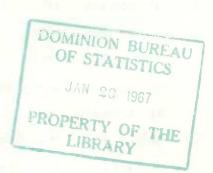
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MISCELLANEOUS METAL FABRICATING INDUSTRIES

1964

ANNUAL CENSUS
OF MANUFACTURES



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PUBLICATIONS

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MISCELLANEOUS METAL FABRICATING INDUSTRIES

1964

For statistical purposes the industry titled Miscellaneous Metal Fabricating Industries in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing metal products not elsewhere classified, such as weather stripping, guns, collapsible tubes, machinery fittings, plumber's goods (including enamelled plumbing fixtures), safes and vaults, and forgings such as chains, (except tire chains, see Industry No. 305 — Wire and Wire Products Manufacturers), anchors and axles. Also included are establishments primarily engaged in fabricating bars and rods for reinforcing concrete.

An analysis of the principal statistics for this industry indicates that the following changes occurred between 1963 and 1964. The value of shipments of products of own manufacture increased by 15.5 per cent, the value of production increased by 14.8 per cent and the value of materials used in products of own manufacture increased by 18 per cent. The ratio of cost of materials to the value of production was 45.7 per cent for 1963 and 47 per cent for 1964. The ratio of value added to value of production was 52.5 for 1963 and 51 per cent for 1964.

The increase in the cost of materials used appears to be partially due to an increase in the unit costs of the more important materials used.

Because of the nature of the industry it is not possible to state the degree of specialization in the industry but some of the products included in the "all other" category were decorative metal and wire goods, fittings, expansion joints, automotive accessories, flexible tubing, home workshop tools, heating equipment, hydraulic equipment, steel strapping and decorative trim.

There were 41 additional establishments included in this industry in 1964.

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				Т	otal activ	ity	
Year and	Estab- lish-		oduction a ated work		Cost of	Cost of	Value of shipments	Value		owners artners	Empi	loyees	Value
province	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	and supplies	of goods of own manu- facture	added	Number	With- drawais	Number	Salaries and wages	Value added
	No.		'000			\$'000				\$'000	1	\$'0	000
1961								1			1		
Totals	331	10,978	22,680	43,993	4,006	95, 269	218, 745	118,023	94	388	15, 249	66,442	122,839
1962													
Totals	338	11, 781	24,413	48,550	4, 389	108, 320	243, 538	133,675	88	362	16, 283	72,377	137, 479
1963													
Newfoundland	1	7											
Prince Edward Island	_				240	4 000	10.010	5 000			004	2.441	5 405
Nova Scotia	2	645	1,418	2, 626	348	4,830	10,612	5,223	_	_	804	3, 441	5, 495
New Brunswick	2												
Quebec	56	1.999	4, 394	8,567	582	14, 421	37, 032	22, 520	12	43	2,773	13, 189	23,774
Ontarlo	216	8,708	18,324	37,380	3, 336	91,118	193,755	100, 498	57	258	11,564	53,877	104, 160
Manitoba	12	428	894	1,812	113	6,842	12,162	6,868	11	32	598	2, 752	7,008
Saskatchewan	6	77	172	338	27	992	1,619	660	х	x	110	549	1,091
Alberta	11	143	286	548	28	931	2,141	1,216	x	х	180	701	1,297
British Columbia	37	469	918	1,941	136	3,899	7,821	4,211	х	х	598	2,701	4, 429
Yukon and Northwest Territories	-	There	_	_	dhai	_	_	_	_	-		_	_
Totals	343	12,469	26, 407	53, 212	4, 569	123, 032	265, 142	141, 196	89	372	16, 627	77, 209	147, 255
1964													
		3		}									
Newfoundland	2												e de la constante de la consta
Prince Edward Island	_	706	1, 592	3,032	429	6,799	13, 327	6,189	-	-	905	3,946	6, 326
Nova Scotia	2								77				
New Brunswick	2	1						00.000		-		44.700	24 124
Quebec	67	2, 263	4,970	10,094	632	16,822	40,472	22,978	24	93	3,095	14,799	24, 194
Ontario	241	9,384	19,900	42.261	3,629	107,961	225,813		62	318	12, 468	60,923	121,432
Manitoba	15	491	1,007	2, 020	137	8, 030	14, 118	5, 193	10	34	663	3,001	5,581
Saskatchewan	5	73	146	285	20	383	963	583	X	X	95	489	899
Alberta	13	160	322	610	32	1,141	2,620	1,430		X	201	799	1, 483
British Columbia	37	512	1,013	2, 181	164	4, 323	8,782	4,452	7	27	661	3, 084	4,669
Yukon and Northwest Territories		-		-				_	_		-	_	
Totals	384	13,589	28,950	60,482	5,044	145, 460	306, 995	158, 130	108	494	18,088	87, 041	164, 584

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

				Man	ufacturing	activity				T	otal activ	ity	
Size group	Estab- lish- ments		oduction a ated work		Cost of	Cost of	Value of shipments of goods	Value	Working and pa		Empl	oyees	Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000			\$'000				\$'000		\$'(000
1963	100				}	1							
Under \$10,000	14 30 34 42 59 55 43 57 9	6 38 83 203 529 909 1,320 5,725 3,656	11 77 168 407 1,095 1,860 2,839 12,282 7,667	11 112 270 740 1,987 3,346 5,286 23,883 17,577	2 5 27 66 165 229 515 2,162 1,398	28 183 457 1,182 3,596 8,113 15,595 65,169 28,709	87 527 1, 199 2, 917 8, 524 17, 370 30, 731 125, 849 77, 937	51 340 715 1,715 4,802 9,281 14,829 59,585 49,878	11 24 21 22 8 1	22 92 93 98 37 6 25	7 49 116 276 719 1,210 1,771 7,715 4,764	144 148 372 1,073 2,923 5,249 8,041 35,022 24,368	35! 757 1,942 5,098
Totals	343	12,469	26, 407	53, 212	4,569	123, 032	265, 142	141, 196	89	372	16, 627	77, 209	147, 25
1964													
Under \$10,000	16 33 43 48 51 76 40 67	3 38 94 224 450 1,175 1,129 6,594 3,882	6 76 188 451 912 2,401 2,407 14,036 8,472	7 123 307 847 1,790 4,583 4,410 28,530 19,865	13 28 65 143 334 298 2,619 1,540	36 189 571 1,393 2,955 11,434 13,769 75,976 39,136	110 585 1,511 3,444 7,309 23,438 26,729 147,304 95,666	72 406 955 2,060 4,227 12,022 12,854 71,206 54,329	14 300 29 24 6 3 - 2	33 90 138 142 33 28 - 30	53 123 316 601 1,590 1,499 8,827 5,074	14 171 413 1,250 2,537 7,165 6,942 41,242 27,306	7: 41: 96: 2,30: 4,33: 13,36: 13,40: 74,54: 55,184
Totals	384	13.589	28.950	60. 482	5,044	145, 460	306, 095		108	494	18. 088	87, 041	164.58

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

				Mar	ufacturing	activity				7	otal acti	vity	
Size group	Estab- lish- ments		oduction s ated work		Cost of fuel and	Cost of	Value of shipments of goods	Value	Working owners and partners		Employees		Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		'000			\$'000				\$'000		\$10	000
1963						1		I					
Under \$10,000 \$ 10,000 to \$ 24,999 25,000 " 49,999 50,000 " 199,999 100,000 " 199,999 500,000 " 499,999 1,000,000 " 4,999,999 5,000,000 and over Head offices, sales offices and auxiliary units	25 47 43 56 49 56 36 27 4	20 93 173 461 713 1.514 2,760 4,368 2,367	39 192 352 946 1,454 3,242 5,956 9,218 5.007	49 300 622 1.759 2,491 6,216 11.202 18.895 11,677	3 27 56 158 176 479 1,168 1,444 1,058	120 501 1,581 4,073 5,930 20,487 33,182 37,736 19,423	270 1,305 3,123 8,226 12,754 37,806 59,581 92,112 49,965	140 792 1,502 4,038 6,729 17,077 26,200 54,823 29,895	17 34 28 7 1 2	41 151 120 28 6 25 —	26 126 240 641 942 2,025 3,678 6,149 2,800	65 421 897 2,589 3,850 9,435 16,941 28,482 14,529	169 894 1,628 4,333 7,383 18,096 27,416 57,079 30,258
Totals	343	12, 469	26, 407	53.212	4.569	123, 032	265, 142	141. 196	89	372	16,627	77, 209	147, 255
		,					,						
1964													
Under \$10,000	25 52 57 60 57 62 33 34 4	8 94 204 477 885 1,649 2,432 5,412 2,428	16 188 415 977 1,810 3,445 5,069 11,739 5,289	21 318 730 1,914 3,384 6,642 10,290 24,369 12,814	6 29 54 163 251 491 978 1,934 1,138	85 550 1,656 4,698 8,078 22,898 25,966 59,425 22,103	225 1,443 3,662 9,288 16,333 41,747 50,802 126,161 56,434	133 886 2,043 4,454 8,306 18,767 23,954 66,229 33,357	21 42 33 9 1 - 2	51 154 193 56 10 30	13 121 285 698 1,147 2,262 3,238 7,415 2,909	38 416 1,064 3,062 4,882 10,479 15,221 36,056 15,824	2,154
Totals	384	13, 569	28,950	60,482	5,044	145, 460	306, 095	158 130	108	494	18,088	87,041	164.58

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-		duction a ated work		Cost of	Cost of	Value of shipments		Working and pa		Empi	ioyees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		'000			\$'000				\$*000	-0.0	\$10	00
1963		100											
Under \$10,000 \$ 10,000 to \$ 24,999 25,000 " 49,999 50,000 " 199,999 100,000 " 199,999 200,000 " 499,999 1,000,000 " 4,999,999 1,000,000 " 4,999,999 Head offices, sales offices and	22 46 44 56 45 62 36 28 4	14 81 170 445 656 1,566 2,717 4,453 2,367	27 165 345 920 1,336 3,341 5,853 9,410 5,007	33 250 593 1,720 2,304 6,366 10,955 19,315 11,677	2 26 55 156 161 487 1, 145 1, 481 1, 058	74 479 1,577 4,425 4,718 21,350 32,361 38,624 19,423	196 1, 236 3, 110 8, 487 10, 620 39, 539 57, 979 94, 010 49, 965	114 738 1, 484 3, 971 5, 819 17, 932 25, 432 55, 812 29, 895	17 32 30 7 1 2	411 143 129 28 8 25	177 110 234 608 865 2, 110 3, 512 6, 371 2, 800	40 350 830 2, 459 3, 482 9, 790 15, 694 30, 036 14, 529	115 765 1, 531 4, 110 6, 292 19, 039 26, 472 58, 674 30, 258
auxiliary units	343	12,469	26, 407	53, 212	4, 569	123, 032	265, 142	141, 196	89	372	16, 627	77, 209	147, 255
1964 Under \$10,000 \$ 10,000 to \$ 24,999 25,000 " 49,999 50,000 " 99,999 200,000 " 199,999 200,000 " 499,999 500,000 " 999,999 500,000 " 999,999 500,000 " 4,999,999 5,000,000 and over	25 53 52 52 56 64 33 4	8 97 171 387 951 1,616 2,519 5,412 2,428	16 195 346 791 1,947 3,378 5,248 11,739 5,289	21 336 613 1,539 3,652 6,507 10,631 24,369 12,814	6 30 46 140 274 469 1,007 1,934	85 601 1,449 3,240 8,695 23,036 26,827 59,425 22,103	225 1, 520 3, 250 7, 026 17, 292 41, 945 52, 243 126, 161 56, 434	133 912 1, 636 3, 694 8, 488 18, 870 24, 611 66, 229 33, 357	21 42 30 10 3	51 154 176 55 28 30	13 126 235 522 1, 289 2, 185 3, 394 7, 415 2, 909	439 871	135 918 1, 842 3, 783 9, 471 19, 770 25, 911 69, 071 33, 684
Head offices, sales offices and auxiliary units													
Totals	384	13, 589	28, 950	60,482	5, 044	145,460	306, 095	158, 130	108	494	18, 088	87, 041	164,584

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

				Mar	nufacturing	activity				1	Total acti	vity	
Size group	Estab-		oduction lated work		Cost of	Cost of	Value of shipments	W also		owners	Emp	loyees	
	ments	Number	Man- hours paid	Wages	fuel and eiec- tricity	materials and supplies	of goods of own manu- facture	V alue added	Number	With- drawals	Number	Salaries and wages	Value added
1963	No.		*000			\$'000				\$'000		\$*0	000
Under 5 employed	83 99 86 29 26 16 4	118 627 1, 794 1, 490 2, 573 3, 500 2, 367	240 1, 291 3, 750 3, 263 5, 524 7, 332 5, 007	386 2,359 6,983 6,117 10,764 14,926 11,677	45 239 551 477 1, 116 1, 083 1, 058	1, 207 7, 396 22, 593 23, 900 25, 737 22, 775 19, 423	2, 833 15, 477 42, 418 42, 133 52, 493 59, 823 49, 985	1, 593 8, 029 19, 492 18, 338 26, 257 37, 591 29, 895	52 31 6 — —	199 133 39 - - -	166 873 2, 397 2, 006 3, 391 4, 994 2, 800	582 3,589 10,529 9,308 15,053 23,619 14,529	1,645 8,498 20,622 19,324 26,790 40,118 30,258
Totals	343	12, 469	26, 407	53, 212	4, 569	123, 032	265, 142	141, 196	89	372	16, 627	77, 209	147, 255
1964													
Under 5 employed	102 93 109 35 22 18 5	139 565 2, 107 1, 845 2, 199 3, 901 2, 833	279 1, 163 4, 347 3, 933 4, 754 8, 318 6, 156	476 2, 274 8, 278 8, 014 9, 868 16, 945 14, 626	58 185 643 639 893 1, 379 1, 247	1, 292 7, 182 27, 226 27, 084 28, 279 29, 977 24, 419	3, 256 14, 566 50, 496 50, 142 53, 953 70, 648 83, 036	1, 968 7, 402 23, 375 22, 873 25, 291 39, 571 37, 650	82 19 7 - - - -	339 97 58 - - -	190 794 2, 842 2, 494 2, 961 5, 352 3, 455	690 3, 517 12, 742 11, 993 14, 090 25, 428 18, 582	1,995 7,943 24,706 24,094 26,294 41,634 38,003
Totals	384	13, 589	28, 950	60, 482	5, 044	145, 460	306, 095	158, 130	108	494	18,088	87, 041	164, 584

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

				Man	ufacturing	activity				7	rotal acti	vity	
Type of organization	Estab-		oduction lated wor		Cost of	Cost of	Value of shipments	***		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		1		\$'000	· · · · · · · · · · · · · · · · · · ·	\$'(000
1963		11.6											
Individual ownerships	44	128	257	406	28	899	1,974	1, 058	48	194	137	427	1,057
Partnerships	18	84	199	301	38	992	1,896	871	41	178	96	377	891
Incorporated companies	281	12, 257	25, 951	52, 505	4, 504	121, 142	261, 272	139, 267	* * *		16, 394	76,405	145, 307
Co-operatives	-	_	_	_	_	_	-	_			_	_	
Head offices, sales offices and auxiliary units				• • •		4 4 4	* * *		4 4 +			2 * *	4
Totals	343	12,469	26, 407	53, 212	4,569	123, 032	265, 142	141, 196	89	372	16,627	77, 209	147,255
1964													
Individual ownerships	49	122	244	463	37	868	2,090	1, 207	53	240	129	492	1, 207
Partnerships	27	188	252	463	56	1,500	2,819	1,381	55	254	131	542	1, 456
Incorporated companies)				-								
Co-operatives	308	13, 349	28, 453	59, 556	4, 951	143,093	301, 185	155, 542		* * 8	17, 828	86,007	161,922
Head offices, sales offices and auxiliary units							0.4.4						
Totals	384	13, 589	28, 950	60, 482	5, 044	145, 460	306, 095	158, 130	108	494	18, 088	87,041	164, 584

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

	Manufact activi		Non-manufa activiti		Tota activi	
	1963	1964	1963	1964	1963	1964
			\$'000)		
Output						
1. Shipments and other revenue	265, 142	306, 095	26, 005	32, 392	291, 147	338, 487
Inventories - Goods of own manufacture:						
A Add closing - Goods in process	19, 328	20,322		* . *	19, 328	20,322
Finished goods	18,940	22, 706	* * *		18,940	22,706
Deduct opening - Goods in process	16, 341	19, 205			16, 341	19, 205
Finished goods	18, 271	21, 284	440		18. 271	21, 284
. Net inventory change	3,656	2,539			3, 656	2, 539
Gross output (1 + 2)	268, 798	308, 634	26, 005	32, 392	294, 803	341, 026
Input						
. Purchases of goods not of own manufacture	* * *		19, 227	25, 038	19, 227	25, 038
Inventories - Goods not of own manufacture:						
Add opening	***	***	4, 184	4, 529	4, 184	4,529
Deduct closing	***		4, 648	5, 176	4, 648	5, 176
. Cost of goods sold (not of own manufacture)	***	• • •	18, 763	24, 391	18,763	24, 391
. Materials, supplies, etc.	123,032	145, 460	1, 182	1,547	124, 214	147,007
Fuel and electricity	4, 569	5, 044		***	4, 569	5, 044
. Gross input (5 + 6 + 7)	127, 601	150, 504	19, 945	25, 938	147, 546	176, 443
Value added (3 - 8)	141, 196	158, 130	6, 060	6, 454	147, 255	164, 584

TABLE 8, Employment and Payroll, 1963 and 1964

Year and province	Manufa	Product related			1										
and	Manufa		workers		Adm	inis-		les nd	To	tal	Producti		Admin-	Sales	
		cturing	0	ther		office		bution			related w	vorkers	istra- tive and	and distri-	Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other	office	bution	
					numl	er							\$'000		
1963	1														
Newfoundland															
Nova Scotia	626	19	_	-	97	30	20	12	743	61	2,626	attac	613	202	3,44
New Brunswick															
	1.832	167	_	1	454	174	110	35	2, 396	377	8, 567	1	3,749	872	13, 18
Quebec	7, 675	1.033	1	î	1, 568	654	536	96	9, 780	1.784	37, 380	4	12, 681	3.812	53, 87
Manitoba	422	6			127	29	14	-	563	35	1,812	_	850	90	2,75
Saskatchewan	77	_	_		22	8	3		102	8	338		196	15	54
Alberta	143		1	_	30	6	_		174	6	548	4	149	_	70
British Columbia	463	6	_	_	92	33	4		559	39	1,941	_	738	23	2,70
Yukon and Northwest Terri-	100						~				.,		100		.,
tories	_	_	-	_	_	_	_	_	_	_	-	_	_	-	
Totals	11, 238	1, 231	2	2	2, 390	934	687	143	14, 317	2,310	53, 212	9	18, 976	5, 012	77, 20
1964															
Newfoundland	1														
Prince Edward Island	692	14	_	_	115	48	21	15	828	77	3,032		738	176	3,94
Nova Scotia					- 10	20	2.		0.00		0,002		100	210	0,01
New Brunswick]														
Quebec	2,098	165	_	_	515	177	104	36	2,717	378	10,094	_	3,820	885	14,79
Ontarto	8, 272	1, 112	2		1,659	734	584	105	10,517	1,951	42, 261	7	14, 387	4, 268	60,92
Manitoba	485	6		-	130	29	13	-	628	35	2, 020	-	887	94	3,00
Saskatchewan	73	-	_	-	15	6	1	_	89	6	285	-	196	8	48
Alberta	160	-	_	_	31	6	4	_	195	6	610	-	173	16	79
British Columbia	504	8	10	_	100	36	3	-	617	44	2, 181	48	831	24	3, 08
Yukon and Northwest Terri- tories					-										
Totals	12, 284	1, 305	12		2, 565	1,036	730	156	15. 591	2, 497	60, 482	55	21,032	5, 472	87.04

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

M - A	196	33	196	4
Month	Male	Female	Male	Female
		numb	er	
Establishments reporting monthly detail (large establishments only):		1		
January	9, 568	1, 147	10, 561	1, 215
February	9,676	1, 145	10,630	1, 242
March	9.640	1, 156	11, 104	1, 222
April	9,957	1, 148	11, 115	1, 219
May	10,080	1, 165	11,362	1, 206
June	10, 381	1, 177	11, 448	1, 209
July	10,346	1, 228	11, 191	1, 159
August		1, 181	11, 238	1, 225
September	10, 556	1, 200	11, 131	1, 224
October	10.371	1,171	11, t54	1, 216
November	10, 316	1, 144	11, 123	1, 223
December	10, 287	1, 119	11,088	1, 197
Averages	10, 145	1, 161	11, 128	1, 212
annual averages (small establishments only)	1,093	70	1, 156	93
Average for all establishments	11,238	1, 231	12, 284	1, 305

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 inventerias
			book value	\$'000		
Opening:						
Newfoundland				1		
Prince Edward Island	1,324	1, 172	676	3, 172	169	3, 341
Nova Scotia						
New Brunswick	}					
Quebec	2, 253	4,575	3, 957	10, 785	1, 141	11,926
Ontario	17,086	10, 142	15,679	42,907	2, 972	45, 879
Manitoba	1, 963	2, 789	152	4, 904	52	4, 956
Saskatchewan	35	3	41	78	132	211
Alberta	99	64	114	277	9	286
British Columbia	841	461	666	1, 968	53	2,021
Yukon and Northwest Territories	-	_	-	-		_
Totals	23, 602	19, 205	21,284	64, 091	4, 529	68, 626
Closing:						
Newfoundland						
Prince Edward Island	1,756	1, 288	650	3, 694	100	2 22
Nova Scotia	1, 136	1, 200	650	3,094	188	3,882
New Brunswick)				-/-	
Quebec	3, 130	4,938	3,555	11,623	1, 149	12, 77
Ontario	19,057	11,706	17, 217	47, 980	3,611	51, 591
Manitoba	2,649	1,876	307	4,832	62	4, 894
Saskatchewan	32	4	43	79	106	185
Alberta	150	74	88	312	9	301
British Columbia	1,041	438	846	2, 325	51	2, 37
Yukon and Northwest Territories	-		-	_	_	WELL :
Totals	27, 816	20, 322	22,706	70, 644	5, 176	76, 02

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

		1963	3	1964	
Description	611	Quantity	Cost	Quantity	Cost
			\$'000		\$'000
1. Large establishments reporting commodity detail:					
Bituminous coal:					
(a) From Canadian mines	ton	3, 313	54	3, 168	40
(b) Imported	26	14, 380	171	15, 320	180
Sub-bituminous coal (from Alberta mines only)	4.6		-	-	1000
Anthracite coal	44	-	_	-	_
Lignite coal	4.4	-	-	_	
Coke	4.6	205	10	-	_
Gasoline (including gasoline used in cars and trucks)	1	536, 851	202	666, 653	259
Fuel oil including kerosene or coal oil	44	6, 902, 170	1,021	10, 068, 480	1, 121
Wood		72	1	20	
Gas:					
(a) Liquefied petroleum gases	Imp. gal.	99,913	28	69,576	2:
(b) Other manufactured gas	M cu. ft.	1,084	1		_
(c) Natural gas		1, 395, 047	1,015	1,700,678	1, 203
Other fuel					2
Electricity purchased	kwh.	147, 732, 084	1,697	156, 651, 741	1,82
Steam purchased		4 4 4	67		6
2. Small establishments not reporting commodity detail:					
Estimate for fuel and electricity		* * *	304		3.2
3. All establishments:					
Total fuel and electricity used			4, 569	* * *	5,04

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

Description		1963	1963		
Description	- N	Quantity	Cost	Quantity	Cost
			\$'000		\$'000
. Materiais used:					
Castings (rough and semi-finished received from foundry): Iron (gray and malicable) Steel		7.730 5.618	2,314 2,816	7,730 7,901	2,42 3,33
Iron: Pig iron	14	8,598	660	11, 165	82
Steel:	14	175 770	DD 645	227 222	00.00
Bars and rods Pipe and fittings		175,778	22,645 6,058	227, 203	28,96
Piates			2,045	21,836	4,0
Black Galvanized	44	11,887 2,753	2,297 525	8,499 3,216	1,3
Strip Structural shapes	11	3,067 7,235	1, 285	3.951	2, 1:
Wire		6,442	1,118	6.723	1, 2
Stainless: Billets, bars and rods Other		6 6 0	486 4,304		4:
Other alloy and tool steel (including carbon, alloy and high speed steels): Billets, bars and rods			1,616		
Other		* * *	791	* * *	1,7
Scrap iron and steel: Purchased Own make (tonnage only)		33,413 24,261	1, 207	38,516 24,472	1,2
Other Iron and steel		* * *	2,502		2,0
Ferro-alloys		6 6 A	110		1
New-ferrous metals:					
Alaminum: Castings	lb.	1,385,911	875	3,709,214	1,7
Other forms	44	1,017,288 6,221,560	2,517	983,319	2, 1
Brass and bronze Copper:		50,811,154	17, 219	54, 867, 155	20,0
Sheet		928,390 380,648	451 184	699.234	3
Other forms	44	1,887,318	902	401,223 2,242,016	1,
Nickel		4,581,401 390,403	522 455	4,839,991 146,590	(
Tin Zinc		202,714	237 553	236,802 2,401,568	3
Babbitt metals and solders Other non-ferrous metals	4.4	195, 246	133	190,070	
Paints, oils and varnishes			379		6
Foundry coke	ton	8,301	302	8,668	3
Foundry sands	44	28,506	371	30,782	
Plumbago and graphite	lb.	880,600	36	694,110	
Lumber	M bd. ft.	1,586	151	1,386	
Firebrick and cupola blocks		4 4 0	133	* * *	1
Fireclay	ton	3,075	89	2,895	
Core oil	Imp. gal.	34,818	51	37,538	
All other materials and components used1	n 0		30,084	* * *	35,8
Containers and other packaging materials and supplies used		44+	1,925		2,5
Operating, maintenance and repair supplies used (excluding fuel)			7,277		8, 1
Answer! paid out to others for work done on materials owned by establishments	***	***	4,103	***	5,2
Totale			122 022		1.45
Totals		***	123, 032	+ n n	145,46

^{&#}x27;No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$8,787,066 in 1963 and \$9,720,675 in 1964.

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

Decembris	1963		1964	
Description	Quantity	Value	Quantity	Value
		\$'000		\$'000
Products:				
Agricultural implements		912		828
Castings, forgings and related products (including plumbers' brass and valves);				
Cast iron plumbing fixtures		760	***	1
Gas stops and gas curb stops	0 220	1,064	0.150	1.873
Hydrants No. Meters, gas "	8, 329 103, 150	1,152 3,678	9, 152	3,892
Plumbers' brass fittings (excluding solder fittings - See below)	100, 100	18, 264	110,000	23,373
Valves (excluding penstock valves)		29,030		29, 945
Grey iron castings, including alloy and malleable		3,877		4,763
	• • • •		***	
Non-ferrous castings, n.e.s.	* 1 *	2,490	0 > 1	3,625
Forgings, n.e.s.:				
Steel		26,721		31, 120
Other forgings (non-ferrous, stainless steel, etc.) Castings, forgings and related products, other		2,594	0 0 0	3, 486 19, 489
	* * * * *	10, 121	•••	19, 409
Architectural and ornemental metal work:		416		1,223
Aluminium Brass and bronze	* * *	10	P = +	58
Iron and steel		1,169		1.950
Stainless steel		141	4.14	162
Fabricated bar joistston	70	27	2	2
Fabricated concrete reinforcing bar	76,697	11,892	92,916	14, 191
Piping, fabricated		5,290		4, 271
Platework, fabricated, n.e.s.		1,024		1,017
Tanks	• • •	3,598	• • •	5,927
Fabricated and structural products, other		10,038		8,687
Hardware:				
Automatic screw machine products	1	234	.,.	357
Products other than automatic screw machine (bolts, nuts, rivets, screws)		5,109 1,818		5,861 2,067
	1		***	
Heating equipment		1,628		3,295
Machinery		6,751		8, 160
Miscellaneous products:				
Chains		2,552		2,752
Collapsible tubes, metal		4,087	* * *	4,807
Electro-plating racks Fire extinguishers, hand-type	* * *	2,846	***	308
Lightning rods and supplies		254		282
Pipe fittings		7.682	4 * 4	9,040
Metal sponges or pads, not impregnated		821	4 * *	921
Powder metallurgy products		924		1.245
Sanitary ware		28,896	***	21,633
Solder-type fittings	• • •	10,763		10,987
Spinnings, all metals		1,364	* • •	1,160
All other products		48.740		70,485
Amount received in payment for work done on materials and products owned by others		1, 121		2, 284
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above		(2, 972)		(2,690)
Net adjustment for establishments receiving progress payments		476	,	(6)
Total adjusted value of shipments and work done		265, 142		306, 095

¹ Included in "Castings, forgings and related products, other".
² Included in "All other products".

TABLE 14. Shipments of Selected Goods of Own Manufacture - All Industries

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

A. Plumbers' Brass Fittings, 1963 and 1964

	Value		
Product	1963	1964	
	\$"(000	
Bath waste and overflows	1, 120	1, 394	
Faucets, sink, lavatory and bath, and their combinations	5,807	7,054	
Plumbing fixture trim	2, 174	2, 775	
tops	1,396	1,731	
raps	1, 165	1,482	
ub-fillers, showers and combinations of same	2, 164	2, 904	
Collet tank fittings	1,667	2, 145	
ther brass plumbing fixtures	3, 440	4,001	
Totals	18,933	23, 486	
older type fittings	11,004	12, 466	

B. Hand-type Fire Extinguishers, 1955-64

Year	Value	Year	Value
2001	\$'000	A Cust	\$'000
955	2,890	1960	2, 876
956	2,912	1961	2, 782
957	2,649	1962	2, 767
958	2, 386	1963	2.846
959	2, 234	1964	3, 258

C. Hydrants, 1960-64

	Year	Number	Value
II III			\$,000
960		11, 298	1,913
961		14, 478	2, 446
962		13, 967	2, 516
963		13, 143	2, 349
964		14,912	2, 814

D. Valves, 1963 and 1964

This care is a second of the s	Value		
Type	1963	1964	
	\$10	000	
on body (gate, globe, check, etc.)	11,016	12,189	
eel, including alloy steel (gate, globe, check, etc.)	10, 152	10,755	
ass or bronze (gate, globe, check, etc.)	7.849	8, 465	
utomatic regulating valves	1,535	1,952	
adiator valves (all types)	317	541	
orporation brass (main and curb stops, etc.)	2, 388	1,642	
alves, other	2,084	2,504	

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 industries)

Name	Location	
ewfoundland;		
McNamara Industries Ltd.		
Pratt, J.C. Industries Ltd.	Box 910, St. John's Box 1268, St. John's	
	Dox 1200, St. Joint S	
ova Scotia;		
	What was a second	
Dominion Steel & Coal Corp. Ltd., Trenton Steel Division Maritime Steel & Foundries, Limited	Trenton New Glasgow	
	are diagon	
ew Brunswick:		
	The second of th	
McAvity, Div. Crane Canada Ltd	Box 700, Saint John St. Stephen	
the contract of the contract o	Maria Service Principle	
uébec:		
Acton Nipple Inc.	Actonvale	
Alloy Manufacturing Ltd.	Ville St-Pierre, (Dominion Industrial Bldg	.)
Aluminum Casting	219 B rue Charron, Ville Lemoyne	•/
American Metals Spinning Ltd, Archambault, Ferronnerie Inc.	9947 Paris Ave., Montreal N. Farnham	
Argo Co., The	716 St. James St. W. Montreal I	
Band T I Corp. Bergeron, Vincent, Fonderie	3600 Industrial Blvd., Montreal North	
Booth-Coulter Coppersmithing Co. Ltd.	997 Smith St., Montreal	
Brass & Bronze Mig. Co. Ltd.	6725 Park Ave., Montreal	
Canadian Bronze Co. Limited Canadian "Cinch" Anchoring Systems Ltd.	999 DeLorimier Ave., Montreal 2095 Madison Ave., Montreal	
Canadian Mayer Sealing Devices Reg'd.	10775 Racette Ave., Montreal North	
Canadian Safe & Vault	1450 Provincial St. Quebec 8	
rane Canada Ltd.	2140 Belgrave Ave., Montreal Box 2700 rue St-Laurent, Montreal 9	
roname-MacDonald Limited	Waterloo	
Trown Welding Co. Suthbert, W.R., & Co. Ltd.	Box 113, St-Henri St., Montreal 20	
estoberts Inc.	2399 rue Royale, Trois-Rivières	
ominion Hat Block & Die Co.	7060 Alexandra St., Montreal 10	
cominion Joints cominion Welding Engineering Co. Ltd.		
omtar Chemicals Ltd.		
omtar Chemicals Ltd.		
Economic Weatherstrip Erectofast Seaffold Ltée	8695 - 10th Ave., Ville St-Michel 1420, boul. St-Elzéar-ouest, Cté de Chome	
Fayle Coppersmith Works Ltd.	910 Smith St., Montreal	.02
Farris Industries Canada Ltd. Federal Weatherstrip Inc.		r, Mantical
reeman Corporation		
Gaulin, Athanase		
I.D. Engineering Reg'd. Golden Gate Mfg. Co. Ltd.		
uard-X Reg'd	5875 Papineau Ave., Montreal	
ard & Metal Works	5780 Boyer St., Montreal 5765 Paré St., Montreal	
dustries "Armer" Industries	352, rue de l'Inspecteur, Montreal I	
dustries Couture Ltée		
enkins Bros. Ltd. ustin Coffre-Fort Ltée	976 St. Paul St. W., Montreal	
idde, Walter & Co. of Canada Ltd.	154 Oneida Dr., Pointe Claire	
a Compagnie Morin & Fils Ltée	60 - 4th Ave., Montmagny	
ake shore Novelties Reg'd.		
iberty Mfg. Co.		
'Islet Metal Inc. arois, Aurel		
athieu, Renald		
etallogy Inc.	10770 Jean-Meunier St., Montreal 39	
odern Metal Spinning Reg'd.		
ontebelio Metal Ltd.	Montebello	
Junico Ltd.		
ational Safe Workuellette, O.J. Inc.		
ark Lane Products Reg'd.	144 Meunier St., Pont-Viau	
eacock Bros. Ltd. iper, Hiram L., Co. Ltd., The	260 St. Patrick St., Ville LaSalle 555 St-Rémi St., Montreal	
ockwell Mfg. Co. of Canada Ltd.	Box 978, Montreal	
oy, Irenée, Ltée	Thetford Mines	
afety Equipment Co. Ltdecurity Safes Ltd		
pinning Craft Co. Ltd	2126 de La Salle St., Montreal	
ubebend Welding Co.	2917 Sherbrooke St. East, Montreal 4	
niversa Ltd. ille Emard Metal Spinning Reg'd.		
and a second sec		
aria.		
tario:	2391 Mountain Rd., Niagara Fails	
A-1 Steel Works		

Name	Location
Ontario - Continued:	
Albrecht Bros. Reinforcing Steel Service	970 Guelph St., Kitchener
Aljon Products Ltd.	424 Birchmount Rd., Scarborough
Allied Heat Treat Ltd.	368 Munster Ave., Toronto
Allsteel Rolled Products Ltd. Alward, R., & Son	100 Canadian Rd., Scarborough Straffordville
American Standard Prod. (Canada) Ltd.	1201 Dupont St., Toronto
Anglo-Dutch Industries Ltd.	1659 Bayview Ave., Toronto 17
Apex Bolt Products of Canada Ltd.	28 Milford Ave., Toronto 15
Archibald, A.C. & Sons Armson Iron Works Ltd.	Holland St., Dundalk 1558 Howard St., Windsor
Automated Bldg. Comp'nts Inc.	50 Howden Rd., Scarborough
B & L Metal Products	Elmira
B & W Heat Treating Ltd.	70 Borden Ave., Kitchener
Bernstein, K. Best Weather Strip Co. Ltd.	21 Kensington Ave., Toronto R.R. 7 Brantford
Bex Engineering Ltd.	40 Huxley Rd., Weston
Bouling Metals	562 Parkdale Ave., Hamilton
Brass Craft Canada Ltd.	650 Riverside Drive, Windsor 2562 Stanfield Rd., Cooksville
Brighton Valve Company Limited	Brighton
Brooks Mfg. Co. Ltd.	366 Rogers Rd., Toronto
Bryan Chrome Products Ltd.	180 Milvan Dr., Weston
Budd Machine Tool Co, Ltd. C. And R. Metal Products Ltd.	825 Tecumseh Rd. W., Windsor 1141 Kelly Lake Rd., Sudbury
Calumet & Hecla (Canadian) Ltd.	134 Nelson St. W., Brampton
Canada Block Co. Ltd., The	21 Riordon St., St. Catharines
Canada Foundries and Forgings Ltd.	Empire St., Welland
Canada Foundries and Forgings Ltd	Major St., Welland Brantford
Canadian Advance Car Mover Co. Ltd.	145 Ross St., Welland
Canadian Arsenals Ltd.	Box 717, Ottawa 4
Canadian Brass Ltd.	Galt
Canadian Coupling & Fittings Ltd. Canadian Funeral Supplies Ltd.	Simcoe 11 Galewood Dr., Weston
Canadian General Filters Ltd.	39 Crockford Blvd., Scarborough
Canadian Ground-Support Ltd.	2291 Lasalle Blvd. Sudbury
Canadian Heat Treaters Ltd.	300 NewKirk Rd., Richmond Hill
Canadian Meter Co, Ltd. Canadian Name Plate Co, Ltd.	Milton Midland
Canadian Pipe & Steel Fabricators	160 Duchess St., Toronto
Canadian Steel Improvement	289 Homer Ave., Toronto
Canadian Vac-Hyd, Processing Ltd.	1371 Speers Rd., Oakville
Canadian Westinghouse Co. Ltd	Port Hope Box 820, Brantford
Cello Products Ltd.	Galt
Chamberlin Metal Weatherstrip Co. Ltd., The	11 Centre St., London
Chemical Vailey Fabricating Co. Ltd.	Box 760, Samia
Chesley — Sames Ltd. Chubb Mosler & Taylor Safes Ltd.	263 Queen St. E., Brampton
Colbey Custom Fabricating Co. Ltd.	147 Hartzell Rd., St. Catharines
Columbus McKinnon Ltd.	Ontario St., St. Catharines
Commercial Heat Treating Ltd.	81 Milvan Dr., Weston
Con-A-Vap Limited	Box 133, Toronto 17 44 Coronet Rd., Toronto
Coupco Limited	Valley Farm Rd., Pickering
Crane Canada Ltd.	Port Hope
Crane Canada Ltd.	Stratford
Crane Canada Ltd. Crawford Fittings (Canada) Ltd.	1757 Burlington St. E., Hamilton 605 Kent Ave., Niagara Falls
Dart Union Co. of Canada Ltd.	8 Vansco Rd., Toronto
Delhi Ornamentai Iron Works	256 James St. S., Delhi
DeZurik of Canada Ltd.	Box 1300, Galt
Diamond Tool & Horse Shoe Co. Diebold of Canada Ltd.	580 Front St. W., Toronto 258 Wallace Ave., Toronto
Dodd & Struthers Ltd.	1721 Moy Ave., Windsor
Dominion Brake Shoe Co. Ltd.	256 Portage Road, Niagara Falls
Dominion Forge Co.	2480 Seminole St., Windsor
Dominion Lightning Rod Co. Ltd. Dominion Sink Ltd.	Dundas Petrolia
Dominion Welding Engineering Co. Ltd.	2805 Dufferin St., Toronto
Domus Engineering Co.	330 Geary Ave., Toronto
East York Metal Co. Ltd.	51 Comstock Rd., Scarborough Speers Rd., & Third Line Oakville
Elkel Metal Products	50 Main St. N., Newmarket
Emberley Enterprises Ltd.	57 Raleigh Ave., Scarborough
Emco Ltd.	1108 Dundas St., London
Express Metal Spinning Co.	6 Phoebe., Toronto
Fairbank Foundry Falk Corp. of Canada Ltd., The	52 Ciarkson Ave., Toronto 45 Disco Rd., Rexdale
Ferguson Tools Ltd.	8 Ripley Ave., Toronto
Ferrari Omamental Co.	8 Ripley Ave., Toronto 10 Hafis, Rd., Toronto
Flag Fire Equipment Ltd.	1680 Kildare Rd., Windsor
Flaherty Mfg. Co. Ltd. Foley Foundry & Machine Co. Ltd.	76-78 Wellington St.N., Hamilton 25 Wallbridge Rd., Belleville
Franklin Metal Products	202 Pelham Rd., St. Catharines
Fyr Fyter Co. of Canada Ltd.	19 Victoria Crescent, Bramalea
Galt Brass Co. Ltd.	Galt (P.O. Box 37)
Galt British Forge Ltd.	204 Beveriey St., Galt 370 Olivewood Road, Toronto
General Die & Machine Co. Ltd.	Box 455, Welland
General Fire Extinguisher Corp. (Canada) Ltd., The	955 Huron Line, Windsor
General Impact Extrusion Mfg. Ltd.	191 Evans Ave., Toronto

List of Establishments classified to This Industry, 1964 - Continued

Ontario - Continued: Gibbert Steel Ltd. Gittsch, Fitz W. & Sons (Canada) Ltd. Oxtvidge Markham Rd. RR No. 2, Scarborough Torat Lakes Steel Products Ltd. Great Lakes Steel Products Ltd. Brockville Welland Hard Don Industries Ltd. Great Lakes Steel Products Ltd. Great Lakes Steel Products Ltd. Brockville Hard Drop Forge Co. Ltd. Boy 38, Welland Hard Brod Ward St. F. Tronono Whealts Hard Drop Forge Co. Ltd. Hard Brop Forge Co. Ltd. Hard Drop Forge Co. Ltd. Hard Drop Forge Co		Location	Name
Giltsch, Fritz W. & Sons (Canada) Ltd. Gottweis, W. H.A. Great Lakes Forgings Ltd. Great Lakes Steel Products Ltd. H. & S. Commercial Heat Treat Guardian Mg. Ltd. H. & S. Commercial Heat Treat Harjohn Industries Ltd. Harjohn Industries Ltd. Harjohn Forge Co. Ltd. Herde Steel Co. High Precision Brass Ltd. High Prec			Ontario - Continued:
Gottwels, W.H.A. Great Lakes Foreings Ltd. Great Cakes Foreings Ltd. Great Cakes Steel Products Ltd. Great Cakes		Britannia Rd., Malton	Gilbert Steel Ltd.
Great Lakes Forgings Ltd. Great Lakes Steel Products Ltd. Great Cakes Steel Products Ltd. H. & S. Commercial Heat Treat Harj Onlin Industries Ltd. Hard St. Amailton Hard Drop Forge Co. Ltd. High Precision Brass Ltd. High Great Galler Cakes Brass Ltd. High Precision B		Uxbridge	Glitsch, Frltz W. & Sons (Canada) Ltd.
Great Lakes Steel Products Ltd. Grigory Fasteriers Ltd. Grinnell Co. of Canada Ltd. Grantham Ave., (Box 505) St. Catharines Harj ohn Industries Ltd. Harj ohn Industries Ltd. Hart, J. & Son Ltd. Hart, J. & Son Ltd. Hart, Will Ltd. Hart, Will Ltd. Hart, Will Ltd. Hore Progrey Co. Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., (Box 505) St. Catharines Harth, J. & Son Ltd. Hore Grantham Ave., Toronto Harth, J. & Son Ltd. Hore Grantham Ave., Toronto Harth, J. & Son Ltd. Hore Grantham Ave., Toronto Harth, J. & Son Harth, J.			Gottweis, W.H.A.
Gregory Fastemers Ltd.			
Guardian Mig. Ltd. H. & S. Commercial Heat Treat Harj on Industries Ltd. Harly on Industries Ltd. Harly J. & Son Ltd. Hose Couplings Ltd. Hose Ltd. Hose Couplings Ltd. Hose Couplings Ltd. Hose Ltd. Hose Couplings Ltd. Hose Markey Ltd. Hose Couplings Ltd. Hose Couplings Ltd. Hose Couplings Ltd. Hose Couplings Ltd. Hose Markey Ltd. Hose Couplings Ltd. Hose Markey Ltd. Hose Harbey Ltd. Hose Markey Ltd. Hose Ltd. Hose Harby Ltd. Hose Ltd. Hose Harby Ltd. Hose Harby Ltd. Hose Harby Harby Ltd. Hose Harby Ltd. Hose Ltd. Hose Harby Harby Ltd. Hose Ltd. Hose Ltd. Hose Harby Harby Ltd. Hose Lt		25 Kelfield St., Rexdale	Gregory Fasterners Ltd.
H. & S. Commercial Heat Treat Harj ohn Industries Ltd. Harj ohn Industries Ltd. Hard ohn Industries Ltd. High Precision Brass Ltd. High Retail Products Ltd. Hose Couplings Ltd.		427 Lakeshore Blvd. W., Toronto	Grinnell Co. of Canada Ltd.
Harris J. & Son Ltd.		Welland	H & C Commercial Heat Treat
Hartis, J. & Son Ltd. Hart, will Ltd. Hart, will Ltd. Hart, will Ltd. Hart Drop Forge Co. Ltd. Haun Drop Forge Co. Ltd. Haun Drop Forge Co. Ltd. Haun Drop Forge Co. Ltd. Have Drop Forge Co. Ltd. His Metal Froducts Ltd. His Metal Froducts Ltd. Hose Couplings Ltd. Hose Hose Hose Hose Hose Hose Hose Hose	S	Grantham Ave., (Box 505) St. Catharines	Hari ohn Industries Ltd.
Haun Drop Forge Co. Ltd. Hercules Shaft Spilec Co. High Precision Brass Ltd. Hike Metal Products Ltd. Hose Couplings Ltd. Hose Ltd. Hose Couplings Ltd. Hose Hose Hose Ltd. Hose Hose Hose Ltd. Hose Hose Hose Ltd. Hose Hose Ltd. Hose Hose Ltd. Hose		171 Brant St., Hamilton	Harris, J. & Son Ltd.
Hercules Shaft Spilce Co. 167 Queen St., Stratford High Precision Brass Ltd. 181 Gertard St. E., Toronto High Precision Brass Ltd. 181 Gertard St. E., Toronto Hose Couplings Ltd. 20			
High Precision Brass Ltd. Hisk Metal Products Ltd. Hose Couplings Ltd. Hose Coupling Mig. Co. Ltd. Hose Coupling Mig. Co. Ltd. Hose Coupling Mig. Ltd. Jamaica Mig. (Canada) Ltd. Hose Coupling Mig. Ltd. Josam Products Ltd. Look Coupling Ave. N. Retdale At South Look Coupling Ave. N. Retdale At Look Coupling Ave. N. Retdale Ave. N. Look Coupling Ave. N. Retdale Ave			Haun Drop Forge Co. Ltd
Hike Metal Products Ltd.		181 Gerrard St. E., Toronto	High Precision Brass Ltd.
Imperial Rack & Mfg. Co. Ltd.		Wheatley	Hike Metai Products Ltd.
Industrial Fabricators Ltd.			
Ithuca Gun Co. (Canada) Ltd.			Imperial Rack & Mig. Co. Ltd.
Jamacla Mfg. (Canada) Co. Ltd. Prescott 298 Kipling Ave. S., Toronto Josam Products Ltd. 298 Kipling Ave. S., Toronto Josam Products Ltd. 130 Bermondsey Rd., Toronto Judd. John Co. Brock Rd. N., Pickering K.S.M. of Canada Limited 1090 Kipling Ave. N., Rexdale Kaldoor Mfg. & Sales Co. 43 Boutton Ave., Toronto 8 Kee Klamp North America Ltd. 43 Gurney Crescent, Toronto Keystone Valve (Canada) Ltd. 92 Oxford St., Toronto Killan Mfg. Ltd. 43 Gurney Crescent, Toronto Killian Mfg. Ltd. 52 Oxford St., Toronto 52 Oxford St., Toron		Park St. E., Dunville	Ithaca Gun Co. (Canada) Ltd.
Josam Products Ltd.		Prescott	Jamaica Mfg. (Canada) Co. Ltd.
Judd, John Co. Brock Rd. N., Pickering 1090 Kipling Ave. N., Pickering K.S.M. of Canada Limited 1090 Kipling Ave. N., Rexdale Kaldoor Mig. & Sales Co. 43 Boulton Ave., Toronto 8 Kee Klamp North America Ltd. 43 Gurney Crescent, Toronto 1090 Kipling Ave. Northook 1090 Keystone Valve (Canada) Ltd. 1090 Kitichen Installations Ltd. 1090 Kitich		298 Kipling Ave. S., Toronto	Jensen Fitting Mfg, Ltd.
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Metal Bendings & Furniture Ltd. 43 Colville Rd., Toronto Metal Closures (Canada) Ltd. 1190 Birchmount Rd., Scarborough Midland Equipment Co. 251 Raleigh Ave., Scarborough Millard & Lumb Ltd. Box 87, Kingston Millman, Messes, W.H. & Sons 36 Brydon Rd., Rexdale Misco Fabricators of Canada Ltd. Welland Modern Handling Methods Ltd. Dundas Moeller Mfg. Co. (Canada) Ltd. Box 215, Niagara Falls Moore Air Equipment Ltd. 325 Hale St., London Morrison, James Brass Mfg. Co. Ltd. 276 King St. W., Toronto Mount Dennis Welding Limited 1001 Weston Rd., Toronto Myatt, E., Co. Ltd. 21 Carlaw Ave., Toronto National Loose Leaf Devices Ltd. 43 Bertal Rd., Toronto Nestune Meters Ltd. 3526 Lakeshore Blvd. W. Toronto Nicol Manufacturing Co. 32 Brydon Dr., Rexdale North York Iron Works Co. 110 Millwick Dr., Weston North York Iron Works Co. 110 Millwick Dr., Weston Northeott Instruments Ltd. 92 Ferguson St., Guelph Oliver-Woods Metal Spinning Co. 8 Beaconsfield, Toronto Vest St. S., Orillia		29 Shaft Rd., Rexdala	Marson (Canada) Ltd.
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Oliver-Woods Metal Spinning Co. Beaconsfield, Toronto Otaco Limited West St. S., Orillia		110 Miliwick Dr., Weston	North York Iron Works Co
Otaco Limited West St. S., Orillia		8 Reaconsfield Toronto	Northcott Instruments Ltd.
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Parkinson Cowan (Canada) Ltd. Chatham		Chatham	Parkinson Cowan (Canada) Ltd.
Par-Met Industries Ltd. 66 Crosby Ave., Richmond Hill Peerless Plating Rack Co. 200 Bedford Rd., Toronto			Par-Met industries Ltd.
Peninsula Fittings (St. Catharines) Ltd. 221-223 Bunting Rd., St. Catharines		221-223 Bunting Rd., St. Catharines	Peninsula Fittings (St. Catharines) Ltd.
Perth Metal Industries Ltd. Box 154, Stratford		Box 154, Stratford	Perth Metal Industries Ltd.
Phillips, G.E., Ltd. 3293 Dufferin St., Toronto		3293 Dufferin St., Toronto	Phillips, G.E., Ltd.
Phillips Lightning Rod Co. Ltd. 32 Osborne Ave., Toronto Phoenix Mfg. Co. (Div. R. & W. Heard Holdings Ltd.) Milton		Milton	Phoneix Mfg Co (Div P & W Heard Holdings Ltd.)
Pinder Bros. Ltd. 2 Otonabee St. W., Willowdale			
Plpe Coil Fabricators Ltd,		143 Bermondsey Rd., Toronto	
Powco Steel Products Ltd. 24 Ingram Drive, Toronto			
Preston Heat Treating Corp. Ltd. Preston Product Development & Design Co. 1493 A Dupont St., Toronto			
Production Assembiles 1849 Mattawa Ave., Cooksville			
Pyrene Mig. Co. of Canada Ltd. 777 Dundas St. E., Toronto		777 Dundas St. E., Toronto	Pyrene Mfg. Co. of Canada Ltd.
Queenston Welding & Mig. Ltd			
Reinforcing Steel Products Co. 200 New Toronto St., New T			Reliance Steel Fabricators Ltd
Relance Seel Fabricators Ltd. Ric-Will Co. of Canada Ltd., The St. Thomas			Ric-Will Co. of Canada Ltd., The
Roberts, Art. & Son Ltd. 1021 Barton St., Hamilton		1021 Barton St., Hamilton	Roberts, Art. & Son Ltd.
Rockwell Mfg. Co. of Canada Ltd		40 Wellington St., Guelph	Rockwell Mfg. Co. of Canada Ltd.
Roper Steel Construction Co. 2902 Eglinton E., Scarber and the S.D.M. Thermalite Ltd. 45 Research Rd., Toronto		45 Research Rd., Toronto	S.D.M. Thermalite Ltd.

List of Establishments classified to This Industry, 1964 - Continued

Name	Location
Ontario - Concluded:	
St. Clair Metal Processing Ltd.	
St. Lawrence Steel & Wire Co. Ltd. Salbrock Mig.	
Samuel Steel Strapping Limited	2360 Dixie Rd., Cooksyllle
Selck, Walter E. & Co. Canada Shaw Flexible Tubes Ltd.	25 Bethridge Rd., Rexdale
Sinterings Ltd.	265 Edinburgh Rd., Guelph
Smith Valve Corp. of Canada Ltd. Stampco Industries Ltd.	1862 Mattawa Ave., Cooksville 1496 Concession Rd., Preston
Stanley Manufacturing Co. Ltd., The	230 Bartley Drive, Toronto
Star Expansion Industries (1963) Ltd. Steel Co. of Canada Ltd.	1061 The Queensway, Toronto Gananoque
Steffer Metal Products Ltd.	74 River Rd. W., Kltchener
Sterling Faucet Canada Ltd. Sun Tube of Canada Ltd.	
Superior Concrete Accessories Canada Ltd	230 Relfield Rd Revdolo
Taco Heaters of Canada Ltd. Taylor Associates	3090 Lenworth Dr., Cooksville
Thamesville Metal Products Ltd.	Thamesville
Thorold Welding Works Ltd. Tonner, Gordon Metal Spinning	
Toronto Coppersmithing Co. Ltd.	80 Knox Ave., Toronto
Toronto Fitting & Foundry Toronto Metal Spinning Ltd.	365 Bering Ave., Toronto
Trans-Val Products Ltd.	1920 Mattawa Ave., Cooksvilie
Triangle Metai Spinning & Stamping Co. Tubco Lamp Parts Ltd.	47 Railside Rd., Toronto
Tube Turns of Canada Ltd.	Ridgetown
United Flexible Metallic Tubing (Canada) Ltd. Universal Metal Spinning Products	128 Centre St. E., Richmond Hill 308 Adelaide St. Toronto
Up-Right Scaffolds Ltd.	120 Russett Ave., Oshawa
Victoria Steel Products Ltd. Victory Metal Works	767 Warden Ave Scarborough
Wallaceburg Ball Chain Mig. Co.	Waliaceburg
Wallaceburg Brass Limited Wallaceburg-Singer Ltd.	Wallaceburg
Watson Metai Works	26 Hoithy Ave., Brampton
Waterloo Spring Co, Ltd. Welco Precision Weights	
Welding Fittings & Flanges of Canada Ltd.	1675 Burlington St. E., Hamilton
Welland Metal Supplies Ltd.	208 Bugar St., Welland
Welland Vale Mfg. Co. Ltd. Welmet Industries Ltd.	10 Kingsmill Ave., Guelph
Wessan Plumbing Ltd.	Streetsville
Williamson, T.D., Canada Ltd., Wilson, Robert J. Metal Products Winchester-Western (Canada) Limited	271 Queen St. E., Brampton
Wilson, Robert J. Metal Products	93 Penn Dr., Weston
woodbine metal spinning Co	1962 Gerrard St. E., Toronto
Yarmouth Metal Fabricators Ltd. Yarway Canada Ltd.	St. Thomas
York Metal Spinning & Specialties Ltd.	35 Industrial Rd., Richmond Hill
Zowie Products	12 Ashland Ave., Toronto
Manitoba:	
Abesco Ltd.	44 Archibald St., St. Boniface
Alco Equipment Ltd. Armour Metal Products Ltd.	Partridge & Alkins, West Kildonan, Winnipeg 17
Canadian Bronze Co. Ltd.	13 Bury St Winnings
Cowin Steel Co. Ltd. Klassen Bros.	1137 Pacific Ave., Winnipeg 421 Edison Ave., Winnipeg
Krushel L. & Sons	Morden
Made-Well Míg. Co. Manitoba Bridge & Engineering Works Ltd.	
Mercury Metal Products Ltd.	590 Pembina Hwy., Winnipeg
National Products Ltd. Pary Products Ltd.	
Red River Chain	258 Kingsford Ave., Winnipeg
Rosedale Mfg. Swan Manufacturing Company	348 Lansdowne Ave., Winnipeg 394 Aiexander St., Winnipeg
Saskatchewan:	
Acme Industries Ltd. East, John, Iron Works Ltd.	182 Wali St., Saskatoon 121 Ave. C. North, Saskatoon
Fudge's Industries	Moosomin
Regina Iron Works Ltd. Westcon Forming & Concrete Products Ltd.	Box 785, Regina 1801 Ontario Ave., Saskatoon
Alberta: Alta, Bend Ltd.	12,230-66th St., Edmonton
Bonny Brook Steel Ltd.	4011-15th St. S.E., Calgary
Canadian Bronze Co. Ltd. Community Shopping Developments Ltd.	
Crane Canada Ltd.	10426-95th St., Edmonton Medicine Hat
Enoco Valve & Instrument Co. Gilchrist Engineering (Alberta) Ltd.	10368-5th Ave., Edmonton
Lethbridge Iron Works Co. Ltd.	120-1st Ave. S., Lethbridge

List of Establishments classified to This Industry, 1964 - Concluded

Name	Location	
Alberta - Concluded:		
Moffat Engineering Co. Ltd Scott, S.F. Mfg. Co. Ltd.	766-14th St. S.W., Medicine Hat	
Specialty Iron Works	Blackfalds	
Winspun Copper & Brass Ltd.		
Wittke Iron Works	2201-15th Ave. S.E., Medicine Hat	
critish Columbia:		
Advance Industries Ltd.		
Advance Metalpres Products Ltd.		
Alumaloc		
BC Chains Ltd.		
Basco Mfg. Co. Ltd. Bobble Equipment & Welding Co. Ltd.	Campbell River	
Brittain Steel Fabs, Ltd. CA Manufacturing Ltd.		
C. & B. Heat Treating Ltd.		
Canada Chain & Forge Co. Ltd.		
Canadlan Norwegian Chain Co. Ltd.		
Capilano Metal Products Ltd.		
Ellett Copper & Brass Co. Ltd.	92 West 2nd Ave., Vancouver	
Edwards Welding Limited		
Hastings Brass Foundry Ltd.		
Jackson Scaffolding Ltd.		
Kamloops Steel Fabricators Ltd.	194 Victoria St. W., Kamioops	
Lister Bolt & Chain Works Ltd.	301 West 5th Ave., Vancouver	
McBain, A.J., Ltd.	1968 W. Georgia St., Vancouver	
McLeod & Norquay Ltd.		
McQuat Industries Ltd.		
Metal Distributors Ltd.		
Micon Products Ltd.		
Motor Specialty Manufacturers Ltd.		
Paceantle Products Ltd.		
Pacific Aluminum House Ltd.	54 E. 3rd Ave., Vancouver	
Peace River Cable Service Ltd.	Dawson Creek	
Polygon Designers & Metal Fabricators		
Premier Engineering & Iron Works Ltd. Rain Bird Sprinkler Mfg. Co. (Canada) Ltd.		
Ross & Howard Iron Works Co. Ltd.	Ft. Woodland Drive., Vancouver	
Samco Engineering Ltd.		
Singer Valve Co. Ltd.	872 Derwent Way New Westminster	14
Spin Craft Mfg, Co.		
Thompson Industries		
Western Corrosion Engineering Ltd.		
Wilfro Mfg, Co, Ltd,		

CONCEPTS AND DEFINITIONS

Census of Manufactures

General

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

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

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

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

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

Establishment

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

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

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

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

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

Head Offices and Auxiliary Units

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

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

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

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

Employees

(a) Production and related workers — Manufacturing activities

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

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

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

(c) Administrative and office employees

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

(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".