GROUP

THE BRIDGE BUILDING AND STRUCTURAL STEEL WORK INDUSTRY, 1938

The value of work done by concerns in the Bridge Building and Structural Steel Work Industry amounted to \$14,817,901 in 1938 compared with \$16,850,324 in the previous year and \$26,065,783 in 1930.

This industry includes all concerns which were occupied chiefly in fabricating or erecting steel for bridges, buildings, etc., and in 1938 covered the operations of 21 plants of which 11 were located in Ontario, 5 in Quebec, 2 in British Columbia, 2 in Manitoba and 1 in Alberta.

These firms had a capital investment in Canada for lands, buildings, fixtures, etc., of \$20,425,317 and afforded employment to a monthly average of 3,245 people who received \$5,097,158 in salaries and wages. Their fuel and electricity cost \$252,789 and expenditures for materials to be used in manufacturing cost \$8,006,023.

Principal products during 1938 included - 15,676 tons of bridges at \$2,972,035; 47,665 tons of other structural work, such as, buildings, transmission towers, etc., at \$6,392,881; 6,151 tons of plate and tank work at \$1,059,605; 3,282 tons of mechanical work, including cranes, trolleys, etc., at \$856,476. Sales of plain material were reported at 28,879 tons worth \$2,320,711.

Value of work in process on December 31, 1938, was \$2,654,118, the comparative figure at the end of 1937 being reported at \$2,210,227.

Table 1 - PRINCIPAL STATISTICS OF THE BRIDGE BUILDING AND STRUCTURAL STEEL WORK INDUSTRY, 1930 - 1938

Year	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1930	13	28,922,951	4,943	8,686,062	336,392	12,549,435	26,065,783
1931	21	27,469,351	4,421	7,143,544	333,983	9,132,721	22,170,215
1932	18	24,872,219	2,193	3,635,213	240,236	4,109,142	7,385,013
1933	18	22,905,185	1,433	2,002,483	155,721	1,806,451	5,616,430
1934	18	19,947,521	1,659	2,089,552	170,764	2,765,535	4,700,143
1935	18	18,935,273	2,056	2,742,956	181,024	3,901,609	7,597,599
1936	18	19,672,350	2,567	3,686,714	206,549	5,355,196	11,913,918
1937	19	21,200,308	3,418	5,004,456	247,801	8,657,728	16,850,324
1938	21	20,425,317	3,245	5,097,158	252,789	8,006,023	14,817,901
Per cent change 1938 from 1937		- 3.7	- 5.1	/ 1.9	/ 2.0	- 7.5	- 12.1

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 2 - PRINCIPAL STATISTICS, BY PROVINCES, 1937 and 1938

Province	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
<u>1937</u>							
Quebec	4	6,057,314	1,192	1,786,936	95,092	2,349,752	4,848,357
Ontario	10	10,210,664	1,631	2,332,432	114,227	4,456,388	7,793,585
Manitoba	2)						
Alberta	1)	4,932,330	595	885,088	38,482	1,851,588	4,208,382
British Columbia	2)						
CANADA	19	21,200,308	3,418	5,004,456	247,801	8,657,728	16,850,324
<u>1938</u>							
Quebec	5	6,303,304	1,058	1,814,356	99,492	1,992,352	4,025,691
Ontario	11	9,706,373	1,579	2,280,631	109,687	3,621,756	7,420,429
Manitoba	2)						
Alberta	1)	4,415,640	608	1,002,171	43,610	2,391,915	3,371,781
British Columbia	2)						
CANADA	21	20,425,317	3,245	5,097,158	252,789	8,006,023	14,817,901

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1937 and 1938

Province	Present value of land, buildings, fixtures, machinery, tools and other equipment	Inventory value of materials and finished products on hand, and stocks in process	Operating capital (cash, bills and accounts receivable, etc.)	TOTAL CAPITAL EMPLOYED
	\$	\$	\$	\$
<u>1937</u>				
Quebec	2,386,595	2,081,439	989,280	6,057,314
Ontario	5,745,260	2,619,591	1,845,813	10,210,664
Other provinces	3,006,043	1,325,744	600,543	4,932,330
CANADA	11,737,898	6,026,774	3,455,636	21,200,308

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1937 and 1938 - Concluded

Province	Present value of land, buildings, fixtures, machin- ery, tools and other equipment	Inventory value of materials and finished products on hand, and stocks in process	Operating capital (cash, bills and accounts re- ceivable, etc.)	TOTAL CAPITAL EMPLOYED
	\$	\$	\$	\$
1 9 3 8				
Quebec	2,970,648	1,895,916	1,436,740	6,303,304
Ontario	5,956,735	2,216,842	1,532,796	9,706,373
Other provinces	2,904,043	956,840	554,757	4,415,640
CANADA	11,831,426	5,069,598	3,524,293	20,425,317

Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1937 and 1938

Province	Average Number of Employees					Salaries	Wages	TOTAL
	On salaries		On wages		SALARIES and WAGES			
	Male	Female	Male	Female				TOTAL
						\$	\$	\$
1 9 3 7								
Quebec	330	43	819	...	1,192	780,803	1,006,133	1,786,936
Ontario	299	37	1,295	...	1,631	708,369	1,624,063	2,332,432
Other provinces	137	16	442	...	595	291,042	594,046	885,088
CANADA	766	96	2,556	...	3,418	1,780,214	3,224,242	5,004,456
1 9 3 8								
Quebec	300	39	719	...	1,058	826,422	987,934	1,814,356
Ontario	306	34	1,239	...	1,579	769,143	1,511,488	2,280,631
Other provinces	130	14	464	...	608	299,735	702,436	1,002,171
CANADA	736	87	2,422	...	3,245	1,895,300	3,201,858	5,097,158

Table 5 - WAGE-EARNERS, BY MONTHS, 1937 and 1938

Month	1 9 3 7			1 9 3 8		
	In shops	On erection	Total	In shops	On erection	Total
January	1,416	275	1,691	2,138	589	2,727
February	1,486	225	1,711	2,174	588	2,762
March	1,653	320	1,973	2,039	571	2,610
April	1,934	329	2,263	1,851	584	2,435
May	1,994	519	2,513	1,822	637	2,459
June	2,061	705	2,766	1,745	618	2,363
July	2,176	675	2,851	1,819	657	2,476
August	2,359	696	3,055	1,919	658	2,577
September	2,380	599	2,979	1,792	722	2,514
October	2,409	664	3,073	1,561	602	2,163
November	2,338	641	2,979	1,543	489	2,032
December	2,279	471	2,750	1,529	402	1,931
AVERAGE	2,046	510	2,556	1,829	593	2,422

Table 6 - HOURS WORKED PER WEEK BY WAGE-EARNERS, 1938

Regular hours worked per week	Per cent of wage-earners	Regular hours worked per week	Per cent of wage-earners
Under 30 hours	2.6	49 to 50 hours	19.7
31 - 43 hours	8.8	51 - 54 hours	2.0
44 hours	37.7	55 hours	1.1
45 - 47 hours	13.1	56 - 64 hours	0.7
48 hours	14.0	65 hours and over ...	0.3

Table 7 - FUEL AND ELECTRICITY USED, 1937 and 1938

Kind	Unit of measure	1 9 3 7		1 9 3 8	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal - Canadian	short ton	5,006	33,030	6,075	41,558
Imported	short ton	2,381	16,256	2,451	16,656
Anthracite coal - Imported	short ton	54	853	88	1,228
Coke	short ton	643	6,182	459	4,329
Gasoline	Imp.gal.	65,312	14,408	109,101	24,290
Kerosene	Imp.gal.	2,049	932	888	172
Fuel oil	Imp.gal.	382,297	31,195	334,784	26,762
Wood	cord	27	90	6	36
Gas - Manufactured	M cu. ft.	3,912	4,612	7,650	4,485
Natural	M cu. ft.	32,217	13,141	21,469	9,208
Electricity purchased	K. W. H.	10,578,108	126,629	15,590,063	123,670
Other fuel .....	\$	...	473	...	395
TOTAL .....	\$	...	247,801	...	252,789

Table 8 - POWER EQUIPMENT, 1937 and 1938

	1 9 3 7		1 9 3 8	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and turbines	13	330	14	355
Diesel engines	1	40	4	95
Gasoline, gas and oil engines	35	1,139	35	1,234
Total Primary Equipment	49	1,509	53	1,684
Electric motors run by purchased power	1,661	27,823	1,702	28,315
TOTAL	1,710	29,332	1,755	29,999
Electric motors run by above primary units	79	973	81	1,002
Stationary boilers	73	4,393	75	4,374

Table 9 - POWER EQUIPMENT, SUB-DIVIDED BETWEEN "IN USE" and "IN RESERVE OR IDLE" 1938

	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and turbines	12	310	2	45
Diesel engines	3	90	1	5
Gasoline, gas and oil engines	33	1,184	2	50
Total Primary Equipment	48	1,584	5	100
Electric motors run by purchased power	1,643	27,084	59	1,231
TOTAL	1,691	28,668	64	1,331
Electric motors run by above primary units	78	982	3	20
Stationary boilers	69	3,902	6	472

Table 10 - MATERIALS PURCHASED AND USED, AND INVENTORIES AT END OF 1938

Material	Unit of measure	Stocks	Purchases	Stocks	TOTAL
		on hand Jan.1, 1938	1938	on hand Dec.31, 1938	MATERIALS USED 1938
Structural steel -					
Shapes, including channels, beams, columns, angles, joists, tees and zeos	short ton	27,635	57,791	20,769	64,648
	\$	1,448,045	3,232,372	1,107,029	3,573,388
Plates and sheets	short ton	15,795	34,010	12,950	36,855
	\$	928,098	1,986,795	754,110	2,160,783
Miscellaneous - including bars, billets, slabs, rounds, squares and sheet piling	short ton	6,035	11,867	5,450	12,462
	\$	360,121	756,909	358,113	758,917
Other materials used during the year -					
Electrical apparatus and supplies	\$	2,328	125,752	1,775	126,305
Other complete parts pur- chased (such as engines, boilers, instruments, cast- ings, etc.)	\$	14,149	357,093	18,120	353,122
Lumber	M ft.b.m.	101	1,089	127	1,063
	\$	5,002	38,281	5,796	37,487
Other miscellaneous stores.	\$	306,089	1,007,710	317,778	996,021
TOTAL MATERIALS	\$	3,063,832	7,504,912	2,562,721	8,006,023

Table 11 - MATERIALS USED, 1937 and 1938

Material	1 9 3 7		1 9 3 8	
	Quantity	Cost at	Quantity	Cost at
	Tons	works	Tons	works
Structural steel -		\$		\$
Shapes, including channels, beams, columns, angles, joists, tees and zeos	78,451	4,116,804	64,648	3,573,388
Plates and sheets	44,316	2,291,349	36,855	2,160,783
Miscellaneous - including bars, billets, slabs, rounds, squares and sheet piling	13,726	769,287	12,462	758,917
Other materials -				
Electrical apparatus and supplies .....	...	114,720	...	126,305
Other complete parts purchased, includ- ing engines, boilers, etc. ....	...	330,692	...	353,122
Lumber	M ft.b.m.	1,489	39,503	1,063
Other materials	995,373	...	996,021
TOTAL	8,657,728	...	8,006,023



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Table 12 - PRODUCTS MADE, 1937 and 1938

Product	Quantity	Selling value at works	Quantity	Selling value at works
	Tons	\$	Tons	\$
Bridges	16,948	3,325,045	15,676	2,972,035
Structural work (buildings, transmission towers, etc.)	65,231	8,254,727	47,665	6,392,881
Plate and tank work, including tanks hop- pers, digesters, etc.	9,736	1,599,693	6,151	1,059,605
Mechanical work, including cranes, trolleys, etc.	2,620	825,008	3,282	865,476
Sales of plain material	23,786	1,853,484	28,879	2,320,711
Custom work and repairs .....	...	7,909	...	141,869
Other products .....	...	984,458	...	1,065,324
TOTAL .....	...	16,850,324	...	14,817,901
Value of work in process at end of year.	...	2,210,227	...	2,654,118

DIRECTORY OF FIRMS IN THE BRIDGE BUILDING AND STRUCTURAL STEEL WORK INDUSTRY
1938

Names of Firms

Location of Plants

Canadian Bridge Co. Ltd.	1219 Walker Road, Walkerville, Ont.
Canadian Structural Steel Works Co. Ltd.	4600 Seventh Ave., Rosemount, Montreal, Que.
Dominion Bridge Co. Ltd.	Lachine, Que.; McKay St., Eastview, Ont.;
	1139 Shaw St., Toronto, Ont.; Dublin Ave.,
	Winnipeg, Man.; 805-24th Ave. S.E., Calgary,
	Alta.; 275 - First Ave. W., Vancouver, B.C.
Disher Steel Construction Co. Ltd.	80 Commissioners St., Toronto 2, Ont.
Eansor, T. J., & Sons, Ltd.	300 Pitt St. E., Windsor, Ont.
Eastern Canada Steel & Iron Works Ltd.	Lesage Ave., Quebec, Que.
Hamilton Bridge Co. Ltd.	Depew St. and Caroline St. N., Hamilton, Ont.
Hamilton Bridge, Western, Ltd.	195 First Ave. W., Vancouver, B.C.
London Structural Steel Co. Ltd.	48 Burslem St., London, Ont.
Lord & Co. Ltd.	4700 Iberville St., Montreal, Que.
Mackinnon Steel Corp. Ltd.	Industrial St., Sherbrooke, Que.
Sarnia Bridge Co. Ltd.	251 Campbell St., Sarnia, Ont.
Sault Structural Steel Co. Ltd.	Sault Ste. Marie, Ont.
Standard Iron & Steel Works	3402 Dundas St. W., Toronto, Ont.
Standard Steel Construction Co. Ltd.	Port Robinson, Ont.
Winnipeg Bridge Co. Ltd.	153 Aubert St., St. Boniface, Man.