

Rpt. 4.

REPORT ON MACHINERY.

No. 43157

Received at Office WFO 21 NOV. 1923

Date of writing Report 17. 11 1923 When handed in at Local Office 20. 11. 23 Port of Glasgow.

No. in Survey held at Coatbridge Date, First Survey 14th June Last Survey 5th Nov 1923
Reg. Book. (Number of Visits 18)

Master *H. H. H.* on the machinery for S. S. WHEAT PLAIN

Built at Bideford By whom built Hansen S. S. R. Co. Ltd No. 10. When built 1923
Tons Gross 522.64 Net 190.08

Engines made at Coatbridge By whom made Wm Beardmore & Co. Ltd No. 594 when made 1923

Boilers made at Palmuir By whom made Wm Beardmore & Co. Ltd No. N 360 when made 1923

Registered Horse Power Owners Messrs Guller & Butler Port belonging to Cardiff

Nom. Horse Power as per Section 28 108 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Description of Engines Compound No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 20" x 42" Length of Stroke 30" Revs. per minute 9.6 as per rule 8.72" Material of screw shaft M.S.
 as fitted 9.2" screw shaft
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No. liner Is the after end of the liner made water tight
 in the propeller boss 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 If two
 liners are fitted, is the shaft lapped or protected between the liners Vickers oil gland fitted Length of stern bush 40"
 Dia. of Tunnel shaft 8.36 as per rule 7.85" Dia. of Crank shaft journals 8.8" as per rule 8.24" Dia. of Crank pin 9" Size of Crank webs 14 x 6" Dia. of thrust shaft under
 as fitted none as fitted 9" collars 9" Dia. of screw 10.9" Pitch of Screw 12.0" No. of Blades 4 State whether movable No Total surface 42.45 sq ft
 No. of Feed pumps 2 Diameter of ditto 2 1/2" Stroke 13 1/2" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 3" Stroke 10 1/2" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 3 Sizes of Pumps 7 1/2 x 8 8 x 8 4 1/2 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 2 x 2 1/4 In Holds, &c. 2 x 2 1/2

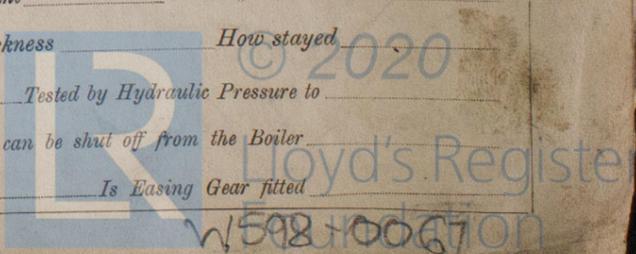
No. of Bilge Injections 1 sizes 1 1/2" Connected to condenser, or to circulating pump or pumps a separate Donkey Suction fitted in Engine room & size 2 1/2"
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible
 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 Suctions How are they protected Under platform
 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 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 2 Glasgow Rpt No 43157
 Working Pressure 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 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
 Per centages of strength of longitudinal joint rivets 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
 bottom Thickness of plates bottom 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

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

Brw 11357-14 March 24



W598100670N

IS A DONKEY BOILER FITTED? *Yes*

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

SPARE GEAR. State the articles supplied:—

Two top & two bottom end connecting rod bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed & large pump valves, one main & one donkey feed check valve assorted bolts & nuts etc.

The foregoing is a correct description,

WILLIAM BEARDMORE & CO., LIMITED

Manufacturer.

Thomson

Dates of Survey while building: During progress of work in shops -- 1923 June 4, 12, 18, Jul 2, 3, Aug 13, 17, 27, Sep 25, Oct 2, 8, 15, 19, 24, 26, 30, Nov 1, 5. During erection on board vessel -- Jan 21, 28, 29, Feb 1, 2, 8, 15, 20, 29, Mar 8, 12, 13, 14. Total No. of visits 18. 713.

Is the approved plan of main boiler forwarded herewith? *No*

Is the approved plan of donkey boiler forwarded herewith? *Yes*

Dates of Examination of principal parts—Cylinders 2.10.23. Slides 19.10.23. Covers 2.10.23. Pistons 8.10.23. Rods 15.10.23. Connecting rods 19.10.23. Crank shaft 25.9.23. Thrust shaft 30.10.23. Tunnel shafts *none*. Screw shaft 30.10.23. Propeller 15.10.23. Stern tube 15.10.23. Steam pipes tested 8.3.24. Engine and boiler seatings 24.11.23. Engines holding down bolts 29.2.24. Completion of pumping arrangements 14.3.24. Boilers fixed 2.3.24. Engines tried under steam 14.3.24. Completion of fitting sea connections 1.2.24. Stern tube 1.2.24. Screw shaft and propeller 1.2.24. Main boiler safety valves adjusted 12.3.24. Thickness of adjusting washers *Pat 1/2*

Material of Crank shaft M.S. Identification Mark on Do. *20.4* Material of Thrust shaft M.S. Identification Mark on Do. *Lloyds No 4* Material of Tunnel shafts *none* Identification Marks on Do. *25-9-23* Material of Screw shafts M.S. Identification Marks on Do. *30.10.23*

Material of Steam Pipes *Silver drawn copper* Test pressure 300 lbs

Is an installation fitted for burning oil fuel? *No* Is the flash point of the oil to be used over 150°F? *Yes*

Have the requirements of Section 49 of the Rules been complied with? *Yes*

Is this machinery duplicate of a previous case? *Yes* If so, state name of vessel *4s Wheatcrop*

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 the Society. The materials and 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 +LMC (with date) when properly fitted on board and tried under working conditions with satisfactory results.

This machinery has now been fitted & secured in true running to the Rules, tried under working conditions & found satisfactory & is now eligible in my opinion to have record of +LMC 3.24.

It is submitted that this vessel is eligible for THE RECORD. + LMC 3.24. OG.

John Barr *John W. Gwynne* 24/3/24

Engineer Surveyor to Lloyd's Register of Shipping

The amount of Entry Fee ... £ 3 : 0 } When applied for, 20/11/23 Special ... £ 10 : 16 } Donkey Boiler Fee ... £ 5 : 8 } Travelling Expenses (if any) £ 10 : 16 } When received, 24/3/24

Committee's Minute GLASGOW 20 NOV 1923

Assigned *Deferred*

TUE MAR 25 1924

+LMB.324 Lloyd's Register Foundation

Glasgow

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