

REPORT ON MACHINERY.

No. 73568
FRI. SEP. 24 1920

23 SEP 1920

Received at London Office
NEWCASTLE ON-TYNE

Date of writing Report 19 When handed in at Local Office 19 Port of

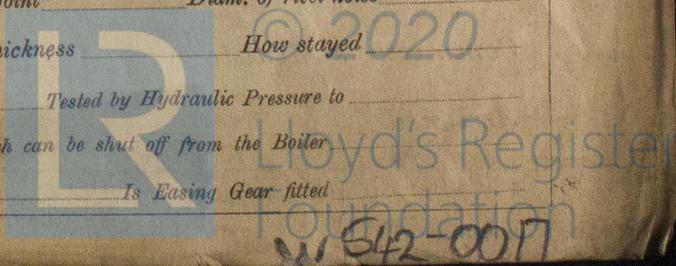
No. in Survey held at South Shields Date, First Survey 30th Dec. 1919 Last Survey 14th Sept 1920
 Reg. Book. on the SS. "Emlynton" Engines no 604. (Number of Visits 28) 8th Feb Spanish 1921
 Master Built at Lemestoft By whom built Chambers & Co Ltd No 502 When built 1921
 Engines made at South Shields By whom made G. J. Gray & Co Ltd when made 1920
 Boilers made at Sunderland By whom made G. Clark & Co. No. 1102 1/2 when made 1920
 Registered Horse Power 600 Owners Emlyn Line Ltd Port belonging to Cardiff
 Nom. Horse Power as per Section 28 108 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 15" 15" 41" Length of Stroke 27 Revs. per minute 100 Dia. of Screw shaft 8 1/2 as per rule 8 1/2 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 Yes 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 Yes Length of stern bush 3' 0 3/4
 Dia. of Tunnel shaft 8" as per rule 7 1/2 Dia. of Crank shaft journals 8" as per rule 7 5/8 Dia. of Crank pin 8" Size of Crank webs 1 1/2" x 5 1/4" Dia. of thrust shaft under collars 8" Dia. of screw 9 1/4" Pitch of Screw 11 1/2" No. of Blades 4 State whether moveable No Total surface 43 sq ft
 No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 6x4x6 8x9x8 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room Three 2" + One Separate direct 2 1/2" In Holds, &c. Two 2" in each hold
After Peak one 2" O.B. Tanks thru 2" each. Fore Peak one 2"
 No. of Bilge Injections 1 sizes 3 1/2" Connected to condenser, or to circulating pump cp. Is a separate Donkey Suction fitted in Engine room & size
 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 Yes
 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 bunker For Hold Bilge & Ballast Suction How are they protected Wood casing
 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 Yes Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Spencer & Sons
 Total Heating Surface of Boilers 1844 Is Forced Draft fitted No No. and Description of Boilers One Single Ended
 Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs Date of test 14-5-20 No. of Certificate 3687
 Can each boiler be worked separately Yes Area of fire grate in each boiler _____ No. and Description of Safety Valves to each boiler 2 Spring Loaded Area of each valve 5.9" 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 18" 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 _____ 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 _____

See Sunderland Report No 27820



W 542-0071

IS A DONKEY BOILER FITTED? *Yes*

If so, is a report now forwarded? *Yes*

SPARE GEAR. State the articles supplied:— *2 connecting rod top end bolts + nuts. 2 connecting rod bottom end bolts + nuts. 2 main bearing bolts + nuts. 1 set coupling bolts + nuts. 1 set feed pump valves, 1 set bilge pump valves, 1 set of air + circulating pump valves. 1 propeller. 1 set of piston bolts + nuts.*

The foregoing is a correct description,

GEO. T. GREY & CO. LTD.

Manufacturer.

Dates of Survey while building: During progress of work in shops -- *1919 Dec. 30 Jan 21-26 Feb 26 Mar 22 Apr 15-22-26 May 4-19-26-31 Jun 1-2 Jul 2-7-15-20*
During erection on board vessel --- *1920 June 10-14-21 Sep 10-24 Oct 1-6-19 Nov 4-15-18-29 Dec 15-21-23-30 1921 Jan 6-11-14-27 Feb 8*
Total No. of visits *25 + 21 = 49* Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders *26-5-20* Slides *7-7-20* Covers *26-8-20* Pistons *31-5-20* Rods *11-6-20*
Connecting rods *26-1-20* Crank shaft *2-6-20* Thrust shaft *2-7-20* Tunnel shafts ✓ Screw shaft *2-7-20* Propeller *11-6-20*
Stern tube *17-5-20* Steam pipes tested *15-11-20* Engine and boiler seatings *1-7-20* Engines holding down bolts *4-11-20*
Completion of pumping arrangements *23-12-20* Boilers fixed *19-10-20* Engines tried under steam *23-12-20*
Completion of fitting sea connections *14-6-20 1-7-20* Stern tube *21-7-20* Screw shaft and propeller *13-7-20 21-7-20*
Main boiler safety valves adjusted *23-12-20* Thickness of adjusting washers *5 5/16" 2 1/4" D.B. 3/8"*
Material of Crank shaft *S.M.S.* Identification Mark on Do. *629 M.S.M.* Material of Thrust shaft *S.M.S.* Identification Mark on Do. *2024 M.S.*
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *S.M.S.* Identification Marks on Do. *4885 J.P.*
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. ✓

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 *"Wynstone"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been constructed under special survey and the materials and workmanship are sound and good.*

On completion the engines were despatched to Lowestoft for installing on board.

The machinery of this vessel has been examined whilst being installed in vessel, afterwards tried under full power working conditions, found satisfactory, with main & donkey boiler safety valves adjusted under steam, and is now eligible in our opinion to have the Record of L.M.C 2-21 in the Society's Register Book

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 2.21.

Beck 22/2/21

The amount of Entry Fee ... £ *2 : -*
Special ... £ *5 : 1*
Donkey Boiler Fee ... £ *5 : 8*
Travelling Expenses (if any) £ *4 : 4*

When applied for, *23 SEP 1920*

When received, *26 1/31-3-1921*

J. McMillan
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned *FRI. 25 FEB. 1921*
+ L.M.C 2.

Robert Rae & Co. Surveyors
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.

DETECTIVE WRITING