

REPORT ON MACHINERY.

No. 32416

Received at London Office

FRI. 28 JAN. 1921

Date of writing Report 17/1/21 When handed in at Local Office 17/1/21 Port of Hull.
No. in Survey held at Hull. Date, First Survey 5/5/20 Last Survey 15/1/1921
Reg. Book. on the S.S. MARGARET LOCKINGTON. (Number of Visits 50) Gross 460 Tons Net 179
Master Built at Selby By whom built Lockman & Sons Ltd. When built 1921
Engines made at Hull. By whom made Jas. D. Holmes & Co. Ltd. when made 1921
Boilers made at do By whom made do when made 1921
Registered Horse Power Owners Lockington S.S. Co. Ltd. Port belonging to Dundalk.
Nom. Horse Power as per Section 28 112. Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted *Yes*

ENGINES, &c.—Description of Engines

Triple expansion.

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 14½-24-40 Length of Stroke 27 Revs. per minute 112 Dia. of Screw shaft as per rule 8.5" Material of screw shaft *Steel*
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 - If two
liners are fitted, is the shaft lapped or protected between the liners *Yes* Length of stern bush 3-4
Dia. of Tunnel shaft as per rule 7.55" Dia. of Crank shaft journals as per rule 7.92" Dia. of Crank pin 8½" Size of Crank webs 15½x5½ Dia. of thrust shaft under
collars 8½" Dia. of screw 10-6" Pitch of Screw 11-1½" No. of Blades 4 State whether moveable *No* Total surface 38 ft
No. of Feed pumps 2 Diameter of ditto 2½" Stroke 15" Can one be overhauled while the other is at work *Yes*
No. of Bilge pumps 2 Diameter of ditto 2½" Stroke 15" Can one be overhauled while the other is at work *Yes*
No. of Donkey Engines *Two* Sizes of Pumps 6x4½x6 & 8x6x6 No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4 @ 2½" In Holds, &c. 2 @ 2½"

No. of Bilge Injections 1 sizes 4" Connected to condenser, or to circulating pump *Yes* Is a separate Donkey Suction fitted in Engine room & size *Yes 2½"*
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 -
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 *Bilge & Ballast suction* How are they protected *Thump casing*
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 - Is it fitted with a watertight door - worked from -

BOILERS, &c.—(Letter for record 5)

Manufacturers of Steel J. Spencer & Sons.

Total Heating Surface of Boilers 1940 Is Forced Draft fitted *No* No. and Description of Boilers *One cyl mult S.E.*
Working Pressure 200 Tested by hydraulic pressure to 400. Date of test 22/12/20 No. of Certificate 3488.
Can each boiler be worked separately *Yes* Area of fire grate in each boiler 55.6 ft² No. and Description of Safety Valves to
each boiler *2 spring loaded* Area of each valve 5.94 Pressure to which they are adjusted 205 lbs. Are they fitted with easing gear *Yes*
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers 14.6 Length 11.0 Material of shell plates *Steel*
Thickness 1½" Range of tensile strength 28 to 32 Tons. Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *DRL*
long. seams *TR.D.S.* Diameter of rivet holes in long. seams 1½" Pitch of rivets 8½" Lap of plates or width of butt straps 18½"
Per centages of strength of longitudinal joint rivets 88.7% plate 85.7% Working pressure of shell by rules 201 lbs. Size of manhole in shell 16" x 12"
Size of compensating ring 17½" x 7" No. and Description of Furnaces in each boiler 3 Plain. Material *Steel* Outside diameter 3-6"
Length of plain part top 8-2½" bottom 7-1½" Thickness of plates crown 3½" Description of longitudinal joint *Welded* No. of strengthening rings -
Working pressure of furnace by the rules 255 Combustion chamber plates: Material *Steel* Thickness: Sides ¾" Back ¾" Top ¾" Bottom ¾"
Pitch of stays to ditto: Sides 9½x10 Back 9½x9½ Top 9x10 If stays are fitted with nuts or riveted heads *No* Working pressure by rules 200 lbs.
Material of stays *Steel* Area at smallest part 2.07" Area supported by each stay 85" Working pressure by rules 218 End plates in steam space:
Material *Steel* Thickness 1½" Pitch of stays 17½x18½ How are stays secured *DN & W* Working pressure by rules 206 lbs. Material of stays *Steel*
Area at smallest part 6.38" Area supported by each stay 324" Working pressure by rules 205 lbs. Material of Front plates at bottom *Steel*
Thickness 1½" Material of Lower back plate *Steel* Thickness ¾" Greatest pitch of stays 14½x9½ Working pressure of plate by rules 211
Diameter of tubes 3½" Pitch of tubes 4½x4½ Material of tube plates *Steel* Thickness: Front 1½" Back 1½" Mean pitch of stays 10.6"
Pitch across wide water spaces 15½" Working pressures by rules 353 lbs. Girders to Chamber tops: Material *Steel* Depth and
thickness of girder at centre 9x1½" Length as per rule 2-9½" Distance apart 9" Number and pitch of stays in each 2 @ 10"
Working pressure by rules 213 lbs. 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

Date of Approval of Plan

Tested by Hydraulic Pressure to

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

002269-002278 0094

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two top end, two bottom end two main bearing
one set of coupling bolts & nuts, One set air, feed, & bilge pump
valves, one main & one donkey check valve. A quantity of assorted
bolts & nuts & iron of various sizes.

The foregoing is a correct description,

FOR CHARLES D. HOLMES & Co. LTD.

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1920 :- May 5. 12. 18. 25. 28 Jun 14. 24. July 2. 7. Aug 3. 11. 19. 25. 30. Sept 7. 10. 14. 15. 23
During erection on board vessel -- Oct 6. 7. 11. 13. 14. 19. 20. 28. Nov 2. 12. 18. 19. 22. 23. 29. Dec. 20. 28. 29. 30. 1. 4. 15. 20
Total No. of visits 50.

Is the approved plan of main boiler forwarded herewith

Yes

Dates of Examination of principal parts—Cylinders 29/11/20 Slides 14/12/20 Covers 29/11/20 Pistons 14/12/20 Rods 23/11/20
Connecting rods 29/11/20 Crank shaft 12/11/20 Thrust shaft 12/11/20 Tunnel shafts 7/9/20 Screw shaft 7/9/20 Propeller 7/9/20
Stern tube 14/9/20 Steam pipes tested 6/1/21 Engine and boiler seatings 5/1/21 Engines holding down bolts 5/1/21
Completion of pumping arrangements 14/1/21 Boilers fixed 5/1/21 Engines tried under steam 14/1/21
Completion of fitting sea connections 23/9/20 Stern tube 23/9/20 Screw shaft and propeller 23/9/20
Main boiler safety valves adjusted 13/1/21 Thickness of adjusting washers 5 5/16" 2 3/8"
Material of Crank shaft Steel Identification Mark on Do. 2518 Material of Thrust shaft Steel Identification Mark on Do. 2517
Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Steel Identification Marks on Do. 2496
Material of Steam Pipes Copper Test pressure 400 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

Yes

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 engines & boiler of this vessel have been built under special survey & the materials & workmanship are good.

On completion the machinery was tried under full working conditions while moved to the Easy well with satisfactory results.

The machinery of this vessel is now in a good & efficient condition & eligible in my opinion to have the record of L.M.C. 1-21. marked in Red in the Register's Register Book.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 1.21.

Bel
31/1/21

J.R.K.

The amount of Entry Fee ... £ 3-0-0

When applied for

Special ... £ 28-0-0

27.1.1921

Donkey Boiler Fee ... £ 2-10-0

When received,

Travelling Expenses (if any) £ :

2-3-1921

Committee's Minute

TUE. FEB 8 1921

Assigned

+ L.M.C. 1.21

Engineer Surveyor to Lloyd's Register of Shipping.

CERTIFICATE WRITTEN



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