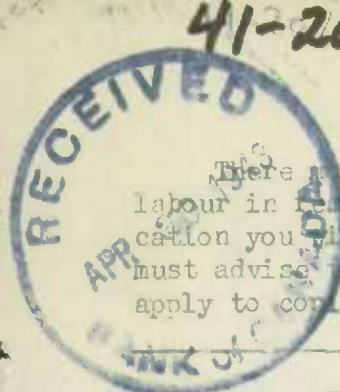


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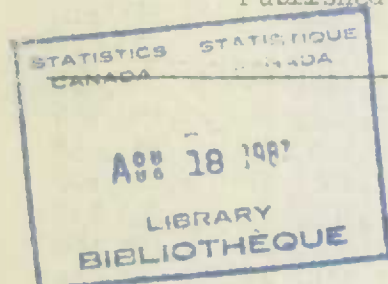
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CENSUS OF INDUSTRY

MINING, METALLURGICAL AND CHEMICAL BRANCH

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Dominion Statistician:	S. A. Cudmore, M.A. (Oxon.), F.S.S., F.R.S.C.
Chief - Mining, Metallurgical and Chemical Branch:	W. H. Losee, B.Sc.
Statistician - Metal and Chemical Products:	H. McLeod, B.Sc.

ANNUAL INDUSTRY REPORTIRON AND STEEL AND THEIR PRODUCTS GROUPTHE BRIDGE BUILDING AND STRUCTURAL STEEL WORK INDUSTRY, 1941

The value of work done by concerns in the Bridge Building and Structural Steel Work Industry amounted to \$53,355,506 in 1941 compared with \$31,230,062 in the previous year.

This industry includes all concerns which were occupied chiefly in fabricating or erecting steel for bridges, buildings, etc., and in 1941 covered the operations of 22 plants of which 12 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 in land, buildings, machinery, supplies, etc., of \$31,508,621 and afforded employment to a monthly average of 7,162 people who received \$12,566,538 in salaries and wages. Their fuel and electricity cost \$576,908 and expenditures for materials to be used in manufacturing were \$20,861,731.

Principal products in 1941 included: 3,034 tons of bridges at \$475,795; 158,063 tons of other structural work, such as, buildings, transmission towers, etc., at \$24,802,013; plate and tank work at \$6,389,739 and mechanical work, including cranes, trolleys, etc., at \$5,195,309. Sales of plain material were reported at 66,249 tons worth \$5,596,748.

Table 1 - PRINCIPAL STATISTICS OF THE BRIDGE BUILDING AND STRUCTURAL STEEL WORK INDUSTRY, 1930-1941

Year	Number 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
1939	21	19,246,277	2,949	4,546,648	232,377	6,786,893	15,840,592
1940	22	24,848,485	4,409	7,478,171	388,958	16,158,502	31,230,062
1941	22	31,508,621	7,162	12,566,538	576,908	20,861,731	58,355,506
Per cent change, 1941 from 1940 .....	..	+26.8	+62.4	+68.0	+48.3	+29.1	+86.9

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, 1940 and 1941

Province	Number 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
		\$		\$	\$	\$	\$
1940							
Quebec ...	5	7,767,092	1,486	2,954,410	138,378	4,465,190	11,404,837
Ontario ..	12	11,800,911	2,287	3,536,931	199,701	9,568,622	14,330,686
Manitoba..	2)						
Alberta ..	1)	5,280,482	636	986,830	50,879	2,124,690	5,494,539
British Columbia.	2)						
CANADA ...	22	24,848,485	4,409	7,478,171	388,958	16,158,502	31,230,062
1941							
Quebec ...	5	11,086,831	2,646	4,886,811	224,764	6,859,522	22,543,780
Ontario ..	12	13,299,460	3,425	5,748,292	243,716	10,819,639	20,113,109
Manitoba..	2)						
Alberta ..	1)	7,122,331	1,091	1,931,435	108,428	3,182,570	15,698,617
British Columbia.	2)						
CANADA ...	22	31,508,621	7,162	12,566,538	576,908	20,861,731	58,355,506

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1940 and 1941

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
	\$	\$	\$	\$
<u>1940</u>				
Quebec	2,689,779	3,827,590	1,249,723	7,767,092
Ontario	4,419,521	4,022,697	3,358,693	11,800,911
Other provinces	3,014,511	1,452,680	813,291	5,280,482
CANADA	10,123,811	9,302,967	5,421,707	24,848,485
<u>1941</u>				
Quebec	2,688,213	4,638,207	3,760,411	11,086,831
Ontario	4,607,348	5,007,319	3,684,793	13,299,460
Other provinces	2,770,243	2,874,423	1,477,664	7,122,331
CANADA	10,065,804	12,519,949	8,922,868	31,508,621

Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1940 and 1941

Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1940 and 1941								
Province	Average Number of Employees					Salaries	Wages	TOTAL SALARIES and WAGES
	On Salaries		On Wages		TOTAL			
	Male	Female	Male	Female				
						\$	\$	\$
<u>1940</u>								
Quebec	333	70	1,083	...	1,486	992,783	1,961,627	2,954,410
Ontario	358	65	1,864	...	2,287	856,798	2,680,133	3,536,931
Other provinces	129	20	487	...	636	307,205	679,625	986,830
CANADA	820	155	3,434	...	4,409	2,156,786	5,321,385	7,478,171
<u>1941</u>								
Quebec	378	97	2,171	...	2,646	1,143,392	3,743,419	4,886,811
Ontario	451	95	2,879	...	3,425	1,093,824	4,654,468	5,748,292
Other provinces	157	28	906	...	1,091	420,107	1,511,328	1,931,435
CANADA	986	220	5,956	...	7,162	2,657,323	9,909,215	12,566,538

Table 5 - WAGE-EARNERS, BY MONTHS, 1940 and 1941 (On the last work-day of each month)

Month	1940		1941	
	Total	In shops	On erection	TOTAL
January	2,207	4,101	925	5,026
February	2,418	4,144	912	5,056
March	2,551	4,172	1,144	5,316
April	2,750	4,093	1,207	5,300
May	2,989	4,471	1,228	5,699
June	3,373	4,689	1,291	5,980
July	3,584	4,868	1,248	6,116
August	3,991	5,006	1,329	6,335
September	4,169	5,006	1,352	6,358
October	4,343	5,189	1,424	6,613
November	4,440	5,408	1,414	6,822
December	4,380	5,474	1,400	6,874
AVERAGE	3,434	4,717	1,239	5,956

Bridge Building

- 4 -

Table 6 - HOURS WORKED PER WEEK BY WAGE-EARNERS, 1940 and 1941 (In one week of month of highest employment; overtime included)

Regular hours worked per week	Number of wage-earners		Regular hours worked per week	Number of wage-earners	
	1940	1941		1940	1941
Under 30 hours ...	127	274	51 - 54 hours	119	268
31-43 hours	185	308	55 hours	498	288
44 hours	492	1,092	56-64 hours	1,853	1,093
45-47 hours	488	558	65 hours and over.	419	1,390
48 hours	336	510	Total	4,747	6,982
49-50 hours	230	1,203	Total wages paid in selected week. \$	156,505	241,954

Table 7 - FUEL AND ELECTRICITY USED, 1940 and 1941

Kind	Unit of measure	1 9 4 0		1 9 4 1	
		Quantity	Cost at works \$	Quantity	Cost at works \$
Bituminous coal - Canadian	ton	9,071	60,182	12,617	91,569
Imported	ton	1,445	11,057	1,898	15,863
Anthracite coal - Imported	ton	89	1,118	1,213	11,477
Coke	ton	988	9,064	538	5,712
Gasoline	Imp.gal.	150,262	35,779	250,238	64,143
Kerosene	Imp.gal.	1,063	178	3,769	482
Fuel oil	Imp.gal.	691,175	54,961	1,362,168	116,126
Wood	cord	15	142	17	167
Gas - Manufactured	M cu.ft.	30,430	15,459	29,784	18,132
Natural	M cu.ft.	57,541	24,832	57,164	25,553
Electricity purchased	K. W. H.	15,896,011	168,349	23,527,466	225,616
Other fuel .....	...	...	7,837	...	2,068
TOTAL .....	...	...	388,958	...	576,908

Table 8 - POWER EQUIPMENT, 1940 and 1941

	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
1 9 4 0				
Steam engines and turbines	14	540	2	45
Gasoline, gas and oil engines ..	40	1,439	4	80
Total Primary Equipment ...	54	1,979	6	125
Electric motors run by purchased power	1,849	26,673	173	2,804
TOTAL	1,903	28,652	179	2,929
Electric motors run by above primary units	22	1,108	...	...
Stationary boilers	43	3,183	28	1,400

Table 8 - POWER EQUIPMENT, 1940 and 1941 (Concluded)

	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
<u>1 9 4 1</u>				
Steam engines and turbines	14	540	2	45
Gasoline, gas and oil engines ..	40	1,352	4	80
Total Primary Equipment ...	54	1,892	6	125
Electric motors run by purchased power	1,932	27,548	134	1,966
TOTAL	1,986	29,440	140	2,091
Electric motors run by above primary units	83	1,158	...	...
Stationary boilers	43	3,182	26	1,328

Table 9 - MATERIALS PURCHASED AND USED, AND INVENTORIES AT END OF 1941

Material	Unit of measure	Stocks on hand Jan. 1, 1941	Purchases 1941	Stocks on hand Dec. 31, 1941	TOTAL MATERIALS USED 1941
<u>Structural Steel -</u>					
Shapes, including channels, beams, columns, angles, joists, tees and zeos	ton	38,102	158,604	41,754	154,952
	\$	2,233,799	8,423,061	2,610,794	8,046,066
Plates and sheets	ton	20,374	55,832	12,755	63,451
	\$	1,344,857	3,632,199	831,212	4,145,844
Miscellaneous - including bars, billets, slabs, rounds, squares and sheet piling	ton	7,517	30,768	8,441	29,844
	\$	528,112	1,884,788	570,603	1,842,297
<u>Other Materials Used During the Year -</u>					
Electrical apparatus and supplies	\$	2,807	426,301	1,000	428,108
Other complete parts pur- chased (such as, engines, boilers, instruments, castings, etc.)	\$	17,815	3,495,660	37,500	3,475,975
Lumber	M ft. b. m.	2,734	22,865	120	25,479
	\$	127,882	732,219	8,694	851,407
Other miscellaneous stores.	\$	223,135	2,226,260	377,361	2,072,034
TOTAL MATERIALS	\$	4,478,407	20,820,488	4,437,164	20,861,731



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Bridge Building

- 6 -

Table 10 - MATERIALS USED, 1940 and 1941

Material	1	9	4	0	1	9	4	1
	Quantity		Cost at		Quantity		Cost at	
	Tons		\$		Tons		\$	
Structural steel -								
Shapes, including channels, beams, columns, angles, joists, tees and zees	144,983		8,078,907		154,952		8,046,066	
Plates and sheets	51,893		3,096,173		63,451		4,145,844	
Miscellaneous - including bars, billets, slabs, rounds, squares and sheet piling	21,955		1,936,338		29,844		1,842,297	
Other materials -								
Electrical apparatus and supplies.	...		238,015		...		428,108	
Other complete parts purchased, including engines, boilers, etc.	...		601,725		...		3,475,975	
Lumber M ft.b.m. .	15,295		670,806		25,479		851,407	
Other materials .....	...		1,536,538		...		2,072,034	
TOTAL .....	...		16,158,502		...		20,861,731	

Table 11 - PRODUCTS MADE, 1940 and 1941

Product	1	9	4	0	1	9	4	1
	Quantity		Selling value at		Quantity		Selling value at	
	Tons		\$		Tons		\$	
Bridges	8,778		1,821,598		3,034		475,795	
Structural work (buildings, transmission towers, etc.)	126,946		17,045,194		158,063		24,802,013	
Plate and tank work, including tanks, hoppers, digesters, etc. .	...		3,624,766		...		6,389,739	
Mechanical work, including cranes, trolleys, etc. ....	...		2,229,552		...		5,195,309	
Sales of plain material	49,998		4,276,171		66,249		5,596,748	
Custom work and repairs .....	...		196,447		...		433,298	
Other products (x) .....	...		2,036,334		...		15,462,604	
TOTAL .....	...		31,230,062		...		58,355,506	

(x) Includes munitions, sections for ships, etc.