

REPORT ON MACHINERY.

No. 13882

30 APR 1925

Received at London Office

Date of writing Report 29th April 1925 When handed in at Local Office 29th April 1925 Port of Aberdeen
 No. in Survey held at Aberdeen Date, First Survey 24.4.23 Last Survey 16.4.1925
 Reg. Book. on the s.s. "CARRICKMORE" (Number of Visits 40)
 Master J. Lewis & Sons, Ltd. (N^o 77) Built at Aberdeen By whom built J. Lewis & Sons, Ltd. (N^o 77) When built 1925
 Engines made at Aberdeen By whom made J. Lewis & Sons, Ltd. (N^o 170) when made 1925
 Boiler made at Aberdeen By whom made J. Lewis & Sons, Ltd. (N^o 96) when made 1925
 Registered Horse Power 87 Owners J. Kelly Ltd. Port belonging to Belfast
 Nom. Horse Power as per Section 28 87 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 13"-23"-37" Length of Stroke 26" Revs. per minute 92 Dia. of Screw shaft as per rule 8.02" 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 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 2'-10 1/2"
 Dia. of Tunnel shaft as per rule 7.04" Dia. of Crank shaft journals as per rule 7.39" Dia. of Crank pin 7 1/2" Size of Crank webs 11" x 4 1/8" Dia. of thrust shaft under collars 7 1/2" Dia. of screw 10-0" Pitch of Screw 13-0" No. of Blades 4 State whether moveable No Total surface 37 sq ft
 No. of Feed pumps 2 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 2 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 2 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 Holds, &c. 2 @ 2"

No. of Bilge Injections One sizes 4" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 1 @ 2 1/2"
 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
 What pipes are carried through the bunkers Suction pipes to hold How are they protected below ceiling
 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 None Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Colville & Sons Ltd., The Lanarkshire Steel Co. Ltd.
 Total Heating Surface of Boilers 1440 sq ft Is Forced Draft fitted No No. and Description of Boilers One Single-Ended
 Working Pressure 200 lbs./sq. in. Tested by hydraulic pressure to 350 lbs./sq. in. Date of test 20.3.25 No. of Certificate 1042
 Can each boiler be worked separately Yes Area of fire grate in each boiler 48 sq ft No. and Description of Safety Valves to each boiler two spring loaded Area of each valve 4.91 sq in. Pressure to which they are adjusted 205 lbs./sq. in. Are they fitted with easing gear Yes
 Smallest distance between ~~uptakes~~ uptakes and bunkers 16" Int. dia. of boiler 13'-9" Length 10'-8" Material of shell plates Steel
 Thickness 1 1/8" Range of tensile strength 25/32 tons/sq. in. 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 1/2" Pitch of rivets 8 5/8" ~~Top of plates or~~ width of butt straps 18 5/16"
 Per centages of strength of longitudinal joint rivets 89 Working pressure of shell by rules 200 lbs./sq. in. Size of manhole in shell 19" x 15"
 Size of compensating ring 38" x 29" x 1 1/8" No. and Description of Furnaces in each boiler 3 plain Material Steel Outside diameter 40"
 Length of plain part top 6'-6 1/2" bottom 5'-7" Thickness of plates bottom 1 1/8" Description of longitudinal joint weld No. of strengthening rings None
 Working pressure of furnace by the rules 2 1/4 lbs./sq. in. Combustion chamber plates: Material Steel Thickness: Sides 3/4" Back 23/32" Top 3/4" Bottom 3/4"
 Pitch of stays to ditto: Sides 8" x 10" Back 8 3/4" x 8" Top 8" x 11" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 2 1/4 lbs./sq. in.
 Material of stays Steel D.I.A. OVER THREADS 1 3/4" Area supported by each stay 88 sq in. Working pressure by rules 206 lbs./sq. in. End plates in steam space: Material Steel Thickness 1 1/32" Pitch of stays 19" x 18" How are stays secured J. Nuts Working pressure by rules 202 lbs./sq. in. Material of stays Steel
 Area at smallest part 3 1/4" Area supported by each stay 342 sq in. Working pressure by rules 236 lbs./sq. in. Material of Front plates at bottom Steel
 Thickness 1 1/8" Material of Lower back plate Steel Thickness 1 1/8" Greatest pitch of stays 13 3/4" x 9 3/4" x 9 3/4" Working pressure of plate by rules 254 lbs./sq. in.
 Diameter of tubes 3 1/2" Pitch of tubes 4 7/8" x 4 7/8" Material of tube plates Steel Thickness: Front 1 1/8" Back 7/8" Mean pitch of stays 10.3
 Pitch across wide water spaces 14" Working pressures by rules F206 lbs. B261 Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 11" x 20 7/8" Length as per rule 34.625" Distance apart 11" Number and pitch of stays in each 3 @ 8"
 Working pressure by rules 247 lbs./sq. in. Steam dome: description of joint to shell None % 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 -
 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 -



IS A DONKEY BOILER FITTED? *No.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *All as per Rule requirements and, in addition, air and circulating pump valves, Cylinder escape valve springs, Feed Escape valve springs, one safety valve spring, 6 gunk ring studs and nuts, 6 Cylinder cover studs and nuts, 6 Condenser tubes and ferrules.*

The foregoing is a correct description,

For JOHN LEWIS & SONS, LTD.,

John J. Donald

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1923: APRIL 24 MAY 12 AUG 22 29 SEP 12 21 OCT 12 NOV 6 19 26 DEC 4 1924: JAN 22 FEB 22
During erection on board vessel --- APRIL 9 NOV 24 DEC 26 1925: JAN 6 9 21 28 30 FEB 3 11 13 18 25 MAR 4 11 16 20 25 26
Total No. of visits 40

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 18.2.25 Slides 4.3.25 Covers 18.2.25 Pistons 18.2.25 Rods 18.2.25
Connecting rods 18.2.25 Crank shaft *Under 11.8.23* Thrust shaft 18.2.25 Tunnel shafts *None* Screw shaft 18.2.25 Propeller 4.3.25
Stern tube 4.3.25 Steam pipes tested 7.4.25 Engine and boiler seatings 25.3.25 Engines holding down bolts 1.4.25
Completion of pumping arrangements 14.4.25 Boilers fixed 1.4.25 Engines tried under steam 14.4.25 + 16.4.25
Completion of fitting sea connections 25.3.25 Stern tube 16.3.25 Screw shaft and propeller 25.3.25
Main boiler safety valves adjusted 14.4.25 Thickness of adjusting washers $\frac{3}{8}$ " $\frac{5}{8}$ "
Material of Crank shaft *Steel* Identification Mark on Do. *LLOYD'S N° 269 J.S.C. 11.8.23* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYD'S N° 1074 H.C.F. 18.2.25*
Material of Tunnel shafts *None* Identification Marks on Do. — Material of Screw shaft *Iron* Identification Marks on Do. *LLOYD'S N° 1076 H.C.F. 18.2.25*
Material of Steam Pipes *Solid drawn Copper* Test pressure 400 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 *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 constructed under Special Survey in accordance with the Rules and approved plans; the materials and workmanship are good. The machinery has been efficiently installed on board the vessel, Examined under full working conditions and found satisfactory, and is eligible, in my opinion, for classification, and to have the record L.M.C. 4.25 in the Register Book.*

It is submitted that this vessel is eligible for THE RECORD. + LMC 4.25. CL.

W.D. C.M.S.
30/4/25

The amount of Entry Fee ... £ 2 : 0 : 0 When applied for.
Special ... £ 21 : 15 : 0 29.4.1925
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : *7.0.25*

W.D. Forster

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 5 MAY 1925

Assigned

CERTIFICATE WRITTEN



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Lloyd's Register Foundation

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.