

REPORT ON MACHINERY.

No. 43838

Received at London Office

WED. JUL 16 1924

Date of writing Report 10 When handed in at Local Office 14.7.24 Port of Glasgow.

No. in Survey held at Coatbridge. Date, First Survey 12th Feb Last Survey 7th July 1924
 Reg. Book. (Number of Visits 12)

Master Built at Dundee By whom built Caledon & B.C. Sta N^o 291. When built 1924

Engines made at Coatbridge By whom made W^o Beardmore & Co. Sta N^o 606 when made 1924

Boilers made at Dundee By whom made Cooper & Craig Ltd. N^o 459-460. when made 1924.

Registered Horse Power Owners Port belonging to

Nom. Horse Power as per Section 28 149 ✓ Is Refrigerating Machinery fitted for cargo purposes No ✓ Is Electric Light fitted No ✓

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

Dia. of Cylinders 16"-24"-44" Length of Stroke 30" Revs. per minute Dia. of Screw shaft as per rule 9.14" Material of screw shaft as fitted 9.2" Steel ✓

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No. 3 liners. Is the after end of the liner made water tight the propeller boss Yes. If the liner is in more than one length are the joints burned No ✓ 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 full length fit. If two liners are fitted, is the shaft lapped or protected between the liners Not now. Length of stern bush 3'-4 3/4".

Dia. of Tunnel shaft as per rule 8.09" 7.98" New hull as per rule 8.2" 8.38" Dia. of Crank shaft journals as fitted 9" ✓ Dia. of Crank pin 9" ✓ Size of Crank webs 6" x 15" ✓ Dia. of thrust shaft under collars 9" ✓ Dia. of screw 11'-3" ✓ Pitch of Screw 14'-0" ✓ No. of Blades 4 ✓ State whether moveable No ✓ Total surface 46 # ✓

No. of Feed pumps 2 ✓ Diameter of ditto 3" ✓ Stroke 15" ✓ Can one be overhauled while the other is at work No ✓

No. of Bilge pumps 2 ✓ Diameter of ditto 3" ✓ Stroke 15" ✓ Can one be overhauled while the other is at work Yes ✓

No. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps in Engine Room In Holds, &c.

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate

That 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

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

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

BOILERS, &c.—(Letter for record) Manufacturers of Steel

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

Working Pressure 180 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 2 valves 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

Percentages 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 top Thickness of plates crown 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

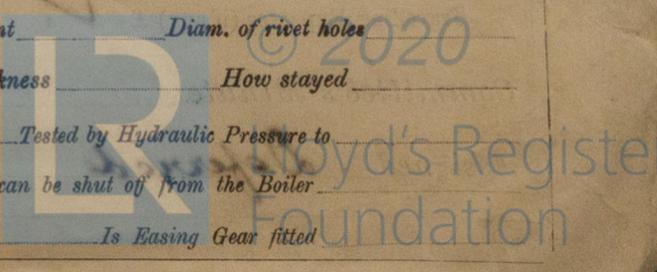
Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

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



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

By whom made W. Beardmore & Co. Ltd. Glasgow
By whom made W. Beardmore & Co. Ltd. Glasgow
By whom made W. Beardmore & Co. Ltd. Glasgow

The foregoing is a correct description,

WILLIAM BEARDMORE & CO., LIMITED. J. Thomson Manufacturer.

Dates of Survey while building { During progress of work in shops - 1924 Feb 12, 19 Mar 7, 13 Apr 4, 29 May 20, 26, 29 Jun 19 July 1, 7
During erection on board vessel - - -
Total No. of visits 12

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 29/5/24 Slides 24/5/24 Covers 26/5/24 Pistons 29/5/24 Rods 19/6/24
Connecting rods 19/6/24 Crank shaft 14/5/23 Thrust shaft 29/5/24 Tunnel shafts ✓ Screw shaft 29/5/24 Propeller 29/5/24
Stern tube 29/5/24 Steam pipes tested Engine and boiler seatings Engines holding down bolts
Completion of pumping arrangements Boilers fixed Engines tried under steam
Completion of fitting sea connections Stern tube Screw shaft and propeller
Main boiler safety valves adjusted Thickness of adjusting washers
Material of Crank shaft Steel Identification Mark on Do. 606.H.C. Material of Thrust shaft Steel Identification Mark on Do. 385.J.D
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do. 385.J.D
Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel 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 If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. The engine has been built under special survey in accordance with the Rules of this Society. The materials and workmanship are good. The engine has been shipped to Dundee for fitting on board the vessel Dundee Surveyors notified. It is submitted that the vessel be eligible for record of + LMC (with date) when the machinery has been securely fitted on board and tried under steam with satisfactory results.

Glasgow

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

The amount of Entry Fee ... £ 3 : 0 : 0 When applied for, Special 2/5/24 ... £ 14 : 18 : 0 15/7/24 Donkey Boiler Fee ... £ : : ✓ When received, Travelling Expenses (if any) £ : : ✓ 19/24

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

TUES. 9 SEP 1924

Committee's Minute GLASGOW 15 JUL 1924

Assigned Deferred

Date of writing Report No. Reg. las. Eng. Boil. Legi. MU. Let. Boil. No. rfe. re.

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