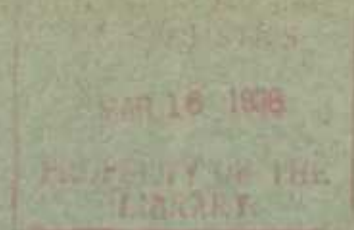


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**CANADA**  
**DEPARTMENT OF TRADE AND COMMERCE**  
**DOMINION BUREAU OF STATISTICS**  
**CENSUS OF INDUSTRY**  
**MINING, METALLURGICAL & CHEMICAL BRANCH**

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**THE BOILERS, TANKS & ENGINES**  
**INDUSTRY**  
**IN**  
**CANADA**  
**1934**

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OTTAWA - CANADA

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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.

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IRON AND STEEL AND THEIR PRODUCTS

THE BOILERS, TANKS AND ENGINES INDUSTRY, 1934.

In accordance with the Statistics Act each manufacturing concern in Canada is required to submit to the Dominion Bureau of Statistics at Ottawa, a yearly report covering such items as production, employment, capital, etc. In most cases a manufacturer makes more than one product but is not asked to apportion these details between the different products which he manufactures. It is impossible, therefore, except in a few cases, to compile detailed figures of employment, etc., for any single commodity.

For the presentation of these detailed statistics, the Bureau has sub-divided manufacturing into nine groups of industries, producing concerns being classified according to the principal component material of their major products. For example, the pulp and paper industry is classified under "Wood and Paper"; boiler manufacturers under "Iron and Steel and Their Products," etc. These main groups are further divided into industries to which the concerns are allotted according to the nature of their main products. The iron and steel group is subdivided into 14 industries, one being the Boilers, Tanks and Engines Industry which is reviewed in this bulletin. This industry covers the operations of establishments which made as their chief products such articles as boilers or heating radiators, engines, tanks, and miscellaneous products from steel plate such as bins, hoppers, smokestacks, etc. It is apparent, however, from the explanation given above, that the production figures as compiled for this industry do not necessarily represent the total Canadian output for the commodities listed as they may have been produced also as minor products of firms in other industries. Supplementary tables have been added to give total output figures for boilers, engines, tanks and steel plate products.

Fifty-one establishments were included in the Boilers, Tanks and Engines Industry in 1934, there being 26 in Ontario, 9 in Quebec, 8 in British Columbia, 6 in Nova Scotia, 1 in Manitoba, and 1 in Saskatchewan. These works reported fixed and working capital at \$14,202,122, employed an average of 2,047 workers, and paid out \$2,291,422 in salaries and wages. Materials for manufacturing cost \$2,432,907 and the value of products was \$6,485,814.

The total Canadian production of heating and power boilers of all kinds, including the output in other industrial groups, was valued at \$1,598,939 in 1934; engines (excluding automobile engines) were valued at \$877,862, and tanks of all kinds at \$1,526,758.

Imports into Canada during the calendar year 1934 included 29,760 automobile engines valued at \$5,282,822; 304 diesel engines at \$761,698; 257 marine type internal combustion engines at \$146,192; 734 outboard motors at \$82,816; 19 aircraft engines at \$62,356; 70 engines at \$16,746 for use in fishing boats; 2,844 other internal

combustion engines at \$405,669; and 16 steam engines at \$44,865. Imports of boilers and complete parts were valued at \$70,869.

Exports during 1934 included 236 internal combustion engines valued at \$45,461 and 1 steam engine at \$349. Re-exports of imported internal combustion engines numbered 87 worth \$75,834.

Table 1 - PRINCIPAL STATISTICS OF THE BOILERS, TANKS AND ENGINES INDUSTRY, 1921-1934.

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
		\$		\$	\$	\$	\$
1921 .....	39	9,783,160	3,105	2,455,769	2,479,032	6,960,170	4,481,138
1922 .....	43	10,370,771	1,616	2,045,712	2,036,213	4,904,613	2,868,400
1923 .....	34	8,907,457	1,422	1,856,119	2,144,355	4,929,920	2,785,565
1924 .....	32	9,140,981	1,242	1,619,323	1,588,530	3,667,610	2,079,080
1925 .....	32	8,638,759	1,367	1,832,540	2,322,798	4,540,706	2,217,908
1926 .....	34	8,880,350	1,532	1,993,722	2,576,122	5,343,208	2,767,086
1927 .....	33	9,329,528	1,654	2,260,284	2,853,951	5,945,694	3,091,743
1928 .....	35	9,352,068	1,752	2,393,200	3,228,497	6,507,437	3,278,940
1929 .....	37	10,665,197	2,157	3,043,768	5,091,406	10,006,278	4,914,872
1930 .....	35	9,982,016	1,924	2,649,804	4,565,856	9,597,239	5,031,383
1931 .....	40	10,833,223	1,803	2,376,416	2,640,600	6,367,008	3,726,408
1932 .....	41	10,231,811	1,391	1,636,953	1,527,402	4,465,089	2,937,687
1933 .....	50	13,331,336	1,572	1,742,257	1,553,690	4,445,256	2,891,566
1934 .....	51	14,202,122	2,047	2,291,422	2,432,907	6,485,814	4,052,907

Table 2 - PRINCIPAL STATISTICS, BY SUB-GROUPS, 1933 and 1934.

Sub-groups	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
		\$		\$	\$	\$	\$
<u>1933</u>							
Boilers, radiators, tanks and plate work, chiefly.....	36	11,888,423	1,380	1,484,386	1,227,123	3,766,213	2,539,090
Engines, chiefly ..	14	1,442,913	192	257,871	326,567	679,043	352,476
TOTAL .....	50	13,331,336	1,572	1,742,257	1,553,690	4,445,256	2,891,566
<u>1934</u>							
Boilers, radiators, tanks and plate work, chiefly ....	38	12,728,403	1,792	1,953,606	2,009,015	5,461,667	3,452,652
Engines, chiefly ..	13	1,473,719	255	337,816	423,892	1,024,147	600,255
TOTAL .....	51	14,202,122	2,047	2,291,422	2,432,907	6,485,814	4,052,907



Table 3 - PRINCIPAL STATISTICS, BY PROVINCES, 1933 and 1934.

Provinces	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
		\$		\$	\$	\$	\$
<u>1933</u>							
Nova Scotia .....	5	1,124,994	125	130,278	168,981	372,593	203,612
Quebec .....	8	2,318,074	332	369,479	321,459	965,955	644,496
Ontario .....	26	9,249,348	1,002	1,110,530	911,718	2,767,757	1,856,039
British Columbia .....	9	540,791	85	96,449	124,551	237,936	113,385
Manitoba.....)	2	98,129	28	35,521	26,981	101,015	74,034
Saskatchewan .....							
CANADA .....	50	13,331,336	1,572	1,742,257	1,553,690	4,445,256	2,891,566
<u>1934</u>							
Nova Scotia .....	6	1,025,658	170	171,919	244,080	468,907	224,827
Quebec .....	9	2,465,547	400	431,821	475,313	1,380,513	905,200
Ontario .....	26	9,986,060	1,329	1,494,492	1,532,869	4,158,670	2,625,801
British Columbia .....	8	606,165	122	161,069	152,438	404,967	252,529
Manitoba.....)	2	118,692	26	32,121	28,207	72,757	44,550
Saskatchewan .....							
CANADA .....	51	14,202,122	2,047	2,291,422	2,432,907	6,485,814	4,052,907

Table 4 - 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
		\$		\$
<u>(a) PRODUCTION</u>				
Under \$10,000 .....	5	77,214	23	34,040
\$10,000 to \$25,000 .....	13	759,717	127	245,523
\$25,001 to \$50,000 .....	8	482,245	97	287,758
\$50,001 to \$100,000 .....	8	1,029,296	131	547,152
\$100,001 to \$200,000 .....	4	1,338,147	218	660,125
\$200,001 to \$300,000 .....	7	4,451,350	560	1,776,036
Over \$300,000 .....	6	6,064,153	891	2,935,180
TOTAL .....	51	14,202,122	2,047	6,485,814
<u>(b) EMPLOYEES (Number)</u>				
10 and under .....	19	663,531	123	397,622
11 to 25 .....	14	1,453,257	228	633,851
26 to 50 .....	3	526,837	111	384,502
51 to 75 .....	5	3,300,421	313	1,108,915
Over 75 .....	10	8,258,076	1,272	3,960,924
TOTAL .....	51	14,202,122	2,047	6,485,814
<u>(c) CAPITAL</u>				
Under \$25,000 .....	9	147,098	46	89,763
\$25,001 to \$100,000 .....	18	1,015,995	200	596,006
\$100,001 to \$250,000 .....	12	2,277,178	405	1,559,340
Over \$250,000 .....	12	10,761,851	1,396	4,240,705
TOTAL .....	51	14,202,122	2,047	6,485,814

Table 5 - CAPITAL EMPLOYED, BY PROVINCES, 1933 and 1934.

Provinces	Present value of lands, buildings, machinery and equipment	Inventory value of materials on hand, stocks in process, fuel and miscellaneous supplies on hand	Inventory value of finished products on hand	Operating capital (cash, bills and accounts re- ceivable, etc.)	TOTAL CAPITAL EMPLOYED
	\$	\$	\$	\$	\$
<u>1 9 3 3</u>					
Nova Scotia .....	613,579	111,002	102,803	297,610	1,124,994
Quebec .....	1,699,095	48,822	218,332	351,825	2,318,074
Ontario .....	6,132,468	741,551	696,953	1,678,376	9,249,348
British Columbia.	291,360	120,365	10,969	118,097	540,791
Other provinces .	68,365	14,457	4,666	10,641	98,129
CANADA .....	8,804,867	1,036,197	1,033,723	2,456,549	13,331,336
<u>1 9 3 4</u>					
Nova Scotia .....	634,342	244,050	28,405	118,861	1,025,658
Quebec .....	1,548,767	165,529	155,212	596,039	2,465,547
Ontario .....	6,727,436	928,563	642,043	1,688,018	9,986,060
British Columbia.	356,583	87,969	38,675	122,938	606,165
Other provinces .	48,157	25,829	11,167	33,539	118,692
CANADA .....	9,315,285	1,451,940	875,502	2,559,395	14,202,122

Table 6 - 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				
						\$	\$	\$
1 9 3 3								
Nova Scotia .....	25	4	96	...	125	46,894	83,384	130,278
Quebec .....	86	10	236	...	332	162,276	207,203	369,479
Ontario .....	206	48	743	5	1,002	462,465	648,065	1,110,530
British Columbia.	18	1	66	...	85	25,596	70,853	96,449
Other provinces..	6	2	20	...	28	11,000	24,521	35,521
CANADA .....	341	65	1,161	5	1,572	708,231	1,034,026	1,742,257
1 9 3 4								
Nova Scotia .....	29	5	136	...	170	50,730	121,189	171,919
Quebec .....	91	12	297	...	400	169,869	261,952	431,821
Ontario .....	233	52	1,041	3	1,329	514,010	980,482	1,494,492
British Columbia.	19	...	103	...	122	37,550	123,519	161,069
Other provinces .	7	2	17	...	26	11,467	20,654	32,121
CANADA .....	379	71	1,594	3	2,047	783,626	1,507,796	2,291,422

Table 7 - WAGE-EARNERS, BY MONTHS, 1933 and 1934. (On the 15th of each month or nearest representative date)

Months	1 9 3 3			1 9 3 4		
	Male	Female	TOTAL	Male	Female	TOTAL
January .....	904	5	909	1,300	3	1,303
February .....	975	5	980	1,382	3	1,385
March .....	1,209	5	1,214	1,534	3	1,537
April .....	1,166	5	1,171	1,687	3	1,690
May .....	1,072	5	1,077	1,712	3	1,715
June .....	1,173	5	1,178	1,643	3	1,646
July .....	1,262	5	1,267	1,668	3	1,671
August .....	1,308	5	1,313	1,621	3	1,624
September .....	1,265	5	1,270	1,690	3	1,693
October .....	1,247	4	1,251	1,784	3	1,787
November .....	1,171	4	1,175	1,586	3	1,589
December .....	1,125	4	1,129	1,486	3	1,489
AVERAGE	1,121	4	1,125	1,504	3	1,507



Table 8 - FUEL AND ELECTRICITY USED, 1933 and 1934.

Kinds	Unit of measure	1 9 3 3		1 9 3 4	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Bituminous coal - Canadian ..	short ton	5,486	35,265	5,771	23,477
Imported ..	short ton	7,056	40,800	7,703	52,525
Anthracite coal .....	short ton	166	2,227	166	1,766
Lignite coal .....	short ton	52	199	31	216
Coke .....	short ton	930	7,792	1,166	10,502
Gasoline .....	Imp. gal.	14,754	3,305	25,964	4,643
Kerosene .....	Imp. gal.	1,494	241	2,897	491
Fuel oil .....	Imp. gal.	36,294	2,852	48,306	4,511
Wood .....	cord	76	404	124	677
Gas - Manufactured .....	M cu.ft.	1,771	2,062	1,560	1,517
Natural .....	M cu.ft.	468	365	2,241	1,444
Other fuel .....	xxx	...	1,179	...	537
Electricity .....	K. W. H.	4,085,590	72,093	5,805,123	92,250
TOTAL .....	xxx	...	168,784	...	194,556

Table 9 - POWER EQUIPMENT, 1933 and 1934.

	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 turbines .....	26	2,163	25	2,145
Gasoline, gas and oil engines .....	20	507	21	645
Hydraulic turbines or water wheels .....	...	...	3	62
Total Primary .....	46	2,670	49	2,852
Electric motors run by purchased power..	689	17,807	714	18,678
TOTAL .....	735	20,477	763	21,530
Electric motors run by above primary units .....	162	3,092	162	3,092
Total Electric Motors .....	851	20,899	876	21,770
Boilers .....	26	3,595	29	3,250

Table 10 - MATERIALS USED IN MANUFACTURING, 1933 and 1934.

Materials	Unit of measure	1 9 3 3		1 9 3 4	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Iron and Steel -					
Pig iron .....	long ton	3,156	67,961	6,579	137,242
Wrought iron bars, skelp, etc. ....	short ton	193	9,239	155	8,923
Malleable iron bars, etc. ....	short ton	91	10,468	442	19,202
Iron castings of all kinds, purchased	short ton	496	47,707	964	47,321
Steel (other than special alloy steel) -					
Castings purchased .....	short ton	169	28,376	254	25,381
Ingots, blooms and billets .....	short ton	5	640	43	3,684
Bars and rods .....	short ton	238	14,079	544	31,262
Shafting .....	short ton	38	3,120	93	4,426
Sheets - Plain .....	short ton	1,911	118,253	1,694	104,627
Galvanized .....	short ton	98	6,986	633	47,969
Plates - Boiler .....	short ton	2,859	119,626	2,092	111,311
Other .....	short ton	3,980	152,875	11,608	327,980
Structural shapes (angles, channels, etc.) .....	short ton	1,832	83,349	3,715	175,481

Table 10 - MATERIALS USED IN MANUFACTURING, 1933 and 1934. (concluded)

Materials	Unit of measure	1 9 3 3			Cost at works \$	1 9 3 4			Cost at works \$
		Quantity				Quantity			
Iron and Steel - (concluded)									
Steel (other than special alloy steel) - (concluded)									
Boiler tubes .....	ft.	498,546			83,822	725,532			123,272
Wire .....	short ton	13			1,853	13			2,090
Alloy steel .....	short ton	...			564	5			1,704
Scrap iron and steel of all kinds ...	short ton	5,915			47,720	9,621			96,840
Other iron and steel .....	short ton	25			2,899	19			2,680
Other metals -									
Aluminium .....	lb.	3,952			2,018	7,652			3,351
Brass and bronze castings purchased .	lb.	84,245			19,789	115,506			38,383
Brass and bronze sheets, etc. ....	lb.	106,492			11,659	35,299			8,626
Copper bars, sheets, etc. ....	lb.	22,459			4,601	20,561			4,054
Lead .....	Lb.	21,917			3,297	4,530			634
Tin .....	lb.	571			86	50,640			26,352
Zinc .....	lb.	22,511			11,021	201,060			8,103
Babbitt metals and solder purchased .	lb.	25,762			6,355	26,338			10,501
Other metals not included elsewhere .	xx	...			543	...			9,880
Articles used for further manufacture -									
Parts for engines, boilers, etc. ....	xx	...			185,741	...			270,813
Iron and steel pipe and fittings ....	xx	...			45,574	...			115,074
Bolts, nuts, rivets and screws ....	xx	...			41,708	...			44,928
Electrical goods .....	xx	...			5,673	...			5,302
Paints, oils and varnishes .....	xx	...			16,668	...			18,976
Other articles of this class .....	xx	...			106,303	...			50,864
Other materials -									
Asbestos and other linings and coverings .....	xx	...			1,704	...			2,534
Foundry coke (not for heat or power) .	short ton	2,644			26,093	4,357			48,440
Moulding sands .....	short ton	1,310			4,233	5,731			14,115
Plumbago .....	lb.	6,535			486	16,388			910
Other foundry facings .....	lb.	...			2,782	465,034			6,453
Patterns and models .....	xxx	...			7,724	...			3,099
Lumber .....	M ft.b.m.	415			16,502	322			14,622
Firebrick .....	No.	42,341			2,929	32,852			2,214
Fireclay .....	short tn	268			2,079	408			2,771
Cupola blocks .....	No.	1,450			146	5,650			908
Core oil .....	imp. gal.	7,439			4,174	17,140			10,222
Core compounds .....	lb.	...			506	2,820			138
Shipping containers .....	xxx	...			495	...			831
All other materials .....	xxx	...			223,264	...			437,964
TOTAL ..... xxx ... 1,553,690 ... 2,432,907									



Table 11 - PRODUCTS MADE IN THE BOILERS, TANKS AND ENGINES INDUSTRY, 1933 and 1934.

NOTE - Data in this table are for the Boilers, Tanks and Engines Industry which includes only the manufacturers that made boilers, tanks and engines as their main products. Figures for the individual commodities do not represent the total output in Canada as these articles were made also in other industries. (See Tables 13, 15 and 16).

Products	1	9	3	3	1	9	3	4
	Selling value				Selling value			
	Number	at	works	\$	Number	at	works	\$
Heating boilers -								
Cast iron sectional - hot water and steam	4,898			483,842	6,953			701,187
Steel firebox, locomotive type .....	35			18,412	23			7,009
Horizontal return tubular .....	5			2,990	7			8,575
Electric welded steel .....	200			73,233	302			115,612
Steel water tube .....	5			9,193	4			3,003
Other, kind not specified .....	2			12,196	4			16,840
Power boilers -								
Water tube, horizontal type .....	8			46,004	19			124,580
Water tube, bent tube type .....	9			49,373	10			72,788
Horizontal return tubular .....	45			54,735	47			61,755
Steel firebox, locomotive type .....	5			6,944	11			17,686
Fire tube, vertical type .....	103			26,986	131			46,628
Marine type .....	6			12,159	4			39,138
Other, kind not specified .....	1			375	...			...
Engines - Steam .....	44			30,418	36			31,295
Gasoline, marine type .....	1,431			278,658	2,489			459,042
Stationary type .....	37			6,530	78			12,365
Other, including diesel, aero- plane and railway hand car ....	77			62,750	124			169,278
Tanks, steel plate .....	...			837,409	...			898,356
Tanks, sheet steel -								
Pressure .....	...			65,459	...			121,358
Storage .....	...			87,239	...			107,505
Miscellaneous steel plate work -								
Bins and hoppers .....	80			7,636	59			8,947
Smokestacks .....	...			27,390	...			27,573
Smoke breeching .....	29			7,139	...			6,668
Other plate work .....	...			280,017	...			259,577
Radiators, heating .....	666			373,841	7,428			882,145
Fabricated structural steel shapes .. tons	1,506			152,433	1,692			186,858
Parts for boilers .....	...			40,374	...			56,305
Parts for engines .....	...			165,914	...			123,941
Received for custom work and repairs .....	...			622,795	...			896,217
All other products .....	...			602,812	...			1,023,583
TOTAL .....	...			4,445,256	...			6,485,814

DIRECTORY OF FIRMS INCLUDED IN THE BOILERS, TANKS AND ENGINES INDUSTRY,  
1934.

NOTE - This is not intended to be a complete list of concerns which made boilers, tanks or engines. It is merely a directory of the firms which made these articles as their main products and which, therefore, were classified to this industry for statistical purposes.

- - -

Names of Firms

Location of Plants

(a) ENGINES, CHIEFLY

NOVA SCOTIA -

Acadia Gas Engines Limited	Bridgewater
Atkinson's Limited	Shelburne
Hawbolt Gas Engines	Chester

QUEBEC -

Canadian Pratt & Whitney Aircraft Co.Ltd.	Longueuil
Canadian Wright Ltd. and / or	
Aero Engines of Canada, Ltd.	6259 Notre Dame St., Montreal

ONTARIO -

Buchanan, F. L., Limited	129-131 Front St., Orillia
Canadian Johnson Motor Company Ltd.	Peterborough
Kermath Mfg. Co. of Canada, Ltd.	619 King St. W., Toronto
St. Lawrence Engine Co. Ltd., The	Brockville
Sylvester Manufacturing Company Ltd.	Lindsay

BRITISH COLUMBIA -

Easthope Brothers Limited	1747 West Georgia St., Vancouver
Empire Mfg. Co. Ltd.	1201 West 6th St., Vancouver
Vivian Gas Engine Works	1090 West Sixth Avenue., Vancouver

(b) BOILERS, RADIATORS, TANKS AND PLATE WORK CHIEFLY

NOVA SCOTIA -

Hogan, T., & Co.	121 Lower Water St., Halifax
Musgrave, R., & Sons, Ltd.	North Sydney
Robb Engineering Works Ltd.	Amherst

QUEBEC -

Canadian John Woods Mfg. Co.	2143 St. Patrick St., Montreal
Latulippe, Michel	303 Dorchester St., Quebec
La Compagnie de Radiateurs Victoire Ltee.	925 Perrault Lane, Montreal
McKay, Alex, Boiler and Tank Works Reg'd.	2156 DeMontigny St. E., Montreal
Morton Engineering and Dry Dock Co. Ltd.	West End, Louise Embankment, Quebec
Warden King Ltd.	2104 Bennett Ave., Maisonneuve, Montreal
Weir, J. & R., Ltd.	33 Nazareth St., Montreal
White, W. C., Boiler Works	2745 Grand Trunk St., Montreal

ONTARIO -

Babcock-Wilcox and Goldie McCulloch Ltd.	Grand Ave., Galt
Bell, Robt., Engine and Thresher Co.	Seaforth
Campbell Steel and Iron Works Ltd.	855 Carling Ave., Ottawa
Canadian John Wood Mfg. Co. Ltd.	101 Hanson St., Toronto



DIRECTORY OF FIRMS INCLUDED IN THE BOILERS, TANKS AND ENGINES INDUSTRY, 1934 (concluded)

NOTE - This is not intended to be a complete list of concerns which made boilers, tanks or engines. It is merely a directory of the firms which made these articles as their main products and which, therefore, were classified to this industry for statistical purposes.

- - - - -

Names of Firms

Location of Plants

(b) BOILERS, RADIATORS, TANKS AND PLATE WORK, CHIEFLY (concluded)

ONTARIO - (concluded) -

Dominion Radiator and Boiler Co. Ltd.	17 S. Market St., Brantford, and Royce and Lansdowne Ave., Toronto
Gurney Foundry Co. Ltd.	4 Junction Road, Toronto
Horton Steel Works Ltd.	Jennett St., Fort Erie
Imperial Iron Corp. Ltd.	Berryman Ave., St. Catharines
Inglis, John, Co. Ltd.	14 Strachan Ave., Toronto
Leonard, E., and Sons, Ltd.	381 York St., London
Levy and Westwood Machinery Co.	340 Dufferin St., Toronto
Macpherson, C. E.	468 Rideau St., Kingston
Napanee Iron Works Ltd.	Ann St., Napanee
Ottawa Boiler and Steel Works	158 Queen St. W., Ottawa
Park, Archibald	165 William St., Chatham
Pendell Boiler Ltd.	50 Bartlett Ave., Toronto
Port Colborne Iron Works Ltd.	Frazer St., Port Colborne
Steel Fabricating & Welding Ltd.	Dundas
Sylvester Manufacturing Co. Ltd.	Lindsay
Toronto Iron Works Ltd.	629 Eastern Ave., Toronto
Winnett, R., & Son	271 Hamilton Road, London

MANITOBA -

Canadian Brown Steel Tank Co. Ltd.	20th St. and Pacific Ave., Brandon
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SASKATCHEWAN -

North Western Iron Works Ltd.	1419 Scarth St., Regina
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BRITISH COLUMBIA -

Blain Boiler Works Ltd.	494 Railway St., Vancouver
Mainland Boiler Works	496 Alexander St., Vancouver
Patterson Boiler Works	790 Alexander St., Vancouver
Vancouver Iron Works Ltd.	1155 - 6th Ave. W., Vancouver
Westminster Boiler and Tank Co.	111 - 11th St., New Westminster

SUPPLEMENTARY DATA

(a) BOILERS

As pointed out in the opening paragraphs of this report the Boilers, Tanks and Engines Industry includes only the firms which made boilers, engines, etc., as their major products so the figures given in Table 11 do not represent the total output in Canada of the commodities which are listed. To provide complete figures for boilers a special compilation has been made covering the reports of all concerns which reported boilers as one of their products.

In all, 48 establishments reported a production of heating or power boilers in 1934. These factories made goods having a total selling value of \$8,038,582 but boilers alone accounted for only \$1,598,541. The principal statistics covering the entire business of these works are given below.

Table 12 - PRINCIPAL STATISTICS FOR ALL ESTABLISHMENTS WHICH REPORTED A PRODUCTION OF BOILERS IN 1934.

Number of manufacturers .....	48
Total capital employed .....	\$ 23,246,692
Total number of employees .....	3,231
Total salaries and wages .....	\$ 3,448,221
Total cost of fuel and electricity .....	\$ 349,474
Total cost of all materials used .....	\$ 2,969,000
Selling value of boilers manufactured .....	\$ 1,598,541
Selling value of other products manufactured .....	\$ 6,440,041
TOTAL SELLING VALUE OF ALL PRODUCTS .....	\$ 8,038,582

Table 13 - TOTAL PRODUCTION IN CANADA OF HEATING AND POWER BOILERS, 1934.

NOTE - Figures in this table have been assembled from all industries and represent the TOTAL OUTPUT IN CANADA.

Types	Number of boilers	Total selling value at plant \$
Heating boilers -		
Cast iron sectional hot water and steam .....	8,279	859,062
Steel firebox, locomotive type .....	89	28,549
Horizontal return tubular .....	10	9,665
Steel water tube .....	9	4,753
Steel welded .....	302	115,612
Power boilers -		
Water tube, horizontal type .....	19	124,580
Water tube, vertical type .....	...	91,164
Water tube, bent tube type .....	2	16,000
Horizontal return tubular .....	72	81,001
Marine type - internally fired .....	3	14,052
Marine type, water tube .....	2	27,086
Steel firebox, locomotive type .....	11	17,686
Firetube, vertical type .....	142	49,823
Boilers, type not specified .....	90	159,906
TOTAL .....	9,030	1,598,939



LIST OF ALL CONCERNS WHICH REPORTED A PRODUCTION OF HEATING OR POWER BOILERS In 1934.

<u>Names of Firms</u>	<u>Location of Plants</u>
Babcock-Wilcox and Goldie McCulloch Limited	Galt, Ont.
Bastian-Morley Limited	Toronto, Ont.
Beaver Foundry & Furnace Works	Tillsonburg, Ont.
Belanger, O., Enrg.	Montreal, P.Q.
Bell, Robt., Engine and Thresher Co., The	Seaforth, Ont.
Blain Boiler Works, Ltd.	Vancouver, B.C.
Campbell Steel and Iron Works Limited	Ottawa, Ont.
Canadian Brown Steel Tank Company Limited	Brandon, Man.
Canadian General Electric Co. Ltd.	Toronto, Ont.
Chalifoux & Fils, Limitee	St. Hyacinthe, P.Q.
Dominion Engineering Works Ltd.	Lachine, P.Q.
Dominion Radiator and Boiler Co. Ltd.	Toronto, Ont.
Enamel & Heating Products Limited	Sackville, N.B.
Farand & Delorme Limited	Montreal, P.Q.
General Foundry Ltd.	Windsor Mills, P.Q.
Gurney Foundry Co. Ltd., The	Toronto, Ont.
Hogan, T., & Company	Halifax, N.S.
Imperial Iron Corporation, Ltd.	St. Catharines, Ont.
Inglis, John, Company Limited, The	Toronto, Ont.
La Fonderie St. Anselme Ltee.	St. Anselme, P.Q.
La Cie de Machineries Mercier	Levis, P.Q.
Latulippe, Michel	Quebec, P.Q.
Leonard, E., and Sons Limited	London, Ont.
Matheson, I., & Co. Ltd.	New Glasgow, N.S.
Marine Iron Works Limited	Victoria, B.C.
Napanee Iron Works Limited	Napanee, Ont.
North Western Iron Works Ltd.	Regina, Sask.
Ottawa Boiler and Steel Works	Ottawa, Ont.
Park, Archibald	Chatham, Ont.
Patterson Boiler Works	Vancouver, B.C.
Pendell Boiler Limited	Toronto, Ont.
Pictou Foundry & Machine Co. Limited	Pictou, N.S.
Port Colborne Iron Works Limited	Port Colborne, Ont.
Robb Engineering Works Limited	Amherst, N.S.
Saint John Iron Works Limited	Saint John, N.B.
Spencer Foundry Co. Ltd.	Penetanguishene, Ont.
Stephens-Adamson Mfg. Co. of Canada, Ltd.	Belleville, Ont.
Stewart, Bruce, & Co., Limited	Charlottetown, P.E.I.
Taylor-Forbes Limited	Guelph, Ont.
Thompson & Sutherland Limited	North Sydney, N.S.
Vancouver Iron Works Ltd.	Vancouver, B.C.
Victoria Machinery Depot Co. Ltd.	Victoria, B.C.
Vulcan Iron Works Limited	Winnipeg, Man.
Warden-King Limited	Montreal, P.Q.
Waterous Limited	Brantford, Ont.
Weir, J. & R., Ltd.	Montreal, P.Q.
White, George, & Sons Co. Ltd.	London, Ont.
Whitelaw, R., Estate of	Woodstock, Ont.

(b) ENGINES

A special compilation covering all industries shows that 30 establishments in Canada reported a production of engines (except automobile engines) in 1934. The principal statistics for these works are given below. The value of all products of these firms was \$4,678,754 of which engines accounted for only \$877,862.

Table 14 - PRINCIPAL STATISTICS FOR ALL ESTABLISHMENTS WHICH REPORTED A PRODUCTION of ENGINES IN 1934.

Number of manufacturers .....	30
Total capital employed .....	\$ 27,486,693
Total number of employees .....	2,064
Total salaries and wages .....	\$ 2,295,085
Total cost of fuel and electricity .....	\$ 212,352
Total cost of materials .....	\$ 1,940,821
Selling value of engines made .....	\$ 877,862
Selling value of all other products .....	\$ 3,800,892
TOTAL SELLING VALUE OF PRODUCTS .....	\$ 4,678,754

Table 15 - TOTAL PRODUCTION OF ENGINES, 1934.

NOTE - Figures in this table have been assembled from all industries and represent the TOTAL OUTPUT IN CANADA

Types	Number of engines	Total horse power	Selling value at works
			\$
Steam .....	...	...	62,413
Gasoline - Marine type .....	2,489	19,324	459,042
Stationary type .....	78	279	12,365
Aeroplane, hand car and railway motor car .....	97	5,095	75,796
Type not specified .....	...	...	68,600
Gas and oil .....	...	...	199,646
TOTAL ENGINES (except automobile) .....	...	...	877,862
Automobile engines .....	83,036		(not available)

LIST OF ALL CONCERNS IN CANADA WHICH REPORTED A PRODUCTION OF ENGINES IN 1934.

<u>Names of Firms</u>	<u>Location of Plants</u>
Acadia Gas Engines Limited	Bridgewater, N.S.
Atkinson's Limited	Shelburne, N.S.
Babcock-Wilcox and Goldie-McCullough Ltd.	Galt, Ont.
Buchanan, F. L., Limited	Orillia, Ont.
Canadian Johnson Motor Co. Ltd.	Peterborough, Ont.
Canadian Pratt & Whitney Aircraft Co. Ltd.	Longueuil, P.Q.
Canadian Wright Ltd., and Aero Engines of Canada, Ltd.	Montreal, P.Q.
Desjardins Limitee	St. Andre de Kamouraska, P.Q.
Easthope Brothers Limited	Vancouver, B.C.
Empire Mfg. Co. Ltd.	Vancouver, B.C.
Gilson Manufacturing Co. Ltd.	Guelph, Ont.



LIST OF ALL CONCERNS IN CANADA WHICH REPORTED A PRODUCTION OF ENGINES IN 1934 (concluded)

<u>Names of Firms</u>	<u>Location of Plants</u>
Hawbolt Gas Engines	Chester, N.S.
Ker and Goodwin Machinery Co. Ltd., The	Brantford, Ont.
Kermath Mfg. Co. of Canada, Ltd.	Toronto, Ont.
Lunenburg Foundry Co. Ltd.	Lunenburg, N.S.
Massey-Harris Company Limited	Toronto, Ont.
Matheson, I., & Co. Ltd.	New Glasgow, N.S.
Montreal Locomotive Works Limited	Montreal, P.Q.
Oxford Foundry & Machine Co. Ltd.	Oxford, N.S.
Plessisville Foundry, The	Plessisville, P.Q.
Phoenix Foundry Co.	Saint John, N.B.
Robertsonville Foundry Co. Ltd.	Robertsonville, P.Q.
Sheldons Limited	Galt, Ont.
Stewart, Bruce, & Co. Ltd.	Charlottetown, P.E.I.
St. Lawrence Engine Co. Ltd., The	Brockville, Ont.
Sylvester Manufacturing Co. Ltd., The	Lindsay, Ont.
Thompson Brothers Machinery Co. Ltd.	Liverpool, N.S.
Tyee Machinery Corp. Ltd.	Vancouver, B.C.
United Steel Corporation Ltd.	Vancouver, B.C.
Vivian Gas Engine Works	Vancouver, B.C.
(x) Ford Motor Company of Canada, Limited	East Windsor, Ont.
(x) General Motors of Canada Limited	Walkerville, Ont.
(x) Made automobile engines for own use.	

(c) HEATING RADIATORS, TANKS AND PLATE WORK

The total production for these items, assembled from all industries, was as follows in 1934:-

Tanks - Steel plate .....		\$ 941,026
Sheet steel - Pressure .....		\$ 130,491
Storage .....		\$ 455,236
Range boilers, galvanized .....	No. 67,161	\$ 440,102
Radiators, heating - Direct or standing type .....		\$1,027,726
Concealed type .....		\$ 53,774
Fabricated structural shapes, sold as such .....	tons 25,926	\$1,365,332
Fabricated structural shapes, erected -		
Bridges .....	tons 3,173	\$ 422,715
Buildings, transmission towers, etc. ....	tons 22,007	\$2,193,483
Plate and tank works, including digesters, hoppers, etc.		\$ 691,408

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