

11/5/45

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Form LL. 4.C. Revised

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD

"SADAO"
~~MOTORSHIP~~
~~STEAMER, TANKER, SAILER:~~ EX *"EMPIRE SEAFRONT"* ~~WITHOUT~~ ~~TIMBER DECK CARGO~~

Nationality *BRITISH* Builders' Name and No. of Ship *RICHARD DUNSTON LTD.*
Port of Registry ~~HULL~~ *SINGAPORE.* *HESSLE, E. YARNS N° 467*
Official Number *180429* Owners ~~MINISTRY OF WAR TRANSPORT~~
Gross Tonnage *521.99* ~~Messager~~ *SINGAPORE STRAITS STEAMSHIP CO. LTD.*
Date of Build *5/45* Port and Date of survey *HULL (DURING CONSTRUCTION)*
Name of Surveyor *W. J. Noble*
Particulars of Classification *B. S. * (WITH FREEBOARD)* Names of Sister Ships *"SHELT TYPE"*

Type of Superstructures *CLOSED SHELTER DECK.*

Trade of Ship

Service Endorsement if any

ALL SEASONS

SUMMER FREEBOARD recommended amidships from centre of disc to top of deck line, (.....wood.....steel) 8' 6 1/2'

| TROPICAL FRESH WATER LINE above centre of disc | | | | Corresponding Freeboard |
|--|-------|---|---|--|
| FRESH WATER LINE | " | " | " | <i>2 1/2</i> " " 8' 4" |
| TROPICAL LINE | " | " | " | " " |
| WINTER LINE | below | " | " | " " |
| WINTER NORTH ATLANTIC LINE | " | " | " | " " |

SUMMER TIMBER FREEBOARD recommended amidships from top of deck line

| TROPICAL FRESH WATER Timber line above L.S. | | | | Corresponding Freeboard |
|---|---|---|-------|-------------------------|
| FRESH WATER | " | " | " | " " |
| TROPICAL | " | " | " | " " |
| WINTER | " | " | below | " " |
| WINTER NORTH ATLANTIC | " | " | " | " " |

Number of years recommended for load line certificate

DATE of ISSUE *11-5-45*
DATE of EXPIRY *10-5-50*
APPROVED BY

The scantlings and protective arrangements being in accordance with the Load Line Rules it is submitted that the freeboards be assigned

Chief Surveyor

Passed at a meeting of the Committee of Management of the British Corporation Register of Shipping and Aircraft

on the

6th. June, 1945



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004076-004083-0039 '18

COMPUTATION OF FREEBOARD

Length on summer load line $140' 4\frac{3}{8}"$ Moulded Breadth $27' 0"$ Moulded Depth $18' 0"$ Depth of Keel $\frac{1}{2}"$
Moulded displacement (ex bossing) at moulded draught of 85 per cent. of moulded depth 1323 Tons $S.W. 47' 15.3'$
Co-efficient of fineness for use with tables $\frac{\Delta \times 35}{L \times B \times D \times .85} = .7984$
Displacement and tons per inch immersion in salt water at summer load line $(9' 6")$ 743 TONS 7.9 TONS/1"
Moulded depth 18.000 Deduction for Fresh Water $\frac{\Delta}{40T} = 2.35 = 2\frac{1}{2}$ inches
Stringer Plate $\frac{1}{4}"$ $.021$ Round of Beam Correction $STRAIGHT$ CAMBER $6'$ inches
Sheathing on exposed deck T $(\frac{L-S}{L})$ $-$ Ships Round of Beam $\frac{E \times 12}{B \times 12} = 7.29$ inches
Rise of floor (in sailers) $-$ Standard Round of Beam $\frac{50}{50} = 6.48$
Depth for Freeboard (D) 18.021 Difference $.81$
Table Depth $\frac{1}{15}$ 9.358 Restricted to
Depth Correction $\frac{1}{130}$ 8.663 Correction $\frac{\text{Difference}}{4} \times (1 - \frac{E}{L}) = .2025 \times .8842$
If restricted by superstructures 9.35 on. $= .179$ off

| | Enclosed Length | Length of Overhang | Height | Mean Covered Length (S) | Height Correction | Effective Length (E) |
|---------------------|-----------------|--------------------|--------|-------------------------|-------------------|----------------------|
| Poop | | | | | | |
| Raised Quarter Deck | | | | | | |
| Bridge OPEN | 32' 6" | F A | 7' 0" | 32.5 | | 16.25 |
| Forecastle | | | | | | |
| Trunk Aft | | | | | | |
| „ Forward | | | | | | |
| Tonnage Opening Aft | | | | | | |
| „ „ Forward | | | | | | |
| Totals | | | | 32.5 | | 16.25 |

Standard Height of Superstructure $6' 0"$
„ „ R.Q.D.
Percentage covered S/L = 23.16%
„ „ E/L = 11.58%
„ from Table line A, B, (corrected for absence of forecastle if required) 1.67%
Percentage from Table by interpolation for Bridge less than .2L if required = 3.01%
Deduction = $20.04 \times .0167 = .3347$
Percentage from Table for Tankers (or Timber ships) =
Deduction =

| Station | Actual Sheer | Standard Sheer | Effective Sheer | S.M. | Product |
|---------------------------|--------------|----------------|-----------------|------|---------|
| A.P. | | | | 1 | |
| $\frac{1}{8}$ L from A.P. | | | | 4 | |
| $\frac{1}{8}$ L from A.P. | | | | 2 | |
| Amidships | | | | 4 | |
| $\frac{1}{8}$ L from F.P. | | | | 2 | |
| $\frac{1}{8}$ L „ „ | | | | 4 | |
| F.P. | | | | 1 | |
| | | | | 18 | |

Mean Actual sheer aft = less than 1
„ Standard „ „
Mean Actual sheer forward = less than 1
„ Standard „ „
Length of enclosed superstructure forward of amidships =
Length of Ship
Length of enclosed superstructure aft of amidships =
Length of Ship
Sheer Correction = Difference $\times (75 - \frac{S}{2L}) = 12.02 \times .6342$
= 7.623
If limited on account of midship superstructure =
„ to maximum allowance of $1\frac{1}{2}$ ins. per 100 ft. =

Effective Mean Sheer =
Standard „ „ $.05L + 5$ = 12.02
Difference 12.02

TABULAR FREEBOARD corrected for flush deck if required = 14.25

Correction for co-efficient = $\frac{1.478}{1.36} = 15.49$ DRAUGHTS AND SEASONAL CORRECTIONS

| | + | - |
|--|-------|-------|
| Depth correction | 9.35 | |
| Deduction for superstructures | | .33 |
| Sheer correction | 7.62 | |
| Round of Beam correction | | .18 |
| Correction for thickness of deck amidships | | |
| Other corrections, scantlings, etc. | 40.55 | |
| | 87.52 | .51 |
| | | 87.01 |

ALL SEASONS
Summer Freeboard in inches $8' 6\frac{1}{2}"$ = 102.50
Additional allowance for superstructures on
Timber carrying ships =
Summer Timber Freeboard in inches =

Sailor, Tanker, Steamer
Timber
Depth to Freeboard Deck in feet 18.021
ALL SEASONS
Summer Freeboard in feet 8.542
Moulded Draught (d) 9.479 (d1)
Addition for Keel $.042$
Extreme draught $9' 6\frac{1}{4}"$ 9.521
Deduction for Tropical and addition for Winter freeboard $d/4 = -$ ins.
Addition for Winter North Atlantic (if required) $-$ ins.
Deduction for Tropical Timber Freeboard $\frac{d}{4} = -$ ins.
Addition for Winter „ „ $\frac{d}{3} = -$ ins.
„ „ N.A. Timber Freeboard (if required) $-$ ins.

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

SURVEY FOR FREEBOARD CONDITIONS OF ASSIGNMENT

SHIPS NAME "EMPIRE SEAFRONT"

OFFICIAL NUMBER 180429

Nationality and Port of Registry BRITISH. HULL.

PARTICULARS OF SUPERSTRUCTURES, TRUNKS, CASINGS, DECKHOUSES

| | Coaming | Plating | Stiffeners | Spacing | End Attachments | No. and size of Openings | Height of Sills | Height of Casings |
|---|-----------|---------|---------------------------------|---------|----------------------------------|---|-----------------|-------------------|
| Poop Bulkhead | | | | | | | | |
| R.Q.D. " | | | | | | | | |
| Bridge Aft Bulkhead | | | | | | | | |
| " Forward " | | | | | | | | |
| Forecastle Bulkhead | | | | | | | | |
| Trunk, Aft | | | | | | | | |
| " Forward | | | | | | | | |
| Exposed Machinery Casings on } Freeboard or R.Q. Decks | 18" x 28" | 25" | 5" 3/8" E. 5" 3" x 3/8" O.A. | 1' 9" | BKTS. AT TOP WELDED AT BOTTOM | 1-2'6" x 2'6" } P. 1-4'11" x 1'10" } S | 42" 18" | 7'5 3/4" |
| Exposed Machinery Casings on } superstructure decks | | | | | | | | |
| Machinery Casings within Super- structures not fitted with Cl. 1 closing appliances | | | | | | | | |
| Deckhouses on flush deck ships | 18" x 28" | 25" | 4" x 5/16" | 1' 9" | WELDED STRAP AT TOP | 1-2'0" x 1'6" } P. 1-4'11" x 1'10" } S | 42" 18" | 7'2 3/4" |

PARTICULARS OF CLOSING APPLIANCES (state if capable of being manipulated from both sides)

| | |
|---|---------------------------------|
| Poop Bulkhead | |
| R.Q.D. " | |
| Bridge Aft Bulkhead | Open. |
| " Forward " | Open. |
| Forecastle Bulkhead | |
| Exposed Machinery Casings on } Freeboard or R.Q. decks | STEEL DOORS OPERATED BOTH SIDES |
| Exposed Machinery Casings on } superstructure decks | |
| Machinery Casings within super- structures not fitted with Cl. 1 Closing Appliances | |
| Deck houses on Flush Deck ships | STEEL DOORS OPERATED BOTH SIDES |

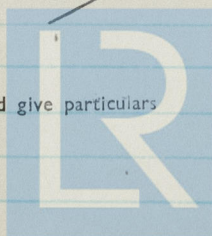
PARTICULARS OF FREEING ARRANGEMENTS

| | Length of Bulwark | Height of Bulwark | No. and size of Freeing Ports each side | Area each side | Rule Area |
|--------------|-------------------|-------------------|---|----------------|-----------|
| After Well | | | | | |
| | | SEE SKETCH | | | |
| Forward Well | | | | | |

State fore and aft position and height above } After Well
deck to bottom of port, for each port }
Forward Well

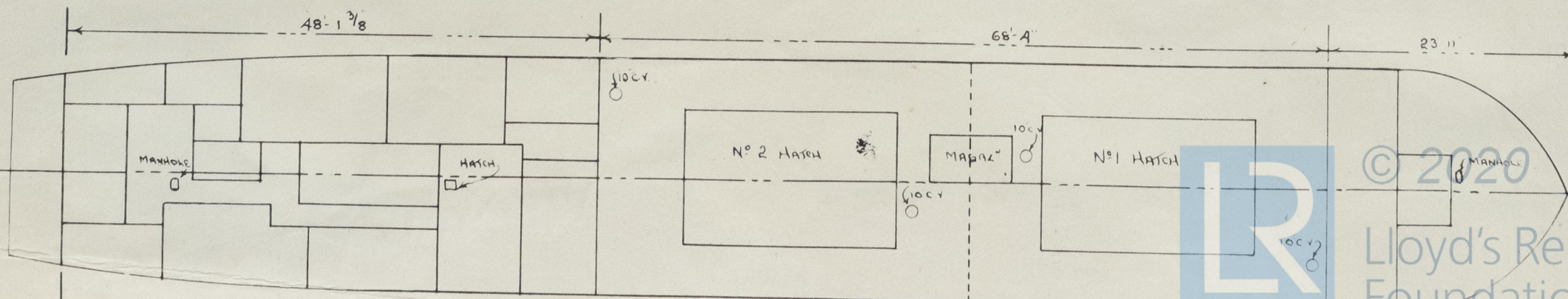
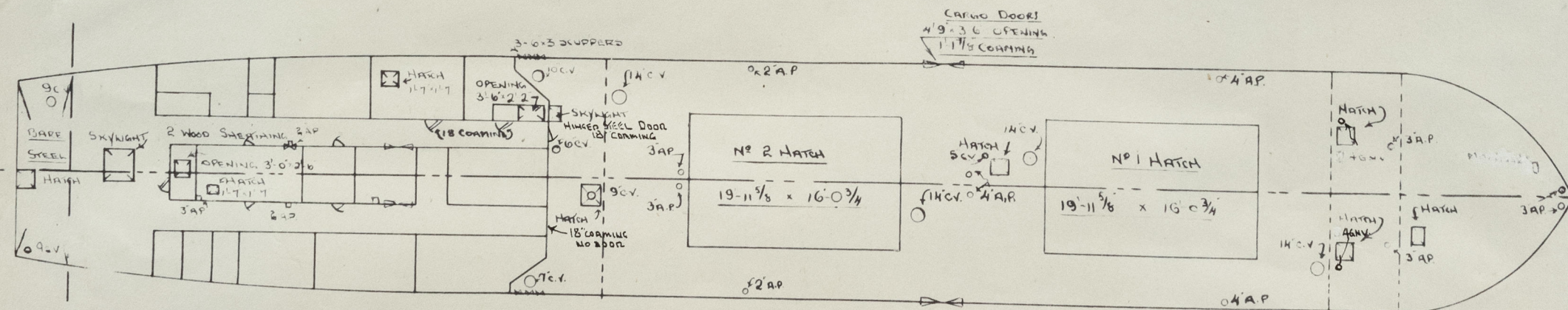
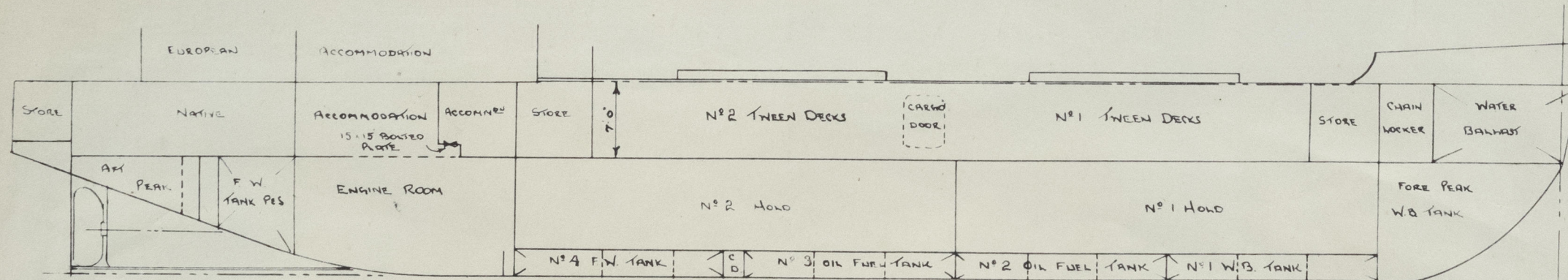
State whether freeing ports are fitted with shutters, bars or rails, and give particulars

Give particulars of freeing port area, etc., on superstructure decks



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PARTICULARS OF ALL HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS

| Number and description of Hatchway from forward | FORE PEAK | 2. FORE STORE | Nº 1 CARGO | HATCH TO | Nº 2 CARGO | PROVISION STORE | AFTER STORE | | | | |
|---|--|---------------------|-------------------------------------|----------------|-------------------------------------|-----------------|---------------------|--|--|--|--|
| | STORE HATCH | HATCHES | HATCH | MAGAZINE | HATCH | HATCH | HATCH | | | | |
| Dimensions of Hatchway | 1'-9" x 2'-3" | 2'-7" x 2'-2 1/2" | 19'-11 5/8" x 16'-0 3/4" | 2'-1" x 1'-10" | 19'-11 5/8" x 16'-0 3/4" | 2'-6" x 2'-6" | 1'-9 3/8" x 2'-0" | | | | |
| COAMINGS | Height above steel deck | 2'-0" | 2'-0" | 10" | 1'-6" | 10" | 1'-6" | | | | |
| | Thickness | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | 3/8" | | | | |
| | Stiffeners | | | | | | | | | | |
| | Brackets or Stays | | | | | | | | | | |
| HATCH BEAMS | Number | | 2 | | 2 | | | | | | |
| | Spacing | | 6'-7 7/8" | | 6'-7 7/8" | | | | | | |
| | Scantling and Sketch | | I 10" x 6" x 40 LBS. A. S. J. | | I 10" x 6" x 40 LBS. A. S. J. | | | | | | |
| | Bearing Surface and thickness of carriers or sockets | | | | | | | | | | |
| FORE AND AFTERS | Number | | | | | | | | | | |
| | Spacing | | | | | | | | | | |
| | Unsupported lengths | | | | | | | | | | |
| | Scantling and Sketch | | | | | | | | | | |
| | Bearing Surface and thickness of carriers or sockets | | | | | | | | | | |
| HATCH COVERS | Material | STEEL | STEEL | WOOD | STEEL | WOOD | STEEL | | | | |
| | Thickness | 3/8" | 3/8" | 2 7/8" | 3/8" | 2 7/8" | 3/8" | | | | |
| | How Fitted | | | F & A | | F & A | | | | | |
| | Bearing Surface | 1" x 1" GREASY HEMP | 1" x 1" GREASY HEMP | 3" | 1" x 1" GREASY HEMP | 3" | 1" x 1" GREASY HEMP | | | | |
| | Spacing of Cleats | 100G EACH SIDE | 100G EACH SIDE | 1'-10 3/4" | 100G EACH SIDE | 1'-10 3/4" | 100G EACH SIDE | | | | |
| | Number of Tarpaulins | | | 2 | | 2 | | | | | |

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

YES

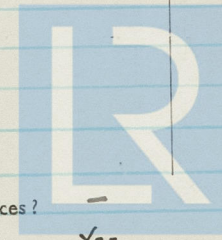
Are lashings provided in accordance with rule requirements?

YES

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

Are battens and wedges efficient and in good condition?

YES



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Fiddle, Funnel and Vent Coamings, Engine Room skylight and other openings in Machinery Casing tops and their means of closing (state height of coamings, type of fiddle covers, and if these are permanently attached in their proper positions)

Flush Bunker Scuttles on freeboard and superstructure decks (state material, type of joints, etc., and if secured by hinge or permanent chain attachment)

Companionways on freeboard and superstructure decks (state material, height of doorway sills, type of doors, and if these can be closed and secured from both sides)

COMPARISON TO O.E.M.S ACCOMMODATION PORT SIDE WOOD DOOR OPERATED BOTH SIDES OPENING 4'-11" x 2'-0"
18" COAMING

ENTRANCE TO ESCAPE HATCH IN EUROPEAN GALLEY P.E.S STEEL DOOR OPERATED BOTH SIDES OPENING
4'-11" x 1'-10" 18" COAMING

COMPARISON TO NATIVE ACCOMMODATION AFT END OF DECK HOUSE WOOD DOOR OPERATED BOTH SIDES
OPENING 4'-11" x 2'-0" 18" COAMING

Ventilators in exposed positions on freeboard, raised quarter and superstructure decks to spaces below freeboard decks and fully enclosed superstructures enclosed by Class 1 appliances (state height of steel coamings, pitch of rivets in deck connection, type of closing arrangements)

| | 1-A | G.H. | VENT | P.C.S | 2'-6" | CORNING | WELOD | TO | DECK | WOOD | PLUGS | E- | CANNAS | COVERS |
|-------|-----|------|------|-------|---------|---------|-------|----|------|------|-------|----|--------|--------|
| 1-1A" | " | " | DIA | CONG | STARBO. | 2'-6" | " | " | " | " | " | " | " | " |
| 1-1A" | " | " | " | " | PORT | 2'-6" | " | " | " | " | " | " | " | " |
| 1-1A" | " | " | " | " | " | 2'-6" | " | " | " | " | " | " | " | " |
| 1-5" | " | " | " | " | " | 2'-4" | " | " | " | " | " | " | " | " |
| 1-9" | " | " | " | " | STARBO. | 2'-6" | " | " | " | " | " | " | " | " |
| 1-6" | " | " | " | " | PORT | 2'-5" | " | " | " | " | " | " | " | " |
| 1-10" | " | " | " | " | " | 2'-6" | " | " | " | " | " | " | " | " |
| 1-7" | " | " | " | " | STARBO. | 2'-5" | " | " | " | " | " | " | " | " |
| 1-9" | " | " | " | " | PORT | 2'-6" | " | " | " | " | " | " | " | " |
| 1-9" | " | " | M | " | STARBO. | 2'-6" | " | " | " | " | " | " | " | " |

Airpipes in exposed positions on freeboard, raised quarter and superstructure decks (state height to opening and if satisfactory closing arrangements are provided)

| | | | | | | | | | | | | | |
|----|----|-------|------|----|---------|-------|----|---------|------|--------|------|--------|--------|
| 1- | 3" | A. D. | PORT | E. | STARBO. | 2' 2" | TO | OPENING | WOOD | PLUGS | E. | CANVAS | COVERS |
| 1- | 3" | " | " | " | " | 2' 3" | " | " | " | " | " | " | " |
| 1- | 4" | " | " | " | " | 2' 3" | " | " | " | FITTED | WITH | GAUGE | " |
| 1- | 4" | " | " | " | " | 2' 2" | " | " | " | " | " | " | " |
| 1- | 4" | " | " | " | " | 2' 4" | " | " | WOOD | PLUGS | E. | CANVAS | COVERS |
| 1- | 3" | " | " | " | " | 2' 3" | " | " | " | " | " | " | " |
| 1- | 2" | " | " | " | " | 1' 9" | " | " | " | " | " | " | " |
| 1- | 3" | " | " | " | " | 1' 8" | " | " | " | " | " | " | " |

3- 1 $\frac{1}{2}$ " SCUPPERS LED TO BIGGES FROM 'TWEEN DECK SPACES.

Side Scuttles to spaces below freeboard and superstructure decks (state type or pattern, and if permanent or portable deadlights are supplied)

10" DIAM. SIDE SCUTGES WITH G.M. FRAMES AND PERMANENT M.C. DEAD LIGHTS.

Vertical distance of sill of lowest side scuttle below top of freeboard deck at side amidships

 $z' z''$

Guard Rails on freeboard and superstructure decks (state type and where fitted)

3" $\frac{1}{4}$ " $\frac{1}{4}$ " ANGLE STANCHIONS 3'-3" HIGH FITTED ON UPPER DECK P.E.S FROM FR. 37 FORWARD TO LR 36 AFT AND FROM AFT END OF UPPER DECK TO FRAME A UPPER RAIR 1" DIAM. 2 BOWED RAIRS 7/8" DIAM.

Gangways and Lifelines

1 1/2" G. F. S. W. R. AND COLLAPSIBLE STATIONIONS FITTED AROUND HATCHES
" " " " FROM FORE SIDE OF DECKHOUSE TO FORE STORE HATCH

Gangway, Cargo and Coaling Ports in sides of ship

1. STEEL CARGO DOOR P.E.S IN 'TWEEN DECKS 4'-9" x 3'-6" 1'-1 7/8" COMING.

Do Superstructure and Machinery Casings comply with rules?

Is provision made for protection of steering gear?

Is emergency steering gear provided?

Are efficient sockets and eyes for lashings provided and properly spaced?

State particulars of longitudinal subdivision in double bottom

State particulars of Bulwarks and Rails

Particulars of any Special Features in the construction of the Ship

Endorsement at first survey and at surveys for Renewal of Certificate:—

The fittings and appliances are in accordance with the particulars shown in the form and are in good condition