

## STEEL STEAMER or MOTORSHIP.

Received at London Office

NOV - 5 1940

State if Report has been sent on the Freeboard of the Vessel *Yes*State if Report is sent on the Machinery of the Vessel *Yes*Date of completion of report *2<sup>nd</sup> November 1940*Port of *BELFAST*No. *12784*Survey held at *Belfast*Date First Survey *22<sup>nd</sup> June 1939*Last Survey *24<sup>th</sup> October*19 *40*On the (State if Machinery fitted with or without Tonnage Openings) *Single screw motor ship* **ARAYBANK**State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings) *Complete Superstructure without Tonnage Openings* State Type of Erections *Forecastle*TONNAGE under Tonnage Deck... *6809.68*CLASS *+100 A1*State if (with freeboard) as condition of Class) *Yes*Built at *Belfast*

Do. of space or spaces between Tonnage Dk. and Upper Dk.

Length from fore part of stem to after part of stern most on summer L.W.L. See Sec. 3 (1a) *L 425.0*Launched *6<sup>th</sup> June 1940* Yard No. *1034*

Total

Breadth (greatest moulded) *B 57.0*Builders *Harland & Wolff Ltd.*Gross Tonnage *7254.86*Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) *D 37.83*Owners *Andrew Weir & Co.*Register Tonnage *5247.35*1st Longitudinal Number (L x D) = *16078*Managers  
(Where necessary to be entered in Reg. Book.)2nd Numeral L x (B + D) = *40303*

Residence

REGISTERED DIMENSIONS.  
FEET.Length *433.2*Framing Depth "d," at middle of length. See Sec. 3 (1d) *26.08*Breadth *57.3*Proportions—Depth to Length—Uppermost continuous deck to top of keel *10.99*Depth *33.65*Do. Long Bridge to top of keel *✓*Draught Moulded *26.9*Port of Registry *Belfast*

If surveyed while building, afloat, or in dry dock

*Building afloat and in dry dock.*

## FRAMES, DOUBLE BOTTOM AND BEAMS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
FRAMES, Spacing amidships	36 ✓		Bracket Floors, Frame	BA 7 3 1/2 37 ✓	10% Owners inc ✓
" " from 3/4 length amidships to Collision bulkhead	27 ✓		" " Reversed Frame	BA 6 3 46 ✓	do. ✓
" " in peaks	24 ✓		" " Vertical Struts	Channel 8 x 3 1/2 x 3 1/2 46 52 ✓	do. ✓
DE FRAMING.			Centre Girder, depth and thickness amidships	44 1/2 x 59 ✓	do. ✓
Frame Amidships, Angle, E or F	9 3 1/2 56 ✓		" " top Angles	3 1/2 3 1/2 53 ✓	do. ✓
" " Extends up to	Upper Deck ✓		" " bottom Angles	5 5 59 ✓	do. ✓
Reversed Frame Amidships, Angle	9 3 1/2 64 ✓		Side Girders, No. each side and thickness	One 38 ✓	
" " Extends up to	Second Deck ✓		Margin Plate depth (excl. of flange) and thickness	41 x 56 ✓	
Depth of Framing Girder	14 ✓		" " Vertical Angle to Tank side Bracket abaft 1/4 len. from stem	6 6 51 ✓	10% Owners inc ✓
Frames in Uppermost Continuous 'tween Decks, Angle, E or F	9 3 1/2 56 ✓		" " Vertical Angle to Tank side Bracket from forward 1/4 len. from stem to Panting Area	6 6 51 ✓	do. ✓
" " Second 'tween Decks, Angle, E or F	✓		" " Gussets, spacing and scantling abaft 1/4 len. from stem	Continuous gusset plate ✓	
" " Third " " " "	✓		" " Gussets, spacing and scantling from forward 1/4 len. from stem to Panting Area	20 x 46 ✓	
" " from 1/4 len. for'd. to 15% len. from Stem	As approved ✓		Tank Side Brackets, height above base line at toe of Frame and thickness	71 x 49 ✓	
" " in Peaks, Angle or F	7 1/2 3 1/2 43 ✓		INNER BOTTOM PLATING.		
Diameter and Spacing of Rivets through Frame and Shell Plating amidships	7/8 @ 4 7/8 ✓		Breadth and thickness of Middle Line Strake	68 x 52 44 ✓	Appd. 54
State if Frame Joggled	Yes ✓		Thickness of remainder in Holds	46 - 42 ✓	
Are the scantlings and arrangements in the Panting Area in accordance with the Rules and/or as approved?	Yes ✓		Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & B. space and framing in Bunkers and Boiler Room?	Yes ✓	
Are the scantlings and arrangements in way of the Bottom Forward in accordance with the Rules and/or as approved?	Yes ✓		BEAMS.		
ANGLE BOTTOM.			Uppermost Continuous Deck, amidships	10 3 1/2 46 ✓	
Floors, Depth and thickness at mid-line in Holds			" " in Wells, Angle, E or F	✓	
Height of Brackets at side above base line at toe of frame			" " in way of Bridge, Angle, E or F	✓	
Middle Line Keelson, on Floors, Angles, E or F			Spacing	36 ✓	
" " Through Plate or Intercoastal Plate			Second Deck, amidships, Angle, E or F	12 x 3 1/2 x 3 1/2 56 60 ✓	
" " Foundation Plate on Floors			Spacing	36 ✓	
" " Flat Plate Keel Angles			No. 1 Hold		
Side Keelsons, No. each side			Third Deck, amidships, Angle, E or F	11 3 1/2 57 ✓	
" " thickness of Intercoastal Plate			Spacing	27 ✓	
" " Angles			Fourth Deck, amidships, Angle, E or F		
DOUBLE BOTTOM.			Spacing		
Solid Floors, thickness and spacing	46 @ 9ft. ✓	10% Owners inc ✓	Poop Deck, Angle, E or F		
" " Are Frame and Reversed Frame joggled?	Frame only ✓		Spacing		
Bracket Floors, breadth and thickness at middle line	33 1/2 x 50 ✓	10% Owners inc ✓	Bridge Deck, Angle, E or F		
" " breadth and thickness at margin plate	33 1/2 x 50 ✓	do. ✓	Spacing		
			Forecastle Deck, Angle, E or F	9 3 1/2 44 ✓	
			Spacing	8 3 1/2 45 ✓	
				27 ✓	
				24 ✓	



## PILLARS AND DECKS.

	INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
<b>PILLARS, No. of Rows.....</b>	One ✓		Stringer Plate, breadth and thickness in way of Bridge .....	✓	
" in 'tween Decks, Size and Spacing.....	3½ @ 6'0" ✓		Thickness of Plating abreast Deck openings } in way of Wells <i>amade ships</i> .....	.40 ✓	
" " " " "	✓		Thickness of Plating abreast Deck openings } in way of Bridge .....	✓	
" in Holds " "	✓		Thickness of Plating within line of openings...	.34 ✓	
" " " " "	✓		If Sheathed, material and thickness .....	✓	
<b>Centre Line Bulkhead.</b>			<b>Third Deck. N°1 hold</b>		
Stiffeners and Spacing..... BA	9 3½ .56 ✓ @ 36"		Stringer Plate, breadth and thickness.....	50 x .38	<i>Appd. 47 x .38</i>
Plating, thickness of .....	.28 ✓		If Plated, state thickness.....	.34 - .30 ✓	
<b>STRINGERS AND DECKS.</b>			<b>Fourth Deck.</b>		
<b>Uppermost Continuous Deck.</b> <i>Amado</i>			Stringer Plate, breadth and thickness.....	✓	
Stringer Plate, bradth and thickness in Wells	61 x .62 ✓		If Plated, state thickness .....	✓	
" " " , in way of Bridge	✓		<b>Poop Deck.</b>		
" Aisle in Wells .....	6 6 .62 ✓		Stringer Plate, breadth and thickness .....	✓	
Thicknes of Plating abreast Deck openings } <i>in w. of Wells amade ships</i> .....	.56 ✓		Plating, Sheathing, material and thickness ...	✓	
Thicness of Plating abreast Deck openings } in way of Bridge .....	✓		<b>Bridge Deck.</b>		
Thickness of Plating within line of openings...	.40 ✓		Stringer Plate, breadth and thickness.....	✓	
If Sheathed, material and thickness .....	✓		Plating, Sheathing, material and thickness ...	✓	
<b>Second Deck.</b>			<b>Forecastle Deck.</b>		
Stringer Plate, breadth and thickness in Wells... <i>Amado, made d frame</i>	64 x .40 ✓		Stringer Plate, breadth and thickness.....	35 x .36 ✓	
			Plating, Sheathing, material and thickness ...	.35 ✓	

## SHELL PLATING.

SCANTLINGS.					RIVETING.								
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES.			BUTTS.				
	AMIDSHIPS.		FORWARD.	AFT.		State if joggled?	SINGLE OR DOUBLE.	RIVETS.		No. OF ROWS OF RIVETS.	RIVETS.		STRAPPED OR LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.				Diam.	Spacing cr. to cr.		Diam.	Spacing cr. to cr.	
	Inches.	Inches.	Inches.	Inches.			Inches.	Inches.		Inches.	Inches.		
FLAT PLATE KEEL .....	53 ✓	.80	.79	.74 ✓	Appd. To f.a. ✓	Double ✓	1	4 ✓	Four ✓	1	4	Overlapped	
„ DELG. (if any)	✓												
BOTTOM PLATING, No. of Strakes .....		.66 ✓	.72 .75 .50 ✓	.50 ✓	Appd. 72 .68 .50 ✓	do ✓	7/8 ✓	3.6 ✓	do. ✓	7/8 ✓	3 1/2 ✓	do	
BILGE PLATING, No. of Strakes .....		.66 ✓	.50 ✓	.50 ✓		do. ✓	7/8 ✓	3.6 ✓	do. ✓	7/8 ✓	3 1/2 ✓	do	
SIDE PLATING, No. of Strakes .....		.66 ✓	.48 ✓	.48 ✓		do. ✓	7/8 ✓	3.6 ✓	Three ✓	7/8 ✓	3 1/8 ✓	do	
UPPER DECK, Sheer- strake in Wells.....	80 ✓	.74 ✓	.52 ✓	.52 ✓	Appd. .68 - .48 ✓	do. ✓			Four ✓	7/8 ✓	3 1/2 ✓	do	
UPPER DECK, Sheer- strake in Bridge ...	✓												
STRAKE BELOW Sheer- strake in Wells.....		.66 ✓	.48 ✓	.48 ✓		do. ✓	7/8 ✓	3.6 ✓	do. ✓	7/8 ✓	3 1/2 ✓	do	
STRAKE BELOW Sheer- strake in Bridge ...	✓												
POOP SIDE PLATING .....	✓												
BRIDGE SIDE PLATING ...	✓												
FOREC'TLE SIDE PLATING			.42 ✓			Single ✓	3/4	3	One ✓	3/4	(3)	2 5/8 do ✓	

## WATERTIGHT BULKHEADS.

FORGINGS and CASTINGS.

Total No. of W.T. BULKHEADS in Vessel—		Extending to Upper Deck (Sec. 3 c)		Deck next below		As per Rule	
		7	1	1	1	7	

Call to W. dk  
6 Div. W. 13Hr  
in W. dk

		STIFFENERS.			
		VERTICAL.		HORIZONTAL.	
Plating Thickness.		Scantlings.	Spacing.	Scantlings.	Spacing.
MIDSHIP BULKH'D,	Upper tween decks	26	5 x 3 x 36 L	30	
"	Second "				
"	Third "				
"	Holds	48 40	12 x 3 1/2 x 3 1/2 x 60	30	
COLLISION	(in Hold)	54	8 x 3 x 44	24	Semi box beam
AFTER PEAK	"	44	8 x 3 x 51	24	" " " "

	Casting or Forging.	Scantlings.	Maker's Name.	Any Departure from Approved Plans to be Noted.
KEEL, Bar	Flat plate			
STEM	Rolled bar	10 x 2 1/2	Colville	
STERN FRAME	Propeller Post	Steel forging as	Harland	
	Rudder	Steel	Appd. Wolff	
Speed of Vessel	12 knots			
RUDDER—Type	Normal			
" A x D	Area	166.5 sq ft		
" Diam. of head	FS	12"		
" Mainpiece at top pintle		12"		
" " heel		9"		
" how constructed		Side plates stiffened vertically, & E.W. to mainpiece, arms, & edge ship		
" double or single plate coupling, vertical or horizontal		Double		

2020

STEEL.

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture) Open Hearth.

Colville Ltd.; Steel Company of Scotland; Dorman Long.

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



EQUIPMENT No 41169

LETTER 67 ✓

ANCHORS.

Number of Certificate.	Anchors.	WEIGHT, EX. STOCK			WEIGHT OF STOCK			TEST, PER CERTIFICATE				WEIGHT REQUIRED BY TABLE 53.	Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.				
98656	1st Bower	70	1	0				54	0	0	0		Hungley Challenge	N. Hungley Sons	L.P.H.N. 15.12.39 J.A.R.
98660	2nd "	70	0	0	Stockless			53	15	0	0		Large (65 head Shank F.O.M.I.S. Shank F.W.I.)	"	"
98659	3rd "	68	2	7				53	1	3	14			"	"
	Collective weight.	208	3	7								208 1/2 ✓			
98658	Stream	20	3	16	5	0	25	21	12		0		Ordinary F.W.I.	"	"

## CHAIN CABLES.

## HAWERS AND WARPS.

Number of Certificate.	Length and size supplied.		Test per Certificate.		WEIGHT OF CHAIN CABLE.		Length and size per Table 53.		Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Length and size supplied.		Breaking Test of Steel Wire.	Length and size per Table 53.	
	Length.	Diam.	Statu- tory.	Break- ing.	Supplied.	Per Rule.	Length.	Diam.					Length.	Dir.		Length.	Dir.
112230	120	2 3/8	10 1/2	142 2/3	338.2.25	844 1/2	300	2 3/8	Shank	N. Hungley Sons	L.P.H.N. 22.2.40 J.A.R.	TOWLINE	130	5	40 1/2	130	5
112231	120	2 3/8	"	"	339.0.8				Shank	"	29.2.40	HAWERS & WARPS	20/100	3	18 1/2	20/100	2 3/4
	240		2 joint Shk		2.0.0							"	20/100	2 3/4	15 1/2	20/100	2 3/4
			2 end		3.1.3							"					
			2 locker		2.0.0							"					
Iron Stream Chain or Steel Wire	120	5	52 1/2	1			120	5	6 1/2		Makus-cent. 29.6.40	"					

Steering Gear, Type (Power or hand) *Steam. Hastic* Alternative Means of Steering *Relieving tackle to after winch*Steering Chains (Size and Test) *None. Telemotor Control Windlass Steam, Emerson Walker* Boats *4 lifeboats 24 x 7.6 x 3*Ceiling in Holds, thickness and material *2 1/2" H.P. under hatchways* Cargo Battens, thickness, material and spacing *5 1/2 x 2 H.P. spaced 15" centres*Cargo Hatchways—(Upper Deck) *Steel plates & angles. ✓* Thickness of Hatches *2 1/2" H.P. faced with 1/8" sheet steel. ✓*Size of Hatchways No. 1 (Fwd.) *29'3" x 22'* No. 2 *33' x 22'* No. 3 *30' x 22'* No. 4 *33' x 22'* No. 5 *30' x 22'* No. 6 *-*Number of Shifting Beams and/or Fore and Afters *No. 1. 3 x 5 hatches: five. No. 2 x 4 hatches: six.*

Builder's Signature

For HARBOR &amp; WOLFE, LIMITED.

A. Manhall

Secret 1/1

GENERAL DECLARATION. It should be stated (a) whether the vessel (if not a motorship) is fitted for the carriage and burning of oil used as fuel *Motorship.*(b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo *Yes.* The positions in which oil is carried as fuel or cargo should be indicated, together with the flash point (where required to be inserted in the Notation).

Oil as fuel is carried in the double bottom. The After Peak is arranged for water ballast, or the carriage of fuel oil as cargo. The Fore Peak is arranged for water ballast, oil fuel cargo, vegetable oil or Latex. The Deep Tanks abaft the motor space consist of upper and lower tanks, and are arranged so that the upper and lower tanks may be used as a combined tank, as separate tanks, or for general cargo. In addition to water ballast, these deep tanks are arranged for the carriage of oil fuel, vegetable oils or Latex. Flash point of Oil fuel above 150°F.

This vessel has been built in accordance with the approved plans, the Secretary's letters, and in general conformity with the Rules for the class contemplated. The materials & workmanship are good. All double bottom tanks & cofferdams, fore and after peak tanks, and deep tanks have been tested under water pressure to Rule requirements & found satisfactory. Steering gear, including relieving tackle, windlass & anchors, R.T. door to tunnel & bilge pumping arrangements have been tried under working conditions & found

P.T.O.

The amount of Entry Fee ..... £ 10: 0: 0

Fees applied for,

6.11.1940

(Special notations, where part of class, to be stated.)

Special Survey Fee.... £ 381: 9: 0

Freeboard Assgt.

Travelling Expenses, if any £ 18: 0: 0

Received by me,

2-12-1940

I am of opinion the Vessel should be Classed *+ 100A1 with*  
*Freeboard.*State whether the Vessel has been built under Special Survey *Yes.*

Signature

J.B. Boock

Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to

Belfast

Date of issue

2/12/40

Committee's Minute

TUE. 26 NOV 1940

Character assigned

+100A1

With freeboard  
Car: oil fuel 3" above 150°F in A.P.T.  
Car: Cargo oil 3" above 150°F. or Latex in D.T. aft & F.P.T.

Lloyd's assgt. E.S.D. Od.

+ Limb. 10.140

oil Eng.

note for S.R.L.

Write 1st

1st

2 D.B. - 120 H

CL

0056 2 1/2



GENERAL REMARKS—(The Surveyor should state the Number of Report and Name of any Sister Vessel. Plans showing Vessel as built should be forwarded and a List of the Plans should be embodied.)

in order. The weather decks, N.T. bulkheads & shaft tunnel have been hose tested & found satisfactory. Freeboards as assigned have been marked, verified and cut in, and certificates issued. The following note is extracted from the approved plan of Deep Tanks:

"Plan approved on the assumption that the upper & lower tanks may be used at times as a combined tank, and that no general cargo will be carried in the lower tank when oil is carried in the lower decks."

Note extracted from the Approved Pumping Plan:

When oil fuel is carried in the double bottom tank below the deep tank & vegetable oil is carried in the lower deep tank immediately above, care must be taken to ensure that, when loading the oil fuel in the double bottom under the vegetable oil tank, the loading of the fuel oil is stopped before the tank top is under pressure. The same precaution should be taken when vegetable oil is carried in the upper deep tank and fuel oil in the lower tank.

This vessel is similar in most respects to the B.V. ERNEBANK Belfast Rpt N° 11895, but the tonnage opening is closed, and the N.T. bulkheads extend to the Shelter Deck. A Forecastle has been added.

A plan of midship section as built is enclosed, also the following forging reports:—

Tiller & Quadrant,

Rudder Mainpiece (this includes that for N° 1035, sister vessel)

Rudder Stock.

The approved plans of the vessel are also forwarded, and a list of same is included. Interim Certificate issued, & copy forwarded herewith.

PARTICULARS OF ELECTRIC WELDING (if employed) Bulkheads and lower deck in way of Deep Tanks abaft Motor Space. Decks to Shell except weather decks. Forging composing stem frame connected by electric welding. Double plates of rudder electric welded to frame. A number of non-structural details.

SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book. DF. ESD. Oil eng. Exposed Stem. Carrying Oil Fuel F.P. above 150°F in after peak tank. Carrying cargo oil F.P. above 150°F or later in deep tanks aft and fore peak tank.

Particulars of Drop Test of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	36. 0. 11	RD	30759	4. 8. 39	Wt. of head including gun blocks	44. 1. 1
	2nd "	35. 3. 23	RD	30738	20. 7. 39		44. 0. 13
	3rd "	36. 1. 1	RD	30737	20. 7. 39		44. 1. 19

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop ☒ ft., R.Q.D. ☒ ft., Bridge ☒ ft., Forecastle 42.3 ft.

(in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated ☒

Official No. 168501 Signal Letters GNDJ Extreme Breadth over Belting ☒ Over-all Length 450.4 ft. (Circ. 1703)

No. and Material of Decks 2<sup>nd</sup> (SK (511) and SK (511) 3<sup>rd</sup> deck in N° 1 hold.

Parts of Bottom of Vessel coated with cement or approved composition None

Particulars of composition (if fitted) and of approval

PARTICULARS OF WATER BALLAST:—(Comprising all tanks which may be used for Water Ballast. (Circ. 1284) Wells are not to be included in the lengths of the tanks, but Cofferdams and Dry Tanks (if tested) are to be included.)

Where Fitted.	Length.	Water Capacity.	Where Fitted.	Length.	Water Capacity.
	Feet.	Tons.		Feet.	Tons.
Double bottom, aft,	123	319	Fore peak tank,	23	113
Double bottom, under Engines and Boilers,			After peak tank,	19	198
Double bottom, if under Engines only,	48	257	Deep tank, aft, upper	30	581
Double bottom, if under Boilers only,			Deep tank, forward, lower	30	618
Double bottom, forward,	189	648	Other tanks, if fitted,		11995
Total length (if continuous) and Capacity	360	1224	(If necessary, furnish further information by sketch.)		

Order for Special Survey No. 884 Date 30. 5. 39

1939  
June 22, 26, 30 July 4, 17, 19 Aug 4, 15, 18, 21, 24, 29 Sept. 8, 12, 18, 26, 29 Oct. 2, 5, 9, 16  
20, 24, 31 Nov. 8, 13, 23, 27 Dec. 1, 5, 8, 12, 20, 29 Jan. 1, 3, 12, 18, 22, 25, 26, 29, 31 Feb. 2, 5, 7  
12, 13, 15, 19, 22, 29 Mar. 5, 11, 13, 28 Apr. 5, 11, 16, 19, 25, 30 May 3, 9, 10, 13, 14, 20, 22, 23, 27  
30, 31 June 3, 4, 5, 6, 10, 19, 25 July 9, 23, 29 Aug 6, 19, 26, 30 Sept. 9, 11, 12, 13, 18, 23, 24, 26 Oct. 1  
3, 4, 8, 9, 11, 14, 15, 16, 17, 18, 21, 22, 24

Total No. of Visits 109