

REPORT ON MACHINERY

No. 82297

1st November 1919

Received at London Office

Date of writing Report 31 Oct 1919 When handed in at Local Office 31 Oct 1919 Port of London
 No. in Survey held at Newbury Date, First Survey April 4th Last Survey October 1919
 Reg. Book. on the Triple Exp Engine 902428 S/S ORLEIGH (Number of Visits 4) Tons { Gross 811 Net 611
 Built at Appledram By whom built R. Cocke & Sons When built 1919
 Engines made at Newbury By whom made Plenty & Co Ltd when made 1919
 Makers made at Stockton By whom made Riley Bros when made 1919
 Registered Horse Power _____ Owners R. Cocke & Sons Port belonging to Bridford
 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

Engines, &c.—Description of Engines Triple, surface Combustion No. of Cylinders 3 No. of Cranks 3
 of Cylinders 13-22-34 Length of Stroke 22 1/2 Revs. per minute _____ Dia. of Screw shaft as fitted 7 3/8 Material of screw shaft Steel
 screw shaft fitted with a continuous liner the whole length of the stern tube 2 liners Is the after end of the liner made water tight
 propeller boss ✓ If the liner is in more than one length are the joints burned ✓ If the liner does not fit tightly at the part
 the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive _____ If two
 are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush 2'-5 1/2"
 Tunnel shaft as per rule 6.39" Dia. of Crank shaft journals as per rule 6.7" Dia. of Crank pin 6 3/4" Size of Crank webs 12 1/4 x 4 1/2" Dia. of thrust shaft under
6 3/4" Dia. of screw 8-3" Pitch of Screw 9-6" No. of Blades 4 State whether moveable No Total surface 26 sq ft
 Feed pumps one Diameter of ditto 3" Stroke 10" Can one be overhauled while the other is at work ✓
 Bilge pumps one Diameter of ditto 3" Stroke 10" Can one be overhauled while the other is at work ✓
 Donkey Engines Two Sizes of Pumps 4 1/2 x 2 3/4 x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 Room Two of 2" In Holds, &c. Two of 2"

Injections one sizes 3 1/2 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2 1/2 2"
 Large 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
 Connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both
 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
 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
 carried through the bunkers Four Hold - Four Peak Suction How are they protected Carried under coaming
 Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes
 Shaft Tunnel watertight ✓ Is it fitted with a watertight door _____ worked from _____

Boilers—(Letter for record _____) Manufacturers of Steel _____
 Surface of Boilers 127 1/2 sq ft Forced Draft fitted No No. and Description of Boilers One Multitubular
 Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 13/12/18 No. of Certificate 6002
 worked separately ✓ Area of fire grate in each boiler 38 sq ft No. and Description of Safety Valves to
no Spring loaded Area of each valve 4.91 sq ft Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes
 between boilers or uptakes and bunkers or woodwork 15" Mean dia. of boilers 10 1/4" Length _____ Material of shell plates
 Range of tensile strength _____ Are the shell plates welded or Report Descrip. of riveting: cir. seams
 Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps
 Length of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell
 Material _____ Outside diameter _____
 No. and Description of Furnaces in each boiler _____ No. of strengthening rings _____
 Thickness of plates _____ Description of longitudinal joint _____
 Furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____
 Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____ End plates in steam space: _____
 Area at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of stays _____
 Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____
 Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____
 of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____
 Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
 Girders to Chamber tops: Material _____ Depth and _____
 Working pressures by rules _____ Number and pitch of stays in each _____
 Length as per rule _____ Distance apart _____ % of strength of joint _____
 Steam dome: description of joint to shell _____
 Thickness of shell plates _____ Material _____ Description of longitudinal joint: _____ Diam. of rivet holes _____
 Working pressure of shell by rules _____ Crown plates _____ Thickness _____ How stayed _____
 Tested by Hydraulic Pressure to _____
 Type _____ Date of Approval of Plan _____
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler _____
 Is Easing Gear fitted _____
 Pressure to which each is adjusted _____

IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two Top end, 2 bottom end, 2 Main Bearings, 1 set coupling bolts + nuts, piston bolts + springs, main + donkey check valves, 1 set valves, 1 set air + donkey pumps, iron, bolts + nuts assorted.

The foregoing is a correct description,

per pro. PLENTY & SON, LIMITED

E. P. Plenty

Manufacturer.

Dates of Survey while building

During progress of work in shops - - 1919 Apr 4 May 15 June 4, 13, 20 July 8. Sep 2 Oct 8. During erection on board vessel - - - 58 Total No. of visits 58

Is the approved plan of main boiler forwarded herewith

Yes

Dates of Examination of principal parts—Cylinders 13.6.19 Slides 9.7.19 Covers 13.6.19 Pistons 13.6.19 Rods 2.9.19

Connecting rods 2.9.19 Crank shaft 4.6.19 Thrust shaft 4.6.19 Tunnel shafts ✓ Screw shaft 15.5.19 Propeller 15.5.19

Stern tube 15.5.19 Steam pipes tested 14/11/19 Engine and boiler seatings 12-6-19 Engines holding down bolts 19/11/19

Completion of pumping arrangements 11/12/19 Boilers fixed 19/11/19 Engines tried under steam 11/12/19

Completion of fitting sea connections 15/7/19 Stern tube 15/7/19 Screw shaft and propeller 19/11/19

Main boiler safety valves adjusted 11/12/19 Thickness of adjusting washers P 1/4 S 7/32

Material of Crank shaft Steel Identification Mark on Do. 4863 JRW Material of Thrust shaft Steel Identification Mark on Do.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do.

Material of Steam Pipes Copper Test pressure 360 lbs

Is an installation fitted for burning oil fuel No 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 Yes If so, state name of vessel 5/3 Ortona

General Remarks (State quality of workmanship, opinions as to class, &c. Engines constructed under survey, material tested, workmanship good.

The engines have been forwarded to R back along Appledore to be fitted on board an S.S. building by them.

These Engines + Boiler have been fitted in above vessel. Spare Gear has been fitted + Safety Valves adjusted under steam to 185 lbs. The Engines have been tried under steam with satisfactory results. This machinery is eligible in my opinion for record # L.M.C 12-19

It is submitted that this vessel is eligible for THE RECORD. + L.M.C 12-19.

Handwritten signatures and dates: J.P.P. 17/12/19, A.P.P.

Certificate (if required) to be sent to

The amount of Entry Fee ... £ 1 : 0 : 0 When applied for,

Special (3/4 of £12.25) 25 : 3 : 0 11/11/19

Donkey Boiler Fee ... £ 2 : 11 : 3 26/12-19

Travelling Expenses (if any) £ 3 : 11 : 3 pd. 20.2.20 J.P.P.

Committee's Minute ... 7-3-0 pd. 20/12/19 J.P.P.

Assigned + L.M.C 12-19

Thomas Blackie, G. A. Dryden & Co. Engineer Surveyor to Lloyd's Register of Shipping.



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