42-206 c.

Published by Authority of the HON. W. D. EULER, Minister of Trade and Commerce. 50-1-3-40 Price -

DOMINITS CENTS AU STATE STATE OF THE STATE O

Historical File Copy

DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

CENSUS OF INDUSTRY

MINING, METALLURGICAL AND CHEMICAL BRANCH

OTTAWA — CANADA

Dominion Statistician: R. H. Coats, LL.D., F.R.S.C., F.S.S. (Hon.) . . . Chief - Mining, Metallurgical and Chemical Branch: W. H. Losee, B.Sc. Statistician - Metal and Chemical Products: H. McLeod, B.Sc.

ANNUAL INDUSTRY REPORT

IRON AND STEEL AND THEIR PRODUCTS GROUP

## THE SHIPBUILDING INDUSTRY, 1938.

The value of work done in shipyards in Canada during 1938 amounted to \$11,171,416 compared with \$10,360,686 in 1937 and \$6,205,127 in 1936. The 1938 total included \$3,650,601 for work done on new vessels completed during the year, \$133,107 for work done on unfinished vessels, \$6,099,280 for ship repairs, and \$1,288,428 for other products such as industrial machinery, fabricated structural steel work, etc.. Only 34 new vessels were launched during 1938 and the finished value of these ships was \$4,456,186, including the value of work done on them in the previous year.

As reviewed in this report, the shipbuilding industry covers established shipyards in Canada which were regularly occupied on ship repairs or in building new vessels of steel or wood. Factories which made small boats such as gasoline launches and rowboats have not been included as the operations of such establishments are reviewed in a separate report on the boat-building industry. Individuals or companies which occasionally build or repair ships but which do not operate regular shipyards have not been included.

Forty-one shipyards were in operation in 1938, there being 17 in British Columbia, 7 in Nova Scotia, 8 in Ontario, 7 in Quebec, 1 in New Brunswick, and 1 in Manitoba. Capital employed in these works amounted to \$28,422,035, employees numbered 3,596, salaries and wages totalled \$4,813,614, fuel and electricity cost \$296,635, and materials cost \$4,435,966. Seventeen of the shipyards were occupied entirely with repairs in 1938.

Table 1 - PRINCIPAL STATISTICS OF THE SHIPBUILDING INDUSTRY, 1933 - 1938.

7 CP 10	OTT TITLE I	1211220202000	77 2227 02	THE STUDIES	X 77117 0 17 2 17 7 9 7	2000	0
			Average		Cost of		Gross sell-
	No. of	Capital	number	Salaries	fuel and	Cost of	ing value
Year	plants	employed	of em-	and	electricity	materials	of products
			ployees	wages	at works	at works	at works
		\$		\$	\$	\$	\$
1933	38	32,622,232	2,254	2,644,396	240,961 .	989,661	4,521,867
1934	40	31,022,378	2,760	3,197,944	254,642	1,612,739	6,466,395
1935	39	28,157,880	2,967	3,302,386	259,342	2,021,381	7,124,474
1936	37	28,397,626	2,801	3,204,378	235,863	1,530,644	6,205,127
1937	40	29,163,717	3,502	4,411,910	279,993	3,204,905	10,360,686
1938	41	28,422,035	3,596	4,813,614	296,635	4,435,966	11,171,416

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

- 2 -

42-20601

Table 2 - PRINC	IPAL S	TATISTICS,	BY PROVI	NCES, 1937	and 1938.		
			Average		Cost of		Gross sell-
	No. of	Capital	number	Salaries	fuel and	Cost of	ing value
Province	plants	employed	of em-	and	electricity	materials	of products
			ployees	wages	at works	at works	at works
		Ş		\$	\$	\$	\$
1937							
Nova Scotia		4,167,247		648,125	<b>39,</b> 818	366,725	1,401,994
Quebec		8,443,437		1,879,884	99,160	1,794,684	4,926,014
Ontario		5,359,107		595,550		390,058	1,472,038
British Columbi		6,592,367	720	1,050,089	60,043	570,662	2,193,751
New Brunswick .		4,601,559	202	238,262	22,606	82,776	366 000
Manitoba	·	1,001,000	1000	2009202	,000	0.,110	366,889
CANADA	. 40	29,163,717	3,502	4,411,910	279,993	3,204,905	10,360,686
1938	In-spanish-shandaring						der referenden der riterrefer der der der delenformet
Nova Scotia	. 7	4,055,975	534	665,504	40,249	354,465	1,559,747
Quebec		10,190,318		2,021,535	,	2,511,584	4,779,882
Ontario		3,150,594		769,720		735,761	1,991,969
British Columbi		6,540,662		1,078,991	,	770,296	2,376,721
New Brunswick .					10,011	1109100	~,010,121
Manitoba		4,484,486	189	277,864	23,233	63,860	463,097
CANADA	. 41	28,422,035	3,596	4,813,614	296,635	4,435,966	11,171,416

Table 3 - SIZE OF ESTABLE		CCORDING TO D		R OF EMPLOYEES and
		Capital		Gross selling value
			of employees	of products at works
PROPERTY OF STATE IN SEC. SALAMATERIA SECRETARIA SECRETARIA SECRETARIA DE SECRETARIA D		\$	1	*
(a) PRODUCTION		Y		*2
Under \$25,000	9	197,294	77	127,836
\$25,000 to \$50,000	9	519,612	185	320,510
\$50,001 to \$100,000	4	536,716	97	327,325
\$100,001 to \$250,000	9	5,427,563	542	1,327,349
\$250,001 to \$1,000,000 .	7	10,365,408	1,743	4,594,045
Over \$1,000,000	3	11,375,442	1,452	4,474,351
TOTAL	41	28,422,035	3,596	11,171,416
(b) EMPLOYEES				intellization threshold with the development of the second
1 to 10	6	110,156	38	70,322
11 to 20	7	455,463	106	202,131
21 to 50	13	1,192,443	365	973,417
51 to 100	4	4,578,807	271	646,661
101 to 250	8	10,709,724	1,364	4,804,534
Over 250	3	11,375,442	1,452	4,474,351
TOTAL	41	28,422,035	3,596	11,171,416
(c) CAPITAL				
Under \$25,000	9	96,953	124	263,651
\$25,000 to \$100,000	11	494,020	195	399,515
\$100,001 to \$500,000	10	2,632,672	560	1,699,447
Over \$500,000	11	25,198,390	2,717	8,808,803
TOTAL	41	28,422,035	3,596	11,171,416

Table 4 - CAPITAL	EMPLOYED, 19	37 and	1938.				
			entory	value	Operation	ng	
	Present value of materials,			capital (cash, TOTAL bills and accounts CAPITAL			
Province	of land, build- fuel and finished				bills and accounts		
	ings, machin				receival	ole, pre-	EMPLOYED
	and equipmen	t sto	cks in	process	paid exp	penses, etc.	
	\$		\$			\$	\$
1937						1	
Nova Scotia	3,736,647		212,9	97	2:	17,603	4,167,247
Quebec	6,248,549		1,194,9	27	99	99,961	8,443,437
Ontario	2,385,281		477,3	51	49	96,475	5,359,107
British Columbia.	5,808,620		243,9	25	53	39,822	6,592,367
Other provinces .	4,403,445		79,5	86	1	18,528	4,601,559
TOTAL	22,582,542		2,208,7	86	2.3'	72,389	29,163,717
TOTAL	210,0010,010		N, NOO, 1		7,0	12,000	100,100,111
1938							
Nova Scotia	3,665,212		207,0	77	18	33,686	4,055,975
Quebec	7,567,180		1,429,9				10,190,318
Ontario	2,297,528		400,4			52,598	3,150,594
British Columbia.	5,720,116		226,9			33,646	6,540,662
Other provinces .	4,316,605		84,4			33,420	4,484,486
TOTAL	23,566,641	the the street distribution	2,348,8	the state of the s	AND AND RESIDENCE AND ADDRESS OF THE PARTY O	06,571	28,422,035
Table 5 - EMPLOYE	ES SALABIES	AND WAG	ES. BY	PROVINCES.	1937 and	1938	
Table 0 - Man Hollin	Average nu				Tool and	1000	TOTAL
Province	On Salaries				Salaries	Wages	SALARIES
110411100	Male Female		Female	TOTAL.	D02012 2170	114801	and WAGES
	41100				\$	\$	\$
1937					*	T	THE RESERVED
Nova Scotia	29 6	481	- 1	517	60,159	587,966	648,125
Quebec	170 16	1,366	3	1,555	355,879	1,524,005	1,879,884
Ontario	49 11	447	1	508	119,713	475,837	595,550
British Columbia.	86 7	627			187,739	862,350	1,050,089
Other provinces .		157	000	202	91,224	147,038	238,262
TOTAL		3,078	5	3,502	814,714	3,597,196	4,411,910
TOTAL *****	011	0,010		0,000	011,111	0,001,100	19211,010
1070							
1938	27 6	501		534	57 009	607 699	CCE COA
Nova Scotia			• • •		57,882	607,622	665,504
Quebec	195 24	1,269	1	1,489	421,452	1,600,083	2,021,535
Ontario	68 12	554	1	635	164,353	605,367	769,720
British Columbia.	91 6	652		749	198,815	880,176	1,078,991
Other provinces .		146		189	100,800	177,064	277,864
TOTAL	422 50	3,122	2	3,596	943,302	3,870,312	4,813,614
Table 6 - WAGE-EA	RNERS, BY MON	THS, 19		1938.			Marija Marija da
			1 9	3 7		1 9 3	8
Month		Male	Femal	e TOTAL	Ma	le Femal	e TOTAL
Tomasa		9 700	1	9 70 /	9 9/	70 0	2 900
January		2,780	4	2,784			2,208
February		2,875	3 3	2,878 2,928	2,9 3,3	99 2	2,979
March		2,925	5	3,536	3,6	32 2	3,401 3,684
May		3,159	4	3,163	4,1	24 2	4,126
June		3,036	5	3,041	. 3,7		3,732
July		3.036	4	3,040	3.6	11 2	3,613
August		2,959	4 4	2,963 2,641	3,1 3,0	2 2	3,138 3,064
September		3.102	4	3.106	2.9	37 2	2.989
November		2,959 2,637 3,102 3,519 3,372	4	3,523	2,98 2,50	30 2 11 2 36 2 237 2 37 2 44 2	2,595
December		3,078	5	3,376	$\frac{2,0}{3}$	$\frac{44}{22}$ $\frac{2}{2}$	2,046 3,124
AVERAGE	0 0 0 0 0 0	0,078		3,083	5,1	for h	5,124

Regulars hours Per cent of			lar ho	ours	Per	cent of		
worked wage-earners			orked		wage	wage-earners		
per week			r weel	2				
30 hours or less	3.4	51 -	54 hc	ours		18.3		
31 - 43 hours	4.3					4.6		
44 hours	33.3			ours		10.3		
45 - 47 hours	9.3			and over		3.9		
48 hours	7.2	00 11	our E c	ina over		0.0		
49 - 50 hours	5.4							
Table 8 - FUEL AND ELE	CTRICITY HERD "	1937 and 1	938					
radie o - robh khi hhin	CILICITI ODED		9 3	7	1 9	3 8		
Kind	Unit of			Cost at		Cost at		
	Measure	Quan	tity	works	Quantity	works		
				\$		\$		
Bituminous coal - Cana	dian short to	on 3	,762	30,169	4,221	30,949		
	rted short to		,548	45,905	6,436	41,671		
Inthracite coal			153	1,599	211	2,644		
Coke			851	10,599	735	8,136		
Basoline			,096	10,468	65,517	15,618		
Gerosene			,801	2,125	12,647	2,324		
Tuel oil			,157	30,175	345,072	26,135		
Yood		10 400		1,865	331	1,635		
Gas - Manufactured		+	884	1,480	1,285			
						1,350		
Natural			4	3	270	216		
Electricity purchased				145,305	12,337,389	165,957		
Other fuel				300		900 075		
TOTAL	Contraction of the Contraction o		0 0 0	279,993	* * *	296,635		
Electricity generated :								
own use	K. W. H.	. 110	,130	2 0 0	92,200	0 0 0		
Table 9 - POWER EQUIPM	ENT, 1937 and 19	338.						
		1 9	3 7	7 1 7		3 8		
Type					Number of			
		units	hors	se power	units	horse powe		
Steam engines and turb	ines	92	10	,581	96	10,605		
Diesel engines		6		185	12	560		
Basoline, gas and oil	engines	15		446	20	509		
Hydraulic turbines or	water wheels	1		15				
Total Primary		114	11	,227	128	11,674		
Electric motors run by					Balt out			
power		1,009	33	3,404	1,004	32,304		
TOTAL		1,123	44	1,631	1,132	43,978		
Electric motors run by	primary							
power		3	8	2,250	6	5,250		
Stationary boilers		95	1/	1,034	93	11,086		

Table	10 -	- POWER	EQUIPMENT,	1938,	showing -	- 0	RDINARILY	IN	USE	separately	from	****
				Th	I RESERVE	OR	IDLE.					

IN	RESERVE OR	IDLE.							
Ordinarily in Use In Reserve or Idle									
Туре	Number o	f Total	rated N	lumber of '	Total rated				
	units	horse	power	units :	horse power				
Steam engines and turbines	. 92	7,2	95	4	3,310				
Diesel engines			95	2	165				
Gasoline, gas and oil engines			84	2	25				
Hydraulic turbines or water wheels				~					
mydraulic burbines or water wheels		the spine that the spine the standards with the	* *						
Total Primary	. 120.	8,1	74	8	3,500				
Electric motors run by purchased									
power	. 993	31,4	97	11	807				
	Maritim allowage with the Committee			70	A 700				
TOTAL	1,113	39,6	11	19	4,307				
Electric motors run by primary		-							
power	. 6	5,2	50	4 4 4	0 0 0				
Ctationers bailers	or	0 4	E7	8	0 675				
Stationary boilers	. 85	8,4	:01	0	2,635				
Table 11 - MATERIALS USED, 1937 and	d 1938.								
		1 9		1					
Materials	Unit of		Cost	ıt	Cost at				
	measure	Quantity	works	Quanti	ty works				
			\$		\$				
Iron					H H				
Pig iron	.long ton	126	3,39	38 14	9 4,367				
Iron castings of all kinds		1,058	112,83						
Steel (other than special alloy) -	21102 0 0011	1,000	22.0,00	1,10	140,000				
Steel castings	short ton	553	98,398	1,15	5 159,701				
Bars and rods		901	88,863						
Plates									
		11,601	633,519		· · · · · · · · · · · · · · · · · · ·				
Sheets - plain		86	13,806						
galvanized		52	5,762						
Strip		, 8	466						
Structural shapes		3,000	199,243						
Wire		105	8,923		,				
Scrap iron and steel of all kinds		410	5,85		/				
Other iron and steel	\$	• • •	23,006	3	. 76,335				
Non-ferrous metals -									
Aluminium	pound	83,019	80,423	1,00					
Brass and bronze	pound	187,002	49,591	284,43	9 84,589				
Copper	pound	24,375	11,25	5 54,13					
Lead	pound	46,428	4,534						
Tin		3,773	2,076	,					
Zine	• 1	41,778	3,22!						
Babbitt metals and solders		44,128	20,803						
Other metals	-		13,583		0 7 774				
Other materials and supplies -	*	. 31-11-	20,000		0,202				
Iron and steel pipe and fittings.		e a t	50,481	1.	. 150,732				
Bolts, nuts, rivets, spikes, etc.		0 0 0	167,010		202 004				
Boilers		5	9,378		4 91,896				
Engines	M de h	5 073	176,461		4				
		5,073	257,468						
Timber		1,345	58,330		,				
Sailcloth and sails	\$		7,398		. 11,929				

	1 9	3 7	1 9	3 8
Materials Unit of		Cost at		Cost at
	Quantity	works	Quantity	works
		\$		\$
Other materials and supplies (concluded) -				
Cordage, cables, etc \$		41,781		35,796
Caulking materials (oakua,tar,etc.) \$		23,767		21,426
Paints, oils and varnishes \$		118,163		156.643
All other materials \$		915,103		1,575,356
TOTAL \$		3,204,905	0 0 0	4,435,966

Table 12 - PRODUCTS MADE IN THE SHIPBUILDING INDUSTRY, 1937 and 1938.

	1 9	3 7	1 9	3 8
Products		Selling		Selling
	Number	value	Number	value
		at works		at works
		\$		\$
Steel vessels completed during year -				
Steam			7	1,921,346
Motor	10	510,171	14	2,350,390
Sail, with auxiliary	1	4,468		
Sail, without auxiliary	* * *			
Wooden vessels completed during year -				*
Steam	3	260,023		
Motor	10	72,400	4	82,500
Sail, with auxiliary	4	48,858	2	34,000
Scows and barges	7	82,797	6	49,000
All other	1	51,675	1	18,950
Total vessels completed during year	36	1,030,392	34	4,456,186
Vessels being built but which were not				
launched during the year		780,572		133,107
Repairs to vessels and boats during year		6,125,304		6,099,280
Aeroplanes and hydroplanes made	5	641,666		
Structural steel fabricated short tons	3,984	515,286	2,133	273,185
Industrial machinery		675,601		635,725
Engines	5	66,041	3	116,536
All other products		730,783		262,382
Total Gross Production	+ D D	10,565,645		11,977,001
Less value of all work done in previous year	r			
on all vessels completed during the current year		204,959		805,585
Net Value of Production		10,360,686	• • •	11,171,416

## DIRECTORY OF FIRMS INCLUDED IN THE SHIPBUILDING INDUSTRY, 1938.

## Names of Firms

## Location of Plants

NOVA SCOTIA -

Eastern Shipbuilding Corp. Ltd. Halifax Shipyards Limited Marine Railway Ship Repairing McKay, W. C., & Sons Limited Meteghan Shipbuilding Co. Ltd. Purdy Brothers Limited

Smith & Rhuland

NEW BRUNSWICK St. John Dry Dock & Shipbuilding Co. Ltd.

QUEBEC -Canada Marine Works (Estate A. K. Cantin) Canadian Vickers Limited Davie Geo. T., & Sons Davie Shipbuilding & Repairing Co. Ltd. Marine Industries Limited Montreal Dry Docks Limited Morton Engineering & Dry Dock Co. Ltd.

ONTARIO -Bingley, W., & Son, Ltd. Collingwood Shipyards Limited, The Georgian Bay Shipbuilding & Wrecking Co. Heighton, H. E., & Son Kingston Shipbuilding Co. Ltd. Muir Bros. Dry Dock Co. Ltd. Port Arthur Shipbuilding Co. Ltd. Toronto Dry Dock Co. Ltd.

MANITOBA -Department of Public Works (Dominion Govt.) Selkirk

BRITISH COLUMBIA -Beach Avenue Shipyards (1932) Ltd. B.C. Lake & River Service -Canadian Pacific Railway B.C. Marine Engineers & Shipbuilders, Ltd. British Yukon Navigation Co. Ltd. Burrard Dry Dock Co. Ltd. Burrard Shipyard & Engineering Works Ltd. Cranes Shipyards Limited McCharles, F. R. North Vancouver Ship Repairs, Limited Point Hope Shipyards Ltd. Prince RupertDry Dock and Shipyard Stanley Park Shipyards Ltd. Star Shipyard (Mercers) Ltd. Vancouver Shipyards Ltd. West Coast Salvage & Contracting Co. Ltd. Yarrows Limited

Wright Shipyards

Shelburne Halifax North Sydney Shelburne Meteghan Furness Withy Pier, Upper Water St., Halifax Lunenburg

East Saint John

2050 Notre Dame St. W., Montreal 4970 Notre Dame St. E., Montreal Lauzon Geo. Davie St., Lauzon Sorel 1151 Mill St., Montreal Louise Embankment, Quebec

Dry Dock, Cornwall Huron St., Collingwood Ship Yard, Midland 130 Mellanby Ave., Humberstone Lower Union & Ontario Sts., Kingston Port Dalhousie Port Arthur 170 Villiers St., Toronto

944 Beach Ave., Vancouver Nelson, Nakusp, Rosebery & Okanagan Landing Foot Victoria Drive, Vancouver Whitehorse Esplanade St. E., North Vancouver 1729 W. Georgia St., Vancouver 650 Denman St., Vancouver 6628 Sperling Rd., Vancouver Ft. Rogers St., North Vancouver Victoria Waterfront St., Prince Rupert 1969 W. Georgia St., Vancouver 61 Duncan St., New Mestminster 660 Gilford St., Vancouver 2146 Alder St., Vancouver Esquimalt Broughton St., Vancouver

