

# REPORT ON MACHINERY.

No. 6046A

Received at London Office

8 NOV. 1926

Date of writing Report Del. 21<sup>st</sup> 1926 When handed in at Local Office 19 26 Port of Balcutta

No. in Survey held at Balcutta Date, First Survey 8/10/26 Last Survey 13/10/26 19 26

Reg. Book. S.S. "GHAPINDA" (Number of Visits 3)

Master Built at Sunderland By whom built Sunderland S.B. Co. Ltd. Tons Gross 5306  
Net 4844

Engines made at Sunderland By whom made M.E. Marine Eng. Works when made 1919

Boilers made at - ditto - By whom made - ditto - when made 1919

Registered Horse Power Owners British India Steam Nav Co Port belonging to Glasgow

Nom. Horse Power as per Section 28 517 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**ENGINES, &c.**—Description of Engines Simple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 24" x 44" x 43" Length of Stroke 48" Revs. per minute 45 Dia. of Screw shaft as per rule 14.4" Material of Material of screw shaft  
as fitted 1'-5 1/2"

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 Yes Length 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 2" Dia. of thrust shaft under collars 1'-2 1/4" Dia. of screw 14'-6" Pitch of Screw 16'-6" No. of Blades 4 State whether moveable No Total surface 102.5 sq ft

No. of Feed pumps 2 Diameter of ditto 4" Stroke 2'-0" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4" Stroke 2'-0" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes 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. of Bilge Injections 1 sizes 13" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 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 Main Below all others 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 Forward Hold Suctions How are they protected under timber boards

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 15) Manufacturers of Steel Boilers built to British Corporation

Total Heating Surface of Boilers 7668 Is Forced Draft fitted Yes No. and Description of Boilers Three single-ended 3SB

Working Pressure 180 lb/sq Tested by hydraulic pressure to 225 lb/sq Date of test 1926 No. of Certificate 1926

Can each boiler be worked separately Yes Area of fire grate in each boiler 63 sq ft No. and Description of Safety Valves to each boiler Two direct spring Area of each valve 2.6 sq Pressure to which they are adjusted 180 lb/sq Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2'-6" Mean dia. of boilers 15'-6" Length 11'-6" Material of shell plates steel

Thickness 1 1/4" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R.

Long. seams DBS - T.R. Diameter of rivet holes in long. seams 1 1/32" Pitch of rivets 2 1/8" Lap of plates or width of butt straps 1'-8"

Percentages of strength of longitudinal joint 85% Working pressure of shell by rules 181 lb Size of manhole in shell 16" x 12"

Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Deighton Material steel Outside diameter 4'-2 3/16"

Length of plain part top 13'-0" bottom 12'-0" Thickness of plates top 25/32" bottom 25/32" Description of longitudinal joint Welded No. of strengthening rings 1

Working pressure of furnace by the rules 188 Combustion chamber plates: Material steel Thickness: Sides 25/32" Back 25/32" Top 25/32" Bottom 25/32"

Pitch of stays to ditto: Sides 10 3/8" x 2 3/8" Back 11 1/8" x 2 1/2" Top 10 1/8" x 10 3/8" If stays are fitted with nuts or riveted heads None Working pressure by rules 220 lb

Material of stays steel Area at smallest part 2.36 sq Area supported by each stay 107 sq Working pressure by rules 216 End plates in steam space: Material steel Thickness 1 1/32" Pitch of stays 21 3/4" x 2 1/4" How are stays secured DN & H. Working pressure by rules 180 Material of stays steel

Area at smallest part 8.29 sq Area supported by each stay 443 sq Working pressure by rules 182 Material of Front plates at bottom steel

Thickness 3/32" Material of Lower back plate steel Thickness 1/8" Greatest pitch of stays 11 1/8" x 2 1/2" Working pressure of plate by rules 194 lb

Diameter of tubes 2 3/4" Pitch of tubes 4" x 3 1/8" Material of tube plates steel Thickness: Front 3/32" Back 3/4" Mean pitch of stays 11 5/8" x 8"

Each across wide water spaces 13 5/8" Working pressures by rules 181 lb Girders to Chamber tops: Material steel Depth and thickness of girder at centre 9 1/2" x 1 1/4" Length as per rule 35 15/32" 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 225 Steam dome: description of joint to shell None % of strength of joint 100

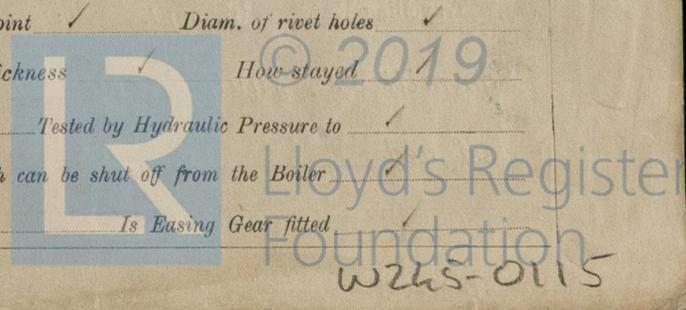
Material steel Thickness of shell plates 3/32" Material steel Description of longitudinal joint Welded Diam. of rivet holes 1 1/32"

Number of rivets 1 Working pressure of shell by rules 181 lb Crown plates 1 Thickness 3/32" How stayed None

**SUPERHEATER.** Type None Date of Approval of Plan 1926 Tested by Hydraulic Pressure to 225 lb/sq

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes

Material of Safety Valve None Pressure to which each is adjusted None Is Easing Gear fitted None



W 245

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— One screw shaft - one bronze blade - two crosshead and crankpin bolts - one eccentric strap complete - one top end one bottom end bush complete - one main bearing bush - one Thompson coupling - six 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 P 3/32 5 1/32 C P 3/16 S 1/32 S P 3/16 S 1 5/32 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  Is the flash point of the oil to be used over 150°F.

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

Is this machinery duplicate of a previous case  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 Rupees 150.00 : When applied for, Special ... Entered on Survey 19 Donkey Boiler Fee Report form : When received, Travelling Expenses (if any) £ : 19

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

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



© 2019

Lloyd's Register Foundation