

REPORT ON MACHINERY

No. 32498.
WED. APR. 2-1913

Registered at London Office

Date of writing Report 29.3.13 When handed in at Local Office 29.3.13 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 29-8-12 Last Survey 28.3.1913
 Reg. Book. 128 Sup. on the S.S. "SHAHZADA CAMBAY" (Number of Visits 40)
 Master A. C. Glandus Built at Arrossan By whom built Arrossan Dry Dock S. B. 6 (No. 202) Tons } Gross 725
 Engines made at Glasgow By whom made Miller & Macfie Ltd (No. 91) when made 1913 Net 498.348
 Boilers made at do. By whom made David Rowan & Co when made 1913
 Registered Horse Power _____ Owners J. Birch & Co. Port belonging to Bombay
 Nom. Horse Power as per Section 28 111 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion, Surf. Conds. No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 15" 25" 40" Length of Stroke 24" Revs. per minute 111 Dia. of Screw shaft 7.97 Material of screw shaft Iron
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight in the propeller boss Yes
 If the liner is in more than one length are the joints burned Yes If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes
 If two liners are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush 3'-2"
 Dia. of Tunnel shaft 7.45 Dia. of Crank shaft journals 7.83 Dia. of Crank pin 4 1/8 Size of Crank webs 5 x 14 1/2 Dia. of thrust shaft under collars 4 1/8
 Dia. of screw 9'-0" Pitch of Screw 11'-0" No. of Blades 4 State whether moveable No Total surface 34.5 #
 No. of Feed pumps 2 Diameter of ditto 2 3/4 Stroke 12" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 3/4 Stroke 12" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 6 x 6 x 6 Duplex Ballantyne and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2-2 1/2" & 1-2 1/2" special In Holds, &c. 2-2" for
 No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes - 2 1/2"
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes
 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 above
 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
 What pipes are carried through the bunkers Sold suction 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
 Dates of examination of completion of fitting of Sea Connections 24.1.13 of Stern Tube 24.1.13 Screw shaft and Propeller 24.1.13
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from _____

OILERS, &c.—(Letter for record _____) Manufacturers of Steel _____
 Total Heating Surface of Boilers 1996 # Is Forced Draft fitted No No. and Description of Boilers One S.E. Marine
 Working Pressure 30 lbs. Tested by hydraulic pressure to 36 lbs. Date of test 29.1.13 No. of Certificate 11959
 Can each boiler be worked separately Yes Area of fire grate in each boiler _____ No. and Description of Safety Valves to each boiler Pair spring loaded Area of each valve 5.94 # Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
 smallest distance between boilers or uptakes and bunkers or woodwork 4'-8" 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 _____
 long. 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 _____
 Size of compensating ring _____ No. and Description of Furnaces in each boiler _____ Material _____ Outside diameter _____
 length of plain part _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____
 Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____
 Pitch 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: _____
 Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____
 Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____
 Thickness _____ Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____
 Diameter of tubes _____ Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
 Pitch across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____
 Working pressure by rules _____ Superheater or Steam chest; how connected to boiler _____ Can the superheater be shut off and the boiler worked separately _____ Diameter _____ Length _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____ Pitch of rivets _____ Working pressure of shell by rules _____ Diameter of flue _____ Material of flue plates _____ Thickness _____
 If stiffened with rings _____ Distance between rings _____ Working pressure by rules _____ End plates: Thickness _____ How stayed _____
 Working pressure of end plates _____ Area of safety valves to superheater _____ Are they fitted with easing gear _____



VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description _____

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____ Fire grate area _____ Description of Safety _____

Valves _____ No. of Safety Valves _____ Area of each _____ Pressure to which they are adjusted _____ Date of adjustment _____

If fitted with casing gear _____ If steam from main boilers can enter the donkey boiler _____ Dia. of donkey boiler _____ Length _____

Material of shell plates _____ Thickness _____ Range of tensile strength _____ Descrip. of riveting long. seams _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Plates _____

Working pressure of shell by rules _____ Thickness of shell crown plates _____ Radius of do. _____ No. of stays to do. _____ Dia. of stays _____

Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____

Working pressure of furnace by rules _____ Thickness of furnace crown plates _____ Radius of do. _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— 2 top end bolts & nuts, 2 bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set coupling bolts, 1 set feed & bilge pump valves, 1 set air & circulating pump valves, 1 set donkey pump valves, 1 main feed check, 1 donkey feed check, 1 propeller, rim of various sizes, quantity bolts & nuts, boiler tubes, condenser tubes & ferrules, fire bars &c.

The foregoing is a correct description,

FOR MILLER & MADRIE LIMITED.

Manufacturer.

Secretary

Dates of Survey while building	During progress of work in shops - - -	1912. Aug 29. Sept 2. 5. Oct. 7. 8. 14. 18. 21. 29. Nov. 4. 11. 15. 18. 21. 25. 29. Dec. 2. 9. 12. 16. 24. 27.
	During erection on board vessel - - -	1913. Jan. 10. 16. 21. 24. 27. 30. Feb. 6. 18. 21. 25. 27. March 5. 6. 10. 20. 21. 25. 28.
	Total No. of visits	40.

Is the approved plan of main boiler forwarded herewith

Yes

Yes

Dates of Examination of principal parts—	Cylinders	29. 10. 12	Slides	12. 12. 12	Covers	12. 12. 12	Pistons	12. 12. 12	Rods	25. 11. 12	
Connecting rods	25. 11. 12	Crank shaft	2. 12. 12	Thrust shaft	2. 12. 12	Tunnel shafts	✓	Screw shaft	2. 12. 12	Propeller	12. 12. 12
Stern tube	21. 1. 13.	Steam pipes tested	5. 3. 13.	Engine and boiler seatings	24. 1. 13.	Engines holding down bolts	6. 3. 13.				
Completion of pumping arrangements	6. 3. 13	Boilers fixed	24. 2. 13.	Engines tried under steam	25. 3. 13.						
Main boiler safety valves adjusted	21. 3. 13.	Thickness of adjusting washers	3/8" (bock)								
Material of Crank shaft	Steel	Identification Mark on Do.	F. 332	Material of Thrust shaft	Steel	Identification Mark on Do.	F. 332				
Material of Tunnel shafts	—	Identification Marks on Do.	—	Material of Screw shafts	Iron	Identification Marks on Do.	F. 332				
Material of Steam Pipes	Copper	Test pressure	360lbs.								

General Remarks (State quality of workmanship, opinions as to class, &c.) The materials and workmanship are good. The machinery and boilers of this vessel have been built under special survey in accordance with the Rules and approved plans, securely fitted aboard and tried with satisfactory results under steam and are, in my opinion, eligible for classification and to have record + L.M.C. 3, 13.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 3. 13. ELEC LIGHT.

Insd. 2. 4. 13.

The amount of Entry Fee	£ 20.00	When applied for.	31. 3. 13.
Special	£ 10.00	When received.	2/4/13
Donkey Boiler Fee	£ :		
Travelling Expenses (if any)	£ 10.00		

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute GLASGOW 1- APR 1913

Assigned - L.M.C. 3, 13. jhb



© 2021 Lloyd's Register Foundation

Glasgow

Certificate (if required) to be sent to

(The Surveyor is requested not to write on or below the space for Committee's Minute.)

224 29/3/13

2/4/13

This "Whi at neithe rtficate i judgment

1.)-2m.12

Con Ass