

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

 Section 2.
 Index. No. 24939.
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-3 JUL 1936

Computation of Freeboard for Steamer, Sailing Ship, Tanker					Port of Survey KASADOSHIMA JAPAN.
having POOP, BRIDGE AND FORECASTLE.					Date of Survey 22ND May 1936.
(Type of Superstructures.)					Name of Surveyor Reckmann.
Ship's Name "WEN JUAN" ex "KANATIRI."	Nationality and Port of Registry CHINESE. TSINGTAO.	Official Number ?	Gross Tonnage 3127.	Date of Build 1919. 7.	Particulars of Classification RECLASSING
Moulded Dimensions: Length 330.62 Breadth 46.50 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 3.56 (D-Table depth) R = $(25.54 - 22.04) 2.543$ = + 8.90"	Moulded Breadth (B) 46.50' Standard Round of Beam = $\frac{B \times 12}{50} =$ 11.16" Ship's Round of Beam 12. = 12.00" Difference Excess .84"
Stringer plate 0.04	(b) Where D is less than Table depth (if allowed) (Table depth-D) R = ✓	Restricted to
Sheathing on exposed deck T $\left(\frac{L-S}{L} \right) =$ ✓	If restricted by superstructures ✓	Correction = $\frac{\text{Diff}^*}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.84}{4} \times .5123 = - .11"$
Depth for Freeboard (D) = 25.54		

DEDUCTION FOR SUPERSTRUCTURES.

Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)	Standard Height of Superstructure
Poop enclosed 32.91	32.91	7'-6"	✓	32.91	6.81'
" overhang					R.Q.D. ✓
R.Q.D. enclosed					Deduction for complete superstructure 37.37"
" overhang					Percentage covered $\frac{S}{L} =$ 48.92%
Bridge enclosed... .. 98.00	98.00	7'-6"	✓	98.00	" $\frac{S_1}{L} =$ 48.77%
" overhang aft 2.00	1.50			1.50	" $\frac{E}{L} =$ 48.77%
" overhang forward					Percentage from Table, Line A.
Fore enclosed 285.20	28.20	7'-6"	✓	28.20	(corrected for absence of forecastle (if required))
" overhang 0.66	.66			.66	Percentage from Table, Line B.
Trunk aft					(corrected for absence of forecastle (if required)) 34.95%
" forward					Interpolation for bridge less than .2L (if required)
Tonnage opening aft					Deduction = 37.37 x .3495 = -13.06"
" " forward					
Total 161.77	161.27			161.27	

SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P.	43.06	1		43.06	51.00	51.00	1		51.00
$\frac{1}{2}$ L from A.P.	19.16	4		76.64	22.51	22.51	4		90.04
$\frac{3}{4}$ L "	4.74	2		9.48	5.63	5.63	2		11.26
Amidships	✓	4		✓	✓	✓	4		✓
$\frac{1}{4}$ L from F.P.	9.48	2		18.96	11.16	11.16	2		22.32
$\frac{3}{4}$ L "	38.32	4		153.28	44.63	44.63	4		178.52
F.P.	86.12	1		86.12	102.00	102.00	1		102.00
Total				387.54					455.14

Correction = $\frac{\text{Difference between sums of products}}{18} \left(.75 - \frac{S}{2L} \right) = \frac{67.60}{18} (.75 - .2446) = -1.90"$

It limited on account of midship superstructure.


If limited to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. **✓**

Deduction for Tropical Freeboard.	Deduction for Fresh Water.	TABULAR FREEBOARD correction for Fresh Deck (if required)	51.17
Addition for Winter and Winter North Atlantic Freeboard.	Displacement in salt water at summer load water line	Correction for coefficient $\frac{.761 + .68}{1.36} = \frac{1.441}{1.36}$	54.22
Depth to Freeboard Deck = 11.	$\Delta =$	+	-
Summer freeboard =	Tons per inch immersion at summer load water line	Depth Correction 8.90	
Moulded draught (d) =	T =	Deduction for superstructures 13.06	
Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches =	Deduction = $\frac{\Delta}{40T}$ inches	Sheer correction 1.90	
Addition for Winter North Atlantic Freeboard (if required) =		Round of Beam correction ... .. .11	
		Correction for Thickness of Deck amidships	
		Other corrections, scantlings, etc.	
		8.90 15.04 - 6.17	
		Summer Freeboard = 48.05	

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

Existing freeboards	Tropical Fresh Water Line above Centre of Disc 10.5"	Tropical Fresh Water Freeboard 3'-11$\frac{3}{4}$"
reassigned by	Fresh Water Line " " 6"	Fresh Water " " 3'-5$\frac{3}{4}$"
not favorable than	Tropical Line " " 4.5"	Tropical " " 3'-4$\frac{1}{2}$"
these computer made	Winter Line below " " 4"	Winter " " 4'-3$\frac{3}{4}$"
do Convention	Winter North Atlantic Line " " ✓	Winter North Atlantic " " ✓

PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS												Floor Deck.		
UPPER DECK.												BRIDGE DECK.	STORE.	
Description of Hatchway	...	...	No 1. 3. 4.	No 2.	RESERVE BUNKER	PORT & STAR BUNKER HATCH	2 PORT & 2 STAR TRIMMING HATCH.	FORECASTLE STAIR.	PORT SIDE REEF WEATHERS DECK.	RESERVE BUNKER.	PORT & STAR BUNKER HATCH	ORAL SHOOTING CABIN.	STORE.
Dimensions of Hatchway	...	...	26'-6 1/2" x 18' 0"	26'-6 1/2" x 18' 0"	12' 3" x 18' 0"	5'-5" x 3'-0"	2'-6" x 1'-5"	4'-0" x 4'-0"	3'-8" x 1'-5"	10'-2 1/2" x 18' 0"	7'-10" x 3'-0"	18'-0" x 8'-2"	2'-6" x 2'-6"
COAMINGS	{	Height above Deck	...	2'-6 1/2" /	2'-10 1/2" /	9" B.A. /	9" B.A. /	9" B.A. /	9" B.A. /	2'-6" /	2'-6 1/2" /	2'-6" /	9" B.A. /	1'-3" /
		Thickness	Sides44 /	.44 /				.44 /				.44 /
			Ends44 /	.44 /				.44 /				.44 /
		Stiffeners	...	7 x 3 x 4 B.A. /	7 x 3 x 4 B.A. /					✓				✓
		Brackets, Stays	...	3 1/2 x 3 1/2 A. /	3 1/2 x 3 1/2 L. /					✓				✓
HATCH BEAMS	{	Number	...	5.	5.	2.				1.				
		Spacing	...	4'-5" /	4'-5" /	4'-1" /				5'-1 1/2" /				
		Scantling and Sketch			4" x 3" x 4 1/2 A. /	4" x 3" x 4 1/2 A. /	4" x 3" x 4 1/2 A. /							
				16" /	16" /	12" /								
				3/4" T. /	3/4" T. /	3/8" /								
Bearing Surface	...	4 x 3 x 4 1/2 A. /	4 x 3 x 4 1/2 A. /	4 x 3 x 4 1/2 A. /					3 1/2" /					
FORE AND AFTERS	{	Number	...											
		Spacing	...											
		Unsupported Lengths	...											
		Scantling* and Sketch	...											
		Bearing Surface	...											
HATCH COVERS	{	Material	...	WOOD.	WOOD.	WOOD.	WOOD.	WOOD.	WOOD.	WOOD.	WOOD.	WOOD.	WOOD.	
		Thickness	...	2 1/2" /	2 1/2" /	2 1/2" /	2 1/2" /	2 1/2" /	2 1/2" /	2 1/2" /	2 1/2" /	2 1/2" /	2 1/2" /	
		How fitted	...	R 2 A. /	R 2 A. /	R 2 A. /	T.H.W.A.T. /	T.H.W.A.T. /	T.H.W.A.T. /	R 2 A. /	R 2 A. /	T.H.W.A.T. /	R 2 A. /	
		Bearing Surface	...	4" /	4" /	3" /	3 1/2" /	3 1/2" /	3" /	3" /	3 1/2" /	3 1/2" /	3" /	
Spacing of Cleats	...	...	2'-0" /	2'-0" /	2'-2" /	18" /	18" /	2'-0" /	2'-0" /	2'-0" /	2'-0" /	2'-0" /	
Number of Tarpaulins	...	...	4. /	4. /	2. /	2 EACH. /	2 EACH. /	2. /	2. /	3. /	3. /	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 'fiddle, funnel and ventilator coamings:—

STOKENOLD GRATINGS COVERED BY STRONG STEEL HINGED COVERS.	✓
FIDDLE AND FUNNEL VENTILATORS ARE IN EFFICIENT CONDITION.	✓
ENGINE ROOM SKYLIGHT OF STEEL AND STRONGLY CONSTRUCTED.	✓

Particulars of Flush Bunker Scuttles:—

NONE

Particulars of Companionways :—

ONE STEEL COMPANIONWAY ON POOP DECK FACING AFT. ✓
5'-6" x 2'-6" x 6'-3" HIGH. WOOD DOOR 10 1/2" SILL OPERATED FROM BOTH SIDES. ✓

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

3	VENTS ON FORECASTLE DECK.	5 1/2" DIA.	COAMING.	16" x 3.
2	" "	" "	" "	12 3/4" x 3.
2	" "	" "	" "	16" x 3.
1	" "	" "	" "	30" x 3.
3	" " FOR WELL DECK.	15" "	" "	30" x 3.

2	VENTS ON BRIDGE DECK.	15 ⁴ DIA.	COAMINGS.	30" X 3
4	" " AFT WELL DECK.	15 ⁴ "	"	30" X 3.
2	" " POOP DECK.	11 ^{1/2} "	"	16"
1	" " "	8 ¹ "	"	18"
8	" " " "	4 ¹ "	"	16"
1	" " " "	4 ¹ "	"	14"

ALL VENTILATORS CONSTRUCTED IN
ACCORDANCE WITH RULES.
COAMINGS CLOSED WITH WOOD PLUGS
AND CANVASS COVERS.

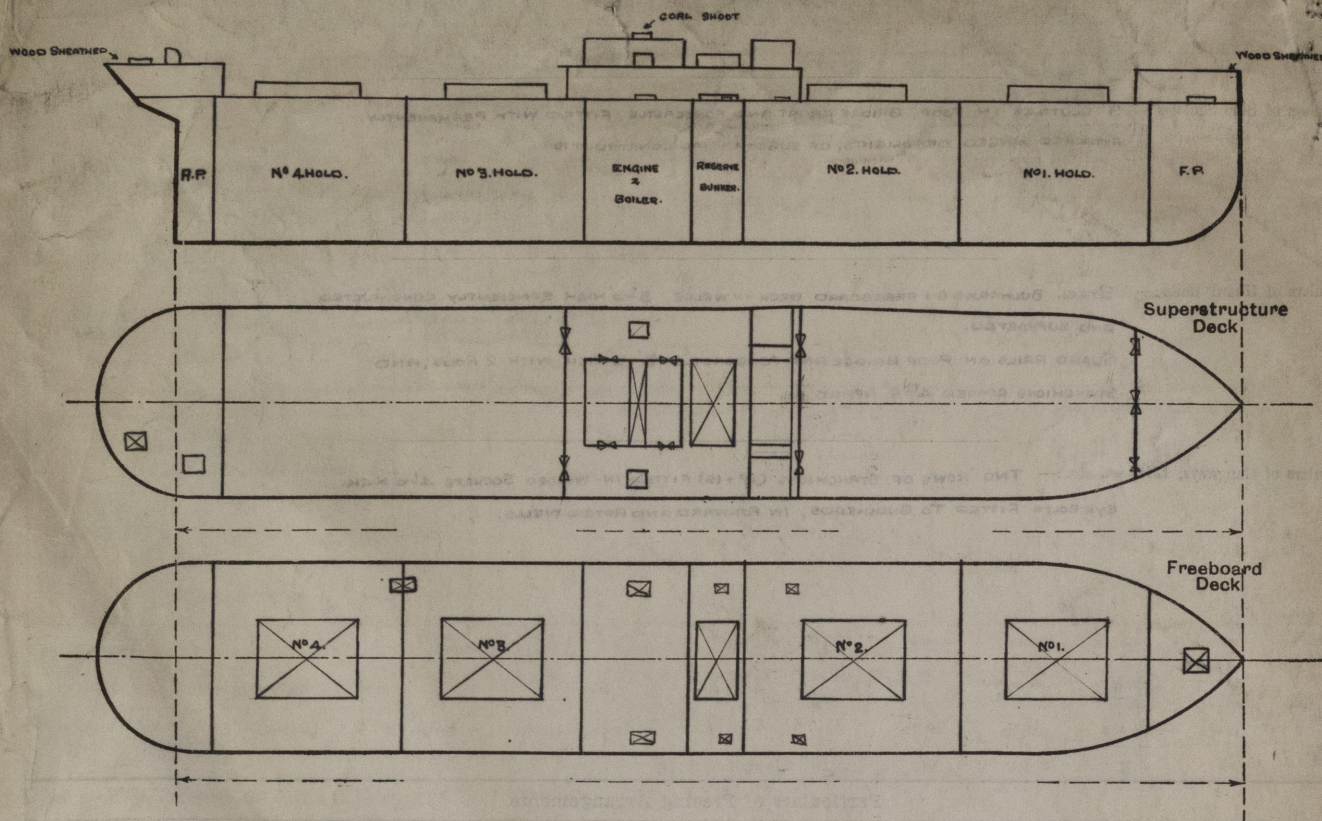
Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—

ON FORECASTLE DECK.	1. C.I. PIPE	18" HIGH	CLOSED	WOOD PLUG.	FROM	FORE PEAK TANK.
" " "	1 STEEL "	FLUSH.	"	SCREEN PLUG.	"	DOUBLE BOTTOM TANK.
" FREEBOARD DECK.	4 STEEL "	3'-6" HIGH	"	WOOD PLUG.	"	" " "
" BRIDGE DECK.	6 C.I. "	18" HIGH.	"	"	"	" " "
" POOP DECK.	1 C.I. "	18" HIGH.	"	"	"	AFT PEAK TANK.

Particulars of Gangway Cargo and Coaling Ports:—

NONE. ✓

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:—

Builder's name and yard number.

Names of sister ships.

Owners.

Fee £

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