

REPORT ON MACHINERY.

No. 9260
-7 JAN 1925

Received at London Office

Date of writing Report Dec 27 1924 When handed in at Local Office Jan 5 1925 to Port of Belfast
 No. in Survey held at Belfast Date, First Survey June 6th 1924 Last Survey Jan 6th 1925
 Reg. Book. on the New Steel S.S. "Antinous" (Number of Visits 50)
 Master Built at Belfast By whom built Workman Clark & Co. Ltd. (475) Tons Gross 4563 Net 2854
 Engines made at Belfast By whom made Workman Clark & Co. Ltd. (475) when made 1924-5
 Boilers made at Belfast By whom made Workman Clark & Co. Ltd. (475) when made 1924-5
 Registered Horse Power Owners New Egypt & Levant Shipping Co. Ltd. Port belonging to London.
 Nom. Horse Power as per Section 28 423 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three
 Dia. of Cylinders 26 x 42 x 41 Length of Stroke 48 Revs. per minute 70 Dia. of Screw shaft as per rule 14.46 as fitted 15.0 Material of Steel
 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 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 If two liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 5'-0"
 Dia. of Tunnel shaft as per rule 12.9 as fitted 13.4 Dia. of Crank shaft journals as per rule 12.54 as fitted 13.4 Dia. of Crank pin 14 Size of Crank webs 8 7/8 x 26 1/2 Dia. of thrust shaft under collars 13 3/4 Dia. of screw 18-3 Pitch of Screw 14 1/2 No. of Blades 4 State whether moveable no Total surface 100
 No. of Feed pumps Two Diameter of ditto 4 1/4 Stroke 2'-0 Can one be overhauled while the other is at work yes
 No. of Bilge pumps Two Diameter of ditto 4 1/4 Stroke 2'-0 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 4 Sizes of Pumps 2 Weir pumps 4 x 9 1/2 x 21 1 Surge pump 8 x 6 x 8 1 Ballast 10 x 11 x 10 1 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3 @ 3" dia & 1 @ 4 1/2" direct. In Holds, &c. No. 1 - 2 @ 3"; No. 3 2 @ 3"
 No. of Bilge Injections One sizes 9" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 4 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
 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 Bilge suction How are they protected wood casings
 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.

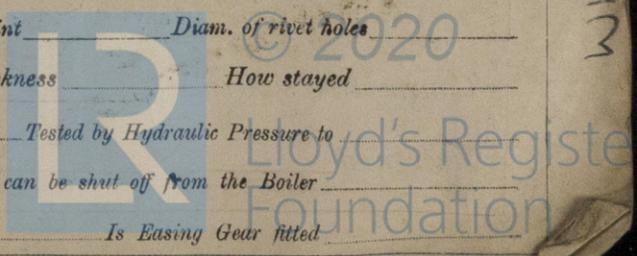
BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Phoenix & Hardawke
 Total Heating Surface of Boilers 1146 Is Forced Draft fitted no No. and Description of Boilers Three Single ended (3.5E)
 Working Pressure 180 lbs Tested by hydraulic pressure to 320 lbs Date of test 4-11-24 No. of Certificate 849
 Can each boiler be worked separately yes Area of fire grate in each boiler 63 1/4 No. and Description of Safety Valves to each boiler Two spring loaded Area of each valve 5.94 High Lift 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 2'-0 Mean dia. of boilers 15'-6 Length 11'-6 Material of shell plates Steel
 Thickness 1 1/4 Range of tensile strength 78 to 32 lbs Are the shell plates welded or flanged no Descrip. of riveting: cir. seams DR long. seams T.R.D.P.S. Diameter of rivet holes in long. seams 1 1/4 Pitch of rivets 8 13/16 Lap of plates or width of butt straps 18 5/8
 Per centages of strength of longitudinal joint rivets 85.8 Working pressure of shell by rules 181 lbs Size of manhole in shell 16 x 12
 Size of compensating ring 2'-9 3/4 x 1 1/4 No. and Description of Furnaces in each boiler 3 cm Material Steel Outside diameter 4'-1 1/4
 Length of plain part top 19" bottom 32" Description of longitudinal joint weld No. of strengthening rings none
 Working pressure of furnace by the rules 184 lbs Combustion chamber plates: Material Steel Thickness: Sides 1 1/2 Back 1 1/2 Top 1 1/2 Bottom 1 1/2
 Pitch of stays to ditto: Sides 8 x 9 Back 9 1/4 x 9 1/2 Top 8 x 10 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 184 lbs
 Material of stays Steel Area at smallest part 1.43, 2.03 Area supported by each stay 84.4 Working pressure by rules 184 lbs End plates in steam space: Material Steel Thickness 1 3/8 Pitch of stays 19 1/4 x 2 1/2 How are stays secured D. Nuts Working pressure by rules 184 lbs Material of stays Steel
 Area at smallest part 6.66 Area supported by each stay 38.4 Working pressure by rules 189 lbs Material of Front plates at bottom Steel
 Thickness 3 1/8 Material of Lower back plate Steel Thickness 3 1/8 Greatest pitch of stays 15 1/2 x 8 Working pressure of plate by rules 184.5
 Diameter of tubes 3 1/4 Pitch of tubes 4 3/8 x 4 1/2 Material of tube plates Steel Thickness: Front 3 1/8 Back 1 3/16 Mean pitch of stays 11 1/8
 Pitch across wide water spaces 14 1/4 x 8 3/4 Working pressures by rules 202 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 2 @ 10 x 3 1/4 Length as per rule 2'-11 1/2 Distance apart 10 Number and pitch of stays in each 3 @ 8
 Working pressure by rules 182.5 Steam dome: description of joint to shell none % of strength of joint
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type none Date of Approval of Plan Tested by Hydraulic Pressure to
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

If a Report also sent on the basis of the ship

190

W135-0222



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two each bolts & nuts for top & bottom ends & main bearings. One set Coupling bolts. One set valves for all pumps. Quantity of assorted bolts, nuts & iron. One Cast iron (solid) propeller, 1 set HP & LP piston rings, 1 set LP piston springs.

The foregoing is a correct description,
FOR WORKMAN, CLARK & CO., LIMITED,

J. Cunningham

Jr.
Manufacturer.

Dates of Survey while building { During progress of work in shops -- } 1924 June 6, 17, 23 July 4, 7, 9 Aug 8, 13, 21, 25, 26 Sept 2, 4, 8, 16, 18, 23, 25, 30 Oct 3, 6
{ During erection on board vessel -- } 8, 9, 13, 15, 17, 20, 22, 23, 24, 27, 30, 31 Nov 4, 5, 7, 11, 12, 13, 14, 18, 24, 26, 28 Dec 3, 4, 5, 11
Total No. of visits = 50

Is the approved plan of main boiler forwarded herewith

" " " donkey " "

Dates of Examination of principal parts—Cylinders 23-9-24 Slides 24-10-24 Covers 14-10-24 Pistons 31-10-24 Rods 23-9-24
Connecting rods 16-9-24 Crank shaft 20-9-24 Thrust shaft 31-10-24 Tunnel shafts 24-10-24 Screw shaft 31-10-24 Propeller 6-10-24
Stern tube 24-10-24 Steam pipes tested 24-9-24 to 5-12-24 Engine and boiler seatings 22-10-24 Engines holding down bolts 15-12-24
Completion of pumping arrangements 11-12-24 Boilers fixed 28-11-24 Engines tried under steam 18-12-24

Completion of fitting sea connections 12-11-24 Stern tube 12-11-24 Screw shaft and propeller 12-11-24

Main boiler safety valves adjusted 11-12-24 Thickness of adjusting washers 1/32" to 1/16" to 1/32" to 1/16" to 1/32" to 1/16" to 1/32" to 1/16"

Material of Crank shaft Steel Identification Mark on Do. 5187-11373 H.P. Material of Thrust shaft Steel Identification Mark on Do. 5180 W.B.

Material of Tunnel shafts Steel Identification Marks on Do. 5265, 5266 W.P. Material of Screw shafts Steel Identification Marks on Do. 11814 W.B.

Material of Steam Pipes Lapwelded Wrought Iron Test pressure 550 lbs.

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

General Remarks (State quality of workmanship, opinions as to class, &c.)
The Machinery of this vessel has been built under Special Survey. Materials & Workmanship good. Hydraulic tests satisfactory. The whole of the machinery is efficiently fixed in the vessel and was tried under steam & is in good & safe working condition & eligible in my opinion to be classed & have records
✠ L.M.C. 1-25: (T.S) C.L: E.L.T.

It is submitted that this vessel is eligible for THE RECORD. + LMC 1. 25. CL.
J.W.D.
8/1/25

William Butler
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 5 : 0 : 0 When applied for,
Special ... £ 88 : 9 : 0 17-12-19-24
Donkey Boiler Fee ... £ ✓ : : When received,
Travelling Expenses (if any) £ ✓ : :
Electric Light fee £ 10-0-0
Committee's Minute FRI. 9 JAN 1925

Assigned + L.M.C. 1. 25 C.L.



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