

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

No 100815
30 JUL 1932
 Computation of Freeboard for Steamer, Sailing Ship, Tanker
 having *Prop. Bridge and Forecastle Deck.*
Port of Survey *Liverpool*Date of Survey *July 1932.*Name of Surveyor *R.R. Rutherford*Particulars of Classification ** 100-A.1.*
 (Type of Superstructures.)
 Ship's Name *"LUSTODIAN"* Nationality and Port of Registry *Bulshik Liverpool* Official Number *149682* Gross Tonnage *5881* Date of Build *1928-7m*
 Moulded Dimensions: Length *L.W.L. 418.16* Breadth *54.3 1/2* Depth *32.7*
 Moulded displacement at moulded draught = 85 per cent. of moulded depth *See list on back page*
 Coefficient of fineness for use with Tables *762* *13692*

 Depth for Freeboard (D) *58*
 Moulded depth ... *32.7*
 Stringer plate ... *52*
 Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$
 Depth for Freeboard (D) = *32.63*

 Depth correction
 (a) Where D is greater than Table depth
 $(D - \text{Table depth}) R =$
 $(32.63 - 27.89) 3 = 14.22$
 (b) Where D is less than Table depth (if allowed)
 $(\text{Table depth} - D) R =$
 If restricted by superstructures

 Round of Beam correction
 Moulded Breadth (B) *54.29*
 Standard Round of Beam = $\frac{B \times 12}{50} = 13.03$
 Ship's Round of Beam = *16 1/2*
 Difference *3.47*
 Restricted to
 Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{3.47}{4} \times \frac{4819}{42} = 4.2$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed ...	37.0	37.00	7.1 1/2		37.00
" overhang ...	58	29			29
R.Q.D. enclosed ...					
" overhang ...	125.27				
Bridge enclosed ...	132.25	125.27	7.1 1/2		125.27
" overhang aft ...	7.20	9.73			9.73
" overhang forward ...	1.16	.58			.58
Fore enclosed ...	43.66	43.66	7.1 1/2		43.66
" overhang ...	25	12			12
Trunk aft ...					
" forward ...					
Tonnage opening aft ...					
" " forward ...					
Total ...	220.89	216.65			216.65

Standard Height of Superstructure *7.50*

" " R.Q.D.

Deduction for complete superstructure *42.00*Percentage covered $\frac{S}{L} = 52.82$ " " $\frac{S_1}{L} = 51.81$ " " $\frac{E}{L} = 57.81$ Percentage from Table, Line A.
(corrected for absence of forecastle (if required))Percentage from Table, Line B. *37.81*
(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = $42 \times 37.81 = 15.88$

SHEER CORRECTION.

Station	Standard Ordinate	S	Product	Actual Ordinate	Effective Ordinate	S	Product
A.P. ...	51.82	1	51.82	66.66	66.00	1	66.00
1/4 L from A.P. ...	23.06	4	92.24	28.3	28.44	4	113.76
3/4 L " ...	5.70	2	11.40	7.75	7.11	2	14.22
Amidships ...		4				4	
3/4 L from F.P. ...	11.40	2	22.80	14.9	15.01	2	30.02
1/4 L " ...	46.11	4	184.44	60.0	60.04	4	240.16
F.P. ...	103.63	1	103.63	138	138.00	1	138.00
Total ...			466.33				602.16

 Correction = $\frac{\text{Difference between sums of products}}{18} \left(\frac{75 - S}{2L} \right) = \frac{135.83}{18} \left(\frac{75 - 264.1}{21.1} \right) = -3.67$

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 = *32.63*
 Summer freeboard = *6.33*
 Moulded draught (d) = *26.30*

 Deduction for Tropical freeboard and addition for
 Winter freeboard = $\frac{d}{4}$ inches = *6.576 1/2*
 Addition for Winter North Atlantic Freeboard (if required) =

Deduction for Fresh Water.

Displacement in salt water at summer load water line

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

 Deduction = $\frac{\Delta}{40 T}$ inches
 $=$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{262 + 68}{1.36}$
 Depth Correction ... *14.22*
 Deduction for superstructures ... *15.88*
 Sheer correction ... *3.67*
 Round of Beam correction ... *4.2*
 Correction for Thickness of Deck amidships ...
 Other corrections, scantlings, etc. ...

	+	-
Depth Correction	14.22	
Deduction for superstructures		15.88
Sheer correction		3.67
Round of Beam correction		4.2
Correction for Thickness of Deck amidships		
Other corrections, scantlings, etc.		
	14.22	19.97
Summer Freeboard		76.12

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, *Steel*, Deck:—
 Tropical Fresh Water Line above Centre of Disc ...
 Fresh Water Line " " ...
 Tropical Line " " ...
 Winter Line below " " ... *6 1/2*
 Winter North Atlantic Line " " ...

 Tropical Fresh Water Freeboard ...
 Fresh Water " " ...
 Tropical " " ...
 Winter " " ... *6-10 1/2*
 Winter North Atlantic " " ...

© 2020

Lloyd's Register

Foundation

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS									
upper 5K → on bridge ← upper deck									
Description of Hatchway	1	2	3	4	5	3			
Dimensions of Hatchway	22-6x17-0	31-6x17-0	11-3x17-0	26-0x17-0	22-4 1/2 x 17-0	13-6x17-0			
COAMINGS	Height above Deck	30"	as	as	as	18			
	Thickness	.50	no	no	no	.44			
	Stiffeners	7x3 AA Sides				.38			
	Brackets, Stays	✓	2-2" thin Flaps	✓	2-2" thin	✓			
HATCH BEAMS	Number	4	5	1	6	2			
	Spacing	4-6	5-3	5-7 1/2	5-2	4-6			
	Scantling and Sketch	RLI 14x.38 angle 4x3x.38 7 1/2 x 3x.44/3a 3 1/2	RLI 16x.38 angle as no	RLI 12 1/2 x.38 angle 4x3x.38 7x3x.44/3a	RLI 15 1/2 x.38 angle as no	RLI + angle as no	RLI + angle as no		
	Bearing Surface		=	=	=	=			
FORE AND AFTERS	Number								
	Spacing								
	Unsupported Lengths								
	Scantling and Sketch								
	Bearing Surface								
HATCH COVERS	Material	WW.				WW.			
	Thickness	23/4				3			
	How fitted	4+a.				4+a			
	Bearing Surface	3				3			
Spacing of Cleats	24					22			
Number of Tarpaulins	3					2			

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

Particulars of fiddley, funnel and ventilator coamings :—

Steel Engine Room sky lights, efficient
 Funnel & Ventilator Casing are efficient
 Hinged Steel Cover over hold bay gratings
 Hatch over Monkey Boiler space. 6'0" x 3'9". Casing 24 x 30. Hinged Steel Cover, Chip & padlock. No grating
 Coal Hatch, Casing top 5'0" x 15'6". Casing 7 x 8 B.G. w. w. covers 3' pitch 7'6". Bearing 3" shaft 24" ap
 & Tarpanlins.

Particulars of Flush Bunker Scuttles:—

None.

Particulars of Companionways :—

Done.

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

1	Went hole deck. Bow	Chi	9	chic, leaning	18x32	To Peak Stores	1	Vent upper 5' aft.	Pts	18	thin, leaning	48x40	To Turn 20.	
1	"	S	9	"	18x32	Chim. Wcker	1	"	Chi	12	"	48x34	Keel tunnel	
1	"	Chi	22	"	36x40	Hold 4 Turn 5 1/2	1	"	Progs 5x	Pts	14	"	15x36	Passage (Progs)
1	"	Pts	18	"	36x40	Hold 4 Turn 5 1/2	1	M.T.V.	"	"	8	"	8x30	Crews Cas
1	Vent, upper 5' fwd	"	18	"	48x40	Hold 4 Turn 5 1/2	1	"	"	8	"	8x30	5' x 3' pass aft	
2	"	Bridge	18	"	30x40	"	1	Vent. 2' hunch Top	Chi	20	"	26x40	Hold 4 Turn 5 1/2	
2	"	"	14	"	30x36	Bunker 1 Turn	1	"	Pts	12	"	20x34	2' x house cas	
2	"	"	18	"	48x40	Hold 4 Turn 5 1/2	1	"	Chi	12	"	16x34	Progs Turn 5	

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

1-2 1/2	thick	Side BK	bow. Chi	9'	high	to	Fore peak Tansu
1-2 1/2			P	20'			D.B. Tansu
2-2 1/2		upper BK	East P/B	33'			
1-2 1/2		Bridge BK		30'			
1-2				30'			
3-2 1/2		upper BK	aft	33'			

Particulars of Gangway Cargo and Coaling Ports :—

1- 2½ " " " P 33
1- 4 " " " Pts. carried up inside Derrick post, to deep Tanks
1- 2 " Prop D^c P 26 high to after Peak tank

No Wood plugs or Canvas covers
No Smirking Notes.

Done

particulars of Scuppers and Sanitary Discharge Pipes:—

Circulars of Scuppers and Sanitary Discharge Pipes:									
Sanitary discharge pipes fitted with storm valves about	2-0	above upper	5" π	from spaces above	7-64	5" π			
	15								
	2-0	below							
	9	above		aft					
	4-0	below							
Scupper	3-6		Bridge 5" π		Bridge 5" π				
	NOT								

Particulars of Side Scuttles :—

Side Seats in Fore Tween Box, Bridge Tween Box including Settees and
 Prop Tween Box, steering gear space + lazarette fitted with strong
 efficient deadlights.


Particulars of Guard Rails :—

Quarry rails on Poop & Fore decks 42" high. 4 wels, Stanchions about 52" apart
Steel bulwark on Bridge deck. 42" high. B. & S. Stays open rails abreast No 3 Hatch, (Port & Star)

Particulars of Gangways, Lifelines, etc. :—

Crew aft in Progs Tween decks
No accommodation in 'tills Tween decks.
Lifelines provided PWS in Forward
and after well, efficient & suitably
supported.

Particulars of Freeing Arrangements.

	Length of Bulwark	Height of Bulwark <i>Efficiency stayed</i>	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	105'-9"	48"	42 x 16 42 x 16 	2 3	8 1/2 12 3/4 ϕ }	21 ϕ ✓
Forward Well	93 44-6	48	40 x 16 40 x 16 -	2 3	8 12 ϕ }	19 ϕ ✓

State position of each freeing port	} After Well :—
(F. and A. position and height above deck edge)/2				Forward Well :—

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:—

Additional area where sheer is less than standard. ✓ *hinged shutter*
x *opening*

Particulars of Superstructures, Trunks, Casings, Deckhouses.

	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	.44	.38	6 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 40 ft.	30	✓	1 Pts 59 x 24	18	7-11 $\frac{1}{2}$
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	.38	.30	3 x 3 x 30	29	✓	1 Pts. 70 x 60 59 x 24	18	7-11 $\frac{1}{2}$
Bridge, Forward Bulkhead ... ..	.44	.44	9 x 3 B.G.	30	Knee T & B.	2. Scuttles & 215 1 Vent.	68 above 215	7-11 $\frac{1}{2}$
Forecastle Bulkhead ... ..	.38	.30	3 x 3 x 38	30	Knee T & B at 0°	1 Pts 60 x 50	13	7-11 $\frac{1}{2}$
Trunk, Aft	✓							
Trunk, Forward	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...		vertical platy 30	5 $\frac{1}{2}$ x 3 x .44 on outside	54	attached to beam over	1 S. 57 x 36 1 P. 57 x 30	18	7-11 $\frac{1}{2}$
Exposed Machinery Casings on Super-structure Decks ... ..	.38	.38	3 x 3 x 30	36	Knee at Top	1 P. 57 x 30. 5 R 2 Pts 57 x 24 A.R.	16 above main 18 1/2	7-3 7-10.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances		vertical platy 38	5 x 3 x .44 on outside	54	attached to beam over.	1 Pts 63 x 53 and short 1 " 57 x 30 1 " 30 x 60 Round Rh.	19 27 1/2	7-11 $\frac{1}{2}$
Deckhouses on Flush Deck Ships ...						1 " 18 x 18 " " "	29.	✓

Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Location	Closing Apparatus	Material	Weight	Remarks
Poop Bulkhead	Hinged wood doors. operated from both sides. Bulkheads in each door. Scuttles, two 12x13
Raised Quarter Deck Bulkhead	✓ wood doors. operated from both sides
Bridge, After Bulkhead	openings. Channels & Boards 3" thick, full height
Bridge, Forward Bulkhead	2 Scuttles fitted with dead lights. Vent with warning carried up to ridge & dead
Engine Room Bulkhead	openings. Portable steel cover. 38 fitted with hook bolts 14" thick. 2 vent stiffer 4x3x38
Engine Room Machinery Casings on Freeboard or Raised Quarter Decks	Double steel hinged doors. operated from both sides
Engine Room Machinery Casings on Superstructure Decks	Double steel hinged doors operated from both sides
Engine Room Machinery Casings within Superstructures not fitted with Class I Closing Appliances	Double steel hinged doors operated from both sides steel hinges door clips on outside Double steel hinges of doors. Bolts on inside Vertical sliding steel door
Engine Room Houses on Flush Deck Ships	Fixed heavy coal doors. Working Bolts & plate Coal doors " " To bridge space

The image contains three hand-drawn technical drawings of a ship's hull and deck plans.

Top Drawing: Longitudinal Section of the Hull
 This drawing shows the internal layout of the hull. Key components labeled include:

- Steering Gear** at the bow.
- Crew** quarters and **Galley** areas.
- Tunnel escape** and **Tunnel** structures.
- Deep Tank** in the center.
- PTB space** (Port Tank Bay).
- Salon** and **Store** areas towards the stern.
- Peak Tank** at the very stern.
- over flow** and **Return Valve** at the stern end.

 Dimensions and other labels include "Flow in Return Valve", "Tunnel escape", "Peak Tank", "Tunnel", "Deep Tank", "PTB space", "Salon", "Store", "Peak Tank", "over flow", "Return Valve", "MC", "A", "B", "C", "D", "E", "F", "G", "H", "I", "J", "K", "L", "M", "N", "O", "P", "Q", "R", "S", "T", "U", "V", "W", "X", "Y", "Z", "AA", "AB", "AC", "AD", "AE", "AF", "AG", "AH", "AI", "AJ", "AK", "AL", "AM", "AN", "AO", "AP", "AQ", "AR", "AS", "AT", "AU", "AV", "AW", "AX", "AY", "AZ", "BA", "BB", "BC", "BD", "BE", "BF", "BG", "BH", "BI", "BJ", "BK", "BL", "BM", "BN", "BO", "BP", "BQ", "BR", "BS", "BT", "BU", "BV", "BW", "BX", "BY", "BZ", "CA", "CB", "CC", "CD", "CE", "CF", "CG", "CH", "CI", "CJ", "CK", "CL", "CM", "CN", "CO", "CP", "CQ", "CR", "CS", "CT", "CU", "CV", "CW", "CX", "CY", "CZ", "DA", "DB", "DC", "DD", "DE", "DF", "DG", "DH", "DI", "DJ", "DK", "DL", "DM", "DN", "DO", "DP", "DQ", "DR", "DS", "DT", "DU", "DV", "DW", "DX", "DY", "DZ", "EA", "EB", "EC", "ED", "EE", "EF", "EG", "EH", "EI", "EJ", "EK", "EL", "EM", "EN", "EO", "EP", "EQ", "ER", "ES", "ET", "EU", "EV", "EW", "EX", "EY", "EZ", "FA", "FB", "FC", "FD", "FE", "FF", "FG", "FH", "FI", "FJ", "FK", "FL", "FM", "FN", "FO", "FP", "FQ", "FR", "FS", "FT", "FU", "FV", "FW", "FX", "FY", "FZ", "GA", "GB", "GC", "GD", "GE", "GF", "GG", "GH", "GI", "GJ", "GK", "GL", "GM", "GN", "GO", "GP", "GQ", "GR", "GS", "GT", "GU", "GV", "GW", "GX", "GY", "GZ", "HA", "HB", "HC", "HD", "HE", "HF", "HG", "HH", "HI", "HJ", "HK", "HL", "HM", "HN", "HO", "HP", "HQ", "HR", "HS", "HT", "HU", "HV", "HW", "HX", "HY", "HZ", "IA", "IB", "IC", "ID", "IE", "IF", "IG", "IH", "II", "IJ", "IK", "IL", "IM", "IN", "IO", "IP", "IQ", "IR", "IS", "IT", "IU", "IV", "IW", "IX", "IY", "IZ", "JA", "JB", "JC", "JD", "JE", "JF", "JG", "JH", "JI", "JJ", "JK", "JL", "JM", "JN", "JO", "JP", "JQ", "JR", "JS", "JT", "JU", "JV", "JW", "JX", "JY", "JZ", "KA", "KB", "KC", "KD", "KE", "KF", "KG", "KH", "KI", "KJ", "KK", "KL", "KM", "KN", "KO", "KP", "KQ", "KR", "KS", "KT", "KU", "KV", "KW", "KX", "KY", "KZ", "LA", "LB", "LC", "LD", "LE", "LF", "LG", "LH", "LI", "LJ", "LK", "LM", "LN", "LO", "LP", "LQ", "LR", "LS", "LT", "LU", "LV", "LW", "LX", "LY", "LZ", "MA", "MB", "MC", "MD", "ME", "MF", "MG", "MH", "MI", "MJ", "MK", "ML", "MM", "MN", "MO", "MP", "MQ", "MR", "MS", "MT", "MU", "MV", "MW", "MX", "MY", "MZ", "NA", "NB", "NC", "ND", "NE", "NF", "NG", "NH", "NI", "NJ", "NK", "NL", "NM", "NN", "NO", "NP", "NQ", "NR", "NS", "NT", "NU", "NV", "NW", "NX", "NY", "NZ", "OA", "OB", "OC", "OD", "OE", "OF", "OG", "OH", "OI", "OJ", "OK", "OL", "OM", "ON", "OO", "OP", "OQ", "OR", "OS", "OT", "OU", "OV", "OW", "OX", "OY", "OZ", "PA", "PB", "PC", "PD", "PE", "PF", "PG", "PH", "PI", "PJ", "PK", "PL", "PM", "PN", "PO", "PP", "PQ", "PR", "PS", "PT", "PU", "PV", "PW", "PX", "PY", "PZ", "QA", "QB", "QC", "QD", "QE", "QF", "QG", "QH", "QI", "QJ", "QK", "QL", "QM", "QN", "QO", "QP", "QQ", "QR", "QS", "QT", "QU", "QV", "QW", "QX", "QY", "QZ", "RA", "RB", "RC", "RD", "RE", "RF", "RG", "RH", "RI", "RJ", "RK", "RL", "RM", "RN", "RO", "RP", "RQ", "RR", "RS", "RT", "RU", "RV", "RW", "RX", "RY", "RZ", "SA", "SB", "SC", "SD", "SE", "SF", "SG", "SH", "SI", "SJ", "SK", "SL", "SM", "SN", "SO", "SP", "SQ", "SR", "SS", "ST", "SU", "SV", "SW", "SX", "SY", "SZ", "TA", "TB", "TC", "TD", "TE", "TF", "TG", "TH", "TI", "TJ", "TK", "TL", "TM", "TN", "TO", "TP", "TQ", "TR", "TS", "TT", "TU", "TV", "TW", "TX", "TY", "TZ", "UA", "UB", "UC", "UD", "UE", "UF", "UG", "UH", "UI", "UJ", "UK", "UL", "UM", "UN", "UO", "UP", "UQ", "UR", "US", "UT", "UU", "UV", "UW", "UX", "UY", "UZ", "VA", "VB", "VC", "VD", "VE", "VF", "VG", "VH", "VI", "VJ", "VK", "VL", "VM", "VN", "VO", "VP", "VQ", "VR", "VS", "VT", "VU", "VV", "VW", "VX", "VY", "VZ", "WA", "WB", "WC", "WD", "WE", "WF", "WG", "WH", "WI", "WJ", "WK", "WL", "WM", "WN", "WO", "WP", "WQ", "WR", "WS", "WT", "WU", "WV", "WW", "WX", "WY", "WZ", "XA", "XB", "XC", "XD", "XE", "XF", "XG", "XH", "XI", "XJ", "XK", "XL", "XM", "XN", "XO", "XP", "XQ", "XR", "XS", "XT", "XU", "XV", "XW", "XX", "XY", "XZ", "YA", "YB", "YC", "YD", "YE", "YF", "YG", "YH", "YI", "YJ", "YK", "YL", "YM", "YN", "YO", "YP", "YQ", "YR", "YS", "YT", "YU", "YV", "YW", "YX", "YY", "YZ", "ZA", "ZB", "ZC", "ZD", "ZE", "ZF", "ZG", "ZH", "ZI", "ZJ", "ZK", "ZL", "ZM", "ZN", "ZO", "ZP", "ZQ", "ZR", "ZS", "ZT", "ZU", "ZV", "ZW", "ZX", "ZY", "ZZ".

Middle Drawing: Superstructure Deck Plan
 This drawing shows the layout of the Superstructure Deck. Key components labeled include:


- Cabins** (multiple).
- Salon** and **Galley**.
- ASH SHOOT**.
- SCUPPER** and **SCUPPER PLATE COVER**.
- PIPE** and **PIPE**.

 Dimensions and other labels include "A", "B", "C", "D", "E", "F", "G", "H", "I", "J", "K", "L", "M", "N", "O", "P", "Q", "R", "S", "T", "U", "V", "W", "X", "Y", "Z", "AA", "AB", "AC", "AD", "AE", "AF", "AG", "AH", "AI", "AJ", "AK", "AL", "AM", "AN", "AO", "AP", "AQ", "AR", "AS", "AT", "AU", "AV", "AW", "AX", "AY", "AZ", "BA", "BB", "BC", "BD", "BE", "BF", "BG", "BH", "BI", "BJ", "BK", "BL", "BM", "BN", "BO", "BP", "BQ", "BR", "BS", "BT", "BU", "BV", "BW", "BX", "BY", "BZ", "CA", "CB", "CC", "CD", "CE", "CF", "CG", "CH", "CI", "CJ", "CK", "CL", "CM", "CN", "CO", "CP", "CQ", "CR", "CS", "CT", "CU", "CV", "CW", "CX", "CY", "CZ", "DA", "DB", "DC", "DD", "DE", "DF", "DG", "DH", "DI", "DJ", "DK", "DL", "DM", "DN", "DO", "DP", "DQ", "DR", "DS", "DT", "DU", "DV", "DW", "DX", "DY", "DZ", "EA", "EB", "EC", "ED", "EE", "EF", "EG", "EH", "EI", "EJ", "EK", "EL", "EM", "EN", "EO", "EP", "EQ", "ER", "ES", "ET", "EU", "EV", "EW", "EX", "EY", "EZ", "FA", "FB", "FC", "FD", "FE", "FF", "FG", "FH", "FI", "FJ", "FK", "FL", "FM", "FN", "FO", "FP", "FQ", "FR", "FS", "FT", "FU", "FV", "FW", "FX", "FY", "FZ", "GA", "GB", "GC", "GD", "GE", "GF", "GG", "GH", "GI", "GJ", "GK", "GL", "GM", "GN", "GO", "GP", "GQ", "GR", "GS", "GT", "GU", "GV", "GW", "GX", "GY", "GZ", "HA", "HB", "HC", "HD", "HE", "HF", "HG", "HH", "HI", "HJ", "HK", "HL", "HM", "HN", "HO", "HP", "HQ", "HR", "HS", "HT", "HU", "HV", "HW", "HX", "HY", "HZ", "IA", "IB", "IC", "ID", "IE", "IF", "IG", "IH", "II", "IJ", "IK", "IL", "IM", "IN", "IO", "IP", "IQ", "IR", "IS", "IT", "IU", "IV", "IW", "IX", "IY", "IZ", "JA", "JB", "JC", "JD", "JE", "JF", "JG", "JH", "JI", "JJ", "JK", "JL", "JM", "JN", "JO", "JP", "JQ", "JR", "JS", "JT", "JU", "JV", "JW", "JX", "JY", "JZ", "KA", "KB", "KC", "KD", "KE", "KF", "KG", "KH", "KI", "KJ", "KK", "KL", "KM", "KN", "KO", "KP", "KQ", "KR", "KS", "KT", "KU", "KV", "KW", "KX", "KY", "KZ", "LA", "LB", "LC", "LD", "LE", "LF", "LG", "LH", "LI", "LJ", "LK", "LM", "LN", "LO", "LP", "LQ", "LR", "LS", "LT", "LU", "LV", "LW", "LX", "LY", "LZ", "MA", "MB", "MC", "MD", "ME", "MF", "MG", "MH", "MI", "MJ", "MK", "ML", "MM", "MN", "MO", "MP", "MQ", "MR", "MS", "MT", "MU", "MV", "MW", "MX", "MY", "MZ", "NA", "NB", "NC", "ND", "NE", "NF", "NG", "NH", "NI", "NJ", "NK", "NL", "NM", "NN", "NO", "NP", "NQ", "NR", "NS", "NT", "NU", "NV", "NW", "NX", "NY", "NZ", "OA", "OB", "OC", "OD", "OE", "OF", "OG", "OH", "OI", "OJ", "OK", "OL", "OM", "ON", "OO", "OP", "OQ", "OR", "OS", "OT", "OU", "OV", "OW", "OX", "OY", "OZ", "PA", "PB", "PC", "PD", "PE", "PF", "PG", "PH", "PI", "PJ", "PK", "PL", "PM", "

deduct

$$\begin{array}{r} 29.75 \times 9.75 \\ 8.75 \times 11.75 \\ \hline 11.28 \\ 125.27 \end{array}$$

 $0.4 \text{ ft}^2 \times 117 = 0.4 \text{ ft}^2 \times 117$

ash shoot in first fidley. Start us in
from about 2.0 above bridge deck to
about 6.0 below upper deck.
14" dia steel plates. Hooper at bridge
deck fitted with hinged steel
cover. 

Load	Draft	Leadweight Tons	Notes
	26-6 $\frac{1}{4}$	9300	12970
	26-0	9020	12890
	25-0	8480	12150
	24-0	7940	11610
	23-0	7400	11070

Light draft = 8'6 $\frac{3}{4}$ "
 Draft = 3670 Tons

Survey when vessel afloat for
Freeboard assignment.

Received by me