

REPORT ON MACHINERY.

No. 46631

Date of writing Report 5.5.1927 When handed in at Local Office 7.5.27.10 Port of Glasgow
 No. in Survey held at Glydebank Date, First Survey 16.9.25 Last Survey 6.5.1927
 Reg. Book. on the Steel twin screw steamer "Avelona" (Number of Visits 141)
 Master Built at Glydebank By whom built John Brown & Co. Ltd. When built 1927.
 Engines made at Glydebank By whom made John Brown & Co. Ltd. when made 1927.
 Boilers made at Glydebank By whom made John Brown & Co. Ltd. when made 1927.
 Registered Horse Power 2007 Owners Blue Star Line Ltd. Port belonging to London
 Shaft Horse Power at Full Power 7600 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes.

TURBINE ENGINES, &c.—Description of Engines Turbinus, Parsons type. No. of Turbines 2 H.P. 2 L.P.
 Diameter of Rotor Shaft Journals, H.P. 5 1/2" L.P. 7" Diameter of Pinion Shaft 6 1/2" with 2 1/2" hole.
 Diameter of Journals 6 1/2" Distance between Centres of Bearings 2-4 3/4" Diameter of Pitch Circle 7-2842"
 Diameter of Wheel Shaft 14" Distance between Centres of Bearings 6-0 1/4" Diameter of Pitch Circle of Wheel 133-473"
 Width of Face 35" Diameter of Thrust Shaft under Collars 13 3/4" Diameter of Tunnel Shaft as per rule 12-65"
 No. of Screw Shafts 2 Diameter of same as per rule 13-94" as fitted 15" Diameter of Propeller 15'-6" Pitch of Propeller 14'-0"
 No. of Blades 4 State whether Moveable Yes Total Surface 86 sq ft Diameter of Rotor Drum, H.P. 19 1/2" L.P. 40" astern 32"
 Thickness at Bottom of Groove, H.P. L.P. Astern Revs. per Minute at Full Power, Turbine 2200 Propeller 120

ARTICULARS OF BLADING.

	H. P.			L. P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1ST EXPANSION	Impulse.		2	2 3/8"	36 3/4"	3	Impulse		3
2ND	2 9/16"	23 1/8"	8	3"	38"	3	1 1/4"	34 1/2"	2
3RD	2 9/16"	23 7/8"	8	3 3/8"	38 3/4"	2	2 3/16"	36 3/8"	2
4TH	2 7/8"	24 1/2"	7	3 1/4"	46 1/2"	2	3 1/8"	38 1/4"	1
5TH	2 3/4"	25"	7	3 7/8"	47 3/4"	1	3 3/4"	39 1/2"	1
6TH	3 9/16"	26 5/8"	7	4 5/8"	49 1/4"	1	3 3/4"	39 1/2"	1
7TH				5 1/2"	51"	1			
8TH				6 5/8"	53 1/4"	1			
9TH					55 1/2"	1 each			

No. and size of Feed pumps 2 - 12 1/2" x 17" x 28"
 No. and size of Bilge pumps 1-80 tons per hr, 1-60 tons per hr, 1-120 tons per hr. 1- Ballast bilge conn, 150 tons per hr
 No. and size of Bilge suction in Engine Room 4-3" 2-2 1/2" oil bilge, B.R. 2-3 1/2" 1-2 1/2" 1-5 1/2" direct, tunnels 4-3"
 3-3 1/2", N°5, 2-3" Duck Kull 1-3". In Holds, &c. N°1 hold 2-3", N°2, 2-3 1/2", N°3, 2-3 1/2", N°4, 2-3 1/2"
 No. of Bilge Injections 2 sizes 14" Connected to condenser, or to circulating pump Circ Is a separate Donkey Suction fitted in Engine Room & size Yes 1-5 1/2"
 Are all the bilge suction pipes fitted with roses Straight tail pipes Are the roses in Engine room always accessible none
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Discharge Pipes above or below the deep water line
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes
 Are all pipes carried through the bunks Brine pipes How are they protected Wood casing
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from top platform

BOILERS, &c.—(Letter for record) Manufacturers of Steel
 Total Heating Surface of Boilers 30560 Is Forced Draft fitted Yes No. and Description of Boilers 3 A.E. 2 S.E. 3 D.K. 2 S.B.
 Working Pressure 200 Tested by hydraulic pressure to Date of test No. of Certificate
 Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
 boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
 Nearest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
 Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
 seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Percentages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell
 of compensating ring No. and Description of Furnaces in each Boiler Material Outside diameter
 top crown Description of longitudinal joint No. of strengthening rings
 Thickness of plates bottom
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space
 Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Water at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Material of tube plates Thickness: Front Back Mean pitch of stays
 across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
 Length as per rule Distance apart Number and pitch of stays in each
 Working pressure by rules Steam dome: description of joint to shell % of strength of joint Diameter
 Material Description of longitudinal joint Diameter of rivet holes Pitch of rivets
 Working pressure of shell by rules Crown plates: Thickness How stayed

IS A DONKEY BOILER FITTED? *no* If so, is a report now forwarded? *no*
 SPARE GEAR. State the articles supplied:— *As per attached list.*

Year	Location	Notes
1957	London	Blue Star Line 2
1957		John Brown T.C. 2
1957		John Brown T.C. 2
1957		John Brown T.C. 2

J. Henderson
Clydebank Secretary

of Survey while building	During erection on board vessel ---	Mar 14-8-11-15-18-22-29 Apr 7-12-15-19-22-26-29 May 6-11-14-18-21-24-27-30 Jun 3-6-9-12-15-18-21-24-27-30 Jul 4-7-10-13-16-19-22-25-28-31 Aug 5-8-11-14-17-20-23-26-29 Sep 6-9-12-15-18-21-24-27-30 Oct 4-7-11-14-18-22-25-28-31 Nov 4-7-10-13-16-19-22-25-28 Dec 4-7-10-13-16-19-22-25-28	Is the approved plan of main boiler forwarded herewith..... donkey .. " .. "
	Total No. of visits	Sep 2-6-7-9-13-16-20-23-24-28-30 Oct 4-7-11-14-18-22-25-28-31 Jan 6-10-13-20-27-31 Feb 3-7-10-14-17-21-28	

Dates of Examination of principal parts—Casings 11-1-26, 22-5-26, 27-5-26, 28-5-26, 29-5-26, 30-5-26, 31-5-26, 1-6-26, 2-6-26, 3-6-26, 4-6-26, 5-6-26, 6-6-26, 7-6-26, 8-6-26, 9-6-26, 10-6-26, 11-6-26, 12-6-26, 13-6-26, 14-6-26, 15-6-26, 16-6-26, 17-6-26, 18-6-26, 19-6-26, 20-6-26, 21-6-26, 22-6-26, 23-6-26, 24-6-26, 25-6-26, 26-6-26, 27-6-26, 28-6-26, 29-6-26, 30-6-26, 1-7-26, 2-7-26, 3-7-26, 4-7-26, 5-7-26, 6-7-26, 7-7-26, 8-7-26, 9-7-26, 10-7-26, 11-7-26, 12-7-26, 13-7-26, 14-7-26, 15-7-26, 16-7-26, 17-7-26, 18-7-26, 19-7-26, 20-7-26, 21-7-26, 22-7-26, 23-7-26, 24-7-26, 25-7-26, 26-7-26, 27-7-26, 28-7-26, 29-7-26, 30-7-26, 31-7-26, 1-8-26, 2-8-26, 3-8-26, 4-8-26, 5-8-26, 6-8-26, 7-8-26, 8-8-26, 9-8-26, 10-8-26, 11-8-26, 12-8-26, 13-8-26, 14-8-26, 15-8-26, 16-8-26, 17-8-26, 18-8-26, 19-8-26, 20-8-26, 21-8-26, 22-8-26, 23-8-26, 24-8-26, 25-8-26, 26-8-26, 27-8-26, 28-8-26, 29-8-26, 30-8-26, 31-8-26, 1-9-26, 2-9-26, 3-9-26, 4-9-26, 5-9-26, 6-9-26, 7-9-26, 8-9-26, 9-9-26, 10-9-26, 11-9-26, 12-9-26, 13-9-26, 14-9-26, 15-9-26, 16-9-26, 17-9-26, 18-9-26, 19-9-26, 20-9-26, 21-9-26, 22-9-26, 23-9-26, 24-9-26, 25-9-26, 26-9-26, 27-9-26, 28-9-26, 29-9-26, 30-9-26, 1-10-26, 2-10-26, 3-10-26, 4-10-26, 5-10-26, 6-10-26, 7-10-26, 8-10-26, 9-10-26, 10-10-26, 11-10-26, 12-10-26, 13-10-26, 14-10-26, 15-10-26, 16-10-26, 17-10-26, 18-10-26, 19-10-26, 20-10-26, 21-10-26, 22-10-26, 23-10-26, 24-10-26, 25-10-26, 26-10-26, 27-10-26, 28-10-26, 29-10-26, 30-10-26, 31-10-26, 1-11-26, 2-11-26, 3-11-26, 4-11-26, 5-11-26, 6-11-26, 7-11-26, 8-11-26, 9-11-26, 10-11-26, 11-11-26, 12-11-26, 13-11-26, 14-11-26, 15-11-26, 16-11-26, 17-11-26, 18-11-26, 19-11-26, 20-11-26, 21-11-26, 22-11-26, 23-11-26, 24-11-26, 25-11-26, 26-11-26, 27-11-26, 28-11-26, 29-11-26, 30-11-26, 1-12-26, 2-12-26, 3-12-26, 4-12-26, 5-12-26, 6-12-26, 7-12-26, 8-12-26, 9-12-26, 10-12-26, 11-12-26, 12-12-26, 13-12-26, 14-12-26, 15-12-26, 16-12-26, 17-12-26, 18-12-26, 19-12-26, 20-12-26, 21-12-26, 22-12-26, 23-12-26, 24-12-26, 25-12-26, 26-12-26, 27-12-26, 28-12-26, 29-12-26, 30-12-26, 31-12-26, 1-1-27, 2-1-27, 3-1-27, 4-1-27, 5-1-27, 6-1-27, 7-1-27, 8-1-27, 9-1-27, 10-1-27, 11-1-27, 12-1-27, 13-1-27, 14-1-27, 15-1-27, 16-1-27, 17-1-27, 18-1-27, 19-1-27, 20-1-27, 21-1-27, 22-1-27, 23-1-27, 24-1-27, 25-1-27, 26-1-27, 27-1-27, 28-1-27, 29-1-27, 30-1-27, 31-1-27, 1-2-27, 2-2-27, 3-2-27, 4-2-27, 5-2-27, 6-2-27, 7-2-27, 8-2-27, 9-2-27, 10-2-27, 11-2-27, 12-2-27, 13-2-27, 14-2-27, 15-2-27, 16-2-27, 17-2-27, 18-2-27, 19-2-27, 20-2-27, 21-2-27, 22-2-27, 23-2-27, 24-2-27, 25-2-27, 26-2-27, 27-2-27, 28-2-27, 29-2-27, 30-2-27, 31-2-27, 1-3-27, 2-3-27, 3-3-27, 4-3-27, 5-3-27, 6-3-27, 7-3-27, 8-3-27, 9-3-27, 10-3-27, 11-3-27, 12-3-27, 13-3-27, 14-3-27, 15-3-27, 16-3-27, 17-3-27, 18-3-27, 19-3-27, 20-3-27, 21-3-27, 22-3-27, 23-3-27, 24-3-27, 25-3-27, 26-3-27, 27-3-27, 28-3-27, 29-3-27, 30-3-27, 31-3-27, 1-4-27, 2-4-27, 3-4-27, 4-4-27, 5-4-27, 6-4-27, 7-4-27, 8-4-27, 9-4-27, 10-4-27, 11-4-27, 12-4-27, 13-4-27, 14-4-27, 15-4-27, 16-4-27, 17-4-27, 18-4-27, 19-4-27, 20-4-27, 21-4-27, 22-4-27, 23-4-27, 24-4-27, 25-4-27, 26-4-27, 27-4-27, 28-4-27, 29-4-27, 30-4-27, 31-4-27, 1-5-27, 2-5-27, 3-5-27, 4-5-27, 5-5-27, 6-5-27, 7-5-27, 8-5-27, 9-5-27, 10-5-27, 11-5-27, 12-5-27, 13-5-27, 14-5-27, 15-5-27, 16-5-27, 17-5-27, 18-5-27, 19-5-27, 20-5-27, 21-5-27, 22-5-27, 23-5-27, 24-5-27, 25-5-27, 26-5-27, 27-5-27, 28-5-27, 29-5-27, 30-5-27, 31-5-27, 1-6-27, 2-6-27, 3-6-27, 4-6-27, 5-6-27, 6-6-27, 7-6-27, 8-6-27, 9-6-27, 10-6-27, 11-6-27, 12-6-27, 13-6-27, 14-6-27, 15-6-27, 16-6-27, 17-6-27, 18-6-27, 19-6-27, 20-6-27, 21-6-27, 22-6-27, 23-6-27, 24-6-27, 25-6-27, 26-6-27, 27-6-27, 28-6-27, 29-6-27, 30-6-27, 31-6-27, 1-7-27, 2-7-27, 3-7-27, 4-7-27, 5-7-27, 6-7-27, 7-7-27, 8-7-27, 9-7-27, 10-7-27, 11-7-27, 12-7-27, 13-7-27, 14-7-27, 15-7-27, 16-7-27, 17-7-27, 18-7-27, 19-7-27, 20-7-27, 21-7-27, 22-7-27, 23-7-27, 24-7-27, 25-7-27, 26-7-27, 27-7-27, 28-7-27, 29-7-27, 30-7-27, 31-7-27, 1-8-27, 2-8-27, 3-8-27, 4-8-27, 5-8-27, 6-8-27, 7-8-27, 8-8-27, 9-8-27, 10-8-27, 11-8-27, 12-8-27, 13-8-27, 14-8-27, 15-8-27, 16-8-27, 17-8-27, 18-8-27, 19-8-27, 20-8-27, 21-8-

Completion of pumping arrangements 26-4-27. Boilers fixed 13-1-21. Engines fitted under P.A. BLR. 5/16, 3/8, 3/8, C.A. 3/8, 5/16, 1/32, S.F. 1/4, 3/8, S.F. 1/2, 3/8, P.F. 5/16.

Material and tensile strength of Rotor shaft 8. 31-36 Identification Mark on Do 3793.3974.396

Material of Wheel shaft 8. Identification Mark on Do. 54.55. Material of Thrust shaft 2.
445.417.493.267.266.419.259.494. Identification Marks on Do. 264.36.

Material of Steam Pipes. Steel ✓ Test pressure. 300 ✓
 ✓ 150° F ✓

Have the requirements of Section 49 of the Rules been complied with... yes ✓ "Amila" ✓

Is this machinery a duplicate of the machinery and boilers

... have been built under special survey in

accordance with the requirements of the materials and workmanship

are good. They have been securely packed in my opinion

for the record + L. M. C. 3-21, and mean

filled for oil fuel (i.e. continuous liners).

When applied for,

Special £ 150.13.3

Travelling Expenses (if any) £ :) 12/5 19...

Committee's Minute GLASGOW 10 MAY 1927

Assigned # LMC 5, 21 72 WRITTEN 11/5/23

Fitted for oil fuel 5.17