

Rpt. 4.

REPORT ON MACHINERY.

No. 40628

Received at Office WED DEC. 4 1920

Date of writing Report 29.11.1920 When handed in at Local Office 29.11.1920 Port of Glasgow
No. in Survey held at Glasgow Date, First Survey 29th March '20 Last Survey 20th Nov 1920
Reg. Book. S.S. "Gallécier" (Number of Visits 60)
on the
Master Built at Whiteinch By whom built Lloyd Royal Belge 11016 When built 1920
Engines made at Glasgow By whom made McKie & Baxter 110945 when made 1920
Boilers made at Paisley By whom made A. J. Craig & Co. 662 & 663 when made 1920
Registered Horse Power Owners See Anonymous Lloyd's Register Port belonging to Autwerp.
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 84 Dia. of Screw shaft 10.2 as per rule 9.87 as fitted 10.2 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 7.52 as per rule 7.45 Dia. of Crank shaft journals 7.89 as per rule 7.83 Dia. of Crank pin 8 Size of Crank webs 15 x 5 1/2 Dia. of thrust shaft under
collars 8 Dia. of screw 12-6 Pitch of Screw 9-5 No. of Blades 4 State whether moveable No Total surface 50.59 sq. ft.
No. of Feed pumps 2 Diameter of ditto 2 7/8 Stroke 13 1/2 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 2 7/8 Stroke 13 1/2 Can one be overhauled while the other is at work Yes
No. of Donkey Engines 1 Sizes of Pumps Feed pump 6" x 4" x 6" Ballast 6" x 7 1/2" 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
Tunnel held 1-2 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" dia.
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 Engine room platform

BOILERS, &c.—(Letter for record 8) Manufacturers of Steel

Total Heating Surface of Boilers 1630 sq. ft. Is Forced Draft fitted No No. and Description of Boilers 1m single and multitubular
Working Pressure 185 Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler 24 sq. ft. No. and Description of Safety Valves to
each boiler 1m double spring Area of each valve 3 1/4 sq. in. Pressure to which they are adjusted 190 lbs 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 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 End plates in steam space:
Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom
Area at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules
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
Tested by Hydraulic Pressure to 555 lbs

SUPERHEATER. Type Schmidt Date of Approval of Plan

Date of Test 5-11-20 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 195 lbs Is Easing Gear fitted Working nuts

W421-0102

IS A DONKEY BOILER FITTED?

40

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 1 subeach of top bottom end, main bearing & coupling bolts
nuts, 1 air pump rod, 1 valve spindle, 1 pair top end braces, 1 subeach of Lad, air, circulating &
bilge pump valves, assorted bar iron, bolts nuts.

The foregoing is a correct description,

Mackie & Baxter

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1920 Mar 29 Apr 6, 14, 21, 26, 27, 28, 29 May 4, 11, 20, 24, 31 Jun 7, 9, 14, 16, 17, 21, 22, 23, 28, 29, 30 Aug 3, 12, 16, 25, 26, 30, 31 Sep 1, 2, 9
During erection on board vessel - - - 13, 21 Oct 1, 4, 5, 11, 14, 18, 20, 21, 22, 23, 26, 30 Nov 1, 2, 3, 5, 8, 9, 10, 11, 16, 18, 19, 20
Total No. of visits 60.

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 18-10-20 Slides 26/10/20 Covers 26/10/20 Pistons 26/10/20 Rods 26/10/20

Connecting rods 26/10/20 Crank shaft 18/10/20 Thrust shaft 11/10/20 Tunnel shafts 11/10/20 Screw shaft 21/9/20 Propeller 18/10/20

Stern tube 21/9/20 Steam pipes tested 9/11/20 Engine and boiler seatings 15/10/20 Engines holding down bolts 11-11-20

Completion of pumping arrangements 20-11-20 Boilers fixed 11-11-20 Engines tried under steam 20-11-20

Completion of fitting sea connections 15/10/20 Stern tube 25/10/20 Screw shaft and propeller 23/10/20 27/10/20

Main boiler safety valves adjusted 16/11/20 Thickness of adjusting washers P. 3/8" 5/16" S. 3/8" 5/16"

Material of Crank shaft Steel Identification Mark on Do. 945 Lloyd's 18/10/20 Material of Thrust shaft Steel Identification Mark on Do. 945 Lloyd's 11/10/20

Material of Tunnel shafts Steel Identification Marks on Do. 945 Lloyd's 11/10/20 Material of Screw shafts Steel Identification Marks on Do. 945 Lloyd's 21/9/20

Material of Steam Pipes Solid drawn mild steel Test pressure 555 lbs per sq. inch.

Is an installation fitted for burning oil fuel 40 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 S. S. "Syrier."

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

The machinery has been built under special survey. The workmanship and material are of good quality.

These engines & boilers have been fitted on board in an efficient manner, tried under working conditions and found satisfactory and are eligible in our opinion to be classed with record of + LMC. 11-20.

It is submitted that this vessel is eligible for THE RECORD, + LMC. 11-20

R.C.H.

6/12/20

A.P.R.

MACHINERY CERT
WRITTEN
1-12-20

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 9 : 9 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 30.11.1920
When received, 13/12/1920

Committee's Minute GLASGOW 30 NOV 1920

Assigned + LMC 11, 20.

Robert Cregor, J. S. Sellar.
Engineer Surveyors to Lloyd's Register of Shipping.