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ANNUAL INDUSTRY REPORT
IRON AND STERL AND THEIR PRODUCTS GLROUP
THE SHIPBLILDIHG 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 vesscls 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 mas $\$ 4,456,186$, 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 stcel or wood. Factories which made small boats such as gasoline launches and rowbots 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 occrsionally 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 $\$ 236,635$, and materials cost $\$ 4,435,966$. Seventeen of the shipyards were occupied entirely with repairs in 1938.

Table 1 - PRINCIPAL STATISTICS OF TIE SHIPBUILDING INDUSTRY, 1933-1338.
Year

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

Table 2 - PRINCIPAL STATISTICS, BY PROVINCES, 1937 and 1938.
Average Cost of
17o. of Capital number Salaries fuel and
ing value plants employed of emand electricity materials of products ployees wages at works $\frac{\$}{\$}$ at works at works $\frac{\S}{\zeta}$
Province plants emp

## 1937

| Nova Scoti | 8 | 4,167,247 | 517 | 648 | 39,818 | 5 | - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quebec | 6 | 8,443,437 | 1,55.5 | 1,873,884 | 99,160 | 1,734,684 | 4,326,014 |
| Ontario | 8 | 5,359,107 | 508 | 595,550 | 58,366 | 390,058 | 1,472,038 |
| British Columbia | 16 | 6,592,367 | 720 | 1,050,089 | 60,043 | 570,662 | 2,193:51 |
| New Brunswick Manitoba .... | $\begin{aligned} & \text { 1) } \\ & \text { 1) } \\ & \hline \end{aligned}$ | 4,601,559 | 202 | 238,26 | 22,606 | 82,776 | 366,889 |
| CAIrada | 40 | 9,163,717 | 3,502 | 4,411,910 | 279,993 | 3,204,905 | 10,360,686 |

1938

| Nova Sco | 7 | 4,055,375 | 534 | 665,50 | 40,24 | 354,465 | 析 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| quebec | 7 | 10,190,318 | 1,489 | 2,021,535 | 121,448 | 2,511,584 | 4,779,882 |
| Ontario | 8 | 3,150,594 | 635 | 769,720 | 62,191 | 735,761 | 1,991,969 |
| Britich Columbia | 17 | 6,540,66? | 749 | 1,078,991 | 49,514 | 770,296 | 2,376,721 |
| New Brunswick Manitoba ... | $\begin{aligned} & \text { 1) } \\ & \text { 1) } \end{aligned}$ | 4,484,486 | 189 | 277,86 | 23,233 | 63,860 | 163,097 |
| CAIJADA | 41 | 28,42?,035 | 3,596 | 4,813,614 | 296,635 | 4,435,066 | 1,171,416 |

Table 3 - SIZE OF ESTAELISHAENTS ACCOKDIHG TO PLODUCTION, NUMBFK OF TMPLOYEES and

(a) PRODUCTICN

| Under $\$ 25,000 \ldots \ldots$ | 9 | 197,294 | 77 | 127,836 |
| :---: | :---: | ---: | ---: | ---: |
| $\$ 25,000$ to $\$ 50,000 \ldots \ldots$ | 9 | 519,612 | 185 | 320,510 |
| $\$ 50,001$ to $\$ 100,000 \ldots$ | 4 | 536,716 | 97 | 327,325 |
| $\$ 100,001$ to $\$ 250,000 \ldots$ | 9 | $5,427,563$ | 542 | $1,327,549$ |
| $\$ 250,001$ to $\$ 1,000,000$ | 7 | $10,365,408$ | 1,743 | $4,534,045$ |
| Over $\$ 1,000,000 \ldots \ldots \ldots$ | 3 | $11,375,442$ | 1,452 | $4,474,351$ |
| TOTAL $\ldots \ldots \ldots \ldots$ | 41 | $28,422,035$ | 3,596 | $11,171,416$ |

(b) EMPLOYEFS

| 1 to 10 | 6 | 110,156 | 38 | 70,322 |
| :---: | :---: | :---: | :---: | :---: |
| 11 to 20 | 7 | 455,463 | 106 | 202,131 |
| 21 to 50 | 13 | 1,192, $\leq 43$ | 365 | 973,417 |
| 51 to 100 | 4 | 4,578,807 | 271 | 646,661 |
| 101 to 250. | 8 | 10,709,724 | 1,364 | 4,801,534 |
| Over 250 | 3 | 11,375,442 | 1,452 | 4,474,351 |
| TOTAL | 41 | 28,422,035 | 3,596 | 11,171,416 |

(c) CAPITAL

| Under $\$ 25,000$ | $\ldots \ldots \ldots$ | 9 | 96,953 | 124 | 263,651 |
| ---: | ---: | ---: | ---: | ---: | ---: |
| $\$ 25,000$ to $\$ 100,000$ | $\ldots$ | 11 | 491,020 | 195 | 399,515 |
| $\$ 100,001$ to $\$ 500,000$ | 10 | $2,632,672$ | 560 | $1,693,417$ |  |
| Over $\$ 500,000 \ldots \ldots$ | 11 | $25,198,390$ | 2,717 | $8,808,803$ |  |
| TOTAL $\ldots \ldots \ldots \ldots$ | 41 | $28,422,035$ | 3,596 | $11,171,416$ |  |

Table 4 - CAPITAL FiMPLOYBD, 1937 and 1938.

| Province | Present value of land, buildings, machinery and equipment | Inventory value of materials, fuel and finished products on hand and stocks in process | Operating capital (cash, bills and accounte receivable, prepaid expenses,etc. | TOTAL CAPITAL FMPLOYFD |
| :---: | :---: | :---: | :---: | :---: |
| 1937 |  |  | 2ala ${ }^{\text {a }}$ | \$ |
| Nova Scotia | 3,736,647 | 212,997 | 217,603 | 4,167,247 |
| Quebec | 6,248,549 | 1,134,927 | 999,961 | 8,443,437 |
| Ontario | 2,385,281 | 477,351 | 496,475 | 5,359,107 |
| British Columbia. | 5,808,620 | 242,925 | 539,822 | 6,592,367 |
| Other provinces | 4,403,445 | 79,586 | 118,528 | 4,601,559 |
| TOTAL | 22,582,542 | 2,208,786 | 2,372,389 | 29,163,717 |
| 1938 |  |  |  |  |
| Nova Scotia | 3,665,212 | 207,077 | 183,686 | 4,055,975 |
| Quebec | 7,567,180 | 1,429,917 | 1,192,221 | 10,190,318 |
| Ontario | 2,297,528 | 400,468 | 452,598 | 3,150,534 |
| British Columbia. | 5,720,116 | 226,900 | 593,646 | 6,540,662 |
| Other provinces | 4,316,605 | 84,461 | 83, 420 | 4,484,486 |
| TOTAL | 23,566,641 | 2,318,823 | 2,506,571 | 28,422,035 |

Table 5 - WHPLOMES, SALANIES AND WAGFC, BY PHOVIMCBS, 1937 and 1938.

| Province | Averace number of employees | Salaries | Wages | TOTAL |
| :---: | :---: | :---: | :---: | :---: |
|  | On Salaries On Wages |  |  | SALARIES |
|  | Male Female Malc Female TorAL |  |  | and WAGES |
|  |  | \$ | \$ | \$ |



## 1338

| Nova Scotia | 27 | 6 | 501 |  | 534 | 57,882 | 607,622 | 665,504 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quebec | 195 | 24 | 1,269 | 1 | 1,483 | 421,452 | 1,600,083 | 2,021,535 |
| Ontario | 68 | 12 | 554 | 1 | 635 | 164,353 | 605,367 | 763,720 |
| British Columbia. | 91 | 6 | 652 | ... | 749 | 198,815 | 880,176 | 1,078,991 |
| Other provinces | 41 | 2 | 146 | $\cdots$ | 189 | 100,800 | 177,064 | 277,864 |
| TOTAL | 422 | 50 | 3,122 | 2 | 3,596 | 343,302 | 3,870,312 | 4,813,614 |

Table 6 - WAGE-TARNFLS, BY MONTHS, 1937 and 1938.

|  | 1 3 3 |  |  | 1. 9 3 8 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Month | Male | emale | TOTAL | MaIe | Female | TOTAL |
| J anuary | 2,780 | 4 | 2,784 | 2,206 | 2 | 2,208 |
| February | 2,875 | 3 | 2,878 | 2,977 | 2 | 2,979 |
| fiarch | 2,925 | 3 | 2,928 | 3,398 | 2 | 3,401 |
| April | 3,531 | 5 | 3,536 | 3,682 | 2 | 3,684 |
| May. | 3,153 | 4 | 3,163 | 4,124 | 2 | 4,126 |
| June | 3,036 | 5 | 3,041 | 3,730 | 2 |  |
| July | 3,036 | 4 | 3,040 | \%,611 | 2 | 3,613 |
| August. | 2,353 |  | 2,963 | 3,136 | 2 | 3,138 |
| September | 2,637 | 4 | 2,641 | \%,062 | 2 | 3,064 |
| October. | 3, 102 |  | 3,106 | 2,987 | 2 | 2,989 |
| Devenber | 3,372 | 4 | 3,576 | , 8044 | 2 | 2,805 |
| AVERMGE | 3,078 |  | 3,083 | 3,122 |  | 3,124 |

Table 7 - RFGULAR HOURS WORKED PER WEEK

| Kegulars hours worked <br> per week | Per cent of wage-earners: | Regular hours worked <br> per week | Per cent of wage-earners |
| :---: | :---: | :---: | :---: |
| 30 hours or less | 3.4 | 51 - 54 hours | 18.3 |
| $31-43$ hours | 1.3 | 55 hours | 4.6 |
| 44 hour: | 35.3 | 56-64 hours | 10.3 |
| 45-47 hours | 3.3 | 65 hours and over | 3.9 |
| 48 hours | 7.2 |  |  |
| $\underline{49}=50$ hours. | 5.4 |  |  |

Table 8 - FUEL AMD ELSCTIICITY USED, 1937 and 1938.

| Kind |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Cost at works | Quantity | Cost at works |
|  | \$ |  | duantity ${ }_{\text {\% }}$ |  |
| Bituminous coal - Canadian .. short ton | 3,762 | 30,169 | 4,221 | 30,949 |
| Imported .. short ton | 7,548 | 45,905 | 6,436 | 41,671 |
| Anthracite conl ............. short ton | 153 | 1,599 | 211 | 2,644 |
| Coke . . . . . . . . . . . . . . . . . . . . short ton | 851 | 10,599 | 735 | 8,136 |
| Gasoline . . . . . . . . . . . . . . . . . Imp. gal. | 43,096 | 10,468 | 65,517 | 15,618 |
| Kerosene . . . . . . . . . . . . . . . . . Imp . gral. | 10,801 | 2,125 | 12,647 | 2,324 |
| Fuel oil ..................... Imp. gal. | 456,157 | 30,175 | 345,072 | 26,135 |
| Wood . ............... . . . . . . . . Cord | 374 | 1,865 | 381 | 1,635 |
| Gas - Menufrctured . . . . . . . . . . ${ }^{\text {cu }}$ cu. ft. | 884 | 1,480 | 1,285 | 1,350 |
| Natural ............... M cu. ft. | 4 | 3 | 270 | 216 |
| Electricity purchased ........ K.W. H. | 9,685,626 | 145,305 | 12,337,389 | 165,957 |
| Other fuel .................. |  | 300 |  |  |
| TOTAL . ............... \$ | $\cdots$ | 279,935 | $\cdots$ | 296,635 |
| Electricity generated for om use $\qquad$ | 110,130 | $\cdots$ | 92,200 |  |

Table 9 - POWEN THUIPIENT, 1937 and $1930^{\circ}$

| Type | 1837 |  | 9 38 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number of units | Totel rated horse power | llumber of units | Total rated horse power |
| Steam engines and turbines | 92 | 10,581 | 96 | 10,605 |
| Diesel engines | 6 | 185 | 12 | 560 |
| Gasoline, 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 purchased power | 1,009 | 33,404 | 1,004 | 32,304 |
| TOTAL | 1,123 | 41,631 | 1,132 | 43,978 |
| Electric motore run by primary power | 3 | 2,250 | 6 | 5,250 |
| Stationary boilers | 95 | 14,034 | 93 | 11,086 |

Table 10 - POWER FCUIPMINT, 1938, showing - ORDIMARILY IN USE separately from IN RFSFFVE OR IDLE.

| Type | Ordinarily in Use |  | In Reserve or Idle |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Number of Total rated |  | Number of | Total rated horse power |
|  | units | horse power | units |  |
| Steam engines and turbines | 92 | 7,295 | 4 | 3,310 |
| Diesel engines | 10 | 395 | 2 | 165 |
| Gasoline, gas and oil engines | 18 | 184 | 2 | 25 |
| Hydraulic turbines or water wheels. | ... | - | - |  |
| Total Primary | 120 | 8,174 | 8 | 3,500 |
| Plectric motore run by purchased power | 993 | 31,497 | 11 | 807 |
| TOTAL | 1,113 | 39,671 | 19 | 4,307 |
| Electric motors run by mimary power | 6 | 5,250 | . . | ... |
| Stationary boilers | 85 | 3,451 | 8 | 2,635 |

Table 11 - MATERIALS USED, 1937 and 1938.

| Materials |  | 13 | 36 | 19 | 37 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Unit of measure | Quantity | Cost at works | cuantity | Cost at works |
|  |  |  | \$ |  | \$ |
| Iron -- |  |  |  |  |  |
| Pig iron | . long ton | 126 | 3,398 | 149 | 4,367 |
| Iron castings of all kinds | short ton | 1,058 | 112,839 | 1,138 | 122,639 |
| Steel (other than special alloy) - |  |  |  |  |  |
| Steel castings . . . . . . . . . . . . . . . | short ton | 553 | 98,395 | 1,155 | 159,701 |
| Bars and rode | short ton | 301 | 88,863 | 768 | 69,213 |
| Plates | short ton | 11,601 | 633,519 | 9,115 | 436,620 |
| Sheets - plain | short ton | 86 | 13,806 | 121 | 3,692 |
| galvanized | short ton | 52 | 5,762 | 165 | 9,971 |
| Strip | short ton | 8 | 466 |  |  |
| Structural shapes | short ton | 3,000 | 199,243 | 3,066 | 173,273 |
| Wire | short ton | 105 | 8,323 | 111 | 23,052 |
| Scrap iron and steel of all kinds | short ton | 410 | 5,855 | 207 | 2,752 |
| Other iron and stecl ............ | \$ |  | 23,006 |  | 76,335 |
| Non-ferrous metals - |  |  |  |  |  |
| Aluininiuri | pouid | 83,019 | 80, 123 | 1,000 | 507 |
| Brass and bronze | pound | 187,002 | 49,591 | 281,439 | 84,589 |
| Copper | pound | 24,375 | 11,255 | 54,137 | 11,164 |
| Lead | pound | 16,423 | 4,534 | 74,073 | 5,884 |
| Tin | bound | 3,773 | 2,076 | 2,304 | 1,106 |
| Zinc | jound | 41,778 | 3,225 | 49,084 | 3,337 |
| Babbitt metals and solders ...... | pound | 44,128 | 20,803 | 53,73? | 22,261 |
| Other inetals ..................... | \$ |  | 13,583 |  | 9,134 |
| Other materials and supplies - |  |  |  |  |  |
| Iron and steel pipe aid fittinge. | \$ |  | 50,481. |  | 150,732 |
| Bolts, nute, rivets, suikes, etc. | \$ |  | 167,010 |  | 185,034 |
| Boilers | No. | 5 | 9,378 | 4 | 91,896 |
| Endines | 170. |  | 176,461 | 21 | 610,792 |
| Lumber | M ftob.a. | 5,073 | 257,468 | 5,084 | 260,008 |
| Timber |  | 1,345 | 58,330 |  | 50,697 |
| Sailcloth and sails | \$ |  | 7,338 | ... | 11,329 |

Table 11 - MATEIIALS USED2 1937 and 1938. (Continued)


Table 12 - PRODUCTS IUADF IN THE SHIPBUILDING IMDUSTRY, 1937 and 1933.

|  |  | 37 |  | 38 |
| :---: | :---: | :---: | :---: | :---: |
| Products | Nunber | Selling value at works | Nunier | Selling value 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 - |  |  |  |  |
| Strain | 3 | 260,023 |  |  |
| Motor | 10 | 72,400 | 4 | 82,500 |
| Sail, with auxiliary | 4 | 48,858 | 2 | 34,000 |
| Scows and barges | 7 | $82,737$ | 6 | 49,000 |
| All other ...... | 1 | $51,675$ | 1 | 18,350 |
| Total vessels completed during year | 36 | 1,030,33\% | 34 | 4,456,186 |
| Vessels being built but which wore not |  |  |  |  |
| launched during the year .............. |  | 780,572 | ... | 133,107 |
| Repairs to vessels and boats during year .. |  | 6,125,304 | ... | 6,093,230 |
| Aeroplanes and hydroplanes made | 5 | 641,666 |  |  |
| Structural steel fabricated ... short tons | 3,384 | 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 | $\cdots$ | 10,565,645 | . . | 11,977,001 |

> Less valus of all work done in previous year on all vessels coripleted during the
> current year ..........................................204,959 805,585
> Net Value of Production ................ ... 10,360,686 ... 11,171,416

Hanes of Firme
MOVA COITA -

```
    Eastera Shipbuilding Corp. Ltd.
    Halifax Shipyards Limited
    Mar:ine Kailway Ship Iepairing
    McKay, W. C., & Sons Linited
    ifeteghan Shipbuilding Cu. Ltd.
    Purdy Brothers Limited
```

    Silith \& Rhuiand
    NEW BZUNSMICK
St. John Dry Dock \& Shipbuilding Co. Ltd.
QUEBEC -
Canada Marine Works (Estate A. K. Cantin)
Canndian Vickers Limited
Davie Goo. I., \& Sons
Davie Shipbuilding \& Repairing Co. Ltd.
Marine Industries Limited
Montreal Dry Ducks Liuited
Morton Engineering \& Dry Dock Co. Ltd.
DipALIO -
Bingley, Wo, \& Son, Ltd.
Collingwood Shipyards Linitned, The
Georgian Bay Shipbuilding \& Wrecking Co.
Heighton, H. Fu, \& Son
Kingeton Shis l) uilding Co. Ltd。
Muir Bros. Dry Dock Co. Ltd.
Port Arthur Shipbuilding Co. Ltd.
Toronto Dry Dock Co. Ltd.
MANITOBA -
Department of Public Forks (Dominion Govt.) Selkirk
IRITISH COLUMBIA -
Beach Avenue Shipyards (1932) Ltd.
B.C. Lake $\hat{C}$ River Service -
Canadian Pacific Reilyay
B.C. Marine Enginoers \& Shipbuilders, Ltd.
British Yukon Navigation Co. Ltd.
Burrard Dry Dock Co. Ltd.
Burrard Shipyard \& Engineering Works Ltd.
Cranes Shipyarde Limited
wicharles, $F$. 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.
Yarrowe Linited
Wright Shipyarde
944 Beach Ave., Vancouver
Nelson, Nakusp, itosebery \& Okanagan
Landine
Foot Victoria Drive, Vancouver
Whitehorse
Esplrade St. E., liorth Vancouver
1729 W. Georgia St., Vancouver
650 Denman St., Vancouver
6628 Sperling Md., Vancouver
Ft. Hogers St., North Vancouver
Victurin
Watorfront St., Prince Rupert
1369 W. Georgia St., Vancuuver
61 Duncan St., Ner: Meetminster
660 Gilford St., Vancouver
2146 Alder St., Vancuuver
Esquimalt
Broughton St., Vancouver

