

REPORT ON MACHINERY.

Imp 20479
No. 84406

Date of writing Report 28 JUN 1921 When handed in at Local Office 28 JUN 1921 Port of London
 No. in Survey held at Newbury Date, First Survey Sep 15th 1920 Last Survey May 20th 1921
 Reg. Book. on the Engines No 2445 s/s FRENSHAM (Number of Visits 11)
 Master A. L. Mack Built at Sudbrook By whom built C.H. Walker & Co Ltd Tons { Gross 739.5
 Engines made at Newbury By whom made Plenty & Son L when made 1921 Net 404.89
 Boilers made at Stockton By whom made Riley Bros when made 1920 When built 1922.
 Registered Horse Power ✓ Owners C.H. Walker & Co Ltd Port belonging to Monte video
 Nom. Horse Power as per Section 28 83 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Triple - surface condensing No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 13 - 22 - 34 Length of Stroke 22 1/2 Revs. per minute 270 Dia. of Screw shaft as per rule 7.3 Material of screw shaft Steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liners 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 ✓ If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 2 - 6 1/4
 Dia. of Tunnel shaft as per rule 6.39 Dia. of Crank shaft journals as per rule 6.7 Dia. of Crank pin 6 3/4 Size of Crank webs 12 1/4 x 4 1/2 Dia. of thrust shaft under collars 6 3/4 Dia. of screw 8 - 3 Pitch of Screw 10 - 0 No. of Blades 4 State whether moveable No Total surface 26 sq ft
 No. of Feed pumps two Diameter of ditto 3 Stroke 10 Can one be overhauled while the other is at work ✓
 No. of Bilge pumps two Diameter of ditto 3 Stroke 10 Can one be overhauled while the other is at work ✓
 No. of Donkey Engines two Sizes of Pumps Daphn 5 1/2 stroke x 5 1/2 stroke 8 1/2 stroke No. and size of Suctions connected to both Bilge and Donkey pumps 54.8 sq ft
 In Engine Room two 2 1/4 In Hold, &c. two 2 1/2

No. of Bilge Injections 1 sizes 3 1/4 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 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 Below
 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, BB for fuel tank Suctions are they protected Wood casings
 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 Machinery aft

BOILERS, &c.—(Letter for record See letter 9/8/22) Manufacturers of Steel See letter 9/8/22
 Total Heating Surface of Boilers 1610 Is Forced Draft fitted No No. and Description of Boilers One - Mult. - Single End
 Working Pressure 180 lbs 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 _____ 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 _____

UPERHEATER. 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:—

1 set of coupling bolts & nuts, Two main bearing bolts & nuts, Two top end & two bottom end bolts & nuts, 1 set air, air: feed & bilge pump valves, One spare ring for each piston, quantity of assorted bolts & nuts, quantity of round iron, 1 spare propeller.

The foregoing is a correct description,

FOR AND ON BEHALF OF

PLENTY & SON, LIMITED.

E. Davies

SECRETARY.

Manufacturer.

Dates of Survey while building: During progress of work in shops: 1920: Sep 15, Oct 14, 29, Nov 11, 25, Dec 16. 1921: Jan 24, Feb 15, Mar 10, Apr 4, May 20. During erection on board vessel: 1921: Jan 25, 1922: June 15, 16, July 7, 14, 27, 28. Total No. of visits: 18.

Is the approved plan of main boiler forwarded herewith? No

Is the approved plan of main boiler forwarded herewith? " " " donkey " " " ✓

Dates of Examination of principal parts: Cylinders 27.1.21, Slides 27.1.21, Covers 27.1.21, Pistons 27.1.21, Rods 10.3.21, Connecting rods 10.3.21, Crank shaft 15.9.20, Thrust shaft 27.1.21, Tunnel shafts ✓, Screw shaft 25.11.20, Propeller 16.12.21, Stern tube 16.12.21, Steam pipes tested 26/67 7/7.22, Engine and boiler seatings 25.1.21, Engines holding down bolts 15.6.22, Completion of pumping arrangements 7.7.22, Boilers fixed 7.7.22, Engines tried under steam 14.7.22, Completion of fitting sea connections 25.1.21, Stern tube 25.1.21, Screw shaft and propeller 25.1.21, Main boiler safety valves adjusted 14.7.22, Thickness of adjusting washers Prot 1/8" Mt 1/2", Material of Crank shaft Steel, Identification Mark on Do. GRE, Material of Thrust shaft Steel, Identification Mark on Do. LLOYDS 27.1.21 748, Material of Tunnel shafts ✓, Identification Marks on Do. ✓, Material of Screw shafts Steel, Identification Marks on Do. LLOYDS 25.11.21 748, Material of Steam Pipes S D Copper, Test pressure 36.0 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. Engines constructed under survey) Material tested, workmanship good. A number of blow holes in Ld Glinder barrel drilled & plugged - owners advised. See letter of acceptance. Condenser slightly cold shot on back, a steel plate fitted - owners advised & accepted, see letter. Condenser tested to 15 lbs per sq inch & found tight. Ld Glinder sealed by Rankie 45 lb Inf. HP & 300 lbs type sound. Engines being forwarded to Newbrook to be fitted on board Rep^m C.H. Walker of 3/2 241

The Machinery of this vessel has now been fitted on board & efficiently secured. The boiler built by Rely Bros Ltd (Inch Rpt 107 241) has been examined under steam & safety valves adjusted. During basin & trial runs the machinery worked well & satisfactorily & vessel is now in our opinion eligible for the Record of $\frac{3}{2}$ L.M.C. 7.22. (Prop has been placed in the Eastern Dry Dock (Rpt) & propeller & fastenings of sea cone examined & found in order 28.7.22)

The amount of Entry Fee £ 2. 0 : 0 When applied for, Special 20/16 9 : 2 : 0, Donkey Boiler Fee ... £ 4 : 11 : 0, Travelling Expenses (if any) £ 4 : 16 : 9, Committee's Minute FRI. 4 AUG. 1922, Assigned + Lrd. 7.22

Thomas Blackie & Stuart Anderson, Engineer Surveyor to Lloyd's Register of Shipping. 28 JUN 1922, £4.11.0 paid 14/8/22, £13.18.9 paid 2.8.21, £2.6.6 paid 14.8.22, changed to C.H. Walker rec



The Surveyors are requested not to write on or below the space for Committee's Minutes.

Rpt. 5a. Date of writing No. in Reg. Book. Master Engines made Boilers made Registered Ho MULTITU (Letter for re Boilers No. of Certificate safety valves t Are they fitted Smallest distan Material of sh Descrip. of riv Lap of plates rules 183 boiler 34 Description of plates: Material op 9x9 smallest part Pitch of stays Area supported lower back plate Pitch of tubes water spaces order at centre Working pressure diameter Pitch of rivets PERHEAT ate of Test diameter of Safety Dates of Survey while building During work in board GENERAL Special Sec hydraulic Survey Fee Travelling Exp Committee's signed