

REPORT ON MACHINERY

No. 39835

Received at London Office

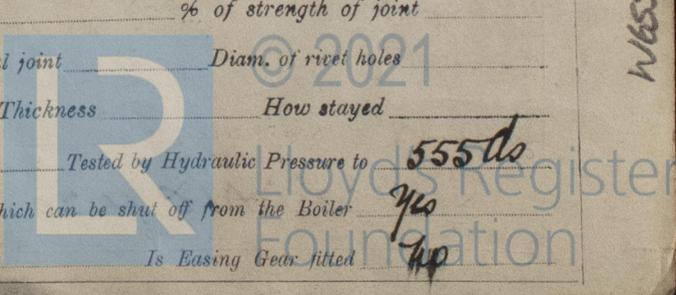
WED. APR 14 1920

Date of writing Report 12th April 1920 When handed in at Local Office 12th April 1920 Port of Glasgow
 No. in Survey held at Glasgow Date, First Survey 20. 8. 19. Last Survey 9th April 1920
 Reg. Booh. S.S. "Dalmatier" (Number of Visits 67)
 Master Delme Built at Niknich By whom built Lloyd Royal Belge 1014 Tons { Gross 1217.21 Net 742.27 When built 1920
 Engines made at Glasgow By whom made McKie Bayler 10943 when made 1920
 Boilers made at Paisley By whom made A. F. Craig No. 658/9 when made 1920
 Registered Horse Power _____ Owners The Lloyd Royal Belge Anonyme. Port belonging to Antwerp
 Nom. Horse Power as per Section 28 99 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 15-25-40 Length of Stroke 27 Revs. per minute 95 Dia. of Screw shaft as per rule 9.87 9.0 Material of screw shaft Steel
 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 _____ Length of stern bush 42 1/2
 Dia. of Tunnel shaft as per rule 7.57 7.45 Dia. of Crank shaft journals as per rule 7.89 7.55 Dia. of Crank pin 8" Size of Crank webs 15 x 5 3/8 Dia. of thrust shaft under collars 8" Dia. of screw 12-6" Pitch of Screw 9-5" No. of Blades 4 State whether moceable No Total surface 5059 ft.
 No. of Feed pumps 2 Diameter of ditto 2 3/8 Stroke 13 1/2 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 2 3/8 Stroke 13 1/2 Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 1 No. Sizes of Pumps Feed duplex 6 3/4 x 6" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 3-2 1/2
 In Holds, &c. Fore Hold 2-2 1/2 After Hold 2-2 1/2
 No. of Bilge Injections 1 sizes 4 1/2 Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/2 in
 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 Yes
 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 ✓
 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 Top platform

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel _____
 Total Heating Surface of Boilers 1630 ft. Is Forced Draft fitted No No. and Description of Boilers Two Single Ended multitubular.
 Working Pressure 185 Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate 15085
 Can each boiler be worked separately yes Area of fire grate in each boiler 24 ft. No. and Description of Safety Valves to each boiler No double spring Area of each valve 3 1/4 sq in Pressure to which they are adjusted 190 Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 18" 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 _____ Thickness of plates _____ 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 Schmidts Date of Approval of Plan 5th July 1920. Tested by Hydraulic Pressure to 555 lb
 Date of Test 19/3/20 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes
 Diameter of Safety Valve 1" Pressure to which each is adjusted 190 Is Easing Gear fitted No



W655 - 0173

IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

- In Co. Rod. Top End bolts & Nuts ✓
- In Co. Rod. Bot. End bolts & Nuts ✓
- In Main Bearing bolts. ✓
- One set of Crapling bolts. ✓
- One set of feed valve pump valves. ✓
- Assorted bolts & Nuts. ✓

The foregoing is a correct description,

McKie & Baxter

Manufacturer.

Dates of Survey while building { During progress of work in shops -- } 1919 Aug 20 Sept 4 8 16 17 22 23 25 Oct 1 6 9 9 15 20 22 24 29 29 30 2019 10 18 24 Dec 1 23 4 6 8 10
 { During erection on board vessel --- } 15 18 23 24 26 30 1920 Jan 12 15 21 23 24 29 Feb 2 3 5 11 14 21 23 24 26 Mar 1 2 3 9 12 17 19 22 26 29 30 Apr 1
 Total No. of visits 64

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 2/2/20. Slides 5/2/20. Covers 5/2/20. Pistons 2/2/20 5/2/20. Rods 26/1/20
 Connecting rods 28/1/20 Crank shaft 24/12/19 Thrust shaft 3/2/20 Tunnel shafts 2-24/2/20 3-24/2/20 Screw shaft 21/1/20 Propeller 21/1/20
 Stern tube 15/1/20 Steam pipes tested 9/3/20 29/3/20. Engine and boiler seatings 3/3/20 Engines holding down bolts 17/3/20
 Completion of pumping arrangements 30/3/20 Boilers fixed 19/3/20 Engines tried under steam 9/4/20
 Completion of fitting sea connections 3/3/20 Stern tube 3/3/20 Screw shaft and propeller 3/3/20
 Main boiler safety valves adjusted 30/3/20. Thickness of adjusting washers Piston 1/2 St. 1/16. Slide 1/2 St. 1/16
 Material of Crank shaft Steel Identification Mark on Do. 943 1/2 St. 1/16 Material of Thrust shaft Steel Identification Mark on Do. 943 1/2 St. 1/16
 Material of Tunnel shafts Steel Identification Marks on Do. 943 1/2 St. 1/16 Material of Screw shafts Steel Identification Marks on Do. 943 1/2 St. 1/16
 Material of Steam Pipes Solid drawn Steel. Test pressure 555 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. Yes. If so, state name of vessel "Syner"

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery has been built under special survey. The workmanship and materials are sound & good.
 The condenser (an independent part of the engines) was damaged during fitting on board & has now been replaced. A new condenser has been put in hand and will be fitted on board either at Glasgow or at the first convenient opportunity. These engines & boilers have been fitted on board in a satisfactory manner, tried under working conditions & are eligible, in our opinion, to be classed with record L.M.C. 4, subject to our main condenser being fitted at first convenient opportunity.

It is suggested that this vessel is eligible for THE RECORD + L.M.C. 4.20
 Subject to a new Condenser being fitted at the first convenient opportunity.

The amount of Entry Fee ... £ 1 : 0 :
 Special ... £ 14 : 17 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, 13/4 1920.
 When received, 23/4 1920.

Committee's Minute GLASGOW 13 APR 1920
 Assigned + L.M.C. 4.20 subject to 14.4.20
 J.W.D. A.P.K.
 P. W. Chgo, J. S. Sells, J. D. Boyle
 Engineer Surveyors to Lloyd's Register of Shipping.



12-4-20
 Certificate (if required) to be sent to GLASGOW
 The Surveyors are requested not to write on or within the space for Committee's Minute.