

~~Awning or Shelter Deck,~~
~~or Pl. Awning Deck.~~

MOTOR VESSEL.
~~STEEL STEAMER.~~

No. 41800

Port of Glasgow

Date of completion of Report 10th March 1922 Received at London Office WFO 29 MAR. 1922

Survey held at Dumbarton

Date, First Survey 28th January 1920 Last Survey 3rd March 1922

On the (Name of Vessel, Tonnage, and Name of Crew) Twin Screw M.V. "HAURAKI"

Rig Sch. (2 msk)

TONNAGE under Tonnage Deck... 6488.56

CLASS + 100 R.I. "Shelter Dk with flat"

Master David Todd

(1) As Master in service of owner of present vessel: 1907
(2) As Master of this vessel: 1921

Do. between Tonnage Dk and 3rd, 4th, or Awning Dk. ☒

Breadth (greatest moulded) 58.0

Year of Appointment

Total under Upper Dk. ☒

Depth at middle of length from top of keel to top of beams at side of uppermost Continuous Deck 42.0

Built at Dumbarton

Do. of Poop ☒

Deduct height of 'tween deck when this does not exceed 8ft. 8.0

When built 3-22 Launched 24-8-21

Do. of R. Qr. Dk. ☒

Transverse Number 92.0

By whom built Wm Denny & Bro Ltd

Do. of Bridge House ☒

Length on deck from fore part of stem to after part of sternpost 450.0

Owners Union S.S. Co of New Zealand

Do. of Forecasts ☒

Longitudinal Number 41400

Managers ☒

(Where necessary to be entered in Reg. Book.)

Do. of Houses on Deck ☒

Depth "d" at middle of length. See Secs. 2 & 13 21.33

Residence ☒

Do. of excess of Hatchways ☒

Proportions, Depths to Length, Uppermost Continuous Deck at side to top of keel 10.7

Port belonging to London

Do. above Crown of Engine Room ☒

Upper Deck at side to top of keel ☒

If Surveyed while Building ☒ Afloat ☒ in Dry Dock Yes

Gross Tonnage 7112.76

Destined Voyage Australia

Less Crew Space 251.76

Less above Crown of Engine Room 7112.76

TONNAGE FOR FEES... 2276.08

Less Engine Room 159.51

Less Navigation Spaces

Register Tonnage 4425.41

as cut on Beam...

LENGTH on as per Rule

BREADTH Moulded

DEPTH, ACTUAL

Top of Floors to top of Shelter Dk. Beams do. Upper Deck Beams

No. of Decks with flat laid

No. of Tiers of Beams

Round up of Uppermost Dk. Beam, Actual

Length 450.3 breadth 58.25 depth 31.40

Upper Deck

FRAMING.

ME, Angles, or Bars, amidships

Peaks

way of Double Bottoms at Solid Floors

at intermdt. Bkts.

of Frames from centre to centre amidships

length to collision bulkhead

of Frames from centre to centre in peaks

SED FRAME, Angles

way of Double bottoms at Solid Floors

at intermdt. Bkts.

NG, depth of girder

IS, depth and thickness of Floor Plate

at mid-line for length amidships

in way of Engine and Boiler spaces

thickness at the ends of vessel

depth at the half-bdth. as per Rule

height extended at the Bilges

RS, in Cell Double Bottoms

state if flanged (top and bottom)

spacing of Solid

RE GIRDER, in Dbl. bottom, dpth. & thcknss

Angles, Top

Bottom

to Floors

Brackets at intermdt. frmng. width & thcknss

GIRDERS, number and thickness

state if flanged (top & bottom)

Angles

IN PLATE, depth (exclusive of flange)

and thickness

Angles to outside plating

to floors

Brackets at intermdt. frmng. width & thcknss

Height of Brackets above at bilge

R BOTTOM PLATING, breadth and thickness of Middle Line Strake

thickness in Engine and Boiler space

Remainder in Holds

IS, Angles or Shldr Dk, Single Angle, Bulb Angle, Plate, Tee Bulb or Channel

Spacing

IS, Upper Deck, Single Angle, Bulb Angle, Plate, Tee Bulb or Channel

Spacing

IS, Second, Third & Fourth Deck, Single Angle, Bulb Angle, Plate, Tee Bulb or Channel

Angles on upper edge

Spacing

IS, Poop Deck, Angle, Bulb Angle, Plate, Tee Bulb or Channel

Angles on upper edge

Spacing

IS, Bridge Deck, Angle, Bulb Angle, Plate, Tee Bulb or Channel

Angles on upper edge

Spacing

IS, Forecastle Deck, Angle, Bulb Angle, Plate, Tee Bulb or Channel

Angles on upper edge

Spacing

Angles on upper edge

Spacing

Angles on upper edge

Spacing

Angles on upper edge

Spacing

Angles on upper edge

Spacing

Angles on upper edge

Spacing

PILLARS.

PILLARS, in 'tween Deck, size and spacing

" Hold

" Quarter, 'tween Dks.,

" in Hold

KEELSONS AND STRINGERS.

CENTRE LINE KEELSON, Vertical Plate above

floors, Through Plate, or Intercostal Plate

" Rider Plate

" Flat Keel Plate Angles

" Horizontal Plates on Floors

" Angles or Bulb Angles

SIDE KEELSONS, Number

" Angles or Bulb Angles

" Plate above floors, for length

" Intercostal Plate, for length

" Attached to outside plating with Angle

BILGE KEELSON, Angles

" Intercostal Plate, for length

" Attached to outside plating with Angle

SIDE STRINGERS, Number

" Angle

" Intercostal Plate, forward of lng.

" Attached to outside plating with Angle

Awning or Shelter Deck Stringer Plates, breadth and thickness

" Angle on ditto

" Tie Plates, fore and aft, outside Hatchways

" Deck, * Steel, for full lng.

" Wood Deck. Material & thickness

Upper Deck Stringer Plate, breadth and thickness

" Angles on ditto, No. 2

" Tie Plates, outside Hatchways

" Deck, * Steel, for full lng.

" Wood Deck. Material & thickness

Second Deck Stringer Plates, br'dth & thckn's

" Angles on ditto, No. 2

" Tie Plates, outside Hatchways

" Deck, * Material and thickness

Third, Fourth & Fifth Deck Stringer Plate, breadth and thickness

" Angles on ditto, No.

" Tie Plates, outside Hatchways

" Deck. Material and thickness

Poop Deck Stringer Plate, breadth & thickness

" Angles on ditto

" Tie Plates

" Deck. Material and thickness

Bridge Deck Stringer Plate, br'dth & thickness

" Angle on ditto

" Tie Plates

" Deck. Material and thickness

Forecastle Deck Stringer Plate, br'dth & th'kns

" Angle on ditto

" Tie Plates

" Deck. Material and thickness

" Deck. Material and thickness

" Deck. Material and thickness

" Deck. Material and thickness

" Deck. Material and thickness

" Deck. Material and thickness

" Deck. Material and thickness

" Deck. Material and thickness

" Deck. Material and thickness

WEB FRAMES.

	Inches in Ship.	Inches in Ship.	Inches per Rule.	Inches per Rule.
WEB-FRAMES, In Fore Body, No. and spacing	34	54	34	54
" " " brdth. & thickness	Three	Three	Three	Three
" " " No. of Side Stringers	One	One	One	One
WEB-FRAMES, In E. & B. Space, No. & spacing	27	48	27	48
" " " brdth. & thickness	Two	Two	Two	Two
WEB-FRAMES, In After Body, No. and spacing	33	48	33	48
" " " brdth. & thickness	Two	Two	Two	Two
" " " No. of Side Stringers	Two	Two	Two	Two
Size of Face Angles to Web-Frames	7 x 3 1/2 x 5 1/2	7 x 3 1/2 x 5 1/2	7 x 3 1/2 x 5 1/2	7 x 3 1/2 x 5 1/2
BRACKET PLATES to Stringers between Web Frames, depth and thickness	30 x 5 1/4	30	5 1/4	30

BULKHEADS.

	Number.	Thickness.	STIFFENERS.	Single or Double Frames.	Height up to state deck.
W.T. BULKHEADS	7	7			
6 B.N. & Upper D	42	28	E 12 x 3 1/2 x 28	Single	44 1/2
6 B.N. & Shell D	75	28	E 12 x 3 1/2 x 28	Single	44 1/2
" " " " "	153	28	E 12 x 3 1/2 x 28	Single	44 1/2
" " " " "	100	12	Double	Double	44 1/2
" " " " "	58	26	Double	Double	44 1/2
" " " " "	52	28	Double	Double	44 1/2

COLLISION PARTITION

LONGITUDINAL

Are the outside Plates doubled two spaces of Frames in length? *Brackets fitted*

Are the Side Valves and Watertight Doors in efficient working order? *Yes*

FORGINGS & CASTINGS.

	Inches in Ship.	Inches per Rule.
KEEL, Bar, depth and thickness	Flat Plate Keel	
STEM, moulding and thickness	11 x 2 1/2	11 x 2 1/2
STERN-POST for Rudder do. do.	11 x 3 1/4	11 x 3 1/4
" " for Propeller		
RUDDER-A x D Table 22. Speed 12 1/2	6 11	
Main-Piece, diameter at head	11 1/2	11 1/2
" " at heel	8 1/2	8 1/2

RUDDER, how constructed *Single Plate*

Thickness of *Plates* Single Plate *1-12*

Can the Rudder be unshipped afloat? *Yes*

Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Floors, Beams, Keelsons, Tie and Stringer Plates, Plating, &c. *Open North Process James Dunlop & Co. Glasgow Steel Works, David Colville Sons & Co. Ltd. Glasgow, Wm. Beardmore & Co. Skinner's Iron Co.*

Has the Steel been tested as required by the Rules? *Yes*

PLATING.

STRAKES.	AS IN SHIP.				PER RULE OR AS APPROVED.				EDGES.				BUTTS.			
	AMIDSHIP.	FORWARD.	AFT.	AMIDSHIP.	AMIDSHIP.	FORWARD.	AFT.	AMIDSHIP.	AMIDSHIP.	FORWARD.	AFT.	AMIDSHIP.	AMIDSHIP.	FORWARD.	AFT.	
FLAT PLATE KEEL	49	98	66	68	49	98	66	68	Double	6	1	3 1/2	Double	6	1	3 1/2
GARBOARD OR A STRAKE		70	70	58		70	70	58	"	6	1	3 1/2	"	6	1	3 1/2
B		70	64	60		70	64	60	"	"	"	"	"	"	"	"
C		70	64	60		70	64	60	"	"	"	"	"	"	"	"
D		70	58	66		70	58	66	"	"	"	"	"	"	"	"
E		70	58	62		70	58	62	"	"	"	"	"	"	"	"
F		70	50	54		70	50	54	"	"	"	"	"	"	"	"
G		70	50	52		70	50	52	"	"	"	"	"	"	"	"
H		68	48	48		68	48	48	"	"	"	"	"	"	"	"
J		68	48	48		68	48	48	"	"	"	"	"	"	"	"
K		68	48	48		68	48	48	"	"	"	"	"	"	"	"
L		70	50	50		70	50	50	"	"	"	"	"	"	"	"
M		72	50	50		72	50	50	"	"	"	"	"	"	"	"
N	49	76	48	48	49	76	48	48	"	"	"	"	"	"	"	"
O																
P																
Q																
R																
S																
T																
U																
V																
W																

Thickness of SH' STRAKE CLEAR OF LONG BRIDGE DO. OF STRAKE BELOW *11 x 1"*

Sheerstrakes Length and thickness. *11 x 1"*

POOP SIDES *42*

SHORT BRIDGE SIDES *42*

FORECASTLE SIDES *42*

FRAMES extend in one length from *Centre line to Margin to from Margin to Upper D* State if ordinary or joggled *joggled*

REVERSED FRAMES on floors and frames extend from *Centre line to Margin, in way of built framing forward from Margin to Upper D & to Side stringer D alt. Double in Motor Room.* State if ordinary or joggled *joggled*

MASTS, SPARS, &c.

	Material.	Total Length.	DIAMETER AND THICKNESS.				No. of Plates in round.	ANGLES.		RIVETING.	
			At Partners.	Heel.	Hoards.	Head.		Number.	Size.	Seams.	Butts.
LOWER MASTS	Fore	85-0	24 1/2 x 1/2	29 x 1/2	25 x 5/8	6 x 7/8	2	2	4 x 3 x 7/8	Single	Double
	Main	85-0	28 x 1/2	27 1/2 x 1/2	23 x 7/8	6 x 7/8	2	2	4 x 3 x 7/8	Single	Double
	Mizen										

Bowsprit *✓*

Topmasts, Yards and Remainder of Spars *6 ft wood pole.*

Rigging, Material and Size, Shrouds *Sails S.W. 4 1/2" Greenish 3 1/2" Mainmast* Stays *S.W. 3 1/2" x 2 1/2"*

Sails. *✓* Suit of *✓* Sails, and the following spare sails. *✓*

EQUIPMENT No. 45016 LETTER CT

ANCHORS.

Number of Certificate.	Anchors.	WEIGHT, EX. STOCK		WEIGHT OF STOCK		TEST, PER CERTIFICATE		WEIGHT REG. BY TABLE 31		Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts. qrs. lbs.	Cwts. qrs. lbs.	Tons. cwts. qrs. lbs.	Tons. cwts. qrs. lbs.	Cwts. qrs. lbs.	Cwts. qrs. lbs.					
35007	1st Bower	77	0	20	57	5	0	0	77	0	0	Britannia R. S. Jones & Co. Ltd. 25/8/20
35006	2nd "	76	1	0	57	0	0	0	77	0	0	" " 25/8/20
35092	3rd "	66	2	0	57	16	1	0	65	2	0	" " 31/8/20
	Collective weight	219	3	20	219	16	1	0	219	2	0	
6213	Stream	22	2	0	22	15	0	0	22	0	0	Isolman 21/9/20
6214	Kedge	9	3	24	2	2	23	12	0	0	0	" " 22/9/20

CHAIN CABLES.

Number of Certificate.	Length and Size supplied.	Test per Certificate.	WEIGHT OF CHAIN CABLE.		Fathoms and Size Per Table 31.	Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Length and Size supplied.		Breaking Test of Steel Wire.	Fathoms and Size Per Table 31.	
			Supplied.	Per Rule.						Length.	Size.		Length.	Size.
3646	150 2 1/4	106 1/4	106 1/4	106 1/4	2 1/4	Steel Link H. Wood & Co. Ltd. 20.8.20	Isolman	20.8.20	Isolman	130	5 1/4	130	5 1/4	
3647	150 2 1/4	106 1/4	106 1/4	106 1/4	2 1/4	" " " " 16.9.20	Isolman	16.9.20	Isolman	130	5 1/4	130	5 1/4	
	Stream	130	5	59	130	5	S.W. R. S. Jones & Co. Ltd.			200	8	200	8	

HAWSERS AND WARPS.

Number of Certificate.	Length and Size supplied.	Test per Certificate.	WEIGHT OF CHAIN CABLE.		Fathoms and Size Per Table 31.	Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Length and Size supplied.		Breaking Test of Steel Wire.	Fathoms and Size Per Table 31.	
			Supplied.	Per Rule.						Length.	Size.		Length.	Size.
3646	150 2 1/4	106 1/4	106 1/4	106 1/4	2 1/4	Steel Link H. Wood & Co. Ltd. 20.8.20	Isolman	20.8.20	Isolman	130	5 1/4	130	5 1/4	
3647	150 2 1/4	106 1/4	106 1/4	106 1/4	2 1/4	" " " " 16.9.20	Isolman	16.9.20	Isolman	130	5 1/4	130	5 1/4	
	Stream	130	5	59	130	5	S.W. R. S. Jones & Co. Ltd.			200	8	200	8	

Boats 4 Lifeboats 4000 Bingham. Steering Gear, Steam Elec. Hyd. Brown. Steering Gear, Hand Brown Bros.

Pumps, Number *four* Submersible pumps (see plan) Diameter of Barrel *✓* State whether they are in efficient working order *✓*

Windlass is *Electric by Clarke Chapman & Co.* Capstan *✓*

Engine Room Skylights—How constructed? *Steel plates saugles.* What arrangements for deadlights in bad weather? *Steel plates with bulls eye.*

Coal Bunker Openings—How constructed? *✓* How are lids secured? *✓* Height above deck? *✓*

Number of Scuppers, and numbers and dimensions of **Freeing Ports, &c.** *Open Rails.*

Ceiling in Holds, thickness and material *2 1/2" W.P. laid on battens.* **Cargo Battens**, thickness and material *6 x 2" W.P.*

Cargo Hatchways—How formed? *Steel plates & angles.* **Hatches**, If strong and efficient? *Yes.*

State size **No. 1 Hatch** (Forward) *27'0" x 15'0"* **No. 2 Hatch** *29'3" x 15'0"* **No. 3 Hatch** *22'6" x 15'0"* **No. 4 Hatch** *5'27'0" x 15'0"*

Number of Web Plates, Shifting Beams and Fore and Afters to each Hatch *5 Webs in each hatchway for free rafting*

No. of Crutches *5* **No. of Crutches** *5* **No. of Crutches** *5*

Bulwarks, height above *Deck* and description *see plan* **Denby & Brothers Limited.** Main Rail and Stays, material and size *✓*

The foregoing is a correct description. *R.D. Cairns.* Surveyor to Lloyd's Register of British and Foreign Shipping.

Builder's Signature (here only) *James Dunlop & Co. Ltd.*

Correspondence—State dates and initials of letters respecting this case (Reference should be made in any correspondence connected with the case)

See Secy's letters of various dates

Workmanship Are the butts of plating planed or otherwise fitted? *planed.*

Is the riveted work properly closed? *Yes*

Are the liners between the frames and plates solid single pieces? *Yes* Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? *Yes* Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? *Yes* Do any rivets break into or through the seams or butts of the plating? *a few.*

Are the butts of Plating, Stringers, &c., properly shifted and strapped? *Yes*

Have all the upper and weather decks been tested as required by the Rules (Sec. 26, par. 20)? *Yes* State results of tests *satisfactory*

Have all the gutterways been tested as required by the Rules (Sec. 26, par. 20)? *Yes* State results of tests *satisfactory*

General Remarks (State quality of workmanship, &c.) *Workmanship good throughout*

This Steel Twin Screw Motor Vessel has been built in accordance with the approved plans Secretary's letters of various dates in general conformity with the Rules of the class contemplated.

all the Double bottom tanks, Peak tanks & Deep tanks have been tested as required by the Rules with the carrying heads of water as laid down therein & found satisfactory. all the requirements of Section 49 of the Rules have been complied with.

The vessel is fitted for carrying fuel oil for her motor engines in the Deep tanks, Sillertanks & parts of the Double bottom.

13 Approved Plans, Copy of Machinery Section as built & 4 Forging reports herewith.

Before leaving the vessel was examined in Dry Dock & found in good order. The date of build might in my opinion be 3-22.

The Surveyor should state the Number of Report and Name of any Sister Vessel built or Yard Number of any building.

The amount of Entry Fee *£ 10 : 0 : 0* 17-5-1921

Special Survey Fee *£ 377 : 16 : 6* Received by me. *6/5/22*

Travelling Expenses, if any *£ 13 : 0 : 0* 23-5-1921

State whether the Vessel has been built under Special Survey *Yes*

I am of opinion this Vessel should be Classed *+ 100 A.I. "Shelter D" with ftd*

With, or without, Freeboards as condition of Class *both*

GLASGOW 28 MAR 1922

Committee's Minute

Character assigned *- 100 A.I.*

Shelter Dk. with ftd

3.22

Record date of *Build 3.22*

Lloyd's A.I.C.P.

+ LMO 3.22

CD.

Lloyd's Register Foundation

GENERAL REMARKS—(continued).

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ☒ ft., R.Q.D. ☒ ft., Bridge ☒ ft., Forecastle ☒ ft. (in feet and tenths). When the Poop is joined to the B.D., this should be distinctly stated ☒

No. and Material of Decks (if Iron or Steel) and whether wholly or partially covered with wood, and No. of tiers of Beams (this information is to be given should appear in the Register Book). *2 Decks (Stl) & Shelter Deck (Stl)*

Official No. *146533*; Signal Letters ☒ State if Machinery is fitted aft *No*
How are the surfaces preserved from oxidation? Inside *Cement Bituminastic Paint (Pl. Cem.)* Outside *Paint*
oil & d.P. when oil carried

PARTICULARS OF WATER BALLAST.—State whether the Double bottom is constructed on the cellular system or with girders on floors *Cellular.*

Where Fitted.	Length. Feet.	Water Capacity. Tons.	Where Fitted.	Length. Feet.	Water Capacity. Tons.
Double bottom, aft,	<i>132-9</i>	<i>386</i>	Fore peak tank,		<i>184</i>
Double bottom, under Engines and Boilers,			After peak tank,		<i>54</i>
Double bottom, if under Engines only,	<i>54</i>	<i>196</i>	Deep tank, aft,		
Double bottom, if under Boilers only,			Deep tank, forward,	<i>49-6</i>	<i>174</i>
Double bottom, forward,	<i>204-9</i>	<i>666</i>	Other tanks, if fitted, <i>2 settling tanks</i>		<i>20</i>
	Total capacity of double bottom	<i>1248</i>	(If necessary, furnish further information by sketch.)		

* The wells are not to be included in the lengths of the tanks. *391.6* State whether the above have been tested as required by the Rules *Yes.*

Order for Special Survey No. *5338*
Date *10.1.1920*
No. *1039* in builder's yard.
Dates of Surveys held while building
1920 Jan 28.30 Feb 16.20.27 Mar 11.15.19.26 Apr 2.9.23 May 3.7.14.21.28 June 11.17.25 Aug 13.26 Sep 1.7. Oct 5.8.22 11.18.25.28 Dec 3.8.10.17.24 (1921) Jan 13.14.19.20.28 Feb 1.4.8.11.18.21.25 Mar 2.3.10.11.16.18.23.31 Apr 1.2.13.15.21.22 May 6.12.27 June 1.8.24.28 July 1.12 Aug 2.5.9.16.19.23.26.30 Sep 15.23.30 Oct 4.7.11.18 Nov 11 Dec 14 (1922) Jan 30 Feb 13 Mar 3

Surveyor's Signature

R. D. Cairns

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