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COMMERCIAL REFRIGERATION AND AIR CONDITIONING EQUIPMENT MANUFACTURERS 1964

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OF MANUFACTURES

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COMMERCIAL REFRIGERATION AND AIR CONDITIONING EQUIPMENT MANUFACTURERS

1964

For statistical purposes the industry titled Commercial Refrigeration and Air Conditioning Equipment Manufacturers in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing electric and non-electric commercial refrigerating equipment such as display cases, counters and frozen food storage cabinets; and refrigeration units for installation in custom or built-in refrigeration facilities.

The industry also includes establishments primarily engaged in manufacturing self-contained air conditioning units (except window type) and air conditioning equipment for installation in custom and built-in air conditioning systems.

The number of establishments classified to this industry increased to 36 in 1964, however it should be noted that the real change involved the addition of 5 firms and the deletion of 3 firms.

Total employment increased by 433 persons and total salaries and wages by \$2,222,000. The total number of production employees increased by 327 or 30% and accounted for 70% of total employment in this industry.

The value of materials used in the production of goods of own manufacture increased by \$6,994,000 or 57% and the value of shipments of goods of own manufacture increased by \$9,312,000 or 36%. During the same period Goods in Process and Finished Goods Inventories increased by \$1,637,000 or 22%.

It should be noted that table 13 covers the shipments of the firms classified to this industry whereas table 14 gives the total value of shipments of specific items of Canadian manufacture and includes shipments of these items reported by firms classified to other S.I.C. industries.

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

				Man	ufacturing	activity				Т	otal activ	ity	
Year and	Estab-		duction a		Cost of	Cost of	Value of shipments		Working and p	owners artners	Emp	loyees	
province	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salarles and wages	V alue added
	No.		'000			\$'000				\$'000		\$*0	00
1961			- 1										
Totals	34	1, 130	2,451	4, 494	280	10,224	23,182	12,833	8	51	1,636	7, 320	13,597
1962													
Totals	35	1, 131	2,424	4,578	284	12,242	26, 162	13, 756	8	57	1,652	7, 551	14,558
1963													
Newfoundland	_	_	_	_	_	_	_	_	_	_	_	_	-
Prince Edward Island	_	almin	-	Pates	-	_	_	_			_	_	_
Nova Scotia		-		_	_		_	_	_	-	_	_	_
New Brunswick	1	1											
Quebec	7	123	256	436	33	1,098	2,750	1,626	3	20	189	761	1,656
Ontario	20	809	1,563	3, 208	198	9,716	20, 993	11, 206	3	15	1, 201	5,510	12,044
Manitoba	3	96	186	3 23	17	687	1,278	633		_	113	392	626
Saskatchewan	-	_	_	_	_		_	_	-	_	_	-	_
Alberta	1)	100	204	10	COF	. 010	593	4	36	70	415	658
British Columbia	2	60	120	334	10	695	1,313	393	1	30	10	413	636
Yukon and Northwest Territorles	_	-	-1	-	_	_	-	_	-	-	_	-	
Totals	34	1,088	2,125	4, 301	259	12,196	26, 334	14, 058	10	71	1,573	7,077	14,984
1964										ı			
Newfoundland	-	-	-	_	-	-	_	-	_		_	-	_
Prince Edward Island	-	-	_	_	-	-	_	-	-	-	-	-	-
Nova Scotia	- 400	-	_	_	_	_	-	-	_	-	-	-	_
New Brunswick	1	х	x	х	х	х	x	x	-	-	х	х	х
Quebec	8	146	305	536	42	1,757	3,978	2, 250	3	21	240	1,041	2, 284
Ontarlo	22	1, 105	2,307	4, 435	252	15, 988	28, 894	13,091	х	х	1,579	7,411	14,084
Manitoba	2	x	x	х	х	x	х	x	-	-	х	х	x
Saskatchewan	-		_	-	-	-	_	_	-	-	_	-	-
Alberta	1	x	x	x	х	x	х	х	_	_	х	x	x
British Columbia	2	x	х	x	х	х	х	х	x	х	х	x	x
Yukon and Northwest Territories	-	_	-	-	-	_	-	-	-	-	-	-	-
Totals	36	1,415	2,933	5, 674	325	19,190	35, 646	16, 63	7 8	70	2,000	9, 299	17,672

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

				Man	ufacturing	activity				T	otal activ	ity	
Size group	Estab- lish- ments		duction a ited work		Cost of	Cost of	Value of shipments of goods	Value	Working and pa	owners	Empl	oyees	Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000			\$'000				\$'000		\$10	000
1963													
Under \$10,000	_	_		_	_	400		_	_	-	_	-	_
25,000 ' 49,999 50,000 ' 99,999	5	23	45	76	6	153	297	156	4	18	28	91	150
100,000 " 199,999	6 6 9 8	47 74 283 661	92 153 579 1,255	171 295 1,145 2,614	14 24 58 157	351 668 3,183 7,841	842 1,526 6,810 16,859	504 860 3,486 9,052	2 - 4 -	17 36 —	59 101 380 1,005	226 441 1,686 4,633	504 890 3,574 9,860
auxiliary units									* * *			4 4 9	
Totals	34	1,088	2, 125	4, 301	259	12,196	26, 334	14,058	10	71	1,573	7, 077	14, 98
1964		1											
Under \$10,000	_	=	=	_	_	_	-	_	_	_	=	_	=
25,000 ** 49,999 50,000 ** 99,999	3	7	14	30	5	72	169	95	2	12	10	41	103
100,000 " 139,999 200,000 " 499,999 500,000 " 999,999	6 8 9	49 108 255	97 217 547	185 415 1, 213	15 32 61	413 1,243 3,231	774 2,568 6,544	353 1,338 3,313	2 -4	18 - 40	58 141 360	226 616 1, 793	36: 1, 36: 3, 420
1,000,000 ' 4,999,999	} 10	996	2, 058	3,832	213	14, 231	25, 591	11,538	-	-	1,437	6,623	12, 41
auxiliary units		* * *				440		0 4 4	4 * *	* * *			1.40
Totals	36	1,415	2,933	5,674	325	19,190	35, 646	16,637	. 8	70	2,006	9, 299	17,67

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

				Маг	ufacturing	activity				Т	otal activ	vity	
Size group	Estab- lish- ments		duction s ited work		Cost of	Cost of	Value of shipments of goods	Value		owners	Emp	loyees	Value
		Number	Man- hours pald	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000			\$'000				\$1000		\$10	00
1963													
Under \$10,000		-	-	-	***	_	-	_	-	-	-	-	_
10,000 to \$ 24,999 25,000 49,999	5	15	30	50	5	182	315	141	4	18	20	70	141
50,000 " 99,999	5 6 10 5 3	45 71 265 249 443	90 148 545 531 782	174 283 1,042 1,034 1,718	12 25 59 62 96	346 532 3,985 3,068 4,082	720 1,266 7,615 6,908 9,510	363 763 3,463 3,842 5,485	2 -4 - -	36	56 93 364 379 661	217 396 1,592 1,747 3,055	362 794 3,556 3,857 6,273
Totals	34	1,088	2, 125	4, 301	259	12, 196	26, 334	14,058	10	71	1,573	7, 077	14,984
1964	1												
Under \$10,000	_	_	_	_	_	-	-	_	_	_	_	_	_
10,000 to \$ 24,999 25,000 '4 49,999	} 4	20	39	64	11	127	271	137	2	12	24	85	156
50,000 " 99,999	5 7 10 5 5	36 93 250 253 763	72 196 538 500 1,588	151 400 1,140 984 2,935	8 32 67 57 150	358 1,413 3,553 2,998 10,741	672 2, 43t 6, 961 6, 088 19, 223	311 1,032 3,394 2,960 8,803	4	18 - 40	122 361 393 1,062	181 571 1,752 1,890 4,819	310 1,067 3,481 3,747 8,917
auxiliary units													
Totals	36	1.415	2, 933	5, 674	325	19.190	35, 646	16, 637	8	70	2,006	9, 299	17,67

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

				Man	ufacturing	activity				Т	otal activ	vity	
Size group	Estab- lish-		duction ated work		Cost of	Cost of	Value of shipments	** *	Working and pa	owners	Empl	loyees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		000			\$'000				\$*000		\$'0	000
1963												1	
Jnder \$10,000	_	_ 1	-		_	_	_	-	_	-	-qua	_	_
10,000 to \$ 24,999	} 5	15	30	50	5	182	315	141	4	18	20	70	14
50,000 " 99,999 100,000 " 199,999 200,000 " 499,999 500,000 " 999,999 1,000,000 " 4,999,999 5,000,000 and over	5 6 9 6 3	45 71 229 285 443	90 148 460 616 782	174 283 872 1, 203 1, 718	12 25 55 66 96	346 532 3,576 3,477 4,082	720 1,266 6,676 7,848 9,510	363 763 2, 964 4, 342 5, 485	4	17 36 -	56 93 306 437 661	217 396 1,267 2,072 3,055	36: 79 3,03 4,37 6,27
lead offices, sales offices and auxiliary units													
Totals	34	1,088	2,125	4,301	259	12, 196	26,334	14,058	10	71	1,573	7,077	14, 98
1964				1									
Inder \$10,000	_			-	_	_	_	_	-	_	-		
10,000 to \$ 24,999	3	7	14	30	5	72	169	95	2	12	10	41	10
25,000 " 49,999 50,000 " 99,999 t00,000 " 199,999 200,000 " 499,999 500,000 " 999,999 1,000,000 " 4,999,999 5,000,000 and over	6 7 9 5 6	49 93 212 223 831	97 196 446 467 1, 713	185 400 950 897 3,213	15 32 63 46 165	413 1, 413 3, 124 3, 067 11, 101	774 2, 431 6, 097 5, 714 20, 462	353 1,032 2,955 2,581 9,621	2 - 4 -	18 40 -	58 122 303 315 1, 198	226 571 t,398 1,437 5,626	36 1,06 2,90 2,72 10,50
fend offices, sales offices and										4		***	
Totals	36	1,415	2,933	5,674	325	19, 190	35,646	16,637	8	70	2.006	9, 299	17,67

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

				Mar	ufacturing	activity				7	Cotal acti	vlty	
Size group	Estab-		oduction a ated work		Cost of		Value of shipments	Value	Working and pa		Emp	loyees	Value
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000		~	\$'000	1			\$'000		\$'0	00
1963													
Under 5 employed	} 11	70	138	246	20	505	1,139	660	6	35	87	317	660
5 - 14 employed	13	214 361	444 761	901	66 77	3,630 3,979	6,912 8,772	3,098 4,815	4	36	304 521	1,369 2,336	3, 200 4, 84
100 - 199	} 3	443	782	1,718	96	4, 082	9,510	5, 485	-	_	661	3,055	6, 27
000 employed and overlead offices, sales offices and	-	-	-	-	1-00	-	-	_	-	_	100	999	-
auxiliary units						* * *							***
Totals	34	1,088	2,125	4,301	259	12, 196	26, 334	14.058	10	71	1,573	7,077	14, 98
											1		į
1964													
Under 5 employed	} 10	66	131	248	23	590	1,154	575	4	30	18	317	59
15 - 49 50 - 99	14		472 616	1,042	80 57	4,843 2,655	8, 269 5, 761	3,407	4	40	327 400	1,562 1,794	3,43
00-199	} 6	831	1,713	3, 213	165	11, 101	20,462	9,621	-	_	1, 198	5,626	10,50
00 employed and over	-	1 3				-	-	-	-		-		115
auxiliary units								* 1 4	* * *	* * *		* * *	
Totals	36	1,415	2,933	5,674	325	19, 190	35, 646	16,637	8	70	2,006	9, 299	17.67

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

				Man	ufacturing	activity				7	Cotal acti	vity	
Type of organization	Estab-		duction ated work		Cost of	Cost of	Value of shipments	10.1		owners utners	Empl	oyees	Value
UI SHILL SHADO	ments	Number	Man- hours pald	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000		L	\$'000	W = Norman and T			\$'000		\$'0	000
1963						}							
Individual ownerships	} 5	58	102	277	15	390	940	517	10	71	60	285	584
Incorporated companies	29	1,030	2, 023	4,024	243	11,806	25, 394	13, 541	* * *		1,513	6,792	14, 400
Co-operatives	-	_	400	-	_	_	-	-			-	- 1	-
Head offices, sales offices and auxiliary units	2 9 0	* * *			*						0 * 0	• • 5	
Totals	34	1,088	2, 125	4, 301	259	12, 196	26, 334	14, 058	10	71	1, 573	7, 077	14, 984
1964													
Individual ownerships	} 4	57	99	287	16	392	951	548	8	70	60	298	544
Incorporated companies	32	1, 358	2, 833	5, 388	309	18, 799	34, 696	16, 089			1,946	9, 001	17, 128
Co-operatives	-	-	-	-	_	_	-	_		* * *	-	-	
Head offices, sales offices and auxiliary units		• • •									4 * 0		
Totals	36	1, 415	2, 933	5, 674	325	19, 190	35, 646	16, 637	8	70	2,006	9, 299	17, 672

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

	Manufact activi		Non-manufa activiti		Total activi	
	1963	1964	1963	1964	1963	1964
			\$'00	0		-
Output						
. Shipments and other revenue	26,334	35, 646	4.702	4,007	31,036	39, 853
inventories - Goods of own manufacture:						
Add closing - Goods in process	1, 239	1,709	***	* * * *	1, 239	1,709
Finished goods	1, 393	1,671	• • •		1, 393	1, 671
Deduct opening - Goods in process	931	i, 356	4 * *	* * *	931	1, 358
Finished goods	1,522	1, 516	4 0 0		1, 522	1.516
2. Net inventory change	179	506			179	506
3. Gross output (1+2)	26,513	36, 152	4, 702	4,007	31, 215	40, 159
Input						
Purchases of goods not of own manufacture			3, 493	2, 659	3, 493	2, 659
Inventories - Goods not of own manufacture:						
Add opening			387	164	387	164
Deduct closing	• • •		257	70	257	70
. Cost of goods sold (not of own manufacture)			3, 823	2, 753	3, 623	2,753
Materials, supplies, etc.	12, 196	19, 190	152	2 19	12, 348	19, 409
Fuel and electricity	259	325			259	325
Gross input (5+6+7)	12.455	19.515	3,775	2, 972	16, 230	22, 48
Value added (3 - 8)	14, 058	16, 637	927	1, 035	14, 984	17.67

TABLE 8. Employment and Payroll, 1963 and 1964

					Emplo	yees						Salari	es and wa	ges	
Year and		Product related			Adm	inis-		les nd	To	tai	Producti		Admin-	Sales	
province	Manufa	cturing	01	her		ffice	distri		10	t da	related v	vorkers	lstra- tive and	and distri-	Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other	office	bution	
1963		1		1	numt	er				1			\$'000		
Newfoundland	_						-	_	_						
Prince Edward Island		_		_	_		_	_	_	_	_	_	_	-	_
Nova Scotia	_			_		_	_	_	_	_	_	-	-	_	_
New Brunswick									_			_	_	_	_
Quebec	114	9		_	33	13	20	_	167	22	436	_	196	130	761
Ontario	787	22	_		214	78	84	16	1,085	116	3,208	_	1,611	691	5.510
Manitoba	96		_	_	12	3	2	-	110	3	323	_	62	7	392
Saskatchewan	_	_	_	_	_	_	_		_	_	323		02	'	384
Alberta	1														
British Columbia	59	1	_		9	1	-	-	68	2	334	-	81	_	415
Tukon and Northwest Terri- tories	_	_	-	_	_	_	-	_	_	_	_	_	_	_	_
Totals	1,056	32	-		268	95	106	18	1,430	143	4, 301	-	1, 949	828	7, 877
1964															
Newfoundland	_	-	_		-	-	_	-	_	_	-	-	_	_	-
rince Edward Island	-	-	_		_	-	_	-	_	-	_	_	-	-	_
Iova Scotia	-	_	_	_	-	-	-	_	-	-	_	_	-	_	-
lew Brunswick	х	_		_	X		_	_	x	_	х	_	x	_	X
mehec	137	9	_	_	43	20	28	3	208	32	536	-	332	173	1,04
Intario	1,078	27	_		258	88	109	19	1,445	134	4, 435	-	1,988	988	7,41
Sanitoba	x	-	_	_	X	х	X	_	X	x	x	-	x	х	x
askatchewan	_	- 1	_	_	_	_	_	_	_	_	_	_	_	-	_
Nberta	X	x	_	_	х	_	х	-	х	-	x	_	х	x	x
British Columbia	х	X	-	_	ж	X	_	-	х	X	х	_	х	_	х
lukon and Northwest Terri- tories	-	-	· 3	-	_	-	_	_	· _	_	·_	_	_	_	_
Totals	1.378	37		_	320	111	138	22	1.836	170	5,674	_	2, 460	1, 165	9,29

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

M. O	196	3	196	4
Month	Male	Female	Male	Female
		numbe	er	5
Establishments reporting monthly detail (large establishments only):	1		1	
January	991	33	1,197	35
February	1,003	32	1,230	37
March	1,029	32	1,273	39
April	1,022	32	1,361	39
May	1,088	33	1,394	41
June	1,112	34	1,453	41
July	1,116	32	1,408	35
August	1,100	31	1,424	35
September	1,068	33	1,430	34
October	1,069	33	1,407	36
November	1,043	27	1,518	35
Desember	1,024	31	1,442	35
Averages	1,056	32	1,378	37
mabilishments reporting annual averages (small establishments only)	0 0 0		* * * *	
verage for all establishments	1,056	32	1,378	37

TABLE 10. Inventories, 1964

		Manufa	cturing		Non- manufacturing	
Province	Materials, supplies, etc.	Goods in process	Finished goods of own manufacture	Total	Products or materials purchased for resale	Total inventories
			book value	\$'000		
Opening:						
Newfoundland		_	_	_	_	_
Prince Edward Island	-	_	-tes	_	_	_
Nova Scotia		_	-		_	_
New Brunswick	x	-	х	x	_	х
Quebec	286	37	134	458	6	46
Ontario	2,585	1,218	1, 214	5,017	158	5, 17
Manitoba	х	х	х	x	-	х
Saskatchewan	_	_	-		-	_
Alberta	х	_	x	х	_	х
British Columbia	х	х	х	х	_	х
Yukon and Northwest Territories	_	_	_	_		-
Totals	3, 200	1,358	1,516	6,074	164	6, 23
Closing:						
Newfoundland	eta	_	_	-	_	-
Prince Edward Island	_		-	-	-	- 11
Nova Scotia	_	_	_	_	-	
New Brunswick	x	_	x	х		x
Quebec	439	27	216	682	27	70
Ontario	3,451	1,547	1,322	6,320	43	6,36
Manitoba	х	x	x	x	_	х
Saskatchewan		-010	-	ride	_	_
Alberta	x	_	x	х		х
British Columbia	x	x	x	х	_	x
Yukon and Northwest Territories	_		_	***	_	-
Totals	4, 176	1,709	1,671	7,556	70	7,62

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

		1963		1964	
Description		Quantity	Cost	Quantity	Cost
			\$1000		\$'000
i. Large establishments reporting commodity detail:	ļ				
Bituminous coal:					
(a) From Canadian mines	ton	_	-	-	_
(b) Imported	44	279	4	258	4
Sub-bituminous coal (from Alberta mines only)	6.0	-	***	-	
Anthracite coal	8.6	nma n	_	-	_
Lignite coal	9.9	and a		-	_
Coke	- 14	_	-		
Gasoline (including gasoline used in cars and trucks)	Imp. gal.	26,846	11	19, 237	8
Fuel oil including kerosene or coal oil	F 5	764, 482	77	832, 191	86
Wood	cord	_	-000	_	-
Gas:					
(a) Liquefied petroleum gases	Imp. gal.	4,306	I	10, 544	3
(b) Other manufactured gas	M cu. ft.	_	- 1	_	_
(c) Natural gas	44	26,738	27	45, 193	44
Other fuel		4 5 0	-		_
Electricity purchased	kwh.	8,924,401	107	10,684,203	13
Steam purchased		* * *	1		
2. Small establishments not reporting commodity detail:					
Estimate for fuel and electricity			32		7;
3. All establishments:					
Total fuel and electricity used		• • •	259	* * *	32:

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

Description		1963		1964	
Discription		Quantity	Cost	Quantity	Cost
			\$1000		\$'000
. Materials used:					
Steel (except alloy and tool steel):					
Bars	ton	82	16	886	122
Plates (3/16 in. and thicker)	4.0	653	111	176	43
Sheets (under 3/16 in.):					
Plain		4,950	689	7,810	1, 246
Gaivanized	16	2, 384	451	3,648	670
Strip	4.6	242	47	150	3:
Structural shapes, unfabricated (channels, angles, etc.)		159	33	174	4
Wire	44	60	14	35	,
Alloy and tool steel in all forms:					
Alloy steel (other than stainless and tool steel)		_	-		
Stainless:					
Billets, bars and rods		0.0	19	4.4	
Sheet			297	**	430
Other		n b	3		10
Tool steel (all types including high speed)			3	4 4	4
Pipe and fittings, iron and steel			187	* *	338
Other iron and steel			783		471
Non-ferrous metals in all forms:					
Aluminum:					
Castings	lb.	3,107	3	34,700	40
Pipe and tubing	**	189, 157	99	57,679	3'
Sheet Other forms	0.0	467, 441 206, 657	210 301	476, 861 1, 180, 658	20: 56
Brass and bronze	44	9,333	. 9	113, 331	9
		3,000	3	115,001	
Copper: Pipe and tubing	4.0	2,097,663	1,421	2,352,201	1.78
Sheet	4.0	2,000	2	3,701	.,,,,
Wire		_	-	min.	-
Other forms	lb.	146,000	97	228, 454	11
Lead		-	-	_	1,0
Zinc	lb.	4,566	2	6,386	
Babbitt metal and solders	**	8,003	8	13, 141	1
Other materials and supplies:					
Paints and varnishes		000	203		35
Plywood	M so ft	160	36	285	5
Lumber		2,805	277	3,537	37
	M Ou, ic.	2,000	211	0,001	
Electric motors: Less than 1 h.p.	No.	22, 956	264	60, 478	57
1 h.p. and over	**	1,423	100	3,041	12
All other materials and components used		* * *	5,757	4 4 2	10,33
Contained and other markeding material - and counties and			225		37
Containers and other packaging materials and supplies used		* 4 *		* * *	
Operating, maintenance and repair supplies used (excluding fuel)		* * *	419	* * *	62
. Amount paid out to others for work done on materials owned by establishments		• • •	111	***	10
Totals			12,196		19, 19

No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$661,200 in 1963 and \$1,190,000 in 1964.

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

	Value		
Description	1963	1964	
	\$'000		
1. Products:			
Air conditioners	2,026	4,340	
Refrigeration equipment:			
Commercial refrigeration	11,733	12, 280	
Condensing equipment	2,732	3,526	
Refrigeration and air conditioning equipment, other, and parts	5,968	9,522	
All other products	3,673	5,709	
2. Amount received in payment for work done on materials and products owned by others	275	385	
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above	(72)	(116)	
Net adjustment for establishments receiving progress payments	_ -	7	
Total adjusted value of shipments and work done	26, 334	35,646	

TABLE 14. Shipments of Selected Goods of Own Manufacture — All Industries, 1963 and 1964 (Includes shipments from other industries which manufacture, as a secondary activity, the commodities listed)

Commercial Refrigeration and Air Conditioning Equipment

Item	1963		1964	
	Quantity	Value	Quantity	Value
	number	\$'000	number	\$*000
Room air conditioners — Window sill type	17,546	3, 216	55, 481	6, 411
Room air conditioners, self-contained, except window sill type	X	х	688	665
Other air conditioning units (includes units for location below windows, all other not self- contained, and packaged air conditioners excluding household)		4, 834		5, 501
Ice cream cabinets, non-display	х	х	1,509	479
Frozen food cabinets, commercial	1,358	1, 275	3,851	2,864
Display cases, refrigerated, other	4, 225	3, 464	5,679	4,562
Commercial refrigerators, including reach-in and walk-in types, self-contained and remote	2,534	2,406	3, 404	3,066
Heat transfer coils		1,767		1,815
Unit coolers, floor and wall mounted	* * *	1,363		1,548
Compressor units	5, 437	1,602	5,782	1,697
Condensing units, reciprocating (refrigeration)	4, 302	1, 447	x	х
Evaporative condensers, all types (refrigeration)	» v d	357		255
Condensers, air or water cooled	2,075	1,345	2, 201	1,676
Refrigeration and air conditioning equipment, other, and parts	4 • •	15,848		18, 47 3
Totals	• • •	38, 924		49,012

Includes "condensing units reciprocating".

Note: For details on household refrigerators and freezers see "Manufacturers of Major Appliances," Catalogue No. 43 - 204.

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)

w Brunswick:				
Sussex Refrigeration Mfg. Co. Ltd.	Sussex			
sebec:				
PL MCC-1				
Blanchard Industries Co.	7779 Casgrain St., Montreal			
Canada's Best Refrigeration Eqpt.	636 St. Paul St. W., Montreal			
Colsan Limited				
Farr Co. Ltd.				
Foster Refrigerator of Canada Ltd.				
Frigistors Ltd.				
Gauvin, Inc.				
Quebec Refrigeration Co.				
Terror House on Management of the Control of the Co	. The are many many and			
ntario:				
Aerofin Corp. (Canada) Ltd.	Gananoque			
Air Coils Mfg. Co. Ltd.				
Baltimore Oil Coll of Canada Ltd.				
Canadian Curtis Refrigeration Ltd.				
Canadian Ice Machine Co. Ltd.				
Canadian Tyler Refrigeration Ltd.				
Carrier Air Conditioning (Canada) Ltd.				
Coldmatic Refrigerator Co.				
Copeland Refrigeration of Canada Ltd.	. 145 Sherwood Drive, Brantford			
Heavy Duty Products (Preston) Ltd.	Preston			
Hussmann Refrigerator Co. Ltd.	. 58 Frank St., Brantford			
Ideal Venders Ltd.	Deseronto			
International Hardware Co. of Canada (1963) Ltd.	. Barrie			
Keep Rite Products Ltd.	. 44 Elgin St., Brantford			
Kenmore Machine Products (Canada) Ltd.	R.R. 3, Beamsville			
Milner, Edward Co. Ltd., The	. 55 Milner Ave., Agincourt			
Northern Eureka Refrigerator Co. Ltd.				
Rapid Refrigeration Mfg. Co. Ltd.				
Sno-Boy Coolers Ltd.				
Superime Refrigeration Mfg. Co. Ltd.				
Unifin Limited				
United Cooler (Niagara) Ltd.				
WHITE WOLLD'S TATABOURY MANN STATES THE STATES OF THE STAT				
nnitoba				
Coldstream Refrigerator Mfg. Ltd.	1855 Sargent Ave., Winnipeg			
Polar Equipment Co, Ltd,				
Polic Equipment Co, Ltd.				
lberta:				
Centra-Flo Mfg. Co, Ltd.	Raymond			
ritish Columbia:				
Cory, Geo, J. Refrigeration Ltd.	Granville Island, 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 it's 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, vicepresidents, 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 companyoperated 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".

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