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

Dominion Statistician: R. H. Coats, LL.D., F.R.S.C., F.S.S. (Hon.)
Chief - Mining, Metallurgical and Chemical Branch: W. H. Losee, B.Sc.

IRON AND STEEL AND THEIR PRODUCTS

THE RAILWAY ROLLING STOCK INDUSTRY, 1934.

Production from the Railway Rolling Stock Industry during 1934 was valued at \$34,352,911, an improvement of 14 per cent over the \$29,672,265 reported for 1933. The corresponding total for 1932 amounted to \$32,465,192 and for 1929 to \$126,487,037.

This industry includes only the factories which were engaged chiefly in making or repairing cars and locomotives or in making parts such as wheels, tires, brakes, springs, etc. In 1934 there were 37 establishments in this category, including 15 in Ontario, 11 in Quebec, 4 in Manitoba, 3 in Nova Scotia, 3 in Alberta, and 1 in New Brunswick.

The number of employees in 1934 was 16,095 compared with 16,172 in 1933 but payments in salaries and wages advanced to \$16,312,271 from \$14,584,021, indicating longer working hours than in 1933 although many shops were still on part time. Works in Quebec employed 7,003 persons; in Manitoba, 4,103; in Ontario, 2,289; in Alberta, 1,524, and in the Maritimes, 1,176.

Materials used in manufacturing cost \$16,756,285 in 1934 compared with \$13,574,592 in 1933, and fuel and electricity cost \$1,527,920 against \$1,535,225 for last year.

Only 19 freight cars valued at \$49,567 were made in 1934. No new locomotives or passenger cars were reported. Car wheels were valued at \$1,860,603; springs at \$256,813; brakes, brakeshoes and parts at \$288,973; brakebeams and parts at \$132,629; tires at \$184,817, and miscellaneous car and locomotive parts at \$1,594,658.

Imports of railway rolling stock in 1934 included 44 tank cars at \$25,599; 4 passenger cars at \$8,290; 7 box or flat cars at \$8,392; 245 other cars at \$30,451; 14 motor cars for railways and parts for same at \$24,041; railway car parts, \$160,650; springs for railway vehicles at \$2,379; tires in the rough for railway vehicles at \$509,672; 2 railway locomotives at \$2,039; 19 locomotives and motor cars for mining operations at \$54,225; parts for locomotives at \$12,270, and axles and axle blanks for railway vehicles at \$20,479.

Table 1 - PRINCIPAL STATISTICS, 1925 - 1934.

Years	No. of plants	Capital employed	Average number of em- ployees	Salaries and wages	Cost of materials at works	Selling value of products at works	Value added by manu- facturing
		\$		\$	\$	\$	\$
1925	35	78,039,179	20,202	26,580,356	25,895,490	53,050,665	27,155,175
1926	36	82,024,510	22,286	30,721,743	38,053,559	72,706,052	34,652,493
1927	35	81,519,950	21,436	30,269,896	38,518,449	74,466,912	35,948,463
1928	35	89,053,842	22,417	32,452,781	38,110,053	73,422,057	35,312,004
1929	35	94,415,563	25,488	38,311,179	74,156,037	126,487,037	52,331,000
1930	37	95,785,640	25,952	37,625,050	60,289,445	104,922,701	44,633,256
1931	38	97,484,985	21,773	28,111,765	35,335,573	67,865,070	32,529,497
1932	38	87,289,160	15,612	17,460,142	14,101,765	32,465,192	18,363,427
1933	37	86,509,047	16,172	14,584,021	13,574,592	29,672,265	16,097,673
1934	37	82,897,836	16,095	16,312,271	16,756,285	34,352,911	17,596,626

Table 2 - PRINCIPAL STATISTICS, BY PROVINCES, 1933 and 1934.

Years	No. of plants	Capital employed	Average number of em- ployees	Salaries and wages	Cost of materials at works	Selling value of products at works	Value added by manu- facturing
		\$		\$	\$	\$	\$
<u>1933</u>							
Nova Scotia and New Brunswick..	4	8,776,502	1,325	1,294,521	2,037,040	3,732,916	1,695,876
Quebec	11	36,444,150	6,915	5,921,685	5,343,876	11,569,029	6,225,153
Ontario	15	20,602,715	2,104	2,209,416	2,003,840	4,505,890	2,502,050
Manitoba	4	13,955,918	4,242	3,763,684	3,120,427	7,307,355	4,186,928
Alberta	3	6,729,762	1,586	1,394,715	1,069,409	2,557,075	1,487,666
CANADA	37	86,509,047	16,172	14,584,021	13,574,592	29,672,265	16,097,673
<u>1934</u>							
Nova Scotia and New Brunswick .	4	7,384,235	1,176	1,188,636	1,309,479	2,487,267	1,177,788
Quebec	11	35,683,853	7,003	7,172,102	7,827,156	15,303,461	7,476,305
Ontario	15	19,211,519	2,289	2,442,642	2,766,465 2,766,465	5,667,238	2,900,775
Manitoba	4	13,899,473	4,103	4,004,353	3,593,560	8,038,666	4,445,106
Alberta	3	6,718,756	1,524	1,504,538	1,259,627	2,856,279	1,596,652
CANADA	37	82,897,836	16,095	16,312,271	16,756,285	34,352,911	17,596,626

Table 3 - SIZE OF ESTABLISHMENTS ACCORDING TO PRODUCTION, NUMBER OF EMPLOYEES AND CAPITAL EMPLOYED, 1934.

	Number of plants	Capital employed	Average number of employees	Selling value of products at works
		\$		\$
(a) PRODUCTION				
Under \$100,000	7	3,808,472	110	324,093
\$100,000 to \$500,000	14	22,489,544	1,414	3,579,210
\$500,000 to \$1,000,000	5	12,049,366	1,279	3,045,985
Over \$1,000,000	11	44,550,454	13,292	27,403,623
TOTAL	37	82,897,836	16,095	34,352,911

Table 3 - SIZE OF ESTABLISHMENTS ACCORDING TO PRODUCTION, NUMBER OF EMPLOYEES AND CAPITAL EMPLOYED, 1934 (concluded)

	Number of plants	Capital employed \$	Average number of employees	Selling value of products at works \$
(b) EMPLOYEES				
Under 25	5	308,091	39	385,327
25 to 50	4	3,851,229	129	284,682
50 to 100	8	10,327,734	628	2,003,400
100 to 250	6	17,205,225	1,112	2,647,262
250 to 500	4	7,896,350	1,385	2,723,637
500 to 1,000	4	12,329,986	3,470	7,580,884
Over 1,000	6	30,979,221	9,332	18,727,719
TOTAL	37	82,897,836	16,095	34,352,911
(c) CAPITAL				
Under \$250,000	7	651,341	101	561,175
\$250,000 to \$1,000,000	7	4,145,245	736	2,062,299
\$1,000,000 to \$3,000,000	11	21,027,650	3,232	7,596,648
Over \$3,000,000	12	57,073,600	12,026	24,132,789
TOTAL	37	82,897,836	16,095	34,352,911

Table 4 - CAPITAL EMPLOYED, BY PROVINCES, 1933 and 1934.

Provinces	Present value of lands, build- ings, machinery, tools and other equipment \$	Inventory value of materials on hand and stocks in process \$	Inventory value of finished products on hand \$	Operating capital (cash, bills and accounts receivable, pre- paid expenses, etc.) \$	TOTAL CAPITAL EMPLOYED \$
1933					
Nova Scotia and New Brunswick..	5,568,923	165,083	717,889	2,324,607	8,776,502
Quebec	29,239,103	3,293,780	150,218	3,761,049	36,444,150
Ontario	16,222,913	892,740	531,172	2,955,890	20,602,715
Manitoba	11,541,100	2,154,818	60,000	200,000	13,955,918
Alberta	6,027,448	702,314	...	...	6,729,762
CANADA	68,599,487	7,208,735	1,459,279	9,241,546	86,509,047
1934					
Nova Scotia and New Brunswick .	5,632,136	148,093	734,662	869,344	7,384,235
Quebec	31,086,486	3,443,451	125,576	1,028,340	35,683,853
Ontario	16,458,170	965,365	341,710	1,446,274	19,211,519
Manitoba	11,546,337	2,112,136	60,000	181,000	13,899,473
Alberta	6,035,338	683,418	...	...	6,718,756
CANADA	70,758,467	7,352,463	1,261,948	3,524,958	82,897,836

Table 5 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1933 and 1934.

Provinces	AVERAGE NUMBER OF EMPLOYEES					Salaries	Wages	TOTAL SALARIES AND WAGES
	On salaries		On wages		TOTAL			
	Male	Female	Male	Female				
						\$	\$	\$
1933								
Nova Scotia and New Brunswick	89	2	1,232	2	1,325	187,110	1,107,411	1,294,521
Quebec	529	27	6,330	29	6,915	1,056,263	4,865,422	5,921,685
Ontario	234	18	1,852	...	2,104	524,837	1,684,579	2,209,416
Manitoba	238	14	3,990	...	4,242	478,887	3,284,797	3,763,684
Alberta	94	2	1,490	...	1,586	196,561	1,198,154	1,394,715
CANADA	1,184	63	14,894	31	16,172	2,443,658	12,140,363	14,584,021

Table 5 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1933 and 1934. (continued)

Provinces	AVERAGE NUMBER OF EMPLOYEES					Salaries	Wages	TOTAL SALARIES AND WAGES
	On salaries		On wages		TOTAL			
	Male	Female	Male	Female				
						\$	\$	\$
1934								
Nova Scotia and New Brunswick .	89	1	1,085	1	1,176	182,491	1,006,145	1,188,636
Quebec	530	27	6,424	22	7,003	1,075,416	6,096,686	7,172,102
Ontario	236	23	2,030	...	2,289	505,174	1,937,468	2,442,642
Manitoba	230	14	3,859	...	4,103	465,412	3,538,941	4,004,353
Alberta	93	2	1,429	...	1,524	196,353	1,308,185	1,504,538
CANADA	1,178	67	14,827	23	16,095	2,424,846	13,887,425	16,312,271

Table 6 - WAGE-EARNERS, BY MONTHS, 1933 and 1934.

Months	1933			1934		
	Male	Female	TOTAL	Male	Female	TOTAL
January	15,242	39	15,281	14,774	28	14,802
February	15,530	38	15,568	15,139	29	15,168
March	15,601	39	15,640	15,167	28	15,195
April	15,900	36	15,936	15,250	26	15,276
May	15,770	36	15,806	15,094	26	15,120
June	15,156	27	15,183	14,810	20	14,830
July	14,443	26	14,469	14,755	19	14,774
August	14,268	25	14,293	14,653	19	14,672
September	14,211	25	14,236	14,407	19	14,426
October	14,135	25	14,160	14,522	19	14,541
November	14,210	25	14,235	14,637	24	14,661
December	14,245	25	14,270	14,695	22	14,717
AVERAGE	14,894	31	14,925	14,827	23	14,850

Table 7 - FUEL AND ELECTRICITY USED, 1933 and 1934.

Kinds	Unit of measure	1933		1934	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal - Canadian ..	short ton	90,974	322,934	85,499	317,680
Imported ..	short ton	72,299	374,761	58,264	270,425
Anthracite coal	short ton	155	1,701	149	1,654
Lignite coal - Canadian	short ton	50,102	132,383	72,653	183,933
Coke	short ton	762	6,592	2,844	14,024
Gasoline	Imp. gal.	19,923	3,953	23,799	4,325
Kerosene	Imp. gal.	4,364	779	6,902	1,272
Fuel oil	Imp. gal.	1,858,313	110,761	2,447,526	153,493
Wood	cord	277	1,527	308	1,704
Gas - Manufactured	M cu. ft.	18,360	18,560	14,412	20,928
Natural	M cu.ft.	1,011	404	1,111	444
Other fuel	xxx	...	6,363	...	6,589
Electricity purchased	K.W.H.	71,252,877	554,507	79,154,020	551,449
TOTAL	xxx	...	1,535,225	...	1,527,920
Electricity generated for own use	K.W.H.	5,005,492	...	4,195,454	...

Table 8 - POWER EQUIPMENT, 1933 and 1934.

Kinds	1 9 3 3		1 9 3 4	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and steam turbines	50	16,614	53	16,614
Gasoline, gas and oil engines	4	1,050	4	1,050
Hydraulic turbines and water wheels	3	25	...	...
Total Primary Equipment	57	17,689	57	17,664
Electric motors run by purchased power .	5,595	93,258	5,319	91,130
TOTAL POWER EQUIPMENT	5,652	110,947	5,376	108,794
Electric motors run by power generated by above primary units	542	6,246	558	6,985
Total Electric Motors	6,137	99,504	5,877	98,115
Boilers	134	61,377	136	63,177

Table 9 - MATERIALS USED, 1933 and 1934.

		1 9 3 3		1 9 3 4	
Materials	Unit of measure	Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Iron and steel -					
Pig iron	long ton	7,653	166,710	13,530	296,497
Wrought iron bars, skelp, etc.	short ton	67	6,126	88	8,100
Malleable iron bars, etc.	short ton	135	14,721	298	33,959
Iron castings (purchased)	short ton	5,659	369,796	5,790	391,031
Ingots, blooms and billets ..	short ton	777	46,350	1,190	62,372
Bars and rods, steel '.....	short ton	5,883	329,474	8,141	451,528
Wire, steel	short ton	132	14,404	135	13,080
Shafting, steel	short ton	844	45,743	53	5,641
Plates, steel	short ton	7,856	397,594	5,261	286,908
Sheets, steel - Plain	short ton)	679	43,995	422	26,806
Galvanized ..	short ton)			405	30,002
Structural shapes, steel	short ton	2,179	112,116	1,735	92,497
Castings, steel	short ton	5,316	779,123	3,710	687,826
Alloy steel	short ton	916	56,580	96	42,705
Scrap iron and steel	short ton	56,873	508,732	69,258	744,086
Other iron and steel	short ton	...	103,721	499	46,434
Other metals -					
Aluminium	lb.	4,253	2,282	5,757	2,466
Brass and bronze castings	lb.	2,895,312	438,958	3,719,899	533,483
Brass and bronze sheets, etc. lb.		42,944	8,887	50,896	11,965
Copper	lb.	61,513	11,709	81,737	13,525
Lead	lb.	180,418	9,453	72,506	3,721
Tin	lb.	21,994	11,743	26,824	15,140
Zinc	lb.	87,510	3,681	37,730	1,901
Babbitt metal and solder	lb.	140,057	25,692	201,493	39,493
Other metals	xx	...	4,684	...	6,597
Articles used for further manufacture -					
Iron and steel pipe, tubes and fittings	xx	...	228,714	...	289,933
Bolts, nuts, rivets and screws x		...	340,686	...	431,185
Electrical goods	xx	...	122,467	...	163,538
Paints, oils and varnishes ..	xx	...	218,862	...	274,139
Centres	No.	...	73,258	2,082	91,473
Tires	No.	...	559,508	16,035	693,762
Wheels	No.	...	487,551	47,767	546,692

Table 9 - MATERIALS USED, 1933 and 1934 (concluded)

Table 3 - MATERIALS USED, 1933 and 1934 (continued)					
Materials	Unit of measure	1 9 3 3	Cost at works	1 9 3 4	Cost at works
		Quantity		Quantity	
</					

Table 10 - PRODUCTS, 1933 and 1934.

NOTE - Figures given in the following table are only for the Railway Rolling Stock Industry, which includes concerns that make railway cars, locomotives or parts as their chief products or are engaged principally in repairing cars or locomotives (see Directory). Data given in this table, therefore, do not necessarily represent the total production in Canada of the commodities listed as these articles also may have been produced by concerns which have been classified to other industrial groups.. The figure (1) indicates that the data given do not represent the totals for Canada.

Products	Unit of measure	1 9 3 3	Selling value at works \$	1 9 3 4	Selling value at works \$
		Quantity		Quantity	
Brake beams and parts	xx	...	42,661	...	132,629
Brakes, brake shoes and parts(1) .. xx		...	273,901	...	288,973
Cars, standard, steam, railway -					
Passenger	No.	10	88,620	...	...
Freight	No.	579	1,637,607	19	49,567
Cars, electric railway, passenger . No.		...	...	12	100,748
Cars for mines and quarries, etc. . No.		157	34,180	382	93,062
Parts for cars and locomotives, not specified elsewhere					
Rings, piston, for locomotives lb.		165,182	23,941	107,890	24,134
Springs for railway cars and locomotives	lb.	3,451,334	200,169	3,976,342	256,813
Tires	lb.	29,377,556	839,038	3,602,465	184,817
Car wheels	xx	...	952,971	...	1,860,603
Repairs on freight cars	xx	...	5,666,218	...	6,656,739
Repairs on passenger cars	xx	...	3,339,895	...	3,914,467
Repairs on locomotives	xx	...	7,370,355	...	8,294,819
Received for custom and repair work xx		...	1,430,684	...	1,141,940
Castings, iron (sold as such)(1) short ton		...	662,283	18,963	1,011,832
Forgings (sold as such) (1) short ton		...	269,165	4,649	392,555
Railway track equipment (1)	xx	...	594,542	...	104,872
Scrap iron and steel (1)	short ton	52,511	351,080	64,938	397,706
All other products(x)	xx	...	4,693,733	...	7,851,977
TOTAL	xx	...	29,672,265	...	34,352,911

(x) Includes products reported by one or two firms, viz. - diesel engines, oil refining and refrigerating equipment, railway track motor cars, auto and bus bodies, mining machinery, etc.

Table 11 - PRODUCTION OF RAILWAY CAR WHEELS, RAILWAY CARS AND LOCOMOTIVES IN CANADA,
1923 - 1934.

Years	Railway car wheels	Railway Cars		Locomotives	
		Number	Selling value	Number	Selling value
			at works		at works
	\$		\$		\$
1923	3,731,738	7,856	29,967,400	138	7,666,531
1924	4,291,857	4,544	15,943,719	84	5,678,620
1925	3,547,542	1,435	3,415,475	8	342,000
1926	3,893,942	3,335	17,438,251	57	3,316,348
1927	4,235,349	5,005	14,640,385	57	4,417,770
1928	4,292,045	3,058	11,286,155	48	3,086,266
1929	4,978,633	13,242	53,933,537	98	8,389,781
1930	3,687,847	8,348	34,533,255	108	6,772,938
1931	2,457,989	5,288	19,782,973	26	1,897,493
1932	1,694,440	282	358,287	2	39,173
1933	952,971	589	1,726,227	...	...
1934	1,860,603	31	150,315	...	...

LIST OF FIRMS INCLUDED IN THE RAILWAY ROLLING STOCK INDUSTRY IN CANADA,
1934.

NOTE - This directory carries only the names of concerns which the Bureau has classified, for statistical purposes, to the Railway Rolling Stock Industry. It is not intended to be a complete list of the concerns which manufacture parts for railway rolling stock. (See Note to Table 10).

<u>Names</u>	<u>Location of Plants</u>
<u>NOVA SCOTIA</u> -	
Canadian Car & Foundry Co. Ltd.	Amherst
Eastern Car Co. Ltd.	Trenton
Wheel & Foundry Co. Ltd.	New Glasgow
<u>NEW BRUNSWICK</u> -	
Canadian National Railways	Moncton
<u>QUEBEC</u> -	
Canadian Car & Foundry Co. Ltd.	Ville St. Pierre, Montreal, and Cote St. Paul, Montreal
Canadian National Railways	Pointe St. Charles, Montreal Riviere du Loup, and St. Malo
Canadian Pacific Railway Company	Montreal
Canadian Steel Tire & Wheel Co. Ltd.	Montreal East
Coghlin, B.J., Co. Ltd.	Montreal
Montreal Locomotive Works Ltd.	Longue Pointe, Montreal
<u>ONTARIO</u> -	
Buffalo Brake Beam Company	Hamilton
Canadian Iron Foundries Limited	Fort William, Hamilton, and St. Thomas
Canadian Locomotive Co. Ltd.	Kingston
Canadian National Railways	Leaside, London, and Stratford
Dominion Brake Shoe Co. Ltd.	St. Thomas
Dominion Wheel & Foundries Ltd.	Cobourg and Toronto



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LIST OF FIRMS INCLUDED IN THE RAILWAY ROLLING STOCK INDUSTRY IN CANADA, 1934.
(concluded)

<u>Names</u>	<u>Location of Plants</u>
<u>ONTARIO - (concluded)</u>	
Fairmont Railway Motors Ltd.	Toronto
Hamant Steel Car & Engineering Works	Hamilton
National Steel Car Corp. Ltd.	Hamilton
Ottawa Car Mfg. Co. Ltd.	Ottawa
<u>MANITOBA -</u>	
Canadian National Railways	Transcona and Winnipeg
Canadian Pacific Railway Company	Winnipeg
Dominion Wheel & Foundries Limited	St. Boniface
<u>ALBERTA -</u>	
Canadian National Railways	Edmonton (2 plants)
Canadian Pacific Railway Company	Calgary