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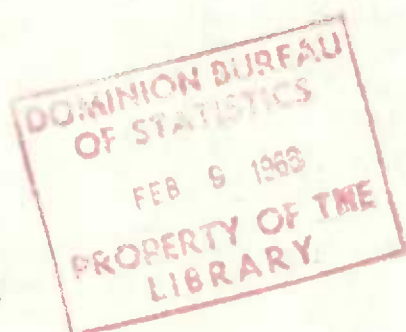
41-226

ANNUAL



IRON FOUNDRIES 1963

ANNUAL CENSUS
OF MANUFACTURES



Published by Authority of
The Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS
Industry Division

January 1966
6521-802

Price: 50 cents

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IRON FOUNDRIES

1963

Data presented in this report under the heading of Iron Foundries 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 industry statistics compilations—see items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes section of this report.

For statistical purposes the industry titled Iron Foundries in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing iron castings, including cast iron pipe and fittings.

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	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	
1961													
Totals	140	6,862	14,308	27,461	2,277	37,403	94,625	53,655	36	118	8,178	34,612	54,882
1962													
Newfoundland	2	88	219	347	35	245	738	458	x	x	117	458	691
Prince Edward Island	1								x	x			
Nova Scotia	3	67	142	225	12	212	561	357	x	x	91	326	443
New Brunswick	2								x	x			
Quebec	40	1,465	3,210	5,465	488	13,912 ^f	27,334	12,757 ^f	9	30	1,760	6,959	13,016 ^f
Ontario	63	4,919	10,326	20,958	1,828	27,969	67,100	38,454	11	50	5,680	25,443	39,121
Manitoba	5	244	498	1,064	65	928	3,543	2,702	—	—	324	1,488	2,873
Saskatchewan	2	203	430	869	82	1,962	4,943	2,944	—	—	243	1,154	3,102
Alberta	4								—	—			
British Columbia	11	260	500	1,187	56	694	3,234	2,484	4	20	331	1,578	2,540
Yukon and Northwest Territories	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	133	7,246	15,326	30,116	2,545	45,919 ^f	107,453	60,157 ^f	27	111	8,546	37,409	61,784 ^f
1963													
Newfoundland	1	x	x	x	x	x	x	x	—	—	x	x	x
Prince Edward Island	1	x	x	x	x	x	x	x	x	x	x	x	x
Nova Scotia	3	x	x	x	x	x	x	x	x	x	x	x	x
New Brunswick	2	x	x	x	x	x	x	x	—	—	x	x	x
Quebec	40	1,383	3,193	5,522	431	13,073	23,741	10,828	13	41	1,682	6,854	11,588
Ontario	62	5,582	11,839	24,851	2,001	32,650	78,178	44,307	10	49	6,380	29,410	45,162
Manitoba	5	260	529	1,077	68	1,149	3,679	2,587	—	—	335	1,481	2,688
Saskatchewan	2	x	x	x	x	x	x	x	—	—	x	x	x
Alberta	4	168	362	747	65	2,180	4,211	2,018	—	—	205	1,008	2,056
British Columbia	11	319	603	1,436	54	1,177	4,078	2,885	4	26	391	1,824	3,335
Yukon and Northwest Territories	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	131	7,880	16,856	34,175	2,671	50,809	115,671	63,788	30	128	9,216	41,361	66,202

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	4	2	2	3	1	10	34	23	4	10	2	3	23
\$ 10,000 to \$ 24,999	7	16	25	43	3	40	130	87	7	23	18	50	87
25,000 " 49,999	12	60	89	140	21	162	460	277	8	33	68	168	292
50,000 " 99,999	20	185	333	545	44	424	1,387	922	3	10	235	741	1,044
100,000 " 199,999	22	435	830	1,333	110	1,157	3,549	2,264	5	35	502	1,632	2,378
200,000 " 499,999	27	942	2,038	3,493	251	2,979	9,245	6,014	—	—	1,104	4,501	6,142
500,000 " 999,999	17	1,025	2,275	4,131	284	4,206	12,425	8,095	—	—	1,210	5,237	8,279
1,000,000 " 4,999,999	20	3,102	8,455	13,614	1,190	18,203	42,538	24,337	—	—	3,634	16,573	25,205
5,000,000 and over	4	1,479	3,278	6,814	641	18,737	37,684	18,140 ^r	—	—	1,773	8,504	18,335
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	133	7,246	15,326	30,116	2,545	45,919	107,453	60,157^r	27	111	8,546	37,409	61,784
1963													
Under \$10,000	4	1	2	1	—	8	20	10	3	9	1	1	10
\$ 10,000 to \$ 24,999	11	22	44	60	4	57	187	129	11	29	26	69	129
25,000 " 49,999	7	35	67	94	11	108	275	168	6	30	42	117	189
50,000 " 99,999	15	124	248	345	30	318	966	633	5	24	150	446	659
100,000 " 199,999	20	363	737	1,169	85	911	2,899	1,924	2	17	422	1,464	2,005
200,000 " 499,999	30	981	2,121	3,638	262	3,040	9,576	6,454	3	19	1,138	4,514	6,668
500,000 " 999,999	18	1,094	2,319	4,136	287	4,431	12,387	7,791	—	—	1,268	5,174	7,991
1,000,000 " 4,999,999	21	3,390	7,108	15,573	1,296	20,808	49,444	27,981	—	—	3,917	18,371	29,120
5,000,000 and over	5	1,870	4,210	9,158	696	21,128	39,918	18,699	—	—	2,252	11,204	19,431
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	131	7,880	16,856	34,175	2,671	50,809	115,671	63,788	30	128	9,216	41,361	66,204

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	7	9	11	18	4	50	106	52	8	22	11	22	52
\$ 10,000 to \$ 24,999	11	39	61	99	12	112	298	174	8	32	45	118	194
25,000 " 49,999	18	140	237	378	37	317	1,016	665	6	21	187	460	677
50,000 " 99,999	17	271	513	827	61	730	2,068	1,249	2	13	324	1,073	1,446
100,000 " 199,999	23	571	1,198	1,885	154	1,568	4,983	3,285	3	23	672	2,398	3,410
200,000 " 499,999	30	1,446	3,108	5,567	410	6,351	16,597	10,039	—	—	1,869	6,949	10,253
500,000 " 999,999	12	908	1,937	3,946	298	5,010	13,172	8,527	—	—	1,102	5,040	9,011
1,000,000 " 4,999,999	15	3,862	8,261	17,396	1,569	31,780	69,213	36,166 ^r	—	—	4,556	21,348	36,740
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	133	7,246	15,326	30,116	2,545	45,919	107,453	60,157^r	27	111	8,546	37,409	61,784
1963													
Under \$10,000	8	7	14	14	1	27	72	42	8	24	7	14	42
\$ 10,000 to \$ 24,999	13	47	91	131	13	132	360	233	11	39	58	162	253
25,000 " 49,999	12	89	178	239	23	241	721	456	6	26	104	296	473
50,000 " 99,999	18	276	549	838	64	771	2,207	1,397	4	31	324	1,062	1,579
100,000 " 199,999	19	473	985	1,635	118	1,366	4,193	2,753	1	5	555	2,042	2,831
200,000 " 499,999	32	1,495	3,227	5,639	419	5,587	16,293	10,407	—	—	1,730	7,027	10,639
500,000 " 999,999	13	954	1,984	4,346	330	8,009	17,467	9,268	—	—	1,132	5,372	9,700
1,000,000 " 4,999,999	16	4,539	9,827	21,332	1,704	34,676	74,357	39,231	—	—	5,306	25,384	40,635
5,000,000 and over	...	...	...	...	...	...	...	...	...	...	...	...	...
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	131	7,880	16,856	34,175	2,671	50,809	115,671	63,788	30	128	9,216	41,361	66,204

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	7	9	11	18	4	50	106	52	8	22	11	22	52
\$ 10,000 to \$ 24,999	10	31	49	81	11	98	268	159	7	29	37	101	160
25,000 " 49,999	18	133	223	360	37	321	994	640	7	24	157	433	652
50,000 " 99,999	14	224	420	653	51	534	1,574	961	—	—	266	842	1,008
100,000 " 199,999	24	536	1,094	1,741	146	1,528	4,720	3,045	5	35	625	2,200	3,249
200,000 " 499,999	31	1,405	3,001	5,375	388	6,164	16,070	9,742	—	—	1,621	6,675	9,854
500,000 " 999,999	14	1,046	2,267	4,491	339	5,443	14,507	9,393	—	—	1,273	5,788	10,069
1,000,000 " 4,999,999	15	3,862	8,261	17,396	1,569	31,780 ^r	69,213	36,166 ^r	—	—	4,556	21,348	36,740 ^r
5,000,000 and over													
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	133	7,246	15,326	30,116	2,545	45,919 ^r	107,453	60,157 ^r	27	111	8,546	37,409	61,784 ^r
1963													
Under \$10,000	8	7	14	14	1	27	72	42	8	24	7	14	42
\$ 10,000 to \$ 24,999	11	35	67	100	11	111	290	186	10	37	44	124	191
25,000 " 49,999	14	101	202	270	25	263	790	503	7	31	118	334	535
50,000 " 99,999	15	229	455	687	55	548	1,723	1,142	2	17	269	866	1,153
100,000 " 199,999	21	490	1,020	1,677	121	1,512	4,396	2,816	3	19	567	2,070	3,040
200,000 " 499,999	32	1,449	3,143	5,521	392	5,449	15,876	10,160	—	—	1,672	6,876	10,253
500,000 " 999,999	13	943	1,981	4,216	349	7,935	17,107	8,947	—	—	1,114	5,160	9,214
1,000,000 " 4,999,999	17	4,626	9,974	21,688	1,718	34,965	75,415	39,993	—	—	5,425	25,915	41,773
5,000,000 and over													
Head offices, sales offices and auxiliary units	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	131	7,680	16,856	34,175	2,671	50,809	115,671	63,788	30	128	9,216	41,361	66,202

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	13	16	24	44	10	83	288	195	14	49	17	48	195
5- 14 employed	28	203	368	600	58	609	1,772	1,108	8	26	256	811	1,177
15- 49 " "	48	1,262	2,580	4,373	311	3,848	11,933	7,767	5	35	1,468	5,564	8,067
50- 99 " "	26	1,538	3,333	6,306	515	9,137	22,611	13,612	—	—	1,809	7,911	13,928
100-199 " "	6	718	1,559	3,194	337	8,963	18,043	8,972	—	—	855	4,042	9,330
200-499 " "	12	3,509	7,462	15,599	1,313	23,278 ^r	52,806	28,502 ^r	—	—	4,141	19,033	29,087 ^r
500 employed and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	133	7,246	15,326	30,116	2,545	45,919 ^r	107,453	60,157 ^r	27	111	8,546	37,409	61,784 ^r
1963													
Under 5 employed	14	17	34	48	6	79	240	154	14	54	19	53	155
5- 14 employed	25	171	339	548	47	622	1,662	1,018	14	67	211	712	1,212
15- 49 " "	43	1,104	2,298	3,779	267	3,195	9,999	6,642	2	7	1,276	4,707	6,765
50- 99 " "	30	1,769	3,800	7,371	581	11,363	26,386	14,611	—	—	2,049	9,023	14,769
100-199 " "	7	820	1,704	3,673	332	5,871	14,348	8,925	—	—	1,040	4,798	9,651
200-499 " "	12	3,999	8,680	18,758	1,439	29,678	63,036	32,439	—	—	4,621	22,069	33,650
500 employed and over													
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	131	7,880	16,856	34,175	2,671	50,809	115,671	63,788	30	128	9,216	41,361	66,202

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	18	94	144	222	21	255	768	494	15	54	104	245	513
Partnerships	6	34	73	132	12	132	395	250	12	57	36	141	309
Incorporated companies	109	7,118	15,109	29,762	2,513	45,532 ^f	106,290	59,413 ^f	-	-	8,406	37,023	60,962 ^f
Cooperatives	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	133	7,246	15,326	30,116	2,545	45,919^f	107,453	60,157^f	27	111	8,546	37,409	61,784^f
1963													
Individual ownerships	18	93	186	254	20	286	798	491	19	70	100	273	519
Partnerships	6	26	52	107	7	176	393	212	11	58	29	123	314
Incorporated companies	107	7,761	16,618	33,815	2,644	50,347	114,481	63,085	-	-	9,087	40,965	65,369
Cooperatives	-	-	-	-	-	-	-	-	-	-	-	-	-
Head offices, sales offices and auxiliary units .....	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	131	7,880	16,856	34,175	2,671	50,809	115,671	63,788	30	128	9,216	41,361	66,202

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	107,453	115,671	8,660	9,913	116,113	125,584
Inventories — Goods of own manufacture:						
Add closing — Goods in process	1,796	2,760	...	...	1,796	2,760
Finished goods	8,329	9,457	...	...	8,329	9,457
Less opening — Goods in process	2,101	1,762	...	...	2,101	1,762
Finished goods	6,857	8,857	...	...	6,857	8,857
2. Net inventory change	1,167	1,598	...	...	1,167	1,598
3. Gross output (1 + 2)	108,620	117,269	8,660	9,913	117,280	127,182
Input						
4. Purchases of goods not of own manufacture .....	...	...	6,930	7,446	6,930	7,448
Inventories — Goods not of own manufacture:						
Add opening .....	...	...	1,486	1,755	1,486	1,755
Less closing .....	...	...	1,646	2,040	1,646	2,040
5. Cost of goods sold (not of own manufacture) .....	...	...	6,770	7,163	6,770	7,163
6. Materials, supplies, components and semi-processed goods	45,919 ^f	50,809	261	336	46,160	51,145
7. Fuel and electricity	2,545	2,671	...	...	2,545	2,671
8. Gross input (5 + 6 + 7)	48,464	53,480	7,031	7,499	55,495	60,979
Census value added (3 - 8)	60,157 ^f	63,788	1,629	2,414	61,784 ^f	66,202

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- istrative and office	Sales and distrib- ution	Total salaries and wages
	Manufacturing		Other		Male	Female	Male	Female	Male	Female	Manufac- turing	Other			
	Male	Female	Male	Female											
	number										\$'000				
1962															
Newfoundland	88	—	—	—	21	6	1	1	110	7	347	—	102	10	460
Prince Edward Island															
Nova Scotia	67	—	—	—	10	9	5	—	82	9	225	—	81	20	326
New Brunswick															
Quebec	1,462	3	—	—	238	48	9	—	1,709	51	5,465	—	1,448	46	6,959
Ontario	4,811	108	10	—	525	188	36	2	5,382	298	20,958	52	4,200	233	25,443
Manitoba	244	—	—	—	42	13	21	4	307	17	1,064	—	294	131	1,488
Saskatchewan	203	—	—	—	29	9	2	—	234	9	869	—	254	31	1,154
Alberta															
British Columbia	260	—	—	—	49	19	3	—	312	19	1,187	—	375	16	1,578
Yukon and Northwest Terri- tories	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	7,135	111	10	—	914	292	77	7	8,136	410	30,116	52	6,754	487	37,409
1963															
Newfoundland	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Prince Edward Island	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Nova Scotia	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
New Brunswick	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Quebec	1,380	3	3	—	234	51	11	—	1,628	54	5,522	11	1,286	35	6,854
Ontario	5,470	112	2	—	557	189	46	4	6,075	305	24,851	16	4,221	322	29,410
Manitoba	257	3	—	—	42	13	16	4	315	20	1,077	—	307	96	1,481
Saskatchewan	x	—	—	—	x	x	x	x	x	x	x	—	x	x	x
Alberta	168	—	—	—	26	8	5	—	199	6	747	—	219	43	1,008
British Columbia	319	—	—	—	51	18	3	—	373	18	1,436	—	371	17	1,824
Yukon and Northwest Terri- tories	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	7,762	118	5	—	944	291	87	9	8,798	416	34,175	27	6,616	543	41,361

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

Month	Establishments reporting monthly detail			
	1962		1963	
	Male	Female	Male	Female
	number			
January	6,071	100	6,772	106
February	6,106	110	6,831	119
March	6,065	106	6,969	112
April	6,409	111	7,125	117
May	6,616	110	7,183	124
June	6,755	120	7,398	118
July	6,819	117	6,878	122
August	6,705	108	7,362	126
September	6,827	107	7,361	110
October	6,829	105	7,397	115
November	6,819	104	7,415	110
December	6,570	108	7,385	110
Average for establishments reporting monthly detail (collected only for large establishments) ..	6,550	108	7,171	117
Average for small establishments (only annual averages collected)	585	3	591	1
Average for all establishments	7,135	111	7,762	116

TABLE 4. Industry Inventories, 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	x	x
Prince Edward Island	x	x	x	x	x	x
Nova Scotia	x	x	x	x	x	x
New Brunswick	x	x	x	x	x	x
Quebec	533	18	2,228	2,779	96	2,874
Ontario	3,845	1,714	5,132	10,691	698	11,389
Manitoba	300	4	636	941	308	1,249
Saskatchewan	x	x	x	x	x	x
Alberta	520	—	303	823	16	839
British Columbia	107	19	340	465	241	706
Yukon and Northwest Territories	—	—	—	—	—	—
Totals	5,451	1,762	8,857	16,070	1,755	17,825
Closing:						
Newfoundland	x	x	x	x	x	x
Prince Edward Island	x	x	x	x	x	x
Nova Scotia	x	x	x	x	x	x
New Brunswick	x	x	x	x	x	x
Quebec	898	461	2,375	3,735	524	4,259
Ontario	3,661	2,260	5,365	11,286	536	11,822
Manitoba	310	5	761	1,075	257	1,333
Saskatchewan	x	x	x	x	x	x
Alberta	386	9	346	741	15	756
British Columbia	119	17	379	515	334	849
Yukon and Northwest Territories	—	—	—	—	—	—
Totals	5,548	2,760	9,457	17,765	2,040	19,805

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 1,746	49	2,667	52
(b) Imported	" 27,199	401	27,359	417
Sub-bituminous coal (from Alberta mines only)	" 24	—	8	—
Anthracite coal	" 2,348	30	2,554	33
Lignite coal	" —	—	—	—
Coke	" 3,228	93	3,691	117
Gasoline (including gasoline used in cars and trucks)	Imp. gal. 359,320	131	375,411	142
Fuel oil including kerosene or coal oil	" 3,890,931	469	3,029,344	398
Wood	cord 713	6	795	6
Gas:				
(a) Liquefied petroleum gases	Imp. gal. 144,900	20	105,564	21
(b) Other manufactured gas	M cu.ft. —	—	—	—
(c) Natural gas	" 302,396	239	449,619	331
Other fuel .....	... ..	8	...	1
Electricity purchased	kwh. 75,406,892	900	87,383,743	979
Steam purchased .....	...	47	...	35
2. Estimate for small establishments:				
Fuel and electricity .....	...	151	...	140
3. All establishments:				
Total fuel and electricity used .....	...	2,545	...	2,671

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

Description		1962		1963	
		Quantity	Cost	Quantity	Cost
			\$'000		\$'000
1. Materials used:					
Castings (rough and semi-finished received from foundry):					
Iron (gray and malleable).....	ton	1,023	351	902	329
Steel	"	2,897	774	2,576	829
Pig iron, all grades	"	137,819	8,397	164,785	9,970
Steel (except alloy steel):					
Bars	"	1,748	319	2,041	328
Plates (3/16 in. and thicker)	"	1,881	454	5,676	1,120
Sheets (under 3/16 in.):					
Plain	"	198	37	216	40
Galvanized	"	170	39	449	90
Tinplate	"	8	2	7	2
Strip	"	20	4	2	-
Structural shapes, unfabricated (channels, angles, etc.)	"	435	88	3,810	758
Wire	"	61	16	86	17
Alloy steel in all forms:					
Alloy steel (other than stainless and tool steel) .....		...	42	...	36
Stainless .....		...	122	...	82
Tool steel .....		...	10	...	70
Scrap iron and steel:					
Purchased	ton	300,057 ^f	11,089 ^f	326,514	11,991
Own make	"	9,460	...	23,012	...
Pipe and fittings, iron and steel .....		...	50	...	117
Other iron and steel .....		...	1,009	...	430
Ferro-alloys .....		..	1,314 ^f	..	1,363
Non-ferrous metals in all forms:					
Aluminum:					
Castings	pound	44,005	48	11,484	11
Sheet	"	22,342	13	12,962	7
Other forms	"	291,611	82	245,160	88
Brass and bronze	"	1,549,966	574	2,203,086	703
Copper	"	123,885	34	240,524	71
Lead	"	17,653	2	32,966	4
Nickel	"	1,213,461	1,036	1,139,769	971
Tin	"	1,397	2	3,439	5
Zinc	"	875,777	103	891,103	107
Babbitt metal and solders	"	5,401	3	5,306	3
Other non-ferrous metals .....		..	138	..	199
Other materials and supplies:					
Paints and varnishes .....		...	117	...	182
Foundry coke (used in cupola)	ton	79,828 ^f	2,853 ^f	84,426	3,111
Foundry sands (including core and moulding sands)	"	117,486	994	139,192	1,138
Plumbago and graphite	pound	738,664	65	789,671	91
Lumber	M ft. b.m.	1,505	151	1,494	156
Firebrick and cupola blocks .....		...	286	...	359
Fireclay	ton	11,966	121	18,992	161
Core oil	Imp. gal.	159,910	163	168,435	204
All other materials and components used ¹ .....		...	10,036 ^f	...	9,389
2. Containers and other packaging materials and supplies used					
		...	257	...	256
3. Operating, maintenance and repair supplies used (excluding fuel)					
		...	4,307	...	5,060
4. Amount paid out to others for work done on materials owned by establishments					
		...	417 ^f	...	979
Totals .....		...	45,919 ^f	...	50,809

¹ No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$1,555,865 in 1962 and \$1,832,103 in 1963.

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

Description	1962		1963	
	Quantity	Value \$'000	Quantity	Value \$'000
1. Products:				
Commercial castings (sold as such):				
Grey iron	ton 113,043	29,138	145,248	36,066
Malleable iron	" 17,968	6,978	21,356	8,297
Non-ferrous castings:				
Aluminium	" 282	410	293	445
Copper alloy (brass, bronze, etc.)	" 479	690	336	563
Cast iron products (including grinding balls, ingot moulds, hydrants, etc. but excluding cast iron pipe and fittings) .....	..	13,150	..	14,801
Cast iron pipe and fittings	ton 176,423	30,395	151,856	28,451
Malleable iron pipe fittings, all sizes	" 5,644	4,505	6,786	5,185
Machinery and parts .....	...	9,187	...	8,957
Plumbers brass fittings .....	...	68	...	323
Valves (iron, steel, brass and bronze) .....	...	830	...	1,424
All other products .....	...	11,352	...	11,845
2. Amount received in payment for work done on materials and products owned by others ....	...	32	...	25
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above .....	...	(145)	...	(157)
Net adjustment for establishments receiving progress payments .....	...	864	...	(554)
Total adjusted value of shipments and work done .....	...	107,453	...	115,671

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)

Cast Iron Pipe and Fittings

	Ton	\$'000
1962		
Cast iron soil pipe:		
Under 6" inside diameter	34,094	5,684
6" inside diameter and over	12,269	2,293
Cast iron soil pipe fittings, all sizes	21,550	5,242
Cast iron water pipe and fittings, all sizes	128,890	19,071
Cast iron pipe fittings, other	6,082	2,945
Malleable iron pipe fittings, all sizes	5,644	4,505
Totals	208,529	39,740
1963		
Cast iron soil pipe:		
Under 6" inside diameter	34,479	5,602
6" inside diameter and over	9,566	1,795
Cast iron soil pipe fittings, all sizes	21,293	5,172
Cast iron water pipe and fittings, all sizes	105,278	17,551
Cast iron pipe fittings, other	6,379	3,093
Malleable iron pipe fittings, all sizes	6,786	5,185
Totals	183,781	38,166

TABLE 9. Total Production of Iron Castings and Materials Charged to Cupolas, 1959-63

		1959	1960	1961	1962	1963
Pig iron used ¹	net ton	300,000	261,000	249,000	279,000	321,000
	\$'000	17,789	15,291	15,788	16,855	20,618
Scrap iron and steel used: ²						
Purchased	net ton	532,000	490,000	517,000	512,000	608,000
	\$'000	21,163	18,701	19,406	19,087	21,651
Own make	net ton	129,000	103,000	116,000	139,000	215,000
	\$'000	4,933	4,048	1	1	1
Coke used in cupolas or melting furnaces (purchased only) ³	net ton	150,000	141,000	129,000	127,000	152,000
	\$'000	5,032	4,625	4,494	4,527	5,442
Iron castings made (whether for sale or own use):						
Grey and white iron castings ⁴ (except pipe and fittings)	net ton	605,000	525,000	475,000	487,000	555,000
Malleable iron (except fittings)	"	36,000	28,000	28,000	32,000	38,000
Cast iron pipe and fittings ⁵	"	206,000	185,000	188,000	207,000	193,000
Malleable iron pipe fittings ⁶	"	9,000	5,000	5,000	6,000	7,000
Total castings	"	856,000	743,000	696,000	732,000	793,000

¹ As a result of changes in classification brought about by the implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept, totals for these materials, since 1960, include usage reported by some steel foundries. Consequently, totals since 1960 are not exactly comparable with previous years.

² Commencing with 1961 no value assigned to "scrap iron and steel—our make" as was done in prior years, hence values are no longer available.

³ Details of "own make" previously included on an estimated basis have been eliminated for the years 1958 to 1961.

⁴ Compiled from data submitted by the 200 iron foundries which report monthly and which, it is estimated, account for about 95 per cent of the total production. These figures have been expanded to 100 per cent.

⁵ Factory shipments.

List of Establishments classified to This Industry, 1963

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

Name	Location
Newfoundland:	
United Nail and Foundry Co. Ltd.	133 Hamilton Ave., St. John's
Prince Edward Island:	
Parker Foundry	Georgetown
Nova Scotia:	
Dartmouth Iron Foundry	617 Windmill Rd., Dartmouth
Hillis and Sons Ltd.	3180 Kempt Road, Halifax
New Glasgow Foundry	391 Glasgow St., New Glasgow
New Brunswick:	
Courtenay Iron and Brass Foundry Ltd.	169 Rothesay Ave., Saint John
McLennan Engineering Works Ltd.	Water St. W., Campbellton
Quebec:	
Bergeron, M. Lucien A.	Ste-Julie Station
Canada Iron Foundries Limited	227 St-Maurice, Trois-Rivières
Fonderie Binette Inc.	492 Provencher, Laurierville
Fonderie Després	St-Thomas de la Pt. Calle
Fonderie Fortin Enr.	Allen, Waterloo
Fonderie Gosselin Inc.	La Perade
Fonderie Napierville Enrg.	449 St-Jacques, Napierville
Fonderie Savoie	Ville-Ste-Marie
Fonderie St-Hyacinthe Ltd.	2925 Nelson, St-Hyacinthe
Fonderie St-Louis	St-Louis de Bonsecours
General Foundry Co.	95 Main St., Windsor
Grand'Mère Foundry Ltd.	800 C.N.R. Avenue, Grand'Mère
La Compagnie Dussault et Lamoureux	7750 rue Brouillette, St-Hyacinthe

List of Establishments classified to This Industry, 1963 - Continued

Name	Location
Quebec - Concluded:	
La Fonderie Bégin et Gingras Enrg.	Centre Industriel, #5
La Fonderie Beloeil Ltée	49 rue St-Georges, Beloeil Sta.
La Fonderie Canadienne Enrg.	374 St-Jacques, St-Jean
La Fonderie de Lauzon Ltée	50 rue Carrier, Lauzon
La Fonderie Ste-Croix Ltée	112 rue Principale, Ste-Croix
La Fonderie de Thetford	700 A rue Notre-Dame Nord, Thetford Mines
La Fonderie Laperle Ltée	195 Immaculée-Conception, St-Ours
La Fonderie Magog Ltd.	601 Champlain St., Magog
La Fonderie Paquette Inc.	165 St-Paul, St-Jean
La Fonderie St-Romuald Enrg.	58 rue Saxe, St-Romuald
La Fonderie de Sully	Sully
Laroche, Zéphérin et Frères Ltée	De Chantal, Pont-Rouge
Lavoie, Euchariste, Fils Enrg.	8 rue Racine Baie, St-Paul
Lefebvre, Jean Charles (Fonderie St-Placide)	Saint-Placide
Légaré Foundry (1961) Ltd.	2375 Roy St., Sherbrooke
Mace Foundry Co.	1450 Gladstone Ave., Côte St-Paul
Montreal Foundry Limited	1249 Conde St., Montreal
Monsarrat Machinery and Foundries Ltd.	17 St-Magloire St., Rivière-du-Loup
Paul Bros, Foundry Limited	600 Poupert, Laprairie
Pont Viau Foundry Ltd.	60 St-Hubert St., Pont-Viau
Quebec Iron Foundries Ltd.	Murdock Avenue, Noranda
Quebec Iron Foundries Ltd.	88 Fonderie Ave., Mont-Joli
Quemont Mfg. Co. Ltd.	
Rigaud Foundry Limited	2 St-Anselme, Rigaud
St. Jérôme Industries Ltd.	Castonguay St. West, St-Jérôme
Shawinigan Foundries, Limited	Foundry Road, Shawinigan
Union Foundry Limited, The	431 St-Luc, Granby
Viau, M.I. et Fils Ltée	105 St-Joseph, St-Jérôme
Ontario:	
Alloy Foundry Co. Ltd.	Mill Street, Merrickville
Auto Specialties Mfg. Co. (Canada) Ltd.	614 Tecumseh' Rd. E., Windsor
Bell City Foundry (Brantford) Ltd.	411 West St., Brantford
Benn Iron Foundry	Mason Street, Wallaceburg
Bibby Foundry Ltd.	Beverly Street, Galt
Bowmanville Foundry Company Limited	Scugog Street, Bowmanville
Brown Foundry Ltd.	Industrial Rd., Morrisburg
Canada Iron Foundries Limited (Foundry Div.)	171 Eastern Ave., Toronto
Canada Iron Foundries Ltd. (Foundry Div.)	Burlington St. East, Hamilton
Canada Iron Foundries Ltd. (Foundry Div.)	Stuart and Caroline Sts., Hamilton
Canada Iron Foundries Ltd. (Pipe Div.)	324 Cherry Street, Toronto
Cobalt Foundry Limited	Ferland Ave., Cobalt
Cornwall Brass and Iron Foundries Ltd.	Boundary Road, Cornwall
Crawford Machine and Foundry Limited	100 Wilson Street, Woodstock
Crowe Foundry Limited	95 Sheffield Street, Hespeler
Cunningham Foundry and Machine Co. Ltd.	Berryman Ave., St. Catharines
Date Industries Ltd.	Swan Street, Ayr
Davidson Foundry	16-18 Hamilton Ave., Ottawa 3
Designed Precision Castings Ltd.	75 Eastern Ave., Brampton
Domestic Foundry	1595 Crawford Ave., Windsor
Eureka Foundry and Manufacturing Co. Limited	Tecumseh Street, Woodstock
Fairbank Foundry	52 Clarkson Ave., Toronto 10
Fergusson, J.R. Company Ltd.	1-10 Hope St. W., Dundas
Fittings Limited	135 Bruce Street, Oshawa
Galt Malleable Iron Limited	60 Kerr St., Galt
General Casting Company	315 Grey St., Brantford
Gies, Philip, Foundry Ltd.	36 Water St. S., Kitchener
Grinnell Company of Canada, Limited	2440 Dundas St. W., Toronto 2
Hamilton Foundry Co. Ltd.	33 Clinton St., Hamilton
Hastings and Sons Foundry Ltd.	10 Pine St., Stratford
Holmes Foundry Company Limited	200 Exmouth St., Sarnia

List of Establishments classified to This Industry, 1963 - Concluded

Name	Location
Ontario - Concluded:	
Hopper Foundry Limited	Washington Street, Forest
Imbleau, H. and Son	11 Bridge St., Renfrew
International Malleable Iron Co. Ltd.	200 Beverley St., Guelph
Keleher Foundry Co.	3 Victoria Rd., Guelph
Kent Foundry Ltd.	Leeson St., Chatham
Lawson, Thos. and Sons, Ltd.	160 Fleet Street, Ottawa 4
Lincoln Foundry Ltd.	65 St Paul Crescent, St. Catharines
Link-Belt Limited	13 Church St., Elmira
London Concrete Machinery Co. (Hartley Foundry Division)	247 Colborne St. W., Brantford
McCoy Foundry Co. Ltd.	258 Catherine St. N., Hamilton
Marshall, A. Foundry	940 Assumption St., Windsor
Massey-Ferguson Ltd.	Greenwich Street, Brantford
Niagara Foundry Company Ltd., The	747 Buttrey Ave., Niagara Falls
Ontario Malleable Iron Co. Ltd.	Front Street, Oshawa
Power Box Mfg. Co. Ltd.	101 Brian Dr., Agincourt
Rempel, Ernest Casting Ltd.	Grimsby
Shantz, P.E. Foundry	278 Fountain St., Preston
Smiths Falls Malleable Castings Limited	22 Bay St., Smiths Falls
Standard Foundry and Supply Co. Ltd.	840 Walker Road, Windsor
Stanton Pipes (Canada) Ltd.	Kenilworth Ave. N., Hamilton
Tomlinson Industries Ltd.	352 Front St. E., Toronto
United Steel Corporation Limited	1884 Davenport Rd., Toronto 9
Victoria Foundry Co. Ltd.	44 Booth St., Ottawa
Wabi Iron Works Limited (New Liskeard Plant)	Broadwood Avenue, New Liskeard
Wabi Iron Work Ltd. (Sudbury Plant)	220 Victoria St., Sudbury
Walker Metal Products Limited	1511 Kildare Road, Windsor
Walkerton Foundry	4 McGivern Street, Walkerton
Welland Iron and Brass Ltd.	130 Niagara St., Welland
Wells Foundry Limited	1250 Florence St., London
Woodside Machinist and Foundry Co.	173 Manitou St, Port Arthur
Wotherspoon, J.A. and Son Ltd.	148 Cross Avenue, Oakville
Manitoba:	
Anthes-Imperial Co. Limited	1350 Saskatchewan Ave., Winnipeg 21
Bell Foundry Co. Ltd.	1770 Sargent Ave., St. James 21
Dominion Foundry Co.	Union and Watt Sts., Winnipeg
Osborne Foundries Ltd.	580 Ebby St., Winnipeg
Thor Foundry Ltd.	54 Archibald St., St. Boniface
Saskatchewan:	
Blanchard Foundry Co. Ltd.	104-22nd St. W., Saskatoon
Norwood Foundry (Sask.) Ltd.	1240-2nd Ave., Regina
Alberta:	
Anthes-Imperial Ltd.	9520-125th Avenue, Edmonton
Anthes-Imperial Co. Ltd.	Ogden Road, Calgary
Norwood Foundry Co. Ltd.	9111-111th Ave., Edmonton
Sovereign Castings Ltd.	510-50th Ave S.E., Calgary
British Columbia:	
Associated Foundry Ltd.	4080 Nanaimo St., Vancouver 12
Cranbrook Foundry Company Limited	26 Cranbrook St., Cranbrook
Dobney Foundry Co. Ltd.	312-13th St., New Westminster
McLean and Powell Iron Works	398 West 2nd Ave., Vancouver 10
Mainland Foundry and Engineering Ltd.	1707 Pandora St., Vancouver 6
Milbourne Foundry	852 River Road, Lulu Island
Nye's Foundry Ltd.	503 Powell St., Vancouver 4
Peach City Foundry	176 Estabrook St., Penticton
Pioneer Foundry	707-4th Ave. North, Port Alberni
Terminal City Iron Works Ltd.	1909 Franklin St., Vancouver 6
Victoria Foundries Ltd.	622 Pembroke St., Victoria

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



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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 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".