

42-211
C.1

Published by Authority of the HON. R. B. HANSON, K.C., M.P.,
Minister of Trade and Commerce

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, 1933.

Production from the Railway Rolling Stock Industry during 1933 was valued at \$29,672,265, a decline of 8 per cent from the total of \$32,465,192 in 1932. Corresponding totals for earlier years were \$67,865,070 in 1931, \$104,922,701 in 1930, \$126,487,037 in 1929 and \$73,422,057 in 1928.

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, brakeshoes, etc. In 1933 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 operating plants was one less than in the previous year as the car shop in Prince Edward Island was closed in 1933.

The number of employees in 1933 was 16,172 compared with 15,612 in 1932 but payments for salaries and wages dropped to \$14,584,021 from \$17,460,142. Works in Quebec employed 6,915 persons; in Manitoba, 4,242; in Ontario, 2,104; in Alberta, 1,586, and in the Maritimes, 1,325.

Materials used in manufacturing cost \$13,574,592 in 1933 compared with \$14,101,765 in 1932 and fuel and electricity cost \$1,535,225 against \$1,630,979 for last year.

Only 10 new passenger cars and 579 freight cars were made in 1933; the total value was \$1,726,227. No new locomotives were reported. Car wheels were valued at \$952,971; brakes, brakeshoes and parts at \$273,901; brakebeams and parts at \$42,661; tires at \$839,033, and miscellaneous car and locomotive parts at \$1,201,222.

Imports of railway rolling stock in 1933 included 130 tank cars at \$92,052, 78 other cars at \$4,675, 6 motor cars for railways and parts for same at \$8,439, railway car parts at \$160,758, springs for railway vehicles at \$2,582, tires in the rough for railway vehicles at \$363,124, 1 railway locomotive at \$1,915, 20 locomotives and motor cars for mining operations at \$43,538, parts for locomotives at \$21,654, and axles and axle blanks for railway vehicles at \$11,022.

Table 1 - PRODUCTION OF RAILWAY CAR WHEELS, RAILWAY CARS AND LOCOMOTIVES IN CANADA, 1923 - 1933.

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	...	...

Table 2 - PRINCIPAL STATISTICS OF THE RAILWAY ROLLING STOCK INDUSTRY IN CANADA, 1929-1933.

Years	No. of plants	Capital employed	Average number of employees	Salaries and wages	Cost of materials at works	Selling value of products at works	Value added by manufacturing
		\$		\$	\$	\$	\$
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 -							
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

Table 3 - CAPITAL EMPLOYED, BY PROVINCES, 1932 and 1933.

Provinces	Present value of lands, buildings, 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
	\$	\$	\$	\$	\$
1932					
P.E.I., N.S. and N.B.	6,994,341	243,063	733,556	637,603	8,613,563
Quebec	29,402,201	3,764,782	177,542	4,967,158	38,311,683
Ontario	16,288,226	915,231	296,447	2,176,977	19,676,881
Manitoba	11,416,322	2,179,485	17,580	293,812	13,907,199
Alberta	6,051,530	728,304	...	...	6,779,834
CANADA	70,152,620	7,835,865	1,225,125	8,075,550	87,289,160
1933					
N.S. and N.B..	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

Table 4 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1932 and 1933.

Provinces	Average number of employees					Salaries	Wages	TOTAL SALARIES AND WAGES
	On salaries		On wages		TOTAL			
	Male	Female	Male	Female				
						\$	\$	\$
1932								
P.E.I., N.S., and N.B.	93	2	1,157	2	1,254	197,480	1,117,431	1,314,911
Quebec	658	29	5,026	26	5,739	1,265,924	6,062,168	7,328,092
Ontario	325	26	1,963	...	2,314	662,375	1,892,943	2,555,318
Manitoba	250	15	4,435	...	4,700	537,494	4,066,060	4,603,554
Alberta	103	2	1,500	...	1,605	215,684	1,442,583	1,658,267
CANADA	1,429	74	14,081	28	15,612	2,878,957	14,581,185	17,460,142
1933								
N.S. and N.B.	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 - WAGE-EARNERS, BY MONTHS, 1932 and 1933.

Months	1	2	3	4	1	2	3	4
	Male	Female	TOTAL		Male	Female	TOTAL	
January	17,294	32	17,326		15,242	39	15,281	
February	17,174	40	17,214		15,530	38	15,568	
March	16,973	40	17,013		15,601	39	15,640	
April	15,410	36	15,446		15,900	36	15,936	
May	13,858	32	13,890		15,770	36	15,806	
June	13,220	25	13,245		15,156	27	15,183	
July	13,390	24	13,414		14,443	26	14,469	
August	12,644	20	12,664		14,268	25	14,293	
September	12,427	21	12,448		14,211	25	14,236	
October	12,256	21	12,277		14,135	25	14,160	
November	11,723	23	11,746		14,210	25	14,235	
December	12,607	23	12,630		14,245	25	14,270	
AVERAGE	14,081	28	14,109		14,894	31	14,925	

Table 6 - NUMBER OF WAGE-EARNERS IN MONTH OF HIGHEST EMPLOYMENT, ACCORDING TO HOURS USUALLY WORKED PER WEEK, 1933. (Overtime not included)

Regular hours per week	Number of wage-earners		Regular hours per week	Number of wage-earners	
	1932	1933		1932	1933
40 hours or less	16,289	14,456	51 - 53 hours	7	49
41 - 43 hours	13	55	54 hours	359	14
44 hours	258	364	55 hours	50	459
45 - 47 hours	308	406	56 - 59 hours	46	58
48 hours	317	275	60 hours	43	77
49 - 50 hours	308	240	Over 60 hours	22	44

Table 7 - FUEL AND ELECTRICITY USED, 1932 and 1933.

Kinds	Unit of measure	1	9	3	2	1	9	3	3
		Quantity		Cost at works		Quantity		Cost at works	
					\$				\$
Bituminous coal - Canadian ..	short ton	90,216			359,419	90,974			322,934
Imported ..	short ton	83,463			439,399	72,299			374,761
Anthracite coal	short ton	705			6,210	155			1,701
Lignite coal - Canadian	short ton	46,463			119,780	50,102			132,383
Coke	short ton	1,169			8,751	762			6,592
Gasoline	Imp. gal.	25,605			5,714	19,923			3,953
Kerosene	Imp. gal.	13,911			2,975	4,364			779
Fuel oil	Imp. gal.	1,747,501			98,832	1,858,313			110,761
Wood	cord	270			1,422	277			1,527
Gas - Manufactured	M cu.ft.	20,743			22,031	18,360			18,560
Natural	M cu.ft.	753			301	1,011			404
Other fuel	xxx	...			414	...			6,363
Electricity purchased	K.W.H.	47,414,201			565,731	71,252,877			554,507
TOTAL	xxx	...			1,630,979	...			1,535,225

Table 8 - POWER EQUIPMENT, 1932 and 1933.

Kinds	1	9	3	2	1	9	3	3
	Number of units		Total rated horse power		Number of units		Total rated horse power	
Steam engines and steam turbines	54			17,564	50			16,614
Gasoline, gas and oil engines	4			1,050	4			1,050
Hydraulic turbines and water wheels ....	...			...	3			25
Total Primary Equipment	58			18,614	57			17,689
Electric motors run by purchased power .	5,375			91,161	5,595			93,258
TOTAL POWER EQUIPMENT	5,433			109,775	5,652			110,947
Electric motors run by power generated by above primary units	563			6,644	542			6,246
Total Electric Motors	5,938			97,805	6,137			99,504
Boilers	131			36,297	134			61,377

Table 9 - MATERIALS USED, 1932 and 1933.

Materials	Unit of measure	1	9	3	2	1	9	3	3
		Quantity		Cost at works		Quantity		Cost at works	
					\$				\$
Iron and steel -									
Pig iron	long ton	6,855			163,282	7,653			166,710
Wrought iron bars,skelp,etc. short ton		93			8,099	67			6,126
Malleable iron bars, etc. .. short ton		164			27,636	135			14,721
Iron castings purchased short ton		11,308			784,735	5,659			369,796
Ingots, blooms and billets.. short ton		1,230			62,584	777			46,350
Bars and rods, steel	short ton	8,354			406,766	5,883			329,474
Wire, steel	short ton	69			8,902	132			14,404
Shafting, steel	short ton	135			13,025	844			45,743
Plates, steel	short ton	9,605			248,674	7,856			397,594
Sheets, steel	short ton	1,523			41,233	679			43,995
Structural shapes, steel ... short ton		2,036			58,472	2,179			112,116
Castings, steel	short ton	3,315			613,754	5,316			779,123
Alloy steel	short ton	55			34,502	916			56,580
Scrap iron and steel	short ton	70,160			819,372	56,873			508,732
Other iron and steel	xx	...			38,776	...			103,721

Table 9 - MATERIALS USED, 1932 and 1933 (concluded)

Materials	Unit of measure	1	9	3	2	1	9	3	3
		Quantity			Cost at works	Quantity			Cost at works
					\$				\$
Other metals -									
Aluminium	lb.	...			...	4,253			2,282
Brass and bronze castings ...	lb.	2,795,587			449,861	2,893,312			438,938
Brass and bronze sheets, etc..	lb.	...			...	42,944			8,887
Copper	lb.	121,544			11,402	61,513			11,709
Lead	lb.	120,246			8,279	180,418			9,453
Tin	lb.	18,400			5,613	21,994			11,743
Zinc	lb.	...			...	87,510			3,681
Babbitt metal and solder	lb.	139,332			25,947	140,057			25,692
Other metals	xx	...			1,484	...			4,684
Articles used for further manufacture -									
Iron and steel pipe, tubes and fittings	xx	...			258,773	...			228,714
Bolts, nuts, rivets and screwsxx		...			364,689	...			340,686
Electrical goods	xx	...			...	...			122,467
Paints, oils and varnishes ..	xx	...			276,919	...			218,862
Centres	No.	1,684			64,358	...			73,258
Tires	No.	16,162			562,358	...			559,508
Wheels	xx	...			...	...			487,551
Parts for cars, engines, etc..	xx	...			1,508,856	...			1,401,004
Other articles of this class. xx		...			...	...			633,898
Other materials -									
Foundry coke	short ton	12,428			137,199	10,238			105,526
Moulding sands	short ton	5,740			21,981	5,886			21,720
Foundry facings	lb.	751,526			10,641	...			9,920
Lumber	M cu.ft.	19,275			551,473	14,679			427,291
Firebrick and cupola blocks .	No.	...			27,614	251,389			23,925
Fireclay	short ton	1,476			6,398	1,274			6,518
Core oil and core compounds .	xx	...			8,923	...			7,856
All other materials	xx	...			6,505,185	...			5,393,634
TOTAL	xx	...			14,101,765	...			13,574,592

Table 10 - PRODUCTS, 1932 and 1933.

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	2	1	9	3	3
		Quantity			Selling value at works	Quantity			Selling value at works
					\$				\$
Brakebeams and parts	lb.	1,338,995			72,037	...			42,661
Brakes, brakeshoes and parts (1)	lb.	10,377,449			278,426	...			273,901
Cars, standard, steam railway, passenger	no.	...			...	10			88,620
Cars, standard, steam railway, freight	no.	282			358,287	579			1,637,607
Car wheels	no.	160,518			1,694,440	89,702			952,971
Castings, iron (sold as such) (1)	ton	10,575			702,189	10,636			662,283
Forgings (1)	ton	3,685			371,889	2,929			269,165
Locomotives, new	no.	2			39,173	...			...

Table 10 - PRODUCTS, 1932 and 1933 (concluded)

NOTE - See previous page.

Products	Unit of measure	1	9	3	2	1	9	3	3
		Quantity	Selling value		at works	Quantity	Selling value		at works
					\$				\$
Parts, car and locomotive, not included elsewhere (1)	xx	...			1,209,834	...			1,201,222
Rings, piston	lb.	181,358			27,954	165,182			23,941
Scrap iron and steel (1)	ton	42,269			322,056	52,511			351,080
Springs	xx	...			83,535	...			200,169
Tires	xx	...			214,186	...			839,038
Repairs on freight cars	xx	...			6,190,621	...			5,666,218
Repairs on passenger cars	xx	...			4,044,766	...			3,339,895
Repairs on locomotives	xx	...			8,689,748	...			7,370,355
Amount received for other custom and repair work	xx	...			430,201	...			1,430,684
All other products (x)	xx	...			7,735,850	...			5,322,455
TOTAL	xx	...			32,465,192	...			29,672,265

(x) Includes products which were reported by only 1 or 2 firms, viz., oil refining equipment, cast iron pipe, track motor car units, mining machinery, narrow gauge mining cars, track ties, sashweights, etc.

Table 11 - LIST OF FIRMS INCLUDED IN THE RAILWAY ROLLING STOCK INDUSTRY IN CANADA, 1933.

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
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

Table 11 - LIST OF FIRMS INCLUDED IN THE RAILWAY ROLLING STOCK INDUSTRY IN CANADA, 1933.
(concluded)

NOTE - See previous page.

<u>Names</u>	<u>Location of Plants</u>
<u>ONTARIO</u> - concluded	
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 Ltd.	St. Boniface
<u>ALBERTA</u> -	
Canadian National Railways	Edmonton
Canadian Pacific Railway Company	Calgary

- - - - -

STATISTICS CANADA LIBRARY
BIBLIOTHÈQUE STATISTIQUE CANADA



1010684937