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IRON AND STEEL AND THEIR PRODUCTS GROUP

THE AIRCRAFT INDUSTRY, 1943

The aircraft industry, as reviewed in this report, is made up of the primary assembly plants and also the establishments which were occupied solely or chiefly in making aircraft parts. All of the makers of aircraft parts are not included as a large number of concerns which normally are in other lines of business are now participating in the over-all aircraft program.

Production from this industry in 1943 amounted to \$246,028,586 or 62 per cent more than in 1942. An average of 69,529 persons were given employment and \$126,826,708 were paid in salaries and wages. The amount paid for materials for use in manufacturing was \$60,448,010 and the amount paid for fuel and power was \$1,749,421; the former figure does not include materials which were supplied free by the Dominion Government.

In the 9 assembly plants which constitute the core of the industry, there were 53,896 workers in 1943 and production, including 3,792 complete aircraft, was valued at \$190,865,216.

Table 1 - PRINCIPAL STATISTICS OF THE AIRCRAFT INDUSTRY, 1935-1943

Year	Number of plants	Capital employed	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
		\$		\$	\$	\$	\$
1935	7	1,574,495	294	327,792	11,666	362,854	880,699
1936	7	1,544,869	416	521,969	20,588	571,117	1,347,894
1937	8	2,836,836	606	691,934	23,762	879,654	1,730,724
1938	13	8,641,790	1,617	2,093,717	63,501	2,709,384	6,927,105
1939	13	14,581,852	3,596	4,651,615	100,668	1,428,168	12,638,470
1940	19	30,749,992	10,348	13,733,045	281,515	6,813,343	26,567,902
1941	24	56,890,281	26,661	39,942,017	649,301	19,937,484	81,367,910
1942	42	90,527,920	44,886	76,334,141	1,180,589	46,252,255	151,554,598
1943	45	228,616,099	69,529	126,826,708	1,749,421	60,448,010	246,028,586
Per cent increase, 1943 over 1942 ....	..	152.5	54.9	66.1	48.2	52.3	62.3

NOTE: Profits or losses cannot be calculated from above figures as data are not available for general expense items, such as interest, rent, depreciation, taxes, insurance, advertising, etc.

Table 2 - PRINCIPAL STATISTICS, BY SUBDIVISIONS OF INDUSTRY, 1941-1943

Year	Number of plants	Capital employed \$	Average number of em- ployees	Salaries and wages \$	Cost of fuel and electricity at works \$	Cost of materials at works \$	Selling value of products at works \$
<u>1 9 4 1</u>							
Assembly plants	8	47,022,949	21,960	33,228,285	480,803	16,109,765	66,933,939
Parts plants only ..	18	9,867,332	4,701	6,713,732	168,998	3,827,719	14,534,071
Total	24	56,890,281	26,661	39,942,017	649,801	19,937,484	81,367,910
<u>1 9 4 2</u>							
Assembly plants	8	67,229,061	34,990	60,478,224	812,687	38,553,346	125,161,609
Parts plants only ..	34	23,298,859	9,896	15,855,917	367,902	7,698,909	26,392,989
Total	42	90,527,920	44,886	76,334,141	1,180,589	46,252,255	151,554,598
<u>1 9 4 3</u>							
Assembly plants	9	191,993,655	53,896	97,431,633	1,171,636	46,187,353	190,865,216
Parts plants only ..	36	36,622,444	15,633	29,395,075	577,785	14,260,657	55,163,370
Total	45	228,616,099	69,529	126,826,708	1,749,421	60,448,010	246,028,586

Table 3 - PRINCIPAL STATISTICS, BY PROVINCES, 1942 and 1943

Province	Number of plants	Capital employed \$	Average number of employees	Salaries and wages \$	Cost of fuel and electri- city at works \$	Cost of materials at works \$	Selling value of products at works \$
<u>1 9 4 2</u>							
Quebec	15	25,548,085	16,763	29,939,453	394,693	19,980,822	60,413,211
Ontario	21	58,685,073	21,632	36,560,904	584,544	21,917,802	76,359,457
Manitoba	5)						
British Columbia	1)	6,294,762	6,491	9,833,784	201,352	4,353,631	14,781,930
CANADA	42	90,527,920	44,886	76,334,141	1,180,589	46,252,255	151,554,598
<u>1 9 4 3</u>							
Quebec	15	51,724,948	29,942	54,221,972	748,280	24,277,771	95,631,112
Ontario	22	122,195,091	27,015	51,851,346	710,777	26,861,594	106,218,069
Manitoba	4)						
British Columbia	2)						
Nova Scotia	1)	54,696,060	12,572	20,753,390	290,364	9,308,645	44,179,405
Saskatchewan ...	1)						
CANADA	45	228,616,099	69,529	126,826,708	1,749,421	60,448,010	246,028,586

Table 4 - CAPITAL EMPLOYED, BY PROVINCES, 1942 and 1943

Province	Present value of land, build- ings, fixtures machinery, etc.	Value of Inventories		Cash, bills and accounts receivable, prepaid ex- penses, etc.	TOTAL CAPITAL EMPLOYED
		Raw materials, fuel and other supplies on hand and stocks in process	Finished products on hand		
	\$	\$	\$	\$	\$
<u>1 9 4 2</u>					
Quebec	5,754,469	7,990,842	3,493,244	8,309,530	25,548,085
Ontario	14,777,768	21,089,214	2,911,568	19,906,523	58,685,073
Other provinces	728,831	4,106,307	43,477	1,416,147	6,294,762
CANADA	21,261,068	33,186,363	6,448,289	29,632,200	90,527,920
<u>1 9 4 3</u>					
Quebec	9,182,765	24,802,799	4,905,190	12,834,194	51,724,948
Ontario	23,413,085	81,801,431	5,177,772	11,802,803	122,195,091
Other provinces	8,189,400	23,041,543	21,860,703	1,604,414	54,696,060
CANADA	40,785,250	129,645,773	31,943,665	26,241,411	228,616,099

Table 5 - WAGE-EARNERS, BY MONTHS, 1942 and 1943 (On the last work day of each month)

Month	1 9 4 2			1 9 4 3		
	Male	Female	TOTAL	Male	Female	TOTAL
January	27,387	3,432	30,819	39,957	12,437	52,394
February	28,476	3,911	32,387	41,362	12,788	54,150
March	29,389	4,444	33,833	41,089	13,378	54,467
April	30,321	5,014	35,335	41,892	13,082	54,974
May	30,711	5,749	36,460	42,791	13,490	56,281
June	31,201	6,253	37,454	44,380	14,301	58,681
July	32,109	6,996	39,105	44,999	14,574	59,573
August	32,744	7,971	40,715	45,636	15,615	61,251
September	33,377	8,781	42,158	46,309	17,241	63,550
October	34,061	9,501	43,562	46,991	18,142	65,133
November	35,573	10,872	46,445	48,452	18,626	67,078
December	36,447	11,094	47,541	49,127	18,433	67,560
AVERAGE	31,813	7,003	38,816	44,420	15,175	59,595

Table 6 - HOURS WORKED PER WEEK BY WAGE-EARNERS, 1943 (In one week of normal employment; overtime included)

Hours worked per week	Number of Wage-Earners	
	Male	Female
30 hours or less	1,885	1,232
31-43 hours	3,012	1,916
44 hours	2,715	1,735
45-47 hours	1,943	1,013
48 hours	6,148	3,325
49-50 hours	2,208	773
51-54 hours	11,867	3,837
55 hours	1,682	699
56-64 hours	13,296	3,871
65 hours and over	5,744	692
TOTAL	50,500	19,093
Total wages paid in selected week	\$ 2,004,045	611,726

Table 7 - FUEL AND ELECTRICITY USED, 1942 and 1943

Kind	Unit of measure	1	9	4	2	1	9	4	3
		Quantity		Cost at works		Quantity		Cost at works	
					\$				\$
Bituminous coal--Canadian	short ton	14,300			112,736	30,046			245,462
Imported	short ton	22,796			176,794	45,432			391,173
Anthracite coal	short ton	4,324			41,817	2,170			19,826
Lignite coal	short ton	34			178	40			213
Coke	short ton	...			...	318			3,343
Gasoline	Imp.gal.	588,175			199,701	669,219			205,340
Kerosene	Imp.gal.	8,257			1,527	49,021			10,330
Fuel oil	Imp.gal.	1,016,957			73,539	69,625			7,012
Wood	Cord	56			531	54			505
Gas--Manufactured	M cu.ft.	46,831			29,930	58,772			40,091
Natural	M cu.ft.	9			10	10			19
Other fuel .....	...	...			5,372	...			15,662
Electricity	K.W.H.	61,335,047			538,454	114,291,514			810,445
TOTAL .....	\$	...			1,180,589	...			1,749,421

Table 8 - POWER EQUIPMENT, 1942 and 1943

	Ordinarily in Use		In Reserve or Idle	
	Number of units	Total rated horse power	Number of units	Total rated horse power
	1	9	4	2
Steam engines and turbines	1	50	...	...
Gasoline, gas and oil engines	8	670	2	480
Hydraulic turbines or water wheels	35	70	...	...
Electric motors run by purchased power	6,679	19,574	44	179
TOTAL	6,723	20,364	46	659
Electric motors run by above primary units	850	2,100	1	300
Stationary boilers	52	8,847	6	289
Motor-generator sets	46	912	3	16
	1	9	4	3
Steam engines and turbines	3	105	...	...
Gasoline, gas and oil engines	23	1,240	5	370
Diesel engines	1	18	1	300
Electric motors run by purchased power	11,521	32,190	148	980
TOTAL	11,548	33,553	154	1,650
Electric motors run by above primary units .....	...	...	1	300
Stationary boilers	83	11,854	12	1,328
Motor-generator sets	72	2,020	1	15

Table 9 - PRODUCTS MADE IN THE AIRCRAFT INDUSTRY, 1942 and 1943

	1	9	4	2		1	9	4	3
	Quantity		Selling value at works \$			Quantity		Selling value at works \$	
Total aircraft completed in year	3,409		70,274,104			3,792		119,432,707	
Aircraft being built but not completed at year end (value of work done)		31,220,535			...		54,338,792	
Aircraft imported and assembled under Air Training Plan (value of work done)		285,774			...		...
Repairs to aircraft (value of work done)		8,904,796			...		14,324,766	
Aircraft parts manufactured		55,241,394			...		87,474,754	
All other products manufactured.	...		2,214,335			...		3,542,790	
Total Gross Production		168,140,938			...		279,113,809	
Less value of work done in pre- vious year on aircraft complet- ed in current year		16,586,340			...		33,085,223	
TOTAL NET PRODUCTION		151,554,598			...		246,028,586	

Table 10 - PRODUCTION OF AIRCRAFT IN CANADA, 1933-1943

Year	Number	Selling Value at Works \$
1933 .....	...	138,470
1934	18	117,689
1935	58	479,614
1936	109	1,210,910
1937	110	1,461,626
1938	282	4,001,622
1939	252	4,177,555
1940	875	13,859,625
1941	1,466	35,348,343
1942	3,409	70,274,104
1943	3,792	119,432,707

Table 11 - IMPORTS OF AIRCRAFT AND COMPLETE PARTS THEREOF, NOT INCLUDING ENGINES,
1941-1943

	1	9	4	1	1	9	4	2	1	9	4	3
From--United Kingdom ... No.				1				...				...
\$				1,136,774				1,446,707				403,328
United States No.				243				28				148
\$				22,989,241				35,184,205				66,102,084
Other countries .. \$				13,368				3,830				3,544
TOTAL No.				244				28				148
\$				24,139,383				36,634,742				66,507,956

NOTE: Dollar figures include value of parts.

Aircraft

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Table 12 - IMPORTS OF AIRCRAFT ENGINES AND COMPLETE PARTS, 1941-1943

		1941	1942	1943
From--United Kingdom	No.	291	313	28
	\$	3,439,703	1,324,125	429,579
United States	No.	1,450	375	718
	\$	13,291,728	7,320,830	15,840,709
Other countries	\$	2,040	6,460	150,469
TOTAL	No.	1,741	688	769
	\$	16,733,471	8,651,415	16,420,757

Table 13 - EXPORTS AND RE-EXPORTS OF AIRCRAFT AND PARTS, 1941-1943

		1941	1942	1943
Exports (Made in Canada)	\$	20,185,360	27,010,443	44,786,592
Re-Exports (Foreign-made goods re-exported) ...	\$	2,406,528	4,227,021	5,421,138

DIRECTORY OF FIRMS IN THE AIRCRAFT INDUSTRY, 1943

Note: This is not intended to be a complete directory of firms which make aircraft parts. It is merely a list of the concerns which have been classified to this industry for statistical purposes. It includes the main assembly plants and also the firms which were occupied solely or chiefly in making aircraft parts.

Name of Firm	Location of Plant
<u>Nova Scotia</u> -	
Canadian Car & Foundry Company Limited (x)	Amherst
<u>Quebec</u> -	
Bloctube Controls of Canada Limited	5460 Bordeaux St., Montreal
Cambridge Machine Tool & Aircraft Supplies Ltd.	1408 Towers St., Montreal
Canadian Car & Foundry Company Limited	Montreal (2 plants)
Canadian Pratt & Whitney Aircraft Co. Ltd.	150 Lorne Ave., Longueuil
Canadian Propellers Limited	5400 Hochelaga St., Montreal
Canadian Wright Limited	6259 Notre Dame St. E., Montreal
Canadian Vickers Limited, Aircraft Division (x)	P.O. Box 6087, Cartierville
Fairchild Aircraft Limited (x)	Longueuil
Federal Aircraft Limited	2027 Delorimier St., Montreal
Heroux Machine Parts Ltd.	73 Chambly Rd., Longueuil
McKay, Fred A.	756 St. Paul St. W., Montreal
Noorduyn Aviation Limited (x)	1411 Crescent St., Montreal
Victoria Precision Works Co. Ltd.	277 Craig St. W., Montreal
West Aeronautical Devices Inc.	1079 Mountain St., Montreal

DIRECTORY OF FIRMS IN THE AIRCRAFT INDUSTRY, 1943
(Concluded)

Name of Firm	Location of Plant
<u>Ontario -</u>	
Canadian Aircraft Instruments & Accessories Ltd.	99 Vanderhoof Ave., Leaside
Canadian Aviation Products Limited	1009 Bay St., Toronto
Canadian Car & Foundry Company Limited (x)	Fort William
Cockshutt Moulded Aircraft Ltd.	Mohawk St., Brantford
Cub Aircraft Corporation Limited	Hamilton
De Havilland Aircraft of Canada, Limited (x)	Sheppard Ave., Downsview
Federal Sales & Engineering Limited	97 Pelham Ave., Toronto
Fleet Aircraft Limited (x)	Gilmore Rd., Fort Erie
International Aeronautical Corporation Limited	10 Sword St., Toronto
Leavens Bros. Air Services Ltd.	Dufferin St., Fairbanks
Link Manufacturing Company Ltd.	Mill St., Gananoque
Maple Leaf Aircraft Corp. Ltd.	Lucknow
Massey-Harris Co. Limited	Main St. N., Weston
Metalair Products	57 Sylvan Ave., Toronto
Ottawa Car and Aircraft Limited	301 Slater St., Ottawa
Precision Machine Company	70 York St., London
Prencos Progress & Eng. Corp. Ltd.	72-74 Stafford St., Toronto
Reliance Aircraft & Tool Co. Limited	11 Water St., Belleville
Stanley Precision Instruments Ltd.	587 Fleet St. W., Toronto
Victory Aircraft Limited (x)	Malton
Universal Moulded Products Co. Ltd.	Belleville
White Canadian Aircraft Limited	Wellington St. N., Hamilton
<u>Manitoba -</u>	
Leeder's Limited	1371-9 Portage Ave., Winnipeg
MacDonald Bros. Aircraft Limited	50 Robinson St., Winnipeg
S & S Aircraft Limited	215 Watt St., Winnipeg
Sterling Engine Works Limited	33 Water St., Winnipeg
<u>Saskatchewan -</u>	
M & C Aviation Co. Ltd.	P.O. Box 789, Prince Albert
<u>British Columbia -</u>	
Boeing Aircraft of Canada Limited (x)	1927 Georgia St. W., Vancouver
Wallace Machine & Mfg. Co. Ltd.	955 Kingsway, Vancouver

(x) Assembly plants.



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