





EXPLOSIVES AND AMMUNITION MANUFACTURERS 1963

ANNUAL CENSUS OF MANUFACTURES

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EXPLOSIVES AND AMMUNITION MANUFACTURERS

1963

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

For statistical purposes the industry titled Explosives and Ammunition Manufacturers in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in the manufacture of explosives; ammunition, including mines, bombs and depth charges, safety and detonating fuses; fireworks of all kinds; flares and railroad fuses.

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.
- ${\bf x}$ confidential to meet secrecy requirements of the Statistics Act.

TABLE 1 A. Principal Statistics classified by Province, 1962 and 1963

				Man	ufacturing	activity				7	Total acti	vity	
Year and	Estab-		oduction ated worl		Cost of	Cost of	Value of shipments			owners		otal oyees	
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	Total value added
	No.		'000			\$'000	l			\$'000		\$'(000
1961													
Totals	14	2,923	6, 168	11,828	1, 722	25, 586	63, 353	31, 864	-	-	4, 259	19,428	32, 503
1962	1												
2008													
Newfoundland	_	_	-	-	-	-	_	_	-	-	-	-	-
Prince Edward Island	_	_	-	_	_	_	_	-	-	-	-	-	
Nova Scotia	-	_	_	-	-	-	_	-	-	-	-	_	-
New Brunswick	-	_	_	_	-	_	- min	-	- 1	-	_	_	_
Quebec	8	h											
Ontario	3												
Manitoba	1											10 405	00 001
Saskatchewan	1	2,622	5, 570	11, 243	1,601	25, 419	61, 337	32, 763	_		3, 836	18, 485	33,601
Albe rta	1												
British Columbia	1												
Yukon and Northwest Territories	_		_	_	_	_	_	_	_	_	-	_	_
Totals	15	2,622	5, 570	11, 243	1, 601	25, 419	61, 337	32, 763	-	_	3, 836	18, 485	33, 601
1963													
Newfoundland	_	_	_		_	-	ente	_	-	_	-	-	
Prince Edward Island	-	ente	_	_	_	_	_	_		-	_	-	-
Nova Scotia	_	_	_	_		_	_	_		-	_	-	-
New Brunswick		_	_	_	_	_	_	_	_	_	_	_	-
Quebec	8	1											
Ontario	3												
Manitoba	2												
Saskatchewan	1	2, 443	5, 194	10,716	1,674	22,525	56,912	32, 204	_	-	3,596	17, 993	33, 356
Alberta	1												
British Columbia	1												
Yukon and Northwest Territories	_	****	_	_	_	_	_	_	_	_	_	- 1	_
Totals	16	2, 443	5, 194	10,716	1,674	22, 525	56, 912	32, 204			3, 596	17, 993	33, 356

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

				Man	ufacturing	activity					Total act	ivity	
Size group ?	Estab- lish- ments		oduction ated work		Cost of	Cost of	Value of shipments of goods	Value		owners artners		otal oyees	Total
And the second	menta	Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	value
	No.		'000			\$'000				\$'000		\$*	000
1962 Under \$10,000 \$ 10,000 to \$ 24,999 25,000 " 49,999 50,000 " 99,999	=	_	=	=	_	_	_	=	_	=		=	=
100,000 199,999 200,000 499,999 500,000 999,999 1,000,000 4,999,999 5,000,000 and over fead offices, sales offices and auxiliary units	15	2,622	5, 570	11, 243	1,601	25,419	61,337	32,763	_	-	3,836	18,485	33,601
Totals	15	2, 622	5,570	11, 243	1,601	25, 419	61, 337	32, 763	-	-	3, 836	18, 485	33, 60 1
Jnder \$10,000 to \$ 24,999 25,000 " 49,999 500,000 " 199,999 500,000 " 499,999 500,000 " 499,999 500,000 " 4999,999 5,000,000 " 4,999,999 5,000,000 and over lead offices, sales offices and auxiliary units.	18	2,443	5, 194	10,716	1,674	22, 525	56, 912	32, 204	-	-	3,596	17, 993	33, 356
Totals	16	2,443	5, 194	10, 716	1,674	22, 525	56,912	32 204	_		3,596	17, 993	33, 356

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

				Man	ufacturing	activity				,	Total act	ivity	
Size group	Estab- lish- ments		oduction ated work		Cost of	Cost of materials	Value of shipments of goods	Value		owners		otal oyees	Total
	menes	Number	Man- hours paid	Wages	elec- tricity	and supplies used	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	value added
-7	No.		*000			\$'000				\$'000		\$10	000
1962					1								
Jnder \$10,000 5 10,000 to \$ 24,999 25,000 " 49,999 50,000 " 99,999 100,000 " 199,999]	****	_	_	_	_	willedo	_	-	_	-	44000	
200,000 " 499,999 500,000 " 999,999 1,000,000 " 4,999,999 5,000,000 and over lead offices, sales offices and auxiliary units	15	2,622	5,570	11, 243	1,601	25,419	61, 337	32,763	-	_	3,836	18,485	33,601
Totals 1963	15	2, 622	5, 570	11, 243	1,601	25, 419	61, 337	32, 763	-	_	3,836	18, 485	33, 60
Inder \$10,000 10,000 to \$ 24,999 25,000 '' 49,999 50,000 '' 99,999	_	_	=	_	_	=	=	_	_	=	Ξ	=	
100,000 '' 199,999 200,000 '' 499,999 500,000 '' 999,999 1,000,000 '' 4,999,999 5,000,000 and over lead offices, sales offices and auxiliary units	16	2,443	5, 194	10,716	1,674	22, 525	56, 192	32, 204	William .	_	3,596	17,993	33,35
Totals	16	2, 443	5, 194	10,716	1,674	22, 525	56, 912	32 204		_	3,596	17, 993	33, 35

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

				Man	ufacturing	activity				Т	otal activ	rity	
Size group	Estab- lish-		duction a		Cost of	Cost of	Value of shipments	Value		owners urtners		otal oyees	Total
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	value added
	No.		'000			\$'000				\$'000		\$100	00
1962													
Under \$10,000	1	_	->	-	-	-	-			-	-	-	_
100,000 ' 199,999 200,000 ' 499,999 500,000 ' 999,999 1,000,000 ' 4,999,999 5,000,000 and over House offices, sales offices and auxiliary units	15	2, 622	5, 570	11, 243	1,601	25, 419	61,337	32, 763		_	3, 836	18, 485	33, 601
Totals	15	2, 622	5, 570	11, 243	1,601	25, 419	61, 337	32, 763	-	-	3,836	18, 485	33, 60
1963													
Under \$10,000 \$ 10,000 to \$ 24,999 25,000 '' 49,999 50,000 '' 99,999	=	_	=	=	=	=	=	_	=	-	-	=	=
100,000 '' 199,999 200,000 '' 499,999 500,000 '' 999,999 1,000,000 '' 4,999,999 5,000,000 and over Hend offices, sales offices and auxiliary units	} 16	2, 443	5, 194	10,716	1,674	22, 525	56,912	32, 204	_	1990	3, 596	17, 993	33, 356
Totals	16	2, 443	5, 194	10, 716	1,674	22, 525	56, 912	32, 204	_	_	3,596	17, 993	33, 356

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

				Man	ufacturing	activity				7	otal activ	rity	
Size group	Estab-		duction s ited work		Cost of	Cost of	Value of shipments			owners artners	Total employees		Total
	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
1962				1									
Under 5 employed	15	2,622	5,570	11, 243	1, 601	25, 419	61, 337	32, 763	_	-	3,836	18,485	33, 60
Totals	15	2, 622	5, 570	11, 243	1,601	25, 419	61, 337	32, 763	-	_	3, 836	18, 485	33, 601
1963 Under 5 employed] -		-	_	_	_	_	_	_	-	-	_	-
150- 99 " 100-199 " 200-499 " 500 employed and over Head offices, sales offices and auxiliary units	16	2, 443	5, 194	10,716	1,674	22, 525	56,912	32, 204	_	_	3, 596	17, 993	33, 356
Totals	16	2, 443	5, 194	10, 716	1, 674	22, 525	56, 912	32, 204	_	_	3, 596	17, 993	33, 356

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

				Man	ufacturing	activity				7	otal acti	vity	
Type of organization	Estab- lish-		oduction ated wor		Cost of	Cost of	Value of shipments		Working and p	owners artners		otal loyees	Total
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawais	Number	Salaries and wages	value added
	No.		,000			\$'000				\$'000		\$10	000
1962													
Indlvidual ownerships	-	-	-	_	-	_	_	_	- 1	_	-	_	_
Partnerships	-	_	-	_	-	_	_	-	_	1 1	-	-	_
Incorporated companies)												
Cooperatives	15	2,622	5,570	11, 243	1,601	25, 419	61,337	32,763			3,836	18,485	33,601
Head offices, sales offices and auxiliary units		2,000	0,010	11, 510	1,001	40, 115	01,551	02,103			3,030	10,200	33, 601
Totals	15	2,622	5,570	11, 243	1,601	25, 419	61,337	32, 763	-	-	3,836	18, 485	33, 601
individual ownerships	_	_	_	-	_	_	_	_	_	-	_		
Partnerships		_	_	_	_	_	_	_	_	_	_	_	_
ncorporated companies	1												
Cooperatives	16	2.443	E 104	10 710	3 004	00 505	EG 010	20 004			0.500		-
lead offices, sales offices and auxiliary units	10	2, 443	5,194	10,716	1,674	22, 525	56,912	32, 204	_	_	3, 596	17, 993	33, 356
Totals	16	2,443	5, 194	10.716	1, 674	22, 525	56, 912	32, 204	- 1	211	3, 596	17, 993	33, 356

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

	Manufacti activit		Non-manufi activit		Tota activi	
	1962	1963	1962	1963	1962	1963
A D M			\$'000	0		
Output						
1. Shipments and other revenue	61,337	56,912	8,011	8,616	69,348	65, 528
Inventories - Goods of own manufacture:						
Add closing - Goods in process	2,582	2, 321			2,582	2, 321
Finished goods	4,813	4,365			4,813	4,365
Less opening - Goods in process	4,505	2, 382		* * a	4,505	2,382
Finished goods	4, 445	4,813		4 * *	4,445	4,813
2. Net inventory change	(1,554)	(509)		4 4 0	(1,554)	(509
3. Gross output (1 + 2)	59,783	56, 403	8, 011	8,616	67,794	65,019
Input						
4. Purchases of goods not of own manufacture			6,331	6,420	6, 331	6,420
Inventorles - Goods not of own manufacture:						
Add opening	2 4 4		551	723	551	723
Less closing		4 2 2	726	766	726	766
5. Cost of goods sold (not of own manufacture)			6, 156	6,377	6, 156	6,377
6. Materials, supplies, components and semi-processed goods	25,419	22, 525	1.018	1,089	26,437	23,614
7. Fuel and electricity	1,601	1,674		* * =	1,601	1,674
8. Gross input (5+6+7)	27,020	24, 199	7,174	7.466	34, 194	31,665
Census value added (3-8)	32, 763	32, 204	837	1, 150	33, 601	33, 356

TABLE 3, Employment and Payroll, 1962 and 1963

					Emplo	yees						Salari	es and wa	ages	
Year and		Producti related			tra	ninis-	a	les nd		otal oyees	Product related		Admin- istra-	Sales	Total
province	Manufa	cturing	0	ther	and	office	distri	bution	Cinpa		101000		tive and	and distri- bution	salaries and wages
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other	office		
					num	ber							\$'000		
1962						1									
Newfoundland	_		-	_	_	_	_		_	_	-	_			_
Prince Edward Island	_	_	-	_	_	-	_	-	_	-	-	_	_		_
Nova Scotia	_	_	_	_	_	-	_	_	_	-	_	-		-	_
New Brunswick	_	-	_	_	_	-	_	-		_	_	-	_	-	_
Quebec	1											ĺ			
Ontario															
Manitoba	2, 112	510	26		947	192	44	5	3, 129	707	11, 243	115	6,751	377	18, 485
Saskatchewan	2, 112	310	20		341	192	44	3	0, 120	101	* 2, 2, 20	110	0,101	011	201
Alberta											İ				
British Columbia)														
Yukon and Northwest Terri-															
tories	0.110		- 00	_	947	102	44	_	3, 129	707	11 242	118	C 757	277	10 401
Totals	2, 112	510	26	_	947	192	44	5	3, 129	707	11, 243	115	6,751	377	18, 48
1963									i i						
Newfoundland	_		_	-	-	_	_	_	_	_	-	_			-
Prince Edward Island	_	-	_	-	_	-	_	_	_	_		_	_	_	_
Nova Scotia	_	_	_	_	_	_	_	_	_		_	-	_	_	_
New Brunswick		_	_	_	_	-	_	-	_	-	-	_	_	_	_
Quebec)														
Ontario															
Manitoba												400		040	17 000
Saskatchewan	1,994	449	38	1	888	182	40	4	2,960	636	10,716	178	6, 759	340	17, 993
Alberta												1			
British Columbia)														î
Yukon and Northwest Terri- tories	_	_	-	-	-	-	-	-		_	_	_		-	-
Totals	1, 994	449	38	1	888	182	40	4	2, 960	636	10, 716	178	6, 759	340	17, 993

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

	Estab	lishments report	ing monthly deta	ail
Month	196	2	1963	3
	Male	Female	Male	Female
		numbe	ľ	
January	2, 116	615	1,875	416
Fehruary	2, 132	607	1,922	444
March	2,009	580	1,909	453
April	2,063	534	1,987	433
May	2, 157	512	2,011	420
June	2,270	513	2, 117	439
July	2,274	519	2, 182	43'
August	2,308	526	2, 145	450
September	2,242	491	2,028	46:
October	2,069	465	1,974	473
November	1,932	381	1,919	470
December	1,782	387	1,864	48
Average for establishments reporting monthly detail (collected only for large establishments)	2, i12	510	1, 994	449
Average for small establishments (only annual averages collected)	4 2 4			
Average for all establishments	2, 112	510	1, 994	449

TABLE 4. Industry Inventories, 1963

		Manu	facturing		Non- manufacturing	
Province	Raw materials and supplies	Goods in process	Finished goods of own manufacture	Total manufacturing	Products or materials purchased for resale	Total inventories
			book val	ue \$'000		
Opening:						
Newfoundland	-	_	_	_	-	_
Prince Edward Island		_	_	-	_	_
Nova Scotia	-	-	_	_	-	_
New Brunswick	_	_	_	_	-	_
Quebec	1					
Ontario						
Manitoba	6,510	2, 382	4, 813	13, 706	723	14, 429
Saskatchewan	0,510	2, 302	4,010	20, 100	. 20	21, 100
Alberta						
British Columbia	J					
Yukon and Northwest Territories	_	-	-	_		_
Totals	6,510	2, 382	4, 813	13, 706	723	14, 429
Closing:						
Newfoundland	-	_	-	-	-	-
Prince Edward Island	_	-	-	_		_
Nova Scotia	-	-	-	-		_
New Brunswick		_	_	_	- 1	_
Quebec	7				ner -	
Ontario					1	
Manitoba	5,896	2,321	4,365	12,582	766	13, 348
Saskatchewan						
Alberta						
British Columbia	,					
Yukon and Northwest Territories	_	_	_	-	-	-
Totals	5,896	2, 321	4,365	12, 582	766	13, 348

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

	196	2	1963	
Description	Quantity	Cost	Quantity	Cost
		\$'000		\$1000
Large establishments which reported commodity detail: Bituminous coal:			. #	
(a) From Canadian mines ton	8, 139	90	11, 102	121
(b) Imported	9, 178	108	9,892	118
Sub-bituminous coal (from Alberta mines only)	-	-	_	_
Anthracite coal	-	- 1	-	_
Lignite coal	406	3	422	3
Coke	_	-	-	-
Gasoline (including gasoline used in cars and trucks) Imp. gal.	152, 047	36	164, 463	41
Fuel oil including kerosene or coal oil	8, 491, 467	596	8,466,567	604
Wood cord	-	_	-	-
Gas:				
(a) Liquefied petroieum gases Imp. gal.	16,913	4	22,790	6
(b) Other manufactured gas M cu.ft.	50	• •	_	-
(c) Natural gas	271,803	104	316	116
Other fuel		7	* * *	4
Electricity purchased kwh.	67, 460, 334	627	69,003,768	632
Steam purchased	a * 4	26	* * *	29
2. Estimate for small establishments:				
Fuel and electricity	_	-	-	-
3. All establishments:				
Total fuel and electricity used		1, 601		1,674

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

Description	Cost	
	1962	1963
	\$'000	
. All materials and components used	21,578	18,065
2. Containers and other packaging materials and supplies used		2,736
		1,684
Amount paid out to others for work done on materials owned by establishments	59	39
Totals	25, 419	22,525

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

Description	Value	
	1962	1963
	\$'000	
All products	61,295	57, 130
Amount received in payment for work done on materials and products owned by others		-
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above		_
Net adjustment for establishments receiving progress payments	58	(218)
Total adjusted value of shipments and work done	61, 337	56,912

List of Establishments classified to This Industry, 1963

Those not include retablishments classified to other industries, which as a secondary activity, manufacture products typical of this industry)

Name	Location
Quebec:	
Canadian Arsenals Limited	Nitro
Canadian Arsenais Limited	Quebec City
Canadian Arsenals Limited	St. Paul L'Ermite
Canadian Industries Limited	Brownsburg
Canadian Industries Limited	McMasterville
Canadian Safety Fuse Company Limited	Brownsburg
Delta Explosives Ltd.	St. Joseph du Lac
Hand Chemical Industries Ltd.	Papineauville
Ontarjo;	
Canadian Industries Limited	Nobel
Du Pont Canada Limited	West Ferris
Hand Chemical Industries Ltd.	Cooksville
Manitoba:	
Canadian Bristol Aerojet Limited	
Canadian industries Limited	Drainerd
askatchewan:	
Gevelot of Canada Ltd.	Saskatoon
Alberta:	
Canadian Industries Limited	Calgary
British Columbia:	In-og felend
Canadian Industries Limited	James Island

CONCEPTS AND DEFINITIONS

Census of Manufactures

General

The Census of Manufactures is an annual mail survey covering Canada's Manufacturing Industries. It is based on the Standard Classification of Industries and full details concerning the system may be found in the Standard Industrial Classification manual, Catalogue No. 12-501 which is available from the Queen's Printer or the Dominion Bureau of Statistics. In summary, the Classification as it relates to the manufacturing industries provides for a breakdown into 140 industries arranged in 20 major industry groups. Of the 140 (3 digit) industries, 18 are further broken down into 58 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 178 separate industries. They cannot all be published separately by province, however, because of the confidential nature of the data in certain provinces.

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

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

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

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

Establishment

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

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

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

Each establishment is required to report on all the activities carried out within 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 activity

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

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

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

(c) Administrative and office employees

This category includes all executive and supervisory officials such as presidents, vice-presidents, comptrollers, secretaries, treasurers.

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

(d) Sales and distribution workers

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

(e) Total Employees

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

Working Owners or Partners

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

Salaries and Wages

Salaries and wages refer to gross earnings of employees before deductions for income tax and employees contributions to social services such as sickness, accident and unemployment insurance, pensions, etc. They include all salaries, wages, bonuses, profits shared with employees, the value of room and board where provided, commissions (paid to regular employees only) as well as any

other allowance forming part of the worker's earnings. Payments for over-time are included. Figures on salaries and wages refer to the calendar year.

Fuel and Electricity

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

Materials and Supplies

(a) Manufacturing activities

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

(b) Non-manufacturing activities

1. Purchases for re-sale as such

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

2. Other materials and supplies used

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

fixed assets accounts and the cost of such other items of materials and supplies used as food, beverages and supplies for establishment-operated cafeterias and lunch counters, first aid and medical supplies, laboratory supplies, etc.

Shipments

(a) General

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

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

(b) Shipments of goods of own manufacture

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

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

Shipments of goods of own manufacture of establishments which are coded to some other division of the Standard Industrial Classification (on the basis of principal activity) but which are engaged in manufacturing as a subsidiary activity are collected by means of the Commodity questionnaire referred to earlier. Such shipments together

with shipments of goods of own manufacture of establishments forming the universe of manufacturing industries are compiled and recorded in the various industry publications.

(c) Shipments of goods not of own manufacture

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

(d) Other revenue

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs, alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishment's own employees and for which depreciation accounts are maintained. Included also are any revenues from the sale of electricity and from any operations performed by the establishment's own employees, such as revenue from goods produced or purchased for rental (the book value of such goods are included as part of shipments of goods of own manufacture or shipments of goods not of own manufacture), servicing revenues, commissions on sales (when not included in value of sales), revenue for 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



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

(b) Non-manufacturing activities

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

Value Added

(a) By manufacturing activities

Figures are compiled by deducting the cost of materials and fuel and electricity consumed from the value of production (value of shipments adjusted for changes in the value of inventories of finished goods and goods in process).

(b) By non-manufacturing activities

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

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

(c) By Total activities

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