

REPORT ON MACHINERY.

Received at London Office

THU. OCT. - 1. 1914.

SEP 30 1914

Date of writing Report

When made at Local Office

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at *North Shields*

Date, First Survey *16th Sept 1914* Last Survey *24th Sept 1914*

Reg. Book.

(Number of Visits *19*)

on the *S/S Elwy*

Gross *293*

Master Built at *South Shields* By whom built *C. Remoldron & Co* *166 7/8* Tons Net *135* When built *1914*

Engines made at *North Shields* By whom made *Shields Engineering & Dry Dock Ltd* *275 E* when made *1914-9*

Boilers made at *Stockton* By whom made *T. Riley Bros Ltd* *4690* when made *1914*

Registered Horse Power Owners *R & D Jones Ltd* Port belonging to *Liverpool*

Nom. Horse Power as per Section 28 *58 59* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *No*

ENGINES, &c. — Description of Engines *Compound* No. of Cylinders *two* No. of Cranks *two*

Dia. of Cylinders *15 1/2 - 33* Length of Stroke *24* Revs. per minute *100* Dia. of Screw shaft *7 1/2* 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 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 *2'-8"*

Dia. of Tunnel shaft *as per rule 6.57* Dia. of Crank shaft journals *as per rule 6.89* Dia. of Crank pin *7 1/4* Size of Crank webs *4 1/2 x 10 1/4* Dia. of thrust shaft under collars *7 1/4* Dia. of screw *8'-6"* Pitch of Screw *11'-0"* No. of Blades *4* State whether moveable *No* Total surface *27 sq ft*

No. of Feed pumps *one* Diameter of ditto *2 1/2* Stroke *12* Can one be overhauled while the other is at work *—*

No. of Bilge pumps *one* Diameter of ditto *2 1/2* Stroke *12* Can one be overhauled while the other is at work *—*

No. of Donkey Engines *one* Sizes of Pumps *5 1/4 x 3 1/2 x 5 Duplex* No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room *two of 2" dia* In Holds, &c. *3 of 2" dia - one 2" from fore peak*

No. of Bilge Injections *one* sizes *2 1/2* Connected to condenser, or to circulating pump *C.P.* 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 *Both*

Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold 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 *—* 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 *21. 8. 14* of Stern Tube *21. 8. 14* Screw shaft and Propeller *21. 8. 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 *Messrs John Spence & Sons*

Total Heating Surface of Boilers *1080* Is Forced Draft fitted *No* No. and Description of Boilers *one Single Multitubular*

Working Pressure *130 lbs* Tested by hydraulic pressure to *260 lbs* Date of test *8. 5. 14* No. of Certificate *5292*

Can each boiler be worked separately *—* Area of fire grate in each boiler *34 sq ft* No. and Description of Safety Valves to each boiler *two direct spring*

Area of each valve *4.9 sq in* Pressure to which they are adjusted *135 lbs* Are they fitted with easing gear *Yes*

Smallest distance between boilers or uptakes and bunkers or woodwork *9"* 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: *—* 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 *—*

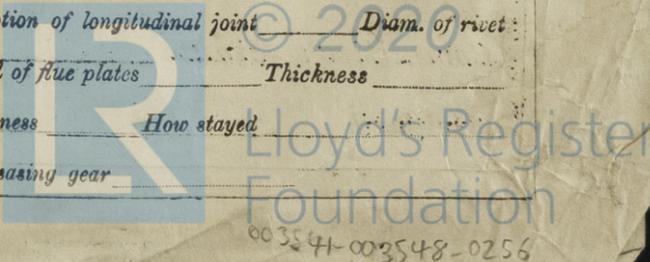
Working pressure by rules *—* Superheater or Steam chest; how connected to boiler *—* Can the superheater be shut off and the boiler worked separately *—*

Diameter *—* Length *—* Thickness of shell plates *—* Material *—* Description of longitudinal joint *—* Diam. of rivet holes *—*

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

Strengthened 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 *—*



003541-003548-0256

IS A DONKEY BOILER FITTED? NO

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied :-

Two top end bolts and nuts, two Bottom end bolts and nuts, two main bearing bolts and nuts, spare coupling bolts and nuts, spare feed and Bilge pump valves, assorted row bolts and nuts

The foregoing is a correct description,
FOR THE SHIELDS ENGINEERING & DRY DOCK CO., LIMITED.

Richardson Manufacturer.

Dates of Survey while building: During progress of work in shops - - - } 1914
During erection on board vessel - - - } Apr. 16. 20. 21. 25. May 1. 5. 19. 20. Jun 5. 11. 22. Jul. 1. 8. 25. 31. Sep. 3. 9. 10. 24.
Total No. of visits 19.

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts - Cylinders 20. 5. 14 Slides 11. 6. 14 Covers 11. 6. 14 Pistons 11. 6. 14 Rods 11. 6. 14
Connecting rods 11. 6. 14 Crank shaft 20. 5. 14 Thrust shaft 20. 5. 14 Tunnel shafts 11. 6. 14 Screw shaft 20. 5. 14 Propeller 16. 4. 14
Stern tube 16. 4. 14 Steam pipes tested 9. 9. 14 Engine and boiler seatings 31. 8. 14 Engines holding down bolts 3 Sept. 14
Completion of pumping arrangements 10. 9. 14 Boilers fixed 10. 9. 14 Engines tried under steam 10. 9. 14
Main boiler safety valves adjusted 10. 9. 14 Thickness of adjusting washers P 11/32 S 7/16.

Material of Crank shaft Iron Identification Mark on Do. LCS. 20. 5. 14. C275 Material of Thrust shaft Iron Identification Mark on Do. 448. N. W. C.
Material of Tunnel shafts Iron Identification Marks on Do. W. C. Material of Screw shafts Iron Identification Marks on Do. LCS. 20. 5. 14. C275
Material of Steam Pipes Copper S. S. Test pressure 280 lbs - Bolton Grahams works N. S.

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 built under Special Survey the material and workmanship found good and efficient
The machinery fitted up on board tested under steam (Vessel at moorings) and found satisfactory
In my opinion this vessel is now eligible for the notification of L.M.C 9-14 to be made in the Register Book

It is submitted that this vessel is eligible for THE RECORD + LMC 9. 14.

J.W.D. 11/10/14
R.R.R.

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

The amount of Entry ... £ 1 : 0 :
Special ... £ 5 : 2 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, SEP 30 1914
When received, 15/10/14

Committee's Minute FRI. OCT. 2. 1914

Assigned + L.M.C 9. 14

MACHINERY CERTIFICATE WRITTEN.

NEWCASTLE-ON-TYNE.

Certificates (if required) to be sent to the Registrar and returned to the Registrar before the date for Committee's Minutes.