

REPORT ON MACHINERY.

No. 49459.

Port of Newcastle on Tyne

Received at London Office **FRI. 6 OCT 1905**

No. in Survey held at Newcastle Date, first Survey May 24 Last Survey 2 Oct 1905
Reg. Book.

on the Steel S.S. "LESTRIS"

Master G. Badger Built at Newcastle By whom built Swan Hunter & W Richardson Tons { Gross 1284 Net 675 When built 1905

Engines made at Newcastle By whom made Swan Hunter & W Richardson Ltd when made 1905

Boilers made at Do By whom made Do when made 1905

Registered Horse Power 210 Owners Cork S.S. Co. Ltd Port belonging to Cork

Nom. Horse Power as per Section 28 210 Is Refrigerating Machinery fitted No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 21-33½-54 Length of Stroke 39 Revs. per minute 73 Dia. of Screw shaft 11-45 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

Is 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 Yes If two

liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 46

Dia. of Tunnel shaft 10-05 Dia. of Crank shaft journals 10-55 Dia. of Crank pin 10-58 Size of Crank webs 16½x678 Dia. of thrust shaft under

rollers 10-78 Dia. of screw 14-3 Pitch of screw 16-0 No. of blades 4 State whether moveable No Total surface 70 4

No. of Feed pumps 2 Diameter of ditto 2¾ Stroke 22 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3¾ Stroke 22 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps B. 6x7½x6 F. 6x4½x6 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Three 2½ In Holds, &c. M H Three 2½ A H Three 2½

Tunnel Well One 2½

No. of bilge injections 1 sizes 4 Connected to condenser, or to circulating pump CP Is a separate donkey suction fitted in Engine room & size Yes 3½

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 below

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

Are the pipes carried through the bunkers Ford Bilge Pipes How are they protected Strong 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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock White build Is the screw shaft tunnel watertight Yes

Is it fitted with a watertight door Yes worked from top platform

BOILERS, &c.—(Letter for record 7) Total Heating Surface of Boilers 3564 4 Is forced draft fitted No

No. and Description of Boilers 2 Cylindrical S Ends Working Pressure 160 Tested by hydraulic pressure to 320

Year of test 23-8-05 Can each boiler be worked separately Yes Area of fire grate in each boiler 53-5 4 No. and Description of safety valves to

each boiler Two Spring Area of each valve 5-9 Pressure to which they are adjusted 165 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 3-0 ^{inside} Mean dia. of boilers 13-7 Length 10-6 Material of shell plates S

Thickness 1 Range of tensile strength 28¾ Are they welded or flanged No Descrip. of riveting: cir. seams d lap long. seams d shap.

Diameter of rivet holes in long. seams 1/8 Pitch of rivets 6 15/16 Lap of plates 17½ width of butt straps 17½

Percentages of strength of longitudinal joint 83-8 Working pressure of shell by rules 160 Size of manhole in shell 16x12

No. of compensating ring 9x1 No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 40½

Length of plain part top 29 bottom 28 Thickness of plates crown 3/4 bottom 3/4 Description of longitudinal joint d shap. No. of strengthening rings ✓

Working pressure of furnace by the rules 170 Combustion chamber plates: Material S Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 31/32

No. of stays to ditto: Sides 9¼x9 Back 10x8 Top 9¼x9 If stays are fitted with nuts or riveted heads nut Working pressure by rules 162

Material of stays Iron Diameter at smallest part 2-03 Area supported by each stay 83-25 Working pressure by rules 182 End plates in steam space:

Material S Thickness 13/32 Pitch of stays 20¾x17 How are stays secured d n + w Working pressure by rules 161 Material of stays S

Area at smallest part 5-56 Area supported by each stay 346-4 Working pressure by rules 160 Material of Front plates at bottom S

Thickness 13/16 Material of Lower back plate S Thickness 3/4 Greatest pitch of stays as per rule Working pressure of plate by rules 2160

Diameter of tubes 3½ Pitch of tubes 4¾x45/8 Material of tube plates S Thickness: Front 13/16 Back 13/16 Mean pitch of stays 11¾

Distance across wide water spaces 14½ Working pressures by rules 171 Girders to Chamber tops: Material S Depth and

Weight of girder at centre 9x1¼ Length as per rule 30¾ Distance apart 9 Number and pitch of Stays in each 2-9¼

Working pressure by rules 168 Superheater or Steam chest; how connected to boiler ✓ Can the superheater be shut off and the boiler worked

separately ✓ Diameter ✓ Length ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet

✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓

Reinforced with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed ✓

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear ✓

DONKEY BOILER— No. Description See attached sheet

Made at By whom made When made Where fixed
Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves
No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boiler
enter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of temperature
strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets
Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays to do.
Dia. of stays. Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of
joint Thickness of furnace crown plates Stayed by Working pressure of shell by rules
Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— Propeller, two top end, two bottom end, two main bearing & one set coupling bolts, two & bilge valves, piston rings, assorted bolts & nuts, a bar of iron & other small gear

FOR The foregoing is a correct description,

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Manufacturer.

John Lunn

Dates During progress of work in shops— 1905. May 24 June 28. 1622 July 17. 18. 24. 26. Aug. 5. 14. 18. 21. 23. 24. 30. Sep. 5. 6. 7. 13. 25 Oct. 2
of Survey During erection on board vessel—
while building Total No. of visits 23

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

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

The material & workmanship is good.

The Mach^y has been built under special survey is eligible in my opinion for classification & the record I.M.C.10.05

It is submitted that this vessel is eligible for THE RECORD I.M.C.10.05. ELEC:LIGHT.

Emil.
6.10.05.

6.10.05

The amount of Entry Fee.. £ 2 : : :
Special .. £ 30 : 10 : :
Donkey Boiler Fee .. £ : : :
Travelling Expenses (if any) £ : : :
When applied for, 10 Oct 1905
When received, 10 Oct 1905

Committee's Minute

FRI. 6 OCT 1905

Assigned

+ L.M.C. 10.05

MACHINERY CERTIFICATE
WRITTEN.



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Foundation

John H Heck
Engineer Surveyor to Lloyd's Register of British & Foreign Ships