

REPORT ON MACHINERY.

No. 66575

Received at London Office

WED. SEP-2. 1914

Date of writing Report 28th Aug 1914 When handed in at Local Office 31st Aug 1914 Port of NEWCASTLE-ON-TYNE.

No. in Survey held at Newcastle Date, First Survey 20th Mar Last Survey 24th Aug 1914

Reg. Book. 29 (Number of Visits) 206 Tons Gross

Ship on the Machinery of the S.S. John Donovan Tons Net 78

Master Built at Newcastle By whom built J. T. Ettringham & Co. Ltd When built 1914

Engines made at Newcastle By whom made J. T. Ettringham & Co. Ltd when made 1914

Boilers made at By whom made Palmer's Co. when made 1914

Registered Horse Power 78 Owners H. Foster & Sons Port belonging to N. Shields

Com. Horse Power as per Section 28 77 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

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

Dia. of Cylinders 13", 2 1/2", 35" Length of Stroke 24 Revs. per minute Dia. of Screw shaft 7.34" Material of screw shaft Iron

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 If two

Shafts are fitted, is the shaft lapped or protected between the liners Length of stern bush 2'-6"

Dia. of Tunnel shaft 6.52" Dia. of Crank shaft journals 6.85" Dia. of Crank pin 7" Size of Crank webs 3 1/2" x 4 1/2" Dia. of thrust shaft under

Blades 7" Dia. of screw 9'-0" Pitch of Screw 10'-6" No. of Blades 4 State whether moveable no Total surface 31 sq ft

No. of Feed pumps 2 Diameter of ditto 2 1/4" Stroke 13" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 2 3/8" Stroke 13" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 1 Sizes of Pumps 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 1 of 2" & 1, 2" ejector In Holds, &c. 1 of 2"

No. of Bilge Injections 1 sizes 2 1/2" Connected to condenser, or to circulating 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 none

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

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 12/5/14 of Stern Tube 16/6/14 Screw shaft and Propeller 16/6/14

Is the Screw Shaft Tunnel watertight Is it fitted with a watertight door worked from

MANUFACTURERS, &c.—(Letter for record) Manufacturers of Steel See report attached

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate

Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to

Each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork 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

Percentage of strength of longitudinal joint 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 Thickness of plates Description of longitudinal joint No. of strengthening rings

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 Diameter 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

Diameter 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

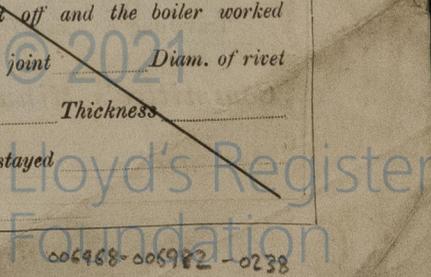
Working pressure by rules Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

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

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

Stiffened 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



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, 2 main beam bolts, 1 set of coupling bolts, 1 set of feed & bilge pump valves, a quantity of assorted bolts nuts & iron.

The foregoing is a correct description of
Jos. T. ELKINGTON & Co. Ltd.
Per *J. Donovan*
General Manager, Manufacturer.

1914
Dates of Survey while building
During progress of work in shops -- Mar. 28. Apr. 16. 23. May. 5. 8. 12. 18. 19. 20. 21. 22. 23. 29. Jun. 3. 5. 8. 10. 11. 29. Jul. 6. 13. 27.
During erection on board vessel --- 23. 29. Aug. 6. 14. 19. 21. 24.
Total No. of visits 29

Is the approved plan of main boiler forwarded herewith *Yes*

Is the approved plan of donkey boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders *8/5/13* Slides *20/5/14* Covers *5/6/14* Pistons *5/6/14* Rods *11/6/14*
Connecting rods *11/6/14* Crank shaft *✓* Thrust shaft *✓* Tunnel shafts *✓* Screw shaft *✓* Propeller *16/6/14*
Stern tube *8/6/14* Steam pipes tested *19/8/14* Engine and boiler seatings *29/7/14* Engines holding down bolts *14/8/14*
Completion of pumping arrangements *22/8/14* Boilers fixed *29/7/14* Engines tried under steam *22/8/14*
Main boiler safety valves adjusted *22/8/14* Thickness of adjusting washers *P 3/8" S 5/16"*

Material of Crank shaft *Steel* Identification Mark on Do. *369/NDH* Material of Thrust shaft *Steel* Identification Mark on Do. *3644*
Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Steel* Identification Marks on Do. *1634*

Material of Steam Pipes *Solid drawn 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. *No* If so, state name of vessel *✓*

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

The machinery of this vessel has been built under special survey, the materials used are good, and the workmanship is satisfactory, it has been properly fitted on board and secured, and the engines have been tried under full power. In our opinion the vessel is eligible for the record of L.M.C. 8.14.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 8.14.

The amount of Entry Fee ... £ 1 : :
Special ... £ 11 : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, SEP 1 1914
When received, 24/9/14

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

Committee's Minute

FRI. SEP. 11. 1914

Assigned

+ L.M.C. 8.14

MACHINERY CERTIFICATE
WRITTEN



Lloyd's Register
Foundation

NEWCASTLE-ON-TYNE

Certificate (if required) to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.