

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

No 30861

Computation of Freeboard for ~~Steamer, Sailing Ship, Tanker~~ MOTOR VESSEL.

having Port, Bridge and Forecastle

(Type of Superstructures.)

Port of Survey Sunderland.

Date of Survey March 15<sup>th</sup> 1932.

Name of Surveyor Colin Bartlett.

Particulars of Classification +100A1.

Ship's Name <b>"KING JOHN"</b>	Nationality and Port of Registry <b>British Sunderland</b>	Official Number <b>160356</b>	Gross Tonnage <b>5,228</b>	Date of Build <b>1928 2 mo.</b>
-----------------------------------	---	----------------------------------	-------------------------------	--

Moulded Dimensions: Length 400.0 Breadth 54.5 Depth 29.72

Moulded displacement at moulded draught = 85 per cent. of moulded depth 12,280 tons

Coefficient of fineness for use with Tables 783

Depth for Freeboard (D)		Depth correction		Round of Beam correction	
Moulded depth	29.62	(a) Where D is greater than Table depth (D-Table depth) R = (29.66-26.67) 3.0		Moulded Breadth (B)	54.5
Stringer plate	.04			Standard Round of Beam = $\frac{B \times 12}{50} = 13.1$	
Sheathing on exposed deck		(b) Where D is less than Table depth (if allowed) (Table depth-D) R = -		Ship's Round of Beam = 13.5	
$T \left( \frac{L-S}{L} \right) =$				Difference	
Depth for Freeboard (D) =	29.66	If restricted by superstructures -		Restricted to	
				Correction = $\frac{\text{Diff}^e}{4} \times \left( 1 - \frac{S_1}{L} \right) = \frac{.4}{4} (.487) = .05$	

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)	
Poop enclosed ...	27.66	27.66	8' 0"		27.66	Standard Height of Superstructure <u>7.50</u>
" overhang ...	nil					" " R.Q.D. -
R.Q.D. enclosed ...						Deduction for complete superstructure <u>42.0</u>
" overhang ...						Percentage covered $\frac{S}{L} = \frac{204.99}{400.00} = .5125$
Bridge enclosed ...	142.33	142.33	8' 6"		142.33	" " $\frac{S_1}{L} = \frac{204.99}{400.00} = .5125$
" overhang aft ...	nil					" " $\frac{E}{L} = \frac{204.99}{400.00} = .5125$
" overhang forward ...	nil					Percentage from Table, Line A. -
F'cle enclosed ...	35.0	35.00	8' 0"		35.00	(corrected for absence of forecastle (if required)) -
" overhang ...	nil					Percentage from Table, Line B. <u>33.75</u>
Trunk aft ...						(corrected for absence of forecastle (if required))
" forward ...						Interpolation for bridge less than .2L (if required)
Tonnage opening aft ...						Deduction = <u>42 + 33.75 = 75.75</u>
" " forward ...						
Total ...	204.99	204.99			204.99	

## SHEER CORRECTION.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product	
A.P. ...	50.00	1		50.00	55	55.00	1		55.00	Mean actual sheer aft = <u>even</u>
1/4 L from A.P. ...	22.25	4		89.00	24	23.70	4		89.00	Mean actual sheer forward = <u>Deficient</u>
1/2 L " ...	5.5	2		11.0	6	5.92	2		11.00	
Amidships ...		4			0		4			Length of enclosed superstructure forward of amidships = $\frac{70.5}{400} = 17.62$
3/4 L from F.P. ...	11.0	2		22.00	10	9.58	2		19.16	" " aft of " = $\frac{71.84}{400} = 17.96$
3/4 L " ...	44.50	4		178.00	38.2	38.32	4		153.28	
F.P. ...	100.00	1		100.00	91	91.00	1		91.00	
Total ...				450.00					413.44	

$$\text{Correction} = \frac{\text{Difference between sums of products}}{18} \left( .75 - \frac{S}{2L} \right) = \frac{36.56}{18} (.75 - .256) = +1.00$$

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 = 29.66

Summer freeboard = 6.06

Moulded draught (d) = 23.60

## Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 5.9 6"

## Addition for Winter North Atlantic Freeboard (if required) = -

## Deduction for Fresh Water.

Displacement in salt water at summer load water line

$$\Delta = 11550$$

Tons per inch immersion at summer load water line

$$T = 45.30$$

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

$$= 6.38 \text{ } 6\frac{1}{2}"$$

## TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient  $\frac{68.1783}{1.36} = \frac{146.3}{1.36}$ 

	+	-
Depth Correction	8.97	-
Deduction for superstructures	-	14.17
Sheer correction	1.00	-
Round of Beam correction	-	.05
Correction for Thickness of Deck amidships	-	-
Other corrections, scantlings, etc.	-	-
	9.97	14.22
Summer Freeboard		72.65

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

Tropical Fresh Water Line above Centre of Disc	12 1/2
Fresh Water Line	6 1/2
Tropical Line	6
Winter Line below	6
Winter North Atlantic Line	

Tropical Fresh Water Freeboard	5.06
Fresh Water	5.06
Tropical	5.06
Winter	5.06
Winter North Atlantic	



# PARTICULARS OF PROTECTION TO OPENINGS, ETC.

## HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

Description of Hatchway	No. 1. Fore Well	No. 2 Fore Well	No. 3 Bridge	Deep Tank Port Starboard in Bridge	No. 4 After Well	No. 5 After Well	No. 6 Bridge		
Dimensions of Hatchway	27'0" x 20'0"	30'4" x 20'0"	14'0" x 13'0"	7'4" x 9'0"	30'4" x 20'0"	30'4" x 20'0"	28'0" x 18'0"		
COAMINGS	Height above Deck	4'3"	5'2"	9'8'9"	10' Channel	4'3"	3'6"	3'0"	
	Thickness	.50	.50	.50	.50	.50	.50	.44	
	Sides	.50	.50	.50	.50	.50	.50	.44	
	Stiffeners	7x3x40BQ	7x3x40BQ	-	7x3x40BQ	7x3x40BQ	7x3x40BQ	7x3x40BQ	
COAMINGS	Brackets, Stays	6" B.P. stay 6'3" apart	6" B.P. stay 6'3" apart	-	6" B.P. stay 6'3" apart	6" B.P. stay 6'3" apart	6" B.P. stay 6'3" apart	6" B.P. stay 6'3" apart	
		5	6	2	6	6	5	5	
HATCH BEAMS	Number	4'6"	4'4"	4'6"	4'4"	4'4"	4'8"		
	Spacing	17x34	16x34	16x36	No for No. 2	No for No. 2	16x36		
	Scantling and Sketch								
	Bearing Surface	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2		
FORE AND AFTERS	Number	None	None	None	None	None	None		
	Spacing	None	None	None	None	None	None		
	Unsupported Lengths	None	None	None	None	None	None		
	Scantling* and Sketch	None	None	None	None	None	None		
HATCH COVERS	Material	B. Pine	B. Pine	B. Pine	Steel	B. Pine	B. Pine	B. Pine	
	Thickness	2 3/4	2 3/4	2 3/4	.50	2 3/4	2 3/4	3"	
	How fitted	Fore aft	Fore aft	Fore aft	6x3x40BQ stiffeners 3" apart	Fore aft	Fore aft	Fore aft	
	Bearing Surface	3 1/2	3 1/2	3	3 1/2	3 1/2	3 1/2	3 1/2	
Spacing of Cleats	24"	24"	24"	7/8" bolts spaced 3 1/2" apart	24"	24"	24"		
Number of Tarpaulins	2	2	2	2	2	2	2		
<p>*Are wood fore and afters steel shod at all bearing surfaces? None</p> <p>Are battens and wedges efficient and in good condition? Yes</p> <p>Are tarpaulins in good condition and in accordance with rule requirements? Yes</p> <p>Are lashings provided in accordance with rule requirements? See details on back page.</p>									

Particulars of fiddle, funnel and ventilator coamings:— Ventilators to Motor Room in efficient condition.  
Engine skylight of steel, strongly constructed.

No gratings

Particulars of Flush Bunker Scuttles:—

None

Particulars of Companionways:—

None

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

- 1 Vent. on fore deck 9" dia. Coaming 33x36 to fore peak flat.
- 2 " " " " 22" " " 36x44 to hold.
- 4 " on foreboard deck in forward well 22" dia. Coaming 36x44 to hold.
- 4 " on Bridge deck 22" " " 30x42 " "
- 2 " " " " 24" " derrick ports 50 thick
- 1 " " " " 9" " Coaming 30x36 to Deep Tank
- 6 " on foreboard deck in after well 22" " " 36x44 to hold.

- 7 Vents on poop deck 6" dia. Coaming 31x32 to intact part.
- 2 " " " " 9" " " 28x40 " "
- 1 " " " " 15" " " 28x36 " "
- 3 C.S. goosenecks on poop deck 27" to lip to intact part.

all Ventilator constructed in accordance with rules and coamings closed with wood plugs and covers or zinc covers and canvas covers.

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

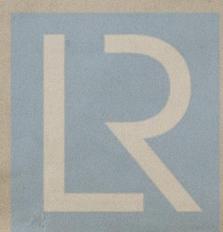
- 1 C.S. airpipe on forecastle deck 23" high x 3" dia. from fore peak
- 1 " " " " 23" " x 2" " " from double bottom tank
- 1 " " " " 23" " x 2" " " " " " "
- 4 " " " " 23" " x 2 1/2" " " " " "
- 2 " " " " 23" " x 3" " " " " "
- 2 " " " " 23" " x 3 1/4" " " " " "
- 2 " " " " 23" " x 3 1/4" " " " " "
- 6 " " " " 23" " x 4" " " " " "

- 4 C.S. airpipes on Bridge deck 23" high x 4" dia. from Deep Tank
- 2 " " " " 30" x 3 1/2" " " double bottom tank
- 2 " " " " 31" x 2" " " " "
- 1 " " " " poop 23" x 2 1/2" " after peak.

No snifting holes are provided, all air pipes are closed with wood plugs and canvas covers.

Particulars of Gangway Cargo and Coaling Ports:—

None



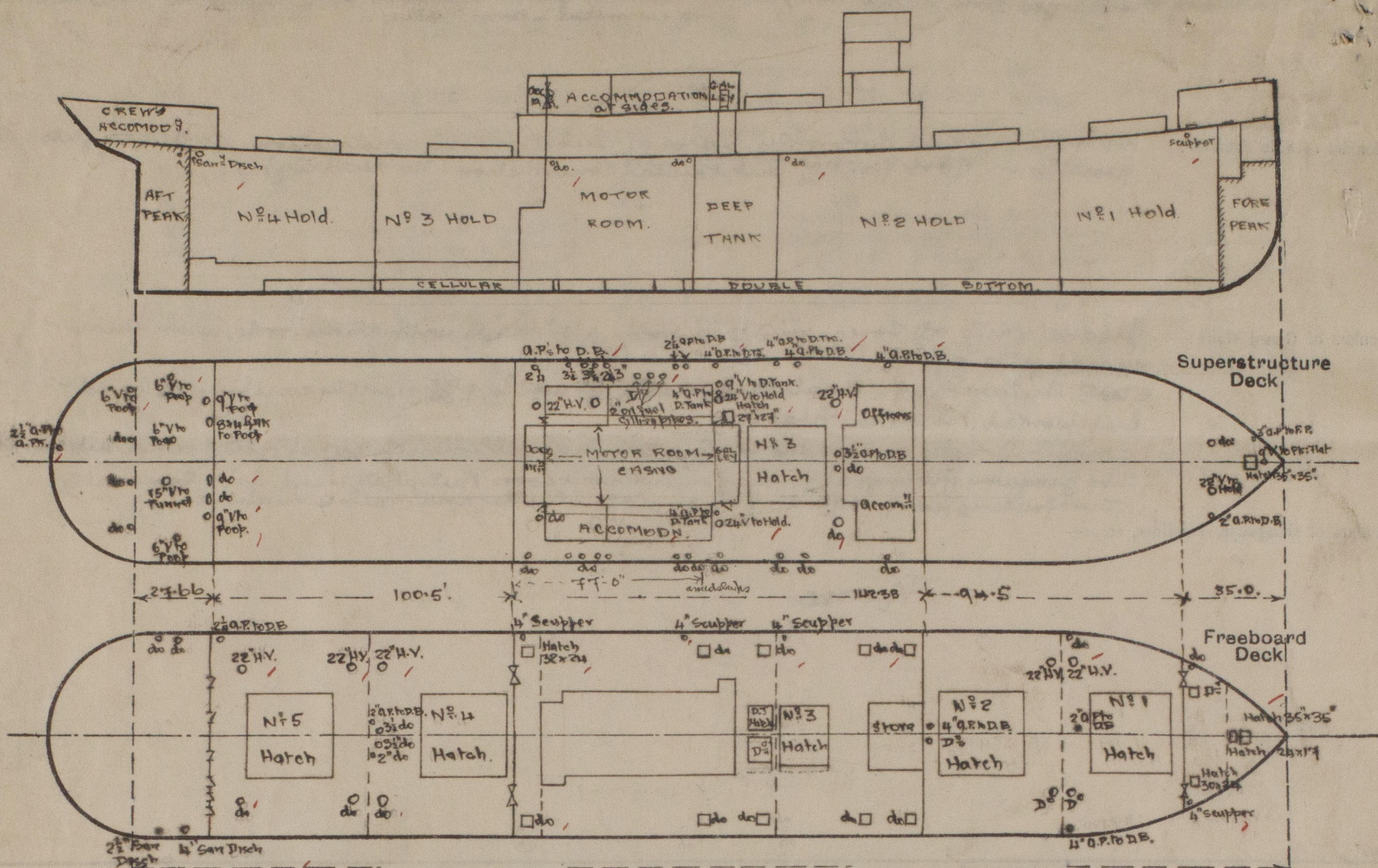






*King John*

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 shown on the following sketches:—



Draught.	Displacement	Tons per inch
21'0"	6,790	44.5
22'0"	7,325	44.75
23'0"	omit 7,865	45.1

*Hatch lashings.*  
Nos. 1, 2, 4 & 5 hatchways fitted with transverse T bars, 3 1/2 x 3 1/2 x .50 over each tier of canvas at centre of same and fastened by 12 sec. bolts with nutfiles through front & back on hatch sides. No. 1-3 bars. No. 2-4 bars. No. 4-4 bars. No. 5 1 bar. No. 3 Hatch on bridge - no lashings.

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

*This vessel has now been examined externally and internally in dry dock. The vessel is undergoing 1 1/2 S.S. No. 1, and all tanks have been examined internally except double bottom tanks carrying fuel oil. omit*

*For Timber Deck Cargoes:—*

- 1. The double bottom within midships half length of the ship has a watertight centre division.*
- 2. Eye plates for securing lashings spaced about 9'6" apart. riveted to sheerstake. Distance from an end bulkhead of a superstructure to first eyeplate 6'6"*
- 3. Strong metal clips for securing uprights spaced about 9'6" riveted to sheerstake.*
- 4. Steering arrangements - emergency hand gear on poop deck*

Builder's name and yard number *Messrs Harland & Wolff R. No. 760*

Names of sister ships

Owners *King Line Ltd.*

Fee £ *13 : 12 : 0*

Received by me

*Paid 22/3.*



© 2019  
Lloyd's Register  
Foundation