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IRON FOUNDRIES 1964

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IRON FOUNDRIES

1964

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.

Value of shipments and other income of the Iron Foundries industry totalled \$146 million, an increase of \$20 million over 1963. This amount included shipments of iron castings and cast iron pipes and fittings and similar products valued at \$110 million, shipments of other products (secondary products) valued at \$27 million, and other revenue of \$9 million.

This industry's shipments of iron castings, cast iron pipes and fittings, and similar products represented 80 per cent of its manufacturing revenue. Secondary products shipped by this industry in 1964 included sundry machinery and parts, valves, automobile parts, jacks, chain, etc.

The cost of materials and supplies, etc., used in the production of goods of own manufacture increased by \$8 million. Cost of materials and supplies, etc., (inputs) in 1964 represented 42.8 per cent of the value of shipments of own manufacture, compared to 44 per cent in 1963.

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.
- revised figures.
- x confidential to meet secrecy requirements of the Statistics Act.

TABLE 1. Principal Statistics, 1961-64

				Man	ufacturing	activity				T	otal activ	/ity	
Year and	Estab- lish- ments		oduction a ated work		Cost of	Cost of	Value of shipments	Value		owners artners	Emp	loyees	
province	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	Value added
-	No.		'000			\$'000		1		\$'000		\$'(000
1961											O.		
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													
Totals	133	7,246	15, 326	30, 116	2,545	45,919	107, 453	60, 157	27	111	8,546	37, 409	61, 784
1963													
Newfoundland	1	х	x	х	x	х	x	x	_	_	x	x	×
Prince Edward Island	1	x	x	х	x	х	х	х	x	х	х	x	x
Nova Scotia	3	x	х	x	x	х	x	х	x	x	х	x	х
New Brunswick	2	x	1	x	х	x	х	x	-	-	х	х	х
Quebec	40	1,383	3, 193	5,522	431	13,073	23,741	10,828	13	41	1,682	8,854	11,588
Ontario	62	5,582	11,839	24,851	2,001	32,650	78, 178	44,307	10	49	8,380	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	х	х	х	х	х	x	-	-	х	х	х
Alberta	4	168	362	747	65	2,180	4,211	2,016	-	-	205	1,008	2, 058
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
1964													
Newfoundland	1	х	x	x	x	х	х	x	х	x	х	x	x
Prince Edward Island	1	х	х	х	x	х	х	x	x	x	x	x	х
Nova Scotia	4	73	138	248	13	228	677	449	2	7	93	347	493
New Brunswick	2	х	х	х	х	х	X	x	x	x	х	x	х
Quebec	41	1,372	3,242	5,781	395	15,892	30, 588	13,895	11	45	1,670	7, 271	13,971
Ontario	61	5, 898	12,663	27,868	2,096	37,341	90,773	51,230	6	20	8,751	32,745	51, 361
Manitoba	5	x	х	х	x	х	х	x	x	х	x	х	х
Saskatchewan	2	x	х	х	x	x	х	x	x	х	х	х	x
Alberta	5	199	421	919	74	2,092	5,008	2,806	_	-	240	1, 217	2, 849
British Columbia	12	350	711	1,801	65	1,570	4,989	3,380	3	17	430	2, 277	3,617
Yukon and Northwest Territories		_	_	***	_	_	_	-	-	-	_	_	_
Totals	134	8,232	17, 883	37, 992	2,747	58, 441	136, 531	74, 775	24	94	9,620	45, 661	75,856

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

				Мал	ufacturing	activity				Т	otal activ	ity	
Size group	Estab- lish- ments		duction a ated work		Cost of	Cost of	Value of shipments of goods	Value	Working and pa	owners	Empl	oyees	Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
THE CONTRACTOR OF THE CONTRACT	No.		'000			\$'000	-			\$'000		\$'0	000
1963													
Under \$10,000 \$ 10,000 to \$ 24,999 25,000 " 49,999 50,000 " 199,999 200,000 " 499,999 500,000 " 499,999 1,000,000 " 499,999 5,000,000 " 4,999,999 1,000,000 " 4,999,999 Head offices, sales offices and auxiliary units	11 7 15 20 30 18 21 5	1 22 35 124 363 981 1,094 3,390 1,870	2 44 67 248 737 2,121 2,319 7,108 4,210	1 60 94 345 1,169 3,638 4,136 15,573 9,158	4 11 30 85 262 287 1,296 696	8 57 108 318 911 3,040 4,431 20,808 21,128	20 187 275 966 2,899 9,576 12,387 49,444 39,918	10 129 168 633 1,924 6,454 7,791 27,981 18,699	3 11 6 5 2 3 -	9 29 30 24 17 19	1 26 42 150 422 1,138 1,268 3,917 2,252	1 69 117 446 1.464 4,514 5,174 18,371 11,204	10 122 189 655 2,001 6,666 7,99 29,12 19,433
Totals	131	7, 880	16,856	34, 175	2,671	50,809	115,671	63,788	30	128	9, 216	41,361	66, 20
1964													
Under \$10,000 \$ 10,000 to \$ 24,999 25,000 " 49,999 50,000 " 99,999 100,000 " 199,999 200,000 " 499,999 1,000,000 " 4,999,999 5,000,000 and over Head offices, sales offices and auxiliary units	12 5 18 21 29 16 22 7	1 17 21 131 315 1,034 974 2,779 2,960	1 34 42 262 644 2,196 2,167 6,076 6,461	1 48 71 395 1,160 3,836 4,013 13,332 15,137	4 8 30 71 268 235 1,174 957	8 59 64 442 1.052 3,102 4.012 19,897 29,805	25 185 182 1,205 3,160 9,914 11,380 48,669 61,810	17 122 112 737 2,029 6,505 7,051 27,151 31,052	3 11 2 7 - 1	9 36 7 36 - 5	1 20 25 159 375 1,182 1,145 3,266 3,447	1 56 84 514 1.480 4.642 5.028 16,123 17,732	11 12 12 74 2,08 6,67 7,21 27,85 31,02
Totals	134	Я, 232	17, 883	37,992	2,747	58, 441	136,531	74, 775	24	94	9, 620	45,661	75, 85

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

				Man	ufacturing	activity				7	otal activ	vity	
Size group	Estab- lish- ments		oduction a ated work		Cost of	Cost of	Value of shipments of goods	Value		owners	Empl	loyees	Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000			\$'000				\$'000		\$*0	000
1963							1						
Under \$10,000	8 13 12 18 19 32 13	7 47 89 276 473 1,495 954	14 91 178 549 985 3,227 1,964	14 131 239 838 1,635 5,639 4,346	1 13 23 64 118 419 330	27 132 241 771 1.366 5.587 8,009	72 360 721 2.207 4.193 16.293 17.467	42 233 456 1,397 2,753 10,407 9,268	8 11 6 4 1	24 39 28 31 5	7 58 104 324 555 1,730 1,132	14 162 296 1,062 2,042 7,027 5,372	2,53 473 1,579 2,831 10,638 9,763
1.000,000 " 4.999,999 5,000,000 and over	} 16	4,539	9,827	21,332	1,704	34,676	74,357	39, 231	-	-	5, 306	25, 384	40, 624
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
1964					1								
Under \$10,000	11 7 18 14 21 30 15 } 18	8 18 113 165 511 1,368 1,059 4,990	15 36 226 327 1.075 3.006 2.311 10.887	20 62 344 593 1,759 5.393 5,067 24,754	2 6 29 36 115 368 299 1,891	40 48 457 508 1,732 5,470 7,668 42,518	119 148 1, 131 1, 559 4, 813 15, 350 18, 777 94, 634	75 95 649 1,032 2,913 9,459 10,955 49,597	11 4 8 - 1	34 14 41 5	9 21 136 204 592 1,589 1,265 5,804	22 71 456 780 2,163 6,663 6,382 29,124	75 102 683 1,031 3,025 9,715 11,157 50,060
Totals	134	8,232	17, 883	37, 992	2,747	58, 441	136, 531	74, 775	24	94	9,620	45, 661	75, 85

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

				Man	ufacturing	activity				Т	otal activ	vity	
Size group	Estab-		oduction ated work		Cost of	Cost of	Value of shipments			owners artners	Empl	loyees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		'000			\$'000				\$'000		\$10	000
1963							-	ı					
Under \$10,000	8 11 14 15 21 32 13	7 35 101 229 490 1,449 943	14 67 202 455 1,020 3,143 1,981	14 100 270 687 1,677 5,521 4,216	1 11 25 55 121 392 349	27 i11 263 548 1,512 5,449 7,935	72 290 790 1,723 4,396 15,876 17,107	42 186 503 1,142 2,816 10,160 8,947	8 10 7 2 3	24 37 31 17 19	7 44 118 269 567 1,672 1,114	14 124 334 868 2,070 6,876 5,160	42 191 535 1,153 3,040 10,253 9,214
1,000,000 '4,999,999 5,000,000 and over	} 17	4,626	9,974	21,688	1.716	34, 965	75, 415	39,993	-	-	5, 425	25,915	41,773
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
1964													
Under \$10,000	11 7 16 16 20 30 14 }	8 18 92 186 471 1,333 961 5,163	15 36 184 369 1,000 2,924 2,112 11,242	20 62 281 656 1,620 5,263 4,347 25,743	26 25 40 107 342 309 1,915	40 46 376 589 1,622 5,345 7,328 43,092	119 148 952 1,738 4,475 15,084 16,878 97,136	75 95 552 1,129 2,740 9,303 9,346 51,535	11 4 8 - 1	34 14 41 5	9 21 109 231 542 1,538 1,143 6,027	22 71 360 675 1,989 6,472 5,453 30,418	75 102 554 1, 159 2, 818 9, 421 9, 528 52, 201
auxiliary units	_	-	_	-	-		_			_		_	_
Totals	134	8, 232	17,883	37, 992	2,747	58, 441	136, 531	74, 775	24	94	9,620	45, 661	75,856

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

				Мал	ufacturing	activity				7	Total acti	vity	
Size group	Estab-		oduction ated work		Cost of	Cost of	Value of shipments	Value		owners artners	Emp	loyees	Value
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	and supplies	of goods of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000			\$'000				\$'000		\$'0	000
1963													
Under 5 employed	14 25 43 30 7	17 171 1,104 1,769 820	34 339 2,298 3,800 1,704	48 546 3,779 7,371 3,673	6 47 267 581 332	79 622 3,195 11,363 5,871	240 1,662 9,999 26,386 14,348	154 1,018 6,642 14,611 8,925	14 14 2 -	54 67 7 —	19 211 1,276 2,049 1,040	53 712 4,707 9,023 4,798	155 1,212 6,765 14,768 9,651
500 employed and over Head offices, sales offices and auxiliary units	} 12	3, 999	8,680	18, 758	1,439	29,678	63,036	32,439	_	-	4,621	22,069	33,650
Totals	131	7.880	16, 856	34, 175	2, 671	50, 809	115, 671	63, 788	30	128	9,216	41.361	66, 202
1964	131	1,004	10, 630	34,113	2,011	30,000	113,611	93, 100	30	146	8,216	41,301	00, 200
Under 5 employed	21 24 39 32 6 8 4	30 182 1,008 1,936 715 2,161 2,200	59 364 2,110 4,314 1,551 4,606 4,879	92 665 3,672 8,613 3,423 10,324 11,204	12 51 243 628 270 922 621	176 761 3, 908 13, 633 5, 697 16, 300 17, 967	453 2,040 11,036 33,184 14,878 35,009 39,931	269 1,251 6,959 18,057 8,859 16,127 21,254	16 6 2 - - -	58 27 9	36 229 1,188 2,267 905 2,454 2,561	112 899 4,567 10,596 4,413 11,991 13,082	269 1, 283 7, 046 18, 173 9, 578 18, 307 21, 197
auxiliary units	_	_	-	-	_	-		-	-	-	_	400	_
Totals	134	8, 232	17,883	37, 992	2,747	58, 441	136, 531	74,775	24	94	9,620	45, 661	75,656

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

				Man	ufacturing	activity				1	Total acti	vity	
Type of organization	Estab-		oduction lated wor		Cost of	Cost of	Value of shipments	**-1		owners	Empl	oyees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		,000			\$'000				\$'000		\$10	000
1963												1115	1
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, 389
Co-operatives	-	-	-	-	-	_	_	-	_	_	-	-	_
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
1964													
Individual ownerships	17	89	178	259	16	266	716	437	17	68	95	275	444
Partnerships	4	3	6	9	2	35	87	49	- 7	26	3	9	49
Incorporated companies	113	8, 140	17,699	37,724	2,729	58, 139	135,729	74, 289	_	_	9, 522	45, 377	75, 364
Co-operatives	_		_	_	-	_	_	_	_	-	_		_
Head offices, sales offices and auxiliary units		_	_	_	_	_	_	_		_		_	_
Totals	134	8,232	17, 883	37, 992	2,747	58, 441	136, 531	74, 775	24	94	9, 620	45, 661	75, 856

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

Maler Life was a long of the state of	Manufact activi		Non-manufa activiti		Tota activi	
	1963	1964	1963	1964	1963	1964
			\$'00	0		
Output				1	1	
1. Shipments and other revenue	115,671	136,531	9,913	9, 408	125, 584	145, 939
Inventories - Goods of own manufacture:						
Add closing - Goods in process	2,760	2, 439	•••		2, 760	2, 439
Finished goods	9,457	7,877	***	4 4 6	9,457	7,877
Deduct opening - Goods in process	1,762	2, 336	• • •		1,762	2, 336
Finished goods	8,857	8,548	• • •		8,857	8,548
2. Net inventory change	1,598	(568)		***	1, 598	(568
3. Gross output (1+2)	117, 269	135, 963	9,913	9,408	127, 182	145, 371
Input					17.54	
4. Purchases of goods not of own manufacture		7.4.4	7,448	7, 802	7, 448	7, 802
Inventories - Goods not of own manufacture:					-1.9	
Add opening			1,755	1, 976	1,755	1,976
Deduct closing		***	2, 040	1.792	2.040	1,792
5. Cost of goods sold (not of own manufacture)		***	7, 163	7, 986	7, 163	7,986
6. Materials, supplies, etc.	50,809	58, 441	336	340	51, 145	58,781
7. Fuel and electricity	2,671	2,747			2,671	2,747
8. Gross input (5+6+7)	53, 480	61, 188	7, 499	8, 326	60, 979	69,514
Value added (3 - 8)	63, 788	74, 775	2, 414	1,081	66, 202	75, 856

TABLE 8. Employment and Payroll, 1963 and 1964

					Emplo:	yees						Salarie	es and wa	ges	
Year and		Product related			Adm		Sal		To	t a l	Producti	on and	Admin-	Sales	
province	Manufa	cturing	01	her	and o		distrit		10	tal	related w	orkers	istra- tive and	and distri-	Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other	office	bution	
					numb	er						-	\$'000		
1963															-
lewfoundland	X	_	_	-	X	X	X	X	X	X	X	_	X	X	X
rince Edward Island	X	-	_	-	X	X	X	X	X	X	X	_	X	X	X
lova Scotia	x	-	_		X	Х	ж	X	X	X	X	-	x	x	X
lew Brunswick	X	-	_	-	X	X	х	Х	X	X	X	-	X	X	X
uebec	1,380	3	3	-	234	51	11	-	1,628	54	5, 522	11	1,286	35	6,85
Ontario	5,470	112	2	_	557	189	46	4	6,075	305	24,851	16	4,221	322	29, 410
lanitoba	257	3	-	-	42	13	16	4	315	20	1,077	_	307	96	1, 48
askatchewan	X	_	-	-	х	X	X	X	х	X	х	_	X	X	Х
lberta	168	_	-	-	26	6	5	-	199	6	747	_	219	43	1,00
British Columbia	319	_	-	_	51	18	3	-	373	18	1,436	-	371	17	1,82
ukon and Northwest Terri- tories	-	-	-	-	-	-	_	_	-	-	-	-	_	_	a ()=
Totals	7, 762	118	5	16 -	944	291	87	9	8, 798	418	34, 175	27	6,616	543	41, 36
1964															
ewfoundland	x	_		_	x	×	x	x	X	x	x	_	X	x	x
rince Edward Island	x	_	_	-	x	x	x	x	x	x	x	-	x	х	X
	72	1	_	_	7	5	8	_	87	6	248	_	62	38	34
lova Scotia	X		_		x	x	x	x	x	x	x	-	x	x	x
Quebec	1,384	8	_	_	231	56	11	_	1,606	64	5,781	-	1, 448	42	7, 27
Intario	5, 795	103	3	1	592	202	52	3	5,795	103	27,888	17	4, 496	344	32,74
	X	_	_		x	x	x	x	x	x	x	_	x	x	x
fanitoba	x	_	_	_	x	x	x	x	х	x	x	_	х	ж	х
Saskatchewan	199	_	_	_	31	7	3	_	233	7	919	_	282	17	1,21
Alberta	350				47	20	13	_	410	20	1,801	_	388	108	2, 27
British Columbia	330				21	20	20								
lukon and Northwest Terri- tories		-	-	_	-	-	-	-	-	-	-	-	-		-
Totals	8, 120	112	3	1	964	312	100	8	9, 187	433	37,992	17	7,019	633	45, 66

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

Marsh	196	3	1964	4
Month	Male	Female	Male	Female
		numbe	r	
Establishments reporting monthly detail (large establishments only):		1		
January	6,772	108	7,497	113
February	6, 631	119	7,490	110
March	6,969	112	7,504	109
April	7 105	117	7, 495	114
May	2 100	124	7,524	110
June	m 000	118	7,616	11
July	6 079	122	7,454	113
August	7 202	126	7,372	113
September	E 201	110	7,544	10
	7 207	115	7,726	10
October	7 415	110	8,071	103
November December	7 795	110	8,184	10
Averages	7 171	117	7,793	- 11
stablishments reporting annual averages (small establishments only)	591	1	327	
Average for all establishments	0.000	118	8, 120	11

TABLE 10. Inventories, 1964

		Manufa	cturing		Non- manufacturing	
Province	Materials, supplies, etc.	Goods in process	Finished goods of own manufacture	Total	Products or materials purchased for resale	Total inventories
			book value	\$'000		
Opening:		x		x	x	
Newfoundland			×	x	x	Ŷ
Prince Edward Island		10	86	143	62	205
Nova Scotia				143	x	1
New Brunswick		X	X	3,307	513	3,820
Quebec		26	2, 190		459	11, 422
Ontario		2, 273	5, 157	10,963		11, 344
Manitoba		x	x	X	X	* *
Saskatchewan		X	X	X	X	754
Alberta		5	349	737	338	780
British Columbia	105	17	320	442	336	100
Yukon and Northwest Territories	.] – –	T	_		_	
Totals	5, 520	2, 336	8, 548	18, 404	1, 976	18, 381
Closing:						
Newfoundland	. х	x	x	Х	х	x
Prince Edward Island		X	X	X	X	X con
Nova Scotia	. 55	13	97	165	70	235
New Brunswick	. x	x	x	x	x	X
Quebec	1,363	28	1, 784	3, 175	330	3,505
Ontario	3,883	2, 364	4,961	11, 209	399	11,608
Manitoba	x	x	x	x	x	х
Saskatchewan	x	x	x	x	x	х х
Alberta	290	1	318	609	13	622
British Columbia	113	25	336	475	341	816
Yukon and Northwest Territories			-	_	-	
Totals		2, 439	7, 877	16, 427	1,792	18, 220

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

	1963		1964	
Description	Quantity	Cost	Quantity	Cost
		\$'000		\$'000
l. Large establishments reporting commodity detail:				
Bituminous coal:				
(a) From Canadian mineston	2,667	52	505	10
(b) Imported	27,359	417	28, 113	446
Sub-bituminous coal (from Alberta mines only)	8		10	
Anthracite coal	2,554	33	76	1
Lignite coal	-		-	-
Coke	3,691	117	2,274	70
Gasoline (including gasoline used in cars and trucks)	1. 375, 411	142	390,655	151
Fuel oil including kerosene or coal oil	3,029,344	398	3, 154, 702	405
Wood cord	795	6	1,414	11
Gas:				
(a) Liquefied petroleum gases	1. 105, 564	21	110,699	28
(b) Other manufactured gas	-	-	-	_
(c) Natural gas	449,819	331	614, 045	396
Other fuel	***	1	* * *	2
Electricity purchased kwh.	87, 383, 743	979	103, 554, 339	1,083
Steam purchased		35		20
2. Small establishments not reporting commodity detail:			2.40	
Estimate for fuel and electricity	* * *	140		125
3. All establishments:				
Total fuel and electricity used		2, 671		2, 747

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

Description		1963		1964	
		Quantity	Cost	Quantity	Cost
			\$'000		\$'000
Materials used:					
Castings (rough and semi-finished received from foundry): iron (gray and malleable)	ton	902 2,576	329 829	1, 15 i 2, 587	35'
			029	2, 361	804
Pig iron, all grades	**	164,785	9,970	184,062	11,009
Steel (except alloy steel): Bars	**	2,041	328	2,842	46'
Plates (3/16 in, and thicker)		5, 676	I, 120	8, 217	1,61
Plain Galvanized		216 449	40 90	621 275	108
Tinplate	4.0	7 2	2	139	2
Structural shapes, unfabricated (channels, angles, etc.) Wire	**	3, 810 86	758 17	6, 293	1, 264
Alloy steel in all forms:			3.77		
A]]oy steel (other than stainless and tool steel)		* * *	36 82 70		111
Scrap iron and steel;					
Purchased Own make	ton	326, 514 23, 012	11,991	376, 612 9, 782	13,710
Pipe and fittings, iron and steel			117		133
Other iron and steel		***	430	D p q	501
Ferro-alloys	100	4 0 0	1,363		1,629
Not - terrous metals in all forms:					
Aleminum: Castings	pound	11, 484	11	39,907	30
Sheet	49	12, 962 245, 160	7 68	14, 554	10
Brass and bronze Copper	4.1	2, 203, 086 240, 524	703	2, 382, 857	824
	44				112
Lead		32,966	4	47,558	
Nickel	4.4	i, 139, 769	971	1, 535, 789	1, 29!
Tin	4.6	3, 439	5	2, 616	1
Zinc	4.6	891,103	107	853, 161	112
Babbitt metal and solders	4.6	5, 306	3	6,071	4
Other non-ferrous metal		* * *	199	B * V	20
Other materials and supplies:	711.4				
Paints and varnishes Foundry coke (used in cupola)	ton	84, 428	3, 111	97.832	3,71
Foundry sands (including core and moulding sands) Plumbago and graphite	pound	139, 192 789, 671	1,138	164,589	1,28
Lumber		1,494	156	1, 468	173
Firedrick and cupola blocks	ton	18, 992	359 161	9, 153	40:
Core oil All other materials and components used ⁶	imp. gai.	168, 435	9, 389	143,722	9.63
THE THE PROPERTY OF THE PROPERTY AND A STATE OF THE PROPERTY O		* 4 9	3, 303	• • •	3, 03
Containers and other packaging materials and supplies used		* * *	256	•••	32
Operating, maintenance and repair supplies used (excluding fuel)			5, 060	0 0 0	6, 39
. Amount paid out to others for work done on materials owned by establishments		* * •	979		1, 12
Totals			50, 809		58, 44

¹ No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$1,832,103 in 1963 and \$1,779,167 in 1964.

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

No. of the last of	1963		1964	
Description		Value	Quantity	Value
	tons	\$'000	tons	\$'000
. Products:				
Commercial castings (sold as such):				
Gray iron	145, 248	36,066	165, 216	42, 927 10, 445
Malleable iron	21,356	8, 297	24, 891	10,445
Non-ferrous castings:	293	445	244	374
Aluminum	336	563	419	658
Cast iron products (including grinding balls, ingot moulds, hydrants, etc. but excluding	000	000	110	000
cast iron pipe and fittings)		14,801		17,794
Cast iron pipe and fittings	151,856	28, 451	198,094	33,757
Malleable iron pipe fittings, all sizes	6, 786	5,185	4,855	3,960
Machinery and parts	0.0.4	8,957		10,513
Plumbers brass fittings		323	+ 4 4	506
Valves (iron, steel, brass and bronze)		1,424	2 2 4	1,526
All other products		11,845		11,884
2. Amount received in payment for work done on materials and products owned by others		25		898
Less adjustment for value of saies taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above		(150)		(100)
which could not be deducted from individual commodity items described above	***	(157)		(120)
Net adjustment for establishments receiving progress payments		(554)		(1,408)
Total adjusted value of shipments and work done		115, 671		136, 531

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

	1963		1964	
Description	Quantity Value Quantity tons \$'000 tons	Value		
	tons	\$'000	tons	\$'000
Cast iron soil pipe: Under 6' inside diameter 6'' inside diameter and over Cast iron soil pipe fittings, all sizes. Cast iron water pipe and fittings, all sizes Cast iron pipe fittings, other Malleable iron pipe fittings, all sizes	34,479 9,566 21,293 105,278 6,379 6,786	5,602 1,795 5,172 17,352 3,060 5,185	34,602 12,207 23,178 146,067 7,987 4,855	5, 246 2, 153 5, 336 21, 774 3, 537 3, 960
Totals	183,781	38, 166	228, 896	42,

TABLE 15. Total Production of Iron Castings and Materials Charged to Cupolas, 1960-64

Description	1960	1961	1962	1963	1964
Pig iron used¹net ton	261,000	249,000	279, 000	321,000	384,000
\$'000	15,291	15,788	16, 855	20,618	24,015
Scrap iron and steel used: ² net ton Purchased \$'000 Own make net ton \$'000	490,000 18,701 103,000 4,048	517,000 19,406 116,000	512,000 19,087 139,000	608,000 21,651 215,000	701,000 25,161 223,000
Coke used in cupolas or melting furnaces (purchased only) ³ net ton \$*000	141,000	129,000	127,000	152,000	172,000
	4,625	4,494	4,527	5,442	6,364
Iron castings made (whether for sale or own use): Gray and white iron castings* (except pipe and fittings)	525,000	475,000	487,000	555,000	637,000
	28,000	28,000	32,000	38,000	45,000
	185,000	188,000	207,000	193,000	221,000
	5,000	5,000	6,000	7,000	6,000
Total castings	743,000	696,000	732,000	793,000	909, 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.

¹ 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.

¹ 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, 1964

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

Name	Location	Location			
iewfoundland:					
United Nail and Foundry Co. Ltd.	133 Hamilton Ave., St. John's				
rince Edward Island:					
Parker Foundry	Georgetown				
ova Scotia:					
Amherst Foundry Dartmouth Iron Foundry					
Hillis and Sons Ltd.	160 Kempt Road, Halifax				
New Glasgow Foundry	391 Glasgow St., New Glasgow				
ew Brunswick:					
Courtenay Iron and Brass Foundry Ltd.	169 Rothesay Ave., Saint John				
McLennan Engineering Works Ltd.					
uebec:					
Bergeron, M. Lucien A. Canada Iron Foundries Limited					
Fonderie Binette Inc.	492 Provencher, Laurierville				
Fonderie Portin Enr.	Waterloo				
Fonderie Gosselin Inc. Fonderie Napierville Ltée	449 St-Jacques, Napierville				
Fonderie Savoie Fonderie St-Hyacinthe Ltd.	Ville-Ste-Marie				
Fonderie St-Louis Eng. General Foundry Co.	St-Louis de Bonsecours				
Grand'Mère Foundry Ltd. H.O.P. Inc.	800 C.N.R. Avenue, Grand'Mère				
Compagnie Dussauit et Lamoureau	7750 Brouillette St., St. Hyacinthe				
La Fonderie Bégin et Gingras Enrg. La Fonderie Beloeil Ltée	49, rue St-Georges, Beioeii Station				
La Fonderie Canadienne Enrg. La Fonderie de Lauzon Ltée	50, rue Carrier, Lauzon				
La Fonderie Laperie Ltée La Fonderie Magog Ltd.	601 Champlain St., Magog				
La Fonderie Paquette Inc. La Fonderie Ste-Anastasie Inc.	165 St-Paul, St-Jean Ste-Anastasie				
La Fonderie Ste-Croix Liée La Fonderie St-Romuald Enrg.	111, rue Principale, Ste-Croix				
La Fonderie de Sully La Fonderie de Thetford	Sully				
Laroche, Zephenn, et Frères Lièe	Pont-Rouge				
Lavoie, Euchariste, Fils Enrg. Lefebyre, Jean Charles (Fonderie St-Placide)	Saint-Placide				
Légaré Foundry (1961) Ltd. Mace Foundry Co.	1450 Gladstone Ave., Côte St-Paul				
Montreal Foundry Limited Monsarrat Machinery and Foundries Ltd.					
Paul Bros, Foundry Limited Pont Viau Foundry Ltd.					
Quebec Iron Foundries Ltd. Quebec Iron Foundries Ltd.	Murdock Avenue, Noranda				
St. Jérôme Industries Ltd. Shawinigan Foundries Limited	Castonguay St. West, St-Jérôme				
Union Foundry Limited, The Viau, M.I., et Fils Ltée	431 St-Luc, Granby				
year, mil., et pits nice	100 Or o ocean, be octome				
ntario:					
Alloy Foundry Co. Ltd.	Mill Street, Merrickville				
Auto Specialties Mfg, Co. (Canada) Ltd. Bell City Foundry (Brantford) Ltd.	614 Tecumseh Rd. E., Windsor				
Benn Iron Foundry Ltd. Bibby Foundry Ltd.	Mason Street, Wallaceburg				
Bowmanville Foundry Company Limited	Scugog Street, Bowmanville				
Brown Foundry Ltd. Canada Iron Foundries Ltd. (Foundry Div.)	171 Eastern Ave., Toronto				
Canada Iron Foundries Ltd. (Foundry Div.) Canada Iron Foundries Ltd. (Foundry Div.)	Stuart and Caroline Sts., Hamilton				
Canada Iron Foundries Ltd. (Pipe Div.) Cobalt Foundry Limited	324 Cherry Street, Toronto Ferland Ave., Cobalt				
Cornwall Brass and Iron Foundries Ltd.	Boundary Road, Cornwall				
Crowe Foundry Limited	95 Sheffleld Street, Hespeier				

Name	Location	
Ontario - Concluded:		
Date Industries Ltd. Davidson Foundry Designed Precision Castings Ltd.	Swan Street, Ayr 16-18 Hamilton Ave., Ottawa	
Domestic Foundry	75 Eastern Ave., Brampton 1595 Crawford Ave., Windsor	
Eureka Foundry and Manufacturing Co. Limited Fergusson, J.R., Company Ltd.	Tecumseh Street, Woodstock 1-10 Hope St. W., Dundas	
Fittings Limited Galt Malleable Iron Limited	135 Bruce Street, Oshawa 60 Kerr St., Galt	
Gies, Philip, Foundry Ltd. Grinnell Company of Canada, Limited	36 Water St. S., Kitchener 2440 Dundas St. W., Toronto	
Hamilton Foundry Co. Ltd.	33 Clinton St., Hamilton	
Hastings and Sons Foundry Ltd. Holmes Foundry Company Limited	10 Pine St., Stratford 200 Exmouth St., Sarnia	
Hopper Foundry Limited Imbleau, H., and Son Ltd.	Washington Street, Forest 11 Bridge St., Renfrew	
International Malleable Iron Co. Ltd. Keleher Foundry Co.	200 Beverley St., Guelph 3 Victoria Rd., Guelph	
Kent Foundry Ltd.	Leeson St., Chatham	
Lawson, Thos., and Sons Ltd. Lincoln Foundry Ltd.	160 Fleet Street, Ottawa 65 St Paul Crescent, St. Catharines	
Link-Belt Limited McCoy Foundry Co, Ltd.	13 Church St., Elmira 258 Catherine St. N., Hamilton	
McLean Bessemer Industries Ltd. Marshall, A. Foundry	247 Colborne St. W., Brantford 940 Assumption St., Windsor	
Massey-Ferguson Industries Ltd.	Greenwich Street, Brantford	
Niagara Foundry Company Ltd., The Ontario Malleable Iron Co. Ltd.	747 Buttrey Ave., Niagara Falls Front Street, Oshawa	
Orangeville Foundry Power Box Mfg. Co. Ltd.	Orangeville 101 Brian Drive, Agincourt	
RTA Industries Ltd.	Grimsby 278 Fountain St., Preston	
Shantz, P.E., Foundry Ltd. Snowdon's General Casting Co. Ltd.	315 Grey St., Brantford	
Standard Foundry and Supply Co. Ltd. Stanton Pipes Ltd.	840 Walker Road, Windsor Kenilworth Ave. N., Hamilton	
Toronto Foundry Ltd.	352 Front St. E., Toronto 1884 Davenport Rd., Toronto	
Victoria Foundry Co. Ltd. Wabi Iron Works Limited	44 Booth St., Ottawa Broadwood Avenue, New Liskeard	
Wabi Iron Work Ltd.	220 Victoria St., Sudbury	
Walker Metal Products Limited Walkerton Foundry	1511 Kildare Road, Windsor 4 McGivern Street, Walkerton	
Welland Iron and Brass Ltd, Wells Foundry Limited	130 Niagara St., Welland 1250 Florence St., London	
Woodside Machinist and Foundry Co. Ltd. Wotherspoon, J.A., and Son Ltd.	173 Manitou St., Port Arthur 148 Cross Avenue, Oakville	
Hamistabout, 1111, and bott 1111	ate divide laverage contract	
Manitoha:		
Anthes-Imperial Limited Bell Foundry Co. Ltd.	1350 Saskatchewan Ave., Winnipeg 1770 Sargent Ave., St. James	
Osborne Foundries Ltd. Peterson Foundry and Machine Works	580 Ebby St., Winnipeg 132 Aberdeen Ave., Winnipeg	
Thor Foundry Ltd.	54 Archibald St., St. Boniface	
Saskatchewan:	4	
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 Ltd. General Foundry Works Ltd.	Ogden Road, Calgary 10103—95th St., Edmonton	
Norwood Foundry Co. Ltd. Sovereign Castings Ltd.	9111-111th Ave., Edmonton 510-50th Ave. S.E., Calgary	
Sovereign Castings and	22 20th M. O. 2211 0 6419	
British Columbia:		
Alberni Foundry Ltd. Associated Foundry Ltd. Cranbrook Foundry Company Limited Dobney Foundry Co. Ltd. McLean and Powell fron Works Ltd. Mainland Foundry and Engineering Ltd. Milbourne Foundry Nye's Foundry Ltd. Peach City Foundry	1707 Pandora St., Vancouver 852 River Road, Lulu Island 503 Powell St., Vancouver 176 Estabrook St., Penticton	
Stone Industries Lid. Terminal City Iron Works Ltd. Victoria Foundries Ltd.	1031 Quebec St., New Westminster 1909 Franklin St., Vancouver 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 56 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 176 separate industries. They cannot all be published separately by province, however, because of the confidential nature of the data in certain provinces.

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

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

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

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

Establishment

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

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

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

Each establishment is required to report on all the activities carried out within it's accounting boundaries (except income from investments such as rent, interest and dividends) and data on the different activities (manufacturing, trading in goods not of own manufacture, construction by own labour force, revenue from services, etc.) are requested to be reported separately. It should be noted that the statistics for separate activities are not completely consistent since some respondents cannot distinguish, in their records, materials, shipments and inventories relating solely to their own manufacturing activities. For example, inventory of goods purchased for re-sale may not be distinguishable from inventory of own manufactured goods. Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level and for studies or statistical measures requiring accurate coordinated data, the "total" statistics should be used.

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

Head Offices and Auxiliary Units

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

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

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

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

Employees

(a) Production and related workers — Manufacturing activities

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

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

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

(c) Administrative and office employees

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

(d) Sales and distribution workers

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

(e) Total Employees

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

Working Owners or Partners

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

Salaries and Wages

Salaries and wages refer to gross earnings of employees before deductions for income tax and employees contributions to social services such as sickness, accident and unemployment insurance, pensions, etc. They include all salaries, wages, bonuses, profits shared with employees, the value of room and board where provided, commissions (paid to regular employees only) as well as any other allowance forming part of the worker's earnings. Payments for over-time are included. Figures on salaries and wages refer to the calendar year.

Fuel and Electricity

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

Materials and Supplies

(a) Manufacturing activities

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

(b) Non-manufacturing activities

1. Purchases for re-sale as such

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

2. Other materials and supplies used

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

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

Shipments

(a) General

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

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

(b) Shipments of goods of own manufacture

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

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

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

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

(c) Shipments of goods not of own manufacture

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

(d) Other revenue

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

Inventories

(a) Manufacturing activities

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

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

(b) Non-manufacturing activities

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

Value Added

(a) By manufacturing activities

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

(b) By non-manufacturing activities

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

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

(c) By Total activities

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

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