

Lloyd's Register of Shipping.

SURVEYS FOR FREEBOARD.

Index. No. **24879**
(For London Office only.)

14 JUL 1932

Computation of Freeboard for Steamer, Sailing Ship, Tanker
having Forecastle, Bridge, open poop.

Port of Survey Bergen.

Date of Survey 2nd 4th & 8th July 1932

Name of Surveyor L. A. Eide jr.

Particulars of Classification F.R. 100A1
S.S.N. Y.R. No. 3-3-28

(Type of Superstructures.)
FJORD

Ship's Name "WAGLAND"

Nationality and Port of Registry NORWEGIAN
BERGEN.

Official Number 2155

Gross Tonnage 1160

Date of Build 1916

Moulded Dimensions: Length 272'-0" ✓ Breadth 40'-0" ✓ Depth 24'-2" ✓
Moulded displacement at moulded draught = 85 per cent. of moulded depth 5134 tons
Coefficient of fineness for use with Tables .804

Depth for Freeboard (D) 24.17

Moulded depth 24'-2"

Stringer plate 50"

Sheathing on exposed deck
 $T \left(\frac{L-S}{L} \right) =$ ✓

Depth for Freeboard (D) = 24.21

Depth correction

(a) Where D is greater than Table depth
(D - Table depth) R =
 $(24.21 - 18.13) 2.092 = +12.72$

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

If restricted by superstructures ✓

Round of Beam correction

Moulded Breadth (B) 40'-0"

Standard Round of Beam = $\frac{B \times 12}{50} = 9.60$

Ship's Round of Beam = 10" ✓

Difference .40

Restricted to

Correction = $\frac{\text{Diff}}{4} \times \left(1 - \frac{S_1}{L} \right) = \frac{.40}{4} \times .7057 = .07$

DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S ₁)	Height	Height Correction	Effective Length (E)
Poop enclosed open	5.00	2.50	7'-6"	✓	2.50
" overhang ...					
R.Q.D. enclosed					
" overhang					
Bridge enclosed...	50'-0"	50.00	7'-6"	✓	50.00
" overhang aft					
" overhang forward					
F'cle enclosed ...	27.55	27.55	7'-6"	✓	27.55
" overhang					
Trunk aft					
" forward					
Tonnage opening aft					
" forward					
Total	82.55	80.05			80.05

Standard Height of Superstructure 6.22

" " R.Q.D. ✓

Deduction for complete superstructure 33.20

Percentage covered $\frac{S}{L} = \frac{30.35}{L}$

" " $\frac{S_1}{L} = \frac{29.43}{L}$

" " $\frac{E}{L} = \frac{29.43}{L}$

Percentage from Table, Line A. 14.71%

(corrected for absence of forecastle (if required)) ✓

Percentage from Table, Line B. 18.64%

(corrected for absence of forecastle (if required)) ✓

Interpolation for bridge less than 2L (if required) $3.93 \times \frac{50}{54.4} = 3.61$

Deduction = $33.20 \times .1832 = -6.08$

SHEER CORRECTION.

measured in drydock.

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ...	37.20	1		37.20	26"	26.00	26.00	1	26.00
$\frac{1}{4}L$ from A.P. ...	16.55	4		66.20	11 $\frac{1}{2}$ "	9.60	9.60	4	38.40
$\frac{3}{4}L$ " ...	4.09	2		8.18	3"	-.60	-.60	2	-1.20
Amidships ...	✓	4		✓	0"	✓	✓	4	✓
$\frac{3}{4}L$ from F.P. ...	8.18	2		16.36	8"	9.60	9.60	2	19.20
$\frac{1}{4}L$ " ...	33.11	4		132.44	28"	28.00	28.00	4	112.00
F.P. ...	74.40	1		74.40	61"	61.00	61.00	1	61.00
Total				334.78					255.40

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 = $\frac{16'-2"}{272'} = .064$

" " aft of " = $\frac{33'-10"}{272'} = .12$

Correction = $\frac{\text{Difference between sums of products}}{18} \left(75 - \frac{S}{2L} \right) = \frac{79.38}{18} \times (75 - .1517) = +2.64$

If limited on account of midship superstructure.

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

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 24.21

Summer freeboard = 4.13

Moulded draught (d) = 20.08

Deduction for Tropical freeboard and addition for Winter freeboard = $\frac{d}{4}$ inches = $5.02 = 127$

Addition for Winter North Atlantic Freeboard (if required) = 2" = 51

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 = $\frac{\Delta}{40T}$ inches = $5.02 = 127$

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient $\frac{.804 + .68}{1.36} = \frac{1.484}{1.36}$

	+	-
Depth Correction	12.72	✓
Deduction for superstructures	✓	6.08
Sheer correction	2.64	✓
Round of Beam correction	✓	.07
Correction for Thickness of Deck amidships	✓	✓
Other corrections, scantlings, etc.	✓	✓
	15.36	6.15

Summer Freeboard = 49.52

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

Tropical Fresh Water Line above Centre of Disc	10.04 = 254	Tropical Fresh Water Freeboard	39.48 = 1004
Fresh Water Line	5.02 = 127	Fresh Water	44.50 = 1131
Tropical Line	5.02 = 127	Tropical	44.50 = 1131
Winter Line below	5.02 = 127	Winter	54.54 = 1385
Winter North Atlantic Line	7.02 = 178	Winter North Atlantic	56.54 = 1436

W536-0363 1/2

Assigned

S 4-12
W 4-5

Lloyd's Register Foundation

Wagland.

Particulars of fiddle, funnel and ventilator coverings:— Funnel and ventilator coverings on casing top 25½" above bridge deck good. Fiddle openings fitted strong hinged steel covers.

None fitted.

None fitted

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

VENTILATORS.

afterdark:-
2 - 16" x 37" x .26" to hold.
1 - 14" x 51" x .30" " "
1 - 14" x 51" x .30" " "
1 - 8" x 37" x .20" to terminal.
Only some of the ventilators fitted with plugs & canvas covers

One coalingport each side to bridge bunkerspace, each 35" x 35"
Hinged framed steel door fastened with 2 strongbacks

Particulars of Guard Rails:—

On forecastle	34" high	× 3 rods	46" apart
" bridgdeck	39" "	3 "	53"-64" "
" poop	35" "	3 "	48" "

Particulars of Gangways, Lifelines, etc.:— None fitted
Crew berthed in forecstle.
2nd. officer in deckhouse aft below poopdeck

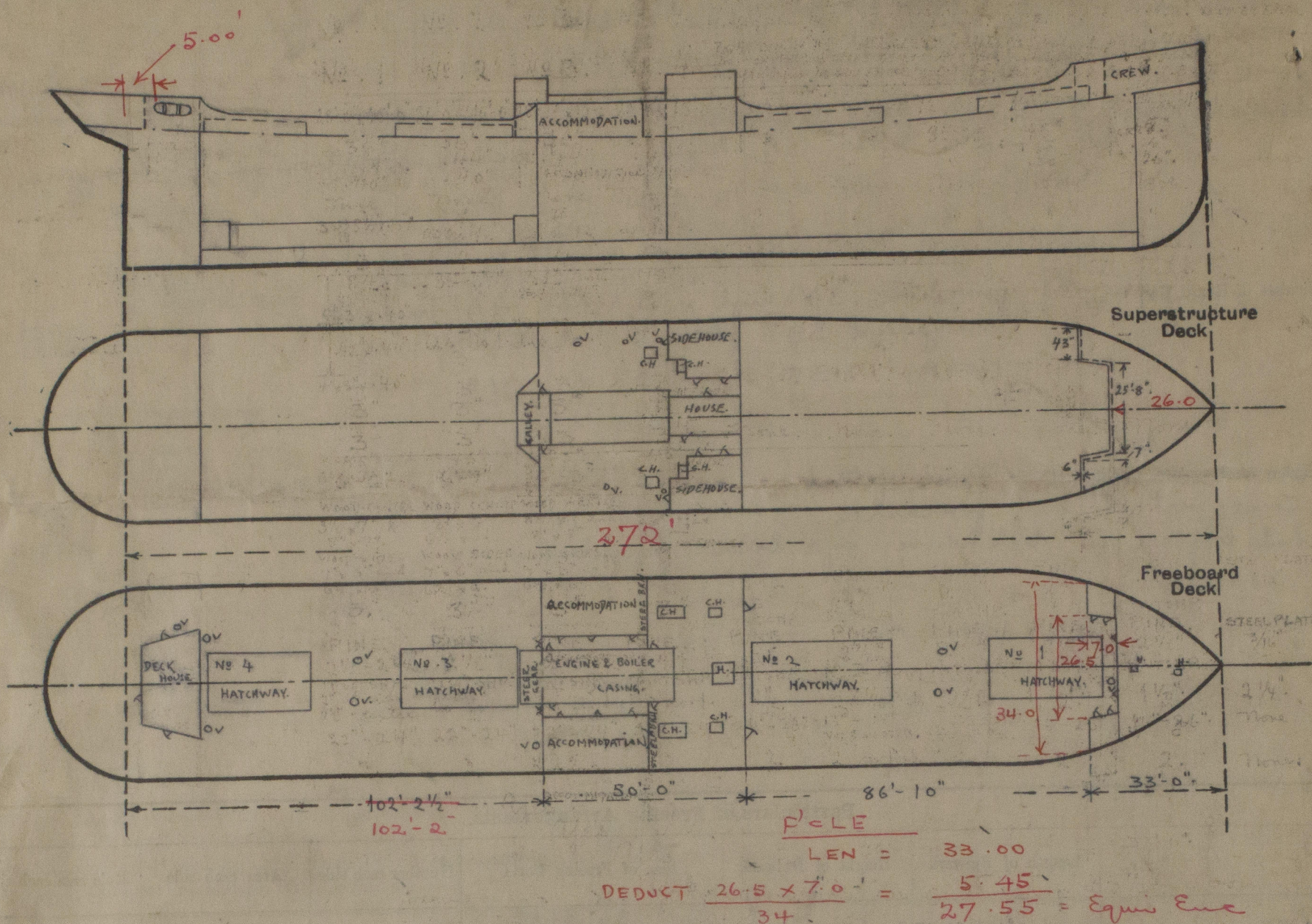
Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well	102'-2 $\frac{1}{2}$ " to A.P.	42"	2 off 36" x 18" 1 " 42" x 18"	3.	14.25 sq. ft.	20.4 sq. ft.
Forward Well	86'-10"	42"	42" x 18"	3.	15.75 sq. ft.	17.4 sq. ft.
<p>State position of each freeing port { After Well:— 3'-5", 36'-3" & 66'-6" aft of after end bulwark of bridge (F. and A. position and height above deck edge) { Forward Well:— 7'-6", 36'-10" & 71'-0" forward of bridge front</p> <p>State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such:— Pivoted shutters. 1 rod.</p>						
Additional area where sheer is less than standard.						

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								
BRIDGE, AFTER								
Raised Quarter Deck Bulkhead ^{IN WAY OF ENGINE CASING.} ...	18" x 40"	.36"	4" x 3" x 35" f.	30"-33"	Brackets at top & bottom	None.	v	7'-6"
Bridge, After Bulkhead	18" x 40"	.36"	3" x 3" x 9/20" f	30"-33"	No brackets	52 1/2" x 36 1/2"	19"	7'-6"
Bridge, Forward Bulkhead	20" x 40"	.36"	7" x 3" x 9/20" f	26"-29"	Brackets at top & bottom.	51 1/2" x 31 1/4"	22"	7'-6"
Forecastle Bulkhead	18" x 36"	.32"	3 1/2" x 3" x 30" f	31"	No brackets.	56 1/2" x 24"	18"	7'-6"
Boiler casing on Foreward Deck								
Trunk, ^{As} WITHIN SUPERSTRUCTURE	18" x 30"	.20"	3" x 3" x 20" f	17"-32"	Brackets at top.	24" x 23"	46"	7'-6"
Trunk, Forward								
Exposed Machinery Casings on Free-board ^{AFT OF BRIDGE} or Raised Quarter Deck ...	18" x 40"	.36"	4" x 3" x 7/20" f	24 1/2"	Brackets top & bottom.	None.	v	7'-6"
Exposed Machinery Casings on Super-structure Decks ^{28 1/2" above Br. Deck.} ...			3" x 3" x 30" f	30"	Brackets at top 38 1/2" cons. below	None.	v.	25 1/2"
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	18" x 30"	.26"	3" x 3" x 30" f	30"	Brackets at top.	52 1/2" x 24"	18"	7'-6"
Deckhouses on Flush Deck Ships ...								

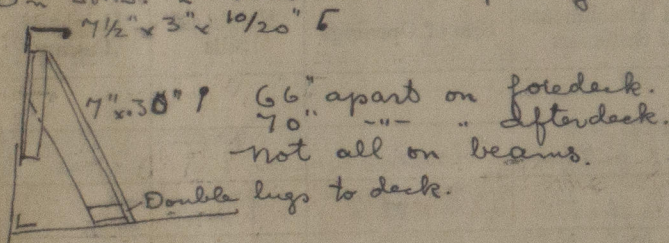
Particulars of Closing Appliances (state if capable of being manipulated from both sides).

Poop Bulkhead	
Raised Quarter Deck Bulkhead	...	
Bridge, After Bulkhead	Hinged steel doors in 2 parts St B. & Port side to accommodation passageway.
Bridge, Forward Bulkhead	Two hinged steel doors, clips fastened with nuts on inside of bulkheads to engage on wedge shaped clamps on door.
Forecastle Bulkhead	Two steel doors to accommodation. Ordinary clips. Two steel doors each side stokehold.
Exposed Machinery Casings on Freeboard or Raised Quarter Decks	...	W.C.W. & lamp lockers etc. ✓
Exposed Machinery Casings on Superstructure Decks	One steel door each side fitted with ordinary clips. To stokehold.
Machinery Casings within Superstructures not fitted with Class I Closing Appliances	
Deckhouses on Flush Deck Ships	...	One steel door each side from passageway to engine room.

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:—



State any special features in the construction of the ship:— One hatchway inside forecabin to chainlocker 13"x19" 3" T. coaming flush with wood deck. 3/16" steel cover. 2 1/4" bearing surface. There is a wood door port & St.B. 55"x24 1/2" in deck house under poopdeck 21" sill and one steel door on after bulkhead of this house 55"x24 1/2"x21" sill, giving access down to upper afterpeak. Vessel examined in drydock and examination further confined to taking necessary measurements. The Special Survey 2nd. No 1 is to be completed before the end of March 1933. The hand steering gear is placed aft of deckhouse on upper deck aft and the steam steering gear inside engine casing. The steering rods go alongside bulwarks and are not specially protected. The owner does not require a timber freeboard. There are no special fittings for uprights or lashings. The poopside port and St.B. is cut away 9'-6"x36", lower edge 42" above upper deck. On St.B. 2 bars across opening. On Port side no bars.



The owner state they desire to retain the present L.R. freeboard if the International freeboard is unfavourable.

Summer 4'-3"

F.W. 4 1/2" above centre of disc.

I.S. 3 1/2" - - - - -

W. 3" below - - - - -

W.N.A. 5 1/2" - - - - -

STAT. DECK LINE 1 1/2" above Deck at side.

Bergen 8th. July 1932
J. A. Bide jr.

Builder's name and yard number Messrs. Fujinagata Dockyard, Osaka.

Names of sister ships

Owners O/S. O/S. Brødrene Wilhelmsens Rederi, Bergen.

Fee £ 206.75.

Received by me ☒

not charged yet.



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