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1963

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MISCELLANEOUS MACHINERY AND EQUIPMENT MANUFACTURERS

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Data presented in this report under the heading of Miscellaneous Machinery and Equipment Manufacturers reflect implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept which are being used by the Dominion Bureau of Statistics in its compilation of industry statistics — see items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes section of this report.

For statistical purposes the industry titled Miscellaneous Machinery and Equipment Manufacturers covers the operations of establishments primarily engaged in manufacturing machinery and equipment designed particularly for use in construction and mining operations including earth moving machinery and equipment, and earth and rock boring and drilling equipment; establishments primarily engaged in manufacturing other special-industry machinery except agricultural machinery, including such products as textile machinery, pulp and paper machinery, printing machinery, and food-processing machinery; establishments primarily engaged in manufacturing machinery and equipment not designed for use in any particular industry or classified elsewhere, including such products as marine engines, general-purpose engines, pumping equipment, equipment for the transmission of mechanical power, conveyor systems, elevators and lifting and hoisting machinery. Establishments primarily engaged in manufacturing industrial tractors for handling materials in industrial plants, depots and docks are included here. Included also are establishments primarily engaged in manufacturing woodworking machinery and in manufacturing machine tools which are on metal. Establishments primarily engaged in manufacturing bits, drills and other cutting tools for machines or for power-driven hand tools are included in Industry No. 306 — Hardware, Tool and Cutlery Manufacturers.

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 A. Principal Statistics classified by Province, 1962 and 1963

Year and province	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		Total employees		Total value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1961													
Totals	419	17,772	37,608	75,177	4,496	177,791	407,438	235,634	49	311	30,266^r	143,372^r	257,957
1962													
Newfoundland	1	x	x	x	x	x	x	x	—	—	x	x	x
Prince Edward Island	—	—	—	—	—	—	—	—	—	—	—	—	—
Nova Scotia	6	236	508	875	78	472	2,046	1,228	x	x	261	996	1,243
New Brunswick	2	x	x	x	x	x	x	x	x	x	x	x	x
Quebec	75	5,211	11,589	22,050	1,110	58,532 ^r	115,730	60,045 ^r	8	56	8,747	40,542	69,749 ^r
Ontario	274	12,755	27,072	57,534	3,010	146,733	328,681	189,100	27	181	21,603 ^r	107,154 ^r	204,747
Manitoba	15	300	669	1,213	81	2,393	5,911	3,403	x	x	521	2,414	4,296
Saskatchewan	6	74	150	293	20	364	928	546	x	x	95	389	628
Alberta	15	279	603	1,240	117	4,226	7,143	3,030	x	x	486	2,273	3,604
British Columbia	49	1,253	2,553	5,969	296	10,522	24,768	14,283	x	x	1,860	9,250	15,069
Yukon and Northwest Territories	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	443	20,204	43,354	89,496	4,723	223,613^r	486,142	272,258^r	43	273	33,696	163,498	300,016^r
1963													
Newfoundland	1	x	x	x	x	x	x	x	—	—	x	x	x
Prince Edward Island	—	—	—	—	—	—	—	—	—	—	—	—	—
Nova Scotia	7	236	483	844	70	743	2,545	1,757	2	7	262	968	1,755
New Brunswick	2	x	x	x	x	x	x	x	x	x	x	x	x
Quebec	77	5,818	12,604	24,625	1,064	61,200	140,733	73,680	6	38	9,465	44,567	82,876
Ontario	290	14,054	29,717	65,179	3,090	183,723	380,586	194,336	35	288	23,180	119,691	210,625
Manitoba	16	325	722	1,321	74	3,835	7,814	3,869	x	x	545	2,515	5,157
Saskatchewan	5	47	100	198	16	345	801	446	x	x	63	276	424
Alberta	16	292	599	1,299	106	6,950	10,530	3,996	x	x	516	2,591	5,451
British Columbia	49	1,464	2,945	7,149	348	16,683	32,826	16,943	x	x	2,135	10,976	17,514
Yukon and Northwest Territories	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	463	22,333	47,372	100,947	4,783	273,976	577,049	295,729	49	367	36,292	182,093	324,506

TABLE 1 B. Principal Statistics classified by Size Groups based on Shipments of Goods of Own Manufacture, 1962 and 1963

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		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1962													
Under \$10,000	6	2	3	5	1	15	39	37	5	12	3	8	40
\$ 10,000 to \$ 24,999	14	23	47	81	9	83	249	188	5	20	39	128	198
25,000 " 49,999	32	86	166	291	23	407	1,166	750	11	59	122	416	793
50,000 " 99,999	55	284	594	1,073	87	1,679	4,215	2,514	14	67	407	1,660	2,906
100,000 " 199,999	69	608	1,285	2,360	170	3,822	9,812	5,682	4	30	857	3,620	6,453
200,000 " 499,999	88	1,390	2,933	5,533	316	13,691	28,547	14,955	—	—	2,101	9,347	16,531
500,000 " 999,999	61	2,127	4,587	8,986	431	20,637	44,640	23,904	—	—	3,417	16,027	27,684
1,000,000 " 4,999,999	103	9,392	20,260	41,458	1,916	105,556	223,094	124,200	4	85	15,165	72,429	139,555
5,000,000 and over	15	6,292	13,479	29,708	1,770	77,725	174,379	99,829	—	—	11,059	56,785	103,382
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	526	3,077	2,474
Totals	443	20,204	43,354	89,496	4,723	223,613	486,142	272,258	43	273	33,696	163,498	300,016
1963													
Under \$10,000	—	—	—	—	—	—	—	—	—	—	—	—	—
\$ 10,000 to \$ 24,999	16	16	32	55	7	97	292	207	11	44	25	81	207
25,000 " 49,999	23	72	143	259	17	348	864	560	10	38	90	326	561
50,000 " 99,999	61	284	575	1,129	80	2,001	4,620	2,795	16	66	402	1,656	2,828
100,000 " 199,999	73	592	1,201	2,343	171	5,036	10,983	5,913	3	34	844	3,621	6,219
200,000 " 499,999	91	1,417	2,926	5,892	369	14,160	29,175	15,065	5	32	2,018	9,349	15,618
500,000 " 999,999	64	1,908	4,075	8,140	418	21,850	45,491	23,615	—	—	2,977	14,438	27,183
1,000,000 " 4,999,999	114	10,062	21,120	45,155	2,046	125,838	251,917	126,240	4	133	15,697	77,287	139,393
5,000,000 and over	21	7,982	17,299	37,973	1,674	104,645	233,706	121,334	—	—	13,704	72,051	129,197
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	535	3,284	3,300
Totals	463	22,333	47,372	100,947	4,783	273,976	577,049	295,729	49	367	36,292	182,093	324,506

TABLE 1 C. Principal Statistics classified by Size Groups based on Manufacturing Value Added, 1962 and 1963

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		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1962													
Under \$10,000	10	22	42	82	12	393	659	60	7	20	58	277	240
\$ 10,000 to \$ 24,999	34	67	135	239	29	500	1,064	588	9	36	115	414	846
25,000 " 49,999	54	228	473	847	68	2,285	4,326	2,053	18	92	339	1,364	2,421
50,000 " 99,999	73	566	1,190	2,155	160	4,313	9,742	5,481	5	39	845	3,415	6,067
100,000 " 199,999	73	1,007	2,127	3,978	248	10,504	21,179	10,657	—	—	1,543	6,783	11,642
200,000 " 499,999	75	2,260	4,757	9,417	476	25,333	49,737	23,883	—	—	3,512	16,510	26,968
500,000 " 999,999	64	3,693	7,911	15,892	802	48,365	91,912	45,325	4	85	5,716	26,987	50,406
1,000,000 " 4,999,999	53	7,767	16,809	34,615	1,526	83,283	188,951	111,299	—	—	13,198	63,538	125,086
5,000,000 and over	7	4,594	9,910	22,271	1,402	48,637	118,572	72,913	—	—	7,844	41,136	73,865
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	526	3,077	2,474
Totals	443	20,204	43,354	89,496	4,723	223,613	486,142	272,258	43	273	33,696	163,498	300,016
1963													
Under \$10,000	6	3	6	10	2	27	78	50	7	22	4	13	50
\$ 10,000 to \$ 24,999	26	55	110	191	16	399	881	480	10	48	76	256	480
25,000 " 49,999	60	280	578	1,151	112	2,894	5,645	2,252	18	92	418	1,716	2,596
50,000 " 99,999	76	505	1,036	2,040	156	6,372	11,657	5,410	7	48	749	3,329	5,813
100,000 " 199,999	75	1,061	2,146	4,237	271	13,928	24,639	10,447	3	24	1,473	6,546	10,797
200,000 " 499,999	89	2,670	5,644	11,704	603	33,944	63,721	28,711	—	—	4,126	20,397	32,289
500,000 " 999,999	53	2,900	6,108	12,182	624	31,188	76,835	36,482	4	133	4,539	21,828	40,917
1,000,000 " 4,999,999	72	10,720	22,861	49,225	2,086	127,644	266,947	139,551	—	—	17,210	85,871	153,852
5,000,000 and over	6	4,139	8,882	20,206	913	47,579	126,645	72,345	—	—	7,162	38,852	74,411
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	535	3,284	3,300
Totals	463	22,333	47,372	100,947	4,783	273,976	577,049	295,729	49	367	36,292	182,093	324,506

TABLE 1 D. Principal Statistics classified by Size Groups based on Total Value Added, 1962 and 1963

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		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1962													
Under \$10,000	9	8	13	27	5	107	171	59	7	20	10	34	58
\$ 10,000 to \$ 24,999	31	58	115	195	18	330	834	528	9	36	95	307	553
25,000 " 49,999	46	187	387	674	56	1,359	3,063	1,664	18	92	250	950	1,706
50,000 " 99,999	74	542	1,146	2,147	155	4,690	9,966	5,280	5	39	798	3,372	5,530
100,000 " 199,999	77	1,030	2,177	4,009	248	10,110	20,804	10,484	—	—	1,546	6,714	11,440
200,000 " 499,999	73	2,013	4,296	8,335	430	23,796	44,012	19,970	—	—	3,138	14,390	21,929
500,000 " 999,999	63	3,479	7,388	14,877	783	41,477	82,449	42,194	4	85	5,342	25,513	46,253
1,000,000 " 4,999,999	61	7,749	16,770	34,723	1,499	88,949	196,721	114,015	—	—	13,034	63,157	124,925
5,000,000 and over	9	5,138	11,061	24,508	1,528	52,796	128,122	78,063	—	—	8,957	45,984	85,149
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	526	3,077	2,474
Totals	443	20,204	43,354	89,496	4,723	223,613	486,142	272,258	43	273	33,696	163,498	300,016
1963													
Under \$10,000	6	3	6	10	2	27	78	50	7	22	4	13	50
\$ 10,000 to \$ 24,999	26	55	110	191	16	399	861	480	10	48	76	256	480
25,000 " 49,999	58	255	524	1,019	104	2,193	4,717	2,163	18	92	367	1,447	2,160
50,000 " 99,999	72	479	980	1,904	132	5,397	10,338	5,055	7	48	694	2,982	5,074
100,000 " 199,999	75	1,038	2,100	4,154	265	13,672	24,154	10,175	3	24	1,422	6,339	10,410
200,000 " 499,999	85	2,254	4,713	9,644	531	28,038	55,055	25,516	—	—	3,370	16,406	27,025
500,000 " 999,999	59	3,189	6,784	13,687	683	46,406	82,860	37,429	4	133	5,032	24,546	41,956
1,000,000 " 4,999,999	74	10,303	21,863	47,450	2,000	126,775	260,379	134,275	—	—	16,441	82,326	147,725
5,000,000 and over	8	4,757	10,272	22,888	1,050	51,069	138,586	80,584	—	—	8,351	44,494	86,326
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	535	3,284	3,300
Totals	463	22,333	47,372	100,947	4,783	273,976	577,049	295,729	49	367	36,292	182,093	324,506

TABLE 1 E. Principal Statistics classified by Size Groups based on Total Employed, 1962 and 1963

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		Total employees		Total value added
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1962													
Under 5 employed	56	94	201	361	42	1,479	2,918	1,476	21	81	147	587	1,559
5 - 14 employed	117	661	1,434	2,646	224	6,840	15,517	8,624	18	107	1,005	4,386	9,600
15 - 49	129	2,350	4,962	9,422	561	31,202	60,092	29,692	—	—	3,652	16,740	31,846
50 - 99	60	2,738	5,965	11,686	572	36,029	69,957	36,447	4	85	4,340	20,474	41,580
100 - 199	41	3,704	7,801	16,221	786	40,204	81,989	42,406	—	—	5,718	27,467	45,989
200 - 499	32	5,841	12,679	25,971	1,105	56,276	131,067	77,890	—	—	9,475	44,881	88,198
500 employed and over	8	4,816	10,312	23,189	1,432	51,583	124,601	75,722	—	—	8,833	45,887	78,570
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	526	3,077	2,474
Totals	443	20,204	43,354	89,496	4,723	223,613	486,142	272,258	43	273	33,696	163,498	300,016
1963													
Under 5 employed	56	102	205	399	46	2,237	4,097	2,136	18	78	153	639	2,136
5 - 14 employed	130	746	1,523	3,081	267	10,302	20,178	10,062	23	121	1,126	5,142	10,640
15 - 49	120	2,267	4,697	9,464	544	32,919	61,990	29,131	4	35	3,338	15,881	30,163
50 - 99	70	3,139	6,696	13,685	753	46,547	90,298	42,945	4	133	4,930	24,346	47,717
100 - 199	17	4,410	9,339	20,056	873	56,414	106,448	50,010	—	—	6,629	32,716	56,581
200 - 499	29	5,551	11,862	25,331	1,080	62,542	134,257	72,665	—	—	8,738	43,634	79,336
500 employed and over	11	6,118	13,050	28,930	1,220	63,014	159,782	88,779	—	—	10,843	56,451	94,632
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	535	3,284	3,300
Totals	463	22,333	47,372	100,947	4,783	273,976	557,049	295,729	49	367	36,292	182,093	324,506

TABLE 1 F. Principal Statistics classified by Type of Organization, 1962 and 1963

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		Total employees		Total value added
		Number	Man-hours paid	Wages					Number	Withdrawals	Number	Salaries and wages	
	No.		'000			\$'000				\$'000		\$'000	
1962													
Individual ownerships	27	108	227	400	28	574	1,453	862	27	143	115	418	866
Partnerships	7	66	165	271	13	645	1,465	800	16	130	76	345	801
Incorporated companies	409	20,030	42,963	88,825	4,681	222,394 ^f	483,223	270,595 ^f	—	—	32,979 ^f	159,658 ^f	295,874 ^f
Cooperatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	526	3,077	2,474
Totals	443	20,204	43,354	89,496	4,723	223,613^f	486,142	272,258^f	43	273	33,696^f	163,498^f	300,016^f
1963													
Individual ownerships	24	93	193	315	27	846	1,348	779	24	137	104	348	779
Partnerships	11	80	170	343	24	1,139	2,321	1,161	25	229	93	427	1,167
Incorporated companies	428	22,160	47,009	100,289	4,731	272,191	573,380	293,788	—	—	35,560	178,035	319,259
Cooperatives	—	—	—	—	—	—	—	—	—	—	—	—	—
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	535	3,284	3,300
Totals	463	22,333	47,372	100,947	4,783	273,976	577,049	295,729	49	367	36,292	182,093	324,506

TABLE 2. Industry Output, Input and Value Added, 1962 and 1963

	Manufacturing activity		Non-manufacturing activities		Total activity	
	1962	1963	1962	1963	1962	1963
\$'000						
Output						
1. Shipments and other revenue	486,142	577,049	101,622	109,491	587,764	686,540
Inventories — Goods of own manufacture:						
Add closing — Goods in process	44,949	42,819	...	...	44,949	42,819
Finished goods	44,665	50,189	...	...	44,665	50,189
Less opening — Goods in process	36,362	42,990	...	...	36,362	42,990
Finished goods	38,799	52,580	...	...	38,799	52,580
2. Net inventory change	14,453	(2,562)	...	...	14,453	(2,562)
3. Gross output (1 + 2)	500,595	574,487	101,622	109,491	602,217	683,978
Input						
4. Purchases of goods not of own manufacture .....	...	...	70,666 ^f	78,162	70,666 ^f	78,162
Inventories — Goods not of own manufacture:						
Add opening .....	...	...	13,124	15,591	13,124	15,591
Less closing .....	...	...	12,926	16,578	12,926	16,578
5. Cost of goods sold (not of own manufacture) .....	...	...	70,864 ^f	77,175	70,864 ^f	77,175
6. Materials, supplies, components and semi-processed goods	223,613 ^f	273,976	2,999	3,539	226,612 ^f	277,515
7. Fuel and electricity	4,723	4,783	...	...	4,723	4,783
8. Gross input (5 + 6 + 7)	228,336 ^f	278,759	73,863 ^f	80,714	302,199 ^f	359,473
Census value added (3 - 8)	272,258^f	295,729	27,759^f	28,777	300,016^f	324,506

TABLE 3. Employment and Payroll, 1962 and 1963

Year and province	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office		Sales and distribution		Total employees		Production and related workers		Admin- is- trative and office	Sales and distri- bution	Total salaries and wages
	Manufacturing		Other								Manufacturing	Other			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female					
	number										\$'000				
1962															
Newfoundland	x	—	—	—	x	x	x	—	x	x	x	—	x	x	x
Prince Edward Island	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nova Scotia	236	—	—	—	21	4	—	—	257	4	875	—	121	—	996
New Brunswick	x	—	—	—	x	x	x	—	x	x	x	—	x	x	x
Quebec	5,136	75	58	13	2,015	681	650	119	7,859	888	22,050	269	13,870	4,353	40,542
Ontario	12,074	681	1,131	9	4,119 ^f	1,516 ^f	1,696 ^f	377 ^f	19,020 ^f	2,583 ^f	57,534	7,046	30,570 ^f	12,003 ^f	107,154 ^f
Manitoba	290	10	1	—	127	32	51	10	469	52	1,213	1	858	342	2,414
Saskatchewan	74	—	—	—	14	7	—	—	88	7	293	—	96	—	389
Alberta	270	9	—	—	77	35	90	5	437	49	1,240	—	603	430	2,273
British Columbia	1,222	31	—	—	352	128	114	13	1,688	172	5,969	—	2,500	780	9,250
Yukon and Northwest Terri- tories	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	19,398	806	1,190	22	6,745 ^f	2,409 ^f	2,602 ^f	524 ^f	29,935 ^f	3,761 ^f	89,496	7,316	48,773 ^f	17,913 ^f	163,498 ^f
1963															
Newfoundland	x	—	—	—	x	x	x	—	x	x	x	—	x	x	x
Prince Edward Island	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nova Scotia	236	—	—	—	20	6	—	—	256	6	844	—	124	—	968
New Brunswick	x	—	—	—	x	x	x	—	x	x	x	—	x	x	x
Quebec	5,752	66	122	13	2,019	687	682	144	8,575	890	24,625	354	15,000	4,588	44,567
Ontario	13,310	744	1,206	8	4,327	1,573	1,602	410	20,445	2,735	65,179	7,841	33,460	13,211	119,691
Manitoba	313	12	2	—	123	34	52	9	490	55	1,321	4	853	338	2,515
Saskatchewan	47	—	—	—	9	7	—	—	56	7	198	—	77	—	276
Alberta	285	7	—	—	80	31	108	5	473	43	1,299	—	632	660	2,591
British Columbia	1,426	38	—	—	413	133	109	16	1,948	187	7,149	—	3,117	710	10,976
Yukon and Northwest Terri- tories	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	21,466	867	1,330	21	7,811	2,459	2,554	584	32,361	3,931	100,947	8,199	53,437	19,510	182,093

TABLE 3 A. Production and Related Workers, - Manufacturing Activity, by Months, 1962 and 1963

Month	Establishments reporting monthly detail			
	1962		1963	
	Male	Female	Male	Female
	number			
January	16,374	727	18,995	774
February	16,744	739	19,145	771
March	17,289	733	19,360	770
April	17,662	740	19,491	785
May	18,300	736	19,754	799
June	17,868	721	20,112	837
July	17,689	731	20,252	852
August	18,796	750	19,988	868
September	18,916	787	19,862	882
October	19,130	793	19,293	911
November	19,213	783	19,296	939
December	18,848	753	19,261	916
Average for establishments reporting monthly detail (collected only for large establishments) ..	17,741	753	19,581	842
Average for small establishments (only annual averages collected)	1,657	53	1,885	25
Average for all establishments	19,398	806	21,466	867

TABLE 4. Industry Inventories,¹ 1963

Province	Manufacturing				Non-manufacturing	Total inventories
	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total manufacturing	Products or materials purchased for resale	
book value \$'000						
Opening:						
Newfoundland	x	—	x	x	—	x
Prince Edward Island	—	—	—	—	—	—
Nova Scotia	139	153	302	595	—	595
New Brunswick	x	—	x	x	—	x
Quebec	7,749	15,172	11,950	34,871	3,264	38,135
Ontario	33,320	26,051	36,187	95,558	9,483	105,041
Manitoba	639	319	786	1,743	422	2,165
Saskatchewan	418	1	54	473	—	473
Alberta	1,052	112	1,390	2,554	1,753	4,307
British Columbia	2,293	1,181	2,788	6,262	669	6,931
Yukon and Northwest Territories	—	—	—	—	—	—
Totals	45,657	42,990	53,518	142,165	15,591	157,756
Closing:						
Newfoundland	x	—	x	x	—	x
Prince Edward Island	—	—	—	—	—	—
Nova Scotia	184	193	289	665	—	665
New Brunswick	x	—	x	x	—	x
Quebec	9,785	11,654	10,680	32,119	3,610	35,729
Ontario	37,064	28,256	35,890	101,210	10,648	111,858
Manitoba	701	346	722	1,770	473	2,243
Saskatchewan	379	1	60	440	—	440
Alberta	1,605	152	1,872	3,629	1,372	5,001
British Columbia	2,814	2,217	2,900	7,932	475	8,407
Yukon and Northwest Territories	—	—	—	—	—	—
Totals	52,605	42,819	52,471	147,895	16,578	164,473

TABLE 5. Purchased Fuel and Electricity Used in Manufacturing Activity, 1962 and 1963

Description	1962		1963	
	Quantity	Cost	Quantity	Cost
		\$'000		\$'000
1. Large establishments which reported commodity detail:				
Bituminous coal:				
(a) From Canadian mines	ton	7,149	93	1,980
(b) Imported	"	23,382	287	18,407
Sub-bituminous coal (from Alberta mines only)	"	279	3	314
Anthracite coal	"	717	10	849
Lignite coal	"	—	—	—
Coke	"	1,018	25	1,046
Gasoline (including gasoline used in cars and trucks)	Imp. gal.	863,162	330	825,093
Fuel oil including kerosene or coal oil	"	7,891,868	845	7,080,821
Wood	cord	18	--	14
Gas:				
(a) Liquefied petroleum gases	Imp. gal.	108,368	26	142,830
(b) Other manufactured gas	M cu.ft.	32,422	13	—
(c) Natural gas	"	950,139	560	782,691
Other fuel .....	...	...	--	2
Electricity purchased	kwh.	180,082,458	2,084	226,183,665
Steam purchased .....	...	...	71	64
2. Estimate for small establishments:				
Fuel and electricity .....	...	375	...	473
3. All establishments:				
Total fuel and electricity used .....	...	4,723	...	4,783

¹ The difference between figures in Table 4 and those in Table 2 arises from firms reporting output of products on the basis of production rather than of shipments. Consequently, inventories of finished products for such respondents are not taken into account for purposes of compiling value added in Table 2. See also "Concepts and Definitions" for explanation of other variances.

TABLE 6. Materials and Supplies - Manufacturing Activity, 1962 and 1963

Description	1962		1963		
	Quantity	Cost \$'000	Quantity	Cost \$'000	
1. Materials used:					
Castings (rough and semi-finished) received from foundry:					
Iron (gray and malleable)	ton	22,866	7,418	25,800	9,154
Steel	"	10,342	6,057	11,237	6,772
Pig Iron, all grades	"	8,950	617	11,098	739
Steel (except alloy steel):					
Bars	"	26,849	5,543	29,021	5,659
Plates (3/16 in. and thicker)	"	51,896	7,972	65,225	9,755
Sheets (under 3/16 in.):					
Plain	"	25,167	4,020	27,810	4,461
Galvanized	"	2,306	446	2,126	368
Tinplate	"	358	55	243	37
Strips (less than 14 in. wide)	"	4,215	694	6,494	804
Structural shapes, unfabricated (channels, angles, etc.)	"	28,100	6,474	27,075	5,010
Wire	"	2,531	398	1,228	376
Alloy steel in all forms:					
Alloy steel (other than stainless and tool steel)	..	3,497	..	5,105	
Stainless	..	3,289	..	4,253	
Tool steel (all types including high speed)	..	501	..	360	
Scrap Iron and steel:					
Purchased	ton	20,896	884	25,179	1,052
Own make	"	6,625	...	1,772	...
Pipe and fittings, iron and steel	..	4,219	..	3,695	
Other iron and steel	..	5,898	..	5,456	
Ferro-alloys	..	343	..	410	
Non-ferrous metals in all forms:					
Aluminum:					
Castings	pound	5,022,488	5,918	4,249,759	5,028
Sheet	"	714,673	398	631,779	363
Other forms	"	614,176	305	554,190	349
Brass and bronze	"	5,666,814	2,749	4,252,155	2,447
Copper:					
Sheet	"	299,570	180	74,449	53
Wire	"	345,463	255	591,220	375
Other forms	"	585,151	309	818,832	445
Lead	"	228,272	45	722,054	123
Nickel	"	264,342	229	233,840	142
Tin	"	9,903	13	14,100	19
Zinc	"	2,020,780	322	2,352,972	387
Babbitt metals and solders	"	276,239	177	261,989	173
Other non-ferrous metals	..	1,100	..	700	
Other materials and supplies:					
Paints, oils and varnishes	..	794	..	897	
Foundry coke (used in cupola)	ton	7,529	282	9,505	325
Foundry sands	"	27,541	364	31,087	356
Plumbago and graphite	pound	309,923	23	612,625	61
Lumber	M ft. b.m.	6,545	683	6,846	727
Firebrick and cupola blocks	..	82	..	114	
Fireclay	ton	646	22	831	21
Core oil	Imp. gal.	283,110	105	161,673	132
All other materials and components used ¹	...	136,415 ¹	...	178,935	
2. Containers and other packaging materials and supplies used					2,197
3. Operating, maintenance and repair supplies used (excluding fuel)					11,820
4. Amount paid out to others for work done on materials owned by establishments					4,323
Totals	...	223,613 ¹	...	273,976	

¹ No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$11,203,210 in 1962 and \$17,178,817 in 1963.

TABLE 7. Shipments of Goods of Own Manufacture, 1962 and 1963

Description	Value	
	1962	1963
	\$'000	
1. Products:		
Compressors, pumps and parts:		
Air compressors	8,836	12,432
Pumps and parts	19,251	27,273
Conveying, elevating, materials handling equipment and parts:		
Conveyors and conveying systems and parts	22,945	26,632
Elevators and parts	34,819	37,791
Hoisting machinery (except mine hoists) and parts	9,891	13,064
Industrial trucks, tractors, trailers and stackers and parts	3,238	6,267
Miscellaneous materials handling equipment and parts	5,456	5,077
Drilling, excavating, mining and related machinery and parts:		
Rock drilling, earth boring and related machinery and parts	21,958	26,818
Excavating, dredging and loading equipment and parts	14,084	18,977
Mining and ore processing machinery and parts	14,348	14,905
Construction machinery and parts	11,324	14,419
Engines and parts	34,091	41,021
Fire-fighting equipment	3,379	3,417
Food products machinery (including beverages and tobacco) machinery and parts:		
Bakers' machinery and parts	2,308	2,268
Dairy and milk products plant machinery	460	552
Flour and grist mill machinery	626	1,513
Food products machinery, other, and parts	1,731	1,372
Foundry equipment (core-making machines, moulding machines, casting machines, shakeout equipment, etc.)	802	1,419
Metal-working machinery and parts:		
Machine tools, metal-working and parts	7,584	12,226
Metal-working machinery (except machine tools) and parts	6,759	18,514
Miscellaneous general purpose industrial machinery and parts:		
Wrapping and packaging machinery and parts	2,502	3,391
Other general purpose industrial machinery and parts	5,329	5,681
Miscellaneous special industry machinery and parts:		
Cement mill machinery	852	1,489
Grain elevator machinery	1,205	1,551
Logging machinery	5,136	9,781
Rubber-working machinery	2,837	4,133
Saw-mill machinery, including lumber handling equipment	3,230	5,236
Special industry machinery, other, and parts	15,327	10,631
Pulp and paper industries machinery and parts	24,020	40,990
Refrigeration and air conditioning equipment and parts:		
Refrigeration equipment and parts	1,147	1,316
Air conditioning equipment and parts	2,267	2,609
Service industry equipment (including vending machines) and parts	9,101	9,097
Ship's machinery and fittings	1,269	1,300
Textile industries machinery and parts	180	206
Transmission equipment and bearings and parts	32,441	37,138
Water and sewage treatment equipment and parts	5,544	4,679
Woodworking (excluding power driven hand tools) and parts	2,493	2,479
Ventilating, exhaust and dust-collecting equipment and parts	12,942	16,967
All other machinery and machinery parts	39,597	33,672
Total machinery and parts	391,309	478,303
All other products	69,183 ^r	103,566
2. Amount received in payment for work done on materials and products owned by others	11,768	4,580
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above	(2,054)	(2,204)
Net adjustment for establishments receiving progress payments	15,936 ^r	(7,196)
Total adjusted value of shipments and work done	486,142	577,049

TABLE 8. Shipments of Selected Goods of Own Manufacture - All Industries, 1962 and 1963

(Includes shipments from other industries which manufacture, as a secondary activity, the commodities listed)

Description	1962		1963	
	Quantity	Value	Quantity	Value
	No.	\$'000	No.	\$'000
Compressors and pumps:				
Air compressors:				
Stationary type	..	7,231	..	9,375
Portable type	..	1,694	..	3,057
Pumps:				
Centrifugal	..	11,004	..	12,595
Deep well	2,888	375	3,955	459
Sump	33,893	1,144	38,944	1,257
Hand pumps	..	587	..	756
Self-contained household water pumping systems:				
Deep well and shallow jets	42,953	3,657	48,361	4,041
Shallow well, non-jet	20,496	1,816	24,230	1,989
Other power pumps; including direct-acting steam piston, electric, rotary, vacuum, and pump jacks	..	4,799	..	5,108
Pumps parts and accessories	...	4,340	...	5,816
Conveying, elevating and materials handling equipment:				
Conveyors and conveying systems:				
Gravity conveyors, (including straight and spiral chutes)	..	2,653	..	2,195
Portable conveyor units	..	857	..	641
Power conveyors:				
Belt type	..	13,332	..	13,199
Bucket type	..	1,182	..	1,242
Other conveyors, including pneumatic tube systems and parts	..	5,488	..	10,792
Elevators, including passenger, freight, sidewalk, dumb-waiters, escalators and parts	...	35,652 ¹	...	37,791
Hoisting machinery (except mine hoists):				
Powered overhead travelling cranes	..	9,707	..	10,779
Other cranes	..	3,811	..	2,537
Chain blocks and trolleys	..	1,731	..	1,689
Monorail electric hoists	..	1,212	..	915
Monorail systems	..	497	..	2,053
Industrial hoists and lifts, stationary	..	769	..	864
Winches	..	1,078	..	1,382
Other hoisting machinery	..	879	..	1,916
Attachments and parts for hoisting machinery	...	1,441	...	1,165
Industrial trucks, tractors, trailers and stackers:				
Hand trucks (including dollies)	..	1,762	..	1,428
Lift trucks	..	2,317	..	5,406
Other industrial tractors, stackers, including powered types	..	577	..	1,624
Miscellaneous materials handling equipment	...	6,179	...	7,856
Drilling, excavating, mining and related machinery:				
Rock drilling, earth boring and related machinery:				
Rock drills, including diamond drills	..	1,735	..	2,171
Diamond drill bits	..	5,349	..	7,075
Tungsten carbide drill bits	..	4,294	..	4,477
Other rock drilling, earth boring and related machinery and parts	...	11,882	...	15,028
Mining and ore processing machinery:				
Ball and rod mills	..	1,659	..	2,377
Crushers, jaw and gyratory	..	2,161	..	1,901
Holst (mine hoists only)	2	..	2	..
Mine cars	2	657	2	415
Skips and cages	..	991	..	633
All other mining and ore processing machinery, including agitators, coal cutting machines, filters, flotation machines, screens, thickeners, etc. and parts	...	13,683	...	17,786
Construction, excavating, dredging and loading equipment:				
Power excavators (power shovels)	138	5,997	160	7,006
Bulldozing, angle-dozing and similar equipment	..	1,214	..	2,011
Snow ploughs	..	1,960	..	2,075
Concrete mixer-agitators, truck type	321	2,237	215	2,258
Concrete, plaster and mortar mixers, other	2,820	841	3,494	328
Other mixing and paving equipment (concrete and bituminous)	..	1,688	..	1,749
Other construction machinery, including pneumatic hammers, demountable scaffolding etc. and parts	...	3,320	...	2,799
Other excavating machinery and parts	...	4,171	...	3,889
Other road and airport construction and maintenance machinery, including snow blowers, flushers, scrapers, etc. and parts	...	10,194	...	13,209
Engines (excluding aircraft and automobile types):				
Turbines, hydraulic and steam	..	18,609	..	24,171
Diesel, gas turbine and steam	..	8,116	..	4,769
Gasoline, including outboard, industrial, etc.	..	17,471	..	35,625
Engine parts:				
For diesel engines	...	275	...	698
For gasoline engines	...	981	...	1,224
For marine engines	...	2,370	...	2,570

See footnotes at end of table.

TABLE 8. Shipments of Selected Goods of Own Manufacture - All Industries, 1962 and 1963 - Continued

Description	1962		1963	
	Quantity	Value	Quantity	Value
	No.	\$'000	No.	\$'000
Fire-fighting equipment:				
Pumpers .....	...	4,324	...	7,658
Other fire-fighting equipment, including hose trucks, ladder trucks, etc. ....	...		...
Food products machinery (including beverages and tobacco) machinery:				
Bakers' machinery:				
Mixing machines	650	786	679	817
Ovens	113	800	114	689
Other bakers' machinery and parts .....	...	723	...	805
Dairy and milk products plant machinery, excluding milking machines .....	...	1,628	...	1,669
Flour and grist mill machinery .....	...	626	...	1,513
Other food products machinery and parts, including milking machines .....	...	4,587	...	4,960
Foundry equipment .....	...	802	...	1,419
Metal-working machinery:				
Machine tools, metal-working:				
Boring machines	3	3	3	3
Drilling machines	3	3	3	3
Grinding machines and grinders	48	226	3	3
Lathes, engine and turret	518	1,610	853	1,870
Milling machines	3	3	3	3
Presses	254	2,079	325	2,702
Punching machines	3	3	3	3
Rolls, bending and straightening	623	348	3	3
Shapers	3	3	3	3
Shearing machines	3	3	3	3
Other machine tools .....	...	2,854	...	7,221
Machine tool parts and accessories	1,423	2,423	...	946
Metal-working machinery (except machine tools), including rolling mill machinery .....	...	12,955	...	23,648
Printing and bookbinding machinery and parts .....	...	3,114	...	3,802
Pulp and paper industries machinery and parts .....	...	26,693	...	42,890
Service industry equipment (including vending machines):				
Commercial laundry and dry cleaning equipment, including coin operated dry cleaners ..	..	3,037	..	1,786
Vending machines .....	..	2,031	..	4,761
Service station and garage equipment:				
Auto lifts	1,808	1,574	1,823	1,242
Gasoline-dispensing pumps	7,947	4,427	6,237	3,842
Other garage equipment .....	..	1,234	..	1,310
Other service industry machinery .....	...	3,201	...	3,115
Ships' machinery and fittings (except winches) .....	..	4,777	..	3,390
Textile industries machinery and parts .....	..	211	..	233
Transmission equipment and bearings:				
Bearings, ball and roller, and parts .....	..	19,470	..	21,746
Cut tooth and cast tooth gears .....	..	2,715	..	2,459
Flexible couplings .....	..	980	..	972
Pulleys .....	..	177	..	289
Sprocket chain and drive chain .....	..	2,112	..	2,568
Speed reducer units .....	..	3,134	..	3,406
Other transmission machinery and parts .....	...	5,433	...	7,111
Water and sewage treatment equipment:				
Domestic water softeners	13,577	1,574	20,193	2,296
Other water and sewage treatment equipment and parts .....	...	4,688	...	4,699
Woodworking machinery (excluding power driven hand tools and home workshop tools):				
Band sawing machines	4	4	4	4
Lathes	4	4	4	4
Planers	4	4	4	4
Rip and cross cut saws	4	4	4	4
Other woodworking machinery and parts .....	...	2,629	...	3,704

See footnotes at end of table.

TABLE 8. Shipments of Selected Goods of Own Manufacture - All Industries, 1962 and 1963 - Concluded

Description	1962		1963	
	Quantity	Value	Quantity	Value
	No.	\$'000	No.	\$'000
General purpose industrial machinery:				
Heat exchangers, industrial .....	...	7,190	...	6,002
Wrapping and packaging machinery and parts .....	...	2,502	...	3,391
Other general purpose industrial machinery and parts .....	...	1,765	...	2,426
Ventilating, exhaust and dust-collecting equipment .....	..	15,253	..	18,694
Special industries machinery:				
Plastics industry machinery .....	..	2,047	..	2,947
Rubber-working machinery .....	..	2,837	..	4,200
Cement mill machinery .....	..	852	..	1,489
Saw-mill machinery, including lumber handling equipment .....	..	5,152	..	6,459
Logging, machinery .....	..	5,136	..	9,781
Grain elevator machinery .....	..	1,564	..	2,198
Other special industry machinery and parts .....	..	17,309	..	9,250
Welding machinery, electric .....	...	4,337	...	5,565
Miscellaneous machinery:				
Blowers for domestic furnaces	170,543	2,090	190,164	2,099
Furnaces and ovens, industrial (excluding hot air), electric and other:				
Furnaces, including metal melting and metal heat treating furnaces .....	..	1,234	..	2,131
Ovens, including baking and drying but excluding bakers' ovens .....	..	914	..	2,390
Gas burners:				
Residential	13,036	734	9,583	635
Commercial and industrial	2,527	694	1,742	694
Lawn mowers:				
Hand .....	...	...	...	...
Power	165,174	7,305	207,107	9,229
Oil burners, power:				
Domestic	90,551	6,538	90,171	6,068
Commercial and industrial	3,460	1,236	3,655	1,378
Pinsetters:				
Automatic .....	...	...	...	2,257
Power tools, hobby and home workshop .....	...	5,704	...	6,008
Saws, power chain, and parts:				
Saws	103,736	6,769	99,886	8,169
Parts .....	...	6,183	...	5,899
Screens, vibrating (including ore screens)	330	1,833	180	1,078
Snow blowers, other than highway type	5,387	532	8,163	1,174
Spray painting equipment .....	...	...	...	1,792
Stokers:				
Domestic	445	203	540	255
Commercial and industrial	221	491	140	292
All other machinery and parts, not separately specified .....	...	37,229	...	31,021
Totals .....	...	522,684	...	631,485

¹ The total for 1962 and 1963 total in the above table reflect a change in valuation which is based on "installed" value not comparable to values given for periods prior to 1961.

² Included with "Other mining and ore processing machinery".

³ Included with "Other machine tools".

⁴ Included with "Other woodworking machinery".

List of Establishments classified to This Industry, 1963

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

Name	Location
Newfoundland:	
Barnes, E.F. Ltd.	26 Water St., St. John's
Nova Scotia:	
Acadia Gas Engines Ltd.	210 King St., Bridgewater
Chisholm Industries Ltd.	653 Trenton Rd., New Glasgow
Dominion Steel & Coal Corporation Ltd.	Trenton
Hawbolt Gas Engines Ltd.	Chester
Larche, Frank	Digby
Oxford Foundry & Machine Co. Ltd.	Oxford
Stuart Industries Ltd.	Fall River
New Brunswick:	
Lauder, Rudolph W.	Hillsborough
Northern Machine Works Ltd.	450 Main St., Bathurst
Quebec:	
Aero Machinery Ltd.	5411 Industrial Blvd., Montreal North
American Air Filters of Canada Ltd.	400 Stinson Blvd., St-Laurent
Ashworth Card Clothing Co. Ltd.	316 St-Hubert St., Granby
Autostair Ltd.	1395 Raymond Ave., St-Hyacinthe
Beloit Sorel Ltd.	Sorel
Blanchet, Hilaire Ltd.	2050 Breboeuf St., Drummondville Sud.
Blank, W.M., Mfg. Co.	270 Queen St., Montreal
Boutillies Copak Enr.	Ste. Claire
Braidwood, John & Sons, Ltd.	66 Nazareth St., Montreal
Canada Fans Ltd.	4285 Richelieu St., Montreal
Canadian Allis-Chalmers Ltd.	125 St-Joseph St., Lachine
Canadian Bowl-Mor Co. Ltd.	35 St-Louis Ave., Terrebonne
Canadian Ingersoll-Rand Co. Ltd.	375 Courcellette St., Sherbrooke
Côté Bros. & Burritt Ltd.	1280 Conde St., Montreal
Côté, Jos., Inc.	St. Ephrem
Craig Machinery Co. Ltd.	8045 Durocher St., Montreal
Darling Brothers Ltd.	140 Prince St., Montreal
Dominion Engineering Works Ltd.	1st Ave., Lachine
Electrovert Mfg. Co. Ltd.	2085 Addington St., Montreal
Forano Limited	Plessisville
Galbraith, R.W. & Co.	2625 Albert St., Montreal
General Mfg. Co. Ltd.	Drummondville
Gosselin, J.A. Co. Ltd., The	301 Hebert St., Drummondville
Hardt, J. Mfg. Inc., The	560-19th Ave., Lachine
Hardy, Eugène & Frères Ltée	St-Casimir
Harrington Tool & Die Co. Ltd.	735-1st Ave., Lachine
Herbs Electric Reg'd.	5435 Angers St., Montreal
Hollinger Machine Co. Ltd.	9800 St-Urbain St., Montreal
Hooper, S.W. & Co. Ltd.	731 Galt St. W., Sherbrooke
Houghco Products Ltd.	Candiac
Hydraulic Machinery Co. Ltd.	1243 Dorion St., Montreal
Ideal Poultry Equip. Reg'd.	St. Felix de Valois
Instruments (1951) Ltd.	146-14 St., Noranda
James Equip. Ltd.	124 Grandes Fourches St., Sherbrooke
Jeffrey Mfg. Co. Ltd.	300 St. Patrick St., Lasalle
L'Air Liquide	Viau St., Montreal
La Compagnie F.X. Drolet	245 Dupont St., Quebec
La Fonderie St-Anselme Ltée	St-Anselme Station
La Fonderie Trottier Inc.	St-Casimir
La Machinerie Oméga Ltée	Mondor St., St-Hyacinthe
Lalonde, Frank P. Ltd., The	New Metropolitan Blvd., Pointe Claire
Lasco Ltd.	3100 Cartier Blvd., Chomedey
Les Industries Marco Inc.	Marieville
Leros Inc.	227 Royale St., Sorel
Makinson Winchester Ltd.	2287 Bois Franc Rd., St-Laurent
Materials Engineering Co.	635 Mercille Ave., St-Lambert
Metcon Corp.	422 McGill St., Montreal
Montreal Gear Works Ltd.	3425 Montgomery St., Montreal
Munck (Canada) Ltd.	10900 Hammon St., Montreal
Nagle Elevator Co. Inc.	1085 Cheneville St., Montreal 1
National Electric Refrigerator Ltd.	Montmagny
Pacific Equipment Co. Ltd.	111 Des Erables, St-Pierre
Paco Corp.	930 Wellington St., Montreal
Paquin Alph. & Fils	568 St-Antoine St., Joliette
Peltier Handling Equip. Co. Ltd.	4285 Notre Dame St. E., Montreal
Penn Ventilator Can. Ltd.	71 Jacques Cartier St., Farnham
Pneumatic & Hydraulic Co. Ltd.	St-Eustache
Poitras, Jos. & Fils Ltée	L'Isletville
Pulp & Paper Mills Accessories Ltd.	6139 Côte de Liesse Rd., St-Laurent
Rack Industries of Canada Ltd.	Farnham
Ross of Canada Ltd.	304 St. Patrick St., Lasalle
Sandvik Canadian Ltd.	5675 Royalmount Ave., Mount Royal
Savage Industries Ltd.	686-2nd Ave., Lachine
Separator Engineering Mfg. Ltd.	10,000 Rome St., Montreal North
Sherbrooke Machineries Ltd.	800 Rand St., Sherbrooke

List of Establishments classified to This Industry, 1963 - Continued

Name	Location
Quebec - Concluded:	
Southern Industries Ltd.	391 Theberge St., Marieville
Super Industries Co. Ltd.	252 Mozart St., Montreal
Tardif, Armand Cie Ltée	Boischatel
Technical Accessories Ltd.	5595 Fullum St., Montreal 36
Terry Machinery Co. Ltd.	2675 Marcel St., St-Laurent
Thibault, Pierre Canada Ltée	Pierreville
United Shoe Machinery Co. of Canada Ltd.	4545 Hochelaga St., Montreal 4
Vachon Industries, Ltd.	St-Timothée
Vaper Carnes Ltd.	Ste-Thérèse-de-Blainville
Vessot, S. Co. Ltd.	603 Querbes Blvd., Joliette
Vincent, Hector Inc.	St. Valérien
Wilson Machine Co. Ltd.	161 Nazareth St., Montreal
Ontario:	
Adams, J.D. Co. Ltd.	Paris
Airetool Canada Ltd.	37 Spalding Dr., Brantford
Albany Pump Co. Ltd.	840 King St. W., Toronto
American Can. Co. of Canada Ltd.	1695 Lewis Ave., Niagara Falls
American Standard Products (Canada) Ltd.	310 Ellis St. E., Windsor
Anderson Bros. Tool & Die Co. Ltd.	2696 St. Clair Ave. W., Toronto 9
Anderson, J.W. Co. Ltd.	Dundas
Arcan Eastern Ltd.	Reid Rd., Hamilton
Armstrong, S.A. Ltd.	1400 O'Conner Dr., Toronto 16
Ashton Press Mfg. Co. Ltd.	Highway 15, Belis Corners
Astron Enterprise	10 Ralx St., Elmira
Atlas Engineering & Machine Co. Ltd.	16 Eastern Ave., Toronto
B.L.M. Automatic Clutch Ltd.	863 Progress Ave., Scarborough
B & K Roller Die Co. Ltd.	64 Evans Ave., Etobicoke
Baer Elevator Supplies Ltd.	50 Pearl St., Toronto
Barber, Chas. & Sons	Meaford
Barber-Greene Canada Ltd.	81 Barber-Greene Rd., Don Mills
Bata Engineering (Div. of Bata Shoe Co.)	Batawa
Bauer Bros. Co. (Canada) Ltd.	192 Mary St., Brantford
Buckett Elevator Ltd.	93 Pape Ave., Toronto
Bertram, John & Sons Co. Ltd.	15 Hatt St., Dundas
Bettger Industries Ltd.	649 Ontario St., Stratford
Black Clawson-Kennedy Ltd.	1144-1st Ave. W., Owen Sound
Black & Decker Mfg. Co. Ltd.	Brockville
Blakeslee, G.S. & Co. Ltd.	18 Cranfield Rd., Toronto 16
Bow Press Ltd.	153 Perth St., Acton
Bow Giant Equipment Canada Ltd.	105 Kennedy Rd. S., Brampton
Bowser, S.F. Co. Ltd.	344 Sherman Ave., N. Hamilton
Brewes Electric	57 Mack Ave., Scarboro
Brown Boggs Foundry & Machine Co. Ltd.	275 Sherman Ave. N., Hamilton
Brown Flintube (Canada) Ltd.	95 Woodworth Ave., St. Thomas
Bucyrus-Erie Co. of Canada Ltd.	200 Woodlawn Rd., Guelph
Burnside, Harry	442 King St. W., Toronto 2 B.
Byron Jackson of Canada Ltd.	23 Bertrand Ave., Scarborough
C.L.C. Machinery Co.	196 Grant Ave., Hamilton
C.S.S. Manufacturing Ltd.	85 Ripley Ave., Toronto 3
Callwood Engineering Co.	767 Warden Ave., Scarborough
Campbell Machinery Ltd.	399 Breithaupt St., Kitchener
Canada Machinery Corp. Ltd.	Kitchener
Canada Machinery Corp. Ltd.	19 Concession St., Galt
Canadian Baker Perkins Ltd.	27 Hansen Rd., Brampton
Canadian Beaver Co. Ltd.	993 Eastern Ave., Toronto 8
Canadian Bird Equipment Ltd.	3 Gertrude St., Hamilton
Canadian Blower & Forge Co. Ltd.	90 Woodside Ave., Kitchener
Canadian Clark Ltd.	1195 Talbot St., St. Thomas
Canadian General Electric Co. Ltd.	221 Dufferin St., Toronto
Canadian Koebel Diamond Tools Ltd.	18th Street & Towns Rd., Toronto 14
Canadian Longyear Ltd.	1111 Main St. W., North Bay
Canadian Mechanical Handling Systems Ltd.	3110 Marentette Ave., Windsor
Canadian Mines Equip. Co. Ltd.	596 Hamilton Rd., London
Canadian Monorail Co. Ltd.	16 Holtby Ave., Brampton
Canadian Printing Machinery Co. Ltd.	299 Adelaide St. W., Toronto 2B
Canadian S.K.F. Co. Ltd.	2201 Eglinton Ave. E., Scarborough
Canadian Special Machinery Co.	1021 Rangeview Rd., Port Credit
Canadian Steelmaster Co. Ltd.	51 Chauncey Ave., Toronto 18
Canadian Westinghouse Co. Ltd.	Middleton St., Galt
Canners Machinery Ltd.	Wellington St., Simcoe
Care Equipment Manufacturing Co.	564 Lancaster St., Bridgeport
Chapin Engineering & Const. Co.	3605 Dundas St. W., Toronto
Christensen Diamond Products Co. (Canada) Inc.	1141 Main St. W., North Bay
Clematic Limited	7 Raleigh Ave., Scarborough
Clarke Bros. Machine Co. Ltd.	160 Duke St., Toronto
Clarke, D.R. Engine Co. Ltd.	2462 Dufferin St., Toronto
Climax Baler Co. Ltd.	43 Burton St., Hamilton
Clinton Products (Canada) Ltd.	Wheatley
Coates, James D. Ltd.	181 Sterling Rd., Toronto
Compact Mfg. Co. Ltd.	345 Guelph St., Georgetown
Convento Equip. Mfg. Ltd.	116 Cressman Rd., Kitchener
Cooper-Bessemer of Canada Ltd.	54 Nelson St., Stratford
Cooper-Chapman Ltd.	153 Rivalda Rd., Weston
Craig Bit Co. Ltd., The	180-9th St., North Bay
Craig E.L. Mechanical & Structural Enterprises	6 Pengelly Court, Scarborough
Crane Carrier Canada Ltd.	1 Parnell Ave., Scarborough

List of Establishments classified to This Industry, 1963 - Continued

Name	Location
Ontario - Continued:	
Culligan of Canada Ltd.	2213 N. Sheridan Way, Clarkson
Cyr, R.J. Co. Ltd.	1263 McDougall St., Windsor
Darrigo Bros. Mfg. & Sales	37 Church St., Toronto
Day Co. Of Canada Ltd., The	Vickers St., Fort William
Delamere & Williams Co. Ltd.	35 Carson St., Toronto
Deihi Industries	523 James St., Delhi
De Vilbiss (Canada) Ltd.	Barrie
Dillon, Thomas A. Ltd.	2775 Dufferin St., Toronto 19
Domestic Electric Co.	272 Church St., Toronto
Dominion Brake Shoe Co. Ltd.	205 Mary St., Brantford
Dominion Road Machinery Co. Ltd.	Goderich
Dominion Rubber Co. Ltd.	Glasgow St., Kitchener
Dorr-Oliver-Long Ltd.	174 West St. S., Orillia
Dover Products Corp. of Canada Ltd.	337 Richmond St., Chatham
Dunham-Bush of Canada Ltd.	Peter St., Port Hope
Emco-Wheaton Div., Emco Ltd.	24 Newcastle St., Mimico
Epps, C.H. Mfg. Ltd.	Clinton
Erie Iron Works	99 Edwards St., St. Thomas
Eriez of Canada Ltd.	133 Oakdale Rd., Downsview
Ex-Cell-O Corp. of Canada Ltd.	120 Weston St., London
Factory Equipment Ltd.	92 Berezy St., Aurora
Fastcut Bits Ltd.	135 Lakeshore Dr., North Bay
Filtration Products of Canada Ltd.	65 Duncan Rd., Richvale
Fine Pitch Gears Ltd.	10 Sunrise Ave., Toronto
Fischer Bearings Mfg. Ltd.	801 Ontario St., Stratford
Fisher Gauge Works Ltd.	194 Sophia St., Peterborough
Fisher Corporation Ltd.	2300 Dixie Rd., Cooksville
Fleck, Alexander Ltd., The	75 Spencer St., Ottawa
Fleming Motors Ltd.	108 Elmwood Ave., Galt
Fluid Power Limited	15 Alpine Ave., Toronto 9
Fosco Steel Mfg. Co.	2032 Robin Rd., Clarkson
Francis Shaw (Canada) Ltd.	1393 Grahams Lane Burlington
Fraser, Kenneth S. Co. Ltd.	Markham
Gardner-Denver Co. (Canada) Ltd.	Woodstock
Gardner Steel Ltd.	2442 South Sheridan Way, Clarkson
General Conveyor Co. Ltd.	120 A Willowdale Ave., Willowdale
Gilbert & Barker Mfg. Co. Ltd.	64 Jefferson Ave., Toronto
Gorman-Rupp of Canada Ltd.	70 Burwell Rd., St. Thomas
Grexy Mixing Equip. Ltd.	100 Miranda Ave., Toronto 19
Grover Pneumatic Tubes (Canada) Ltd.	1713 May Ave., Windsor
Gruber W. Equipment Ltd.	58 Colville Rd., Toronto 16
Hamilton Gear & Machine Co. Ltd.	950 Dupont St., Toronto 4
Hamilton Thermal Specialties Ltd.	Hamilton
Hammant Car & Engineering Ltd.	29 Dunbar Ave., Hamilton
Handling Specialty Mfg. Ltd.	58 Fraser Ave., Toronto 3
Hastings Machine Tools Ltd.	600 Montrose Rd., Niagara Falls
Heat Sealing Equipment Co.	198 Wellesley E., Toronto
Heath & Sherwood Ltd.	6 Duncan Ave., Kirkland Lake
Hein-Werner of Canada Ltd.	377 Fairall St., Ajax
Hi-Lo Equip. (Canada) Ltd.	4242 Dundas St. W., Toronto
Hobart Mfg. Co. Ltd., The	175 Bay Shore Rd., Owen Sound
Howden, James & Parsons of Canada Ltd.	1510 Birchmount Rd., Scarborough
Hubbard Portable Oven Co. of Canada Ltd.	154 Duke St., Toronto
Husky Mfg. & Tool Works (Ontario) Ltd.	200 Bentworth Ave., Toronto 19
Hydralex Limited	16 Newbridge St., Toronto 18
I.B.L. Industries	30 Clark Ave., Hamilton
I.S.F. Electro Methods Ltd.	123 McCormack St., Toronto 9
Inglis, John Co. Ltd.	14 Strachan Ave., Toronto 3
Involute Gear Co., The	321 Howland Ave., Toronto 4
Iroquois Equipment Ltd.	107 Toryork Rd., Weston
J.B. Industrial Truck Ltd.	777 Warden Ave., Scarborough
J.M.G. Manufacturing Ltd.	Thornbury
Jabsco Pumps Co. of Canada Ltd.	59 Howden Rd., Scarborough
Jaeger Machine Co. of Canada Ltd.	43 Gaylord Rd., St. Thomas
Joed Manufacturing Limited	55 Crockpork Blvd., Scarborough
Joy Mfg. Co. (Canada) Ltd.	175 Beverly St., Galt
K.H. Equipment Ltd.	R.R. No. 3, Bancroft
K.R.A. Equipment Limited	178 Norseman St., Toronto
Kenhar Industrial Supply Ltd.	71 Rosedale Ave., Brampton
Joy Mfg. Co. (Canada) Ltd.	175 Beverly St., Galt
Kiekhaefer Mercury of Canada Ltd.	1166 Caledonia Rd., Toronto 19
King, G.W. of Canada Ltd.	937 Cumberland St., Burlington
King Seagrave Ltd.	873 Devonshire Ave., Woodstock
Kingsville Pump & Machine Co. Ltd.	84 Grace St., Kingsville
Knowles Machinery Co.	7 High St., London
Koehring-Waterous Ltd.	Brantford
Komline-Sanderson Ltd.	72 Orenda Rd., Brampton
Krueger H.R. of Canada Ltd.	1210 University Ave. W., Windsor
Lafrance Fire Engine & Foamite Ltd.	48 Abell St., Toronto 3
Lau Products Ltd.	385 Black Lime Rd., Kitchener
Lawson Packaging Machinery Ltd.	3620 Lakeshore Blvd. W., Toronto
Leepo Machine Products Ltd.	69 Lauzon Rd., Riverside
Leitch, Arthur S. Co. Ltd., The	William St., Midland
Link-Belt Limited	1960 Eglinton Ave., Scarboro
Link-Belt Speeder (Canada) Ltd.	Dundas St. E., Woodstock
London Concrete Machinery Co. Ltd.	Cabell & Kitchener Ave., London
Mathews Conveyor Co. Ltd.	Port Hope
McCrane, John Machine & Foundry Co. Ltd., The	77 William St. N., Lindsay
McCormack Blades Ltd.	1 Royce Ave., Brampton
McCulloch of Canada Ltd.	25 McCulloch Ave., Rexdale

List of Establishments classified to This Industry, 1963 - Continued

Name	Location
Ontario - Continued:	
McDougall R. Co. The	50 Chapman St., Galt
McGraw - Edison (Canada) Ltd.	17 Chisholm St., Oakville
McGraw - Edison (Canada) Ltd.	47-93 Sterling Rd., Toronto 3
McInnis Conveyors Ltd.	Sandwich East
McIntyre Industries (London) Ltd.	526 Adelaide St., London
McLachlan, John Foundry	Cannington
Meaford Steel Products Ltd.	Marshall St., Meaford
Mefab Products	1016 Speers Rd., Oakville
Meingast, H.M. & Sons Ltd.	Owen Sound
Micco Mechanical Installation & Conveyor Co. Ltd.	91 Edinburgh Ave., Hamilton
Mid-Mar Ltd.	1 Research Rd., Brampton
Midland Foundry & Machine Co. Ltd.	223 Bay St. W., Midland
Minogue, R.J. & Co. Ltd.	1399 Hammond St., North Bay
Mohawk Hydraulic Manufacturing Co. Ltd.	135 Tecumseth St., Toronto 3
Montgomery Elevator Co. Ltd.	346 Munster Ave., Toronto 18
Moore Dry Kiln Co. of Canada Ltd.	Brampton
Morissette Mfg. & Sales Ltd.	560 Browning St., Haileybury
Morley & Son	71 Duke St., Toronto
Morris, Herbert Crane & Hoist Co. Ltd.	375 Stanley Ave., Niagara Falls
Morse Chain of Canada Ltd.	385 Second Ave., Simcoe
Moto-Mower Inc.	50 Thames St., Ingersoll
Muirhead Promson Ltd.	77 Rainside Rd., Don Mills
Napanee Industries Ltd.	51 Ann St., Napanee
Nash Engineering Co. of Canada Ltd. The	1095 North Side Rd., Burlington
National Equipment Co. Ltd.	41 Wabash Ave., Toronto
Neo-Modern Roll & Engraving Ltd.	76 Mead Ave., Hamilton
Neptune (Canada) Pump & Mfg. Co. Ltd.	Orillia
Northcott-Morris Machine Co.	2 Laird Dr., Toronto 17
Northern Crane & Hoist Works Ltd.	1428 Argyle Rd., Windsor
Oil Well Supply Co. Ltd., The	4184 Robert St., Petrolia
Otis Elevator Co. Ltd.	414 Victoria Ave. N., Hamilton
Outboard Marine Corp. of Canada Ltd.	910 Monaghan Rd., Peterborough
Packsack Diamond Drills Ltd.	1385 Hammond St., North Bay
Paramount Gear Works Ltd.	1247 Lawrence Ave. W., Toronto 15
Pathex Canada Ltd.	74 Rainside Rd., Don Mills
Patterson Foundry & Machine Co. (Canada) Ltd., The	250 Danforth Rd., Scarborough
Peabody Engineering Corp. of Canada Ltd.	47 Six Point Rd., Toronto 18
Pendrith Machinery Ltd.	775 King St. W., Toronto
Perrin, William R. Ltd.	530 King St. E., Toronto
Pierce-All Mfg. Ltd.	151 Belfield Rd., Rexdale
Plewes-Jackson Engineering Ltd.	58 Fraser Ave., Toronto 3
Pneucveyor Systems Ltd.	Young St., Woodstock
Power, C.J. Automatic Tools Ltd.	339 Frankcom St., Ajax
Premier Vacuum Cleaner Co. (Canada) Ltd.	53 Fraser Ave., Toronto
Provincial Butchers Machinery Co. Ltd.	393 A Arlington Ave., Toronto
Provincial Engineering Ltd.	674 Ferguson St., Niagara Falls
Pumps & Softeners Ltd.	680 Waterloo St., London
Ramsey Rec Ltd.	67 Industrial Rd., Richmond Hill
Rapistan Canada Ltd.	Rexdale
Reliance Tool & Die Casting Ltd.	150 Edward St., St. Thomas
Remington Arms of Canada Ltd.	36 Queen Elizabeth Blvd., Toronto
Renold Chains Mfg. Ltd.	Brantford
Retor Developments Ltd.	Argyll Rd., Galt
Rex Chainbelt (Canada) Ltd.	1181 Sheppard Ave., Willowdale
Roberts, F.W. Mfg. Co. of Canada Ltd.	473 Buttrely St., Niagara Falls
Robertson Hydraulic Machinery Ltd.	Rouge Hills
Rock Drill Rod Co. Ltd.	25 Edgar Ave., Weston
Roelofson Elevator Co. Ltd.	5001 Dundas St. W., Islington
S.M.S. Mfg. Co. Ltd.	45 Melvan Dr., Weston
St. Lawrence Engine Co. Ltd., The	Brockville
Sanders, L.J.R. Co. Ltd.	34 Ainslie St. S., Galt
Sandy Road Equipment Ltd.	Goderich
Sass Manufacturing Co. Ltd.	114 Sass Rd., Chatham
Shaft Machines Ltd.	100 Adelaide St. W., Toronto 1
Sheldons Engineering Ltd.	96 Grand Ave. S., Galt
Sheridan-Loach Ltd.	106 Hawden Rd., Scarborough
Sihl Pumps Ltd.	Guelph
Simpson Bros. Machine Co. Ltd.	4530 Kingston Rd., West Hill
Skitools Ltd.	1190 Caledonia Rd., Toronto 19
Smart-Turner Machine Co. Ltd.	191 Barton St. E., Hamilton
Smit, J.K. & Sons of Canada, Ltd.	81 Tycoos Dr., Toronto 19
Sovereign Water Conditioners of Can. Ltd.	Scarborough
Sparkler International Ltd.	1115 Castlefield Ave., Toronto
Standard-Modern Tool Co. Ltd.	69 Montcalm Ave., Toronto 10
Sta-Rite Pumps (Canada) Ltd.	264 Falraill St., Ajax
Stathmos Scale Mfg. Ltd.	417 Birchmount Rd., Scarborough
Stephens-Adamsen Mfg. of Canada Ltd.	30 Franklin St., Belleville
Stevens Co. of Galt Ltd., The	12 Rose St., Galt
Stouffville Machine & Tool Works Ltd.	101 Station St., Stouffville
Stratford Machine & Tool Co. Ltd.	684 Ontario St., Stratford
Strippit Tool & Machine Co.	40 Hansen Rd., Brampton
Sunnen Products Co. Ltd.	23 Grand Ave. E., Chatham
Sutton Tool & Die Mfg. Co.	Brantford
Sweco Canada Ltd.	21 Jutland Rd., Toronto 18
Taymer Industries Ltd.	1850 Mattawa Ave., Cooksville
Timberland Ellicott Ltd.	Devenshire Ave., Woodstock
Timken Roller Bearing Co., The	1055 Talbot St., St. Thomas
Tokheim of Canada Ltd.	87 Queen Elizabeth Blvd., Toronto
Torrid Oven & Equipment Co. Ltd.	79 Ellesmere Rd., Scarborough
Torrington Mfg. Co. of Canada Ltd., The	201 Speers Rd., Oakville

List of Establishments classified to This Industry, 1963 - Continued

Name	Location
Ontario - Concluded:	
Trion (Canada) Ltd.	90 Brimley Rd., Scarborough
True Forge Ltd.	695 Bishop St., Preston
Tubar Handling Equip. Ltd.	396 Victoria St. N., Kitchener
Turbo Gas Equip. Ltd.	Delhi
Turnbull Elevator Co. Ltd.	126 John St., Toronto 2 B.
Unit Lift of Canada Ltd.	59 John St., Cookville
United Pumps of Canada, Ltd.	1181 Shepard Ave., Willowdale
United Steel Corp. Ltd.	58 Pelham Ave., Toronto
United Steel Corp. Ltd.	317 King St., Welland
Universal Labelling Machines Ltd.	3555 Danforth Ave., Scarborough
Vickers Sperry of Canada Ltd.	75 Marmac Dr., Rexdale
Viking Pump of Canada Ltd.	661 Grove Ave., Windsor
Vulcan Equipment Ltd.	95 Research Rd., Toronto 17
Wallace & Tieman Ltd.	925 Warden Ave., Scarborough
Ward Oven Co. Ltd.	61 Main St., Toronto 13
Water Softening Equip. Ltd.	112 Manville Rd., Scarborough
Waterloo Mfg. Co. Ltd., The	263 Phillip St., Waterloo
Watson John Mfg. Co. Ltd., The	Ayr
Wausau Iron Works of Canada Ltd.	1692 Jane St., Weston
Wayne Pump Canada Ltd.	829 Richmond St. W., Toronto 3
Wayne Sweeper Mfg. Canada Ltd.	50 Rivalda Rd., Weston
Wean-McKay of Canada Ltd.	Savage Dr., Galt
Webb, Jervis B. Co. of Canada Ltd.	1647 Burlington St. E., Hamilton
Weber Mfg. Co. Ltd.	3988 Riberdy Rd., Windsor
Webster Air Equip. Ltd.	1161 King St. E., London
West Bend of Canada Ltd.	191 John St., Barrie
West Machinery Co. Ltd.	Wellington St., Simcoe
Westaway, W. J. Co. Ltd.	394 Wilson St., Hamilton
Westco Pump & Engineering Ltd.	7 Stewart St., Toronto 2 B
Wheel Truening Tool Co. of Canada Ltd.	575 Langlois Ave., Windsor
Whiting Corp. (Canada) Ltd.	Alexander St., Welland
Williams Machines Ltd.	311 Montrose St., Preston
Williams, John, Machinery Ltd., The	2552 Wharton Glen, Cooksville
Wind Turbine Co. Ltd. The	145 Lucan St., Waterloo
Woods of Colchester (Canada) Ltd.	9 Codeco Court, Don Mills
Worthington (Canada) Ltd. & Mason-Neilan Div.	Camsville
Yates, P.B. Machine Co. Ltd., The	163 Roberts St., Hamilton
Manitoba:	
Belts-Eastman Ltd.	865 Wall St., Winnipeg 10
Chicago Blower (Canada) Ltd.	901 Regent Ave. W., Transcona
Delro Industries Ltd.	860 King Edward St., Winnipeg 21
Epm Manufacturing Co. Ltd.	8 McGillivray Blvd., Fort Garry
Falcon Machine Works Ltd.	138 Aubert St., St. Boniface
Flitersoft Ltd.	215 Watt St., Winnipeg
Joy Mfg. (Canada) Ltd.	118 Midland St., Winnipeg
Kipp Kelly Ltd.	68 Higgins Ave., Winnipeg
McLean Machinery Co. Ltd.	125 Pacific Ave., Winnipeg
Monarch Machinery Co. Ltd.	889 Erin St., Winnipeg
Oshkosh Filter & Softner Co. (Canada) Ltd.	721 Assiniboine Ave., Brandon
Peterson Foundry & Machine Works	132 Aberdeen Ave., Winnipeg
Pydee Engineering Co. Ltd.	1018 Sherbrook St., Winnipeg 2
Seniuk's Blacksmithing	85 Sutherland Ave., Winnipeg 4
Strong-Scott Ltd.	772 Dufferin St., Winnipeg
Wheeler Hand Trucks Ltd.	614 Lorette Ave., Winnipeg 9
Saskatchewan:	
Mid-West Equipment Ltd.	1065 Winnipeg St., Regina
Regal Softener Equip. Ltd.	1322 Lorne St., Regina
Richardson Roud Machinery Co. Ltd.	112 Avenue 1 South, Saskatoon
Schulte Welding & Machine	Englefield
Western Machine & Engineering Ltd.	1201 Scarth St., Regina
Alberta:	
A.T.P. Mfg. Co. Ltd.	9545-62nd. Ave., Edmonton
Automatic Sprinkler Co. of Canada Ltd.	4040-7th St. S.E., Calgary
Berg Industries	Linden
Canadian Oil Tool Mfg. Ltd.	336-58th Ave. S.E., Calgary
Christensen Diamond Petroleum Ltd.	14730-118th. Ave., Edmonton
Coutts Machinery Co. Ltd.	9119 Stadium Rd., Edmonton
Davis-Lynch Inc.	6510-100th. St., Edmonton
Engineering Specialties (Alberta) Ltd.	9660 61st. Ave., Edmonton
Le Grand Limited	111-58th. Ave. S.W., Calgary
Major Irrigation Ltd.	2125-2nd Ave. S., Lethbridge
Premier Steel Products Ltd.	Highway 14 E., Edmonton
Saskatoon Fire Engine Co. Ltd.	216 Monument Place, Calgary
Smit-Connors, J.K. Ltd.	5406-43rd. St., Red Deer
Smith & Schnelder Sawmill Equip. Ltd.	Chinook Valley
Weatherford Oil Tool Co. Ltd.	14435-116 Ave., Edmonton
Western Rock Bit Co. Ltd.	510-77 Ave. S.E., Calgary

List of Establishments classified to This Industry, 1963 - Concluded

Name	Location
British Columbia:	
Allard Engineering (1957) Ltd.	1031 Quebec St., New Westminster
Andersen Production Engr. Ltd.	405 Industrial Ave., Vancouver 4
Anderson Blowpipe Ltd.	1213 Mitchell Rd., Richmond
Automatic Equip. & Service Co.	4625 Sophia St., Vancouver 10
Boyles Bros. Drilling Co. Ltd.	1291 Parker St., Vancouver
Canadian Car (Pacific) Ltd.	1660 Station St., Vancouver 4
Canadian Mobile Co. Ltd.	207 West 2nd Ave., Vancouver 10
Canadian Summer Iron Works Ltd.	3550 East Broadway, Vancouver 12
Carbiton Development Ltd.	1270 Boundary Rd., Vancouver 6
Cartage Westminster Industries Ltd.	1135 Queens Ave., New Westminster
Chutter Hydraulics & Machinery Ltd.	Grainville Island, Vancouver
Colby Crane & Mfg. Ltd.	66 Jemmet St., New Westminster
Conveyair Mfg. Div. Ltd.	125 West 1st Ave., North Vancouver
Durand Machine Works (1957) Ltd.	101-11th St., New Westminster
Gearmatic Co. Ltd.	7400-132nd St., North Surrey
Hub Fire Engines & Equip. Ltd.	Abbotsford
Interior Mill Equip. Ltd.	Grand Forks
Jordan's Machine Works Ltd.	4428 Kingsway, South Burnaby
Joy Mfg. Co. (Canada) Ltd.	New Westminster
Lecier's Pacific Ltd.	New Westminster
Kelowna Machine Shop Ltd.	1247 Ellis St., Kelowna
Korth Machinery Ltd.	368 West 4th Ave., Vancouver 10
Krell Mfg. Co. Ltd.	6861 E. Hasting St., Burnaby
L-M Equip. Co. (B.C.) Ltd.	7538 Griffiths Ave., South Burnaby
Letson & Burpee Ltd.	172 Alexander St., Vancouver 4
Madill, S. Ltd.	2560 Bowen Rd., Nanaimo
Moore Dry Klin Co. of Canada Ltd.	345 East First Ave., Vancouver
Nicholson Murdie Machines Ltd.	327 Harbour Rd., Victoria
Nor-West Gear & Engine Co. Ltd.	933 Main St., Vancouver 4
Opsal Steel Ltd.	97 East 2nd Ave., Vancouver 10
Patrick Equipment Ltd.	5352 Still Creek Ave., North Burnaby
Power Machinery Ltd.	Vancouver Airport, Vancouver
Pumps & Power Ltd.	1380 Napier St., Vancouver 12
Pyramid Machine Works Ltd.	276 East Esplanade, North Vancouver
Q.M. Machine Works Ltd.	975 3rd Ave., Prince George
Regent Steel Specialties Ltd.	6957 Beresford St., South Burnaby
Swann, J. (1963) Ltd.	1481 Franklin St., Vancouver 6
Trump Ltd.	Oliver
Tyee Machinery Co. Ltd.	Grainville Island, Vancouver 9
Vancouver Gear Works Ltd.	975 Vernon Drive, Vancouver 6
Vancouver Iron & Engineering Works Ltd.	1155 West 6th Ave., Vancouver 9
Vancouver Mill Machinery Ltd.	1904 Gilmore Ave., Burnaby 2
Wagner Engineering Ltd.	1742 West 2nd Ave., Vancouver 9
Wagstaff Hoist Ltd.	2294 Clark Drive, Vancouver 12
Webb & Gifford Ltd.	222 Front St., New Westminster
Weldco Limited	116 East 2nd Ave., Vancouver 10
Westcoast Automation Ltd.	101-11th St., New Westminster
Willock Mfg. Co. Ltd.	22661 Trans-Canada Hwy., Langley
Yates, P.B. (Western) Ltd.	890 E. Hastings St., 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 58 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 178 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 activity

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. 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. 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.). 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 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 materials and fuel and electricity consumed from the value of production (value of shipments 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

purchased for re-sale) and the cost of other 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 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".

THE UNIVERSITY OF CHICAGO
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