CATALOGUE No. 42-210 ANNUAL

05

1962





MOTOR VEHICLE PARTS AND ACCESSORIES MANUFACTURERS

1962

ANNUAL CENSUS OF MANUFACTURES

Published by Authority of The Minister of Trade and Commerce

DOMINION BUREAU OF STATISTICS Industry Division

June 1965 6521-826 Price. 50 cents

ROGER DUHAMEL, F.R.S.C., Queen's Printer and Controller of Stationery, Ottawa

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.

MOTOR VEHICLE PARTS AND ACCESSORIES MANUFACTURERS

MUSINEL, P. Q. Canada

1962

Data presented in this report under the heading of Motor Vehicle Parts and Accessories Manufacturers reflect implementation of the revised Standard Industrial Classification (SIC) and the New Establishment Concept which are being used by the Dominion Bureau of Statistics in its compilation of industry statistics—see items "Standard Industrial Classification" and "Establishment" in the Explanatory Notes section of this report.

For statistical purposes the industry titled Motor Vehicle Parts and Accessories Manufacturers in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in manufacturing motor vehicle parts (except truck and bus bodies) and accessories for use on motor vehicles, such as engines, brakes, clutches, axles, gears, transmissions, heaters, horns and mirrors. The manufacture of tires and tubes is classified in Industry No. 163 – Tire and Tube Manufacturers; automobile glass in Industry No. 356 – Glass and Glass Products Manufacturers; and batteries in Industry No. 337 – Battery Manufacturers.

The introduction of the final stage of the establishment concept in the Annual Census of Manufactures has resulted in certain changes and necessitated some adjustments to the statistics. Refer to the Explanatory Notes section of this report for a more detailed explanation. For the most part the changes in the manufacturing activity of the industry under review resulting from the implementation of the final stage of the establishment concept were of a relatively minor nature as evidenced in the comparative series of statistics shown in Tables 1 and 1A.

-	. 4		
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				Em	ployees				1		
Year	Estab- lish-	Product related	ion and workers*		rative and nployees ³	To	tal ⁴	Cost of fuel and elec-	Cost of materials and	Value of shipments of goods of own	Value added
	ments	Number	Wages	Number	Salaries	Number	Salaries and wages	tricity*	supplies used ⁴	manu- facture*	
	No.		\$'000		\$'000				\$1000		
1957	115	13,913	53, 186	3, 738	19, 461	17,651	72,646	4, 317	145, 562	279,434	129,555
1958	116	11, 988	47, 897	3, 458	19, 227	15, 446	67,125	4,043	133,969	259, 559	119, 201
1959	110	12, 331	53, 446	3,423	19,670	15,754	73, 116	4,070	147,112	276,455	131, 943
1960	114	11, 956	53, 295	3, 575	20, 933	15, 531	74, 227	4,279	148,712	288, 080	132, 594
1961	126	15,898	72, 384	4,922	30,618	20, 820	103,002	5,386	185,995	352,779	160,762

TABLE 1. Principal Statistics - Manufacturing Activity, 1957-61 Basis: Revised Standard Industrial Classification and New Establishment Concept²

See footnotes following Table 3 A.

TABLE 1A. Principal Statistics - Manufacturing Activity and Total Activity,¹ 1961 and 1962 Basis: Revised Standard Industrial Classification and New Establishment Concept²

				Man	ufacturing	; activity					rotal acti	vity	
Year and	Estab- lish-		oduction ated work		Cost of	Cost of materials	Value of shipments			owners stners		otal oyees ⁷	Total
province	ments	Number	Man- hours paid	Wages	fuel and elec- tricity'	and supplies used ⁴	of goods of own manu- facture ⁴	Value added ⁴	Number	With- drawals	Number	Salaries and wages	value added*
1961	No.		'000			\$'000	N. S.			\$*000		\$*(000
Quebec	9	173	370	562	50	1,075	2, 320	1,242	10	10	206	738	1,236
Ontario	99	15, 343	31,924	70, 514	5, 241	184.424	344, 208	153,864	16	100	19, 864	99, 516	157, 795
fanitoba	4	219	439	674	37	1,498	3, 784	2, 227	www	-	299	1,096	2, 264
Alberta	6	104	216	409	35	733	1,520	767	-	-	146	620	904
British Columbia	6	58	108	225	23	266	781	497	80	10	74	300	497
Totals	126	15, 897	33, 058	72, 384	5, 386	187, 995	352, 613	158, 597	21	118	20, 589	102, 270	162, 696
1982													
uebec	9	197	421	636	58	1,277	2,639	1,344	10	10	230	825	1,300
ntario	105	16, 861	36, 677	83, 164	5,640	231, 536	428, 896	191, 813	13	70	21, 393	113, 379	197,023
lanitoba	4	277	606	892	40	2, 125	4, 291	2, 193	-	-	360	1,341	2, 303
Alberta	4	112	233	504	28	743	1, 576	616	-	-	143	736	1,115
British Columbia	7	61	123	255	25	332	857	500	10	10	77	354	506
Totals	131	17, 508	38, 060	85, 453	5, 791	236, 013	436, 260	196, 668	22	91	22, 203	116, 638	202, 246

See Table 2 and footnotes following Table 3 A.

				Ma	nufacturin	g activity				7	lotal acti	vity	1.24
Size group	Estab- lish- ments		duction a ated work		Cost of fuel and	Cost of materials	Value of shipments of goods	Value		owners rtners*		otal oyees ⁷	Total value
	ments	Number	Man- hours pald	Wages	elec- tricity ⁵	and supplies used*	of own manu- facture ⁴	added ⁴	Number	With- drawals	Number	Salaries and wages	added*
1961	No.		•000			\$'000				\$'000		\$*(000
Under \$10,000	} 8	12	19	32	2	62	144	81	6	16	14	38	82
\$ 10,000 to \$ 24,999 25,000 '' 49,999 50,000 '' 99,999 100,000 '' 199,999 500,000 '' 499,999 500,000 '' 4,999,999 5,000,000 and over Head offices, sales offices and	8 8 14 20 21 35 12	12 27 33 157 573 761 3,408 10,926	40 59 340 1,146 1,558 7,081 22,815	65 115 568 1.753 2.518 12,818 54,515	5 12 41 131 166 885 4,144	125 275 940 3,529 7,021 39,264 136,779	328 592 2,156 7,301 15,392 76,816 249,884	198 347 1,131 3,741 8,000 36,888 108,211	6 4 	33 16 	34 50 215 689 1,058 4,646 13,883	86 192 868 2,338 4,267 19,719 74,762	198 354 1,342 3,942 9,139 37,334 110,306
auxiliary units	126	15, 897	33, 058	72, 384	5, 386	187, 995	352, 613	158, 597	21	116	20, 589	102, 270	162, 696
Under \$10,000 \$ 10,000 to \$ 24,999 25,000 '' 49,999	} 8	12	19 12 58	31 23	2 4 12	40 119 290	118 284 619	76 169 330	4	9 33	18 9 49	52 27 193	77 169 354
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 Head offices, sales offices and	8 13 18 22 40 14	28 150 427 855 4.232 11.796	280 895 1, 718 9, 160 25, 917	105 541 1,395 2,857 15,856 64,646	34 96 152 918 4,571	782 2, 856 7, 397 47, 608 176, 922	1,9495,97115,34091,655320,324	1, 148 3, 390 8, 104 44, 277 139, 175	4	20 	191 506 1,054 5,581 14,795	759 1,825 4,170 23,734 85,877	1, 263 3, 635 9, 009 46, 848 140, 890
auxiliary units	121	17, 508	38,060	85, 453	5, 791	236,013	436, 260	196, 668	22	91	22, 203	116,638	202, 246
Totals	131	11, 308	30,000	00,400	0, (31	#30 ¹ 0Y3	430, 400	100,000	4.44	31	the states		

TABLE 1 B. Principal Statistics classified by Size Groups based on Shipments of Goods of Own Manufacture, 1961 and 1962 Basis: Revised Standard Industrial Classification and New Establishment Concept²

See footnetes following Table 3 A.

TABLE 1C. Principal Statistics classified by Size Groups hased on Manufacturing Value Added, 1961 and 1962 Basis: Revised Standard Industrial Classification and New Establishment Concept⁴

				Ma	nufacturin	g activity				T	'otal activ	vity	
Size group	Estab- lish- ments		duction a		Cost of fuel and	Cost of materials	Value of shipments of goods	Value		owners rtners ⁶		otal oyees ⁷	Total
	12.0 120.0	Number	Man- hours paid	Wages	elec- tricity ^s	and supplies used ⁴	of own manu- facture*	added ⁴	Number	With- drawals	Number	Salaries and wages	added*
	No.		'000		1	\$'000	4			\$'000		\$'0	00
1961										-			
Under \$10,000 \$ 10,000 to \$ 24,999 \$ 25,000 '' 49,999 50,000 '' 99,999 100,000 '' 199,999 500,000 '' 499,999 500,000 '' 499,999 500,000 '' 4,999,999 5,000,000 and over Head offices, sales offices and auxiliary units Totals	4 10 9 13 16 27 19 222 6 	3 29 42 101 439 949 1,471 3,730 9,133 15,897	6 48 64 208 888 1.942 3.079 7.758 19.064 33,058	10 75 113 357 1.344 3.134 5,415 16.132 45,803 72,384	4 10 29 98 196 406 1,350 3,291 5,386	80 187 391 886 2,779 9,576 13,873 50,491 109,732 187,995	102 358 715 1,806 5,322 19,132 27,356 95,446 202,373 352,613	24 168 308 898 2,483 9,184 13,390 43,465 88,679 158,597	1 8 3 4 - 5 - - - - - - - - - - - - - - - - -	2 29 17 16 	4 35 60 141 525 1,265 1,872 5,127 11,560 20,589	13 92 195 563 1,812 4,878 7,800 23,919 62,997 102,270	24 169 360 1,055 2,687 10,333 13,576 44,782 89,731 162,696
1962 Under \$10,000 \$ 10,000 to \$ 24,999 25,000 '' 49,999 50,000 '' 99,999 100,000 '' 199,999 200,000 '' 999,999 50,000 '' 999,999 50,000 '' 499,999 500,000 '' 499,999 500,000 '' 499,999 5,000,000 '' 4999,999 1,000 and over Heat offices, sales offices and	5 11 8 11 16 27 18 27 8	6 16 25 116 305 1,053 1,333 4,164 10,490	10 25 50 231 627 2,132 2,763 9,088 23,135	16 41 94 409 1,042 3,604 4,595 17,733 57,918	1 3 11 205 219 1,371 3,878	13 256 340 903 2,577 10,340 11,372 59,760 150,450	54 441 633 1.830 4.875 18.846 24.001 111.146 274,434	36 190 294 907 2,332 8,764 12,906 51,376 119,860	2 11 2 4 - 3 -	2 33 8 20 	11 21 41 142 381 1,240 1,729 5,453 13,165	32 56 169 549 1,448 4,873 6,752 25,862 76,897	40 190 310 987 2,582 10,101 13,837 52,816 121,383
acxiliary units				08 482		000 010	420 200	100 000		91	22, 203	116.638	202, 24
Totals	131	17, 508	38,060	85, 453	5, 791	236, 013	436, 260	196, 668	22	91	44, 203	110,038	406, 641

See footnotes following Table 3 A.

Manufacturing activity Total activity Production and related workers Estab-Value of Working owners Total Cost of Cost of employees⁷ Size group shipments and partners lishmaterials of goods of own Value ments fuel and and Мал-Salaries elecadded supplies used⁴ Withmanu-facture⁴ Number hours tricity⁵ Number Number and Wages drawals wages paid No. '000 \$'000 \$'000 \$'000 1961 Under \$10,000 .. \$ 10,000 to \$ 25,000 '' 50,000 '' 10 75 76 325 80 102 358 3 6 24 2 13 - -4 24,999 10 29 48 4 187 168 83 29 35 92 538 534 1,422 5,545 16,869 28,308 97,101 49,999 99,999 199,999 499,999 8 25 88 8 28 42 270 670 260 722 17 16 43 134 495 98 4 100,000 " 193 682 1,862 3,164 7,997 19,064 2,818 8,397 2,646 8,030 13,654 44,414 88,679 495 1,612 4,207 8,129 24,592 62,997 18 25 21 23 1,145 2,763 5,622 16,563

182

14,582 51,259 109,732

187, 995

. . .

11

259

285

868

2,004 8,616 13,760 55,066

155,144

236,013

202,373

352,613

...

42 453

482

4.019 16.736 27.269 101.243

284, 337

436,260

419 1,368 3,291

...

1

47

33

62 192

244

4,061

...

5,791

5.386

45,803

72, 384

....

q

48

64 376

844 3,225 5,236 15,562

60,089

85,453

...

6

29

34 214

485 1.973 3.095 8.295

23,928

38,060

...

33.058

340

910

1,515 3,841

9,133

15,897

...

4

18 17 103

244 958

1,510 3,829

10,825

17, 508

...

6

...

126

4 12

6 11

9

...

131

TABLE 1 D. Principal Statistics classified by Size Groups based on Total Value Added, 1961 and 1962 Basis: Revised Standard Industrial Classification and New Establishment Concept²

Total

value added

24 169

262 801

....

29 201

201

840

2,173 8,343 16,262 47,810

126,389

202,246

162,696

2, 757 8, 379 14, 764 45, 812 89, 731

....

20 68

102,270

68 95 527 1,206 4.305 7.659 23,113 79,646

420 1,108

1,991 5,299 11,560

...

7 25

23 134

311 1.115

1,950 5,067

13,571

22,203 116,638

20, 589

-

118

233

8 20

-

....

91

5

-

...

21

2

24

- - 3

-

_

....

22

...

29

200

202 802

2,030 8,071

14,099 46,461 124,774

196,668

158, 597

See footnotes following Table 3 A.

24,999

49,999 99,999 199,999 499,999

200,000 '' 499,999 500,000 '' 999,999 1,000,000 '' 4,999,999

Totals

Under \$10,000 . \$ 10,000 to \$ 25,000 '' 100,000 '' 200,000 '' 500 000 ''

auxiliary units

1962

200,000 ** 499,999 500,000 ** 999,999 1,000,000 ** 4,999,999

5,000,000 and over Head offices, sales offices and auxiliary units

Totals

TABLE 1 E. Principal	Statistics	classified b	y Size	Groups	based	on Total	Employed, ¹¹	1961	and	1962
Basis:	Revised Stan	dard Industrial	l Classif	lication an	nd New	Establishm	ent Concept ²			

				Man	ufacturing	activity					Total acti	lvity	
Size group	Estab- lish- ments		oduction ated work		Cost of fuel and	Cost of materials	Value of shipments of goods	Value	Working and pa			otal oyees'	Total
	Inclus	Number	Man- hours paid	Wages	elec- tricity ⁵	and supplies used ⁴	of own manu- facture	added*	Number	With- drawals	Number	Salaries and wages	value added
1961	No.		'000			\$'000				\$'000		\$*	000
Inder 5 employees	11	11	20	33	4	173	345	169	9	33	15	53	169
5- 14 employees	24	134	257	441	29	1,458	2,902	1,454	7	31	188	707	1,642
15- 49 **	33	787	1,519	2, 528	175	8,020	15, 360	7,456		-	992	3,717	8,048
50 - 99 **	18	956	2,070	3, 590	326	9,494	19,125	9,112	5	54	1,173	4,943	9,372
00-199 **	23	2,259	4,712	8,044	468	25,418	49,258	23,663		-	3,136	12,833	24, 402
0 - 499 **	11	2, 237	4,631	10,085	920	29,277	59, 583	29,318	-	- 1	3,055	15,044	29,898
0 employees and over	6	9,513	19,850	47,664	3,464	114, 154	206,041	87, 425	-14	-	12,030	64,972	89,166
ead offices, sales offices and auxiliary units											* * *		
Totals	126	15,897	33,058	72, 384	5, 386	187, 995	352, 813	158, 597	21	118	20, 589	102,270	162, 696
1962												1	
nder 5 employees	19	25	42	74	7	387	715	330	15	43	38	118	330
5 - 14 employees	16	93	195	352	24	1,203	2, 570	1,383	-	-	130	537	1,507
15-49 **	31	715	1,462	2,486	182	7,610	14, 517	6,846	4	20	879	3.545	7,600
50 - 99 **	28	1, 481	3,064	5, 295	375	16,276	31,262	15,395	3	29	1,793	7,405	16,410
00-199 "	17	1,827	3,814	6,756	352	19,222	38,039	16,937	-	-	2,479	10,517	19,803
00 - 499 **	15	3, 099	6,756	13, 526	1,017	43,322	82, 469	39, 102	-	-	3,960	19,145	40, 381
00 employees and over	7	10,288	22, 727	56,964	3,634	147,991	266,687	114,678	-	-	12,924	75.372	116,217
ead offices, sales offices and auxiliary units													
Totals	131	17, 508	38,060	85,453	5,791	238,013	436.260	196,668	22	91	22,203	116,638	202,246

See footnotes following Table 3A.

	1000			Mat	ufacturing	; activity				Т	'otal acti	vity	
Type of organization	Estab- lish- ments		oduction ated work		Cost of	Cost of materials	Value of shipments of goods	Value		owners utners ⁶		otal oyees ⁷	Total
	mentos	Number	Man- hours pald	Wages	elec- tricity	and supplies used ⁴	of own manu- facture ⁴	added ⁴	Number	With- drawals	Number	Salaries and wages	value added*
	No.		(000)			\$'000				\$'000		\$'0	00
1961						1			-				
Individual ownerships	8	18	29	48	4	86	227	137	8	39	19	50	137
Partnerships	4	44	94	148	11	244	662	420	13	79	52	180	552
Incorporated companies	114	15,835	32, 934	72, 188	5,371	187,666	351, 725	158,040	-	-	20, 518	102, 039	162,007
Cooperatives		-	-	-	-	-		-	-	-	-	-	
Head offices, sales offices and auxiliary units													
Totals	126	15, 897	33, 058	72, 384	5, 386	187, 995	352, 613	158, 597	21	118	20, 589	102, 270	162, 696
1962											-		
Individual ownerships	5	7	10	17	2	48	138	88	5	22	7	17	88
Partnerships	6	69	125	198	12	I, 058	1,469	424	17	69	78	250	815
Incorporated companies	120	17,432	37,925	85, 238	5, 777	234,906	434, 653	196, 156	-	-	22, 118	116,371	201,343
Cooperatives	-	-	-	-	-	-	-	-	-	-	-	- 15	-
Head offices, sales offices and auxiliary units													
Totals	131	17, 508	38,060	85, 453	5, 791	236,013	436, 260	196,668	22	91	22, 203	116, 638	202, 246

TABLE 1F. Principal Statistics classified by Type of Organization, 1961 and 1962

Basls: Revised Standard Industrial Classification and New Establishment Concept²

See footnotes following Table 3 A.

 TABLE 2. Industry Outputs, Inputs and Value Added, 1961 and 1962

 Basis: Revised Standard Industrial Classification and New Establishment Concept²

Item	196	1	1962	
	1	\$'000		
Manufacturing activity:				
Value of shipments - Goods of own manufacture	10.00	352, 613		436, 260
Add: Closing inventory - Goods in process	29,018		31, 506	
Finished goods	12, 604	41,622	14,682	46, 188
Deduct: Opening inventory - Goods in process	29, 254		31, 594	
Finished goods	13,005	(42,259)	12, 382	(43, 976)
Gross output Manufacturing activity	1000	351,976		438, 472
Deduct: Cost of materials and supplies used in manufacturing activity	187, 995		236,013	
Cost of fuel and electricity used	5, 386	(193,381)	5, 791	(241, 804
Value added - Manufacturing activity		158, 597		196, 668
Non-manufacturing activities:	143			
Value of shipments - Goods not of own manufacture	and the second			16, 938
Add: All other revenue			1, 409	
Ciosing inventory - Goods purchased for resale	3, 721		5,074	6, 483
Deduct: Purchases of goods for resale as such			12, 477	
Opening inventory - Goods not of own manufacture	3, 429		3, 892	
Cost of all other materials and supplies used		()	1,472	(17,84)
Value added Non-manufacturing activities		4,099		5, 578
Total value added	162,	696	202,	246

See footnote following Table 3 A.

					Emplo	oyees						Sala	ries and v	ages	
Year and	i lees	Producti related v				ninis- tive		les, Ind		otal	Product		Admin-	0.1	
province	Manufa	cturing ⁴	O	ther		ffice ^{6,9}		bution ⁹	emplo	yees ^{7,9}	related	workers	istra- tive	Sales, and distri-	Total salaries and
- Ft-	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other	and office	bution	wages
					num	ber							\$'000		<u> </u>
1961		1		1		1			1	1					1
Quebec Ontario	161 13, 333	$\begin{smallmatrix}&12\\2,010\end{smallmatrix}$	* *	0 a a 0	**	* *		**	180 16,961	26 2,903	562 70, 514			**	738 99, 516
Manitoba Saskatchewan	149	70					+ =		212	87	674				1,096
Alberta British Columbia	98 58	6	* *			* *	**	• •	126 70	20 4	409 225	••		•••	620 300
Totals	13, 799	2, 098					* *		17,549	3, 040	72, 384		• •		102,270
1962											_				
Quebec Ontario	178 14, 324	19 2, 537	- 5	-6	16 3, 192	12 823	5 422		199 17,943	31 3, 450	638 83, 164		167 27, 005	21 3, 179	825 113, 379
Manitoba Saskatchewan	202	75	25	3	20	16	17	2	264	96	892	151	184	114	1, 341
Alberta	110 61	2	-	-	12 12	9 4	9	_1	131 73	12 4	504 255	=	172	62	738 354
Totals	14, 875	2, 633	30	9	3, 252	864	453	87	18,610	3, 593	85, 453	183	27.628	3, 376	116, 638

TABLE 3. Employment and Payroll, 1961 and 1962 Basis: Revised Standard Industrial Classification and New Establishment Concept²

See footnotes foilowing Table 3 A.

TABLE 3 A. Production and Related Workers,⁴ - Manufacturing Activity, by Months, 1962 Basis: Revised Standard Industrial Classification and New Establishment Concept²

Month	Establishme monthl	ents reporting y detail
	Male	Female
	nur	nber
anuary	14, 457	2, 389
Pebruary	14, 407	2,467
larch	14,663	2, 529
pril	15,048	2, 489
lay	15, 213	2, 615
une	14, 275	2, 623
uly	11, 120	1, 903
ugust	13, 537	2, 365
eptember	14,855	2, 785
Detober	15, 382	2, 896
ovember	15,857	2, 995
December	16,014	2, 846
verage for establishments reporting monthly detail (collected only for large establishments)	14,608	2,576
verage for small establishments (only annual averages collected)	267	57
verage for all establishments	14, 875	2,633

See Table 2 and Explanatory Notes concerning manufacturing and non-manufacturing activities.

² See Explanatory Notes, ³ This category, in this table only, includes working owners and partners. Since administrative and office employees are engaged in a variety of activities they have been excluded from manufacturing activity beginning with the revised 1961 series shown in the following tables. They are included here for purposes of comparison with the tabulations of previous years. Conceptually identical to previous years. See Explanatory Notes. ⁵ Cannot be reported separately for manufacturing and non-manufacturing activities but related substantially to manufacturing activity. Identical concept

to previous years. ⁶ Working owners and partners were included with administrative and office employees in the "Manufacturing series" published in former years. See Ex-

⁶ Working owners and partners were included with administrative and office employees in the Manufacturing series published in Iohier years, or the planatory Notes.
 ⁷ Includes production and related workers, administrative and office employees, sales distribution and other employees. See Explanatory Notes for the treatment of head office employees and those employed in auxiliary units.
 ⁸ Value of total shipments and other operational revenue less total cost of materials, supplies, fuels used and purchases of products and materials for resale in the same condition; all adjusted for inventory changes where required. See Table 2 and Explanatory Notes.
 ⁹ Sales and distribution workers and production workers (non-manufacturing) are included for the first time as a result of the full implementation of the new definition of the establishment. The figures for production workers (non-manufacturing), administrative and office employees and sales and distribution workers are not yet available for 1961 but form part of total employees. Sales and distribution workers nay include some employees and sales and distribution workers for the province in which they are located.
 ¹⁰ Confidential data.
 ¹⁰ Confidential data.
 ¹¹ Includes paid employees and working owners but excludes unpaid family workers.

Note: Figures may not add due to rounding.

Description		Quantity	Cost
Aterials used:			\$'000
Iron and steel:			
Castings:			
Iron	ton	20, 562	7,560
Steel		4,646	8
Pig iron		33, 279	1, 978
Bars and rods, steal		68,009	11, 374
Plates, steel		17,078	2,990
Sheets			-,
Black		57, 158	8,571
Galvanized		4,772	727
Tinplate		1, 824	352
Strip, steel		57,040	8,454
Structural shapes		3,407	599
Wire		4, 377	988
Alloy steel in all forms:		21011	300
Stainless:			
Billets, bars and rods			44
Other		6 B	
Other alloy and tool steel (including carbon, alloy and high speed steels):			1,667
			4 1 1 1 1
Billets, bars and rods		b 0	4, 578
Other			525
Scrap iron and steel		23, 379	798
Iron and steel pipe, tubing and fittings		6 0	2,870
Other iron and steel	*****	0.0	2,606
Ferro-alloys	****		394
Non-ferrous metals:			
Aluminum:			
Castings	pound	415.906	487
Sheet		325, 983	177
Other forms		5, 227, 108	1,530
Brass and bronze		7, 229, 116	2,976
Copper:		11 0001 110	ay 0 ru
Sheet	6.6	315,000	219
		3, 988, 802	2,208
Other forms		3, 312, 820	1, 702
Lead		107, 279	27
Nickel		889, 344	908
Zinc		2,653,983	770
Babbitt metals and solders.		1, 226, 966	673
Other non-ferrous metals			396
Other materials:			
Paints, oils and varnishes			413
Foundry coke for cupola use		20,074	697
Foundry sands		34,692	114
Plumbago and graphite	pound	413,900	34
Lumber	M ft. b.m.	773	83
Firebrick and cupola blocks	*****		53
Fireciay			80
Core oil	Imp. gal.	71, 488	73
Sulphuric acid, 100%	pound	1, 365, 909	27
All other materials and components used ²			144, 467
Containers and other packaging materials and supplies used	L		3, 113
Containers and other packaging materials and supplies used			13, 135
Amount paid out to others for work done on materials owned by establishments			2, 491
			236,013

TABLE 4. Materials and Supplies Used in Manufacturing Activity, 1962 Basis: Revised Standard Industrial Classification and New Establishment Concept¹

¹ See Explanatory Notes. ² No detailed information on materials used was collected from small establishments, the estimated costs for which are included here. In 1982 these esti-mated costs were \$2,003,910.

Description		Quantity	Cost
1. Large establishments which reported commodity detail:			\$'000
Bituminous coal: (a) From Canadian mines (b) Imported	ton	10,427 154,427	113 1,494
Sub-bituminous coai (from Alberta mines only)		_	_
Anthracite coal			_
Lignite coal		_	7
Coke	ton	4, 173	144
Gasoline (including gasoline used in cars and trucks)	Imp. gal.	721,958	222
Fuel oil including kerosene or coal oil	14	6,050,795	610
Wood		- 1	
Gas:			
(a) Liquefied petroleum gases (b) Other manufactured gas		297, 690	46
(c) Natural gas	M cu.ft.	1,052,598	831
Other fue]			15
Electricity purchased	kwh.	301,875,769	2,224
Steam purchased		* * *	28
2. Estimate for small establishments for which no data were collected:			
Fuel and electricity			64

TABLE 5. Fuel and Electricity Used¹ in Manufacturing Activity,² 1962 Basis: Revised Standard Industrial Classification and New Establishment Concept*

Total fuel and electricity used

3. All establishments:

¹ Does not include fuel and electricity produced for own use. ² Includes only fuel and electricity purchased. Conceptually identical to previous years in that it also includes relatively small amounts used in non-manufacturing activities since there are the reported sommably. ³ The Exploring Product of the reported sommably.

Description	Quantity	Value
		\$'000
. Products:		
Axles and axle shafts		10,803
Battery cables and ground straps		648
Brakes and parts		7,480
Hardware, automobile		7, 125
Heaters (car and engine block)		3,279
Oil filters and elements	* *	9,355
Pistons	2, 512, 165	2,459
Piston rings	11,662,709	3, 787
Radiators, complete	296, 427	4,809
Radiator cores		2, 142
Spark plugs	38, 296, 799	11,310
Springs, auto chassis (flat and coil)		9,760
Other automobile parts ²		319,070
Received from repairs	• • •	1,437
All other products ³		43, 154
- Amount received in payment for work done on materials and products owned by others		318
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not dividual commodity items described above	be deducted from in-	(676
Net adjustment for establishments receiving progress payments ⁴		-
Total adjusted value of shipments and work done	1++++++++++++++++++++++++++++++++++++++	436, 260

TABLE 6. Shipments of Goods of Own Manufacture, 1962

Basis: Revised Standard Industrial Classification and New Establishment Concept

¹ See Explanatory Notes. ² Includes products reported by less than 3 firms, such as engines, inalition colin, comparison in the second state of the second stat

Note: Data given in the above table are for Motor Vehicle Parts and Accouncies Manufactaria, which iscindes only the concerns likely manufactaria metal auto parts as their chief products. Figures for the individual items do not necessarily represent the total output for Canada as there may also have been an output by concerns classified to other industrial groups.



5,791



TABLE 7. Industry Inventories, 1962¹

Basis: Revised Standard Industrial Classification and New Establishment Concept²

		Manufa	Non- manufacturing			
Province	Raw materiais 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:* Quebec Ontario	181 18, 842	14 31, 506	131 11,911	325 62, 259	3, 673	325 65, 932
Mani toba Saskatchewan Alberta British Columbia	} 996 130 158	69 6	265 61 14	1,330 197 172	118 97 6	1,446 294 177
Totals4	20, 307	31, 594	12, 382	64, 283	3, 892	68, 175
Closing: Quebec Ontario	234 27, 356	23 31,399	162 14, 111	419 72,866	4. 817	419 77,683
Manitoba	} 746	74	327	1,147	175	i, 323
Saskatchewan Alberta British Columbia	151 184	10	68 14	230 197	74 8	303 205
Totals'	28, 671	31, 506	14, 882	74, 659	5, 074	79,993

¹ Values represent book values of inventories 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. ³ See Explanatory Notes.

³ The opening inventories may differ from the closing inventories for the previous survey 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. ⁴ Figures may not add due to tounding.

TABLE 8. Available Data on Factory Shipments of Commodities Associated with the Motor Vehicle Industry (from all Industries)1, 1962

Industry	Commodities	Value
		\$'000
sbestos Products Manufacturers	Brake linings, clutch facings, etc.	5,789
Automobile Fabric Accessory Manufacturers	Covers, cushions, trim, etc.	13,075
Battery Manufacturers	Auto batteries (Total vehicle batteries reported)	25, 333
Hardware, Tool and Cutlery Manufacturers	Automotive hardware, seat belts, etc.	2,340
Household Radio and Television Receivers	Auto radios (Total automobile radios reported by all industries)	9, 348
Metal Stamping, Pressing and Coating	Automobile hardware and accessories	5, 038
Miscelianeous Leather Products Manufacturers	Seat covers, etc.	850
Aotor Vehicle Manufacturers	Repair parts and accessories	28, 788
Notor Vehicle Parts and Accessories	Axles, brakes, bumpers, differentials, engines, spark plugs, trans- missions, wheels, etc.	388, 036
lastic Fabricators	Plastic accessories and parts	1.987
Tre and Tubes Manufacturers and Other Rubber Industries	Tires, tubes and other rubber products	174.513
Vire and Wire products	Steel tire braids, wire springs, etc.	12, 847
	Plastic components, cables, windshields, etc.	33,615
Total		701, 559

¹ It is difficult to obtain from official statistical reports data covering the total shipments by Canadian Manufacturers of original or replacement commodi-ties associated with the Automotive Industry. The main difficulty is that many products or materials for automotive applications are not identified as such. Examples of these are castings, forgings, screw machine products or fasteners (nuts, bolts, screws, washers, etc.), stampings, spinnings electrical components, etc. Also because of the nature of the products and materials, and the production processes used in their manufacture, it is necessary, for statistical purposes, to classify the firms so engaged in a number of industries e.g. tires are a product of the Rubber Industry, brake linings in the Asbestos Industry, windshields in the Glass Products Industry and so on. Another problem is that some automotive firms manufacture parts and commodities for their own use and these are not reported separately but appear in the total value of the end products. Nevertheless, while noting the foregoing qualifications, it is possible to bring together some useful data on parts and accessories from the various industries which report these products and the results of such a compilation are presented in the above table.

TABLE 9. 0	Capital an	d Repair	Expenditures,	1960 - 62
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	Capital expenditures		Repair expenditures			Total capital and repair expenditures			
Year	Construction	Machinery and equipment	Sub- total	Construction	Machinery and equipment	Sub- total	Construction	Machinery and equipment	Total
				1	\$'000		4		
960	1,450	4,800	6,250	957	5, 534	6, 491	2,407	10, 334	12,741
1961	735	6,448	7,183	1,100	6,623	7,723	1,835	13,071	14,906
1962	2, 323	17,976	20, 299	1,994	11,536	13,530	4,317	29, 512	33, 821

Source: Business Finance Division. - DBS.

List of Establishments, 1962

Name	Location
bec:	
uto Radiator Mfg. Ltd.	
utomotive Spring Mfg. Co. Ltd.	
agle Mfg. Co. Ltd.	
astern Spring Service	
conomy Carburetor Co. Ltd.	
arrell Mfg. Cc.	
eatex Limited peciallold (Canada) Ltd.	
estern Filters Ltd.	
CORCER 1 116010 LING. ANTHONY CONTRACTOR CONTRA TOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CON	St. Laulent
ario:	
imco Auto Parts Co.	
Igoma Mfg. Tool & Die Ltd.	Oshawa
ll-Metal Machine Specialities Co merican Coleman of Canada Ltd.	Weston
ppleby, D. & Co.	Toronto 9 Toronto 15
anner Metal Products Ltd.	
endix-Eclipse of Canada Ltd.	Windsor
lian Voltage Ltd.	Weston
lackstone Industrial Products Ltd.	Stratford
order Distributing Co.	
urmac Mfg. Ltd.	Windsor
anadlan Acme Screw & Gear Ltd.	Toronto 9
anadian Filters Ltd.	
anadian Motor Lamp Co. Ltd.	Windsor
anadian Radiator Mfg. Co. Ltd.	Toronto 3
arrick's Auto Spring Repairs	Islington
nampion Spark Plug Co. of Canada Ltd.	
evite Limited, The	
omco Stampings Ltd.	
onroy Mfg. Co. Ltd.	
bulter Mfg. Co. Ltd.	
zens Spring Service & Mfg. Co. Ltd.	Toronto 2
yton Steel Foundry of Canada, Ltd.	Orillia
earborn Steel Tubing Co. (Canada) Ltd.	
11 Mfg. Co. of Canada Ltd., The	
ominion Auto Accessories Ltd.	Toronto 9
ominion Cable & Automotive Products	Toronto 2B
ynamo Auto Electric Co.	
aton Automotive Canada Ltd.	London
lectric Auto-Lite Ltd.	Sarnia
lectroline Mfg. Co. Ltd.	
lectronic Components Ltd.	
ssco Stamping Products Ltd.	
ssex Wire Corp. Ltd.	
cel Metalcraft Ltd.	
abricated Metals & Stampings Ltd.	
eetwood Metal Industries	
exo Mfg. Co. Ltd.	
brbys Management Ltd. (Window)	
ord Motor Co. of Canada Ltd. (Windsor)am Canada Ltd.	Windsor
ıbriel of Canada Ltd	Long Branch
eneral Motors of Canada Ltd. (Windsor)	Galt Windsor
asslyner Mufflers Ltd.	
odwin Glass Industries Ltd.	
aham Automotive Mfg. Ltd.	
anan Automotive mig. Ed.	
yes Steel Products Ltd.	
ller Mfg. Co. Ltd.	
ill-Thomson Ltd.	
ron Steel Products Co. Ltd.	Windsor
zersoll Machine & Tool Co, Ltd.	Ingersoll
ernational Formed Tubes Ltd.	
rco Co, Lid., The	
lsey Wheel Co. Ltd.	
alinator Filters Ltd.	Preston
ke Simcoe Industries Ltd.	Beaverton
nark Mfg. Limited	Dunnville
ng Mfg. Co. Ltd.	Oakville
Cord Corporation (Windsor)	Windsor
Kinnon Industries Ltd.	St. Catharines
Quay-Norris Mfg. Co. of Canada Ltd.	Toronto 15
nroe-Acme Limited	Toronto 9
rco Products Ltd,	
iffler Corp. of Canada Ltd., The	
tional Auto Radiator Mfg. Co. Ltd.	
tional Tubular Products Ltd.	
elmor Corp. (Canada) Ltd.	
itario Steel Products Co. Lto. (Chatham)	
itario Steel Products Co. Ltd. (Milton)	
tarlo Steel Products Co. Ltd. (Oshawa)	
shawa Engineering & Welding Co. Ltd.	
aramay Limited	
	Don Mills
erfect Circle Co. Ltd., The	
erfect Circle Co. Ltd., The erfection Automotive Products Ltd. Laza Fibreglass Mfg.	Windsor

List of Establishments, 1962 - Concluded

Name	Location
ntario - Concluded:	
Premier Automotive Units Ltd.	Hamilton
Provincial Eng. Ltd. (Houdaille Industries)	Oshawa
Purolator Products (Canada) Ltd.	Toronto 18
S.K.D. Mfg. Co. Ltd.	
Sales, A.J. Co. Ltd.	
Schrader's, A., Son	Toronto 2
Sealed Power Corp. of Canada, Ltd.	. Stratford
Sehl Engineering Ltd,	
Shutileworth Moulded Products Ltd. Simpson, R.J., Mfg, Co. (Canada) Ltd.	
Standard Products (Georgetown) Ltd.	
Stewart-Warner Corp. of Canada Ltd.	
Tecumseh Metal Craft Ltd.	Windsor
Thompson Products Ltd.	St. Catharines
Travel-Eaz Trailer Products	
Trim Trends Canada Lto.	
Van Dresser Specialty (Canada) Ltd.	
Venco Metals Ltd.	Toronto 18
Vibron Limited	
Wagner Brake Co. Ltd.	
Warner Gear Co. Ltd. Watson Spring Co. Ltd.	
Weatherhead Co. of Canada Ltd.	
Wilson-Hinschberger	
Wix Corporation Ltd.	
Wrigley Steel Co. of Canada Ltd.	Windsor
Yankee Metal Prod. of Canada Ltd.	Toronto
anitoba:	A PART OF TAKEN OF THE TAKEN
Automotive Accessory Co. Ltd.	
Carter James B., Ltd	
Richardson Mfg. Co. Ltd.	
Antonia do a para de a construcción de la c	manapeg
	and the second second second second
askatchewan:	Sectores
Modern Spring Works Ltd.	
Spiring Service Date and an and an	regina
lberta:	and the second s
McCoy Bros. Ltd.	
Nordheimer Spring Service Co. Ltd.	Edmonton
Peerless Motor Products Ltd.	
Standen's Ltd.	Caigary
ritish Columbia:	and the second
	Vancouver
A.C. Radiator Distributors Ltd.	
A.C. Radiator Distributors Ltd. Centre Mfg. Co.	Vancouver
A.C. Radiator Distributors Ltd. Centre Mfg. Co. Cords Piston Ring Co. of Canada Ltd.	Vancouver Vietorla
A.C. Radiator Distributors Ltd. Centre Mfg. Co. Cords Piston Ring Co. of Canada Ltd. Dendoff Springs Ltd.	Vancouver Victorla Nanaimo
A.C. Radiator Distributors Ltd. Centre Mfg. Co. Cords Piston Ring Co. of Canada Ltd.	Vancouver Victorla Nanaimo Vancouver



This report is one in a series of about 140 publications which present the results of the 1962 Census of Manufactures. Most reports in this series refer to specific industries, but there are summary reports for Canada and the provinces and special reports on geographical distribution and on type of ownership and size of establishments.

With the publication of the results of the 1962 Census of Manufactures, the Bureau has completed a major revision in the classification and concept of its annual census of manufacturing establishments. Because of its size and complexity, this project had to be carried out in three stages. The first stage was the change in classification and the results of the 1960 Census, together with the re-compilation of the 1957, 1958 and 1959 Censuses were published in the 1960 reports on the basis of the revised Standard Industrial Classification. This part of the project was confined entirely to a re-coding of existing reporting units. The second stage consisted of the implementation of the new definition of the reporting unit i.e. "establishment" as it applied to manufacturing activities of manufacturing establishments (See following note on "Establishment"). Results of the 1961 Census reflected this change in concept and, in order to provide comparability of data for recent years, the 1961 reports contained principal statistics on the basis of the new establishment definition for years back to 1957.

The third stage which was the extension of the definition of the establishment to cover total activities of manufacturing establishments is reflected in the statistics for 1961 and 1962 contained in this report. This full implementation of the new definition of the establishment has resulted in an extension of the data to non-manufacturing activities of manufacturing establishments and in additional changes in the 1961 statistics of manufacturing activities. Statistics on manufacturing activities will continue to be shown separately as in the past but, beginning with 1961, data on all operations (total activity) of manufacturing establishments will also be given. By definition "total activity" relates to all operational data and excludes such non-operational items as rent, interest and dividends. In addition, statistics on man-hours paid will be included as part of the regular series of industry statistics. For many industries, adjustments and revisions were made to the 1961 data on manufacturing activities which were published during the second stage to bring them in line with reporting procedures followed in the 1962 Census and to reflect the final application of the new concept. The 1961 statistics on manufacturing activities contained in this report are thus not entirely comparable with those published in the 1961 reports. However, the 1961 statistics are shown in this publication in both their original and revised forms in order to provide a link with the immediate past. A more complete account of recent changes and additions and brief descriptions of the principal industry statistics are given in following sections of these notes.

Standard Industrial Classification

The revised Standard Industrial Classification which was introduced with the 1960 Census of Manufactures and applied to the results of the 1957, 1958 and 1959 censuses provides for a breakdown of the manufacturing universe into 140 industries arranged in 20 major groups. Custom Tailoring Shops is the only industry class in the Manufacturing Industries Division of the classification which is not covered in the annual Census of Manufactures. It is surveyed as part of the Decennial Census of Merchandising and Service Establishments. Of the 140 "three-digit" industry classes in the Manufacturing Industries Division, 21 are further broken down into 67 "four-digit" sub-classes. With the exception of the Wood Preservation and Sound Recording industries, the figures for which are at present confidential and have to be included with those of related industries, the statistics for all of the "four-digit" sub-classes are published regularly. Thus, at the Canada level, principal statistics are compiled for 183 industries. These cannot all be published separately by province because of the confidential nature of the data in certain provinces.

Reporting establishments are classified or allotted to specific industries in the classification system on the basis of the value of principal products made or shipped. In general, establishments primarily engaged in repair work (Shoe Repair Shops, Motor Vehicle Repair Shops etc.) are not included in manufacturing industries. Exceptions are establishments primarily engaged in furniture, ship, boat, aircraft and railroad rolling stock repairs which are classified to the manufacturing industries producing the products involved. Establishments primarily engaged in assembling parts into complete units have always been included in manufacturing industries.

Full details concerning the revised classification system are contained in the Standard Industrial Classification Manual, Catalogue No. 12-501, which is available from either the Queen's Printer or the Dominion Bureau of Statistics.

It should be noted that two new industries (Poultry Processors and Dental Laboratories) and three new groups of establishments (book publishers in the Publishing Industry, electro-plating establishments in the Metal Stamping, Pressing and Coating Industry and prescription branches in the Ophthalmic Goods Manufacturers Industry) have been included in the 1961 (revised) and 1962 Census statistics and will continue to be included thereafter. They were surveyed for the first time in the 1960 Census (1961 Census in the case of prescription branches) in line with the revised classification but, since they did not represent new production, they were removed from the 1960 and 1961 compilations published in the 1961 Census reports in order to provide complete comparability of data over the period 1957-61. Statistics for this period are repeated in the 1962 reports to supply a link with the revised 1961 data and the new 1962 statistics.

Establishment

The reporting unit in the Census of Manufactures is the **establishment**. The majority of establishments are firms, but many firms have more than one manufacturing establishment. Such firms are requested to submit a separate Census of Manufactures report for each manufacturing establishment which can meet the reporting requirements described below.

Beginning with the 1961 Census of Manufactures the establishment is defined as follows:

"The smallest unit which is a separate operating entity capable of reporting all 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, Inventories, Shipments or sales."

Following is a description of the main features of the new establishment concept introduced in the 1961 Census, how they differ from those of the old "activity" concept and the steps taken to correct for breaks in continuity.

(a) The establishment is to be distinguished from smaller subdivisions or departments which do not have records that permit them to report all items required of an establishment. Prior to 1961, some establishments were required to submit two or more separate reports when they were engaged in activities which were classifiable to different industries. Beginning with 1961, separate reports for such activities are required only in cases where accounting records can provide the necessary input and output elements of principal statistics. Special reporting arrangements were made with respondents when the acceptance of combined reports would have seriously affected the statistics for particular industries or areas. Where continuity of industry statistics was affected by this change in reporting procedures, adjustments to the data were made back to 1957 in order to maintain comparability of the series for recent years.¹

(b) A manufacturing establishment is typically a factory, mill or plant principally engaged in manufacturing activities. Prior to 1961, the Census of Manufactures attempted to cover the manufacturing activities of all establishments, whether or not they were primarily engaged in manufacturing. Beginning with the 1961 Census, establishments (accounting entities) which are not primarily engaged in manufacturing are no longer included as manufacturing establishments in the basic industry statistics.¹

Again, adjustments were made to reflect the removal of such reporting units for the period 1957-60. These reporting units are now listed as establishments in other Bureau surveys, such as Wholesale Trade, Construction etc. This has resulted in a somewhat smaller universe represented by the Census of Manufactures. In terms of overall 1960 Census results, the number of establishments transferred to other industries totalled 2,786 or 8% but these represented only 0.7% of total employment and of total value of shipments of manufactured products. In order, however, to maintain complete coverage of certain commodity items produced mainly in manufacturing establishments, many non-manufacturing establishments are now surveyed by the Industry Division for commodity shipments only and the latter are included in those tables of industry reports showing shipments of certain commodities "from all industries".

(c) A manufacturing establishment may be, and often is, engaged in other activities in addition to its principal manufacturing activity. Prior to 1961 the main emphasis in the Census of Manufactures was on manufacturing activity. Beginning with 1961, each establishment reports on all the activities carried out within its accounting boundaries (except income from investments such as rent, interest and dividends) and data on different activities (manufacturing, trading in goods not of own manufacture. construction by own labour force, revenue from services etc.) are requested separately. However, the statistics published in the 1961 reports were confined to manufacturing activity only in order to maintain comparability with previous years and to permit a more thorough audit of the new data. The 1962 reports contain principal statistics on total activities of manufacturing establishments for 1961 and 1962 with the main elements of manufacturing activity shown separately as in the past. It should be noted that the statistics for separate activities are not completely consistent. Some respondents cannot distinguish in their records materials, shipments and inventories relating to own manufacturing activities from those relating to goods not of their own manufacture or to other activities and can report operational data in total only under manufacturing activity. This situation has always existed, however, and is not considered important enough to invalidate the use of the data in the measurement of manufacturing as an "activity". The values assigned by the respondent to materials and shipments of own manufactured goods include costs in varying degrees that relate to internal (to the establishment) transportation, warehousing and selling activities, but it is not possible to make adjustments to arrive at a uniform valuation for manufacturing activity only; although valuation at the establishment "boundary" must be accepted, the items valued under manufacturing activities still relate, in most cases, to "goods of own manufacture". In the case of employment only data on manufacturing production workers and manufacturing man-hours can be assigned, in total, to manufacturing activity; administrative and office employees can seldom be allocated to separate activities.



¹ Most of these adjustments were made when the results of the 1961 Census were being compiled. Since publication of these results in the 1961 reports additional adjustments were made to the 1961 data, as noted earlier, and these are reflected, where applicable, in the revised 1961 statistics contained in this report.

Complete consistency, therefore, can be obtained only at the "all operations" (total activity) level, and for studies or statistical measures requiring accurate co-ordinated data, the "total" statistics should be used.

(d) Additional changes resulted from intensive editing and follow-up consistent with the introduction of the new concept. An example of such changes is the provision for the elimination, in total, of sales taxes and outward transportation charges from value of shipments. Prior to 1961, although the value of shipments for each product was requested excluding taxes and transportation charges, no allowance had been made for the reporting of these items in total when the respondents' records did not permit their deduction from the values of the individual products. Another example is a change in the valuation of shipments where, prior to 1961, a manufacturing company operating warehouses or sales outlets was reporting value of shipments in terms of an estimated manufacturer's price in accordance with the old activity concept, even though his records were not kept on this basis. Since the accounting boundary in such cases extends to distribution operations, the respondent was instructed in 1961 to report shipments at the final selling price in order to obtain more realistic and accurate data.² Adjustments were made to the value of shipments for the period 1957-60 to reflect such changes and maintain continuity of the shipments data. Since no actual data to make these corrections were available for back years, 1961 adjustment ratios were applied to the previous years for each industry affected, on the assumption that the valuation changes in 1961 applied in equal proportions to the preceding period."

(e) The new concept also demands that inventories held apart from plant be included with plant inventories if establishment boundaries extend to warehouses and sales outlets. Prior to 1961, compilations took into account only the inventories held at plant. In this case, however, most of the missing data were available from supplementary questions in the Annual Census and from the Monthly Inventories and Shipments Survey and actual corrections could be made for previous years.

³ See footnote 1.

(f) Prior to 1961 the Census of Manufactures did not have complete coverage of head and administrative offices and had never surveyed separate sales offices, warehouses or laboratories operated by manufacturing firms. Beginning with the 1961 survey. complete coverage of these auxiliary units was effected. In the past the employment and salaries and wages of those head and administrative offices that were surveyed were either coded in total to the industry in which the greatest portion of the company's manufacturing activities was classified or else, in the case of certain large multi-unit firms with establishments in several industries, were pro-rated among the different industries involved, In the original 1961 statistics published in 1961 reports, the same coverage and treatment of head offices was applied to maintain comparability over the 1957-61 period. Beginning with the revised 1961 statistics, all head offices and auxiliary units are covered and are processed according to the methods described below.

1. Single-Establishment Companies

In the great majority of cases central administrative and executive personnel of companies consisting only of one establishment are generally located at the site of the manufacturing plant and are automatically included in the plant reports. Where head offices and auxiliary units are geographically separate from plant locations and employ a sizeable number of workers they are surveyed on special questionnaires.

Separately located head offices, sales offices, administrative offices and other separate auxiliary units (laboratories, warehouses, etc.) do not usually constitute separate establishments⁴ for purposes of industry statistics since they do not normally generate operational revenues but give rise only to costs of operation (mainly salaries and wages) which make up part of the selling price of manufactured products and which are thus included in the value of shipments or sales. Where such units belong to single-establishment companies, they will be considered as extensions of the establishment's boundaries and their operations consolidated with the establishment's total activity.

2. Multi-Establishment Companies

In the case of companies with more than one establishment the following rules are applied:

(i) Where all the establishments of a company are classified to the same (three-digit) industry, the head office and other auxiliary units are coded to that same industry.

(ii) Where the establishments of a company are not all classified to the same (three-digit) industry but are coded to different industries, or industries in different industry groups or even different divisions

² Some manufacturing firms operate sales branches or selling warehouses as separate sales establishments for which complete accounting records of receipts, expenses, employment and sales are maintained. In such cases the plants, in effect, "sell" to the sales outlets on much the same basis as they would to independent buyers. The value of plant shipments is based on factory prices and the "boundary" of the manufacturing establishment does not extend beyond the plant. The sales outlets in such cases constitute separate sales establishments and are classified to wholesale or retail trade. Some sales outlets of manufacturing firms, although they physically handle products of the plants, do not maintain separate accounts and are generally treated for statistical purposes as extensions of manufacturing operations. Special arrangements were made for separate reporting in a few cases where the treatment of such outlets as manufacturing extensions would seriously affect the significance of statistics for particular manufacturing and trade industries.

^{*} See footnote 2 for exceptions.

of the Standard Industrial Classification, the inclusion of data for head office and auxiliary units in any one of the (three-digit) industries concerned would distort the relationship between items of principal statistics. In such cases, the auxiliary units are coded at the group (two-digit) level in tabulations of industry statistics. Where multi-establishment companies cut across group or major division lines of the Classification, the head office and auxiliary units will be coded to the (two-digit) industry group in which the major part of the company's operations are classified. Although this may result in some distortion of (two-digit) industry group statistics it will eliminate distortion within groups as it will leave statistics at the (three-digit) industry level free of these company-wide data,

Period Covered

Respondents are asked to submit figures for the calendar year, if at all possible, and most reports are on this basis. Financial year reports for periods differing from the calendar year are accepted in instances where respondents find it impossible to supply calendar year data from accounting records. However, the data on employees, salaries, wages and man-hours are requested on a calendar year basis in all cases.

When establishments are operated for only a portion of a year, a report is required covering the period of operation.

Working Owners or Partners

Beginning with the revised 1961 statistics working owners and partners of unincorporated businesses are shown as a separate category in the principal statistics and are neither included in the number of employees nor in 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. In all previous reports of the Census of Manufactures these workers were included as part of the number of administrative and office employees and their withdrawals were included as part of salaries. Withdrawals are defined as amounts withdrawn by owners or partners for normal living expenses, excluding withdrawals for payment of income tax.

Number of Establishments

The number of establishments represents the number of operating units (accounting entities as per the new definition of the establishment) for which separate reports are submitted. Head offices located apart from establishments and which are surveyed separately and separate sales and administrative auxiliaries that are treated as extensions of manufacturing activities are not included in the establishment count. However, the operational statistics (employment, salaries etc.) of such auxiliary units which are coded at the "three-digit" level are included in the principal statistics of industries coded at the same level; those units coded at the "two-digit" level are included with the statistics for groups of industries.

Employees

As noted above, the number of working owners and partners are excluded from the number of employees, beginning with the revised 1961 statistics. This change brings the definition of "employees" in the Census of Manufactures in line with that of "employees" in the Bureau's monthly Employment Survey and with that of "paid workers" in the Bureau's Labour Force Survey. For purposes of historical comparisons, the number of working owners and partners should be added to total employees (beginning with the revised 1961 data) in order to correspond with the figure of "total employees" published in previous reports concerned with the Annual Census of Manufactures.

In addition to production and related workers engaged in manufacturing activities, total employees include administrative, office, sales and distribution workers as well as any production workers employed in non-manufacturing activities such as construction undertaken for the use of the establishment by its own employees (when these are treated as a separate work force) or logging (mostly in connection with sawmills or planing mills). Number of employees represents as closely as possible equivalent annual full-time employment. Adjustments are made when reported figures indicate the existence of part-time or seasonal employment.

Administrative and office employees include all executive and supervisory officials such as presidents, vice-presidents, controllers, secretaries, treasurers etc., together with managers, professional, technical and research employees, superintendents and factory supervisors above the working foreman level, and clerical staffs. Also included are employees in activities such as advertising, credit collections, purchasing, personnel, legal, medical etc. Sales and distribution workers include office personnel whose salaries are charged to selling expense, travelling salesmen, driver salesmen, truck drivers and their helpers, etc. They exclude persons working on a commission basis who are not considered regular employees.

Production and related workers in manufacturing activities include, in addition to those engaged in processing and assembling, those employed in storing, inspecting, handling, packing, warehousing, etc. They also include employees in related activities such as maintenance, repair, janitorial and watchman services. Working foremen doing similar work to that of employees they supervise are also included. Production workers employed in nonmanufacturing activities such as construction undertaken for the use of the establishment, logging employees or outside piece-workers employed in certain industries are excluded from the number of production and related workers but are part of the total number of employees in those industries.

Production and related workers 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 twelve. This procedure is followed even though the plant did not operate in all months in order to derive equivalent annual full-time employment. The numbers are somewhat affected by turn over, in that employment is overstated when an employee changes employment within the same industry during a pay period. Other categories of workers are reported in the form of annual averages. Figures on employment and man-hours refer to the calendar year whether or not some establishments report other data on a financial year basis.

Man-hours of production and related workers in manufacturing activities 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.

Salaries and Wages

Salaries and Wages refer to gross earnings of the employees described above, **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 workers' earnings. Payments for overtime are included.

Wages refer to amounts paid to production and related workers engaged in manufacturing operations as defined above. Salaries refer to amounts paid to all other categories of employees including relatively small numbers of production workers engaged in construction and extractive operations or who are employed as outside piece-workers. Figures on salaries and wages refer to the calendar year whether or not some establishments reported other data on a financial year basis.

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.

Materials and Supplies

(a) Used in 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. The statistics represent only commodity items or physical goods (costs 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. Respondents are required to report materials and supplies used not purchased. 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) Purchases for resale as such. Figures represent the 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.

(c) 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. Value of construction and repair work done by outside contractors is 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 establishmentoperated cafeterias and lunch counters, first aid medical supplies, laboratory supplies etc.

Shipments

In general the figures represent revenue from all production, sales, services and related activities of reporting establishments. Non-operating revenues such as rent, interest and dividends and the sale of used fixed assets are excluded.

(a) 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 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. (See notes on "Establishment").

Such shipments are net of returned goods, and value figures at the establishment exclude discounts, returns, allowances, sales taxes and excise duties, returnable containers, and charges for outward transportation by common or contract carriers. Transportation or delivery expenses incurred by the reporting establishments' own carriers are not deducted.

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 form B.13 "Customs Canada, Export Entry" has been completed, are treated as shipments.

In four industries, viz. Fabricated Structural Metal Industry, Aircraft and Parts Manufacturers, Railroad Rolling Stock Industry and Shipbuilding and Repair, where work on principal products extends over a relatively long period, the value of production, rather than the value of shipments, is recorded. For these industries value of production is computed from the value of deliveries of complete units during the year plus the value of work done during the year on unfinished units less the value of work done in previous years on units delivered in the year under review. Adjustments to the value of shipments are also made for firms in these industries and in some other industries which operate on the basis of progress payments. The latter are treated as sales and not as inventory, so that for firms which use a progress payments account, an adjustment to the value of shipments is made for the net change in this account during the year.

(b) Shipments of goods not of own manufacture

These figures represent the net selling value at the establishment (less discounts, returns, allowances, sales taxes and excise duties 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 goods on a rental basis value of shipments represents the book value of such goods. All sales of consignment goods from other countries are included.

(c) Other revenue

Figures represent the book value of fixed assets, if any, (new construction and machinery and equipment including major repairs and alterations, additions, modifications, installation and assembly work) produced during the year for the use of reporting establishments by the establishments' 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 establishments' own employees, such as revenue from goods produced for rental (the book value of such goods are included as part of factory shipments), servicing revenues, commissions on sales (when not included in value of sales), revenue from company-operated cafeterias and lunch counters and revenue from outside installation or construction work not related to the establishments' 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 inventory

Values represent the book value of manufacturing inventory owned in Canada. The value of inventory held for which progress payments have been received is treated as shipments and is not included in inventory owned. 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. Inventory owned abroad has already been reported as shipments and is excluded.

(b) Inventory of goods purchased for re-sale

Figures represent the book value of inventory of goods purchased for re-sale as such without further processing, owned by reporting establishments and held at the plants and at any warehouses or selling outlets which are treated as extensions of establishments. Inventory owned in transit in Canada or on consignment in Canada is included.

Because of changes in classification, the receipt of revised data, the inclusion of new establishments or the removal of old establishments which did not operate during the latest year, the opening inventory for the latest year does not necessarily coincide with the closing inventory of the preceding year.

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 total activities

Figures consist of value added by manufacturing activities plus value added by nonmanufacturing activities and is compiled by deducting the cost 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, adjusted for changes in the value of inventories of goods purchased for re-sale.

"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 in 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.

Short Forms

Since 1949, in order to ease the reporting burden for smaller firms, a one-page short form has been used asking for only a limited amount of detail. For purposes of publication, missing data were estimated on the basis of appropriate ratios. Beginning with the 1959 census, the general limit for short forms was raised from \$50,000 (the limit used since 1949) to \$100,000 value of shipments and a new medium form was used. This form is a shortened version of the long form in that some of the general questions were pared down and the detailed lists of materials and products were limited to the more important items. The general limits for firms in this category were set at between \$100,000-\$500,000 value of shipments, but in the case of both the short and medium forms there are lower cut-offs for a number of industries in which the smaller firms account for a larger share of total shipments.

Prior to 1961, the short form was limited to a question on the principal items of factory shipments. In the 1961 and 1962 censuses, in addition to the question on shipments of goods of own manufacture, general questions on employment and payroll and on total revenue were added on all short forms. The other elements of principal statistics, viz. value of materials, fuel and electricity and inventories, were estimated by using ratios based on the change in the value of shipments reported in 1961 and 1962. This was done to permit the complete compilation of basic industry statistics by industry and by geographic location. The proportions of the estimated data was generally less than 5 per cent of the total in each category of principal statistics.

Beginning with the 1963 census, general questions on total purchases of materials, fuel and electricity and on total inventory were added on the short forms. The two questions, however, were designed so that the data can be easily derived from respondents' regular accounting records. This will permit a complete tabulation of principal statistics without the necessity of estimating missing items and will result in increased accuracy for rural area statistics where small firms account for a relatively important part of industrial output.

The addition of extra questions on the short form in recent years has also permitted an increase in the cut-off limits for short forms in many industries. This has meant that many more firms are now receiving the short form instead of the long or medium form. It has also resulted in the withdrawal of the medium form in a number of industries, thus further simplifying collection and tabulation procedures.



