

22 MAR 1932

Rpt. C.11.

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **26199**
(For London Office only.)West Hartlepool
Report 17124

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

Poop, Bridge & Forecastle

Port of Survey West Hartlepool

(Type of Superstructures.)

Date of Survey March 1932

Ship's Name

5/8 "THURSTON"

Nationality and Port of Registry

British West Hartlepool

Official Number

142666

Gross Tonnage

3072

Date of Build

1918
10 mo.

Name of Surveyor

C. A. MillarParticulars of Classification 100A1

Moulded Dimensions: Length 330.62 ✓ Breadth 46.5 ✓ Depth 25.50 ✓
 Moulded displacement at moulded draught = 85 per cent. of moulded depth 7247 tons
 Coefficient of fineness for use with Tables .761 ✓

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	25.50 ✓	(a) Where D is greater than Table depth (D - Table depth) R =	$(25.50 - 22.04) = 3.46$ $= 8.86$ ✓	Moulded Breadth (B)	46.5 ✓
Stringer plate	0.82 ✓	(b) Where D is less than Table depth (if allowed) (Table depth - D) R =	✓	Standard Round of Beam = $\frac{B \times 12}{50}$	11.16 ✓
Sheathing on exposed deck	✓	If restricted by superstructures	✓	Ship's Round of Beam	12.00 ✓
$T \left(\frac{L-S}{L} \right) =$	✓			Difference	0.84 ✓
Depth for Freeboard (D) =	25.53 ✓			Restricted to	
				Correction = $\frac{\text{Diff}^2}{4} \times \left(1 - \frac{S_1}{L} \right)$	$= \frac{.84^2}{4} \times \left(1 - \frac{.486}{.5132} \right) = .11$ ✓

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed	33.00 ✓	7.5 + .25	✓	33.00 ✓	6.81
" overhang	.27 ✓			.13 ✓	" " R.Q.D. ✓
R.Q.D. enclosed	✓			✓	Deduction for complete superstructure ✓
" overhang	✓			✓	Percentage covered $\frac{S}{L} = \frac{161.56}{330.62} = .4886$ ✓
Bridge enclosed	98.00 ✓	7.5	✓	98.00 ✓	" $\frac{S_1}{L} = \frac{160.91}{330.62} = .4866$ ✓
" overhang aft	2.04 ✓	1.53 ✓	✓	1.53 ✓	" $\frac{E}{L} = \frac{160.91}{330.62} = .4866$ ✓
" overhang forward	✓			✓	Percentage from Table, Line A. (corrected for absence of forecastle (if required))
Forecastle enclosed	28.25 ✓	7.5	✓	28.25 ✓	Percentage from Table, Line B. (corrected for absence of forecastle (if required))
" overhang	✓			✓	Interpolation for bridge less than 2L (if required)
Trunk aft	✓			✓	Deduction = $37.37 \times .3487 = -13.03$ ✓
forward	✓			✓	
Tonnage opening aft	✓			✓	
forward	✓			✓	
Total	161.56 ✓	160.91 ✓		160.91 ✓	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	Mean actual sheer aft = Excess ✓
A.P.	43.06 ✓	1		43.06 ✓	55.00 ✓	55.00	1		55.00 ✓	Mean actual sheer forward = Excess ✓
1/4 L from A.P.	19.16 ✓	4		76.64 ✓	22.90 ✓	22.90	4		91.60 ✓	Mean standard sheer aft
1/4 L	4.74 ✓	2		9.48 ✓	5.72 ✓	5.72	2		11.44 ✓	Mean standard sheer forward
Amidships	-	4		-	-	-	4		-	Length of enclosed superstructure forward of amidships = $\frac{49.63}{330.62} = .155L$
1/4 L from F.P.	9.48 ✓	2		18.96 ✓	11.45 ✓	11.45	2		22.90 ✓	" aft of " = $\frac{79.63}{330.62} = .24L$
1/4 L	38.32 ✓	4		153.28 ✓	45.80 ✓	45.80	4		183.20 ✓	
F.P.	86.12 ✓	1		86.12 ✓	102.00 ✓	102.00	1		102.00 ✓	
Total				387.52 ✓						

Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{78.82}{18} \left(\frac{75 - 244.3}{505.7} \right) = -2.21$ ✓

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.

Depth to Freeboard Deck = 25.54 ✓
 Summer freeboard = 3.98 ✓
 Moulded draught (d) = 21.56 ✓

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 5.39 = 5.2 ✓

Addition for Winter North Atlantic Freeboard (if required =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$ 7272 ✓

Tons per inch immersion at summer load water line

 $T =$ 30.65 ✓Deduction = $\frac{\Delta}{40T}$ inches $= \frac{7272}{40 \times 30.65} = 5.93$ = 6 ✓

TABULAR FREEBOARD corrected for Plank Deck (if required)

Correction for coefficient

 $\frac{761 + .68}{1.36} = 144$ ✓

Depth Correction

Deduction for superstructures

Sheer correction

Round of Beam correction

Correction for Thickness of Deck amidships

Other corrections, scantlings, etc.

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

Tropical Fresh Water Line above Centre of Disc

Fresh Water Line

Tropical Line

Winter Line below

Winter North Atlantic Line

Tropical Fresh Water Freeboard

Fresh Water

Tropical

Winter

Winter North Atlantic

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Particulars of fiddley, funnel and ventilator coamings :—

Particulars of Flush Bunker Scuttles:—

none ✓

Particulars of Companionways :—

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

The ventilators have wood plugs
canvas covers & lashings. ✓

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks:—

The air pipes are of steel 3'-9" high placed close to bulwark in fore well & derrick table support in aft well. Closed with canvas covers & lashings. The air pipes in way of bridge deck are carried up inside the engine and boiler casings and are not exposed. The air pipe to the after peak is 30" above fore deck & the air pipe to fore peak is 22" above the fore-castle deck. faked with canvas covers & lashings.

Particulars of Gangway Cargo and Coaling Ports:—

There are no Gangway, cargo or Coalining ports.

Official No. 142666

Ship's Name THURSTON

Memorandum of alterations reported since ship was surveyed for assignment of Load Lines

MARCH,,1932.

ALTERATIONS.

Crew's accommodation in poop renewed. 1 new door similar to existing ones, cut in poop frt'n and hinged steel door, operated from both sides provided. 18" coaming.

Photostatic copy C11 report amended accordingly. (4 doors instead of 3).

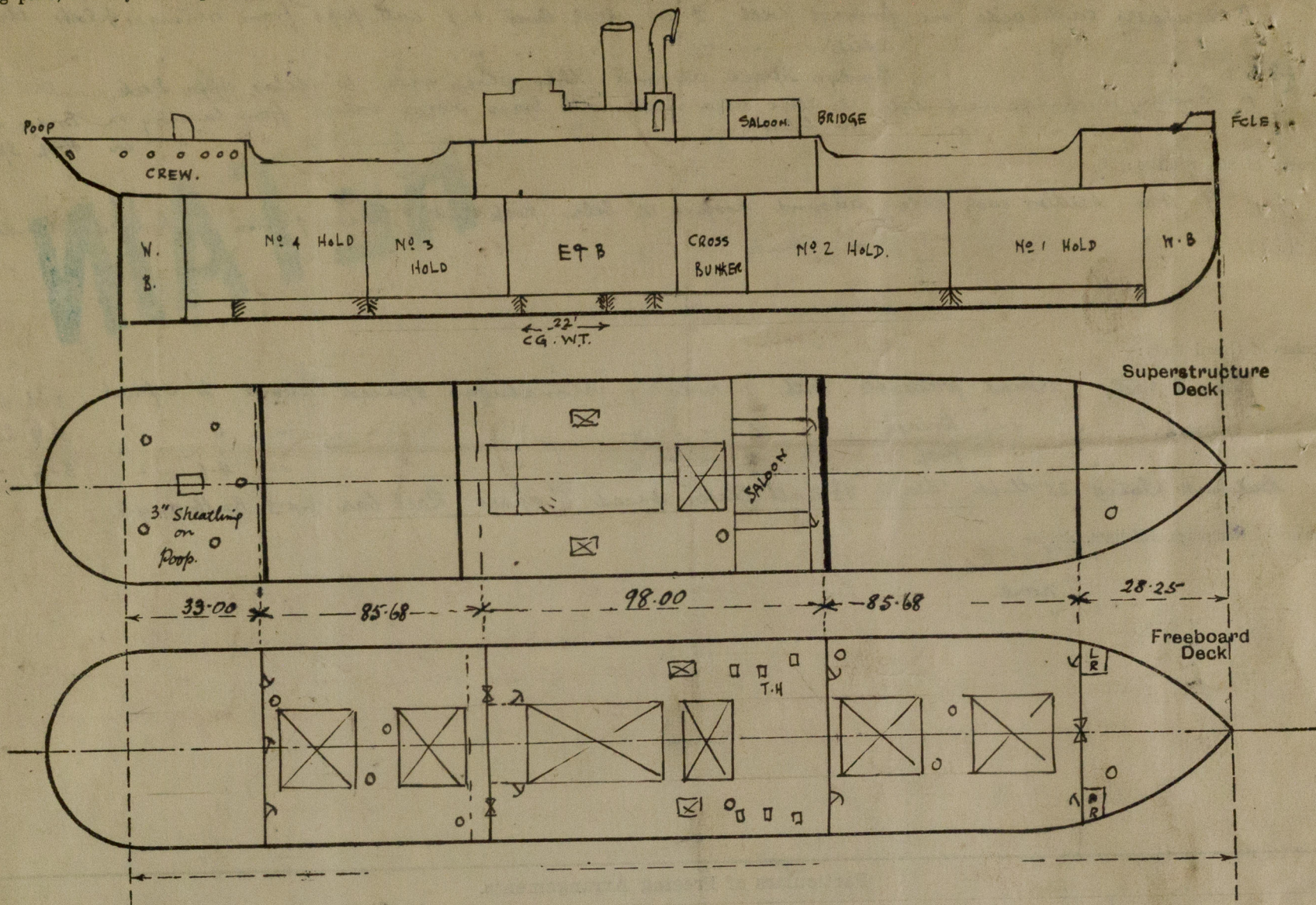
(Hpl. Rpt. 8 No. 17860 dated 20.2.38).

RETAIN

W435-009263/3

Thurston

Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship are to be shewn on the following sketches:—



State any special features in the construction of the ship:—

This vessel is a C Type Standard vessel.

Moulded D = 21.56
Keel = 21
21.77

BW D @ 22
D @ 21

17357
6990
367

TP1 30.7
30.5

@ 21.77 = 6990
2824
7273

The specification for vessels of this type, gives the following particulars:—

Displacement Coefficient on moulded dimensions .76
Total Displacement, including shell, about 7,250 tons on a mean draft of 21'-9"

	19'	20'	21'	22'
The Tons per Inch as per the deadweight scale etc	30.1	30.3	30.4	30.6 tons
The deadweight as per the deadweight scale	4060	4470	4800	5170 .

Builder's name and yard number

Names of sister ships

Owners

Fee £

Received by me

Shipspond
27273



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