

## STEEL STEAMER or MOTORSHIP.

-1 OCT 1934

Received at London Office

WRECK  
SECTIONState 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 *974*Port of *Belfast*No. *11,372*Survey held at *Belfast*Date First Survey *23<sup>rd</sup> October, 1933*. Last Survey *19<sup>th</sup> September 1934*.

On the (State if Machinery fitted Aft and if Single, Twin or Triple Screw)

*Steam Screw Motor Vessel "DURHAM"*

State Type (Full scantling, Complete Superstructure with or without Tonnage Openings)

*Complete Superstructure with Tonnage Opening*

State Type of Erections

TONNAGE under Tonnage Deck...

*9538.69*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 post on summer L.W.L. See Sec. 3 (1a)

*L 490.00*Launched *27<sup>th</sup> June 1934*Yard No. *533*

Total

Breadth (greatest moulded)

*B 68.33*Builders *Workman Clark (1928) Ltd.*

Gross Tonnage

*10892.66*

Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c)

*D 47.17*Owners *Federal Ste. Navigation Co. Ltd.*

Register Tonnage

*6260.72*1st Longitudinal Number (L x D) *490 x 46.67 = 22868*2nd Numeral L x (B + D) *490 (68.33 + 46.67) = 56350*

Managers

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

Residence

REGISTERED DIMENSIONS.

FEET.

Length

*493.5*

Framing Depth "d," at middle of length. See Sec. 3 (1d)

*23.63*Port of Registry *London*

Breadth

*68.6*

Proportions—Depth to Length—Uppermost continuous deck to top of keel

*10.39*

If surveyed while building, afloat, or in dry dock

Depth

*34.5*

Do. Long Bridge to top of keel

Draught Moulded

*While building & 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.
<b>FRAMES, Spacing amidships</b>	<i>34"</i>		<b>Bracket Floors, Frame</b>	<i>Z</i>	
" " from $\frac{3}{4}$ length to Collision bulkhead	<i>27" to 24" in N<sup>o</sup> 1 tank 'Appd. 27"</i>		" " Reversed Frame	<i>Z</i>	
" " in peaks	<i>2nd peak 21" } Aft peak 24" } 24"</i>		" " Vertical Struts	<i>Z</i>	
<b>SIDE FRAMING.</b>			<b>Centre Girder, depth and thickness amidships</b>	<i>49 1/2" x 67"</i>	
Frame Amidships, Angle <i>E or F</i>	<i>8 3 1/2 40</i>		" " top Angles <i>double</i>	<i>3 1/2 3 1/2 63</i>	
" " Extends up to	<i>Upper deck</i>		" " bottom Angles <i>double</i>	<i>5 5 70</i>	
Reversed Frame Amidships, Angle	<i>6 4 48</i>		<b>Side Girders, No. each side and thickness</b>	<i>Two 46"</i>	
" " Extends up to	<i>Third deck</i>		<b>Margin Plate depth (excl. of flange) and thickness</b>	<i>44 1/4" x 68"</i>	
Depth of Framing Girder	<i>9 1/2</i>		" " Vertical Angle to Tank side Bracket abaft $\frac{1}{2}$ len. from stem	<i>6 6 52</i>	
Frames in Uppermost Continuous 'tween Decks, Angle <i>E or F</i>	<i>8 3 1/2 35</i>		" " Vertical Angle to Tank side Bracket forward $\frac{1}{2}$ len. from stem	<i>6 6 52</i>	
" " Second 'tween Decks, Angle <i>E or F</i>	<i>6 x 4 x 48 2nd ang. every third</i>		" " Gussets, spacing and scantling abaft $\frac{1}{2}$ len. from stem	<i>50 Continuous</i>	
" " Third " " "	<i>✓</i>		" " Gussets, spacing and scantling forward $\frac{1}{2}$ len. from stem	<i>48 Continuous</i>	
Framing in Peaks, Angle <i>E or F</i>	<i>10 3 1/2 46</i>		<b>Tank Side Brackets, height above base line at toe of Frame and thickness</b>	<i>83 1/2" x 53" (level in N<sup>o</sup> 2 + 3 Holds)</i>	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships			<b>INNER BOTTOM PLATING.</b>		
State if Frame Joggled	<i>Yes</i>		Breadth and thickness of Middle Line Strake	<i>73" x 68"</i>	
<b>PANTING ARRANGEMENTS</b> (Sec. 7), state system and particulars	<i>Deep framing 9 x 3 1/2 x 38 b.a. 6 x 4 x 52 2nd ang. every 3rd 2 side stringers 6 x 4 x 50 plate fitted vertically</i>		Thickness of remainder in Holds	<i>50</i>	
<b>STRENGTHENING OF BOTTOM FORWARD.</b> State Particulars	<i>Frames 5 x 5 x 50 2nd 1/2 L. Side girders 3 x 3 x 48 Shell 80 @ 24 sp. 82 @ 27</i>		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?	<i>Yes</i>	
<b>SINGLE BOTTOM.</b>			<b>BEAMS.</b>		
Floors, Depth and thickness at mid-line in Holds	<i>79 @ 24 sp</i>		Uppermost Continuous Deck, amidships	<i>9 3 1/2 50</i>	
Height of Brackets at side above base line at toe of frame			" " in Motor Room, Angle <i>E or F</i>	<i>8 x 3 1/2 x 3 1/2 50</i>	
Middle Line Keelson, on Floors, Angles, <i>E or F</i>			" " in way of Bridge, Angle <i>E or F</i>	<i>8 x 3 1/2 x 3 1/2 50</i>	
" " Through Plate or Intercoastal Plate			Spacing	<i>Every frame</i>	
" " Foundation Plate on Floors			<b>Second Deck, amidships, Angle <i>E or F</i></b>	<i>10 x 3 1/2 x 3 1/2 50</i>	
" " Flat Plate Keel Angles			Spacing	<i>Every frame</i>	
Side Keelsons, No. each side			<b>Third Deck, amidships, Angle <i>E or F</i></b>	<i>12 x 3 1/2 x 3 1/2 50</i>	
thickness of Intercoastal Plate			Spacing	<i>Every frame</i>	
Angles			<b>Fourth Deck, amidships, Angle <i>E or F</i></b>	<i>12 x 3 1/2 x 3 1/2 50</i>	
<b>DOUBLE BOTTOM.</b>			Spacing	<i>Every frame</i>	
Solid Floors, thickness and spacing	<i>46 sp 34 51 spaced by 3 1/2 x 3 1/2 36 ang. 48 side girders</i>		<b>Poop Deck, Angle, <i>E or F</i></b>		
" " Are Frame and Reversed Frame joggled?	<i>Yes</i>		Spacing		
Bracket Floors, breadth and thickness at middle line			<b>Bridge Deck, Angle, <i>E or F</i></b>		
" " breadth and thickness at margin plate			Spacing		
			<b>Forecastle Deck, Angle, <i>E or F</i></b>		
			Spacing		

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Lloyd's Register  
Foundation



# 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> <i>Two</i>			Stringer Plate, breadth and thickness in way of Bridge .....	✓	
„ in 'tween Decks, Size and Spacing.....			Thickness of Plating abreast Deck openings in way of Wells .....	48 ✓	
„ „ „ „ „			Thickness of Plating abreast Deck openings in way of Bridge .....	✓	
„ in Holds „ „			Thickness of Plating within line of openings...	41 ✓	
„ „ „ „ „			If Sheathed, material and thickness .....	✓	
<b>Centre Line Bulkhead.</b>			<b>Third Deck.</b>		
Stiffeners and Spacing.....	<i>None</i>		Stringer Plate, breadth and thickness.....	81 x 39	
Plating, thickness of .....			If Plated, state thickness.....	36 ✓	
<b>STRINGERS AND DECKS.</b>			<b>Fourth Deck. in N. 1 x 2 holds only</b>		
<b>Uppermost Continuous Deck.</b>			Stringer Plate, breadth and thickness.....	x 34	
Stringer Plate, breadth and thickness in Wells	81½ x 77	✓	If Plated, state thickness .....	30	
„ „ „ „ in way of Bridge	✓		<b>Poop Deck.</b>		
„ Angle in Wells .....	6 6 72	✓	Stringer Plate, breadth and thickness .....		
Thickness of Plating abreast Deck openings in way of Wells .....	58	✓	Plating, Sheathing, material and thickness ..		
Thickness of Plating abreast Deck openings in way of Bridge .....	✓		<b>Bridge Deck.</b>		
Thickness of Plating within line of openings...	46	✓	Stringer Plate, breadth and thickness.....		
If Sheathed, material and thickness .....	<i>From fore end of midship deckhouse 6 aft end 2½ p. pint</i>	✓	Plating, Sheathing, material and thickness ..		
<b>Second Deck.</b>			<b>Forecastle Deck.</b>		
Stringer Plate, breadth and thickness in Wells...	81 x 55	✓	Stringer Plate, breadth and thickness.....		
			Plating, Sheathing, material and thickness ..		

## SHELL PLATING.

SCANTLINGS.					RIVETING.						
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES.		BUTTS.			
	AMIDSHIPS.		FORWARD.	AFT.		State if jogged?	No	RIVETS.		No. OF ROWS OF RIVETS.	STRAPPED OR LAPPED.
	Breadth.	Thickness.	Thickness.	Thickness.				Diam.	Spacing cr. to cr.		
	Inches.	Inches.	Inches.	Inches.				Inches.	Inches.		
FLAT PLATE KEEL .....	59½	95	85	85		Double	1	3¾	4R fra	1½	Lapped
„ in way and keel											
„ „ „ „ „		1.12	1.02	✓			1	3¾	„	1½	4
BOTTOM PLATING, No. of Strakes .....	1090	72	57	64			2	3¾	4R	7	3½
BILGE PLATING, No. of Strakes .....	72	72	56	56			2	3¾	„	7	3½
SIDE PLATING, No. of Strakes .....	4280	70	53	53			2	3¾	„	7	3½
UPPER DECK, Sheer-strake in Wells.....	68	80	53	53			1	3¾	„	1	4
UPPER DECK, Sheer-strake in Bridge ...											
STRAKE BELOW Sheer-strake in Wells.....	79	72	53	53			2	3¾	„	7	3½
STRAKE BELOW Sheer-strake in Bridge ...											
POOP SIDE PLATING .....											
BRIDGE SIDE PLATING ...											
FOREC'TLE SIDE PLATING											

## WATERTIGHT BULKHEADS.

<b>Total No. of W.T. BULKHEADS in Vessel—</b>	
Extending to Upper Deck (Sec. 3 c) .....	<i>Collision</i>
„ Deck next below .....	7
As per Rule .....	8

## STIFFENERS.

	Plating Thickness.	VERTICAL.				HORIZONTAL.			
		Scantlings.		Spacing.		Scantlings.		Spacing.	
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
<b>MIDSHIP BULKHEAD, Upper tween decks</b> (fr. 121)									
„ „ Second „	28	5½	3	36	30	✓			
„ „ Third „	✓ 34	30	7	3	25	30	✓		
„ „ Holds .....	✓ 50	45	36	10	3½	36	30	✓	
<b>COLLISION</b> frame 76 (in Hold) ...	✓ 58	40	10	3½	50	24	✓		
<b>AFTER PEAK</b> frame 8 „	✓ 50	30	8	3	40	28½	✓		

## FORGINGS and CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
<b>KEEL, Bar</b> <i>Flat plate</i>				
<b>STEM</b> .....	<i>Roller MS</i>	11 x 2½		
<b>STERN FRAME</b> { Propeller Post .....	<i>Steel</i>	<i>Open</i>	<i>Ruhmkorf</i>	
„ { Rudder „ .....	<i>Casting</i>	<i>section</i>	<i>A.S. Stahlwerk</i>	
<b>RUDDER—A x D</b> .....	<i>Semi</i>	<i>balanced</i>		
<b>Speed of Vessel</b> .....		16½ knots		
<b>RUDDER</b> mainpiece at head ...		18½ x 15½	- do -	
„ „ heel ...		11 x 9½		
„ how constructed .....	<i>Steel casting</i>			
„ double or single plate .....	<i>Double</i>			
„ coupling, vertical or horizontal .....	<i>Vertical</i>			

<b>STEEL.</b>	Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)
	<i>Colvilles, Ltd., Bessemer Iron Co. Ltd., Steel Co. of Scotland, Lanarkshire Steel Co., Birmingham Iron Works, Dorman Lang, British Iron &amp; Steel Co. (Siemens Martin Open Hearth).</i>
	Has the Steel been tested as required by the Rules? <i>Yes</i>



EQUIPMENT No 57583

LETTER 97

ANCHORS.

Number of Certificate.	Anchor.	WEIGHT, EX. STOCK	WEIGHT OF STOCK.	TEST, PER CERTIFICATE.	WEIGHT REQUIRED BY TABLE 53.	Description of Anchor.	Makers.	Where and when tested and Superintendent.
15415	1st Bower	Cwts. 114 qrs. 3 lbs. 20	Stockless	Tons. 72 cwt. 17 qrs. 2 lbs. 0	65 1/2	Taylor's Dreadnought	Not stated	CHESTER 28.12.33 Parsons
15416	2nd "	114 2 3	"	72 17 2 0	"	"	"	" " "
15414	3rd "	113 3 6	"	72 10 0 0	"	"	"	" " "
	Collective weight.	343 1 1			271			
15413	Stream	42 3 24		37 17 2 0	28 & stock			" " "

\* At. includes lifting shackle.  
\* In Q.S.M.V. BERMUDA.

CHAIN CABLES.

HAWSERS 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.	Statutory. Breaking.	Supplied. Per Rule.	Length. Diam.					Length. Cir.	Tons.	Length. Cir.
14634	271 6 2 1/2	141 20 198 15	1243. 1. 23 1200	330 2 1/2	Stud link	Not stated	CHESTER 30.11.33 Parsons	TOWLINE	130 6 1/2	112.3	130 6 1/2
86892	15 "	" "	65. 1. 0		"	"	NETHERTON 24.4.34 Green				
86893	15 "	" "	65. 2. 21		"	"	"	HAWSERS	2 @ 100 2 3/4	15.2	2 @ 100 2 3/4
86894	15 "	" "	65. 0. 4		"	"	"				
86895	15 "	" "	65. 2. 22		"	"	"	WARPS	2 @ 100 2 3/4	15.2	2 @ 100 2 3/4
	Cir.		1505-D-14		Cir.						
Stream Chain or Steel Wire	120 5 1/2	84.4		120 5 1/2							

Steering Gear, ~~Steam~~ *Hydro Electric by Haptic* Steering Gear, Hand ☒  
Boats *6 Lifeboats* Steering Chains, Size and Test ☒ Windlass *Black Chapman*  
Ceiling in Holds, thickness and material *Insulated, except No 6 - no ceiling* Cargo Battens, thickness, material and spacing *6" x 2" n.p. in upper tween dks and No 6 hold & tween dks. (Sp. 9)*  
Cargo Hatchways, (Upper Deck) *Steel plates and angles* Thickness of Hatches *3"*  
Size of No. 1 Hatchway (Forward) *28' x 20'* No. 2 *39' 1" x 20'* No. 3 *34' x 20'* No. 4 *34' x 20'* No. 5 *34' x 20'* No. 6 *19' 10" x 20'*  
Number of Shifting Beams and/or Fore and Afters *No 1, 4 No 2, 6 No 3, 4 x 5, 5 No 6, 3*

pro WORKMAN CLARK (1928) LIMITED.

Builder's Signature *F. Cunningham* Secretary.

GENERAL DECLARATION. It should be stated (a) whether the vessel is fitted for the carriage and burning of oil used as fuel *Yes* (b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo *No* The positions in which oil is carried as fuel or cargo should be indicated, together with the flash point.  
*Oil fuel carried in double bottoms, oil fuel bunker at fore end of motor room and in deep tanks in way of shaft tunnels. F.P. about 150°F.*  
*This vessel has been constructed in accordance with the approved plans, the Secretaries' letters, and in general conformity with the Rules of the Society for the class contemplated. The workmanship & materials are good.*  
*The double bottom tanks, fore and after peak tanks, deep O.T. tanks & bunkers and cofferdams have been tested in accordance with the Rules with satisfactory results. The weather decks, n.t. bulkheads, flats & tunnels, cargo & mutton port doors & sidelights have been satisfactorily hose-tested.*  
*Steering gear, windlass and anchors, bilge pumps & n.t. door to tunnels have been tried and found in order. The freeboards assigned have been marked on the vessels sides, reinforced and cut in, and the certificate issued.*

The amount of Entry Fee ..... £ 12 : 0 : 0 Fees applied for, *28 Sept 1934*  
Special Survey Fee .... £ 461 : 3 : 3 Received by me, *12.10.34*  
*Freeboard 20 : 0 : 0*  
*Travelling Expenses, if any £ : ✓*  
*Additional Freeboard certificate 10/6*  
State whether the Vessel has been built under Special Survey *Yes*  
Certificate sent to *Bel* Date of issue *11/10/34*  
I am of opinion the Vessel should be Classed *+100A1 with freeboard*  
*Fitted for oil fuel (9.34) F.P. about 150°F.*  
*D.F. E.L.*  
Signature *J. B. Coocks*  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
Character assigned *+100A1 With freeboard*

*Lloyd's excl + Lmb 9.34 Cl.*  
*2 D.B. - 120 lbs*  
*Wile Jls*  
*My*



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.)

The following Forging & Casting reports are enclosed:

Stem frame & shaft brackets  
Rudder frame }  
" stock }  
Windlass shaft  
Tiller

A plan of midship section as built is enclosed herewith. see Bel ltr Rec. 1/10/3  
Copies of the approved plans are in the London Office, our copies being retained here in the meantime pending the completion of N°534, a sister vessel.

Note: The Anchors, <sup>part</sup> cables and windlass are ex Q.S.M.V. "BERMUDA", and these have been re-tested, as shown overleaf. The inclusive wts. of anchor-heads are as follows.

Cast N°	15415	77. 3. 24
"	15416	77. 1. 12
"	15414	77. 3. 12
"	15413	30. 1. 18

It is the Owners desire that no special notation of this fact be entered in the Register Book.

Particulars of Drop Test of Cast Steel Anchors, viz.:—  
Weight, Surveyor's Initials, Number of Certificate, Date of Test.

1st Bower

2nd "

3rd "

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 (This information is to be given as it should appear in the Register Book) 2 Dks (stl) + Shelter dk (stl) (n.s. aft) 3 dks (stl) N° 1 + 2 holds

Official No. 163522

Signal Letters

G W W K

Is bottom of Vessel coated with cement Fresh water if not give

particulars of composition Tanks cemented. Water Ballast tanks outer strakes flushed up with cement. Floors re cement washed in FY + HB tanks.

#### PARTICULARS OF WATER BALLAST.—

Where Fitted.	*Length. Feet.	Water Capacity. Tons.	Where Fitted.	*Length. Feet.	Water Capacity. Tons.
Double bottom, aft, Frames 30-64	96.3	341	Fore peak tank,	25'	70
Double bottom, under Engines and Boiler, frs 64-98	96.3	654	After peak tank,	17'	74
Double bottom, if under Engines only,			Deep tanks aft, frames 20-64	124.7	966
Double bottom, if under Boilers only,			O.F. bunker + settling tank frs 90-97	19.8	961
Double bottom, forward, Frames 98-176	193.0	702	Deep tank, forward,	22.7	15
Total capacity of double bottom		1697	Other tanks, if fitted, Feed tank, motor room port side		
			(If necessary, furnish further information by sketch.)		
			* The wells are not to be included in the lengths of the tanks.		
		385.0			

Order for Special Survey No. 837

Date 14 Dec. 1933

Dates of Surveys held while building

1933  
Oct 23, 24, 26 Nov. 2, 4, 16, 21, 23, 28, 30 Dec 5, 7, 14, 20 Jan 3, 9, 10, 11, 22, 23, 24, 31 Feb 6, 9, 13, 14, 16, 19  
23 Mar 1, 5, 6, 7, 9, 13, 14, 16, 19, 20, 21, 22, 23, 27, 29 Apr 6, 10, 13, 17, 18, 20, 24, 26, 27, 30 May 2, 3, 4  
7, 8, 9, 10, 11, 14, 16, 17, 21, 25 June 4, 5, 6, 7, 8, 13, 14, 15, 18, 20, 27 July 2, 10, 16, 17, 23, 27, 30, 31  
Aug 1, 2, 6, 14, 17, 24, 28, 29, 30 Sept 3, 4, 5, 10, 11, 12, 14, 17, 18, 19.  
1934  
Total No. of Visits 105