

Received at London Office: 5 AUG 1872

State if Report is sent on the Machinery of the Vessel.....Geo.

Port of Barrow

No. 25762

Date First Survey 2nd January 1934

Last Survey 25th July 1935

Steel Twin Screw Steamer. "ORION"

Long Combined
Bridge & Forecastle

Type (Full Scantling, Complete Superstructure)

GE under) 13151-16
ge Beck...

CLASS 100A1

State if with freeboard } Yes
as condition of Class }

Built at Barrow.

Launched 7th Dec: 1935 Yard No. 697

Builders Vickers Armstrongs Ltd

Owners *Orient Steam Navigation Co Ltd*

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

Residence

Port of Registry London.

If surveyed while building, afloat, or in dry dock

While Building, Afloat & in Dry Dock

FRAMES, DOUBLE BOTTOM AND BEAMS.

[illegible]

004285-004291-00731

3 144
24" 1

PILLARS AND DECKS

		INCHES IN SHIP.		Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.		Any Appd.	
PILLARS, No. of Rows.....		Four.							
,, in 'tween Decks, Size and Spacing.....		Solid round and widely spaced.		as per approved plans.					
,, " " " " " " " " " " " "		Do.							
,, in Holds " " " " " "		□ and □ widely spaced.							
,, " " " " " " " " " " " "									
Centre Line Bulkhead.									
Stiffeners and Spacing.....		✓		No sheathing for Deck Plating					
Plating, thickness of		✓							
STRINGERS AND DECKS.									
Uppermost Continuous Deck. "E" Long combined Bridge & Etc.									
Stringer Plate, breadth and thickness in Wells		72 1/2 x 1.20 + 54		98 adjacent Strake					
Clear of D Deck aft				(Stringer Doubling at Break) to					
,, " " " in way of Bridges		57 1/2 x 48		44 x 50 aft					
Clear of C Deck forward.		57 1/2 x 52		45 x 40 forward.					
,, Angle in Wells clear of D Deck aft		8 x 8 x 1.0 to		5 x 5 x 40					
Thickness of Plating abreast Deck openings in way of Wells		89 to 40							
Clear of D Deck aft									
Thickness of Plating abreast Deck openings in way of Bridges		44							
Clear of C Deck forward		48 to 36							
Thickness of Plating within line of openings.		52/40 aft 40/36 forward.		36 amidships.					
If Sheathed, material and thickness		2 1/2" Teak aft where exposed.							
Upper. Second Deck. "F" Clear of D & C Decks aft									
Stringer Plate, breadth and thickness in Wells		57 1/2 x 52							
Stringer Plate, breadth and thickness in way of Bridges		57 1/2 x 44		16 45.					
Thickness of Plating abreast Deck openings in way of Wells		50 1/2 x 36							
Thickness of Plating abreast Deck openings in way of Bridges		40 8 x 42 to 36.							
Thickness of Plating within line of openings.		40 x 36.							
If Sheathed, material and thickness		2 1/2" Teak Sheathed where							
Third Deck. "G"									
Stringer Plate, breadth and thickness		57 1/2 x 44		16 45.					
Clear of D & C Decks aft		57 1/2 x 46							
If Plated, state thickness.....		40 x 42 to 36							
Third. Fourth Deck. "H" in Holds									
Stringer Plate, breadth and thickness.....		57 1/2 x 34							
If Plated, state thickness		30							
Peep Deck. "D" Upper Comb: Bridge & Etc.									
Stringer Plate, breadth and thickness		57 1/2 x 55		16 47 x 50 forward 40 aft					
abreast openings.									
Plating, sheathing, material and thickness		51		(52 x 41 inside openings)					
Bridge Deck. "C" Promenade Deck.									
Stringer Plate, breadth and thickness.....		85 1/2 x 86 + 84 x 68							
Plating, Sheathing, material and thickness		55, 2 1/4" Teak Sheathed where exposed.							
Forecastle Deck. "C" Deck Level.									
Stringer Plate, breadth and thickness.....		39 1/2 x 44							
Plating, Sheathing, material and thickness		34 Sheathed 2 1/2" Teak.							

SHELL PLATING.

SCANTLINGS.					RIVETING.							
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if jogged?			BUTTS.			
	AMIDSHIPS.		FORWARD.	AFT.		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	60½	1.10	.94	.98.	Owners' Requirement Doubling accepted as increase of thickness at Duct Keel. See Secs letter 22/12/33.	Double.	1½	2 pans per fr. sp.	Three.	1½	4½	Double Straps.
„ DBLG. (if any)	36½	1.0	1.0	1.0		Single.	1½	6 per fr. sp.	One.	1½	4½	Keel plate forms strap
BOTTOM PLATING, No. of Strakes	84	.82	.62	.62		Double.	1"	8 pans per fr. sp.	Four.	1	4	Lapped.
BILGE PLATING, No. of Strakes	85½	.82	.62	.62		do	do	do	do	do	do	do.
SIDE PLATING, No. of Strakes	84	.46	.54	.54.	Double. but 3 Seams Treble in forward 9 After Bodies as approved.	do	do	do	do	do	do	do.
UPPER DECK, Sheer-strake in Wells	75	1.04	-	.66	As per special arrangement of Plating at Breaks See approved plan of Jopoides.	Double	1½ x 1	8 x 4 pans per fr. sp.	Five to four.	1½ x 1	4½	do
DOWNER DECK, Sheer-strake in Bridge	98	1.00	.54	-		do	do	do	do	do	do	do
UPPER DECK, Sheer-strake in Bridge	83	.46	-	-		Double	1"	8 pans per fr. sp.	Four.	1	4	do.
STRAKE BELOW SHEER-strake in Wells	65	.84	.54	.54.		do	do	do	Four.	1	4	do.
STRAKE BELOW SHEER-strake in Bridge	70	.46	.54	.54.	do	do	do	(Three under .68)	do	do	do.	
DOWNER DECK, Sheer-strake in Bridge	83	.46	-	-	do	do	do	Four.	do	do	do.	
DOWNER DECK, Sheer-strake in Bridge	73	.44	-	-	do	do	do	do	do	do	do.	
DOWNER DECK, Sheer-strake in Bridge	54	.70 + doubling 24" x .93 at Windows	.81	.81	do	do	do	Four.	do	do	Double Straps at Windows overlaps	
DOWNER DECK, Sheer-strake in Bridge	63	.44	.81	.81	do	do	do	do	do	do	Clear Overlaps.	
FORECASTLE SIDE PLATING	Deck level.	.52	-	-	Single	7/8	5½"	One	7/8	3½	do.	

as per Appd plan of Keel Riveting.

WATERTIGHT BULKHEADS.

Total No. of **W.T. BULKHEADS** in Vessel— *Twelve.*
 "F"
 Extending to Upper Deck (Sec. 3 c) *Nine.*
 „ Deck next below *Three. (including After Peak.)*
N.T. Flat at 2nd Deck 1/2 Stern.
 „ per Rule *Ten.*

FORGINGS and CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
KEEL, Bar				
STEM	<i>of m.s plates as approved.</i>			
Shaft Brackets	Cast	as	Vickers	
Stern { Propeller Post	Steel.	approved.	Armstrongs.	✓
FRAME { Rudder Post	do	do	do	
RUDDER—A × D	<i>Balanced Type One pintle. Area = 260 sq</i>			
Speed of Vessel	<i>Sea 20 Knots Trial. 21.</i>			
RUDDER main piece at head ...	<i>Gorged Steel.</i>	<i>18"</i>	<i>M. Somers Ld.</i>	
" " Frame steel ...	<i>Cast Steel.</i>	<i>as</i>	<i>Vickers approved Armstrongs.</i>	
" how constructed ...	<i>Gorged Steel head coupled to Combined main piece & arms of Cast-Steel.</i>			
" double or single plate	<i>Double</i>			
" coupling, vertical or horizontal	<i>Horizontal.</i>			

		Plating Thickness.	STIFFENERS.				
			VERTICAL.		HORIZONTAL.		
			Scantlings.	Spacing.	Scantlings.	Spacing.	
MIDSHIP BULKH'D,	Upper tween decks	$\frac{G}{16} F$.26	$L 4\frac{1}{2} \times 3 \times .34$	30"		
"	Second	$\frac{G}{16} H$.30/.28	$L 6 \times 3 \times .44$ $\frac{NBS}{5} 5\frac{1}{2} \times 3 \times .32$	30		
"	Third	"					
"	Holds	"	.49/.45 K .33	$L 12 \times 4 \times 4 \times .48$	30		
COLLISION	(in Hold)	228 ft.	.54/.33	Centre line Bhd in Chain locker	$\frac{NBS}{6} 3 \times 3 \times .38$		24
AFTER PEAK			.53/.33	$\frac{NBS}{4} 4 \times 3 \times .48$	24	Tunnel Recess Top.	

STEEL.

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

Steel Co of Scotland, Colvilles Ltd, British (GKR) Iron Steel Co, Dorman & Long, Appleby Iron Co, Skinningrove Iron Co. Open hearth process

Has the Steel been tested as required by the Rules?

Yes.

Lloyd's Register
Foundation

EQUIPMENT No. 888/3													LETTER <i>SA</i> (Rate 94)		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.	
94113.	1st Bower ...	Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	149-2-0	Byers Type. (CS Head)	STaylor & Sons Brierley Hill.	Netherlon 8/2/35 H Green.	
94107	2nd „ ...	148	0	0	Stockless			83	10	0	0	147-2-0	do	do	do 18/2/35 do	
94106	3rd „ ...	147	2	0	„			83	10	0	0	147-2-0	do	do	do 8/2/35 do	
	Collective weight.	125	2	0	„			176	12	2	0	125-0-0	do	do	do	
94055	Stream	421	0	0	„			420	0	0	0	57-2-0	do	do	do 3/1/35 do	
		58	0	14	„			47	6	1	0					

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.	Statu- tory.	Break- ing.	Supplied.	Per Rule.	Length.	Diam.					Length.	Cir.		Tons.	Length.	Cir.
84428	330	2 15/16	198 8/20	274 14/20	1518-1-8	1440	330	3 3/8 SL	SL Tayco	S Taylor & Sons Brierley Hill.	Netherlon. 22/2/35 H Green.	TOWLINE...	150	8"	184.37	150	8	
									SL Tayco				SFSN	6/30				

Steering Gear, ~~Steam~~ Brown Bros. Electric Hydraulic (2 Motors) Steering Gear, Hand Telemotor & Local Hand Control.

Boats { 14 @ 36'-10" 2 Motor Boats
 6 @ 25'-3. @ 30-10. Steering Chains, Size and Test ✓ Windlass Clarke Chapmans Electric

Ceiling in Holds, thickness and material 2 1/2 W.P. under Hatches aft Cargo Battens, thickness, material and spacing 6" 2. W.P. 9" apart aft.
(Fore Holds insulated) fore Holds insulated.

Cargo Hatchways.-(Upper Deck) Framed Steel Coamings Thickness of Hatches 3"

Size of No. 1 Hatchway (Forward) 13'-6" x 16'-0" No. 2 18'-3" x 20'-0" No. 3 15'-0" x 18'-0" No. 4 11'-0" x 20'-0" No. 5 11'-0" x 16'-0" No. 6 11'-0" x 16'-0"

Number of Shifting Beams and for Fore and Afters No 1 = 2, No 2 = 3, No 3 = 2, No 4, 5 & 6 = 1.

For VICKERS-ARMSTRONGS LIMITED.

Builder's Signature *J. Ballander*

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.

The vessel has been built under special survey in accordance with the approved plans, Secretary's Letter and the Society's Rules; the materials and workmanship are good and to my satisfaction

The fore and after peak tanks, double bottom tanks, cofferdams, oil fuel bunkers, dup tanks, decks and waterways, watertight bulkheads watertight doors, hand pumps, windlass and steering gear have been tested in accordance with Rule requirements and found satisfactory. The vessel is fitted for the carrying and burning of oil fuel FP above 150°F; the following compartments being approved for that purpose.

Oil fuel bunkers, at sides of Boiler Room, thwartship bunkers at fore end of Boiler Room and double bottom tanks under thwartship bunkers. The following compartments are insulated for the carriage of refrigerated cargoes:- No 1, 2 & 3 Holds and lower tween decks (ie to 6 deck) The beams of 6 deck in these compartments are increased for one tier of hanging cargo. The vessel is fitted with a duct Keel forward of the Machinery space. The freeboards as assigned have been cut in on the vessels sides and verified

The amount of Entry Fee £ 12 : 0 : 0	Fees applied for, 1st Aug 1935	I am of opinion the Vessel should be Classed *100 A 1 with freeboard.
Special Survey Fee.... £ 614 : 2 : 9	Received by me, 2nd Aug 1935	
Freeboard £ 20 : 0 : 0		
Travelling Expenses, if any £ 1 : 2 : 0		

State whether the Vessel has been built under Special Survey Yes Signature *J. Hodgson*
Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to Barrow Date of issue 14/8/35

Committee's Minute FRI. 9 AUG 1935 TUE. 13 AUG 1935

Character assigned **+ 100 A 1**
With freeboard

Lloyd's arch. + Lmb. 7.35 Subject
Fitted for oil fuel 7.35
St. above 150°F.

White st. box. *MG*

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0073 2/12

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.)

List of approved Plans forwarded with this Report.

- ✓ Midship Section
- ✓ Framing Profile
- ✓ Deck plans. Sheet 1
- ✓ " " Sheet 2.
- ✓ Topsides
- ✓ Details of Keel & Keel Riveting
- ✓ After End of Keel
- ✓ Stern Castings
- ✓ Shaft Brackets
- ✓ Rudder
- ✓ Modified Rudder Pinite
- ✓ Rudder Stock as made.
- ✓ Cruiser Stern
- ✓ Stiffening under Rudder Steadying Block
- ✓ Stem
- ✓ Panting Arrangement & Strengthening of Bottom forward
- ✓ Framing sections in fore hold.
- ✓ Scheme of Riveting
- ✓ Equipment
- ✓ Bossed Framing
- ✓ Watertight Bulkheads
- ✓ Shaft Tunnels and Tanks in way
- ✓ Fresh Water Tanks forward.
- ✓ Oil fuel Bunkers abreast Boiler Room & W.T. Bhd 104
- ✓ " " " " " " modified
- ✓ Oil fuel Bunkers frames 128/138.
- ✓ Modified Shell girders in oil bunkers
- ✓ Wing Tanks in Engine Room
- ✓ Welded End connections for Bulkhead Stiffeners
- ✓ Welded plate Collars
- ✓ Pillars and Girders Elevation
- ✓ " " " Deck Plans.
- ✓ " " " Details
- ✓ " " " in Boiler Room
- ✓ Girders and Strong Beams in Dining Saloon.
- ✓ Forward Hatches and Trunks.
- ✓ Aft " " "

- ✓ Steel Gaslight Hatch Covers
- ✓ Superstructures
- ✓ Deckhouse on C Deck
- ✓ Deckhouse on A & B Decks
- ✓ Part plan of A deck.
- ✓ Boiler Casing
- ✓ Turbine Seats 2 plans.
- ✓ Dynamo Seats
- ✓ 1st Class Swimming bath
- ✓ Tourists " "
- ✓ Thermo Junk Vents 5 plans.
- ✓ Scuppers and Discharges from 3rd deck 2 plans
- ✓ Storm Valves on Overboard discharges
- ✓ Openings at after end of Superstructures (Hd)
- ✓ Gullies of Superstructures for freeboard
- ✓ Filler
- ✓ Steering gear
- ✓ Nelson M. Lachlan Davels 3 plans.
- ✓ Main Inlet & Discharge recesses in Wing Tanks in Eng.
- ✓ Gangway Doors.
- ✓ Forging & Casting Reports.
- ✓ Midship Section as built.

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

1st Bower	Wt (including pin)	96-1-2",	T.M.C.	4760	14/8/34
2nd "	"	96-0-3	T.M.C.	4771	22/8/34
3rd "	"	95-1-12.	R.L.	3871	28/6/34
Stream.	"	37-2-21	A.B.	6354	26/12/30

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of ^{B.F.} 622' ft., ^{Upper B.F.} 498' 75" ft., ^{Promenade} 324' 5" ft., Forecastle 80' 5" ft. on Upper Bridge

(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 (Steel) Weather dk pt teaks.)
3rd Dk (Steel) in Holds.

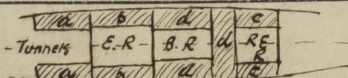
Official No. 164493 ; Signal Letters GYKL

Is bottom of Vessel coated with cement pt. Cem. if not given

particulars of composition

(Duct Keel forward of Machinery Space)

PARTICULARS OF WATER BALLAST.—and all Deep Tanks and Double Bottom.



Where Fitted.	Length.	Water Capacity.	Where Fitted.	Length.	Water Capacity.
	Feet.	Tons.		Feet.	Tons.
Double bottom, aft,			Fore peak tank,		113
Double bottom, under Engines and Boilers,			After peak tank,		195
Double bottom, if under Engines only,	504'	2209	Deep tanks aft, abreast Tunnels	96' 25"	515
Double bottom, if under Boilers only,			Deep tank, forward, " Engine Room.	63' 25"	637
Double bottom, forward,			Deep oil fuel Tanks abreast & forward of d. Refrig Machy Room.	44' 0"	205
			Other tanks, if fitted, Deep oil fuel Tanks abreast & forward of d. Boiler Room.	93' 5"	2800
			(If necessary, furnish further information by sketch.)		

* The wells are not to be included in the lengths of the tanks.

Order for Special Survey No.

Date 19th Dec 1933.

Dates of Surveys held while building

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