

REPORT ON MACHINERY.

No. 81397

23 DEC 1918

Received at London Office 23 DEC 1918

Date of writing Report 23 DEC 1918 19 When handed in at Local Office 19 Port of London Feb 5th 1919 (Applicable)

No. in Survey held at Newbury Date, First Survey April 18th Last Survey November 8, 1918
Reg. Book. on the Engines No. 2393 (Number of Visits ten + five)

Master Built at Applidone By whom built R. Beck & Sons Tons Net When built 1918

Engines made at Newbury By whom made Plenty & Son 2^d when made 1918

Boilers made at Stockton By whom made Riley Bros when made 1918

Registered Horse Power Owners R. Webb & Son Port belonging to Biddeford

Nom. Horse Power as per Section 28 72 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Triple, Surface Condensing No. of Cylinders 3 7-345 No. of Cranks 3
Dia. of Cylinders 13"-22"-34" Length of Stroke 22 1/2 Revs. per minute Dia. of Screw shaft as per rule 6-96" Material of Steel
as fitted 7 3/8" screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube two liners Is the after end of the liner made water tight
in the 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
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 2'-5 1/2"

Dia. of 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 2 1/4" x 4 1/8" Dia. of thrust shaft under
collars 6 3/4" Dia. of screw 8-3" Pitch of Screw 9'-6" No. of Blades 4 State whether moveable Yes Total surface 26 sq ft

No. of Feed pumps one Diameter of ditto 3" Stroke 10" Can one be overhauled while the other is at work
No. of Bilge pumps one Diameter of ditto 3" Stroke 10" Can one be overhauled while the other is at work

No. of Donkey Engines two Sizes of Pumps 2 1/2 x 2 3/4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room two of 2" In Holds, &c. two of 2"

No. of Bilge Injections one sizes 3 1/2 Connected to condenser, or to circulating pump Pump Is a separate Donkey Suction fitted in Engine room & size Yes 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 Valves & cocks
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 Four Hold Bilge Suctions & Vent Pipes How are they protected Carried under cutting

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 Is it fitted with a watertight door worked from Machinery aft

BOILERS, &c.—(Letter for record) Manufacturers of Steel
Total Heating Surface of Boilers 1271 sq ft Is Forced Draft fitted No No. and Description of Boilers One multibabular

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 9-8-18 No. of Certificate 5918
Can each boiler be worked separately Area of fire grate in each boiler 38 sq ft No. and Description of Safety Valves to
each boiler two Area of each valve 4.91 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 15" Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
bottom Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules

Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

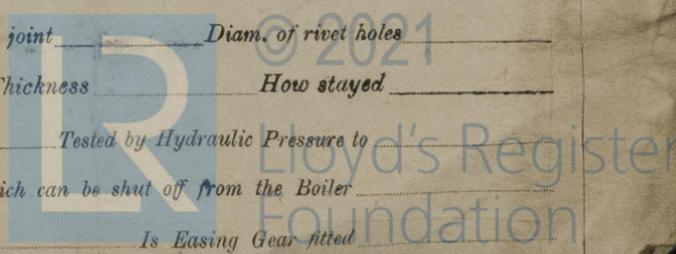
Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
Working pressure by rules Steam dome: description of joint to shell % 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 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

Y.K.
24/12/18

007967-007976-0213



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 bolts & nuts, 2 Main Bearings
1 set connecting bolts, feet & bridge pump valves, 1 set piston rings for
each cylinder, 2 condenser tubes & tubes & stoppers, bolts, nuts &
iron assorted*

The foregoing is a correct description,

for MRS. PLENTY & SON, LIMITED

J. P. Plenty

Manufacturer.

Dates of Survey while building: During progress of work in shops - - - *1918* April 18 June 24 July 11 Aug 21-28 Sep 27 Oct 11-18 29 Nov 8.
During erection on board vessel - - - *1918* June 15th July 1st Dec 3rd 1919 Jan 22nd Feb 5th
Total No. of visits *10 + 5*

Is the approved plan of main boiler forwarded herewith?

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *29.10.18* Slides *29.10.18* Covers *29.10.18* Pistons *18.10.18* Rods *19.10.18*

Connecting rods *19.10.18* Crank shaft *27.9.18* Thrust shaft *8.11.18* Tunnel shafts ✓ Screw shaft *11.7.18* Propeller *11.7.18*

Stern tube *18.4.18* Steam pipes tested *London* Engine and boiler seatings *July 1st* Engines holding down bolts *Dec 3rd*

Completion of pumping arrangements *Jan 22nd* Boilers fixed *Dec 3rd* Engines tried under steam *Feb 5th*

Completion of fitting sea connections *Jan 22nd* Stern tube *July 1st* Screw shaft and propeller *Jan 22nd*

Main boiler safety valves adjusted *Jan 22nd* Thickness of adjusting washers *P 3/16 5 3/16*

Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S 4868 G.A.H.* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYD'S 303 3.11.18 396*

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Steel* Identification Marks on Do. *LLOYD'S 303 11.7.18 396*

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. *L*

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 *S/S Orchis*

General Remarks (State quality of workmanship, opinions as to class, &c. *Engines Constructed under survey*

Material tested, workmanship good.

Forwarded to R back & sons Appldne & he fitted on board

a vessel building by them.

The above engines & Boiler have been fitted to above vessel.

Easing gear has been fitted to the Boiler & Safety Valves adjusted under

steam to above pressure. The machinery has been tried under

steam with satisfactory results.

This vessel's machinery is eligible in our opinion for record # L.M.C.

It is submitted that this vessel is eligible for THE RECORD. + L M C 2.19.

1/3 to be credited to Bristol

The amount of Entry Fee ... £ 1 : 0 : 0 When applied for.
Special ... £ 3 : 12 : 0
Donkey Boiler Fee ... £ 3 : 12 : 0
Travelling Expenses (if any) £ 4 : 12 : 3

Committee's Minute

Assigned

MACHINERY CERTIFICATE WRITTEN.



© 2021

Lloyd's Register Foundation

Certificate (if required) to be sent to

The Surveymen are requested not to write on or below the space for Committee's Minute.