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MANUFACTURERS OF MISCELLANEOUS ELECTRICAL PRODUCTS

1964

DOMINION BUREAU
OF STATISTICS

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PUBLICATIONS

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MANUFACTURERS OF MISCELLANEOUS ELECTRICAL PRODUCTS

1964

For statistical purposes the industry titled Manufacturers of Miscellaneous Electrical Products in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing electrical products not elsewhere classified, such as electric signalling apparatus; electric lighting fixtures; electric light bulbs and tubes (light sources) of all kinds such as incandescent filament lamps, vapor and fluorescent lamps, photoflash and photoflood lamps; wiring devices; panel-boards (distribution, lighting and residential types); low voltage switchboards; carbon or graphite electrodes; conduit and fittings. This industry also includes establishments primarily engaged in manufacturing electronic computers and data processors.

An examination of the principal statistics for this industry indicates that the value of shipments and the value of production increased by 13 per cent in 1964. The value of materials used in production increased by 12 per cent and value added on products of own manufacture increased by 13 per cent. Materials used represented 47.5 per cent of the value of production in 1964 against 48 per cent in 1963. Value added represented 52 per cent of the value of production for 1964 whereas for 1963 it was 51 per cent.

The value of shipments of electrical products represented 95 per cent of the total value of shipments of products of own manufacture during 1964. Some of the other products shipped were radiators, X-ray equipment, fire fighting equipment, plastic products, bathroom fittings and sheet metal products.

SYMBOLS

The following standard symbols are used in Dominion Bureau of Statistics publications:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.
- amount too small to be expressed.
- p preliminary figures.
- r revised figures.
- x confidential to meet secrecy requirements of the Statistics Act.

TABLE 1. Principal Statistics, 1961-64

					ufacturing		3, 1901 - 0			Т	otal acti	vity	
Year and	Estab- lish-		oduction a ated work		Cost of	Cost of	Value of shipments		Working and p	owners artners	Emp	loyees	
province	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		'000			\$'000				\$'000		\$10	000
1961													
Totals	133	6, 885	14, 162	22, 729	1,429	67, 796	143, 289	73, 754	18	90	9, 710	37, 977	77, 056
1962													
Totals	125	7, 221	14, 749	24, 171	1, 458	76, 011	157, 254	81, 157	13	84	10, 095	39, 697	85, 449
1963													
Newfoundland	_	_	_	_	_	_	_	_	_	_	_	-	_
Prince Edward Island	_	-	_	_	-	_	_	_	_	-	_	-	_
Nova Scotia	_	_	_	-	_	_	_	_	_	_	_	_	-
New Brunswick	_	_	_	-	_	_		_	_	_	-	_	- 11_
Quebec	33	2,708	5,488	8,639	718	27, 550	57, 812	31,085	x	х	3,592	13, 208	31, 878
Ontario	82	4,722	9,896	17,751	1,013	52, 388	106, 453	54,473	9	94	6,653	29, 221	57,033
Manitoba	7	140	293	440	42	1,462	2, 925	1,382	x	х	178	691	1, 473
Saskatchewan		_	-	_	_	_	_	_		_	_	_	_
Alberta	1	1											
British Columbia	5	120	258	376	23	1,973	3,070	1,062	_	-	148	556	1, 189
Yukon and Northwest Territories	_	_	_	-	-		- Marie	_	-	-	_	_	_
Totals	128	7, 690	15, 935	27, 206	1, 796	83, 373	170, 260	88, 001	14	114	10, 571	43,677°	91, 573
1964													
Newfoundland	_	_	_	_	_	_	-	_	_	-	_	_	_
Prince Edward Island	_	-	-	_	-	-	_	_	_	_	_	_	_
Nova Scotia	_	_	-	-	-	-	-	_	_			_	_
New Brunswick	-	_	-	-	_	_	_	_	_	-	_	_	_
Quebec	40	2,952	6, 299	9,80i	791	31,800	68, 202	37, 136	х	х	3,941	15, 282	39, 192
Ontario	91	4,966	10, 271	19,465	1,026	58, 407	119,372	61,810	15	151	6, 938	31,352	64,983
Manitoba	7	130	269	415	40	1, 157	2, 198	1,082	х	х	170	613	1, 186
Saskatchewan	_	_	-	-	-	-	_	-	-	_		-	
Alberta	1	119	246	400	Org	1.000	0.000	1 010					
British Columbia	6] 119	290	402	27	1,876	2, 830	1,013	-	pages	154	620	1, 137
Yukon and Northwest Territories	-	-	-	_	_	-	-	_	_	-	Outrops	-	
Totals	145	8, 167	17, 085	30, 084	1, 884	93, 239	192, 602	101, 041	20	171	11, 203	47, 868	106, 497

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

				Man	ufacturing	activity				Т	otal activ	ity	
Size group	Estab- lish- ments		duction a		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		\$10	000
1963								1					
Inder \$10,000	4 6 11 18 28 23 32 6	8 19 45 170 473 1,005 3,571 2,399	16 38 90 341 956 2,095 7,448 4,950	27 61 137 504 1,435 3,155 12,946 8,940	1 3 9 36 115 196 830 607	30 67 404 1,306 5,063 9,045 48,278 19,179	87 187 783 2,680 9,506 16,923 89,067 51,027	69 117 393 1,350 4,334 8,239 41,268 32,229	1 2 3 3 3 1 4 4	5 9 12 43 5 40	13 25 63 233 671 1,305 4,988 2,844 429	46 85 203 791 2,512 4,985 21,136 11,467 2,452 43,677	68 163 40 1,533 4,803 8,507 43,016 32,813 274 91,573
1964													
nder \$10,000	3 6 4 12 22 32 20 38 8	6 10 46 190 552 831 3,688 2,844	12 20 92 385 1,113 1,720 7,802 5,940	19 35 150 602 1,844 2,601 13,807 11,024	2 2 10 39 133 118 925 657	8 56 68 418 1,661 5,573 7,296 51,608 28,550	17 116 158 821 3.282 11,001 14.419 95,054 67.734	9 64 88 401 1,632 5,519 7,130 44,653 41,545	3312	4 16 7 7 76 62	8 17 64 284 737 1,050 5,167 3,433	25 73 242 1,092 2,871 3,908 22,532 14,457	66 111 399 1,67; 5,85; 7,66; 47,35; 43,108
Totals	145	8, 167	17, 085	30,084	1.884	93, 239	192, 602		20	171	11, 203	47.868	106, 49

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		duction :		Cost of	Cost of	Value of shipments of goods	Value		owners artners	Emp	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	1		1					
Under \$10,000	} 11	23	46	73	3	318	481	164	3	14	32	108	208
\$ 10,000 to \$ 24,999	10 21 23 28 12 20 3	35 231 390 1,115 802 3,672 1,422	70 464 801 2,343 1,669 7,611 2,932	110 649 1, 204 3, 473 2, 454 14, 293 4, 950	10 46 85 229 294 726 403	374 2,102 4,592 13,487 13,557 37,939 11,005	702 3,707 8,181 22,469 21,167 80,634 32,920	344 1,552 3,531 9,301 7,760 42,977 22,370	3 4	12 48 - 40 - -	56 319 541 1,522 1,071 4,954 1,647	192 1,046 2,004 5,720 4,126 21,916 6,113	357 1,755 3,940 9,769 7,923 44,388 22,959
auxiliary units							* * *			2 4 4	429	2,452	274
Totals	128	7,690	15, 935	27, 206	1, 796	83, 373	170, 260	88,001	14	114	10, 571°	43, 677	91, 573
1964									1				
Under \$10,000 \$ 10,000 to \$ 24,999 25,000 " 49,999 50,000 " 99,999 100,000 " 199,999 200,000 " 499,999 5,000,000 " 4,999,999 1,000,000 " 4,999,999 Head offices, sales offices and auxiliary units	10 10 23 20 35 15 23 3	2 17 38 224 293 1,152 966 4,019 1,456	4 34 77 451 574 2,403 2,014 8,454 3,075	7 55 127 696 946 3,770 3,186 15,965 5,332	1 7 8 47 55 291 130 941 405	62 211 523 2,172 3,981 15,281 12,551 46,427 12,030	97 363 895 3,810 6,721 26,272 22,401 95,961 36,083	33 155 373 1,672 2,770 11,020 9,931 50,506 24,581	4 5 - 1 2 8 - -	9 25 11 6 121	4 24 57 318 399 1.525 1.298 5.442 1.693	12 85 231 1,144 1,566 5,919 5,251 24,352 6,639	33 181 369 1,708 2,890 11,958 10,166 52,806 28,131
Totals	145	8, 167	17,085	30,084	1, 884	93, 239	192, 602	101, 041	20	171	11, 203	47,868	106,49

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

				Man	ufacturing	activity		200		Т	otal activ	vity	
Size group	Estab-		duction a ated work		Cost of	Cost of	Value of shipments		Working owners and partners		Emp	loyees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		'000			\$'000				\$'000		\$'0	00
1963													
Inder \$10,000	} 11	21	42	69	3	367	541	176	3	14	28	95	175
25,000 " 49,999	8 20 22 31 13 20 3	28 195 333 1, 190 829 3, 672 1, 422	55 393 682 2.497 1,723 7,611 2.932	80 554 1.039 3,699 2.522 14.293 4,950	7 40 76 235 306 726 403	263 1,657 4,606 13,629 13,907 37,939 11,005	516 3,029 8,023 22,769 21,830 80,634 32,920	271 1, 351 3, 361 9, 338 8, 155 42, 977 22, 370	3 3 1 4	12 35 14 40 	46 259 458 1,638 1,112 4,954 1,647	151 824 1,676 6,154 4,296 21,916 6,113	272 1, 434 3, 255 10, 342 8, 474 44, 388 22, 959
auxiliary units	***								* * *		429	2, 452	274
Totals	128	7.690	15, 935	27, 206	1, 796	83, 373	170, 260	88,001	14	114	10,571	43,677	91,573
Juder \$10,000	6 9 11 23 19 33 18 23 3	2 15 40 224 270 1,004 1,137 4,019 1,456	4 30 80 451 528 2,098 2,365 8,454 3,075	7 48 135 696 859 3, 299 3, 743 15, 965 5, 332	1 7 8 47 50 250 176 941 405	62 194 540 2,172 3,801 14,081 13,931 46,427 12,030	24, 101 24, 928 95, 961 36, 083	33 143 385 1,672 2,584 10,046 11,092 50,506 24,581	4 5 - 1 2 8 - -	9 25 - 11 6 121 -	4 18 63 318 363 1,333 1,526 5,442 1,693	12 58 258 1,144 1,396 5,206 6,134 24,352 6,639	33 143 408 1, 708 2, 568 10, 494 11, 953 52, 806 26, 131
				***	***	•••()			* 4 *		443	2,668	255
Totals	145	8, 167	17,085	30,084	1,884	93, 239	192, 602	101,041	20	171	11, 203	47,868	106, 497

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

				Мал	ufacturing	activity				1	Total acti	vity	
Size group	Estab-		oduction ated work		Cost of	Cost of	Value of shipments of goods	Value		owners artners	Emp	loyees	Value
	ments	Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Saiaries and wages	added
	No.		'000	-	J	\$'000			1	\$*000		\$*0	00
1963						1	1	1					
Under 5 employed	13 24 47 13 15	22 144 944 605 1, 673	299 1,933 1,248 3,462	75 479 2,953 2,085 5,452	5 46 408 96 240	437 1,771 17,084 6,304 20,783	672 3.604 27.898 12,582 35,019	243 1.863 10.830 6.446 14.650	6 4 4	26 48 40 —	30 216 1,402 816 2,202	106 823 5,609 3,381 8,554	242 2,086 11,318 6,880 15,482
200-499 " 500 employed and over	} 16	4, 302	8,949	16.161	1,002	36, 993	90,487	53, 969	-	-	5, 476	22, 751	55, 292 274
Totals	128	7, 690	15, 935	27, 206	1,796	83, 373	170, 260	88,001	14	114	10, 571	43, 677	91,573
1964													
Under 5 employed	19 29 47 19 13 15	24 183 957 874 1,316 3,238 1,575	50 372 1,935 1,802 2,805 6,908 3,213	87 655 3.056 2,929 4,815 12.359 6,182	11 41 252 307 231 704 339	688 2,869 16,073 9,753 19,366 33,043 11,447	1.083 5,049 26,437 20,163 32,737 74,579 32,553	401 2, 228 10, 390 10, 690 13, 658 42, 505 21, 169	9 1 6 4	34 11 65 62 —	35 290 1, 309 1, 241 1, 767 4, 286 1, 832	162 1, 173 5, 143 4, 840 7, 784 18, 515 7, 582	398 2, 290 11, 019 11, 104 15, 116 44, 474 21, 841
200 A 3	0 0 0				* * *		* * *	***	* * *		443	2.668	255
Totals	145	8, 167	17, 085	30, 084	1,884	93, 239	192, 602	101,041	20	171	11, 203	47, 868	106, 497

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

				Mar	ufacturing	activity					Total acti	ivity	
Type of organization	Estab- lish- ments		oduction lated wor		Cost of	Cost of	Value of shipments			owners urtners	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													
Individual ownerships	} 9	50	106	160	17	657	1,340	673	14	114	60	199	705
Incorporated companies	119	7,640	15,829	27,046	1,779	82,716	168,921	87,328			10,082	41,026°	90.594
Co-operatives	_	_	_	_	_		_	_			_		_
lead offices, sales offices and auxiliary units								4 + 4		• • •	429	2, 452	274
Totals	128	7. 690	15, 935	27, 206	1, 796	83, 373	170, 260	88,001	14	114	10, 571 ^r	43, 677°	91, 573
1964													
Individual ownerships	8	9	18	24	6	236	352	123	8	37	10	29	123
Partnerships	6	106	216	364	20	1,040	2, 201	1, 207	12	134	124	469	1,202
incorporated companies	131	8,052	16, 851	29,695	1,859	91,963	190,049	99,710		4 0 4	10, 626	44,702	104,917
Co-operatives	_	_	_		_	_		_			_		
lead offices, sales offices and auxiliary units	4 + 0		9 * *				0 4 4				443	2, 668	255
Totals	145	8, 167	17, 085	30,084	1.884	93, 239	192, 602	10 1.04 1	20	171	11. 203	47, 868	106, 497

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

	Manufact activi		Non-manufa activit		Tota activ	
	1963	1964	1963	1964	1963	1964
			\$'00	0		
Output						
1. Shipments and other revenue	170, 260	192,602	22,725	24,470	192, 985	217,073
Inventories - Goods of own manufacture:						
Add closing - Goods in process	7, 387	8,521		***	7,387	8, 521
Finished goods	16,030	17,664			16,030	17,664
Deduct opening-Goods in process	6, 294	7,223			6, 294	7, 223
Finished goods	14, 213	15,400	• • •		14, 213	15, 400
2. Net inventory change	2,910	3,562			2,910	3,562
3. Gross output (1+2)	173, 170	196, 164	22, 725	24, 470	195, 895	220, 635
Input						
1. Purchases of goods not of own manufacture			17,353	18, 533	17,353	18,533
Inventories - Goods not of own manufacture:						
Add opening			5, 815	5, 553	5, 815	5, 553
Deduct closing		***	5,000	6, 183	5,000	6, 183
. Cost of goods sold (not of own manufacture)			18, 168	17, 903	18, 168	17,903
. Materials, supplies, etc.	83,373	93, 239	985	1, 110	84, 358	94,349
. Fuel and electricity	1, 796	1,884			1, 796	1, 884
3. Gross input (5 + 6 + 7)	85, 169	95, 123	19, 153	19,013	104, 322	114, 136
Value added (3 - 8)	88,001	101, 041	3, 572	5, 457	91, 573	106, 497

TABLE 8. Employment and Payroll, 1963 and 1964

					Employ	yees						Salari	es and wa	ges	
Year and		Product related			Admi			les	The	tal	Product	ion and	Admin-	Sales	
province	Manufa	cturing	Ot	her	and o		distril		10	LEI	related v	workers	istra- tive and	and distri-	Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other	office	bution	
1000					numb	er							\$'000		
1963															
Newfoundland	_	_	_	-	_	_	_	_		_	_	_	_	-	-
Prince Edward Island	_	-	_	_	_	-	-	-	_		-	-	-	-	_
Nova Scotia	_	_	_	_	_	_	_	_	-	-	-	_	-	~	-
New Brunswick	-	_	_	_	_	_	_	-	_	_	_	_	-	_	_
Quebec	1,348	1,360	22	1	418	235	162	46	1,950	1,642	8,639	130	3,319	1,120	13,208
Ontario	2,527	2, 195	16	-	937	462	426°	90	3,906	2,747	17,751	52	8,479	2, 939 F	29, 221
Manitoba	96	44	-	_	20	5	12	1	128	50	440	_	218	33	691
Saskatchewan	_	_	_	_	_	-	_	-	-	-	_	_	_	-	_
Alberta British Columbia	} 83	37	-	_	17	7	4	_	104	44	376	-	154	26	556
Yukon and Northwest Terri- tories	_	_	_	_	_	_	_	_	_		_	_	_	_	_
Totals	4,054	3, 636	38	1	1, 392	709	604°	137	6, 088	4, 483	27, 206	182	12, 170	4, 119°	43,677
1964															
Newfoundland	_	_	_	_	_	_		_		_	_	_			
Prince Edward Island	_	_	_	_	_	_			_	_					
Nova Scotia	_		_	_	_	_	_		_		_	_			
New Brunswick	_		_	_	_	_		_				_			
Quebec	1,472	1,480	4	_	486	281	175	43	2,137	1,804	9,801	19	4, 106	1,356	15, 282
Ontario	2,666	2,300	10	_	945	477	452	88	4,073	2,865	19,465	28	8,733	3,126	31,352
Manitoba	97	33	_	_	19	6	12	3	128	42	415	40	163	35	613
Saskatchewan	_	-	_		-	_	_	_	120	- 42	412	_	103	30	013
Alberta)									-		_			_
British Columbia	80	39		_	16	10	9	_	105	49	402	_	141	77	620
Yukon and Northwest Terri- tories	_	_	_	_	_						_	_			
Totals	4,315	3,852	14	_	1, 466	774	648	134	6, 443	4,760	30,084	47	13, 144	4, 593	47,868

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

Manth	196	33	196	4
Month	Male	Female	Male	Female
		num	ber	
Establishments reporting monthly detail (large establishments only):		1	1	
January	3,807	3,282	3,879	3,41
February	3,798	3,272	3,852	3,47
March	3,818	3, 273	3,870	3,54
April	3,756	3,337	3,768	3,49
May	3,860	3,496	3,829	3,61
June	3,975	3,610	4, 208	3,87
July	3,969	3,537	4,164	3,80
August	4,020	3,701	4,310	3,89
September	3,939	3,677	4,188	3,90
October	3,873	3,571	4,259	3, 85
November	3,885	3,548	4,202	3,84
December	3,871	3,424	4, 189	3.68
Averages	3,883	3,477	4,056	3,71
stablishments reporting annual averages (small establishments only)	171	159	257	13
Verage for all establishments	4,054	3,636	4,315	3,85

TABLE 10. Inventories, 1 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
Opening			book valu	e \$'000		
Opening:						
Newfoundland			-		_	_
Prince Edward Island		_	_	_		_
Nova Scotia		-	white	-	-	-
New Brunswick	5,479	1 250	7 010	15 100	0.105	-
Quebec	8,508	1,750	7,910	15,139	2,197	17, 336
Ontario	312	5,369	7,363	21,241	2,967	24, 20
Manitoba	312	68	36	416	369	78:
Saskatchewan		_	_	-	_	_
Alberta	3 232	36	95	363	21	384
British Columbia	J					00
Yukon and Northwest Territories		-	-	-	-	_
Totals	14,532	7, 223	15,404	37, 159	5,553	42, 71
Closing:						
Newfoundland	_		-	_	_	_
Prince Edward Island	-	_		-	-	400
Nova Scotia	_	_	_	-	_	-
New Brunswick	-	et a la	_	_	_	
Quebec	6,198	2,002	9, 183	17,383	2,773	20, 150
Ontario	9,372	6, 284	8,318	23,974	2,998	26.97
Manitoba	378	145	40	583	400	963
Saskatchewan	_	-	_	-	_	_
Alberta	1	07 12				
British Columbia	241	89	127	457	12	469
Yukon and Northwest Territories	_	_	_		II	
Totals	16, 189	8, 521	17, 668	42, 378	6, 183	48, 561

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

Description		1963		1964	
Description		Quantity	Cost	Quantity	Cost
			\$,000		\$'000
1. Large establishments reporting commodity detail: Bituminous coal:					
(a) From Canadian mines	ton	2,978	37	3,071	35
(b) Imported	64	4, 425	53	3,676	44
Sub-hituminous coal (from Alberta mines only)	0.4	82	2	73	1
Anthracite coal	44	54			
Lignite coal	40	_		65	1
Coke	**	_	_	_	-
Gasoline (including gasoline used in cars and trucks) Imp	p. gal.	199,640	82	211,828	88
Fuel oil including kerosene or coal oil	11	2,694,337	303	2,684,195	288
***	cord	_		_	_
Gas:					
(a) Liquefied petroleum gases	p. gal.	324,707	88	173, 134	66
(b) Other manufactured gas	cu. ft.	2,824	4	_	_
(c) Natural gas	44	229,827	229	339, 724	309
Other fuel		***	10		
Electricity purchased	kwh.	80,707,918	865	83, 378, 541	920
Steam purchased			17		29
2. Small establishments not reporting commodity detail:					
Estimate for fuel and electricity		4 * 4	106		1 (54)
3. All establishments:					3.50
Total fuel and electricity used		• • •	1, 796		1,884

¹ The difference between figures in this table and those in Table 7, arises from firms reporting output of products on the basis of production rather than shipments. Consequently, inventories of finished products for such respondents are not taken into account for purposes of compiling value added in Table 7. See also "Concepts and Definitions" for explanation or other variances.

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

The state of the		1963		1964	
Daser polica		Quantity	Cost	Quantity	Cost
			\$'000		\$'000
Materials used:					
Aluminum:					
Castings		1,567,766	1,019	2, 976, 173	1, 916
Wire rods		875, 464	405	133, 536	73
Sheets and strip		1, 267, 433	740	1,679,255	933
Other		0.00	1,503		1,673
Brass and bronze:					
Castings	lb.	112,771	171	174,694	145
Wire rods	44	237, 364	86	279, 173	114
Sheets and strip	1.0	894, 393	529	1,327,181	802
Other			826		880
Copper:					
Wire rods	lb.	381, 269	203	830, 213	499
Sheets and strip		789,134	437	614.656	360
Tubing and pipe		302.599	217	349, 214	249
Wire, enameiled	14	558,000	418	519,447	338
Wire, other insulated			1,612	4 + 4	2,593
Other		* * *	1,172		1,633
Glass tubing and cane					
		+ 4 d	947		1,055
Insulating varnishes, japans, enamels and lacquers		* * *	89		63
Insulators, porcelain and glass, 600 volts and over			78	9	106
Iron and steel (except alloy);					
Castings (rough and semi-finished received from foundry);					
Iron, gray and malleable	ton	527	300	886	376
Steel		1, 163	245	1,270	249
Pig Iron		1,046	68		
Steel bars and rods		1,921	366	1,390 2,595	86
Steel sheets and strip:		1, 521	300	2, 393	516
Plain	4.6	30, 225	5.321	20 622	5 200
Galvanized		2, 198	429	32, 673 5, 209	5,399
Steel wire		2, 196	75	235	841
Other (except alloy)			3,347		73
	**	* * *	0,041		3,555
Alloy steel in all forms:					
Stainless Silloon shorts and styles			84	4.4.4	66
Silicon sheets and strips		602	294	803	415
Other alloy, including tool steel, ail forms			25		43
Lead	lb.	61,531	36	67,030	50
Paints, stains, lacquers, etc. (for finishing only)		* * *	1,413	4 2 4	929
Resins, synthetic (moulding powders, sheets, etc.):			-,		020
Vinyl type (PVC, etc.)			100		250
Polyethylene type (polythene, etc.)		P 4 4	136	* * *	273
Other (bakelite, etc.)		* * *	115	* * *	189
Control (Control Control Contr		• • •	2,440	* * *	3,101
All other materials and components used¹			50.007		F.C
The state of the confidence of the state of	.,	P 4 P	50, 907	• • •	55,741
Containers and other packaging materials and supplies used			3,611	* * *	3,768
Operating, maintenance and repair supplies used (excluding fuel)	.,	* * *	2,819		3,058
Amount paid out to others for work done on materials owned by establishments		4 4 4	888	P 2 6	1,078
Totals			83,373		93, 239

¹ No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. These estimated costs were \$2,876,000 in 1963, and \$3,507,708 in 1964.

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

Provided in the last of the la	Val:		
Description	1963	1964	
	\$'000		
, Products:			
Carbon brushes for generators and motors	869	1,021	
Conduit and accessories - See Table 14A	13, 865	17,222	
Cut-outs and fuses	1,539	1,433	
Industrial control equipment	1,206	2,046	
Lamps (light sources - bulbs and tubes) See Table 14B,C,D	43, 268	48,310	
Lighting equipment - See Table 14E	52,454	56, 637	
Switchgear and protective equipment	16,294	19,961	
Wiring devices - See Table 14F	17,048	20, 126	
All other products	25,084	27, 261	
. Amount received in payment for work done on materials and products owned by others	221	375	
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above	(1,589)	(1,789)	
Net adjustment for establishments receiving progress payments	quality	-	
Total adjusted value of shipments and work done	170, 260	192, 602	

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. Conduit and Accessories for Electrical Wiring, 1963 and 1964

	1963		1964	
	Quantity	Value	Quantity	Value
	'000 lbs.	\$'000	'000 lbs.	\$'000
Rigid conduit:				
Steel and non-ferrous	39,690	7,742	51, 421	8,791
Electrical metallic tubing, steel and non-ferrous	14,800	3,216	17,709	3, 217
Bends, couplings, elbows, etc.		253		х
Outlet and switch boxes	***	3,269		3,678
Conduit fittings	* * *	1,812		2,169
accessories for rigid conduit etc.		2,257		4,059

B. Incandescent Electric Lamps (Bulbs), 1955 - 64

	Standard type							Miniature ¹	
Year	i50 watts and below		Above 150 watts		Totals				
	Number	Value	Number	Value	Number	Value	Number	Value	
	000's	\$'000	000's	\$'000	000's	\$.000	000's	\$,000	
1955					81,599	12, 380	41,762	3,833	
1956					77,555	11,806	43,055	4, 178	
1957	2	2	2	1	84, 293	13,065	38,997	4,815	
1958					79,925	12,618	36,668	5, 407	
959					84, 980	14,656	40,875	5, 449	
960	78, 182	13.247	6,636	2.644	84,818	15,891	36,978	5,769	
961	78, 597	12,582	7, 153	3,011	85,750	15,593	47,415	6,71	
1962	81, 188	14,433	7,895	3,401	89,083	17,835	41,362	6,271	
963	88,836	15,554	7,850	3,273	96, 686	18,827	56,015	8,63	
1964	93, 035	15, 262	8, 175	3,381	101,210	18,643	65, 147	8,93	

See footnotes at end of table.

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

C. Fluorescent Electric Lamps (Bulbs), 1955-64

Year	Standa	ird	Slimlin	ne	Totals	
I ea:	Number	Value	Number	Value	Number	Value
	000's	\$'000	000's	\$'000	000's	\$'000
955 956 957 958 959 960 961 962 963 963	7, 436 8, 420 9, 982 10, 902 12, 501	5, 791 6, 019 7, 654 8, 043 8, 946	1,758 1,698 1,795 1,659 2,248	3, 083 3, 388 3, 040 2, 713 3, 701	5,005 5,799 6,909 7,098 7,482 9,194 10,118 11,784 12,561 14,749	3,561 4,377 5,567 5,668 6,686 8,873 9,407 10,694 10,756

D. Photographic Lamps (Bulbs), 1963 and 1964

	1963		1964	
	Quantity	Value	Quantity	Value
	000's	\$'000	000's	\$1000
Photoflash — Miniature	51,298 18,067	2,861 1,371	60,656 14,593	4,320 1,132
Total photoflash	69, 365	4, 232	75, 249	5,45
Other photographic — Projection Other	162 138	442 120	121 157	58 12
Total photographic lamp bulbs	69, 665	4, 794	75, 527	6, 17

E. Electric Lighting Fixtures, 1963 and 1964

	Value	
	1963	1964
residential:	\$'000	
Incandescent Fluorescent	8, 194 619	9,677 1,704
Engandescent Floorescent	4, 095 31, 676	6,521 26,355
Heavy duty incandescent Light duty incandescent Open type	559 1,522 119	653 1,803 160
ar lamp holders	383	359
Incandescent Fluorescent Mercury	480 834 4, 235	563 1,091 4,832
treet light brackets	810	826
treet light standards	1,989	3,128
treet light control equipment	429	504
ther lighting equipment ³	3, 996	3,704
Totals	59, 940	61, 880

See footnotes at end of table,

F. Factory Shipments of Wiring Devices, 1960 to 1964

Year	Value
	\$'000
960 961 962 963 964	12,003 14,773 16,492 18,164 21,532

¹ All types, including Chrismas tree, flashlight, automobile, etc.
² Not available separately — included in totals.
³ Does not include floor lamps or table lamps.

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 inclusive)

Name Location Québec: Amesse, René Enr.
Canadian General Electric Co. Ltd.
Canadian Westinghouse Co. Ltd.
Canadian Westinghouse Co. Ltd.
Columbia Electric Ltd.
Columbia Electric Ltd.
Columbia International Ltd.
E.P. Electric Products Co. Ltd.
Electrolier Corporation
Faraday Products Ltd.
Flex-I-Con Mfg. Co. Ltd.
Girard, Roger Inc.
Great Lakes Carbon Corporation (Canada) Ltd.
Hi-Scale Products (Canada) Ltd.
Hughes, Benjamin Electric Co.
Iberville Fittings (1962) Ltd.
Leviton Mfg. of Canada Ltd.
Lumiart Ltd. 103, rue Elmslie, Ville Lasalle 280 Faillon St., W., Montréal Granby 3350 Royale St., Trois-Rivières 3350 Royale St., Trois-Rivières St. Isidore Box 68, Place d'Armes, Montréal 6003, Côte-de-Liesse, Montréal 8501 Jarry St. E., Ville d'Anjou 2310 Holt St., Montréal 6155 Lafontaine St., Montréal 10123, Place Hötel de Ville, Montréal-Nord Barthierville 10123, Place Hötel de Ville, Montréal-Nord Berthierville
336 Port Royal Ave. W., Montréal 12
2665 Marcei St., St-Laurent, Montréal 9
100 Longtin St., St. Johns
8255 St. Michel, St., Montréal
704 Notre-Dame St. W., Montréal
1995 St-Dominique St., Montréal
1995 St-Dominique St., Montréal
1995 St-Dominique St., Montréal
1935 Bourg St., Ville St-Laurent, Montréal
1935 Bourg St., Ville St-Laurent, Montréal
1935 Bourg St., Ville St-Laurent, Montréal
1585 Fullum St., Montréal
12-Philippe-de-Prairie
19735 Jeanne Mance St., Montréal
12-10331, rue Pelletier, Montréal-Nord
15525 Paré St., Mount Royal
1500 Paré St., Town of Mount Royal
1500 Paré St., Town of Mount Royal
1500 Moreau St., Town of Mount Royal
1500 Mortée-de-Liesse, Montréal
1500 Sartelon St., St. Hyacinthe
12200 Sartelon St., St. Hyacinthe
12201 Sartelon St., Wontréal
1700 Amiens St., Montréal
1701 Amiens St., Montréal
1702 Nere Cobourg, Montréal
1705 Upper Lachine Rd., Montréal
1705 Upper Lachine Rd., Montréal
1706 Honteau St., Montréal
1707 Upper Lachine Rd., Montréal
1708 Honteau
1709 Ho Lumiart Ltd. Lumiart Ltd.
MacKay Industrial Electronics
Metal & Electrical Prod. Corp. Ltd.
Mid-Day Fluorescent Fixtures Inc.
Modulite Inc. (Div. of Lightolier Canada Ltd.)
Peerless Electric Ltd.
Pole-Lite Ltd. Peerless Electric Ltd.
Pole-Lite Ltd.
Prestige Lighting Mfg. Ltd.
Products Bel Inc.
Progress Luminaire Ltd.
Rest Glow Mfg. Co. Ltd.
Rosemount Industries Co. Ltd.
Schonbek, A. & Co. Ltd.
Smithraft of Canada Ltd.
Speer Carbon Co. of Canada Ltd.
Superior Lighting Mfg. Corp.
Sylvania Electric (Canada) Ltd.
Temco Electric Manufacturing Co.
Thomas - Betts Ltd. Thomas-Betts Ltd.
Universal Electric Products Co. Ltd. Verbogen Electronics Co.
Vogue Lighting Products Westlite Lighting Systems Ltd. Ontario: 431 King St. W., Toronto 2 B 469 King St. W., Toronto 2 B Bullock Drive, Markham 53 Fraser Ave., Toronto 3 9 Niagara St., Toronto Industry Street, Toronto 13 320 Elmbank Rd., Malton 146-30th St., Toronto 14 98 Ossington Ave., Toronto 3 Petersburg Alwin Decorative Lighting
Alwyn Lighting Products Ltd.
Amalgamated Electric Corp. Ltd.
Amcan Electrical Harness Ltd.
Ardron-Mackie Ltd.
Arrow-Hart & Hegeman (Canada) Ltd.
Ascor of Canada Ltd.
B. & S. Electrical Mfg. Ltd. Blue Star Lighting Ltd.
Bowman Electric Herder
Burger Lighting Products Ltd.
Burgess Micro Switch Co. Ltd. Petersburg
27 Sackville Place, Toronto 5
1402 Queen St. E., Toronto
1530 Birchmount Rd., Scarborough Burndy Canada Ltd.
C.E.B. Ltd.
C.&M. Products Ltd.
Camark Components Ltd.
Camesco Lighting Ltd.
Canadian Fluorescent Light Co. and Canadian X-Ray Supply Co. 950 Warden Ave., Scarborough 124 Crockford Blvd., Scarborough 160 Frederick St., Acton 195 Wicksteed Ave., Toronto 308 - 310 Adelaide St. W., Toronto 308 - 310 Adelaide St. W., Toronto 221 Dufferin St., Toronto 400 South Service Rd., Oakville 155 Brandon Ave., Toronto 940 Lansdowne Ave., Toronto 4 24 Ward St., Toronto 4 755 Division St. N., Cobourg Queen Elizabeth Hwy., Beamsville 120 Cartwright Ave., Toronto 19 149 Sterling Rd., Toronto 3 Port Colborne 482 Wellington St. W., Toronto 3 3 Labatt Ave., Toronto 2 Canadian General Electric Co. Ltd.
Canadian General Electric Co. Ltd. Canadian General Electric Co. Ltd.
Canadian General Electric Co. Ltd.
Canadian General Electric Co. Ltd.
Canadian Static Condenser Co.
Caneurop Mfg. Co.
Carillon Lighting Ltd.
Colonial Lighting Co., Ltd..
Commercial Enclosed Fuse Co.
Conduits National Company Ltd. 482 Weitington St. w., 1 oronto 33 Labatt Ave., Toronto 2 1774 Midland Ave., Scarborough 149 Sterling Rd., Toronto 1160 Birchmount Rd., Scarborough 19 Sydenham St., Brantford 195 Wicksteed Ave., Toronto 17 Conduits National Company Ltd.
Continental Cables and Conduits Ltd.
Cord (Canada) Ltd.
Crowse-Hinds Company of Canada Ltd.
Crown Electrical Mfg. Ltd.
Curtis Allbrite Lighting Limited
Custom Control Panels Ltd.
Dominion Carbon Brush Co. Ltd.
Dominion Electric Mfg. Company Ltd.
Dominion Traffic Signals Ltd.
Dominion Traffic Signals Ltd.
Eagle Electric of Canada Ltd.
Eastern Wire & Conduits Ltd.
Electric Power Accessories Co. Ltd. 195 Wicksteed Ave., foronto 1 Cooksyille 550 Evans Ave., Toronto 14 756 Warden Ave., Scarbotton 18 Hook Ave., Toronto 9 RR s 2, Pickering 214 Norseman St., Toronto Cooksville Brampton

List of Establishments classified to This Industry, 1964 - Concluded

Name	Location
Ontario - Concludad	
Electric Research Co. Electrikords & Harness Ltd. Electronic Craftsmen Etlin, H.B. Co. Ltd. Fanon Electronics Can. Ltd. of Federal Pacific Electric of Canada Fixturlite Electric Supply Co. Fleck Mg. (1959) Ltd. Frost, L.H. (Canada) Ltd. Garcy Co. of Canada Ltd. Harvey Hubbell of Canada Ltd. I.T.E. Circuit Breaker (Canada) Ltd. Ilsco of Canada Ltd. Kamro Lighting Products Kondu Mfg. Co. Ltd. Lightcraft Mfg. Ltd. McIntyre, J.B. Co. Magnetic Coli Ltd. Marr Electric Ltd. Mitton Electric & Machinery Ltd. Monitor Industries (Windsor) Ltd. Morganite Canada Ltd. Noma Lights Canada Ltd. Noma Lights Canada Lid. Noma Lights Canada Lid. Nego of Canada Lid. McIntre Feeder Enterprises Ltd. Picker X-Ray Mfg. Ltd. Pickering Feeder Enterprises Ltd. Ple-National (Canada) Ltd. Robertic Devices Ltd. Robertic Devices Ltd. Selectric Mfg. Co. Ltd. Rotaflex of Canada Ltd. Rosidential Lighting Studio Co. Ltd. Rotaflex of Canada Ltd. Syllo C. Limited Service Lamp Co. Ltd. Rotaflex of Canada Ltd. Swift Devices Lid. Syllo Mfg. Co. Smith & Stone Ltd. Swift Devices Lid. Union Switch Box Co. Ltd. Virden, J.C. Ltd. Wakefield Lighting Ltd. Wesson Lighting Ltd. Wesson Lighting Ltd.	135 Liberty Ave., Toronto 3 30 Weber St. N., Waterloo 1850 Wilson Ave., Weston 489 King St., Toronto 19 Waterman Ave., Toronto 16 1207 King St. W., Toronto 78 Harvey St., Tillsonburg. 1064 South Service Rd., Oakville 42 Dufflaw Rd., Toronto 19 332 Falrall St., Ajax 80 Clayson Rd., Weston 1050 Lakeshore Rd. E., Port Credit 23 Brydon Drive, Rexdale South St., Preston 201 Weston Road, Toronto 702 Weston Rd., Toronto 9 12 Laurel St. E., Waterloo 2555 Hensall St., Cooksville 20 Lockport Ave., Toronto 208 Chestnut St. E., Whitby 1527 Crawford St., Windsor 49 Mobile Drive, Toronto 16 Industrial Ave., Woodstock 8-32 Alcorn Ave., Toronto 5 Aurora 2115 Midland Ave., Scarborough 951 Martin Grove Rd., Rexdale 149 Sterling Rd., Toronto 54 Atomic Ave., Toronto
Wilson, J. A. Lighting Ltd. Advance Lighting Co	106 Midland St. Winnipeg 677 Notre Dame St., Winnipeg 446 Sekkirk Ave., Winnipeg 372 Selkirk Ave., Winnipeg 4 803 Erin St., Winnipeg 555 Madison St., St. James 1901 Logan Ave., Brooklands
Alberta: Ariel Davis Mfg. Co. Ltd.	7035 Farrell Road, Calgary
British Columbia:	
Adams Ejectric Mfg. Ltd. Duck, John & Son Ltd. Freeman, W. & Son Ltd. Marine Electric Ltd. West Coast Electric Ltd. Western Lighting Fixture Co. Ltd.	6102 Silver Ave., Burnaby 1 137 West 2nd St., North Vancouver

CONCEPTS AND DEFINITIONS

Census of Manufactures

General

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

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

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

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

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

Establishment

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

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

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

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

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

Head Offices and Auxiliary Units

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

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

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

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

Employees

(a) Production and related workers — Manufacturing activities

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

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

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

(c) Administrative and office employees

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

(d) Sales and distribution workers

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

(e) Total Employees

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

Working Owners or Partners

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

Salaries and Wages

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

Fuel and Electricity

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

Materials and Supplies

(a) Manufacturing activities

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

(b) Non-manufacturing activities

1. Purchases for re-sale as such

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

2. Other materials and supplies used

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

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

Shipments

(a) General

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

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

(h) 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".