

REPORT ON MACHINERY.

No. 42930

Received at London Office

WED. AUG. 11 1923

Date of writing Report 30 7 1923 When handed in at Local Office 30 7 1923 Port of Glasgow.
 No. in Survey held at Coatbridge Date, First Survey 13 3 1923 Last Survey 6 7 1923
 Reg. Book. on the Machinery for S.S. *WHEATBLADE* (Number of Visits 20)
 Master Built at Bideford By whom built Harpers Ship & Repair Co. Ltd. When built
 Engines made at Coatbridge By whom made Wm Beardmore & Co. Ltd. No. 591. when made 1923.
 Boilers made at Glasgow By whom made Wm Beardmore & Co. Ltd. No. 130. when made 1923.
 Registered Horse Power Owners Messrs Spiller & Baker Port belonging to
 Nom. Horse Power as per Section 28 71. Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound. No. of Cylinders 2. No. of Cranks 2
 Dia. of Cylinders 14" x 36" Length of Stroke 24" Revs. per minute Dia. of Screw shaft 7.95" as per rule 7.55" Material of screw shaft S.M.
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No. Is the after end of the liner made water tight
 in the propeller boss gland. 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 No. If two
 liners are fitted, is the shaft lapped or protected between the liners No. liners fitted. Cedarvell gland. Length of stern bush 3.0"
 Dia. of Tunnel shaft as per rule 6.86" as fitted none Dia. of Crank shaft journals as per rule 4.21" as fitted 4.2" Dia. of Crank pin 4.2" Size of Crank webs 14" x 5" Dia. of thrust shaft under
 collars 7.2" Dia. of screw 9.0" Pitch of Screw 11.0" No. of Blades 4 State whether moveable No Total surface 32 sq ft.
 No. of Feed pumps 2 Diameter of ditto 2.2" Stroke 12" Can one be overhauled while the other is at work Yes.
 No. of Bilge pumps 2 Diameter of ditto 2.2" Stroke 12" Can one be overhauled while the other is at work Yes.
 No. of Donkey Engines Two Sizes of Pumps 7x14x8, 7x7x8 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2-2 1/4 (1 from 1 Agt) In Holds, &c. 2-2 1/4 P.S.

No. of Bilge Injections 1 size 3" Connected to condenser, or to circulating pump Coping Is a separate Donkey Suction fitted in Engine room & size Yes 3"
 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 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 Hold suction How are they protected Under plate
 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 No 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 Tested by hydraulic pressure No. H 2830 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 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? *No* If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two top & two bottom end connecting rod bolts & nuts, two main bearing bolts, one set of coupling bolts & nuts, one set of feed & bilge pump valves, one set of chest valves, assorted pump & bolts & nuts*

The foregoing is a correct description,

W. H. THOMSON & CO., LIMITED
W. H. Thomson Manufacturer.

Dates of Survey while building { During progress of work in shops -- } *1923 Mar 13 20 28 Apr 3 6 13 16 24 27 May 16 18 28 31 Jun 4 7 12 15 25 July 2 6*
 { During erection on board vessel --- } *1923 July 4 25 27 Aug 14 17 22 25 28 Sept 4 6*
 Total No. of visits *20 410* Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders *12.6.23* Slides *25.6.23* Covers *12.6.23* Pistons *18.6.23* Rods *12.6.23*
 Connecting rods *18.6.23* Crank shaft *28.5.23* Thrust shaft *25.6.23* Tunnel shafts *None* Screw shaft *25.6.23* Propeller *25.6.23*

Stern tube *25.6.23* Steam pipes tested *15.8.23* Engine and boiler seatings *3.7.23* Engines holding down bolts *22.8.23*
 Completion of pumping arrangements *6.9.23* Boilers fixed *6.9.23* Engines tried under steam *6.9.23*

Completion of fitting sea connections *14.8.23* Stern tube *27.7.23* Screw shaft and propeller *14.8.23*
 Main boiler safety valves adjusted *6.9.23* Thickness of adjusting washers *P 76 S 3*

Material of Crank shaft *M. S.* Identification Mark on Do. *9859 813* Material of Thrust shaft *M. S.* Identification Mark on Do. *9859 813*
 Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts *M. S.* Identification Marks on Do. *9859 813*

Material of Steam Pipes *Solid drawn copper* Test pressure *20 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 *No* If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. *This engine has been built under special survey in accordance with the Rules of the Society. The materials & workmanship are good. The engine has been dispatched to Bideford to be fitted on board the vessel.*

The machinery will be eligible in my opinion to have Record of L.M.C. (with date) when properly fitted on board and tried under working conditions with satisfactory results.

This machinery has now been fitted & secured on board & tried under working conditions & found satisfactory.

Material of stay	Thickness	Pitch of stay	How one stay secured	Area supported by each stay	Area of smallest part	Material of stay
Working pressure by rules						
End plates in steam space						
Working pressure by rules						
Material of front plate & bottom						
Working pressure of plate by rules						
Material of tube plates						
Working pressure of tube plates						
Material of tube plates						
Working pressure by rules						

The amount of Entry Fee ... £ *2* : *0* : *0* When applied for, *30/7/23*
 Special ... £ *4* : *2* : *0*
 Donkey Boiler Fee *Bristol* £ *3* : *11* : *0*
 Travelling Expenses (if any) £ *13* : *1* : *0* When received, *6/12/23*

John Barr *John W. Lawrence*
 Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 5 OCT. 1923

Committee's Minute *GLASGOW* 31 OCT 1923
 Assigned *Deferred.*

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

