

REPORT ON MACHINERY.

No. 6046A

Received at London Office

-8 NOV. 1926

Date of writing Report Del. 21st 1926 When handed in at Local OfficePort of BombayNo. in Survey held at Bombay
Reg. Book.Date, First Survey 8/10/26Last Survey 13/10/26 19

10681. on the

S. S. "GHARINDA"(Number of Visits 3.)Gross 5306Net 4844

Master

Built at SunderlandBy whom built Sunderland S.B. Co. Ltd.When built 1919Engines made at SunderlandBy whom made H.E. Marine Eng. Workswhen made 1919Boilers made at - ditto -By whom made - ditto -when made 1919

Registered Horse Power

Owners British India Steam Nav Co.Port belonging to GlasgowNom. Horse Power as per Section 28 517Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted YesENGINES, &c.—Description of Engines Simple ExpansionNo. of Cylinders 3 No. of Cranks 3Dia. of Cylinders 24" x 44" x 43" Length of Stroke 48" Revs. per minute 45Dia. of Screw shaft as per rule 14.4" Material of screw shaft as fittedIs 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 YesLength of stern bush 5'-0"Dia. of Tunnel shaft as per rule 13.32"Dia. of Crank shaft journals as per rule 14"Dia. of Crank pin 1'-2 1/2"Size of Crank webs 1'-10 1/2" x 3" Dia. of thrust shaft undercollars 1'-2 1/4"Dia. of screw 14'-6"Pitch of Screw 16'-6"No. of Blades 4State whether moveable NoTotal surface 102.5 sq ftNo. of Feed pumps 2Diameter of ditto 4"Stroke 2'-0"Can one be overhauled while the other is at work YesNo. of Bilge pumps 2Diameter of ditto 4"Stroke 2'-0"Can one be overhauled while the other is at work YesNo. of Donkey Engines 3Sizes of Pumps 1 at 10 1/4" x 14" x 24" - 2 at 10 1/2" x 8" x 21"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 at 3 1/2"In Holds, &c. No. 1 Hold - 2 at 3 1/2" No. 2 Hold 2 at 3 1/2"

No. 3 Hold 2 at 3 1/2"

No. 4 Hold 2 at 3 1/2"

No. of Bilge Injections 1sizes 13"Connected to condenser, or to circulating pump C.P.Are all the bilge suction pipes fitted with roses YesAre the roses in Engine room always accessible YesAre the sluices on Engine room bulkheads always accessible NoneAre all connections with the sea direct on the skin of the ship YesAre they Valves or Cocks BothAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YesAre the Discharge Pipes above or below the deep water line Main Below all others aboveAre the Blow Off Cocks fitted with a spigot and brass covering plate YesWhat pipes are carried through the bunkers Forward Hold SuctionsHow are they protected under Linen BoardsAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges YesIs the Screw Shaft Tunnel watertight YesIs it fitted with a watertight door Yesworked from top platformBOILERS, &c.—(Letter for record 15)Manufacturers of Steel Boilers built to British CorporationTotal Heating Surface of Boilers 7668Is Forced Draft fitted YesNo. and Description of Boilers Three single-endedWorking Pressure 180 lb sqTested by hydraulic pressure to 225Date of test 1926Can each boiler be worked separately YesArea of fire grate in each boiler 63 sq ftNo. and Description of Safety Valves to each boilerTwo direct spring Area of each valve 2.6 sqPressure to which they are adjusted 180 lb sqAre they fitted with easing gear YesSmallest distance between boilers or uptakes and bunkers or woodwork 2'-6"Mean dia. of boilers 15'-6"Length 11'-6"Material of shell plates steelThickness 1 1/4"Range of tensile strength 28/32 tonsAre the shell plates welded or flanged NoDescrip. of riveting: cir. seams D.R.g. seams DBS - T.R.Diameter of rivet holes in long. seams 1 1/32"Pitch of rivets 3 1/8"Lap of plates or width of butt straps 1'-8 1/8"Percentage of strength of longitudinal joint 85%Working pressure of shell by rules 181 lbSize of compensating ring FlangedNo. and Description of Furnaces in each boiler 3. DeightonMaterial steelOutside diameter 4'-2 3/16"Length of plain part top 13' bottom 12'Thickness of plates top 3/32" bottom 1/32"Description of longitudinal joint WeldedNo. of strengthening rings 1Working pressure of furnace by the rules 188Combustion chamber plates: Material steelThickness: Sides 25/32"Back 25/32"Top 25/32"Bottom 25/32"Pitch of stays to ditto: Sides 10 3/8" x 3 3/8"Back 11 1/8" x 3 1/2"Top 10 1/8" x 10 3/8"If stays are fitted with nuts or riveted heads NoneMaterial of stays steelArea at smallest part 2.36 sqArea supported by each stay 107 sqWorking pressure by rules 216End plates in steam space: Material steelThickness 1 1/32"Pitch of stays 2 1/4" x 2 1/4"How are stays secured DN & W.Working pressure by rules 180Material of stays steelArea at smallest part 8.29 sqArea supported by each stay 443 sqWorking pressure by rules 182Material of Front plates at bottom steelThickness 3/32"Material of Lower back plate steelThickness 1/8"Greatest pitch of stays 11 1/8" x 3 1/2"Working pressure of plate by rules 194 lbDiameter of tubes 2 3/4"Pitch of tubes 4" x 3 1/8"Material of tube plates steelThickness: Front 3/32"Back 3/4"Mean pitch of stays 11 5/8" x 8"Pitch across wide water spaces 13 5/8"Working pressures by rules 181 lbGirders to Chamber tops: Material steelDepth and thickness of girder at centre 9 1/2" x 1 1/4"Length as per rule 35 1/32"Distance apart 10 3/8"Number and pitch of stays in each 2 at 10 3/4" 2 at 10 3/8"Working pressure by rules 225Steam dome: description of joint to shell None% of strength of joint YesThickness of shell plates YesMaterial YesDescription of longitudinal joint YesDiam. of rivet holes YesThickness of rivets YesWorking pressure of shell by rules YesCrown plates YesThickness YesHow stayed YesSUPERHEATER. Type HTDate of Approval of Plan YesTested by Hydraulic Pressure to YesIs a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler YesPressure to which each is adjusted YesIs Easing Gear fitted Yes

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IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

Yes

SPARE GEAR. State the articles supplied:— One screw shaft - one bronze blade - two crosshead and crankpin bolts - one eccentric strap complete - one top end and one bottom end bush complete - one main bearing bush - one Thompson coupling - 24 coupling bolts.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - - }
Total No. of visits

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders	Slides	Covers	Pistons	Rods	
Connecting rods	Crank shaft	Thrust shaft	Tunnel shafts	Screw shaft	Propeller
Stern tube	Steam pipes tested	Engine and boiler seatings	Engines holding down bolts		
Completion of pumping arrangements	Boilers fixed	Engines tried under steam			
Completion of fitting sea connections	Stern tube	Screw shaft and propeller			
Main boiler safety valves adjusted 19 10 26	Thickness of adjusting washers	PP 3/32" S 15/32" CP 3/16" S 19/32" SP 3/16" S 15/32"			
Material of Crank shaft	Identification Mark on Do.	Material of Thrust shaft	Identification Mark on Do.		
Material of Tunnel shafts	Identification Marks on Do.	Material of Screw shafts	Identification Marks on Do.		
Material of Steam Pipes	lap welded and joint	Test pressure			

Is an installation fitted for burning oil fuel No If so, state name of vessel Standard "A" type.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case Yes If so, state name of vessel Standard "A" type.

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel was erected and installed under the survey of the British Corporation. The material and workmanship is good - is eligible in my opinion to be classed with record L.M.C 10.26.

Certificate (if required) to be sent to The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee	£ 150	When applied for,	19
Special	...	When received,	19
Donkey Boiler Fee	Report from		
Travelling Expenses (if any) £			

L. Peskers
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned
See Rpt 9 attached
FRI. 12 NOV 1926