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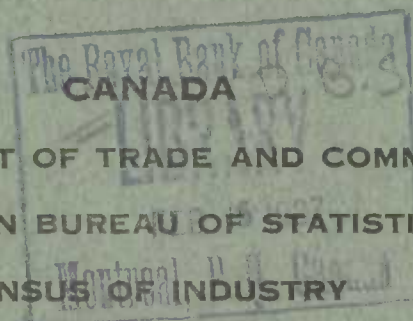
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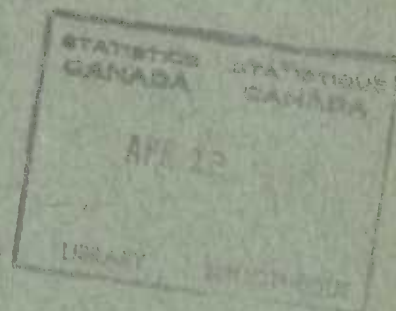
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Canada Railway Equipment



DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
CENSUS OF INDUSTRY
MINING, METALLURGICAL & CHEMICAL BRANCH



THE RAILWAY ROLLING STOCK
INDUSTRY
IN
CANADA
1935

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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.

ANNUAL INDUSTRY REPORT

IRON AND STEEL AND THEIR PRODUCTS GROUP

THE RAILWAY ROLLING STOCK INDUSTRY, 1935.

Production from the Railway Rolling Stock Industry during 1935 was valued at \$41,213,039, an increase of 20 per cent over the \$34,352,911 of the previous year, which in turn was 14 per cent over the \$29,672,265 reported for 1933.

This industry includes only those factories which were engaged chiefly in the making or repairing of cars and locomotives, or in making parts such as wheels, tires, brakes, springs, etc. In 1935, as 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.

Employees in 1935 numbered 16,921 with salaries and wages at \$18,785,671, the comparative figures for 1934 being 16,095 employees and \$16,312,271. Plants in Quebec afforded work to a monthly average of 7,272 people; Manitoba, 4,223; Ontario, 2,551; Alberta, 1,505, and the Maritimes, 1,370 people.

Materials used in manufacturing and the general maintenance of railway rolling stock cost \$20,769,208 in 1935 as against \$16,756,285 in 1934, while expenditures for fuel and electricity cost \$1,636,866 against \$1,527,920.

Among the products made during the year were 537 new freight cars at \$2,013,184, 4 new locomotives at \$111,500, 13 gasoline-electric cars at \$4,675, car wheels at \$1,942,603, and wheel tires at \$205,407.

Imports of railway rolling stock during the year included 8 tank cars at \$7,425, 55 box or flat cars at \$8,410, 230 other cars at \$43,303, 7 railway motor cars and parts at \$19,381, railway car parts at \$172,693, springs for railway vehicles at \$2,840, tires in the rough for railway vehicles at \$578,714, 8 railway locomotives at \$39,825, 25 locomotives and motor cars for mining operations at \$68,738, parts for locomotives at \$25,689, axles and axle blanks for railway vehicles at \$22,801.

Table 1 - PRINCIPAL STATISTICS, 1925 - 1935.

Years	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works
		\$		\$	\$	\$	\$
1925	35	78,039,179	20,202	26,580,356	1,813,011	25,895,490	53,050,665
1926	36	82,024,510	22,286	30,721,743	2,006,005	38,053,559	72,706,052
1927	35	81,519,950	21,436	30,269,896	1,994,771	38,518,449	74,466,912
1928	35	89,053,842	22,417	32,452,781	1,906,566	38,110,053	73,422,057
1929	35	94,415,563	25,488	38,311,179	2,570,981	74,156,037	126,487,037
1930	37	95,785,640	25,952	37,625,050	2,450,641	60,289,445	104,922,701
1931	38	97,484,985	21,773	28,111,765	1,859,505	35,335,573	67,865,070
1932	38	87,289,160	15,612	17,460,142	1,630,979	14,101,765	32,465,192
1933	37	86,509,047	16,172	14,584,021	1,535,225	13,574,592	29,672,265
1934	37	82,897,836	16,095	16,312,271	1,527,920	16,756,285	34,352,911
1935	37	86,547,010	16,921	18,785,671	1,636,866	20,769,208	41,213,039

Table 2 - PRINCIPAL STATISTICS, BY PROVINCES, 1934 and 1935.

Years	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity	Cost of materials at works	Selling value of products at works
		\$		\$	\$	\$	\$
1934							
Nova Scotia and New Brunswick..	4	7,384,235	1,176	1,188,636	110,770	1,309,479	2,487,267
Quebec	11	35,683,853	7,003	7,172,102	759,061	7,827,156	15,303,461
Ontario	15	19,211,519	2,289	2,442,642	226,752	2,766,463	5,667,238
Manitoba	4	13,899,473	4,103	4,004,353	323,223	3,593,560	8,038,666
Alberta	3	6,718,756	1,524	1,504,538	108,114	1,259,627	2,856,279
CANADA	37	82,897,836	16,095	16,312,271	1,527,920	16,756,285	34,352,911
1935							
Nova Scotia and New Brunswick..	4	7,840,414	1,370	1,469,264	134,364	1,876,670	3,461,006
Quebec	11	37,556,898	7,272	8,235,112	777,662	9,275,356	18,040,841
Ontario	15	20,173,624	2,551	2,933,871	243,071	4,173,710	7,611,959
Manitoba	4	14,242,168	4,223	4,558,528	361,227	4,297,986	9,264,003
Alberta	3	6,733,906	1,505	1,588,896	120,542	1,145,486	2,835,230
CANADA	37	86,547,010	16,921	18,785,671	1,636,866	20,769,208	41,213,039

Table 3 - SIZE OF ESTABLISHMENTS ACCORDING TO PRODUCTION, NUMBER OF EMPLOYEES AND CAPITAL EMPLOYED, 1935.

	Number of plants	Capital employed	Average number or employees	Selling value of products at works
		\$		\$
(a) PRODUCTION				
Under \$100,000	5	687,342	54	221,676
\$100,000 to \$500,000	4	8,361,563	1,034	2,736,801
\$500,001 to \$1,000,000	14	16,556,579	1,525	3,957,114
Over \$1,000,000	14	60,941,526	14,308	34,297,448
TOTAL	37	86,547,010	16,921	41,213,039

Table 3 - SIZE OF ESTABLISHMENTS ACCORDING TO PRODUCTION, NUMBER OF EMPLOYEES AND CAPITAL EMPLOYED, 1935. (concluded)

	Number of plants	Capital employed \$	Average number of employees	Selling value of products at works \$
(b) EMPLOYEES				
Under 25	5	353,892	40	424,849
25 to 50	3	950,178	118	295,574
51 to 100	5	3,466,207	352	1,572,147
101 to 250	8	21,641,448	1,411	4,046,246
251 to 500	6	16,300,148	1,933	5,109,443
501 to 1,000	4	12,413,839	3,570	8,436,080
Over 1,000	6	31,421,298	9,497	21,328,700
TOTAL	37	86,547,010	16,921	41,213,039
(c) CAPITAL				
Under \$250,000	7	742,325	120	662,602
\$250,000 to \$1,000,000 ...	7	4,019,141	735	2,380,855
\$1,000,001 to \$3,000,000 .	9	15,484,557	3,145	8,380,223
Over \$3,000,000	14	66,300,987	12,921	29,789,359
TOTAL	37	86,547,010	16,921	41,213,039

Table 4 - CAPITAL EMPLOYED, BY PROVINCES, 1934 and 1935.

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 \$
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
1935.					
Nova Scotia and New Brunswick.	5,366,710	1,725,182	...	748,522	7,840,414
Quebec	30,916,751	5,267,132	...	1,373,015	37,556,898
Ontario	16,505,159	1,885,206	...	1,783,259	20,173,624
Manitoba	11,700,528	2,441,640	...	100,000	14,242,168
Alberta	6,056,227	677,679	...	...	6,733,906
CANADA	70,545,375	11,996,839	...	4,004,796	86,547,010

Table 5 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1934 and 1935.

AVERAGE NUMBER OF EMPLOYEES								TOTAL
Provinces	On salaries		On wages		TOTAL	Salaries	Wages	SALARIES AND WAGES
	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 5 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1934 and 1935. (concluded)

AVERAGE NUMBER OF EMPLOYEES								
Provinces	On salaries		On wages		TOTAL	Salaries	Wages	TOTAL SALARIES AND WAGES
	Male	Female	Male	Female				
						\$	\$	\$
1 9 3 5								
Nova Scotia and New Brunswick.	95	1	1,272	2	1,370	201,922	1,267,342	1,469,264
Quebec	559	29	6,663	21	7,272	1,095,124	7,139,988	8,235,112
Ontario	254	24	2,273	...	2,551	549,234	2,384,637	2,933,871
Manitoba	225	14	3,984	...	4,223	476,457	4,082,071	4,558,528
Alberta	95	...	1,410	...	1,505	206,650	1,382,246	1,588,896
CANADA	1,228	68	15,602	23	16,921	2,529,387	16,256,284	18,785,671

Table 6 - WAGE-EARNERS, BY MONTHS, 1934 and 1935.

Months	1 9 3 4			1 9 3 5		
	Male	Female	TOTAL	Male	Female	TOTAL
January	14,774	28	14,802	15,018	25	15,043
February	15,139	29	15,168	15,241	25	15,266
March	15,167	28	15,195	15,434	25	15,459
April	15,250	26	15,276	15,631	25	15,656
May	15,094	26	15,120	15,586	26	15,612
June	14,810	20	14,830	15,289	24	15,313
July	14,755	19	14,774	15,140	21	15,161
August	14,653	19	14,672	15,035	20	15,055
September	14,407	19	14,426	15,280	20	15,300
October	14,522	19	14,541	16,061	22	16,083
November	14,637	24	14,661	16,279	21	16,300
December	14,695	22	14,717	17,446	21	17,467
AVERAGE	14,827	23	14,850	15,602	23	15,625

Table 7 - FUEL AND ELECTRICITY USED, 1934 and 1935.

Kinds	Unit of measure	1 9 3 4		1 9 3 5	
		Quantity	Cost at works \$	Quantity	Cost at works \$
Bituminous coal - Canadian ...	short ton	85,499	317,680	95,906	369,239
Imported ...	short ton	58,264	270,425	59,329	267,202
Anthracite coal	short ton	149	1,654	155	1,666
Lignite coal - Canadian	short ton	72,653	183,933	77,058	206,418
Coke	short ton	2,844	14,024	681	6,337
Gasoline	Imp. gal.	23,799	4,325	28,105	5,355
Kerosene	Imp. gal.	6,902	1,272	1,752	311
Fuel oil	Imp. gal.	2,447,526	153,493	2,894,953	186,031
Wood	cord	308	1,704	333	1,842
Gas - Manufactured	M cu. ft.	14,412	20,928	31,738	28,322
Natural	M cu. ft.	1,111	444	1,238	495
Other fuel	xxx	...	6,589	...	49
Electricity purchased	K. W. H.	79,154,020	551,449	78,396,646	563,599
TOTAL	xxx	...	1,527,920	...	1,636,866
Electricity generated for own use	K. W. H.	4,195,454	...	5,752,644	...

Table 8 - POWER EQUIPMENT, 1934 and 1935.

Kinds	1 9 3 4		1 9 3 5	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and steam turbines	53	16,614	57	20,598
Gasoline, gas and oil engines	4	1,050	4	1,050
Hydraulic turbines and water wheels	3	25	3	25
Total Primary Equipment	57	17,664	64	21,673
Electric motors run by purchased power ..	5,319	91,130	5,378	92,648
TOTAL POWER EQUIPMENT	5,376	108,794	5,442	114,321
Electric motors run by power generated				
by above primary units	558	6,985	559	6,985
Total Electric Motors	5,877	98,115	5,937	99,633
Boilers	136	63,177	116	60,157

Table 9 - MATERIALS USED, 1934 and 1935.

Materials	Unit of measure	1 9 3 4		1 9 3 5	
		Quantity	Cost at works \$	Quantity	Cost at works \$
Iron and steel ..					
Pig iron	long ton	13,530	296,497	12,772	276,524
Wrought iron	short ton	88	8,100	96	7,965
Malleable iron bars, etc.	short ton	298	33,959	357	39,202
Iron castings (purchased)	short ton	5,790	391,031	5,614	366,691
Forgings	short ton	...	...	1,996	104,772
Bars and rods, steel	short ton	8,141	451,528	15,093	824,143
Wire, steel	short ton	135	13,080	169	17,071
Shafting, steel	short ton	53	5,641	112	13,421
Plates, steel	short ton	5,261	286,908	12,686	610,109
Sheets, steel - Plain	short ton	422	26,806)	2,311	105,194
Galvanized	short ton	405	30,002)		
Structural shapes, steel	short ton	1,735	92,497	3,496	247,559
Castings, steel	short ton	3,710	687,826	13,019	783,097
Alloy steel	short ton	96	42,705	74	32,030
Scrap iron and steel	short ton	69,258	744,086	76,015	826,004
Other iron and steel	short ton	1,689	108,806	1,055	63,957
Other metals ..					
Aluminium	lb.	5,757	2,466	13,484	4,343
Brass and bronze castings	lb.	3,719,899	533,483	3,053,752	447,530
Brass and bronze sheets, etc. .	lb.	50,896	11,965	67,909	12,083
Copper	lb.	81,737	13,525	74,182	13,911
Lead	lb.	72,506	3,721	49,679	3,578
Tin	lb.	26,824	15,140	21,222	15,305
Zinc	lb.	37,730	1,901	32,721	2,392
Babbitt metal and solder	lb.	201,493	39,493	165,741	39,247
Other metals	xx	...	6,597	...	8,339
Articles used for further manufacture ..					
Iron and steel pipe, tubes and					
fittings	xx	...	289,933	...	323,904
Bolts, nuts, rivets and screws. xx	xx	...	431,185	...	455,297
Electrical goods	xx	...	163,538	...	229,041
Paints, oils and varnishes	xx	...	274,139	...	361,745
Centres	No.	2,082	91,473	1,140	48,618
Tires	No.	16,035	693,762	13,800	603,076
Wheels	No.	47,767	546,692	54,536	582,785
Parts for cars, engines, etc. . xx	xx	...	1,696,457	...	1,854,368

Table 9 - MATERIALS USED, 1934 and 1935. (concluded)

Materials	Unit of measure	1	9	3	4	1	9	3	5
		Quantity		Cost at works		Quantity		Cost at works	
					\$				\$
Other articles of this class.....	xx	...			1,045,706	...			925,993
Other materials -									
Foundry coke	short ton	14,450			152,009	14,921			165,107
Moulding and core sands	short ton	8,996			29,461	7,379			32,493
Foundry facings	lb.	...			15,703	...			17,959
Lumber	M bd. ft.	18,565			551,587	19,018			691,785
Firebrick and cupola blocks	xx	...			25,339	343,058			27,739
Fireclay	short ton	1,048			8,383	1,122			9,406
Core oil and core compounds	xx	...			13,111	...			15,418
All other materials	xx	...			6,880,044	...			9,560,007
TOTAL	xx	...			16,756,285	...			21,769,208

Table 10 - PRODUCTS MANUFACTURED, 1934 and 1935.

Products	Quantity	1	9	3	4	1	9	3	5
		Selling value at works		Selling value at works		Selling value at works		Selling value at works	
					\$				\$
Cars, standard steam railway: - Freight ..No.	19				49,567	537			2,013,184
Passenger ..No.	...				...	...			...
Cars, steam railway, gasoline-electrical ..No.	...				...	13			4,675
Cars, electric railway	No.	12			100,748	...			...
Locomotives, new	No.	...			...	4			111,500
Tires for railway car wheels	lb.	3,602,465			184,817	3,986,133			205,407
Wheels for railway cars	xx	...			1,860,603	...			1,942,603
Repairs on freight cars	xx	...			6,656,739	...			7,897,792
Repairs on passenger cars	xx	...			3,914,467	...			4,469,777
Repairs on locomotives	xx	...			8,294,819	...			9,382,374
Other custom and repair work	xx	...			1,141,940	...			2,623,438
All other products (x)	xx	...			12,149,211	...			12,562,289
TOTAL	xx	...			34,352,911	...			41,213,039

(x) Includes brake beams, brakes, brakeshoes, springs, iron castings, mining machinery, buses and bus bodies, track equipment, etc.

Table 11 - PRODUCTION OF RAILWAY CAR WHEELS, RAILWAY CARS AND LOCOMOTIVES IN CANADA, 1923 - 1935.

Years	Railway Cars			Locomotives	
	Railway car wheels	Number	Selling value at works	Number	Selling value 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	...	...
1935	1,942,603	550	2,017,841	4	111,500

LIST OF FIRMS INCLUDED IN THE RAILWAY ROLLING STOCK INDUSTRY, 1935.

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.

<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 (Quebec)
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
Canada 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
Fairmont Railway Motors Ltd.	Toronto
Hammant 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

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