

REPORT ON MACHINERY

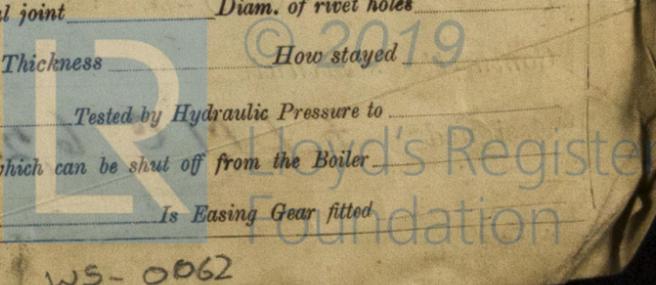
No. 43766
WED. JUN. 25 1924

Received at London Office

Date of writing Report 20 June 1924 When handed in at Local Office 23. 6. 10 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 9 April 1923 Last Survey 18 June 1924
 Reg. Book. on the S.S. "Auditor" Tons } Gross 5144
 Master Glasgow Built at Glasgow By whom built B. Bonnell & Co. When built 1924
 Engines made at Glasgow By whom made Dunsmuir & Jackson N° 547 when made 1924
 Boilers made at Glasgow By whom made do N° 547 when made 1924
 Registered Horse Power 538 Owners J. & J. Harrison Port belonging to Liverpool
 Nom. Horse Power as per Section 28 538 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 24 1/2" 42 1/2" 72" Length of Stroke 54" Revs. per minute 76 Dia. of Screw shaft as per rule 15.33" Material of screw shaft S.
 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 70" 20 O.F.
 Dia. of Tunnel shaft as per rule 14.06" Dia. of Crank shaft journals as per rule 14.8" Dia. of Crank pin 15 1/2" Size of Crank webs 29 1/2" x 10" Dia. of thrust shaft under
 collars 15 1/2" Dia. of screw 18" Pitch of Screw 18.6" No. of Blades 4 State whether moveable Yes Total surface 105 1/2 sq. ft.
 No. of Feed pumps 2 Diameter of ditto 4 1/2" Stroke 26" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 4 1/2" Stroke 26" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 3 Sizes of Pumps 10 1/2" 8" 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4 @ 3 1/2" 1 special bilge 3 1/2" In Holds, &c. N° 1. 2 @ 3 1/2" N° 2. 2 @ 3 1/2" N° 3. 2 @ 3 1/2"
N° 4. 2 @ 3 1/2" N° 5. 2 @ 3 1/2" N° 6. 1 @ 3 1/2" Tunnel well 1 @ 3 1/2"
 No. of Bilge Injections 1 sizes 9" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 3 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 Yes
 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 Both
 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 None How are they protected None
 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 Yes worked from Upper deck

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Steel Co. of Scotland 208 & 15B.
 Total Heating Surface of Boilers 9339 sq. ft. Is Forced Draft fitted No No. and Description of Boilers 2 double ended 16379
 Working Pressure 215 Tested by hydraulic pressure to 273 Date of test 29-11-23 No. of Certificate 16387
 Can each boiler be worked separately Yes Area of fire grate in each boiler 116 sq. ft. No. and Description of Safety Valves to
 each boiler 2 Spring loaded Area of each valve 11 sq. in. Pressure to which they are adjusted 220 Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 16'-0" Length 17'-6" Material of shell plates S. T.R. INT. I.R. ENDS
 Thickness 1 3/4" Range of tensile strength 29-33 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams I.R. ENDS
 long. seams T.R. T.B.S. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 10" Length of plates or width of butt straps 1'-10 3/8"
 Per centages of strength of longitudinal joint rivets 92.3 Working pressure of shell by rules 216 Size of manhole in shell 16" x 12"
 Size of compensating ring 38 1/2" x 32 1/2" No. and Description of Furnaces in each boiler 6. Morrison Material S. Outside diameter 3'-8"
 Length of plain part top 6" Thickness of plates bottom 6" Description of longitudinal joint weld No. of strengthening rings 7/8
 Working pressure of furnace by the rules 220 Combustion chamber plates: Material S Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 7/8"
 Pitch of stays to ditto: Sides 8 3/4" x 9 1/8" Back 8 3/4" x 9 1/8" Top 8 3/4" x 9 1/8" If stays are fitted with nuts or riveted heads Yes Working pressure by rules 217
 Material of stays S. Area at smallest part 2.03 Area supported by each stay 83.2 Working pressure by rules 217 End plates in steam space:
 Material S Thickness 1 3/8" Pitch of stays 17 1/2" x 22 1/4" How are stays secured J.N. Working pressure by rules 218 Material of stays S
 Area at smallest part 7.66 Area supported by each stay 394 Working pressure by rules 216 Material of Front plates at bottom S
 Thickness 1 3/8" Material of Lower back plate S Thickness 1 3/8" Greatest pitch of stays 14" x 8 1/2" Working pressure of plate by rules 224
 Diameter of tubes 3" Pitch of tubes 4 1/2" Material of tube plates S Thickness: Front 1 3/32" Back 29/32" Mean pitch of stays 14" x 8 1/2"
 Pitch across wide water spaces 14" Working pressures by rules 224 Girders to Chamber tops: Material Iron Depth and
 thickness of girder at centre 11" x 2" Length as per rule 40 1/4 Distance apart 8 3/4 Number and pitch of stays in each 3-9 1/2"
 Working pressure by rules 228 Steam dome: description of joint to shell None % of strength of joint
 Diameter None Thickness of shell plates None Material None Description of longitudinal joint None Diam. of rivet holes None
 Pitch of rivets None Working pressure of shell by rules None Crown plates None Thickness None How stayed None
SUPERHEATER. Type None Date of Approval of Plan None Tested by Hydraulic Pressure to None
 Date of Test None Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler None
 Diameter of Safety Valve None Pressure to which each is adjusted None Is Easing Gear fitted None



IS A DONKEY BOILER FITTED? no

If so, is a report now forwarded? no

SPARE GEAR. State the articles supplied:— 1 propeller shaft, 1 propeller boss, 1 propeller blade, 3-6-3 propeller blades, 1 Thomsons coupling, 2 fair lead end brasses, 1 train bottom end brasses, 1 air pump rod, 1 circulating pump impeller with shaft, 1 set air pump valves, 1 air pump head valve, 2 feed pump valves & seats, 2 bilge pump valves & seats, 2 check valves, 1 set springs for H.P. J.P. I.P. pistons, 4 top end bolts & nuts, 2 bottom end bolts & nuts, 2 main bearing for bolts, 3 sets coupling bolts, assorted bolts & nuts etc.

The foregoing is a correct description,
DUNSMUIR & JACKSON, Limited.
(IN LIQUIDATION)

For THE LIQUIDATOR, Manufacturer.

Jas. P. Adam
1923 Apr 9-20 May 7-23 Jun 5-14-21 Jul 2-4-9 Aug 15-20 24 Sep
Dates of Survey while building: During progress of work in shops --
During erection on board vessel --
Total No. of visits 41
Is the approved plan of main boiler forwarded herewith yes
" " " donkey " " " " "

Dates of Examination of principal parts—Cylinders 20-8-23 Slides 20-11-23 Covers 20-8-23 Pistons 20-11-23 Rods 20-11-23
Connecting rods 11-12-23 Crank shaft 4-7-23 Thrust shaft 5-6-23 Tunnel shafts 10-10-23 Screw shaft 18-9-23 Propeller 10-10-23
Stern tube 6-3-24 Steam pipes tested 16-5-24 Engine and boiler seatings 27-2-24 Engines holding down bolts 13-5-24
Completion of pumping arrangements 27-5-24 Boilers fixed 9-5-24 Engines tried under steam 18-6-24
Completion of fitting sea connections 27-3-24 Stern tube 27-3-24 Screw shaft and propeller 27-5-24
Main boiler safety valves adjusted 27-5-24 Thickness of adjusting washers P.B.L.R. P 1 1/2" S 1/2" S.B.L.R. P 1 1/2" S 1/2"
Material of Crank shaft S Identification Mark on Do. JHC Material of Thrust shaft S Identification Mark on Do. JHC
Material of Tunnel shafts S Identification Marks on Do. JHC Material of Screw shafts S Identification Marks on Do. JHC
Material of Steam Pipes Iron Test pressure 645

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 ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey in accordance with the Society's Rules and requirements, and approved plans, it has been satisfactorily fitted on board and tried under steam the materials and workmanship being good. The machinery in my opinion is eligible for the record + L.M.C. 6-24)

It is submitted that this vessel is eligible for THE RECORD. + LMC 6.24. CL. 2D.&1SB.

Jas. Cairns
26/6/24
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6 : - :
Special ... £ 101 : 18 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 24.6.24
When received, 25.6.24

Committee's Minute GLASGOW 25.6.24
Assigned + LMC 6.24

Glasgow

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

