

## 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. Triple Exp Engine 802428 s/s ORLEIGH (Number of Visits) 4 Tons { Gross  
 on the Appledown By whom built R. Cock & Son When built 1919  
 Built at Appledown By whom made Plenty & Son Ltd when made 1919  
 Engines made at Newbury By whom made Riley Bros when made 1919  
 Makers made at Stockton Owners R. Cock & Son Port belonging to Bridford  
 Registered Horse Power 72 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No  
 Horse Power as per Section 28 72 No. of Cylinders 3 No. of Cranks 3  
 ENGINES, &c.—Description of Engines Triple, Surface Combustion Material of Steel  
 of Cylinders 13-22-34 Length of Stroke 22 1/2 Revs. per minute 22 1/2 Dia. of Screw shaft as fitted 7 3/8  
 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 ✓  
 Large 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 Pump Is a separate Donkey Suction fitted in Engine room & size 3/4 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 casing  
 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 —  
 &c.—(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  
 are 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 13/11/18 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 18" Mean dia. of boilers 104 1/2" Length — Material of shell plates —  
 Range of tensile strength — Are the shell plates welded or ringed 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 —  
 ring — No. and Description of Furnaces in each boiler — Material — Outside diameter —  
 top — Thickness of plates — Description of longitudinal joint — No. of strengthening rings —  
 bottom — Combustion chamber plates: Material — Thickness: Sides — Back — Top — Bottom —  
 furnace by the rules — If stays are fitted with nuts or riveted heads — Working pressure by rules —  
 Sides — Back — Top — Area at smallest part — Area supported by each stay — Working pressure by rules — End plates in steam space: —  
 thickness — Pitch of stays — How are stays secured — Working pressure by rules — Material of stays —  
 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 —  
 between spaces — Working pressures by rules — Girders to Chamber tops: Material — Depth and —  
 centre — Length as per rule — Distance apart — Number and pitch of stays in each —  
 s — Steam dome: description of joint to shell — % of strength of joint —  
 thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet holes —  
 Working pressure of shell by rules — Crown plates — Thickness — How stayed —  
 Type — Date of Approval of Plan — Tested by Hydraulic Pressure to —  
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler —  
 Pressure to which each is adjusted — Is Easing Gear fitted —



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  
air + donkey pump, iron, bolts + nuts assorted.

The foregoing is a correct description,

per P. P. PLENTY & SON, LIMITED

E. P. Plenty

Manufacturer.

Dates of Survey while building

During progress of work in shops --  
During erection on board vessel --  
Total No. of visits

1919 Apr 4 May 15 June 4. 13. 20 July 8. Sep 2. Oct 8.

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

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

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

Material of Thrust shaft Steel

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  
he 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.

17/12/19

The amount of Entry Fee

£ 1 : 0 : 0

When applied for,

Special

£ 35 : 8 : 0

Donkey Boiler Fee

£ 2 : 14 : 0

Travelling Expenses (if any)

£ 3 : 1 : 3

£ 9. 9. 3 pd. 20. 2. 20 7/11/19

Committee's Minute

Express

1/4 = 2-14-0

7-3-0

Assigned

+ L.M.C 12.19

Thomas R. Blackie, G. A. Dryden & Co.

Engineer Surveyor to Lloyd's Register of Shipping.



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