

REPORT ON MACHINERY.

No. 13770

Received at London Office

19 JAN 1925

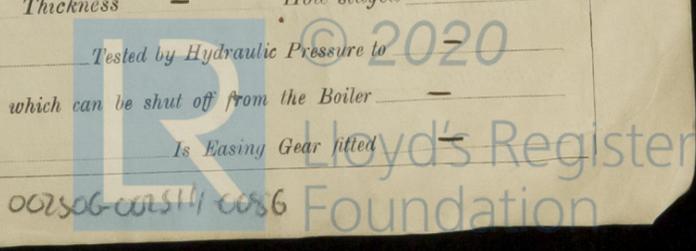
Date of writing Report 9th Jan. 1925 When handed in at Local Office 16th Jan. 1925 Port of Aberdeen
 No. in Survey held at Aberdeen Date, First Survey 9.4.24 Last Survey 8.1.1925
 Reg. Book. on the s.s. "DONAGHMORE" (Number of Visits 43) Tons { Gross 581.45 Net 269.90
 Master Built at Aberdeen By whom built John Lewis & Sons, Ltd. (N^o 76) When built 1925
 Engines made at Aberdeen By whom made John Lewis & Sons, Ltd. (N^o 173) when made 1925
 Boilers made at Aberdeen By whom made John Lewis & Sons, Ltd. (N^o 138) when made 1925
 Registered Horse Power Owners St. Helens Colliery & Brick Works Co. Ltd. Port belonging to Workington
 Nom. Horse Power as per Section 28 105 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 14" - 24" - 39" Length of Stroke 27" Revs. per minute 90 Dia. of Screw shaft as per rule 8.11" 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 fit to whole length If two
 liners are fitted, is the shaft lapped or protected between the liners - Length of stern bush 3'-0"
 Dia. of Tunnel shaft as per rule 7.18" Dia. of Crank shaft journals as fitted 7.3/4" Dia. of Crank pin 7.3/4" Size of Crank webs 10.2-5.3/8" Dia. of thrust shaft under
 collars 7.3/4" Dia. of screw 10'-0" Pitch of Screw 14'-0" No. of Blades 4 State whether moceable no Total surface 40 sq
 No. of Feed pumps Two Diameter of ditto 2.3/4" Stroke 13.1/2" Can one be overhauled while the other is at work yes
 No. of Bilge pumps Two Diameter of ditto 2.3/4" Stroke 13.1/2" Can one be overhauled while the other is at work yes
 No. of Donkey Engines Two Sizes of Pumps BALLAST 8" x 8" x 8" GEN. SERVICE 6" x 4.1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3 @ 2.1/2" In Hold, &c. 2 @ 2"

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Wm Beardmore & Co. Ltd. 158
 Total Heating Surface of Boilers 1883 sq ft Is Forced Draft fitted no No. and Description of Boilers One Single-Ended
 Working Pressure 180 lbs./sq Tested by hydraulic pressure to 320 lbs./sq Date of test 17.12.24 No. of Certificate 1039
 Can each boiler be worked separately - Area of fire grate in each boiler 54 sq No. and Description of Safety Valves to
 each boiler two spring loaded Area of each valve 7.068 sq Pressure to which they are adjusted 185 lbs./sq Are they fitted with easing gear yes
 Smallest distance between boilers on uptakes and bunkers on woodwork 2'-2" Int. Mean dia. of boilers 13'-6.3/4" Length 10'-6" Material of shell plates Steel
 Thickness 1.1/8" Range of tensile strength 28/32 tons/sq Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D. R. LAP
 long. seams T. R. D. B. S. Diameter of rivet holes in long. seams 1.3/16" Pitch of rivets 8.3/8" Lap of plates or width of butt straps 17.3/4"
 Per centages of strength of longitudinal joint 90.7 Working pressure of shell by rules 182 lbs./sq Size of manhole in shell 19" x 15"
 Size of compensating ring 2'-9" x 2'-5" x 1.1/8" No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 3'-4.3/4"
 Length of plain part top 6'-6.3/4" bottom 5'-11.1/2" Thickness of plates top 3/4" bottom 3/4" Description of longitudinal joint weld No. of strengthening rings none
 Working pressure of furnace by the rules 183 lbs./sq Combustion chamber plates: Material Steel Thickness: Sides 23/32" Back 1/16" Top 23/32" Bottom 23/32"
 Pitch of stays to ditto: Sides 9.1/2" x 10.3/4" Back 9.1/8" x 10" Top 9.1/4" x 10.1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180 lbs./sq
 Material of stays Steel Thickness 1.3/16" Pitch of stays 19.1/2" x 18.1/2" How are stays secured D. nuts to W. Working pressure by rules 191 lbs./sq Material of stays Steel
 Thickness 1.1/8" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 14.1/8" x 7" Working pressure of plate by rules 184 lbs./sq
 Diameter of tubes 3.1/4" Pitch of tubes 4.1/2" x 4.3/8" Material of tube plates Steel Thickness: Front 1.1/2" Back 1.3/16" Mean pitch of stays 11.1/8"
 Pitch across wide water spaces 14.1/2" Working pressures by rules F. 185 lbs./sq - B. 192 lbs./sq Distance apart 10.1/2" Number and pitch of stays in each 2 @ 9.1/4"
 thickness of girder at centre 9.1/4" x 2 @ 9.1/16" Length as per rule 29.1/2" Distance apart 10.1/2" Number and pitch of stays in each 2 @ 9.1/4"
 Working pressure by rules 182 lbs./sq Steam dome: description of joint to shell No Steam Dome % 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 None Date of Approval of Plan - Tested by Hydraulic Pressure to 2020
 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 -

If not, state whether, and when, one will be sent? In a Report also sent on the Hull of the Ship?



IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded? -

SPARE GEAR. State the articles supplied:— Two top-end and two bottom-end bolts and nuts; two main bearing bolts and nuts; one set of coupling bolts and nuts; one set each of air, circulating, feed and bilge pump valves; one main and one donkey feed check valve; one safety valve spring; one cylinder and one feed escape valve spring for each size fitted; one propeller; six junk ring studs and nuts; six cylinder cover studs and nuts; gauge glasses and packing; a quantity of assorted bolts and nuts; iron of various sizes, and a number of small items.

The foregoing is a correct description,

FOR JOHN LEWIS & SONS, LTD.

John Lewis & Sons
SECT. Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1924: - APRIL - 9. 25. 30. MAY - 12. 27. JUNE - 11. 20. 23. JULY - 23. 29. AUG - 6. 12. 20. 27. 28. SEP - 9. 12. 24. 30. OCT - 1. 20. 23. 27. NOV - 3. 7. 14. 17. 19. 24. 28. DEC - 5. 8. 10. 11. 15. 17. During erection on board vessel - - - 1924: - DEC - 19. 23. 26. 31. 1925: - JAN - 6. 7. 8. Total No. of visits 43

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

Is the approved plan of donkey boiler forwarded herewith -

Dates of Examination of principal parts—Cylinders 8.12.24 Slides 8.12.24 Covers 8.12.24 Pistons 8.12.24 Rods 8.12.24 Connecting rods 8.12.24 Crank shaft 17.11.24 Thrust shaft 17.11.24 Tunnel shafts - Screw shaft 17.11.24 Propeller 17.11.24 Stern tube 17.11.24 Steam pipes tested 26.12.24 Engine and boiler seatings 5.12.24 Engines holding down bolts 23.12.24 Completion of pumping arrangements 8.1.25 Boilers fixed 23.12.24 Engines tried under steam 6.1.25 + 8.1.25 Completion of fitting sea connections 10.12.24 Stern tube 5.12.24 Screw shaft and propeller 8.12.24 Main boiler safety valves adjusted 6.1.25 Thickness of adjusting washers $\frac{3}{8}$ " $\frac{5}{8}$ " Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S N° 981 J.E.S. C.E.W. 17.11.24* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYD'S N° 982 C.E.W. 17.11.24* Material of Tunnel shafts - Identification Marks on Do. - Material of Screw shafts *Iron* Identification Marks on Do. Material of Steam Pipes *90 Copper* Test pressure 360 lbs./sq"

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 *"ANNAGHMORE" Abn. Rpt. N° 13696.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been constructed under Special Survey in accordance with the Rules and Approved Plans; the materials and workmanship are good. The machinery has been satisfactorily installed on board the vessel, examined under working conditions at sea and found satisfactory, and is eligible, in our opinion, for classification, and to have the record L.M.C. 1.25 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD + LMC 1.25. CL.

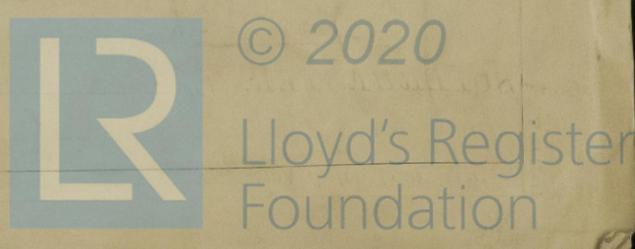
Report on Electric Lighting Installation will be forwarded later.

W.D. Cull
19/1/25

The amount of Entry Fee ... £ 3 : 0 : 0 When applied for.
Special ... £ 26 : 5 : 0 16.1.1925
Donkey Boiler Fee ... £ : : : When received.
Travelling Expenses (if any) £ : : : 20/5/25

H.B. Forster + C. E. Wilkes
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 20 JAN 1925
Assigned + L.M.C. 1.25
C.L.



This Office

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