

Amended Report

Rpt. C.11.

B.T.

Newcastle-on-Tyne

No. 90891

WRECK BAY
No. 165

-6 JAN 1934

Index No. 2760
(For London Office only.)Lloyd's Register of Shipping.
SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having

Complete Shelter deck with tonnage open aft

Port of Survey Newcastle-on-Tyne

Date of Survey 5th Jan^y 1934

Name of Surveyor J. H. Lawden

Particulars of Classification +100 A1
Shelter Deck (Cont^y?)

Ship's Name	Nationality and Port of Registry	Official Number	Gross Tonnage	Date of Build
"DORIC STAR"	BRITISH LONDON	146193	per B of 11.37 10008 10066 10086	1921-10
Moulded Dimensions: Length 517'-7 1/2" Breadth 63'-4" Depth 40'-6"				
Moulded displacement at moulded draught = 85 per cent. of moulded depth 24630-17 tons				
Coefficient of fineness for use with Tables 758.759				

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	40.52	(a) Where D is greater than Table depth (D-Table depth) R = (40.56-34.51) x 3 = +18.15		Moulded Breadth (B)	63.75
Stringer plate	0.04	(b) Where D is less than Table depth (if allowed) (Table depth-D) R =		Standard Round of Beam = $\frac{B \times 12}{50}$	15.36
Sheathing on exposed deck SEE SKETCH $T \left(\frac{L-S}{L} \right) =$		If restricted by superstructures		Ship's Round of Beam	8 1/2
Depth for Freeboard (D) =	40.56			Difference	6.8" deficient
				Restricted to	
				Correction = $\frac{\text{Diff}^{\circ}}{4} \times \left(1 - \frac{S_1}{L} \right)$	$\frac{6.8}{4} \times 0.048 = +.01$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed	42'-11"	42.92	8'-0"		42.92
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed	469'-9 1/2"	469.79	8'-9"		469.79
" overhang aft	457'-5"		8'-0"		
" overhang forward			8'-9"		
F'cle enclosed			8'-9"		
" overhang			9'-0"		
Trunk aft					
" forward					
Tonnage opening aft	4'-11"	2.46	8'-0"		2.46
" forward					
Total	517.62	515.17			515.17

Standard Height of Superstructure	7'-6"
" " R.Q.D.	✓
Deduction for complete superstructure	42.00
Percentage covered $\frac{S}{L} =$	100%
" " $\frac{S_1}{L} =$	99.52%
" " $\frac{E}{L} =$	99.52%
Percentage from Table, Line A.	99.402
(corrected for absence of forecastle (if required))	
Percentage from Table, Line B.	✓
(corrected for absence of forecastle (if required))	
Interpolation for bridge less than 2L (if required)	
Deduction =	42 x 99.40 = -41.74

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	61.76	1		61.76	41.75	47.75	1		47.75
1/8 L from A.P.	27.48	4		109.92	18.8	21.25	4		85.00
3/8 L	6.79	2		13.58	4.75	5.25	2		10.50
Amidships	-	4		-	10.24	10.24	4		-
3/8 L from F.P.	13.59	2		27.18	19.25	10.24	2		20.48
1/8 L	54.96	4		219.84	35.4	41.44	4		165.76
F.P.	123.52	1		123.52	75.12	93.12	1		93.12
Total				555.80	+18				422.61

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 =
Laft of " =
* lowest point of sheer 9'-6 1/4" abaft amidships

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{133.19}{18} \left(.75 - .50 \right) = 1.85$

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 = 40.56
Summer freeboard = 10.02
Moulded draught (d) = 30.54

Deduction for Tropical freeboard and addition for

Winter freeboard = $\frac{d}{4}$ inches = 7.63 = 7 1/2

Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta = 21294$
Tons per inch immersion at summer load water line

T = 66 x 63.62

Deduction = $\frac{\Delta}{40T}$ inches
= 8 1/4

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient

	+	-
Depth Correction	18.15	
Deduction for superstructures		41.74
Sheer correction	1.85	
Round of Beam correction	.01	
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.	28.32	
	48.33	41.74

Summer Freeboard = 120.00-25

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

Tropical Fresh Water Line above Centre of Disc	15 3/4
Fresh Water Line	8 1/4
Tropical Line	7 1/2
Winter Line below	7 1/2
Winter North Atlantic Line	-

Tropical Fresh Water Freeboard	10'-0 1/4"
Fresh Water	8'-8 1/2"
Tropical	9'-4"
Winter	9'-4 3/4"
Winter North Atlantic	10'-7 1/4"

RECEIVED 19 AUG 1938

RECEIVED 9 JAN 1934

W468-0022(113)

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS														TONNAGE OPENING AFT			
SHELTER DECK																	
Description of Hatchway	...	...	Nº1 MAIN	Nº2 MAIN	Nº3 MAIN	Nº4 MAIN	Nº4 A	Nº5 MAIN	Nº6 MAIN	FP STORE	TRIM ⁶ HATCH	ESCAPE HATCH	GALLEY HATCH	POOP STORE	POOP STORE	
Dimensions of Hatchway	...	...	18-0	21-2	19-8"	19-8"	7-3"	24-7"	19-8"	4-11	14-9	5-0"	2-6	4-0	2-9	4-9
COAMINGS	{	Height above Deck	34"	34"	34"	34"	34"	34"	34"	15"	34"	34"	2-6	4-0	2-9	4-9	
		Thickness {	Sides	.44	.44	.44	.44	.44	.44	.44	.40	.44	.40	.40	.40	.40	x
			Ends	.44	.44	.44	.44	.44	.44	.44	.40	.44	.40	.40	.40	.40	3
		Stiffeners ...	7x3 BA	7x3 BA	7x3 BA	7x3 BA	✓	7x3 BA	7x3 BA	✓	✓	✓	✓	✓	✓	✓	BA
		Brackets, Stays	1 off 2"	2 off 2"	2 off 2"	2 off 2"		2 off 2"	2 off 2"								
HATCH BEAMS	{	Number ...	3	5	5	4	1	5	4	2							
		Spacing ...	4'-6"	3'-6 1/2"	3'-3 1/4"	3'-11"	3'-7 1/2"	4'-1"	3'-11"	9'-6 1/2"							
		Scantling and Sketch	15" x 9"	3 off 14 1/2 x 8"	SAME	SAME	15" x 8 3/4"	SAME	SAME	42"	✓	✓	✓	✓	✓	✓	
			35"	34"	AS	AS	34"	AS	AS	3 x 42"	✓	✓	✓	✓	✓	✓	
			7/8"	3 x 3 x 38"	Nº2	Nº1	7/8"	Nº2	Nº1	7/8"	✓	✓	✓	✓	✓	✓	
Bearing Surface	4 x 3 x 44	3 x 3 x 38"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"		
FORE AND AFTERS	{	Number ...		46"													
		Spacing ...		46"													
		Unsupported Lengths															
		Scantling* and Sketch	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		Bearing Surface															
HATCH COVERS	{	Material ...	WP	As	AS	AS	WP	WP	WP	WP	WP	WP	WP	WP	WP	WP	
		Thickness ...	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	3"	
		How fitted	F+A	for	FOR	FOR	F+A	F+A	F+A	T	T	T	T	T	T	F+A	
		Bearing Surface	3"	Nº1	Nº1	Nº1	3"	3"	3"	3"	2 1/2"	3"	2 3/4"	3"	3"	3"	
Spacing of Cleats	...	...	...	22"	23"	24"	24"	24"	24"	24"	24"	23"	NONE	27"	27"	NONE
Number of Tarpaulins	...	...	...	2	2	2	2	2	2	2	2	2	2	2	2	2

*Are wood fore and afters steel shod at all bearing surfaces?
Are battens and wedges efficient and in good condition?
Are tarpaulins in good condition and in accordance with rule requirements?
Are lashings provided in accordance with rule requirements?

* SEE SKETCH

Yes
Will be provided
Yes

Particulars of fiddley, funnel and ventilator coamings :- The skylights to engine room, boiler room + fan spaces are of steel strongly constructed / Fiddley gratings protected by steel hinged covers / The fiddley + funnel are in efficient order / The ventilators require repairs

Particulars of Flush Bunker Scuttles:—

TWO off ON SHELTER DK 1/2 IS 18" DIAM^R BAYONET JOINTS ✓

Particulars of Companionways:- FOUR OFF (ONE TO FCLC SPACE, THREE TO POOP SPACE) ON SHELTER DECK All are strongly built of steel ✓

FCLC COMPANION	-	5'-6" x 3'-6" x 5'-10"	HIGH OPENING	4'-2" x 3'-0"	DOOR TEAK	1 3/4"	SOLID OPERATED BOTH SIDES ✓
POOP	"	2 off 5'-6" x 3'-6" x 5'-10"	"	4'-2" x 3'-0"	"	1 3/4"	" " " " TO CREWSPACE ✓
POOP	"	1 off 4'-0" x 2'-8" x 5'-10"	"	4'-10" x 2'-3"	"	1 3/4"	" " " "

ALSO ONE COMPANION LADDER IN SALOON HOUSE TO STORE ON UPPER DECK ✓
" " " " REFRIG SPACE ON UPPER DK enclosed in steel deck house.

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

Particulars of Ventilators in exposed positions on freeboard and superstructure decks:—				
On shelter deck.	To FORE PEAK	space 2 off	12" diam	33" high x .36 thick
"	"	To holds	12 off 20"	39" " x .36 "
"	"	"	4 off 27"	27ft " supported .50 "
"	"	To Tween deck	4 off 15"	39" " x .36 "
"	"	To hold	4 off 20"	48" " x .36 "
"	"	"	2 off 25"	30ft " supported .50 "
"	"	Tween d/c	4 off 18"	48" " x .40 "
"	"	To Crews space	9" x 6" x 14"	20" high

Vents are well constructed in accordance with Rules
Wood plugs & canvas covers are on board
SOME DEFECTIVE

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

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

On shelter dK To fore peak tank 5" DIAM 21" high	On shelter dK to APT 2 1/2" diam 20" high
To dbts oil 20 off 3 1/2 " 21 1/2 "	Open pipes are provided with wood plugs
" " " 8 off 4 1/2 " 21 1/2 "	<u>Oil air pipes will be " " gauges.</u>
" " " 6 off 2 1/2 " 21 1/2 "	
" bunkers " 4 off 4 1/2 " 29 "	
" " " 4 off 4 1/2 " 21 "	
" " " 6 off 3 1/2 " 21 "	
" " " 2 off 5 " 16 " "	

Particulars of Gangway Cargoes and Cooling Ports:

Particulars of Gangway Cargo and Coaling Ports:—

One on front side only - (Star one has been plated over.

Ex. Coaling door 4'0" x 4'6" secured by 1 strongback
with 1 1 $\frac{5}{8}$ " bolt also 16 1" bolts + stepped dogs

s/s "DORIC STAR"
PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS														
UPPER DECK														
Description of Hatchway	...	...	N°1 MAIN	N°2 MAIN	N°3 MAIN	N°4	N°5 MAIN	N°6 MAIN	TONNAGE OPEN ESCAPE HATCH	FORE PEAK STORE	CHAIN LOCKER	N°4 ESCAPE HATCH	ESCAPE HATCHES	OIL BKR HATCHES
Dimensions of Hatchway	...	...	18'-0" x 18'-0"	21'-2" x 18'-0"	19'-8" x 18'-0"	19'-8" x 18'-0"	24'-7" x 18'-0"	19'-8" x 18'-0"	3'-0" x 3'-0"	3'-9" x 2'-11"	2'-0" x 2'-0"	3'-0" x 3'-0"	3'-0" x 3'-0"	18'-0" x 1'-0"
COAMINGS	{	Height above Deck	12" ABOVE WOOD DECK	12" ABOVE WOOD DECK	12 3/4" ABOVE WOOD DECK	3 1/2" ABOVE STEEL DK	12" ABOVE WOOD DECK	12" ABOVE WOOD DECK	34"	9 1/2"	9 1/2"	FLUSH	9 1/2"	12"
		Thickness { Sides	.44	.44	.44	.58	.44	.44	.40	.3 1/2	.3 1/2	TRUNK	.44	.44
		Ends	.44	.44	.44	.50	.44	.44	.40	.50	.50	AROUND	.44	.44
		Stiffeners ...	✓	✓	✓	TRUNKED*	✓	✓	✓	BA	BA	✓	✓	✓
HATCH BEAMS	{	Number ...	1 DEEP 2 SHALLOW	2 DEEP 3 SHALLOW	2 D 3 SHAL	2	2 D 3 SHAL	2 D 2 SHAL				SAME		
		Spacing ...	4'-6"	3'-6 1/2"	3'-3 1/2"	6'-6 1/2"	4'-1 3/4"	3'-11"				WITH TWO ORD		
		Scantling and Sketch	DEEP 1 1/2" PLATE 21" x 34" TOP L 4 x 3 x 44 BOT L 6 x 3 1/2 x 50 SHALLOW 3 1/2" PLATE 8" x 54 BA 5 4 off 6 x 3 x 54	DEEP 1 1/2" PLATE 26" x 34" TOP 4 x 3 x 44 BOT 6 x 3 1/2 x 50 SHALLOW 3 1/2" PLATE 8" x 54 BA 5 4 off 6 x 3 x 50	DEEP 1 1/2" PLATE 26" x 34" TOP 4 x 3 x 44 BOT 6 x 3 1/2 x 50 SHALLOW 3 1/2" PLATE 8" x 54 BA 5 4 off 6 x 3 x 50	16" x .62 TOP 3 1/2 x 6 1/2 BOT 6 1/2 x 4 1/2	DEEP 1 1/2" PLATE 27" x 40 TOP L 4 x 3 x 44 BOT L 6 x 3 1/2 x 60 SHALLOW 3 1/2" PLATE 8" x 52 BA 5 4 off 6 x 3 x 51	DEEP 1 1/2" PLATE 21" x 34" TOP L 4 x 3 x 44 BOT L 6 x 3 1/2 x 50 SHALLOW 3 1/2" PLATE 8" x 52 BA 5 4 off 6 x 3 x 51	✓	✓		STEEL HINGED	✓	✓
		Bearing Surface	SHALLOW 3 1/2" PLATE 8" x 54 BA 5 4 off 6 x 3 x 54	SHALLOW 3 1/2" PLATE 8" x 54 BA 5 4 off 6 x 3 x 50	SHALLOW 3 1/2" PLATE 8" x 54 BA 5 4 off 6 x 3 x 50	SHALLOW 3 1/2" PLATE 8" x 54 BA 5 4 off 6 x 3 x 50	SHALLOW 3 1/2" PLATE 8" x 52 BA 5 4 off 6 x 3 x 51	SHALLOW 3 1/2" PLATE 8" x 52 BA 5 4 off 6 x 3 x 51				DOORS FOR ACCESS FROM UPPER DECK	✓	✓
FORE AND AFTERS	{	Number ...	3"	3"	3"	3"	3"	3"						
		Spacing ...												
		Unsupported Lengths								✓	✓			
		Scantling* and Sketch	NONE	NONE	NONE	NONE	NONE	NONE	✓	✓				
HATCH COVERS	{	Material ...	WP	INSULATED HATCH + WP	INSULATED HATCH + WP	INSULATED HATCHES ONLY	INSULATED HATCHES AND WP	WP	WP	WP	WP	INSULATED PLUG WP	PLUG WP	STEEL
		Thickness ...	3"	3"	3"	3"	3"	3"	3"	2 1/2"	2 1/2"	8"	2 1/2"	.50
		How fitted	F+A	F+A	F+A	✓	F+A	F+A	F+A	T	T	✓	✓	BOLTS 4 DIAM
		Bearing Surface	3", 4", 12"	3, 4 + 12"	3" 4" + 12"	✓	3", 4", 12"	3", 4", 12"	3"	3"	3"	✓	✓	3"
Spacing of Cleats	...	24"	23"	24"	NONE	24"	24"	24"	24"	24"	NONE	NONE	20"	BOLTS
Number of Tarpaulins	...	1	Will be provided	1	1	1	1	1	1	1	LOCK BAR	1	1	1

*Are wood fore and afters steel shod at all bearing surfaces?

Are battens and wedges efficient and in good condition?

Are tarpaulins in good condition and in accordance with rule requirements?

Are lashings provided in accordance with rule requirements?

* SEE SKETCH

Lloyd's Register
Foundation

W468-0022(2/3)

HATCH
COVER

Rpt. C.11.

Index. No. _____
(For London Office only.)

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Computation of Freeboard for Steamer, Sailing Ship, Tanker

having _____

Port of Survey _____

(Type of Superstructures.)

Date of Survey _____

Ship's Name

Nationality and Port of
Registry

Official Number

Gross Tonnage

Date of Build

"DORIC STAR"

Name of Surveyor _____

Moulded Dimensions: Length

Breadth

Depth

Moulded displacement at moulded draught = 85 per cent. of moulded depth _____ tons

Particulars of Classification _____

Coefficient of fineness for use with Tables _____

Depth for Freeboard (D)

Depth correction

Round of Beam correction

Moulded depth

(a) Where D is greater than Table depth
(D—Table depth) R =

Moulded Breadth (B)
Standard Round of Beam = $\frac{B \times 12}{50} =$

Stringer plate

(b) Where D is less than Table depth (if allowed)
(Table depth—D) R =

Ship's Round of Beam =

Sheathing on exposed deck

$T \left(\frac{L-S}{L} \right) =$

Difference

Depth for Freeboard (D) =

If restricted by superstructures

Restricted to

Correction = $\frac{\text{Diff}^\circ}{4} \times \left(1 - \frac{S_1}{L} \right) =$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed					
" overhang					
R.Q.D. enclosed					
" overhang					
Bridge enclosed					

Standard Height of Superstructure _____

" " R.Q.D. _____

Deduction for complete superstructure _____

Percentage covered $\frac{S}{L} =$

" " $\frac{S_1}{L} =$

" " $\frac{E}{L} =$

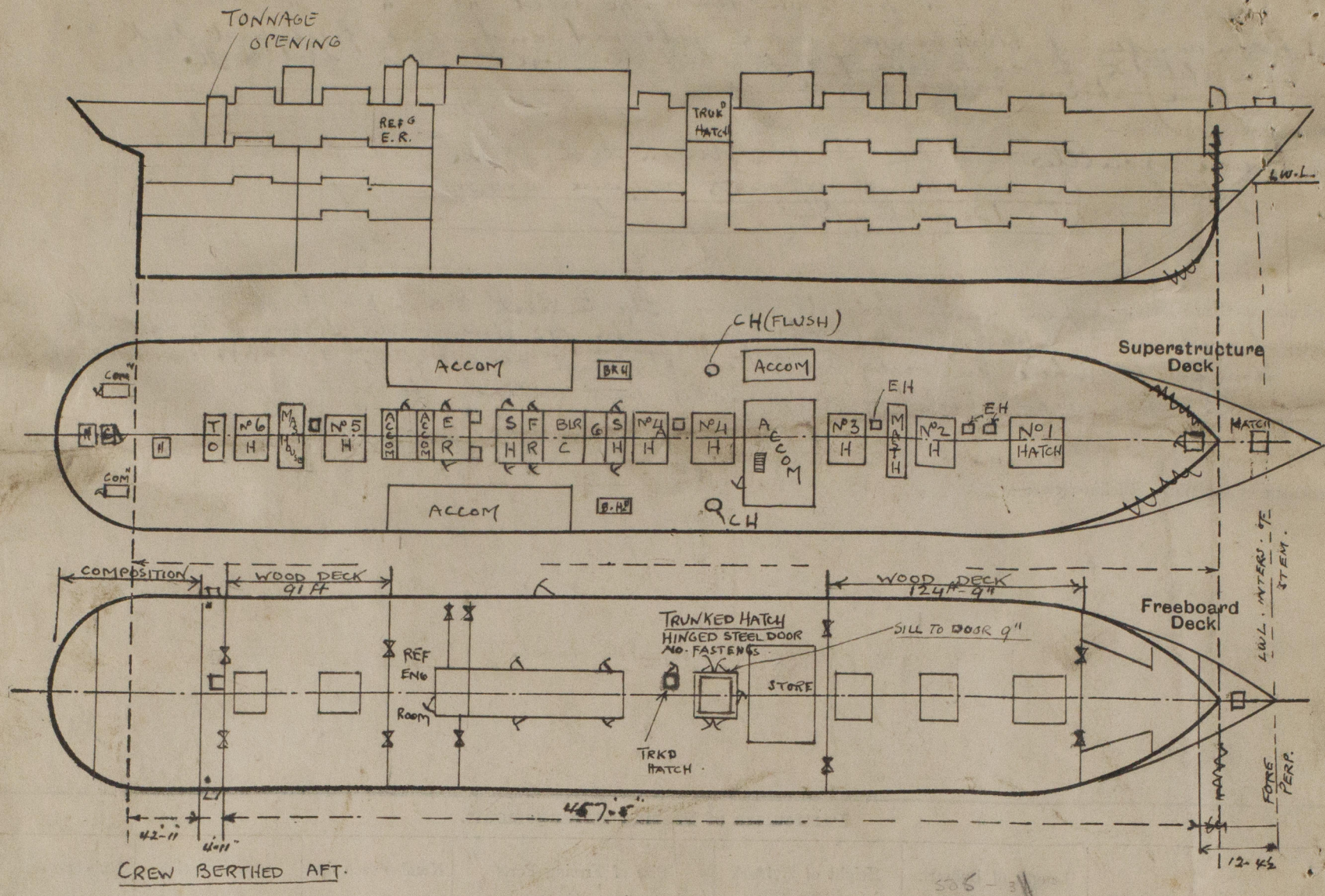
© 2019

Lloyd's Register
Foundation

" " " " " " 2 off 4 off

Blue Star

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:—

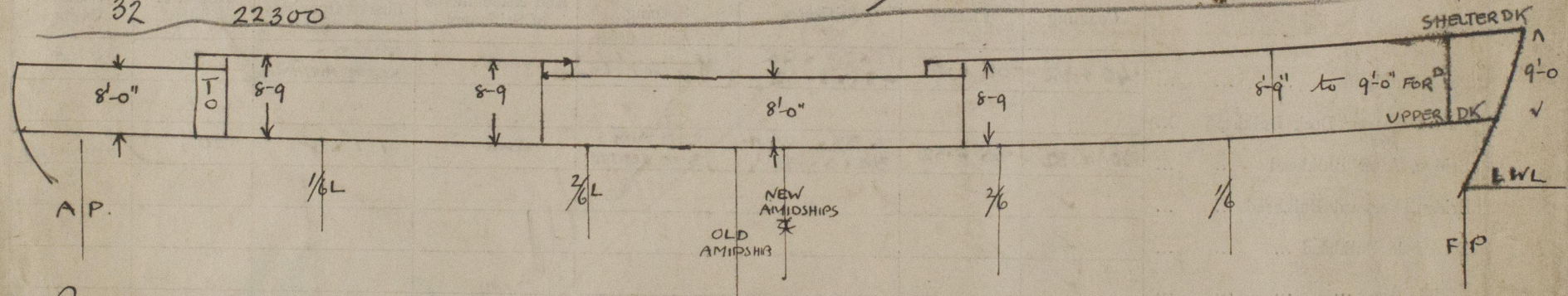


State any special features in the construction of the ship:— A "Mauel" form bow has now been fitted to this vessel.

The Special Survey No 3 is now being completed

Draft in ft	Δ in tons
30 ft	20700
31	21500
32	22300

The crew are berthed 'for', aft + amidships.
~~Timber assignment not required~~



Re measurement on account of lengthening, + other alterations + conversion from three island ship to Shelter deck (with T.O.)
 Also re-measured by BOT for tonnage

Builder's name and yard number..... LITHGOWS LTD PORT GLASGOW

Names of sister ships.....

Owners..... EASTMANS LTD (BLUE STAR LINE)

Fee £ 17 : — — Received by me.....