

Rpt. 4.

REPORT ON MACHINERY

No. 41734

Date of writing Report 11 Dec 1919 When handed in at Local Office 11 Dec 1919 Port of **CARDIFF**
 No. in Survey held at **Cardiff** Date, First Survey 21st October Last Survey 1st December 1919
 Reg. Book. 26645 on the **S.S. "Slikkerman" now "Ualan"** (Number of Visits 8)
 Master Built at **Slikkerman** By whom built **H. V. Schep "de Maas"** Tons { Gross 471 Net 241
 Engines made at **Hengelo** By whom made **Gebr. Smit** when made 1917
 Boilers made at 1917 By whom made **Do** when made 1917
 Registered Horse Power 43 Owners **Enterprise Shipping Co. Ltd (Abbeyside)** Port belonging to **Cardiff**
 Nom. Horse Power as per Section 28 71 Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **No**

ENGINES, &c.—Description of Engines **Inverted Triple Expansion** No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders $12\frac{9}{16}$ $20\frac{1}{2}$ $31\frac{1}{2}$ Length of Stroke $19\frac{1}{2}$ Revs. per minute 155 Dia. of Screw shaft as per rule $6\frac{1}{4}$ Material of screw shaft **Steel**
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube **No** Is the after end of the liner made water tight
 in the propeller boss **Rubber** 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 **Lapped & coated** Length of stern bush 2' 4"
 Dia. of Tunnel shaft as per rule **None** Dia. of Crank shaft journals as per rule $6\frac{1}{4}$ Dia. of Crank pin $6\frac{1}{4}$ Size of Crank webs $10\frac{1}{2} \times 4\frac{1}{2}$ Dia. of thrust shaft under
 collars $6\frac{1}{4}$ Dia. of screw 8" Pitch of Screw $8\frac{1}{2}$ No. of Blades 4 State whether moveable **No** Total surface
 No. of Feed pumps 1 Diameter of ditto $3\frac{5}{16}$ Stroke **✓** Can one be overhauled while the other is at work **Yes**
 No. of Bilge pumps 1 Diameter of ditto $3\frac{5}{16}$ Stroke **✓** Can one be overhauled while the other is at work **Yes**
 No. of Donkey Engines 2 Sizes of Pumps 1-4" 1-4" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3 - $2\frac{1}{2}$ " dia. **✓** In Holds, &c. **One to each tank & one to each**
 No. of Bilge Injections 1 sizes $3\frac{1}{2}$ " Connected to condenser, or to circulating pump **Cipex** Is a separate Donkey Suction fitted in Engine room & size **Yes**
 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 **None**
 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 **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 **None** Is it fitted with a watertight door **None** worked from **✓**

BOILERS, &c.—(Letter for record 1400 sq. ft.) Manufacturers of Steel (**Siemens Martin Process**)
 Total Heating Surface of Boilers 1308 sq. ft. Is Forced Draft fitted **No** No. and Description of Boilers 1. **Junctinboen (Series)**
 Working Pressure 185 lb. Tested by hydraulic pressure to 44 sq. ft. Date of test 16 15.3.18 No. of Certificate 3417
 Can each boiler be worked separately **✓** Area of fire grate in each boiler $4\frac{1}{4}$ sq. ft. No. and Description of Safety Valves to
 each boiler 2. **Direct** Area of each valve $3\frac{1}{4}$ sq. ft. Pressure to which they are adjusted **✓** Are they fitted with easing gear **Yes**
 Smallest distance between boilers or uptakes and bunkers or woodwork 30" Mean dia. of boilers $11\frac{9}{16}$ Length $10\frac{6}{16}$ Material of shell plates **Steel**
 Thickness $1\frac{1}{16}$ Range of tensile strength **✓** Are the shell plates welded or flanged **Flanged** Descrip. of riveting: cir. seams $2\frac{1}{2}$ g.
 long. seams **Tube** Diameter of rivet holes in long. seams $1\frac{3}{16}$ Pitch of rivets $4\frac{1}{2}$ Lap of plates or width of butt straps $1\frac{5}{16}$
 Per centages of strength of longitudinal joint rivets 103% plate 85% Working pressure of shell by rules 184.6 Size of manhole in shell $15\frac{3}{4} \times 11\frac{13}{16}$
 Size of compensating ring $7 \times 1\frac{1}{2}$ flange No. and Description of Furnaces in each boiler 2. **Cr.** Material **Steel** Outside diameter $3\frac{11}{16}$
 Length of plain part top **Cr.** bottom **Cr.** Thickness of plates crown $9\frac{1}{16}$ Description of longitudinal joint **Welded** No. of strengthening rings **None**
 Working pressure of furnace by the rules 183.4 Combustion chamber plates: Material **Steel** Thickness: Sides $3\frac{1}{4}$ Back $3\frac{1}{4}$ Top $3\frac{1}{4}$ Bottom $7\frac{1}{8}$
 Pitch of stays to ditto: Sides 9×8 Back 9×7 Top 9×8 (If stays are fitted with nuts or riveted heads **Yes** Working pressure by rules 210
 Material of stays **Steel** Area at smallest part 99.4 Area supported by each stay $7\frac{1}{2}$ Working pressure by rules 194 End plates in steam space:
 Material **Steel** Thickness $1\frac{1}{8}$ Pitch of stays 15×15 How are stays secured **3 N + W** Working pressure by rules 187 Material of stays **Steel**
 Area at smallest part 6.49 Area supported by each stay 225.0 Working pressure by rules 207 Material of Front plates at bottom **Steel**
 Thickness $1\frac{1}{8}$ Material of Lower back plate **Steel** Thickness $1\frac{1}{8}$ Greatest pitch of stays 19.2 Working pressure of plate by rules
 Diameter of tubes $3\frac{1}{2}$ Pitch of tubes $7\frac{3}{8}$ Material of tube plates **Steel** Thickness: Front $1\frac{1}{8}$ Back 1" Mean pitch of stays $4\frac{1}{8}$
 Pitch across wide water spaces 15" Working pressures by rules 189 Girders to Chamber tops: Material **Steel** Depth and
 thickness of girder at centre 6×2 Length as per rule **24** Distance apart 9" Number and pitch of stays in each 2 -
 Working pressure by rules 300.0 Steam dome: description of joint to shell **None** % 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 **None** Date of Approval of Plan **✓** Tested by Hydraulic Pressure to **2020**
 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 **✓**

If so, is a report now forwarded? ✓

1 Pair Top end bolts & nuts. 1 Pair Bottom end Bolts & nuts. 1 Set Coupling bolts.
1 Pair main bearing bolts. 1 Set Top & Bottom end brames. 1 Air & 1 Circulating pump
rods. 2 Feed & 2 Bilge pump valves. 6 Condenser tubes. 4 Boiler tubes. 1 Safety
valve spring. 1 Spare Propeller. 1 Valve spindle. 1 Set of pump links. Full
complement of tools for engine room (spanners, blocks etc). A quantity of assorted
iron, bolts, nuts etc. All Effects is fitted in Storehold.

Manufacturer.

Is the ~~approved~~ plan of main boiler forwarded herewith

Is an installation fitted for burning oil fuel *No.*

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

The materials and workmanship of the engines and boilers appear to be of a satisfactory nature.

It is submitted that
this vessel is eligible for
THIS RECORD LMC 12.19. subject
See Separate Endorsement 5.1.20 J.W.D.
73/12/12

The Pumping Plan has not yet been produced; the Supt. ^{23/12/19} states that it will be sent on at the first opportunity.

The amount of Entry Fee	...	£	:	:	When applied for,
Special A.	...	£	10	:	19
Donkey Boiler Fee	...	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	:	16/3/19

J. E. Hunter.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

MACHINERY CERT
WRITTEN
13.2.20

TUE. 21 DEC. 1920

FRI. 13 FEB. 1920

TUE. 24 FEB. 1920

TUE. JUN. 29 1920

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