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RAILROAD ROLLING STOCK INDUSTRY 1965

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RAILROAD ROLLING STOCK INDUSTRY

1965

For statistical purposes the industry titled Railroad Rolling Stock Industry in the revised Standard Industrial Classification covers the operations of establishments primarily engaged in building and re-building locomotives of any type or gauge and railroad cars (including frames and parts) for freight and passenger service. This industry includes establishments of railway companies primarily engaged in manufacturing or repairing locomotives and cars.

An analysis of the principal statistics indicates that the value of shipments for 1965 increased by 27 per cent over 1964, value added increased 39 per cent and the value of production increased 22 per cent. During this same period the ratio of materials to production was 63 per cent whereas in 1964 the ratio was 66 per cent.

The value of production of railroad equipment represented 76 per cent of the total production of the firms classified to this industry. Some of the other products produced and shipped were machinery, heat transfer equipment, pumps, electric motors, buses, trucks, water softeners and scales.

SYMBOLS

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

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

TABLE 1. Principal Statistics, 1961-65

				Man	ufacturing	activity				Т	otal activ	vity	
Your and	Estab-		oduction a ated work		Cost of	Cost of	Value of shipments		Working and p	owners artners	Emp	loyees	11.
province	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		'000			\$1000				\$'000		\$10	00
1961													
Totals	16	2,772	5,677	11,906	2,016	34,653	65,361	28,059	_	_	4,138	20,907	31,204
1962					44								
Totals	14	3, 121	6,562	14,225	2,163	50,523	88,079	34,798	-	_	4,319	21,599	37,898
1963													
Totals	13	2,488	5.316	11,751	1,866	56, 908	87,722	28,710	_		3,449	18,355	31,714
		4,100	0,010	11, 101	1,000	50,000	011	401114			0,110	10,000	01,111
1964													
Newfoundland	-	-	-	-	-	_	-	-	-	-	-	-	_
Prince Edward Island	-	-	-	-	-	-	-	_	-	-ma	-	_	-
Nova Scotia	1	х	х	Х	х	х	x	х	-	_	х	x	x
New Brunswick	_	_		_	-	_		_	_	_	-		-
Quehec	3	x	x	x	x	х	x	х		_	x	х	x
Ontario ,	8	1,890	4,013	9,943	660	44,529	68,135	22,854	_	_	2,804	15, 150	26,706
Maitoba	1	x	x	x	x	x	x	x	_	_	x	x	X
Saskatchewan	_	**	_		-		_	_	_	_	_		_
Alberta	_	_	_	-	-	_		_	_	_	_	_	-
British Columbia	1	X	х	X	x	x	X	x			X	x	x
Yukon and Northwest Territories		_	_	_			_				_	^ _	_
Totals	14	3,660	7, 863	18,415	2, 167	84,632	128,893	42,162	-	-	4,756	26,098	46,785
1965													
Newfoundland	was	_		_	_	_	_		_	_	_	-	
Prince Edward Island	_	_	_	_	-	_	-	_		_	-		
Nova Scotia	1	x	x	x	x	x	x	x	_	_	x	x	x
New Brunswick	_	_	_	_		_	_	-	_	_	_		
Quebec	3	x	x	x	х	х	x	x			x	x	x
Ontario	8	2,631	5,411	13,913	730	56,253	92,744	36,955		ļ			
Manitoba	1	Z, 031	x	13,913	x	30, 233	92,744		_	_	3,428	20,132	42,966
	_	A .			^	A	A	х	-	_	х	X	Х
Sask atch ewan			_	-		_	_	_	_	_	-	-	-
Alberta	-		-	-	-	-	-	-		-	-	-	-
Patrish Columbia	-	-	-	-	die	-	-	-	-	-	-	-	-
Tukon and Northwest Territories	-	-	-	-	***	-	-	-	-	-	100	-	-
Tetals	13	4,744	10,007	24, 208	2,288	102,780	162, 951	58, 936	_	_	6,002	33,179	64,964

TABLE 2. Principal Statistics classified by Size Group based on Value of Shipments of Goods of Own Manufacture, 1964 and 1965

				Mar	ufacturing	activity				T	otal activ	vity	
Size group	Estab- lish- ments		duction a ated work		Cost of	Cost of	Value of shipments of goods	Value	Working and pa	owners	Empl	loyees	Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
-	No.		'000			\$'000				\$'000		\$*(000
1964													
Inder \$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	4	26	51	114	10	842	1,200	347	-	-	47	248	43
1,000,000 ' 4,999,999 5,000,000 and overlead offices, sales offices and	8	574 3,060	1,385 6,426	3,246 15,055	406 1.752	6,611 77,179	13,439 114,054	6,618 35,198	=	-	824 3,885	4,804 21,046	7,63 38,71
auxiliary units		4 + 0	8 + 4										
Totals	14	3,660	7,863	18,415	2, 167	84, 632	128, 693	42, 162	-	-	4, 756	26,098	46,78
1965													
nder \$10,000	_	_	_	_	_	_	_		_		_	Trans.	
10,000 to \$ 24,999	_	_	-	-	_		_	_	_	_	_		
25,000 ' 49,999	-		-		-	_	-	_	_	_	_	_	-
50,000 '' 99,999	_	-	_		-	_	atom.	-		_	-	-	-
100,000 ' 199,999		-	-	-	_	_	-	_	_	-	_	-	-
200,000 '' 499,999 500,000 '' 999,999	3	27	53	128	9	772	1,334	559	_	_	46	252	64
000,000 '4,999,999	5 5	682 4,065	1,593 8,360	3,775 20,306	609 1,670	10,348 91,660	20, 823 140, 794	9.639 48,538	_		995 4,961	5.782 27.145	10,78 53,53
auxiliary units					* * *								
Totals	13	4,774	10,007	24, 208	2, 288	102,780	162, 951	58, 936	-	_	6.002	33, 179	64, 96

TABLE 3. Principal Statistics classified by Size Group based on Manufacturing Value Added, 1964 and 1965

				Mar	ufacturing	activity				I	otal acti	vity	
Size group	Estab- lish- ments		oduction ated work		Cost of	Cost of	Value of shipments of goods	Value		owners	Emp	loyees	Value
		Number	Man- hours paid	Wages	elec- tricity	and supplies	of own manu- facture	added	Number	With- drawals	Number	Salaries and wages	added
	No.		1000			\$'000				\$'000		\$10	000
1964					1	1							
7-4 610 008													
Inder \$10,000	_			_				_	_	_	_	_	from
25,000 '' 49,999		_	_		_		_				_	_	
50,000 " 99,999	} 4	26	51	114	10	842	1,200	347	-		47	248	432
100,000 ' 199,999	J	20	01		10	842	1,200	241	_		41	640	404
200,000 ' 499,999 500,000 ' 999,999	_			_	_	_	_	-	_	-	_		-
1,000,000 " 4,999,999	6 4	1,227	2,822 4,989	6,622 11,680	869 1, 289	26.625 57.165	42, 294 85, 199	15.124 26,691	_	-	1.723 2,986	9, 832 16, 018	16,870 29,483
auxiliary units	***	* 1 *			p a o	9 + 8							
Totals	14	3,680	7,863	18, 415	2,167	84, 632	128, 693	42,162	-	-	4.756	26, 098	46, 78
Inder \$10,000	_		1								-		
10,000 to \$ 24,999	_	_		_	_		_			_	-	_	
25,000 ' 49,999	_	_	_	_	-	_	_	_	_	-	-	-	_
50,000 '' 99,999 100,000 '' 199,999		_	_	-	_	-	_		-	_	-	-	-
200,000 " 499,999	} 3	27	53	128	9	772	1,334	559	_	-	46	252	641
500,000 ' 999,999 1,000,000 ' 4,999,999	_	-	_	_	_		_	-		-	-	-	+ 10
ead offices, sales offices and	5 5	682 4,065	1,593 8,360	3,775 20,306	1,670	10,348 91,660	20, 823 140, 794	9,839 48,838	_	_	995 4, 961	5.782 27,145	10.73 53 53
auxiliary units						4 4 4							7.00
Totals	13	4,774	10,007	24,208	2,288	102,780	162, 951	58,936	-	_	6,002	33, 179	64, 964

TABLE 4. Principal Statistics classified by Size Group based on Total Value Added, 1964 and 1965

				Mar	ufacturing	activity				T	otal acti	vity	
Size group	Estab- lish- ments		oduction ated work		Cost of	Cost of	Value of shipments	47.1.		owners	Emp	loyees	
	inetits	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		'000			\$'000			1	\$'000		\$*(000
1964													
Jnder \$10,000	_	_	_	_	_	dending	_	_	_	_	000		
10,000 to \$ 24,999	_	-	_	_	_	_	_	_	_	_	_	_	_
25,000 ' 49,999	_	_	_	-	_	_	-	_		_	-	_	_
50,000 ' 99,999 100,000 ' 199,999	} 4	26	51	114	10	842	1,200	347	_	_	47	248	43
200,000 " 499,999	_	_	_	_	_				_				
500,000 " 999,999	_	-		_	_	_	_				_		
4,999,999	5	661	1,582	3,743	638	8,712	18,496	9,470	_	0.01	944	5,502	10.48
ead offices, sales offices and	5	2,973	6,229	14, 559	1,520	75,078	108,997	32,345	_	_	3.765	20,348	35,86
auxiliary units		* * *	0.0 *							100			
Totals	14	3,660	7, 863	18,415	2, 167	84,632	128, 693	42, 162	_	-	4,756	26, 098	46, 78
1005													
1965													
nder \$10,000	_	_	_	-	_	-	_	_				_	_
10,000 to \$ 24,999	_	-	_	_	_	_	_	name,	_	_	_	_	_
25,000 " 49,999 50,000 " 99,999	-	_	_	-	_	-	-	-	_	_	_	_	-
50,000 " 99,999 100,000 " 199,999	_	_	-	_	_	-	ri-ma	_	_	_	-	_	_
200,000 " 499,999	} 3	27	53	128	9	772	1.334	559	-	_	46	252	64
500,000 ' 999,999		_			-	_	_	_	_	-	_	_	-
1,000,000 ' 4,999,999	5	682	1,593	3,775	609	10,348	20, 823	9,839	_		995	5.782	10,78
ead offices, sales offices and auxiliary units		4,065	8,360	20,306	1,670	91,660	140, 794	48,538	_	_	4,961	27, 145	53,53
auxiliary units	4 * *	8 4 4	4 4 4	* * #		* * * *	* * *	* * *					
Totals	13	4,774	10,007	24, 208	2, 288	102,780	162, 951	58, 936			6.002	33, 179	64, 96

TABLE 5. Principal Statistics classified by Size Group based on Tutal Employed, 1964 and 1965

				Mai	nufacturing	activity				7	rotal acti	vity	
Size group	Estab- lish- ments		oduction lated worl		Cost of	Cost of	Value of shipments	77 - 1		owners	Emp	loyees	
	ments	Number	Man- hours paid	Wages	fuel and elec- tricity	materials and supplies	of goods of own manu- facture	Value added	Number	With- drawals	Number	Salaries and wages	Value added
	No.		000		1	\$'000				\$'000		\$'0	000
1964					!	1							1
Under 5 employed	} 4	26	51	114	10	842	1, 200	347	-	_	47	248	432
50 - 99 " 100 - 199 " 200 - 499 " 500 employed and over	3 3 4	352 579 2,703	863 1,375 5,573	1,930 3,413 12,958	551 623 984	5, 487 6, 765 71, 537	11,728 15,943 99,822	5,952 8,694 27,169			459 792 3,458	2,598 4,759 18,493	5,932 9,752 30,669
auxiliary units		4 4 4		* * * *						0 0 0			
Totals	14	3, 660	7, 863	18, 415	2, 167	84, 632	128, 693	42, 162	_	-	4,756	26,096	46, 785
1965													
Under 5 employed	_	_	_	_	_	_	_	_	_	_	_ 1	_	001
5 - 14 employed	} 3	27	53	128	9	772	1,334	559	_	_	46	252	647
00-199 "	3	289	730	1,585	518	5,919	11,198	4,592	_	_	399	2,307	4,592
200-499 600 employed and over	3 4	680 3,778	1,543 7,680	3,903 18,593	637 1, 124	8,175 87,913	19,650 130,768	10,974 42,812	-	-	926 4,631	5, 498 25, 121	11,908 47,816
auxiliary units				0 0 4			* * *			0 1 0		F + 4	
Totals	13	4,774	10,007	24, 208	2,288	102,780	162, 951	58, 936	_	_	6,002	33,179	64, 96

TABLE 6, Principal Statistics classified by Type of Organization, 1964 and 1965

				Мал	ufacturing	activity				7	Total acti	ivity	
Type of organization	Estab-		oduction ated worl		Cost of	Cost of	Value of shipments			owners	Empl	Employees	
AS B RESTAURAGE	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		<u> </u>		\$'000		\$'(000
1964													
Individual ownerships	_	-	-	_	_	_		_	_	_	_	10	e/em
Partnerships	_	_	when	_	_	e/ma	-	_	_	_	_	-	_
ncorporated companies	14	3,660	7,863	18,415	2, 167	84,632	128,993	42,162			4,756	26,098	46.785
Co-operatives	_	-	-	_	_	_	_	_				_	_
Head offices, sales offices and auxiliary units			***				* * *					* * *	
Totals	14	3,660	7,863	18,415	2, 167	84,632	128,693	42, 162	_	-	4,756	26,098	46,785
1965													
individual ownerships	-	_	-	_	_	_	_	-	-	-			-
Partnerships	_	_	-1	_	_	-	-		-	-	-	_ "	_
ncorporated companies	13	4,774	10,007	24,208	2,288	102,780	162,951	58,936			6,002	33, 179	64.964
Co-operatives	-	_	-	_	_	1	_	_	* * *			-	-
dead offices, sales offices and auxiliary units						4 * *		* * *					
Totals	13	4,774	10,007	24,208	2,288	102,780	162,951	58.936			6.002	33, 179	64, 964

TABLE 7. Calculation of Output, Input and Value Added, 1964 and 1965

	Manufacti activi		Non-manufa activiti		Total activit	
	1964	1965	1964	1965	1964	1965
			\$'000)		
Output	1				_	
1. Shipments and other revenue	128,693	162,951	25,539	51,331	154, 232	214, 282
Inventories - Goods of own manufacture:						
Add ciosing - Goods in process						
Finished goods	1,472	2,525			1,472	2,525
Deduct opening - Goods in process	* * *					414
Finished goods	1.203	1,472			1,203	1,472
2. Net inventory change	268	1,053			268	1,053
3. Gross output (1 + 2)	128,961	164,004	25,539	51,331	154,500	215, 335
Input						
. Purchases of goods not of own manufacture			21,432	44.808	21,432	44.808
Inventories - Goods not of own manufacture:						
Add opening			2,060	2,883	2,060	2,883
Deduct closing			2,883	2,726	2,883	2.726
5. Cost of goods sold (not of own manufacture)	• • •	* * *	20,609	44,965	20,609	44.965
3. Materials, supplies, etc.	84,632	102,780	307	339	84,939	103,119
7. Fuel and electricity	2.167	2,288			2, 167	2, 288
3. Gross input (5 + 6 + 7)	86,799	105,068	20,916	45,304	107,715	150.47
Value added (3 - 8)	42,162	58, 936	4,623	6,027	46,785	64.964

TABLE 8. Employment and Payroll, 1964 and 1965

					Employ	rees						Salari	es and wa	ges	
Y s as		Product related			Admi		Sal	les nd	To	tai	Producti		Admin-	Sales	
province	Manufa	cturing	0	her	and o		distril		10	+ 01.1	related w	orkers	istra- tive	and distri-	Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Manufac- turing	Other	office	bution	
					numb	er							\$'000		
1964				ţ	l	l I]		1			1		
Newfoundland	_	_	_	_	_		-	_	_	_	_	_	-	-	_
Prince Edward Island	-	_	_	_	-	-	-	_	_	-	_	_	-	-	-
Nova Scotia	х	x	_	_	x	x	_	_	х	x	х	_	х	-	X
New Brunswick	-			_	_	_	-	_	_	-	_	-	-	-	-
Quebec	х	_	_	-	х	х	Х	х	x	x	χ	_	x	ж	X
Ontario	1,862	28		-	450	125	107	32	2,419	185	9,943	-	4,322	885	15,15
Manitoba	x	_	_	_	х	x	_	_	х	х	х	-	x	-	х
Saskatchewan	_	-	_	_	-	-	_	_	_	-	-	-	-	_	_
Alberta	_	_	_		_	_	_	-	_	****	_	_	_	-	_
British Columbia	x	х	-	-	x	-	х	х	х	X	X	_	x	x	x
Yukon and Northwest Terri- tories		_	_	_	_	_	_		_	_	_	_	_	_	_
Totals	3,631	29	-	_	781	170	111	34	4,523	233	18,415		6,733	950	26,09
1965															
Newfoundland	-	_	-	_	_	-	_		-	_	_	_	_	-	_
Prince Edward Island	_		_	_	-	-		_	-	_	_	-	-		_
Nova Scotia	х	x	_	_	х	x	x	х	х	X	Х	_	х	x	x
New Brunswick	_	_	_	-	_	_	_	-	_	_	_	_	-	_	-
Quebec	x	-	_	_	x	х	х	x	х	x	x	-	X	X	x
Ontario	2,606	25	-	-	494	143	127	33	3, 227	201	13,913		5,114	1,106	20, 13
Manitoba	х	х	_	_	х	X	_	-	х	х	x	_	х	_	x
Saskatchewan	_			_	-	-		-	-	_	-	-	-	_	_
Alberta	-	_		_	_	-	_	-	_	-	_	-	_		_
British Columbia	-	_	-	-	_	-	_		-	-	_	-	man		-
Yukon and Northwest Terri- tories	_	_	_	_	_	:-	-	_	_	_	-	-	-	_	_
Totals	4, 748	26	_	_	866	296	132	34	5,746	256	24, 308	_	7, 794	1,178	33, 17

TABLE 9. Production and Related Workers, - Manufacturing Activity, 1964 and 1965

	196	4	196	5
Month	Male	Female	Male	Female
		numbe	er	
Establishments reporting monthly detail (large establishments only):		1	1	
Јапиагу	2,678	31	4,570	30
February	2,951	31	4,312	28
March	2, 838	32	5,017	26
April	3, 033	33	4,991	20
May	3,346	22	4,256	2:
June	3, 588	30	4,634	21
July	3,961	30	4,509	24
August	4.003	29	4,843	25
September	3,833	32	4,908	28
October	4,611	32	4,902	2!
November	4,365	28	5,022	24
December	4,376	28	5,016	25
Averages	3,631	29	4.748	26
hisblishments reporting annual averages (small establishments only)	-	_	-	_
Average for all establishments	3,631	29	4,748	26

TABLE 10. Inventories, 1965

		Manufa	ecturing		Non- manufacturing	
Province	Materials, supplies, etc.	Goods in process	Finished goods of own manufacture	Total	Products or materials purchased for resale	Total inventorios
			book value	\$'000		
Opening:						
Newfoundland	-	_	-	-	_	-
Prince Edward Island	_	-	-	-	- 1	_
Nova Scotia	х	X	-	X	х	X
New Brunswick	-		-		- 1	-
Quebec	х	х	X	x	х	x
Ontario	5,563	8,162	890	14,615	1,489	16,084
Manitoba	х	-	X	X	_	x
Saskatchewan	-	-	_	_	_	-
Alberta	_		_	_	_	_
British Columbia	_	_	_	_	_	
Yukon and Northwest Territories	_	_	_	-	_	
Totals	11,531	18,736	1,472	31,739	2,883	34,622
Closing:						
Newfoundland	_		_	_	_	_
Prince Edward Island	_			_	_	
Nova Scotia	x	х		X	Y	¥
New Brunswick	_	_	_	_		_
Quebec	x	x	x	Y	x	Y
Ontario	8,011	12,248	2,084	22, 343	1.554	23, 897
Manitoba	x	_	х х	х	2,001	20,001
Saskatchewan	_	-				^
Alberta	_			_		
British Columbia	_			_		
Yukon and Northwest Territories	_	dame.		_		
Totals	14, 390	23,603	2, 525	40,518	2,726	43, 244

TABLE 11. Purchased Fuel and Electricity Used, 1964 and 1965

Description		1964		1965	
Description		Quantity	Cost	Quantity	Cost
			\$'000	19 1 10	\$'000
l. Large establishments reporting commodity detail:					
Bituminous coal:					
(al From Canadian mines	ton	18,024	216	19,722	230
(b) Imported		524	6	562	7
Sub-bituminous coal (from Alberta mines only)	4.4	_	_	-	
Anthracite coal	43	11,229	117	11,821	124
Lignite coal		-	_		-
Coke	4.4		_		_
Gasoline (including gasoline used in cars and trucks)	Imp. gal.	88,019	29	92,835	29
Fuel oil including kerosene or coal oil	rd	5,578,911	478	6,145,649	550
Wood	cord	-	_	-	_
Gas:			,		
(a) Liquefied petroleum gases	lmp. gal.	_	0.000	40,557	8
(b) Other manufactured gas	M cu. ft.	-	_	-	-
(c) Natural gas		261,569	143	180,160	100
Other fuel	*****	4 + 4		a + 4	the state of the s
Electricity purchased	kwh.	144,969,184	1,155	145,609,719	1,202
Steam purchased		* * *	24		37
2. Small establishments not reporting commodity detail:					
Estimate for fuel and electricity					
			_		-
3. All establishments:					
Total fuel and electricity used		* * *	2, 167		2,288

TABLE 12. Materials and Supplies - Manufacturing Activity, 1964 and 1965

		196-	1964		1965	
Geneription		Quantity	Cost	Quantity	Cost	
			\$'000		\$'000	
. Materials used:						
Iron and steel:			002	.0.400		
Pig iron		15,911	697	12, 480	50	
Bars and rods, steel	. *****	6,082	869	11,227	1,61	
Wire, steel Plates, steel			112	233	12	
Sheets:		33, 480	4,635	40,199	5,66	
Plain.		10 115	1 200	10 010	0.50	
		13, 115	1.723	19,640	2, 78	
Galvanized	11111	4,627	760	6,764	1,10	
Strip, steel	100.000	771	138	785	12	
Structural shapes, steel	,,,,,	28,764	4,008	28, 527	3,93	
Alloy steel		100 000	115		22	
Scrap iron and steel	ton	135,827	3,728	152,819	4,32	
Castings (rough and semi-finished received from foundry):	**					
Iron (grey and malleable)		2, 631	1.181	2,701	1,31	
Steel		3, 439	2, 285	1,597	1,11	
Other iron and steel		* * *	1,045		1.	
Non-ferrous metals:						
Aluminum:						
Castings	1b.	231,082	196	286, 241	2:	
Sheet	4.6	1,781,282	842	562,691	31	
Other forms		339,874	189	1, 156, 224	5	
Brass and bronze		560,593	356	412,174	25	
Copper:						
Sheet	4.8	37, 185	20	34,886		
Wire		345,974	211	479, 113	31	
Other forms		92,445	87	78,518	7	
Const		38,027	6	78,312		
Nickel	**	19, 349	17	28, 315	2	
Tin		_	_	_		
Zinc	ib.	55, 275	32	89,738		
Babbitt metal and solder		9,813	9	6,852		
Other non-ferrous metals	1	_	_	_		
Flore allows			484		0.0	
Ferro-alloys		* * *	474	1	39	
Other materials and supplies:						
Iron and steel pipe, tubes and fittings	1		1,488		1,60	
Paints, oil and varnishes			494		7	
Wheels			2, 476		3,3	
Springs			462		64	
Other car and locomotive parts.			36, 297		43.0	
Foundry coke		4, 137	151	4,371	16	
Foundry sands (including core and moulding sands)	4.0	9,311	115	8,537	8	
Plumbago and graphite	1b.	6, 209	1.4	22,591		
Lumber	M bd, ft,	9,975	1,050	15,917	2,87	
Firebrick and cupola blocks			186		15	
Fireclay	ton	113	2	953		
Core oil	Imp. gal.	1,971	3	1,026		
All other materials and components used			13,964		19,8	
Containers and other packaging materials and supplies used	*****		35		4	
Operation, maintenance and repair supplies used (excluding fuel)		4 0 0	4,077		4,80	
Amoust paid out to others for work done on materials owned by establishments.			99	* * *	3	

TABLE 13. Shipments of Goods of Own Manufacture, 1964 and 1965

	1964		1965	
Description	Quantity	Value	Quantity	Value
		\$'000		\$'000
Products:				
Railway cars (standard gauge only):1				
Passenger	_	-1	_	
Freight:				
Automobile	2	2	2	2
Ballast	_	-	2	2
Box	2	2	2	2
Flat	1	2	2	2
Gondola	2	2	2	3
Hopper	2	3	2	3
Ore	2	2	2	2
Refrigerator	-	-	2	2
Stock	-	-	-	-
Tank	2	2	2	2
Other	3	1	2	3
Cars, trucks and trailers, narrow gauge (for mines, quarries, etc.)	-	-	-	_
Locomotives, small size, for mines, etc., new	2	2	_	_
Locomotives, diesel-electric, standard gauge, new	2	1	1	3
Railway car and locomotive parts:				
Brakes, brake beams, brake shoes and parts		2		2
All other car and locomotive parts (wheels, springs, etc.)		22,611		21,757
Miscellaneous products:		•		
Castings, grey iron	3	3	2	2
Machinery		1		1,409
Railway track equipment		716		651
Amount received for repair work		2, 159°		3,638
			1.0	
All other products		96,413°		129, 114
Amount received in payment for work done on materials owned by others		747		1,161
Total value of above items		122,646		157,725
Add value of work done during year on locomotives, cars, etc. which were not completed at year end	P # #	14,619		24, 249
Deduct value of work done inprevious years on locomotives, cars, etc. which were completed during year under review		(8,572)		(18,877
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity described above				(145)
Total net value	* * n	128, 693		162, 951

See Table 14B for "All industry" totals.
Included with "All other products".

TABLE 14. Shipments of Selected Goods of Own Manufacture - All Industries, 1956-65 (Includes shipments from other industries which manufacture, as a secondary activity, the commodities listed)

A. Railway Spikes

Year	Tonnage	Value
	V L	\$'000
56	18,817	3,235
57	12,358	2,293
58	13, 200	2,625
59	13,019	2,526
60	7,072	1,426
61	8,092	1,590
62	7,574	1,477
63	8,177	1,595
64	8,510	1,875
65	7,690	1,550

TABLE 14. Shipments of Selected Goods of Own Manufacture - All Industries 1956-65 - Concluded B. Railway Cars and Locomotives

	Standard ra	ilway cars	Locomotives		
Year	Number	Gross value of production	Number	Gross value of production	
		\$'000		\$'000	
956	9, 221	70, 980	488	78,220	
957	10,475	98,665	521	94, 417	
958	5,313	64,126	417	75, 229	
959	3,585	40, 370	375	66, 573	
960	2,510	25, 396	172	29, 189	
961	1,762	19,754	43	4,352	
962	3, 449	36,669	29	5,518	
963	2,156	30, 135	159	28,668	
964		48,075	169	31,964	
965	6, 057	110,962	1	1	

C. Finished Rail Fastenings

	Tie piates			Fish plates or spitce bars			
Year	Quantity	Factory sh	Factory shipments		Factory shipments		
	made	Quantity	Value	Quantity made	Quantity	Value	
	ton	3	\$'000	ton	s	\$'000	
1956	88,590	86, 592	10,103	18, 487	18, 675	2, 465	
1957	78,555	80,575	10, 148	17, 022	16, 793	2, 502	
1958	56, 118	56, 189	7,338	14,078	14, 088	2,066	
969	70.376	70, 351	8,970	14,853	14,818	2, 212	
260	36,028	36,108	4,787	11, 256	11, 133	1,684	
961	44, 401	43,022	5, 683	7,493	7,736	1, 150	
962	53, 765	54,554	7, 238	10,613	10,624	1,586	
1963	50,050	51,781	6, 883	13,553	13,476	2,009	
1964	1	1	1	l.	3	1	
1965	1	i.	3	1	1	1	

¹ Confidential.

List of Establishments classified to this Industry, 1965

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

Name	Location
iova Scotia;	
Dominion Steel & Coal Corporation Ltd.	Trenton
Quebec:	
Canadian Steel Wheel Ltd. Griffin Steel Foundries Ltd. Montreal Locomotive Works Ltd.	1900 Dickson St., Montreal St. Hyacinthe 1505 Dickson St., Montreal
ntario:	
Buffalo Brake Beam Company Canada Iron Foundries Limited Canadian Westinghouse Co. Ltd. Fairbanks Morse (Canada) Ltd. Fairmont Railway Motors Limited Caneral Motors Diesel Limited dational Steel Car Corporation Llmited En	21 Dunbar Ave., Hamilton St. Thomas 286 Sanford Ave. North, Hamilton 141 Ontario St., Kingston Montfair Ave., Islington 2021 Oxford St. E., London Kenilworth Ave. North, Hamilton Lindsay
Innitoba:	
Griffin Steel Foundries Ltd.	Transcona

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 55 (4 digit) sub classes. At the Canada level, principal statistics are collected and compiled for 176 separate industries. They cannot all be published separately by province, however, because of the confidential nature of the data in certain provinces.

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

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

The results of the Census are presented in some 135 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 reports reflect the complete implementation of these changes and enable comparisons to be made back to and including 1961. 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 parof 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 and wages) which are automatically salaries included in the value of shipments or sales. Although not considered as establishments, and hence, not included in the "establishment" count for an industry, the operational costs are reflected in either the "Industry" statistics (3 or 4 digit level) or the "Major group" statistics (2 digit level) according to the following rules:

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

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

Employees

(a) Production and related workers — Manufacturing activities

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

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

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

(c) Administrative and office employees

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

(d) Sales and distribution workers

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

(e) Total Employees

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

Working Owners or Partners

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

Salaries and Wages

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

Fuel and Electricity

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

Materials and Supplies

(a) Manufacturing activities

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

(b) Non-manufacturing activities

1. Purchases for re-sale as such

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

2. Other materials and supplies used

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

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

Shipments

(a) General

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

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

(b) Shipments of goods of own manufacture

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

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

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

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

(c) Shipments of goods not of own manufacture

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

(d) Other revenue

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

Inventories

(a) Manufacturing activities

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

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

(b) Non-manufacturing activities

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

Value Added

(a) By manufacturing activities

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

(b) By non-manufacturing activities

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

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

(c) By Total activities

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



