

REPORT ON MACHINERY.

No. 39429.

Received at London Office WED. 17 MAR. 1920

Date of writing Report 19 When handed in at Local Office 13.3.1920 Port of Glasgow

No. in Survey held at Reg. Book. on the Glasgow S. S. "Syxier" Date, First Survey 23/5/19. Last Survey 5th March 1920 (Number of Visits 68)

Master Built at Hulwich By whom built Lloyd Royal Belge No 13 Tons Gross Net When built 1920

Engines made at Glasgow By whom made McKie + Baxter No 942 when made 1920

Boilers made at Paisley By whom made A & J Craig 656/7. when made 1920

Registered Horse Power Owners Lloyd Royal Belge Soc Anvers Port belonging to Antwerp

Nom. Horse Power as per Section 28 99 ✓ Is Refrigerating Machinery fitted for cargo purposes No ✓ Is Electric Light fitted None

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 9.90 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 as per rule 7.52 7.45 as fitted 7.2 ✓ Dia. of Crank shaft journals as per rule 7.89 7.83 as fitted 8" ✓ 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 sq. feet. ✓

No. of Feed pumps 2 Diameter of ditto 2 1/8" Stroke 13 1/2" ✓ Can one be overhauled while the other is at work Yes ✓

No. of Bilge pumps 2 Diameter of ditto 2 1/8" 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 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" ✓

Samuel bell 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 1/2" 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 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 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

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

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 1690 sq ft Is Forced Draft fitted No ✓ No. and Description of Boilers 1 No Single ended water tubular 2.S.B

Working Pressure 185. Tested by hydraulic pressure to Date of test No. of Certificate

Can each boiler be worked separately Yes ✓ Area of fire grate in each boiler 24 sq. ft. No. and Description of Safety Valves to each boiler 1 In double spring Area of each valve 3.14 sq in Pressure to which they are adjusted 190 lbs Are they fitted with easing gear Yes ✓

Least 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

Percentages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell plate

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

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 fire 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 See Separate Report Attached 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

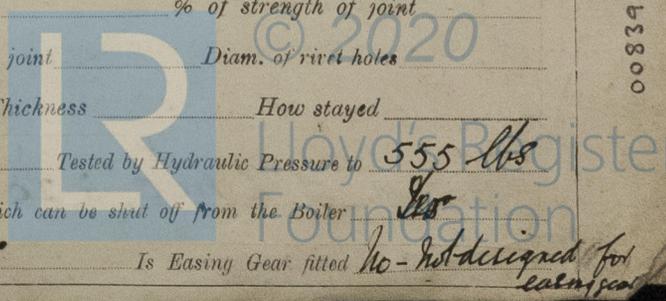
Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Schmidt's Date of Approval of Plan 5th July 1920. Tested by Hydraulic Pressure to 555 lbs

Date of Test 19-2-20 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 193 lbs Is Easing Gear fitted No - Not designed for easing gear

008393-008400-0230



IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *Two top end & two bottom end bolts & nuts, two main bearing bolts & nuts, one set coupling bolts & nuts, one set feed & bilge pump valves, one set pistons springs, quantity assorted bolts & nuts, iron of various sizes etc.*

The foregoing is a correct description,

Mc Kee & Munster Manufacturer.

Dates of Survey while building: During progress of work in shops -- 1919 May 23 Aug 6-11-14-20-22 Sept 4-8-9-15-16-17-19-23-25-27-30 Oct 6-8-9-13-15-16-20-21-22-23-27
During erection on board vessel --- 30 Nov 3-4-6-10-12-18-19 Dec 3-4-6-8-17-18-22-25-24-26 1920 Jan 12-13-14-15-19-20-21-23-27 Feb 3-4
Total No. of visits *68*

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders 19/1/20 Slides 21/1/20 Covers 20/1/20 Pistons 21/1/20 Rods 21/1/20
Connecting rods 19/1/20 Crank shaft 6/10/19 Thrust shaft 15/1/20 Tunnel shafts 13/10/19 Screw shaft 21/10/19 Propeller 16/10/19
Stern tube 12/1/20 Steam pipes tested 16/2/20 & 25/2/20 Engine and boiler seatings 19/1/20 Engines holding down bolts 19/2/20
Completion of pumping arrangements 28/2/20 Boilers fixed 19/2/20 Engines tried under steam 5/3/20
Completion of fitting sea connections 4/2/20 Stern tube 4/2/20 Screw shaft and propeller 4/2/20
Main boiler safety valves adjusted 4/3/20 Thickness of adjusting washers P. P.Y. 9/32 S.Y. 9/32 S P.Y. 9/32 S.Y. 9/32
Material of Crank shaft S Identification Mark on Do. 942 P.Y. 6/10/19 Material of Thrust shaft S Identification Mark on Do. 942 P.Y. 15/1/20
Material of Tunnel shafts S Identification Marks on Do. 942 P.Y. 13/10/19 Material of Screw shaft S Identification Marks on Do. 942 P.Y. 21/10/19
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 *no* If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been built under special survey and the workmanship and materials are sound & good. These Engines & Boilers have been fitted on board in a satisfactory manner tried under working conditions and are eligible in our opinion to be classed with record of L.M.C. 3-20.*

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 3-20 *18/3/20*

AWD. APR 2

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

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 14 : 17 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for. 16/3/19 20.
When received. 1/4/19 20

Peter W. Gregor, J. M. Bell, & L. P. Murray
Engineers Surveyors to Lloyd's Register of Shipping.

Committee's Minute
Assigned + L.M.C. 3,20
GLASGOW 16 MAR 1920

