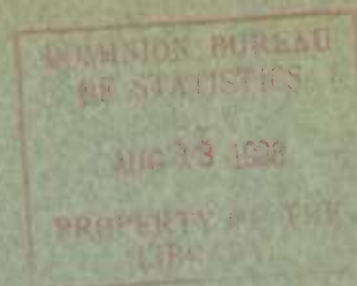


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Minister of Trade and Commerce.



**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**  
**1936**

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OTTAWA  
1938

Price 10 cents





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OTTAWA - CANADA

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ANNUAL INDUSTRY REPORT  
IRON AND STEEL AND THEIR PRODUCTS GROUP  
THE BOILERS, TANKS AND ENGINES INDUSTRY, 1936.

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 17 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 and heating radiators.

Production in the Boilers, Tanks and Engines Industry in 1936 was valued at \$8,305,860. This output was 13 per cent greater than the 1935 total and was the highest value reported for any year since 1930.

Fifty-six establishments were included in this industry in 1936, there being 27 in Ontario, 12 in Quebec, 9 in British Columbia, 6 in Nova Scotia, and 1 in each of Manitoba and Saskatchewan. These concerns, with fixed and working capital amounting to \$14,848,789, gave employment to a monthly average of 2,519 people and paid \$3,066,242 in salaries and wages, \$3,567,813 for materials which were used in manufacturing and \$244,687 for fuel and electricity.

Tables 1 to 12 of this report deal with the Boilers, Tanks and Engines Industry only, while Tables 13 to 17 give supplementary data covering the total production in Canada of boilers, engines and heating radiators. The total output value in 1936 for heating and power boilers of all kinds was \$1,735,522; for engines of all kinds, except automobile, \$1,031,277, and for heating radiators, \$1,229,485.



Imports of engines during the calendar year 1936 included 42,879 motor vehicle engines and parts valued at \$5,019,906; 924 diesel engines and parts at \$1,590,921; 670 marine engines at \$221,326; 106 aircraft engines at \$559,444; 1,545 outboard motors at \$96,088; 86 engines for use in fishing boats at \$23,624, and 9,519 other engines, including internal combustion and steam at \$791,181. Imports of boilers and parts were appraised at \$122,938.

Exports during 1936 included 1,475 internal combustion engines and parts worth \$121,547 and 2 steam engines with parts at \$1,669.

Table 1 - PRINCIPAL STATISTICS OF THE BOILERS, TANKS AND ENGINES INDUSTRY, 1921 - 1936.

Year	No. 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
		\$		\$	\$	\$	\$
1921 .....	39	9,785,160	3,105	2,455,769	157,500	2,479,052	6,960,170
1922 .....	43	10,370,771	1,616	2,045,712	116,241	2,056,213	4,904,613
1923 .....	34	8,907,457	1,422	1,856,119	162,920	2,144,355	4,929,920
1924 .....	32	9,140,981	1,242	1,619,323	136,984	1,588,530	3,667,610
1925 .....	32	8,638,759	1,367	1,832,540	122,942	2,322,798	4,540,706
1926 .....	34	8,880,350	1,532	1,993,722	134,092	2,576,122	5,343,208
1927 .....	33	9,329,528	1,654	2,260,284	141,066	2,853,951	5,945,694
1928 .....	35	9,352,068	1,752	2,393,200	141,241	3,228,497	6,507,437
1929 .....	37	10,665,197	2,157	3,043,768	163,137	5,091,406	10,006,278
1930 .....	35	9,982,016	1,924	2,649,804	159,813	4,565,856	9,597,239
1931 .....	40	10,833,223	1,803	2,376,416	135,668	2,640,600	6,367,008
1932 .....	41	10,231,811	1,391	1,636,953	116,755	1,527,402	4,465,089
1933 .....	50	13,331,336	1,572	1,742,257	168,784	1,553,690	4,445,256
1934 .....	51	14,202,122	2,047	2,291,422	194,556	2,432,907	6,485,814
1935 .....	56	15,417,364	2,410	2,771,854	231,328	2,774,327	7,365,523
1936 .....	56	14,848,789	2,519	3,066,242	244,687	3,567,813	8,305,860

Table 2 - PRINCIPAL STATISTICS, BY PROVINCES, 1935 and 1936.

Province	No. 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
		\$		\$	\$	\$	\$
<b>1935</b>							
Nova Scotia .....	6	979,485	155	203,829	15,003	285,199	657,456
Quebec .....	12	2,530,587	497	527,097	51,871	604,254	1,658,470
Ontario ;.....	27	11,238,400	1,606	1,829,026	156,721	1,698,300	4,526,800
Manitoba .....	1)	101,720	24	32,560	2,412	26,354	71,010
Saskatchewan .....	1)						
British Columbia ..	9	567,172	128	179,342	5,321	160,220	451,787
CANADA .....	56	15,417,364	2,410	2,771,854	231,328	2,774,327	7,365,523
<b>1936</b>							
Nova Scotia .....	6	964,344	148	183,570	16,136	222,192	444,062
Quebec .....	12	2,625,404	552	666,508	60,275	942,519	1,821,884
Ontario .....	27	10,448,331	1,628	1,958,364	158,126	2,154,300	5,391,008
Manitoba .....	1)						
Saskatchewan .....	1)	92,302	33	51,292	3,133	34,665	80,946
British Columbia ..	9	718,408	158	226,508	7,017	214,137	567,965
CANADA .....	56	14,848,789	2,519	3,066,242	244,687	3,567,813	8,305,860

Table 3 - SIZE OF ESTABLISHMENTS ACCORDING TO PRODUCTION, NUMBER OF EMPLOYEES and CAPITAL EMPLOYED, 1936.

	Number of plants	Capital employed	Average number of employees	Gross selling value of products at works
		\$		\$
(a) PRODUCTION				
Under \$10,000 .....	5	102,570	17	26,510
\$10,000 to \$25,000 .....	9	292,934	79	165,428
\$25,001 to \$50,000 .....	13	695,072	186	454,800
\$50,001 to \$100,000 .....	8	2,024,912	212	576,064
\$100,001 to \$200,000 .....	5	897,782	180	748,713
\$200,001 to \$300,000 .....	8	5,190,885	638	2,024,668
Over \$300,000 .....	8	5,644,634	1,207	4,309,677
TOTAL .....	56	14,848,789	2,519	8,305,860
(b) EMPLOYEES				
10 and under .....	17	490,904	101	522,122
11 to 25 .....	17	1,177,155	308	969,219
26 to 50 .....	4	670,963	139	435,783
51 to 75 .....	6	3,084,469	362	1,108,587
Over 75 .....	12	9,425,298	1,609	5,470,149
TOTAL .....	56	14,848,789	2,519	8,305,860
(c) CAPITAL				
Under \$25,000 .....	12	202,347	71	160,480
\$25,001 to \$100,000 .....	19	1,073,153	284	833,436
\$100,001 to \$250,000 .....	10	1,662,141	409	1,431,356
Over \$250,000 .....	15	11,911,148	1,755	5,880,588
TOTAL .....	56	14,848,789	2,519	8,305,860

Table 4 - CAPITAL EMPLOYED, 1935 and 1936.

Province	Present value of land, build- ings, machinery and equipment	Inventory value of materials, fuel and finished products on hand and stocks in process	Operating capital (cash, bills and accounts receivable, pre- paid expenses, etc.)	TOTAL CAPITAL EMPLOYED
	\$	\$	\$	\$
1935				
Nova Scotia .....	629,219	173,389	176,877	979,485
Quebec .....	1,748,779	393,792	388,016	2,530,587
Ontario .....	7,906,126	1,634,546	1,697,728	11,238,400
British Columbia .....	305,041	118,605	143,526	567,172
Other provinces .....	59,936	16,560	25,224	101,720
TOTAL .....	10,649,101	2,336,892	2,431,371	15,417,364
1936				
Nova Scotia .....	633,887	181,843	148,614	964,344
Quebec .....	1,755,648	456,861	412,895	2,625,404
Ontario .....	6,816,200	1,965,845	1,666,286	10,448,331
British Columbia .....	427,852	145,165	145,391	718,408
Other provinces .....	58,065	12,307	21,930	92,302
TOTAL .....	9,691,652	2,762,021	2,395,116	14,848,789

Table 5 - EMPLOYEES, SALARIES AND WAGES, BY PROVINCES, 1935 and 1936.

Province	Average number of employees				TOTAL	Salaries	Wages	TOTAL SALARIES and WAGES
	On Salaries		On Wages					
	Male	Female	Male	Female				
						\$	\$	\$
1935								
Nova Scotia .....	21	6	127	1	155	45,495	158,334	203,829
Quebec .....	106	13	378	...	497	181,067	346,030	527,097
Ontario .....	287	70	1,243	6	1,606	615,079	1,213,947	1,829,026
British Columbia .....	22	...	106	...	128	43,481	135,861	179,342
Other provinces .....	7	...	17	...	24	12,027	20,533	32,560
TOTAL .....	443	89	1,871	7	2,410	897,149	1,874,705	2,771,854
1936								
Nova Scotia .....	23	8	117	...	148	51,484	132,086	183,570
Quebec .....	113	13	426	...	552	207,922	458,586	666,508
Ontario .....	294	80	1,253	1	1,628	642,661	1,315,703	1,958,364
British Columbia .....	24	1	133	...	158	55,685	170,823	226,508
Other provinces .....	6	1	26	...	33	11,136	20,156	31,292
TOTAL .....	460	103	1,955	1	2,519	968,888	2,097,354	3,066,242

Table 6 - WAGE-EARNERS, BY MONTHS, 1935 and 1936.

Month	1935			1936		
	Male	Female	TOTAL	Male	Female	TOTAL
January .....	1,708	6	1,714	1,793	1	1,794
February .....	1,756	6	1,742	1,892	1	1,893
March .....	1,802	6	1,808	1,944	1	1,945
April .....	1,902	6	1,908	2,050	1	2,051
May .....	1,934	7	1,941	1,958	1	1,959
June .....	1,990	7	1,997	1,970	1	1,971
July .....	2,040	7	2,047	1,864	1	1,865
August .....	1,916	7	1,923	1,910	1	1,911
September .....	1,891	7	1,898	1,982	1	1,983
October .....	1,954	7	1,961	2,125	1	2,126
November .....	1,816	7	1,823	1,997	1	1,998
December .....	1,784	7	1,791	1,936	1	1,937
AVERAGE .....	1,871	7	1,878	1,955	1	1,956

Table 7 - NUMBER OF WAGE-EARNERS IN MONTH OF HIGHEST EMPLOYMENT, CLASSIFIED ACCORDING TO STANDARD HOURS WORKED PER WEEK, 1935 and 1936. (Overtime not included)

NOTE - Since the month of highest employment was not the same for each plant, the data given in this table are not for any particular month and the total exceeds the highest monthly average shown in the preceding table.

Standard hours worked per week	Number of wage-earners		Standard hours worked per week	Number of wage-earners	
	1935	1936		1935	1936
40 hours or less .....	232	144	51 - 53 hours .....	27	30
41 - 43 hours .....	47	16	54 hours .....	39	64
44 hours .....	337	446	55 hours .....	33	20
45 - 47 hours .....	154	318	56 - 59 hours .....	56	73
48 hours .....	602	241	60 hours and over .....	187	122
49 - 50 hours .....	611	1,083	TOTAL .....	2,355	2,557



Table 8 - FUEL AND ELECTRICITY USED, 1935 and 1936.

Kind	Unit of measure	1 9 3 5		1 9 3 6	
		Quantity	Cost at works	Quantity	Cost at works
Bituminous coal - Canadian .....	short ton	5,569	52,785	5,148	51,886
Imported .....	short ton	7,275	48,782	5,500	25,540
Anthracite coal .....	short ton	185	1,996	6,649	44,142
Lignite coal .....	short ton	55	279	55	267
Coke .....	short ton	1,104	9,521	867	7,528
Gasoline .....	Imp. gal.	21,467	4,779	26,745	5,745
Kerosene .....	Imp. gal.	2,592	429	2,690	451
Fuel oil .....	Imp. gal.	119,955	11,502	158,941	14,096
Wood .....	cord	528	1,658	559	1,858
Gas- Manufactured .....	M cu.ft.	1,527	1,766	2,045	2,047
Natural .....	M cu.ft.	5,246	1,983	5,552	2,154
Electricity purchased .....	K. W. H.	6,858,458	115,281	6,942,283	105,962
Other fuel .....	\$	...	769	...	5,055
TOTAL .....	\$	...	251,528	...	244,687
Electricity generated for own use .....	K. W. H.	55,000	...	57,000	...

Table 9 - POWER EQUIPMENT, 1935 and 1936.

Type	1 9 3 5		1 9 3 6	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and turbines .....	30	2,500	32	2,628
Diesel engines .....	2	75	7	300
Gasoline, gas and oil engines .....	17	462	14	545
Hydraulic turbines or water wheels .....	1	50	1	50
Total Primary .....	50	3,067	54	3,503
Electric motors run by purchased power .....	785	15,874	817	14,490
TOTAL .....	835	18,941	871	17,801
Electric motors run by primary power .....	...	...	113	2,564
Total Electric Motors .....	...	...	930	17,062
Boilers .....	26	3,763	23	3,454

Table 10 - POWER EQUIPMENT, 1936, SHOWING - ORDINARILY IN USE - separately from - IN RESERVE OR IDLE.

Type	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
Steam engines and turbines .....	51	2,620	1	8
Diesel engines .....	7	300	...	...
Gasoline, gas and oil engines .....	15	325	1	20
Hydraulic turbines or water wheels .....	1	50	...	...
Total Primary .....	52	3,275	2	28
Electric motors run by purchased power .....	812	14,363	5	155
TOTAL .....	864	17,638	7	163
Electric motors run by primary power .....	113	2,564	...	...
Total Electric Motors .....	925	16,927	5	155
Boilers .....	21	3,308	2	146

Table 11 - MATERIALS USED, 1935 and 1936.

Material	Unit of measure	1 9 3 5		1 9 3 6	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Iron -					
Pig iron .....	long ton	8,947	185,825	10,331	219,294
Iron castings .....	short ton	810	74,317	869	88,570
Steel, hot or cold rolled -					
Steel castings .....	short ton	171	29,118	167	41,070
Bars and rods .....	short ton	810	45,953	799	44,959
Forgings .....	short ton	156	12,599	62	12,334
Shafting .....	short ton	109	9,391	89	9,154
Sheets, plain .....	short ton	2,306	132,390	3,233	190,442
Sheets, galvanized .....	short ton	233	15,784	211	16,996
Strip .....	short ton	300	16,100	412	23,588
Plates, boiler .....	short ton	4,949	233,518	2,363	136,041
Plates, other .....	short ton	10,761	245,727	17,757	475,549
Stampings .....	short ton	4	858	8	1,536
Structural shapes .....	short ton	3,626	172,256	3,459	215,820
Boiler tubes .....	foot	705,988	116,860	722,497	170,969
Wire .....	short ton	25	3,598	28	3,134
Alloy steels .....	\$	...	1,884	...	3,591
Scrap iron and steel .....	short ton	11,158	107,209	16,660	173,242
Other iron and steel .....	\$	...	23,166	...	23,985
Other metals, including scrap -					
Aluminium .....	pound	15,724	4,929	16,116	5,098
Brass and bronze castings .....	pound	113,068	32,242	113,929	32,069
Brass and bronze sheets .....	pound	56,503	13,921	52,834	16,317
Copper bars, sheets, etc. ....	pound	31,271	4,930	48,307	8,902
Lead .....	pound	4,330	365	3,055	294
Nickel .....	pound	...	59	166	50
Tin .....	pound	41,333	20,512	52,383	29,580
Zinc .....	pound	243,610	9,880	213,762	10,088
Babbitt metals and soldars .....	pound	44,885	13,325	41,687	17,296
Other metals .....	\$	...	865	...	983
Articles used for further manufacture -					
Parts for engines, boilers, etc. ....	\$	...	414,246	...	683,723
Iron and steel pipe and fittings .....	\$	...	105,458	...	129,405
Bolts, nuts, rivets and screws .....	\$	...	68,422	...	65,271
Electrical goods, including motors .....	\$	...	11,247	...	11,462
Paints, oils and varnishes .....	\$	...	31,390	...	26,985
Other articles of this class .....	\$	...	36,092	...	43,547
Other materials					
Asbestos and other linings and coverings .....	\$	...	3,077	...	4,547
Foundry coke .....	short ton	6,437	71,574	7,027	80,822
Moulding sands .....	short ton	3,975	16,237	5,571	22,242
Silica sand for sand-blasting .....	short ton	...	...	75	299
Core sands .....	short ton	6,475	14,371	6,792	15,211
Other foundry sands .....	short ton	...	...	510	1,916
Starch .....	pound	4,178	343	1,400	112
Plumbago .....	pound	19,980	1,006	15,994	1,042
Other foundry facings .....	pound	210,945	5,505	403,262	6,462
Patterns and models .....	\$	...	6,790	...	13,173
Lumber .....	M ft.b.m.	586	24,432	875	36,361
Firebrick .....	Number	57,882	4,793	47,455	4,026
Fireclay .....	short ton	1,051	5,588	825	7,665
Cupola blocks .....	Number	4,306	754	7,848	1,401
Core oil .....	Imp. gal.	22,278	13,573	24,975	14,540
Core compounds .....	pound	...	93	2,000	100
Shipping containers .....	\$	...	832	...	2,481
All other materials .....	\$	...	410,943	...	424,069
TOTAL .....	\$	...	2,774,327	...	3,567,813



Table 12 - PRODUCTS MADE IN THE BOILERS, TANKS AND ENGINES INDUSTRY, 1935 and 1936.

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 14, 16 and 18)

Products	1 9 3 5		1 9 3 6	
	Quantity	Selling value at works \$	Quantity	Selling value at works \$
Heating boilers -				
Cast iron sectional - hot water and steam .....	No. 6,998	679,854	10,775	798,611
Steel firebox, locomotive type .....	No. 24	12,854	29	20,242
Horizontal return tubular .....	No. 19	56,423	11	7,568
Electric welded steel .....	No. 291	112,597	245	97,670
Steel water tube .....	No. 6	28,198	18	9,568
Power boilers -				
Water tube, horizontal type .....	No. 5	25,809	35	212,780
Water tube, bent tube type .....	No. 23	124,497	8	74,751
Horizontal return tubular .....	No. 41	49,716	75	127,040
Steel firebox, locomotive type .....	No. 13	19,988	8	16,978
Fire tube, vertical type .....	No. 131	54,612	129	59,629
Marine type .....	No. 3	15,249	1	3,000
Other, kind not specified .....	No. 15	19,601	48	18,482
Boiler parts .....	\$ ...	96,960	...	79,210
Engines - Steam .....	No. 41	27,959	52	41,273
Gasoline, marine type .....	No. 3,791	592,364	4,751	548,741
Stationary type .....	No. 72	15,120	1,992	86,563
Other, including diesel, aeroplane and railway hand car .....	No. 163	184,174	202	141,529
Engine parts .....	\$ ...	62,740	...	196,249
Tanks -				
Steel storage for water and oil .....	\$) ...		...	239,245
Steel septic .....	\$) ...	1,152,362	...	36,785
Steel pneumatic .....	Na) ...		4,067	60,645
Miscellaneous steel plate work -				
Bins and hoppers .....	No. ...	9,746	83	11,203
Smokestacks .....	No. 171	30,969	184	37,309
Smoke breeching .....	\$ ...	6,148	...	22,297
Other plate work .....	\$ ...	250,032	...	1,347,192
Radiators for heating, all types .....	sq. ft. 4,294,716	1,159,406	4,404,578	1,180,123
Fabricated structural steel shapes .....	short tons 2,041	298,162	2,773	267,901
Received for custom work and repairs .....	\$ ...	849,250	...	902,510
All other products .....	\$ ...	1,456,973	...	1,661,166
<b>TOTAL</b> .....	\$ ...	<b>7,365,523</b>	...	<b>8,305,960</b>

DIRECTORY OF FIRMS INCLUDED IN THE BOILERS, TANKS AND ENGINES INDUSTRY, 1936.

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  
Atkinson's Limited  
Hawbolt Gas Engines

Bridgewater  
Shelburne  
Chester

QUEBEC -

Canadian Pratt & Whitney Aircraft Co. Ltd.  
Canadian Wright Ltd. and / or Aero Engines of  
Canada, Ltd.

Longueuil  
6259 Notre Dame St., Montreal

DIRECTORY OF FIRMS INCLUDED IN THE BOILERS, TANKS AND ENGINES INDUSTRY, 1956. (continued)

Names of Firms

Location of Plants

(a) ENGINES, Chiefly (concluded)

ONTARIO -

Buchanan, F. L., Limited  
Outboard Marine & Manufacturing Co. of Canada, Ltd.  
Kermath Mfg. Co. of Canada, Ltd.  
St. Lawrence Engine Co. Ltd.  
Sylvester Manufacturing Company Ltd.

129 Front St., Orillia  
Peterborough  
619 King St. W., Toronto  
Brockville  
Lindsay

BRITISH COLUMBIA -

Easthope Brothers Limited  
Empire Mfg. Co. Ltd.  
Vivian Gas Engine Works

1747 West Georgia St., Vancouver  
1201 West 6th St., Vancouver  
1090 West Sixth Avenue, Vancouver

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

NOVA SCOTIA -

Hogan, T., & Co.  
Musgrave, R., & Sons, Ltd.  
Robb Engineering Works Ltd.

121 Lower Water St., Halifax  
North Sydney  
Amherst

QUEBEC -

Canadian John Woods Mfg. Co.  
Latulippe, Michel  
La Compagnie de Radiateurs Victoire Ltée.  
Manny, E. S., Co.  
McKay, Alex, Boiler and Tank Works Reg'd.  
Morton Engineering and Dry Dock Co. Ltd.  
Radiateur Aero Ltée.  
Warden King Ltd.  
Weir, J. & R., Ltd.

2143 St. Patrick St., Montreal  
303 Dorchester St., Quebec  
925 Perrault Lane, Montreal  
1820 Gilford St., Montreal  
2156 DeMontigny St. E., Montreal  
West End, Louise Embankment, Quebec  
Plessisville  
2104 Bennett Ave., Maisonneuve, Montreal  
33 Nazareth St., Montreal

ONTARIO -

Babcock-Wilcox and Goldie-McCulloch Ltd.  
Ball, Robt., Engine and Thresher Co.  
Campbell Steel and Iron Works Ltd.  
Canadian John Wood Mfg. Co. Ltd.  
Dominion Radiator and Boiler Co. Ltd.

Grand Ave., Galt  
Seaforth  
855 Carling Ave., Ottawa  
101 Hanson St., Toronto  
17 S. Market St., Brantford, and 1322 Dufferin St.,  
Toronto

Gurney Foundry Co. Ltd.  
Horton Steel Works Ltd.  
Imperial Iron Corp. Ltd.  
Inglis, John, Co. Ltd.  
Leonard, E., and Sons, Ltd.  
Levy and Westwood Machinery Co.  
Macpherson, C. E.  
Napanee Iron Works Ltd.  
Ottawa Boiler and Steel Works  
Park, Archibald  
Pendell Boiler Ltd.  
Port Colborne Iron Works, Ltd.  
Steel Fabricating & Welding Ltd.  
Taylor-Forbes, Ltd.  
Toronto Iron Works Ltd.  
Winnett, R., & Son

4 Junction Road, Toronto  
Jennett St., Fort Erie  
Berryman Ave., St. Catharines  
14 Strachan Ave., Toronto  
381 York St., London  
340 Dufferin St., Toronto  
468 Rideau St., Kingston  
Ann St., Napanee  
158 Queen St. W., Ottawa  
165 William St., Chatham  
50 Bartlett Ave., Toronto  
Fraser St., Port Colborne  
Dundas  
Queen St., Guelph  
629 Eastern Ave., Toronto  
271 Hamilton Road, London

MANITOBA -

Canadian Brown Steel Tank Co. Ltd.

20th St. and Pacific Ave., Brandon

SASKATCHEWAN -

North Western Iron Works Ltd.

1419 Scarth St., Regina



DIRECTORY OF FIRMS INCLUDED IN THE BOILERS, TANKS AND ENGINES INDUSTRY, 1936. (concluded)

Names of Firms

Location of Plants

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

BRITISH COLUMBIA -

Atlas Boiler & Ship Repairs	First Avenue, Prince Rupert
Blain Boiler Works Ltd.	494 Railway St., Vancouver
Mainland Boiler Works	496 Alexander St., Vancouver
Patterson Boiler Works	750 Alexander St., Vancouver
Vancouver Iron Works Ltd.	1155 - 6th Avenue West, Vancouver
Westminster Boiler and Tank Co.	111 - 11th Street, New Westminster

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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. Hence the production figures as given in Table 12 do not represent the total output in Canada of the commodities which are listed. To provide complete figures for heating and power boilers a special compilation has been made covering the reports of all concerns which reported boilers as one of their products.

In 1936, a total of 41 concerns reported a production of heating or power boilers. These factories made goods having a gross selling value of \$7,974,852 of which boilers alone accounted for only \$1,733,522. The principal statistics covering the entire business of these works are given below.

Table 13 - PRINCIPAL STATISTICS FOR ALL ESTABLISHMENTS WHICH REPORTED A PRODUCTION OF BOILERS in 1935 and 1936.

	1935	1936
Number of manufacturers .....	48	41
Total capital employed ..... \$	19,143,543	18,142,084
Total number of employees .....	2,811	2,881
Total salaries and wages ..... \$	3,055,932	3,531,522
Total cost of fuel and electricity ..... \$	277,815	285,525
Total cost of all materials used ..... \$	2,408,329	3,233,456
Selling value of boilers manufactured ..... \$	1,535,896	1,733,522
Selling value of other products manufactured ..... \$	5,790,989	6,241,330
TOTAL SELLING VALUE OF ALL PRODUCTS ..... \$	7,326,885	7,974,852

Table 14 - TOTAL PRODUCTION IN CANADA OF HEATING AND POWER BOILERS, 1955 and 1956.

Types	1 9 5 5		1 9 5 6	
	Number of boilers	Total selling value at plant \$	Number of boilers	Total selling value at plant \$
Heating boilers -				
Cast iron sectional hot water and steam .....	7,186	704,198	10,997	831,127
Steel firebox, locomotive type .....	127	64,926	149	73,018
Horizontal return, tubular .....	48	62,423	...	25,653
Steel water tube .....	10	50,854	...	21,528
Steel welded .....	291	112,397	243	97,670
Power boilers -				
Water tube, horizontal type .....	5	23,809	35	212,780
Water tube, vertical type .....	9	12,900	...	5,867
Water tube, bent tube type .....	25	142,997	8	74,751
Horizontal return, tubular .....	48	55,768	77	130,193
Marine type - internally fired .....	3	15,249	...	...
Marine type, water tube .....	2	58,000	1	5,000
Steel firebox, locomotive type .....	13	19,998	11	21,515
Firetube, vertical type .....	151	58,275	152	64,933
Boilers, type not specified .....	...	196,112	...	171,687
TOTAL .....	...	1,535,896	...	1,733,522

LIST OF ALL CONCERNS REPORTING A PRODUCTION OF HEATING OR POWER BOILERS  
in 1956.

<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.
Balanger, O., Engr.	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 Vickers Ltd.	Montreal, P.Q.
Chalifoux & Fils, Limitée	St. Hyacinthe, P.Q.
Dominion Radiator and Boiler Co. Ltd.	Toronto, Ont.
Enamel & Heating Products Ltd.	Sackville, N.B.
Foster Wheeler Limited	St. Catharines, Ont.
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 Cie de Machineries Mercier	Levis, P.Q.
Latulippe, Michel	Quebec, P.Q.
Leonard, E., and Sons, Limited	London, Ont.
Manny, E. S., Co.	Montreal, P.Q.
Matheson, I., & Co., Ltd.	New Glasgow, N.S.
Marine Iron Works Limited	Victoria, B.C.
Morton Engineering & Dry Dock Co. Ltd.	Quebec, P.Q.
Napanee Iron Works Limited	Napanee, Ont.
Ottawa Boiler and Steel Works	Ottawa, Ont.
Patterson Boiler Works	Vancouver, B.C.
Pendall Boiler Limited	Toronto, Ont.
Robb Engineering Works Limited	Amherst, N.S.
Spencer Foundry Co. Ltd.	Penetanguishene, Ont.
Stephens-Adams Mfg. Co. of Canada, Ltd.	Bellefonte, 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.



LIST OF ALL CONCERNS REPORTING A PRODUCTION OF HEATING OR POWER BOILERS IN 1936 (concluded)

<u>Names of Firms</u>	<u>Location of Plants</u>
Victoria Machinery Depot Co. Ltd.	Victoria, B.C.
Vulcan Iron Works Limited	Winnipeg, Man.
Warden-King Limited	Montreal, P.Q.
Waterous Limited	Brantford, Ont.
Wayne Forge & Machine Co. Ltd.	Toronto, Ont.
Weir, J. & R., Ltd.	Montreal, P.Q.

(b) HEATING RADIATORS

Only 9 companies in Canada made radiators for heating purposes. Production in 1936 was valued at \$1,229,485.

Table 15 - TOTAL PRODUCTION OF HEATING RADIATORS, 1935 and 1936.

Type	1 9 3 5		1 9 3 6	
	Quantity	Selling value at works \$	Quantity	Selling value at works \$
Direct or standing type .....	sq.ft. 4,037,759	1,101,352	4,115,996	1,116,510
Concealed type - Cast iron .....	sq.ft.) 446,957	101,157	290,582	63,613
Sheet metal .....	.. )	...	...	49,560
TOTAL .....	\$ ...	1,202,469	...	1,229,485

LIST OF FIRMS REPORTING A PRODUCTION OF HEATING RADIATORS IN 1936.

<u>Names of Firms</u>	<u>Location of Plants</u>
Dominion Radiator and Boiler Co. Ltd.	Royce and Lansdowne Aves., Toronto, Ont.
Gurney Foundry Co. Limited	4 Junction Road, Toronto, Ont.
Imperial Iron Corporation Limited	Berryman Ave., St. Catharines, Ont.
La Compagnie de Radiateurs Victoire Ltée.	927 Perrault Lane, Montreal, P.Q.
Radiateur Aero Limitée	Plessisville, P.Q.
Taylor Forbes Limited	Queen St., Guelph, Ont.
Trane Company of Canada, Limited	King and Mowat Sts., Toronto, Ont.
Vapor Car Heating Co. of Canada, Limited	61-65 Dalhousie St., Montreal, P.Q.
Warden King Limited	2104 Bennett Ave., Montreal, P.Q.

(c) ENGINES

Twenty-six firms reported a production of engines (except automobile engines) in 1936. The principal statistics for these works are given below. The value of all products was \$6,682,023 of which engines accounted for only \$1,031,277.

Table 16 - PRINCIPAL STATISTICS FOR ALL ESTABLISHMENTS REPORTING A PRODUCTION OF ENGINES OF ALL KINDS IN 1935 and 1936.

	1 9 3 5	1 9 3 6
Number of manufacturers .....	27	26
Total capital employed .....	\$ 28,674,381	23,541,247
Total number of employees .....	2,415	2,457
Total salaries and wages .....	\$ 2,867,293	2,745,716
Total cost of fuel and electricity .....	\$ 220,461	184,614
Total cost of materials .....	\$ 2,625,374	2,921,334
Selling value of engines made .....	\$ 938,676	1,031,277
Selling value of all other products .....	\$ 5,188,477	5,650,746
TOTAL SELLING VALUE OF PRODUCTS .....	\$ 6,127,153	6,682,023

Table 17 - TOTAL PRODUCTION OF ENGINES, 1936.

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

Type	Number of engines	Total horse power	Selling value at works
			\$
Steam, including steam turbines .....	...	...	79,905
Gasoline - Marine type, outboard and other .....	4,751	33,367	548,741
Stationary type .....	1,992	1,490	86,563
Aeroplane, hand car and railway motor car .....	196	...	145,571
Diesel .....	...	...	119,806
Type not specified .....	...	...	50,691
<b>TOTAL ENGINES (except AUTOMOBILE) .....</b>	<b>...</b>	<b>...</b>	<b>1,031,277</b>
<b>Automobile engines .....</b>	<b>121,762</b>	<b>...</b>	<b>...</b>

LIST OF ALL CONCERNS IN CANADA REPORTING A PRODUCTION OF ENGINES IN 1936.

<u>Names of Firms</u>	<u>Location of Plants</u>
Acadia Gas Engines Limited	Bridgewater, N.S.
Atkinson, C. G.	Shelburne, N.S.
Babcock-Wilcox and Goldie-McCulloch Ltd.	Galt, Ont.
Buchanan, F.L., Limited	Orillia, Ont.
Canadian Pratt & Whitney Aircraft Co. Ltd.	Longueuil, P.Q.
Canadian Wright Ltd., and Aero Engines of Canada, Ltd.	Montreal, P.Q.
Desjardins Limitée	St. André de Kamouraska, P.Q.
Dominion Engineering Works Ltd.	Lachine, P.Q.
Easthope Brothers Limited	Vancouver, B.C.
Havilland Aircraft of Canada, Ltd.	North York Township, Ont.
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.
Outboard Marine & Manufacturing Co. of Canada, Ltd.	Peterboro, Ont.
Oxford Foundry & Machine Co. Ltd.	Oxford, N.S.
Plessisville Foundry, The	Plessisville, 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.
Tyee Machinery Corp. Ltd.	Vancouver, B.C.
United Steel Corporation Ltd.	Toronto, Ont.
Vivian Engine Works Ltd.	Vancouver, B.C.
Wilson Machine Co. Ltd.	Montreal, P.Q.
(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.

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