

CATALOGUE No.

41-225

ANNUAL

NOV 28 1966



# HEATING EQUIPMENT MANUFACTURERS

## 1964

### ANNUAL CENSUS OF MANUFACTURES

*Published by Authority of*  
The Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS

Industry Division

November 1966  
6506-814

Price: 50 cents



The contents of this document may be used freely but this should be credited when republishing all or any part of it.

## PUBLICATIONS

In addition to the report, on this industry, the DBS publishes annual statistics on a number of related industries and current statistics on the more important commodities. Copies of reports provided in the following list are available from the Information and Public Relations Division of the DBS, Ottawa or from the Queen's Printer, Hull, P.Q.

Catalogue number	Title	Periodicity	Price	
			Per copy	Per year
31 - 001	Inventories, Shipments and Orders in Manufacturing Industries ....	A		\$3.00
31 - 201	General Review of the Manufacturing Industries in Canada .....	A		2.00
41 - 223	Boiler and Plate Works .....	A		.50
41 - 225	Heating Equipment Manufacturers .....	A		.50
41 - 005	Stoves and Furnaces .....	M	.10	1.00
64 - 202	Household Facilities and Equipment .....	A		.50
65 - 004	Exports by Commodities .....	M	.75	7.50
65 - 007	Imports by Commodities .....	M	.75	7.50
—	6522-838 Heating Boilers and Radiators .....	M		Special
—	6522-839 Domestic Water Tank Heaters .....	M		Special

A — Annual

M — Monthly

Remittances should be in the form of cheque or money order, made payable to the Receiver General of Canada and forwarded to the Information and Public Relations Division, Ottawa or to the Queen's Printer, Hull, P.Q.

## HEATING EQUIPMENT MANUFACTURERS

1964

For statistical purposes the industry titled Heating Equipment Manufacturers in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing commercial cooking equipment and major heating apparatus such as furnaces, oil burners, gas burners, steam and hot water heating apparatus and heating equipment, not elsewhere classified. Establishments primarily engaged in manufacturing cast iron sectional heating boilers and convection or cast iron radiators are included in this industry. Establishments primarily engaged in manufacturing domestic cooking equipment, electric and non-electric, are classified in Industry No. 332 — Manufacturers of Major Appliances.

The principal statistics of this industry indicate that during 1964 the value of shipments of products of own manufacture increased by 10 per cent, materials used increased by 9.9 per cent and value added increased by 11.9 per cent. The value of materials used represented 47 per cent of the value of production in 1964 and value added represented 49.8 per cent of the value of production for the same period.

The value of heating equipment manufactured by the firms classified to this industry represented 71.5 per cent of their total production in 1964. Other major items reported were air conditioning, cast iron soil pipe, aluminum extrusions, travel trailers, trucks bodies, fans and machinery.

### SYMBOLS

The following standard symbols are used in Dominion Bureau of Statistics publications:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.
- amount too small to be expressed.
- p preliminary figures.
- r revised figures.
- x confidential to meet secrecy requirements of the Statistics Act.

TABLE 1. Principal Statistics, 1961-64

Year and province	Estab-lish-ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec-tricity	Cost of materials and supplies	Value of shipments of goods of own manu-facture	Value added	Working owners and partners		Employees		Value added
		Number	Man-hours paid	Wages					Number	With-drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1961													
Totals .....	110	3,445	7,052	13,245	791	34,296	77,407	41,704	21	67	5,137	22,079	43,980
1962													
Totals .....	103	3,561	7,406	14,298	766	40,725	84,611	43,679	17	74	5,349	23,399	46,387
1963													
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	2	x	x	x	x	x	x	x	x	x	x	x	x
New Brunswick .....	1	x	x	x	x	x	x	x	-	-	x	x	x
Quebec .....	24	1,285	2,908	5,508	209	14,172	26,926	12,368	2	2	1,787	8,282	12,636
Ontario .....	59	1,909	3,974	7,748	470	25,947	52,459	26,355	7	31	3,109	14,123	28,558
Manitoba .....	8	266	545	1,040	52	3,807	6,609	3,010	-	-	347	1,420	3,169
Saskatchewan .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta .....	5	x	x	x	x	x	x	x	x	x	x	x	x
British Columbia .....	8	108	228	466	45	1,662	2,957	1,269	-	-	166	747	1,381
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	107	3,704	7,924	15,250	807	46,784	91,748	44,605	14	49	5,586	25,268	47,401
1964													
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	2	x	x	x	x	x	x	x	x	x	x	x	x
New Brunswick .....	1	x	x	x	x	x	x	x	-	-	x	x	x
Quebec .....	26	1,319	2,894	5,737	200	15,254	29,947	15,109	x	x	1,846	8,854	15,234
Ontario .....	57	1,917	4,079	8,228	500	29,090	57,297	28,520	6	29	3,077	14,866	30,934
Manitoba .....	9	282	603	1,217	53	3,887	6,945	2,914	-	-	370	1,622	3,065
Saskatchewan .....	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta .....	5	x	x	x	x	x	x	x	x	x	x	x	x
British Columbia .....	10	143	299	609	54	1,810	3,247	1,523	-	-	204	938	1,614
Yukon and Northwest Territories	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	110	3,795	8,150	16,308	839	51,341	100,571	49,918	11	42	5,673	26,996	52,754



TABLE 2. Principal Statistics classified by Size Group based on Value of Shipments of Goods of Own Manufacture, 1963 and 1964

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1963													
Under \$10,000 .....													
\$ 10,000 to \$ 24,999 .....	9	4	8	13	3	49	130	79	10	30	7	20	79
25,000 " 49,999 .....	5	12	24	46	3	69	178	112	—	—	19	77	127
50,000 " 99,999 .....	18	86	177	333	18	601	1,336	702	2	11	127	526	781
100,000 " 199,999 .....	11	91	198	343	17	660	1,475	803	—	—	119	468	822
200,000 " 499,999 .....	23	413	866	1,468	89	3,337	7,484	4,275	—	—	554	2,319	4,653
500,000 " 999,999 .....	13	399	863	1,582	101	4,795	9,255	4,201	2	9	570	2,403	4,655
1,000,000 " 4,999,999 .....	25	1,725	3,759	6,979	346	28,560	49,786	21,283	—	—	2,651	12,198	22,391
5,000,000 and over .....	3	974	2,030	4,488	230	8,712	22,103	13,150	—	—	1,499	7,029	13,894
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	40	229	...
Totals .....	107	3,704	7,924	15,250	807	46,784	91,748	44,605	14	49	5,586	25,268	47,401
1964													
Under \$10,000 .....													
\$ 10,000 to \$ 24,999 .....	3	2	4	5	1	9	26	17	3	4	2	5	17
25,000 " 49,999 .....	6	8	16	29	3	43	124	79	4	12	13	50	98
50,000 " 99,999 .....	20	89	180	355	22	697	1,560	865	2	11	137	555	921
100,000 " 199,999 .....	12	115	232	451	15	728	1,698	969	—	—	142	577	995
200,000 " 499,999 .....	25	345	722	1,333	85	3,723	7,771	4,098	2	15	490	2,260	4,636
500,000 " 999,999 .....	14	404	890	1,591	114	5,198	10,023	4,974	—	—	621	2,760	5,341
1,000,000 " 4,999,999 .....													
5,000,000 and over .....	30	2,832	6,105	12,543	601	40,943	79,369	38,915	—	—	4,268	20,790	40,745
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals .....	110	3,795	8,150	16,308	839	51,341	100,571	49,918	11	42	5,673	26,996	52,754

TABLE 3. Principal Statistics classified by Size Group based on Manufacturing Value Added, 1963 and 1964

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1963													
Under \$10,000 .....													
\$ 10,000 to \$ 24,999 .....	11	19	42	74	6	237	442	196	3	11	33	124	210
25,000 " 49,999 .....	11	54	109	207	11	328	762	417	2	11	80	330	497
50,000 " 99,999 .....	16	132	280	496	28	1,296	2,449	1,137	—	—	177	715	1,154
100,000 " 199,999 .....	16	237	506	876	59	3,085	5,354	2,270	—	—	327	1,421	2,388
200,000 " 499,999 .....	24	688	1,481	2,633	158	10,192	17,433	7,062	2	9	999	4,361	7,471
500,000 " 999,999 .....	13	622	1,252	2,465	143	12,496	21,500	9,367	—	—	955	4,244	10,715
1,000,000 " 4,999,999 .....													
5,000,000 and over .....	10	1,950	4,251	8,492	401	19,210	43,732	24,113	—	—	2,973	13,818	24,924
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	40	229	...
Totals .....	107	3,704	7,924	15,250	807	46,784	91,748	44,605	14	49	5,586	25,268	47,401
1964													
Under \$10,000 .....													
\$ 10,000 to \$ 24,999 .....	9	10	20	30	4	80	178	95	7	15	13	41	102
25,000 " 49,999 .....	15	54	110	211	14	498	1,066	565	2	11	86	334	583
50,000 " 99,999 .....	18	161	326	637	24	1,026	2,368	1,346	—	—	211	878	1,420
100,000 " 199,999 .....	21	271	556	1,023	78	3,328	6,467	3,223	2	15	390	1,768	3,702
200,000 " 499,999 .....	22	659	1,447	2,615	151	10,911	18,160	7,281	—	—	980	4,327	7,663
500,000 " 999,999 .....	12	569	1,183	2,284	127	10,589	18,638	8,321	—	—	852	3,791	8,815
1,000,000 " 4,999,999 .....													
5,000,000 and over .....	13	2,071	4,508	9,507	442	24,910	53,694	29,087	—	—	3,141	15,857	30,484
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals .....	110	3,795	8,150	16,308	839	51,341	100,571	49,918	11	42	5,673	26,996	52,754

TABLE 4. Principal Statistics classified by Size Group based on Total Value Added, 1963 and 1964

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1963													
Under \$10,000 .....	6	2	4	6	2	29	75	43	7	20	2	6	42
\$ 10,000 to \$ 24,999 .....	9	14	32	54	5	215	375	151	3	11	25	91	150
25,000 " 49,999 .....	10	30	61	117	7	243	584	332	2	11	45	192	346
50,000 " 99,999 .....	18	149	314	557	29	1,362	2,598	1,219	—	—	202	809	1,262
100,000 " 199,999 .....	16	225	482	835	57	2,876	5,021	2,142	—	—	310	1,350	2,272
200,000 " 499,999 .....	25	712	1,529	2,724	163	10,442	17,863	7,237	2	9	1,034	4,529	7,691
500,000 " 999,999 .....	11	482	960	1,815	100	9,006	16,160	7,558	—	—	725	3,082	8,594
1,000,000 " 4,999,999 .....	12	2,090	4,542	9,143	444	22,610	49,072	25,922	—	—	3,203	14,980	27,044
5,000,000 and over .....													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	40	229	...
Totals .....	107	3,704	7,924	15,250	807	46,784	91,748	44,605	14	49	5,586	25,268	47,401
1964													
Under \$10,000 .....	9	10	20	30	4	80	178	95	7	15	13	41	102
\$ 10,000 to \$ 24,999 .....													
25,000 " 49,999 .....	15	54	110	211	14	498	1,066	565	2	11	86	334	583
50,000 " 99,999 .....	17	148	300	585	21	987	2,278	1,293	—	—	192	800	1,317
100,000 " 199,999 .....	20	264	538	975	73	2,946	5,818	2,927	2	15	365	1,577	3,118
200,000 " 499,999 .....	23	656	1,435	2,612	147	10,727	17,976	7,166	—	—	967	4,303	7,780
500,000 " 999,999 .....	13	592	1,239	2,388	138	11,193	19,560	8,785	—	—	909	4,085	9,385
1,000,000 " 4,999,999 .....	13	2,071	4,508	9,507	442	24,910	53,694	29,087	—	—	3,141	15,857	30,468
5,000,000 and over .....													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals .....	110	3,795	8,150	16,308	839	51,341	100,571	49,918	11	42	5,673	26,996	52,754

TABLE 5. Principal Statistics classified by Size Group based on Total Employed, 1963 and 1964

Size group	Estab- lish- ments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of shipments of goods of own manu- facture	Value added	Working owners and partners		Employees		Value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1963													
Under 5 employed .....	20	23	49	87	10	353	718	350	11	34	42	167	364
5- 14 employed .....	26	169	359	664	39	1,755	3,878	2,119	1	7	242	1,040	2,283
15- 49 " .....	33	657	1,436	2,650	165	11,453	18,994	7,412	2	9	970	4,530	8,196
50- 99 " .....	15	707	1,427	2,501	145	8,864	16,987	8,166	—	—	987	3,911	8,808
100-199 " .....	6	500	1,065	2,153	135	9,172	15,340	6,405	—	—	797	3,608	6,905
200-499 " .....	7	1,648	3,589	7,195	313	15,187	35,831	20,153	—	—	2,508	11,781	20,845
500 employed and over .....													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	40	229	...
Totals .....	107	3,704	7,924	15,250	807	46,784	91,748	44,605	14	49	5,586	25,268	47,401
1964													
Under 5 employed .....	12	11	22	39	7	222	471	241	8	19	20	75	247
5- 14 employed .....	32	192	389	776	44	2,013	4,324	2,366	1	7	278	1,204	2,535
15- 49 " .....	35	652	1,389	2,566	140	10,844	19,274	8,497	2	15	958	4,465	9,048
50- 99 " .....	17	733	1,556	2,881	178	11,681	20,712	9,331	—	—	1,119	4,853	10,085
100-199 " .....	6	483	1,017	2,210	97	9,067	15,719	6,647	—	—	746	3,676	7,146
200-499 " .....	8	1,724	3,776	7,837	374	17,514	40,071	22,836	—	—	2,552	12,723	23,692
500 employed and over .....													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals .....	110	3,795	8,150	16,308	839	51,341	100,571	49,918	11	42	5,673	26,996	52,754

TABLE 6. Principal Statistics classified by Type of Organization, 1963 and 1964

Type of organization	Establishments	Manufacturing activity							Total activity				
		Production and related workers			Cost of fuel and electricity	Cost of materials and supplies	Value of shipments of goods of own manufacture	Value added	Working owners and partners		Employees		Value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
<b>1963</b>													
Individual ownerships .....	6	3	6	10	3	57	127	66	6	22	3	10	66
Partnerships .....	4	24	52	106	6	415	801	379	8	27	27	120	378
Incorporated companies .....	97	3,677	7,866	15,134	798	46,312	90,820	44,160	...	...	5,516	24,910	46,957
Co-operatives .....	-	-	-	-	-	-	-	-	...	...	-	-	-
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	40	229	...
<b>Totals .....</b>	<b>107</b>	<b>3,704</b>	<b>7,924</b>	<b>15,250</b>	<b>807</b>	<b>46,784</b>	<b>91,748</b>	<b>44,605</b>	<b>14</b>	<b>49</b>	<b>5,586</b>	<b>25,268</b>	<b>47,401</b>
<b>1964</b>													
Individual ownerships .....	8	23	50	72	7	262	545	279	11	42	28	96	279
Partnerships .....													
Incorporated companies .....	102	3,772	8,100	16,236	832	51,079	100,026	49,639	...	...	5,645	26,900	52,474
Co-operatives .....	-	-	-	-	-	-	-	-	...	...	-	-	-
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
<b>Totals .....</b>	<b>110</b>	<b>3,795</b>	<b>8,150</b>	<b>16,308</b>	<b>839</b>	<b>51,341</b>	<b>100,571</b>	<b>49,918</b>	<b>11</b>	<b>42</b>	<b>5,673</b>	<b>26,996</b>	<b>52,754</b>

TABLE 7. Calculation of Output, Input and Value Added, 1963 and 1964

	Manufacturing activity		Non-manufacturing activities		Total activity	
	1963	1964	1963	1964	1963	1964
<b>\$'000</b>						
<b>Output</b>						
1. Shipments and other revenue .....	91,748	100,571	13,784	13,123	105,532	113,694
Inventories—Goods of own manufacture:						
Add closing—Goods in process .....	3,139	4,097	...	...	3,139	4,097
Finished goods .....	7,540	7,733	...	...	7,540	7,733
Deduct opening—Goods in process .....	3,536	3,360	...	...	3,536	3,360
Finished goods .....	6,696	6,943	...	...	6,696	6,943
2. Net inventory change .....	447	1,527	...	...	447	1,527
3. Gross output (1 + 2) .....	92,195	102,098	13,784	13,123	105,979	115,221
<b>Input</b>						
4. Purchases of goods not of own manufacture .....	...	...	10,095	9,900	10,095	9,900
Inventories—Goods not of own manufacture:						
Add opening .....	...	...	1,483	1,316	1,483	1,316
Deduct closing .....	...	...	1,278	1,656	1,278	1,656
5. Cost of goods sold (not of own manufacture) .....	...	...	10,300	9,560	10,300	9,560
6. Materials, supplies, etc. ....	46,784	51,341	687	728	47,471	52,069
7. Fuel and electricity .....	807	839	...	...	807	839
8. Gross input (5 + 6 + 7) .....	47,591	52,180	10,987	10,288	58,578	62,468
<b>Value added (3 - 8) .....</b>	<b>44,605</b>	<b>49,918</b>	<b>2,796</b>	<b>2,835</b>	<b>47,401</b>	<b>52,754</b>



TABLE 8. Employment and Payroll, 1963 and 1964

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office		Sales and distribution		Total		Production and related workers		Adminis- trative and office	Sales and distri- bution	Total
	Manufacturing		Other												
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other			
number										\$'000					
1963															
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	x	-	-	-	x	x	x	-	x	x	x	-	x	x	x
New Brunswick .....	x	-	-	-	x	x	x	-	x	x	x	-	x	x	x
Quebec .....	1,275	10	6	-	279	93	120	4	1,680	107	5,508	34	1,891	849	8,282
Ontario .....	1,837	72	9	-	566	255	314	56	2,726	383	7,748	40	4,227	2,109	14,123
Manitoba .....	266	-	-	-	56	14	11	-	333	14	1,040	-	319	60	1,420
Saskatchewan .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta .....	x	-	-	-	x	x	x	...	x	x	x	-	x	x	x
British Columbia .....	102	6	-	-	28	10	20	-	150	16	466	-	195	86	747
Yukon and Northwest Terri- tories .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	3,616	88	15	-	949	380	478	60	5,058	528	15,250	74	6,750	3,194	25,268
1964															
Newfoundland .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prince Edward Island .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nova Scotia .....	x	-	-	-	x	x	x	-	x	x	x	-	x	x	x
New Brunswick .....	x	-	-	-	x	-	-	-	x	-	x	-	x	-	x
Quebec .....	1,305	14	1	-	287	89	139	11	1,732	114	5,737	5	2,029	1,084	8,854
Ontario .....	1,847	70	6	-	557	241	298	58	2,708	369	8,228	32	4,437	2,168	14,866
Manitoba .....	282	-	-	-	58	15	15	-	355	15	1,217	-	327	78	1,622
Saskatchewan .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alberta .....	x	-	-	-	x	x	x	-	x	x	x	-	x	x	x
British Columbia .....	133	10	-	-	33	12	16	-	182	22	609	-	246	82	938
Yukon and Northwest Terri- tories .....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals .....	3,701	94	7	-	956	365	481	69	5,145	528	16,308	37	7,155	3,496	26,996

TABLE 9. Production and Related Workers, - Manufacturing Activity, 1963 and 1964

Month	1963		1964	
	Male	Female	Male	Female
	number			
Establishments reporting monthly detail (large establishments only):				
January .....	3,228	71	3,501	87
February .....	3,253	73	3,529	86
March .....	3,152	69	3,557	88
April .....	3,209	66	3,484	72
May .....	3,322	75	3,466	85
June .....	3,453	77	3,616	100
July .....	3,554	78	3,627	92
August .....	3,558	83	3,244	94
September .....	3,558	84	3,341	91
October .....	3,559	78	3,443	93
November .....	3,408	80	3,424	93
December .....	3,288	81	3,382	97
Averages .....	3,378	76	3,473	90
Establishments reporting annual averages (small establishments only) .....	238	12	228	4
Average for all establishments .....	3,616	88	3,701	94

TABLE 10. Inventories, 1964

Province	Manufacturing				Non-manufacturing	Total inventories
	Materials, supplies, etc.	Goods in process	Finished goods of own manufacture	Total	Products or materials purchased for resale	
book value \$'000						
Opening:						
Newfoundland .....	—	—	—	—	—	—
Prince Edward Island .....	—	—	—	—	—	—
Nova Scotia .....	x	x	x	x	—	x
New Brunswick .....	x	x	x	x	—	x
Quebec .....	2,779	788	1,018	4,584	275	4,860
Ontario .....	4,889	2,166	4,681	11,736	948	12,684
Manitoba .....	778	239	738	1,756	4	1,760
Saskatchewan .....	—	—	—	—	—	—
Alberta .....	x	x	x	x	—	x
British Columbia .....	161	108	188	457	89	546
Yukon and Northwest Territories .....	—	—	—	—	—	—
Totals .....	8,992	3,360	6,943	19,295	1,316	20,611
Closing:						
Newfoundland .....	—	—	—	—	—	—
Prince Edward Island .....	—	—	—	—	—	—
Nova Scotia .....	x	x	x	x	—	x
New Brunswick .....	x	x	x	x	—	x
Quebec .....	2,779	1,064	1,357	5,200	396	5,596
Ontario .....	4,452	2,531	5,129	12,113	968	13,080
Manitoba .....	851	283	604	1,738	121	1,860
Saskatchewan .....	—	—	—	—	—	—
Alberta .....	x	x	x	x	—	x
British Columbia .....	223	144	292	659	171	830
Yukon and Northwest Territories .....	—	—	—	—	—	—
Totals .....	8,732	4,097	7,733	20,562	1,656	22,219

TABLE 11. Purchased Fuel and Electricity Used in Manufacturing Activity, 1963 and 1964

Description	1963		1964	
	Quantity	Cost	Quantity	Cost
		\$'000		\$'000
1. Large establishments reporting commodity detail:				
Bituminous coal:				
(a) From Canadian mines .....	ton 969	12	—	—
(b) Imported .....	" 345	5	417	6
Sub-bituminous coal (from Alberta mines only) .....	" 100	1	95	1
Anthracite coal .....	" 255	3	279	4
Lignite coal .....	" —	—	—	—
Coke .....	" —	—	—	—
Gasoline (including gasoline used in cars and trucks) .....	Imp. gal. 161,519	64	104,525	40
Fuel oil including kerosene or coal oil .....	" 975,860	116	1,202,083	147
Wood .....	cord —	—	—	—
Gas:				
(a) Liquefied petroleum gases .....	Imp. gal. 176,485	31	243,603	42
(b) Other manufactured gas .....	M cu. ft. —	—	—	—
(c) Natural gas .....	" 147,481	145	191,440	176
Other fuel .....	... 1	1	...	1
Electricity purchased .....	kwh. 25,456,616	374	31,977,706	369
Steam purchased .....	... —	—	...	—
2. Small establishments not reporting commodity detail:				
Estimate for fuel and electricity .....	...	55	...	53
3. All establishments:				
<b>Total fuel and electricity used</b> .....	...	<b>807</b>	...	<b>839</b>

TABLE 12. Materials and Supplies - Manufacturing Activity, 1963 and 1964

Description		1963		1964	
		Quantity	Cost \$'000	Quantity	Cost \$'000
1. Materials used:					
Iron:					
Pig iron, all .....	ton	6,273	357	6,066	367
Castings:					
Iron .....	"	3,138	1,107	2,891	1,038
Steel .....	"	1,059	301	2,677	863
Steel, hot or cold-rolled:					
Bars .....	"	704	119	697	145
Plates .....	"	2,203	493	2,071	546
Sheets:					
Plain .....	"	29,867	5,118	31,598	5,237
Galvanized .....	"	3,678	810	3,821	841
Tin plate .....	"	424	85	532	109
Strip .....	"	2,182	367	2,804	454
Structural shapes (channels, angles, etc.) .....	"	636	126	707	152
Wire .....	"	68	30	144	33
Pipe and fittings, iron and steel .....		...	329	...	502
Alloy steel:					
Stainless:					
Billets, bars and rods .....		...	122	...	51
Other .....		...	687	...	757
Other alloy steel .....		...	33	...	59
Ferro-alloys .....		...	116	...	115
Scrap iron and steel .....	ton	32,682	1,231	22,246	842
Other iron and steel (except finished parts) .....		...	647	...	712
Non-ferrous metals (including scrap):					
Aluminum:					
Castings .....	pound	656,711	421	659,745	433
Sheet .....	"	1,620,736	712	1,498,743	681
Other forms .....	"	1,906,585	856	2,046,297	956
Brass and bronze .....	"	929,184	431	813,211	354
Copper:					
Sheet .....	"	139,231	91	122,359	79
Wire .....	"	4,600	2	7,328	5
Other forms .....	"	1,548,448	1,079	1,672,182	1,099
Lead .....	"	687	--	877	--
Babbitt metals and solders .....	"	10,600	8	11,785	10
Other non-ferrous metals .....		...	171	...	151
Other materials and supplies:					
Paints and varnishes .....		...	483	...	580
Foundry coke (used in cupola, not for heat or power) .....	ton	7,999	290	6,291	238
Foundry sands .....	"	13,870	121	9,514	93
Firebrick and cupola blocks .....		...	106	...	161
Plumbago and graphite .....	pound	240	--	306	--
Lumber .....	M ft. b.m.	1,397	174	3,169	304
Fireclay .....	ton	16	1	594	19
Core oil .....	imp. gal.	18,600	28	17,079	25
All other materials and components used <sup>1</sup> .....		...	26,678	...	30,076
2. Containers and other packaging materials and supplies used .....					
		...	830	...	844
3. Operating, maintenance and repair supplies used (excluding fuel) .....					
		...	2,034	...	1,888
4. Amount paid out to others for work done on materials owned by establishments ....					
		...	188	...	524
Totals .....					
		...	46,784	...	51,341

<sup>1</sup> No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$1,644,348 in 1963 and \$1,915,615 in 1964.

TABLE 13. Shipments of Goods of Own Manufacture, 1963 and 1964

Description		1963		1964	
		Quantity	Value \$'000	Quantity	Value \$'000
1. Products:					
Heating equipment:					
Cast iron sectional heating boilers .....	No.	5,224	2,011	4,731	1,709
Steel heating boilers .....	"	2,221	902	2,548	944
Furnaces, warm air:					
Designed for coal or wood burning .....	"	1,871	689	1,681	637
Designed exclusively for gas burning .....	"	67,941	8,618	73,157	9,768
Designed exclusively for oil burning .....	"	63,973	12,762	66,750	13,250
Floor and wall furnace:					
Gas .....	"	483	60	273	31
Oil .....	"	1,963	265	2,543	343
Furnace parts .....		...	289	...	246
Burners for furnaces and boilers:					
Gas:					
Residential .....	No.	9,300	621	8,765	528
Commercial and industrial .....	"	1,731	599	2,375	871
Oil (power type):					
Residential .....	"	27,506	1,744	33,488	2,334
Commercial and industrial .....	"	2,978	759	5,969	1,380
Oil burners, range type .....	"	7,285	250	6,569	216
Oil burner parts .....		...	633	...	627
Radiators for heating .....	Sq. ft. E.D.R.	15,200,725	10,979	15,520,951	9,438
Stokers, mechanical:					
Domestic or residential .....	No	514	246	488	234
Commercial and industrial .....	"	101	187	55	153
Stoker parts .....		...	1	...	148
Commercial cooking and food warming equipment:					
Electric .....		...	733	...	872
Gas .....		...	972	...	885
Unit heaters .....	No.	26,652	4,770	31,921	5,482
Stoves and ranges (all types, all fuels) .....	"	19,034	1,111	20,254	1,210
Stove parts .....		...	19	...	18
Industrial furnaces, kilns and ovens .....	No.	224	1,692	312	3,180
Water tank heaters:					
Domestic .....	"	20,600	888	20,701	719
Parts and attachments for industrial furnaces and ovens .....		...	216	...	1
Steam traps for heating systems .....		...	2,434	...	1,701
Incinerators .....		...	513	...	446
Registers and grills for hot air heating systems .....		...	3,648	...	3,593
Humidifiers (for warm air systems) .....		...	1,172	...	1,121
Other heating equipment .....		...	7,702	...	9,842
Miscellaneous products (air conditioning and refrigeration equipment, agricultural implements and parts, hardware, machinery, etc.) .....					
		...	14,123	...	15,802
Amount received for repairs .....		...	262	...	588
All other products .....		...	9,056	...	11,889
2. Amount received in payment for work done on materials and products owned by others .....					
		...	909	...	269
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above. ....					
		...	(284)	...	(351)
Net adjustment for establishments receiving progress payments .....					
		...	199	...	450
Total adjusted value of shipments and work done .....					
		...	91,748	...	100,571

<sup>1</sup> Confidential data, included under "Other heating equipment".



**TABLE 14. Shipments of Selected Goods of Own Manufacture - All Industries**  
(Includes shipments from other industries which manufacture, as a secondary activity, the commodities listed)  
**A. Power-type Oil Burners, 1 1955 - 64**

Year	Number	Value	Year	Number	Value
		\$'000			\$'000
1955 .....	125,639	11,282	1960 .....	95,401	6,696
1956 .....	122,675	10,626	1961 .....	96,462	6,467
1957 .....	93,794	7,656	1962 .....	90,551	6,538
1958 .....	99,745	7,726	1963 .....	90,171	6,068
1959 .....	105,097	7,729	1964 .....	94,240	6,704

**B. Furnace Blowers, 1955 - 64**

Year	Number	Value	Year	Number	Value
		\$'000			\$'000
1955 .....	104,705	1,760	1960 .....	151,834	1,922
1956 .....	120,846	1,907	1961 .....	192,755	2,364
1957 .....	152,723	2,029	1962 .....	170,543	2,090
1958 .....	180,026	2,305	1963 .....	190,164	2,099
1959 .....	212,813	2,555	1964 .....	191,986	2,117

**C. Mechanical Stokers, 1955 - 64**

Year	Domestic or residential		Commercial or industrial		Total		Value of stoker parts
	Number	Value	Number	Value	Number	Value	
		\$'000		\$'000		\$'000	\$'000
1955 .....	791	209	445	717	1,236	926	916
1956 .....	660	156	670	1,217	1,330	1,374	708
1957 .....	754	226	485	877	1,239	1,104	992
1958 .....	691	191	408	885	1,099	1,076	861
1959 .....	1,190	263	430	870	1,620	1,134	530
1960 .....	626	248	330	786	956	1,035	465
1961 .....	509	238	252	600	761	838	266
1962 .....	445	203	221	491	666	694	234
1963 .....	540	255	140	292	680	547	203
1964 .....	494	236	158	627	652	863	320

**D. Unit Heaters, 1955 - 64**

Year	Number	Value	Year	Number	Value
		\$'000			\$'000
1955 .....	23,624	4,427	1960 .....	25,843	5,829
1956 .....	31,387	5,451	1961 .....	22,397	4,341
1957 .....	25,717	6,561	1962 .....	25,564	5,380
1958 .....	17,478	4,120	1963 .....	27,766	5,670
1959 .....	21,686	4,522	1964 .....	34,164	6,620

**E. Air Registers and Grills, 1955 - 64**

Year	Value	Year	Value
	\$'000		\$'000
1955 .....	1,842	1960 .....	2,930
1956 .....	2,461	1961 .....	2,698
1957 .....	2,838	1962 .....	3,318
1958 .....	2,807	1963 .....	4,262
1959 .....	2,971	1964 .....	3,884

See footnote at end of table.



**TABLE 14. Shipments of Selected Goods of Own Manufacture - All Industries - Continued**  
**F. Heating Radiators, 1963 and 1964**

Kind	1963		1964	
	Sq. ft. E.D.R. <sup>2</sup>	Value	Sq. ft. E.D.R. <sup>2</sup>	Value
		\$'000		\$'000
Standing type, cast iron and pressed steel (excluding tube and fin types) .....	1,398,964	1,051	1,754,533	1,071
Baseboard type, cast iron, pressed steel and other fabricated metal .....	10,577,269	7,165	12,721,833	7,370
Concealed type, cast iron, pressed steel and other fabricated metal .....	...	4,332	...	3,299
<b>Totals</b> .....	...	<b>12,548</b>	...	<b>11,740</b>

**G. Warm Air Furnaces, 1955-64**

Year	Designed for coal or wood burning		Designed exclusively for oil burning		Designed exclusively for gas burning		Total all types	
	Number	Value	Number	Value	Number	Value	Number	Value
		\$'000		\$'000		\$'000		\$'000
1955 .....	17,698	2,319	90,482	18,725	16,156	3,099	124,336	24,144
1956 .....	15,018	2,072	97,644	18,564	29,662	5,214	142,324	25,850
1957 .....	12,034	1,961	86,177	18,006	45,627	7,669	143,838	27,638
1958 .....	7,289	1,074	88,978	18,019	75,619	12,384	171,886	31,478
1959 .....	6,238	968	95,814	19,151	80,986	12,207	183,038	32,327
1960 .....	5,693	1,205	91,724	18,413	70,423	10,193	167,840	29,812
1961 .....	3,167	792	101,847	20,063	82,563	11,396	187,577	32,251
1962 .....	6,823	1,245	94,771	16,933	83,069	11,204	184,663	29,382
1963 .....	2,659	822	98,137	19,716	92,888	11,846	193,684	32,384
1964 .....	2,205	746	107,195	22,450	102,417	14,115	211,817	37,311

**H. Heating and Power Boilers, 1963 and 1964**

Type	1963		1964	
	Number	Value	Number	Value
		\$'000		\$'000
<b>Heating boilers:</b>				
<b>Cast iron sectional heating boilers:</b>				
(a) Under 775 sq. ft. ....	4,511	1,057	4,198	1,159
(b) 776-1,499 sq. ft. ....	1,743	709	1,509	622
(c) 1,500 sq. ft. and over .....	1,513	1,573	1,464	1,408
<b>Steel heating boilers:</b>				
(a) Under 112 sq. ft. ....	5,928	1,844	7,081	2,256
(b) 112-522 sq. ft. ....	1,075	2,543	516	962
(c) 523-1,245 sq. ft. ....	554	1,656	420	797
(d) 1,246 sq. ft. and over .....	110	785	92	472
<b>Power boilers:</b>				
Marine type .....	...	1,108	157	1,335
Water tube package boiler units .....	141	5,279	...	5,375
Fire tube package boiler units .....	1,523	5,635	2,154	9,186
Fire tube boilers .....	3	3	3	3
<b>Boilers, other, type not specified</b> .....	...	26,025	...	25,998
<b>Totals</b> .....	...	<b>48,214</b>	...	<b>49,570</b>

<sup>1</sup> Not including industrial oil burners.

<sup>2</sup> Equivalent direct radiation.

<sup>3</sup> Confidential, included with "Boilers, other".

List of Establishments classified to This Industry, 1964

(Does not include establishments classified to other industries, which as a secondary activity, manufacture products typical of this industry)

Name	Location
<b>Nova Scotia:</b>	
Angel Mfg. & Supply Co. Ltd. ....	King St., North Sydney
Enamel & Heating Products Ltd. ....	Amherst
<b>New Brunswick:</b>	
Bourque, Rullard Ltd. ....	225 Main St., Shediac
<b>Quebec:</b>	
Atlas Webster Industries Ltd. ....	2760 Laurentian Blvd., St-Laurent
Burners Ltd., I.C. ....	2454 Des Carrières St., Montreal
Chaput & Frères, J.B.C. ....	Boucherville
Combustion & Power Equipment Ltd. ....	2655 Bates Road, Montreal
Decarie Boiler & Incinerator Ltd. ....	7592 St-Hubert St., Montreal
Freco Limitée ....	Charny
General Marine Co. Ltd. ....	12392 Lachapelle Blvd., Montreal
Howard Furnace Ltd. ....	2104 Bennett Ave., Montreal 4
Hunt & Moscrop (Canada) Ltd. ....	Box 355, Granby
Kres-Kno (Montreal) Ltd. ....	8255 Durocher St., Montreal
Lemelin Products Inc. ....	Montmagny
Locker G.R. Co. (The) ....	5870 Andover Ave., Montreal
Mark Hot Inc. ....	3250, boul. Métropolitain Ville St-Michel
Modern Kitchen Equipment Co. ....	Candiac
National-Shipley Ltd. ....	262 Scott St., St-Jérôme
Produits de chauffage J & L. Ltée ....	Daveluyville
Progress Restaurant & Equipment Mfg. Ltd. ....	4865 St. Lawrence Blvd. Montreal
Quebec Metal Inc. ....	100-36e rue, Québec
Reliable Industries Ltd. ....	4865 Iberville St., Montreal
Rock Utilities (1963) Ltd. ....	655 Beaumont Ave., Montreal
Serv-All Company Inc. ....	390 Laurendeau Ave., Montreal
Spanner Watts Ltd. ....	1280 Laurentian Blvd., St-Laurent
Stoker Limited ....	8165 St. Hubert St., Montreal
Terry Burners Inc. ....	5015 Buchan St., Montreal
Vapor Heating (Canada) Ltd. ....	3955 Courtral Ave., Montreal 26
Velan Engineering Ltd. ....	2125 Ward Ave., Montreal 9
<b>Ontario:</b>	
Aero Tool Works Limited ....	37 Hanna Ave., Toronto
Aga of Canada Ltd. ....	Ajax
Ajax Magnethermic Canada Ltd. ....	Ajax
Allied Metal Ltd. ....	49 Laing St., Toronto
Anthes-Imperial Co. Ltd. ....	Berryman Ave., St. Catharines
Auto-Flo Corp. of Canada Inc. ....	4240 Ambassador Drive. Windsor
B-L Furnaces Ltd. ....	15 Pelham Ave., Toronto
Barlin Scott Mfg. Co. Ltd. ....	32 Lincoln St., Hamilton
Blackwell Burner Co. of Canada Ltd. ....	2580 Cawthra Rd., Cooksville
Canadian Infra-Red Co. Ltd. ....	26 Belvia Road, Toronto
Carswell Furnaces Ltd. ....	55 Goth Ave., Ottawa
Clare Bros. Ltd. ....	223 King St., Preston
Clamsey Sohrt Mfg. Co. Ltd. ....	360 Eagle St. N., Preston
Commercial Controls (Canada) Ltd. ....	204 Evans Ave., Toronto
Commercial Kitchen Equipment Mfg. Co. ....	781 Queen St. E., Toronto
Douglas Metal Industries Ltd. ....	Richmond Hill
Dunham-Bush (Canada) Limited ....	140 Wendell Ave., Weston
Duo-Heat Ltd. ....	Waterford
Eclipse Fuel Eng., of Canada Ltd. ....	20 Upjohn Rd., Don Mills
Garland Commercial Ranges Ltd. ....	41 Medulla Ave., Toronto
Grimsby Stove and Furnace Limited ....	Grimsby
Hallmac Limited ....	Hespeler
Hart and Cooley Mfg. Co. of Canada Limited ....	Fort Erie N.
Holbeck Tobacco Curing Equipment ....	Tillsonburg

List of Establishments classified to This Industry, 1964 - Concluded

Name	Location
<b>Ontario - Concluded</b>	
Ideal Stoker Company Ltd. ....	500 Wellington St., Toronto
Industrial Process Equip. Co. Ltd. ....	47 Liberty St. W., Toronto
Iron Fireman Mfg. Co. of Canada, Ltd. ....	80 Ward St., Toronto
Itiniant, M. ....	1124 Pierre Ave., Windsor
Kemp Manufacturing Co. Ltd. ....	19 Petrolia St., Guelph
Lennox Industries (Canada) Ltd. ....	400 Brown's Line, Toronto
Livingston Stoker Company Limited ....	33 Sanford Ave. S., Hamilton
Lloyd Register & Grilles Co. Ltd. ....	30 Six Point Rd., Toronto
Lyman-Prencio Limited ....	72-74 Stafford St., Toronto
Niagara Heating Products Ltd. ....	Box 144, St. Catharines
Nixon, W. E. & Co. ....	Gormley
Oldhelser, Murray, Co. ....	3 Hoffman St., Kitchener
Olsen W. H. Mfg. Co. ....	Tilbury
Peabody Engineering Corp. of Canada Ltd. ....	47 Six Point Rd., Toronto 18
Pepper's Automatic Stokers Limited ....	240 Adelaide St. W., Toronto
Pettigrew-Savoil Burners Ltd. ....	Otterville
Roberts-Gordon Appliance Corp. Ltd. ....	Grimsby
Sana Equipment Limited ....	112 Rivalda Road, Weston
Sarco Canada Ltd. ....	R.R. 1, Agincourt
Slant Fin Ltd. ....	3356 Elmbank Rd., Malton
Smart, James Mfg. Co. Ltd. ....	Water St., Brockville
Smith A. O. International S. A. ....	768 Erie St., Stratford
Svindell Dresser Corp. of Canada Ltd. ....	1000 Yonge St., Toronto
Summers Manufacturing Ltd. ....	2450 Finch Ave., W., Weston
Synchro Combustion Equip. Ltd. ....	Seaforth
Tempo Tool & Mfg. Co. Ltd. ....	Cooksville
Temprite Industries Ltd. ....	Hillside Dr. & Dawson Rd., Orangeville
Tobac Curing System Limited ....	Simcoe
Trane Company of Canada, Limited ....	401 Horner Ave., Toronto
Wait-Skuttle Company ....	51 Davis Rd., Oakville
Wayne Forge & Machine Company Ltd. ....	126 Judge St., Toronto
Western Foundry Company Limited ....	Wingham
York Machine Co. Ltd. ....	3417 Dundas St. W., Toronto
<b>Manitoba:</b>	
Atom-Jet Humidifiers Ltd. ....	Box 361, Brandon
Bullock's Limited ....	Sargent Ave. & Berry St., St. James
Furnasman Metal Ltd. ....	635 Pembina Highway, Winnipeg
Greensteel Industries Ltd. ....	975 Logan Ave., Winnipeg
Hudson Heating & Ventilation Ltd. ....	1130 Sanford St., Winnipeg
Price Acme of Canada Ltd. ....	639 Golspie St., Winnipeg
Progressive Manufacturing Co. ....	1960 Main St., Winnipeg
Quest Metal Products ....	949 Erin St., Winnipeg
Silver Line Manufacturing Co. Ltd. ....	1995 Logan Ave., Winnipeg
<b>Alberta:</b>	
Flame Master Ltd. ....	6130-97th St. S., Edmonton
Kirk's Heating Limited ....	Three Hills
Marvel Stoker Products ....	5735-97th St., Edmonton
Shannon Bros. ....	1 Dunmore Rd., Medicine Hat
Sure Flame Tank Heater ....	Granum
<b>British Columbia:</b>	
Airco Products Ltd. ....	205 West 5th Ave., Vancouver
Burnaby Engineering & Prefab Ltd. ....	2421 Alpha Ave., Burnaby
Dickinson's Ltd. ....	1276 Howe St., Vancouver
Eburne Sheet Metal Ltd. ....	1405 S.W. Marine St., Vancouver
Evans Perry Incinerators Ltd. ....	5669 Tyne St., Vancouver
Industrial Process Heat Engineering Ltd. ....	16 E. Hastings St., Vancouver
Kumfort Furnace Co. Ltd. ....	5669 Tyne St., Vancouver
McDonnell Metal Manufacturing Company Limited ....	1250 Boundary Road, Vancouver
Rees Burners Ltd. ....	1331 West 6th Ave., Vancouver
Taggart Manufacturing Co. Ltd. ....	1166 W. 14th St., North Vancouver



# CONCEPTS AND DEFINITIONS

## Census of Manufactures

### General

The Census of Manufactures is an annual mail survey covering Canada's Manufacturing Industries. It is based on the Standard Classification of Industries and full details concerning the system may be found in the Standard Industrial Classification manual, Catalogue No. 12-501 which is available from the Queen's Printer or the Dominion Bureau of Statistics. In summary, the Classification as it relates to the manufacturing industries provides for a breakdown into 140 industries arranged in 20 major industry groups. Of the 140 (3 digit) industries, 18 are further broken down into 56 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 176 separate industries. They cannot all be published separately by province, however, because of the confidential nature of the data in certain provinces.

The reporting unit for the Census is designated as the **establishment** (see definition of "Establishment" in following section) and a return is requested from every establishment classified to a manufacturing industry. Although respondents are required to submit reports covering the calendar year, financial year reports other than the calendar year are accepted in instances where respondents find it impossible to supply calendar year data from accounting records. When an establishment is operated for only part of a year a report is required covering the period of operation.

There are four different questionnaires used in the Census of Manufactures; (a) short form (b) long form (c) head office questionnaire and (d) commodity questionnaire. The short and long forms are used to obtain principal statistics and commodities shipped from establishments classified to manufacturing industries and differ only in the amount of detail requested. The short form is a single-sheet questionnaire sent to small manufacturers generally reporting shipments of less than \$100,000; this cut-off, however, varies somewhat between industries. The head office questionnaire is generally used for company head offices and/or auxiliary units separately located from the manufacturing establishment(s), (see following notes on Head offices and auxiliary units). The Commodity questionnaire is used to survey certain establishments which are coded (on the basis of their principal activity) to industries other than manufacturing in the Standard Industrial Classification system, but which undertake some manufacturing as a subsidiary activity. This single-sheet questionnaire is designed to collect information on the quantity and value of goods of own manufacture shipped by such establishments in order to achieve full coverage of domestically manufactured commodities (see the following note under Shipments).

The results of the Census are presented in some 140 publications. In addition to these annual industry publications there are annual summary reports for Canada and the provinces and special reports giving principal statistics by detailed geographic areas, by type of ownership and size of establishment. A special annual report covering the shipments of all manufactured commodities arranged in alphabetical order is also published.

Since 1960 the following major changes have been implemented in the Census of Manufactures: (a) a revised Standard Industrial Classification (b) a new establishment definition and (c) an extension of the establishment definition to cover the non-manufacturing activities of manufacturing establishments. The statistics presented in the various 1963 reports reflect the complete implementation of these changes and enable comparisons to be made with the years 1961 and 1962. For a complete description of the procedures followed in establishing the revised series, reference should be made to the Explanatory Notes included in the 1960, 1961 and 1962 industry publications. The statistical framework within which the Census of Manufactures is now carried out is based on the following concepts and definitions which have been developed as part of a general programme to achieve a fully integrated system of economic statistics.

### Establishment

A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing activities. The majority of such establishments are firms but many firms have more than one establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements embodied in the following definition of the "establishment":

"The smallest unit which is a separate operating entity capable of reporting the following principal statistics:

- Materials and supplies used
- Goods purchased for resale as such
- Fuel and power consumed
- Number of employees and salaries and wages
- Man-hours worked and paid
- Inventories
- Shipments or sales."

Each establishment is required to report on all the activities carried out within its accounting boundaries (except income from investments such as rent, interest and dividends) and data on the different activities (manufacturing, trading in goods not of own manufacture, construction by own labour

force, revenue from services, etc.) are requested to be reported separately. It should be noted that the statistics for separate activities are not completely consistent since some respondents cannot distinguish, in their records, materials, shipments and inventories relating solely to their own manufacturing activities. For example, inventory of goods purchased for re-sale may not be distinguishable from inventory of own manufactured goods. Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level and for studies or statistical measures requiring accurate coordinated data, the "total" statistics should be used.

The number of establishments represents the number of operating units that are principally engaged in the activities of the manufacturing industries to which they have been classified. These units do not necessarily represent the total number engaged in the production of a commodity mainly produced in a certain industry. Some commodities are produced as secondary products in other manufacturing and non-manufacturing industries. It should be noted that head offices and auxiliary units which are surveyed separately are not included in the establishment count, (see following notes on head offices and auxiliary units).

#### **Head Offices and Auxiliary Units**

All head offices and auxiliary units of companies classified to the manufacturing industries such as sales offices, administrative offices, warehouses, laboratories, etc. are now surveyed as part of the Census of Manufactures.

These head offices and auxiliary units are either included in an establishment report or are surveyed by means of the head office questionnaire. The former is the most common case where a single establishment firm has its executive personnel, sales office, etc. located at the site of the manufacturing plant (establishment). The special head office questionnaire is generally used where a firm, regardless of the number of establishments, has separately located offices or auxiliary units. Such offices or units do not constitute establishments within the Census of Manufactures as they do not normally generate operational revenues, but give rise only to costs of operations (mainly salaries and wages) which are automatically included in the value of shipments or sales. Although not considered as establishments, and hence, not included in the "establishment" count for an industry, the operational costs are reflected in either the "Industry" statistics (3 or 4 digit level) or the "Major group" statistics (2 digit level) according to the following rules:

(a) In the case of single establishment firms, statistics for separately located offices and units are classified to the same industry (3 or 4 digit) as the establishment;

(b) In the case of multi-establishment firms, the statistics for such offices and units are coded to the same industry as the establishments of the firm, when all establishments are in the same industry (3 or 4 digit). When establishments of

such firms are coded (1) to different industries within a major group, (2) to industries in different major groups or (3) to industries in different divisions of the Standard Industrial Classification, then the statistics are included in the major group totals (2 digit level) in which the major part of the company's operations are classified. Although this may result in some distortion of major group statistics in the case of (2) and (3) the statistics at the industry (3 or 4 digit) level in all cases will be left free of these company-wide data.

#### **Employees**

##### **(a) Production and related workers — Manufacturing activities**

In addition to those engaged in production and assembling activities, they include those employed in storing, inspecting, handling, packing, warehousing, etc. They also include employees engaged in maintenance, repair, janitorial and watchman services and line supervisors (working foremen) engaged in similar work to that of the employees they supervise. For those establishments reporting on the "long" form, production and related workers engaged in manufacturing activity are reported as those receiving pay during the last pay period of each month, an average for the year being obtained by summing the monthly figures and dividing by 12. This procedure is followed even though the establishment did not operate in all months in order to arrive at equivalent annual full-time employment. The numbers are somewhat affected by turnover, in that employment is overstated when an employee changes employment during a pay period. In the case of those establishments reporting on the "short" form, respondents are requested to report average annual figures. The man-hours of production and related workers in manufacturing activity represent total man-hours paid (total hours at work during the calendar year plus hours not worked but nevertheless paid for, such as paid vacations, sick leave, statutory holidays, etc.). Data on man-hours are not collected from establishments reporting on the short form. Man-hours for these establishments are estimated on the basis of ratios derived from the 1958 census. During this census all establishments reported on the long form. In reporting overtime hours, respondents are requested to report only hours actually at work. It should be noted that the division of hours paid into production and related workers payrolls results in average hourly earnings and does not represent hourly wage rates which are collected and published by the Department of Labour and which are based on selected occupations.

##### **(b) Production and related workers — Non-manufacturing activities**

Such employees include those on manufacturing establishments' payrolls engaged in activities such as construction undertaken for the use of these establishments, some outside piece-workers employed in certain industries, logging employees who are reported as part of a sawmilling establishment and any other production workers who are not engaged in manufacturing-type operations.



### (c) Administrative and office employees

This category includes all executive and supervisory officials such as presidents, vice-presidents, comptrollers, secretaries, treasurers, etc., together with managers, professional, technical and research employees, superintendents and factory supervisors above the line supervisor or working foreman level, and clerical staffs. Also included are employees in activities such as advertising, credit collections, purchasing, personnel, legal, medical, etc. It should be noted that prior to 1961 this category also included working owners and partners. Also included in this category are employees located at head offices or auxiliary units separately located from the establishment; these are generally included in the figures for the province in which they are located according to the rules outlined under "Head offices and auxiliary units" above.

### (d) Sales and distribution workers

This category includes office personnel whose salaries are charged to selling expense, travelling salesmen, driver salesmen, truckdrivers and their helpers, etc. It may also include some sales employees who are reported as part of a manufacturing establishment but are not working at the establishment's location. These are generally broken down by province in cases where more than 15 employees are involved in any one province. The figures exclude persons working on a commission basis who are not considered regular employees of the establishment.

### (e) Total Employees

This total comprises the foregoing categories including employees located at separately located head offices and auxiliary units. The numbers of employees included under categories (b), (c) and (d) are reported in the form of annual averages and represent as closely as possible full time employment; adjustments are made when reported figures indicate the existence of part time or seasonal employment. In all the above categories, figures on employment refer to the calendar year whether or not other establishment statistics can only be reported on a fiscal year other than the calendar year.

### Working Owners or Partners

These are not now included in the statistics of employees and salaries and wages. There is some duplication in numbers when a person owns more than one establishment and is reported as a working owner on each Census return. Withdrawals of working owners are defined as amounts withdrawn by owners or partners for normal living expenses excluding withdrawals for payment of income tax.

### Salaries and Wages

Salaries and wages refer to gross earnings of employees before deductions for income tax and employees contributions to social services such as sickness, accident and unemployment insurance, pensions, etc. They include all salaries, wages,

bonuses, profits shared with employees, the value of room and board where provided, commissions (paid to regular employees only) as well as any other allowance forming part of the worker's earnings. Payments for over-time are included. Figures on salaries and wages refer to the calendar year.

### Fuel and Electricity

Figures for fuel refer to amounts actually used (including fuel used in cars, trucks, locomotives, etc.), not to purchases unless the quantities are substantially the same. **Any fuel and electricity produced by establishments for internal consumption are not included in the total cost.** Values represent laid down cost at the establishment including freight, duty, etc. Although fuel and electricity used is considered part of manufacturing activity it should be noted that it also includes relatively small amounts used in non-manufacturing activities since these cannot be reported separately.

### Materials and Supplies

#### (a) Manufacturing activities

Figures represent quantities and laid down cost values, at the establishment, of materials, supplies and purchased components owned and used during the year in manufacturing activities and related processes. These statistics represent only commodity items or physical goods (cost of services or overhead charges such as advertising, insurance, depreciation, etc. are not included) whether purchased from others or received as transfers (in the form of materials, components or semi-processed goods) from other establishments of the reporting company. Included are maintenance and repair supplies not chargeable to fixed assets accounts and any amounts charged by other establishments for work done on materials owned by the reporting establishment. Cost of repairs or maintenance done by outside contractors and cost of returnable containers are not included.

#### (b) Non-manufacturing activities

##### 1. Purchases for re-sale as such

Figures represent cost of materials or products purchased from others by the reporting establishment (or received as transfers from other establishments of the reporting company) for re-sale as such in the same condition as purchased. Included are any finished products received on consignment from other countries.

##### 2. Other materials and supplies used

Figures represent the cost of materials and supplies, if any, used in new construction and in the production of machinery and equipment (for the use of the reporting establishment) by the establishment's own employees. Included are materials used for any capital repairs and alterations carried out by the establishment's employees. Amounts paid to outside contractors for construction and repair work are not included nor is the cost of

purchased machinery and equipment. Also included is the cost of office supplies not chargeable to fixed assets accounts and the cost of such other items of materials and supplies used as food, beverages and supplies for establishment-operated cafeterias and lunch counters, first aid and medical supplies, laboratory supplies, etc.

## **Shipments**

### **(a) General**

The figures represent revenue from all production, sales, services and related activities of reporting establishments with shipments valued in Canadian dollars at the point at which the establishment relinquishes control. The unsold portion at year end of consignment shipments in Canada is treated as inventory and not as shipments but all shipments to foreign countries for which the form B13 "Customs Canada Export Entry" has been completed, are treated as shipments.

In those industries where work on principal products extends over a relatively long period, (Fabricated Structural Metal Industry, Aircraft and Parts Manufacturers, Railroad Rolling Stock Industry and Shipbuilding and Repair Industry) the value of production rather than the value of shipments is recorded. There are certain establishments in other industries which also operate on a basis of progress payments. For these establishments, shipments are also adjusted to work put in place on the basis of the net change in progress payments over the year.

### **(b) Shipments of goods of own manufacture**

These figures represent shipments of goods made from own materials either in the reporting establishments or by other manufacturers on the basis of a charge to the reporting establishments for work done. Included are revenue from repair and custom work, amounts received in payment for work done on materials owned by other establishments and the cost (book value) of any goods shipped on a rental basis.

All products and by-products of own manufacture shipped from the establishment are covered, including transfer shipments to sales outlets, distributing warehouses or to other manufacturing plants of the reporting firm, when such units are treated as separate establishments. The value of shipments are net of returned goods, discounts, returns, allowances, sales tax and excise taxes and duties, returnable containers and charges for outward transportation by common or contract carriers. Transportation or delivery expense incurred by the reporting establishment's own carriers are included.

Shipments of goods of own manufacture of establishments which are coded to some other division of the Standard Industrial Classification (on the basis of principal activity) but which are engaged in manufacturing as a subsidiary activity

are collected by means of the Commodity questionnaire referred to earlier. Such shipments together with shipments of goods of own manufacture of establishments forming the universe of manufacturing industries are compiled and recorded in the various industry publications.

### **(c) Shipments of goods not of own manufacture**

These figures represent the net selling value at establishment (net of discounts, returns, allowances, sales taxes and excise duties and taxes and transportation charges by common or contract carriers) of all products or materials (including products transferred from other establishments of the reporting firm) sold as such in the same condition as purchased or received as transfers. For those industries which ship such goods on a rental basis, the value of shipments represents the book value of these goods. All sales of consignment goods from other countries are included.

### **(d) Other revenue**

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs, alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishment's own employees and for which depreciation accounts are maintained. Included also are any revenues from the sale of electricity and from any operations performed by the establishment's own employees, such as revenue from goods produced or purchased for rental (the book value of such goods are included as part of shipments of goods of own manufacture or shipments of goods not of own manufacture), servicing revenues, commissions on sales (when not included in value of sales), revenue for company-operated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishment's own products, sale of used materials (excluding sale of used fixed assets) research and development work, etc. As mentioned previously the figures do not include non-operating revenue such as rent, dividends, interest, etc.

## **Inventories**

### **(a) Manufacturing activities**

Values represent the book values of manufacturing inventory owned in Canada. Inventories held for which progress payments have been received are not included. Where progress payment accounts are maintained, the change in these accounts is treated as a net adjustment to shipments. Figures consist of inventory owned at the plant and at warehouses or selling outlets which are treated as extensions of establishments for the purpose of reporting shipments. Inventory owned in transit in Canada or on consignment in Canada is included. Goods shipped abroad and held in inventory are included in shipments. Opening inventories may differ from the closing inventories of the previous year because of changes in classification, the



receipt of revised data, the inclusion of new establishments and the removal of establishments which did not operate during the survey year.

**(b) Non-manufacturing activities**

Figures represent the book value of inventory of goods purchased for re-sale as such without further processing, owned by the reporting establishments and held at plants and at any warehouses or selling outlets which are treated as extensions of establishments. Other characteristics are the same as in (a) above.

**Value Added**

**(a) By manufacturing activities**

Figures are compiled by deducting the cost of manufacturing materials, supplies, etc. and fuel and electricity consumed from the (value of shipments of goods of own manufacture adjusted for changes in the value of inventories of finished goods and goods in process).

**(b) By non-manufacturing activities**

The figures are compiled by deducting the cost of goods purchased for re-sale (adjusted for changes in the value of inventories of goods pur-

chased for re-sale) and the cost of non-manufacturing materials and supplies used from the value of shipments of goods not of own manufacture, plus other revenue.

**(c) By Total activities**

The figures consist of value added by manufacturing activities plus value added by non-manufacturing activities. This total value added figure may, in some cases, be less than value added by manufacturing activities as a result of expenditures associated with non-manufacturing exceeding revenues from such activities or because of a decrease in inventory of goods not of own manufacture exceeding the mark-up on the sale of such goods. "Value added" is sometimes referred to as net output or net production. However, to arrive at the National Accounts concept of net production, or Gross Domestic Product at "Factor cost" it would be necessary to subtract also the cost of advertising, insurance and other business expenses which are not collected as part of the annual Census of Manufactures. "Value added" figures for the primary industries, manufacturing and construction are published in DBS publication Catalogue No. 61-202, "Survey of Production".







STATISTICS CANADA LIBRARY  
BIBLIOTHEQUE STATISTIQUE CANADA



1010698596