

REPORT ON MACHINERY.

Date of writing Report 10th June 1914 When handed in at Local Office

Port of London

No. in Survey held at Beccles, Lowestoft & Yarmouth Date, First Survey 1st Nov. 1913 Last Survey 29th May 1914
Reg. Book. S. S. "English Rose" (Number of Visits 13)Master Built at Selby By whom built Lochrane & Son Tons Gross Not
Engines made at Beccles By whom made Elliott & Sawood Ltd when made 1914
Boilers made at Beccles By whom made Elliott & Sawood Ltd when made 1914
Registered Horse Power Owners R. Sutton Port belonging to Lowestoft & Yarmouth
Nom. Horse Power as per Section 28 38 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple expansion No. of Cylinders Three No. of Cranks two
Dia. of Cylinders 9 $\frac{3}{4}$ " - 15" + 22" Length of Stroke 16 Revs. per minute 160 Dia. of Screw shaft as per rule 5 $\frac{1}{4}$ " Material of screw shaft 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 26"
Dia. of Tunnel shaft as per rule Dia. of Crank shaft journals as fitted 5 $\frac{1}{2}$ " Dia. of Crank pin 5 $\frac{1}{4}$ " Size of Crank webs 3 $\frac{1}{2}$ " x 7" Dia. of thrust shaft under
collars 5 $\frac{1}{4}$ " Dia. of screw 6-3" Pitch of Screw 8-0" No. of Blades 4 State whether moveable No Total surface 15"
No. of Feed pumps one Diameter of ditto 2 $\frac{1}{4}$ " Stroke 6 $\frac{1}{4}$ " Can one be overhauled while the other is at work
No. of Bilge pumps one Diameter of ditto 2 $\frac{1}{8}$ " Stroke 4 $\frac{1}{4}$ " Can one be overhauled while the other is at work
No. of Donkey Engines one Sizes of Pumps 4 $\frac{1}{2}$ " x 2 $\frac{1}{4}$ " x 4 $\frac{1}{2}$ " Duplex No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Two 2" dia + one ejector 2" dia In Holds, &c. one 2" dia, one in ballast tank 2"
No. of Bilge Injections one sizes 4" Connected to condenser, or to circulating pump or Is a separate Donkey Suction fitted in Engine room & size Yes 2" dia
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 None How are they protected
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
Dates of examination of completion of fitting of Sea Connections 4.5.14 of Stern Tube 4.5.14 Screw shaft and Propeller 4.5.14
Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel The Steel Company of Scotland Ltd.
Total Heating Surface of Boilers 805 Is Forced Draft fitted No No. and Description of Boilers One multitubular
Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 3.4.14 No. of Certificate 1097
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
each boiler Two spring loaded Area of each valve 5.9" Pressure to which they are adjusted 180 lb Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 8" INT= Mean dia. of boilers 10-0" Length 9-6" Material of shell plates Steel
Thickness 3 $\frac{1}{2}$ " Range of tensile strength 28/32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams D.R. lap
long. seams Double butt straps Diameter of rivet holes in long. seams 15" Pitch of rivets 7" Lap of plates or width of butt straps 13"
Per centages of strength of longitudinal joint rivets 88 Working pressure of shell by rules 183 lb Size of manhole in shell 12" x 16"
Size of compensating ring 15" x 32" No. and Description of Furnaces in each boiler Two plain Material Steel Outside diameter 36"
Length of plain part top 10" Thickness of plates crown 23" Description of longitudinal joint Welded No. of strengthening rings 3 x 3 $\frac{1}{2}$ "
bottom 60" Working pressure of furnace by the rules 208 lb Combustion chamber plates: Material Steel Thickness: Sides 9" Back 3 $\frac{1}{2}$ " Top 4" Bottom 1"
Pitch of stays to ditto: Sides 8" x 7" Back 9" x 8 $\frac{1}{2}$ " Top 11" x 7" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 185 lb
Material of stays Steel Diameter at smallest part 1 $\frac{1}{2}$ " Area supported by each stay 46.5" Working pressure by rules 187 lb End plates in steam space:
Material Steel Thickness 1" Pitch of stays 15 $\frac{1}{4}$ " How are stays secured Double nuts Working pressure by rules 192 lb Material of stays Steel
Diameter at smallest part 2 $\frac{1}{4}$ " Area supported by each stay 23.2" Working pressure by rules 310 lb Material of Front plates at bottom Steel
Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 19" x 13" Working pressure of plate by rules 185 lb
Diameter of tubes 3 $\frac{1}{4}$ " Pitch of tubes 4 $\frac{1}{2}$ " x 4 $\frac{3}{4}$ " Material of tube plates Steel Thickness: Front 1" Back 1 $\frac{1}{8}$ " Mean pitch of stays 9 $\frac{1}{4}$ "
Pitch across wide water spaces 14" Working pressures by rules 205 lb Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 9" x 1 $\frac{1}{2}$ " Length as per rule 27" Distance apart 11" Number and pitch of stays in each two 7"
Working pressure by rules 215 lb Superheater or Steam chest; how connected to boiler S.R. lap Can the superheater be shut off and the boiler worked
separately Diameter 24" Length 20" Thickness of shell plates 1" Material Steel Description of longitudinal joint S.R. lap Diam. of rivet
holes 13" Pitch of rivets 2 $\frac{1}{8}$ " Working pressure of shell by rules 300 lb Diameter of flue Material of flue plates Thickness
If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness 3 $\frac{1}{2}$ " How stayed Disked
Working pressure of end plates 187 lb Area of safety valves to superheater Are they fitted with easing gear

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:-

Two connecting rod bolts nuts ✓
Two piston " " " ✓
Two main bearing bolts nuts ✓
One set coupling bolts nuts ✓
One set feed & bilge pump valves + a quantity
of assorted bolts nuts + iron of various sizes ✓

The foregoing is a correct description,

ELLIOTT & GARROOD LIMITED

J. F. Garrood

Manufacturer.

Dates of Survey while building { During progress of work in shops 1913:- Nov. 7. Dec. 5. (1914) Jan. 22. 28. Feb. 4. 23. Mar. 4. 18. 25
During erection on board vessel - - - April 25. May 4. 18. 29
Total No. of visits 19

Is the approved plan of main boiler forwarded herewith

Yes

Dates of Examination of principal parts—Cylinders 4.2.14. Slides 4.3.14 Covers 4.3.14 Pistons 28-1-14 Rods 28-1-14
Connecting rods 4-2-14 Crank shaft 28-1-14 Thrust shaft 23-2-14 Tunnel shafts ✓ Screw shaft 23-2-14 Propeller 18-3-14
Stern tube 28-1-14 Steam pipes tested 18-5-14 Engine and boiler seatings 25-4-14 Engines holding down bolts 25-4-14
Completion of pumping arrangements 29-5-14 Boilers fixed 25-4-14 Engines tried under steam 19-5-14
Main boiler safety valves adjusted 29-5-14 Thickness of adjusting washers Port $\frac{3}{8}$ " Star $\frac{1}{4}$ "
Material of Crank shaft Steel Identification Mark on Do. F 358 Material of Thrust shaft Steel Identification Mark on Do. 579 12/13
Material of Tunnel shafts Steel Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do. 578 12/13
Material of Steam Pipes Copper Test pressure 360 lb ✓
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 Yes If so, state name of vessel S.S. "R.P.S."

General Remarks (State quality of workmanship, opinions as to class, &c.)

These engines and boilers have been constructed under Special Survey. The material has been tested as required by the Rules & the workmanship is good. It is in my opinion eligible for the record of + L.M.C. 5-14 in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD, + L.M.C. 5.14.

JUR.
15/6/14

J.F.G.

The amount of Entry Fee ... £ 1-0-0
Special ... £ 8-0-0
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ 4-2-8
(£21) 1-16-0

When applied for,

15 June 1914.

When received,

30.6.1914

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

FRI. JUN. 19, 1914

+ L.M.C. 5.14

MACHINERY CERTIFICATE
WRITTEN



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Lloyd's Register
Foundation

Character Assign