

118 FEB 1958

Rpt. C.11 (Comp.)

Index No. 47533
(For London Office only)

LLOYD'S REGISTER OF SHIPPING

UNITED WITH THE BRITISH CORPORATION REGISTER

SURVEYS FOR FREEBOARD.

(COMPUTATION FOR STEAMER, SAILING SHIP, TANKER.)

Ship's Name "YSW 220"	Official Number Naval Ship	Nationality and Port of Registry Canadian Not registered	Gross Tonnage 112.33 116	Date of Build 1957	Port of Survey <u>Victoria, B.C.</u>
100' BP (fore side stem to C.L. rudder stock)					Date of Survey <u>6th November, 1957</u>
Moulded Dimensions: Length <u>98'-9"</u> Breadth <u>18'-0"</u> Depth <u>7'-9"</u>					Surveyor's Signature
Moulded displacement at moulded draught = 85 per cent. of moulded depth (excluding bossing) (<u>6.5875 Ft.</u>)					Particulars of Classification <u>*100A1 for Government Service on West Coast of Canada.</u>
Coefficient of fineness for use with Tables <u>.795 at 6'-2 1/2" mid. draught</u>					

DEPTH FOR FREEBOARD (D).	DEPTH CORRECTION.	ROUND OF BEAM CORRECTION.
Moulded depth 7'-9" 7'.75	(a) Where D is greater than Table depth (D-Table depth) R = $(7.77-6.63) \cdot 764 = +.87$	Moulded Breadth (B) 18'.0
Stringer plate 1/4"021	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =	Standard Round of Beam = $\frac{B \times 12}{50} = 4".32$
Sheathing on exposed deck $T \left(\frac{L-S}{L} \right) =$	If restricted by superstructures	Ship's Round of Beam = 5"
Depth for Freeboard (D) = <u>7'.771</u>		Difference = +.68
		Restricted to
		Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = -.17$

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed	-				" " R.Q.D.
" overhang	-				Deduction for complete superstructure
R.Q.D. enclosed	-				Percentage covered $\frac{S}{L} =$
" overhang	-				" " $\frac{S_1}{L} =$
Bridge enclosed	-				" " $\frac{E}{L} =$
" overhang aft	-				Percentage from Table, Line A.
" overhang forward	-				(corrected for absence of forecastle (if required))
F'cle enclosed	-				Percentage from Table, Line B.
" overhang	-				(corrected for absence of forecastle (if required))
Tonnage aft Deckhouse	22'-9"	7'-2"			Interpolation for bridge less than .2L (if required)
" forward	-				Deduction =
Tonnage opening aft	-				
" " forward	-				
Total					

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P.	19.94	1	19.94	7"	7.00	1	7.00
1/4 L from A.P.	8.87	4	35.48	2-1/2"	2.50	4	10.00
3/8 L "	2.19	2	4.38	1"	1.00	2	2.00
Amidships	0	4	0	0	0	4	0
3/8 L from F.P.	4.39	2	8.78	1"	1.00	2	2.00
1/4 L "	17.75	4	71.00	4-1/2"	4.50	4	18.00
F.P.	39.88	1	39.88	13"	13.00	1	13.00
Total			179.46				52.00

Mean actual sheer aft = *deficient*
Mean standard sheer aft =

Mean actual sheer forward = *deficient*
Mean standard sheer forward =

Length of enclosed superstructure forward of amidships =
" " aft of " =

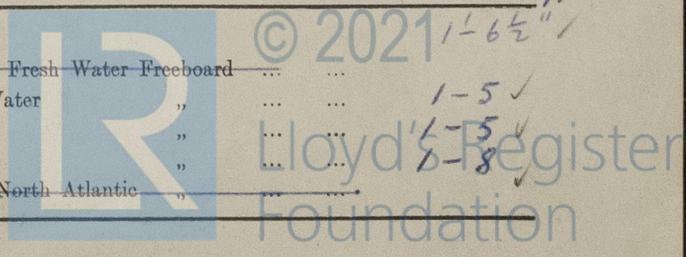
Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{.75-S}{2L} \right) = \frac{127.46}{18} \times .75 = +5.31$
If limited on account of midship superstructure. If limited to maximum allowance of 1 1/2 ins. per 100 ft.

Deduction for Tropical Freeboard. Addition for Winter and Winter North Atlantic Freeboard.	Deduction for Fresh Water. Displacement in salt water at summer load water line $\Delta = 255$ Tons per inch immersion at summer load water line $T = 3.95$ Deduction = $\frac{\Delta}{40T}$ inches = $\frac{255}{40 \times 3.95} = 1.61 = 1 1/2"$	TABULAR FREEBOARD corrected for Flush Deck (if required) Correction for coefficient
Depth to Freeboard Deck = 7.77 Summer freeboard = 1.54 Moulded draught (d) = 6.23 Keel allowance = Extreme draught = Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $\frac{6.23}{4} = 1.56$ Addition for Winter North Atlantic Freeboard (if required) = $1 1/2"$		9.94 + 1.49 = 11.43 1.805 + .68 = 2.485 2.485 / 1.36 = 1.827 1.827 / 1.36 = 1.343
		Depth Correction87 Deduction for superstructures Sheer correction 5.31 Round of Beam correction17 Correction for Thickness of Deck amidships Other corrections, scantlings, etc. 6.18 + .17 = 6.35 Summer Freeboard = 18.49

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck :-

Tropical Fresh Water Line above Centre of Disc	Tropical Fresh Water Freeboard
Fresh Water Line " " 1/2"	Fresh Water " " 1-5"
Tropical Line " " 1/2"	Tropical " " 1-5"
Winter Line below " " 1/2"	Winter " " 1-8"
Winter North Atlantic Line " "	Winter North Atlantic " "

Canadian



013750 - 013759 - 0038

A new form should be prepared if any alterations that affect the freeboard have been made. If no such alterations have been made, the Surveyor should endorse the form on this side with his signature and the date.

This YSW Type Water Boat is building to Class for the Royal Canadian Navy. Three similar hulls adapted to carry ammunition in two holds were built to Class recently YSF 216 by Yarrows Ltd.:Victoria, YSF 217 and YSF 218 by Allied Builders Ltd., Vancouver, B.C. and Sister Ships have been built in Eastern Canada.

<u>Moulded Draught</u>	<u>Displacement</u>	<u>Tons per inch</u>
6'-7" (85% moulded depth)	271	3.96
6'-2-1/2"	252	3.95
5'-6"	219	3.87

Copy of Yarrows Ltd. Dwg. No. 8 Hydrostatic Curves attached to C11 Rpt. (Comp) on "YSF 216" dated 14th January, 1957.

Trade of ship Water Boat for Royal Canadian Navy, for Service on West Coast of Canada

Names of ^{similar} ~~sister~~ ships 46734 46735 46955 "YSF 216", "YSF 217", "YSF 218".

Builder's name and yard number Victoria Machinery Depot Co. Ltd., Victoria, B.C. Hull No. 60 -E.B.

Owners Department of National Defence, Naval Service.

Fee \$45.00
Expenses 30.00



© 2021

Lloyd's Register
Foundation