

REPORT ON MACHINERY.

No. 39608

Received at London Office

WED. FEB. 11. 1920

Date of writing Report

19

When handed in at Local Office

9/2/1920 Port of GLASGOW

To. in Survey held at
Reg. Book.
on theGlasgow
S.S. TREVERBYNDate, First Survey 19th June 1918 Last Survey 29th Jan 1920
(Number of Visits 61)Gross 5281
Net 3294

Master

Built at Glasgow

By whom built

Harland & Wolff Ltd (No 530) When built 1920

Engines made at

Glasgow

By whom made

Harland & Wolff Ltd (No 561)

when made 1920

Boilers made at

do

By whom made

Winstanley & Jackson (No 113)

when made

Registered Horse Power

Owners

Hain S.S. Co. Ltd

Port belonging to

St. Ives

Com. Horse Power as per Section 28

517

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 27" 44" 73"

Length of Stroke 48"

Revs. per minute 80

Dia. of Screw shaft

as per rule 14.7"

Material of

Steel

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

the propeller boss

Yes

If the liner is in more than one length are the joints burned

—

If the liner does not fit tightly at the part

the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

Yes

are fitted, is the shaft lapped or protected between the liners

—

Length of stern bush 5'-0"

Tunnel shaft

as per rule 13.3"

Dia. of Crank shaft journals

as per rule 13.9"

Dia. of Crank pin 14.2"

Size of Crank webs 9x28"

Dia. of thrust shaft under

14.2"

Dia. of screw 17'-6"

Pitch of Screw 16'-6"

No. of Blades 4

State whether moveable

No

Total surface

98.2 sq ft

Feed pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work

Yes

Bilge pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work

Yes

Donkey Engines 3

Sizes of Pumps

19 gals and 9 1/2 x 7 x 18"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Holds, &c.

No 1-2-3-4-5 two each 3 1/2"

Engine Room (2) 3 1/2"

Stokehold (2) 3 1/2"

Funnel well (1) 3 1/2"

Bilge Injections

8"

Connected to condenser, or to circulating pump

Pump

Is a separate Donkey Suction fitted in Engine room

Yes

Size 3 1/2"

Are the roses in Engine room always accessible

Yes

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

connections with the sea direct on the skin of the ship

Yes

Are they Valves or Cocks

Both

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

Below

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Yes

pipes are carried through the bunkers

7 Suctions

How are they protected

Wood casings

Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Yes

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

Yes

Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Platform in Engine room

ERS, &c.—(Letter for record)

S

Manufacturers of Steel

See separate report

3.S.B.

Heating Surface of Boilers

7668 sq ft

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 Single ended

Working Pressure

180 lb

Tested by hydraulic pressure to

360 lb

each boiler be worked separately

Yes

Area of fire grate in each boiler

63.3 sq ft

No. and Description of Safety Valves to

boiler 25 lb

Area of each valve

9.62 sq ft

Pressure to which they are adjusted

185 lb

test distance between boilers or uptakes and bunkers or woodwork

1-9

Mean dia. of boilers

Length

Material of shell plates

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

Diameter of rivet holes in long. seams

Pitch of rivets

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

Working pressure of shell by rules

Size of manhole in shell

No. and Description of Furnaces in each boiler

3 corrugated

Material

of compensating ring

No. and Description of Furnaces in each boiler

3 corrugated

Material

Outside diameter

Thick. of plain part

No. of strengthening rings

Top

Bottom

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Working pressure of furnace by the rules

End plates in steam space:

Material of stays

Working pressure by rules

Area of stays

Area at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

Material of stays

Working pressure by rules

Material of Front plates at bottom

Working pressure of plate by rules

Material of Lower back plate

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of Front plates at bottom

Working pressure of plate by rules

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Working pressures by rules

Girders to Chamber tops: Material

Depth and

Distance apart

Number and pitch of stays in each

Length as per rule

Distance apart

Number and pitch of stays in each

% of strength of joint

Working pressure by rules

Steam dome: description of joint to shell

Diam. of rivet holes

Thickness of shell plates

Material

Description of longitudinal joint

Working pressure of shell by rules

Crown plates

Thickness

How stayed

Tested by Hydraulic Pressure to

PERHEATER. Type

Date of Approval of Plan

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Is Easing Gear fitted

Date of Test

Diameter of Safety Valve

Pressure to which each is adjusted

Lloyd's Register

Foundation

89107511M

IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:— 2 Top end bolts and nuts, 2 bottom end bolts and nuts, 1/2 main bearing bolts and nuts, 1 set coupling bolts and nuts fixed and bidge pump valves iron, bolts and nuts assorted and other articles

The foregoing is a correct description,
For HARLAND & WOLFF, LTD.

Chas. Green

MANAGER DIESEL ENGINE WORKS

Engine Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1918 June 19 24 27 July 12 5 8 10 11 24 29 30 31 Aug 2 19 22 26 27 28 Sept 14 19 23 26 Oct 2 4 17 29 20 21
During erection on board vessel - - 1919 Jan 14 Feb 19 Mar 13 20 Apr 11 May 1 2 June 11 12 23 July 1 10 Aug 28 Sept 1 15 22 20 24 26 30 Oct 13 20 22 29
Total No. of visits 61

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 14.1.19 Slides 9.12.18 Covers 9.12.18 Pistons 14.1.19 Rods 14.1.19

Connecting rods 14.4.19 Crank shaft 14.4.19 Thrust shaft 1-9.19 Tunnel shafts 22.9.19 Screw shaft 22.9.19 Propeller 22.10.19

Stern tube 22.9.19 Steam pipes tested 1.5.19 2.5.19 Engine and boiler seatings 20.10.19 Engines holding down bolts 20.12.19

Completion of pumping arrangements 22.1.20 Boilers fixed 22.1.20 Engines tried under steam 22.1.20 29.1.20

Completion of fitting sea connections 22.10.19 Stern tube 22.10.19 Screw shaft and propeller 22.10.19

Main boiler safety valves adjusted 22.1.20 Thickness of adjusting washers Sta 3 1/2 3 1/2 Centre 3 1/2 3 1/2 pt 1 1/2 1 1/2

Material of Crank shaft Steel Identification Mark on Do. 561 Material of Thrust shaft Steel Identification Mark on Do. 289 W9

Material of Tunnel shafts Steel Identification Marks on Do. * Material of Screw shafts Steel Identification Marks on Do. 370 1/2

Material of Steam Pipes Iron Test pressure 540 lb

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 Standard A

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

* 3172 2236 2482 4742 A1 2239 2238
2342 429 571 441 471 470
WQH WQH WQH WQH RME WQH

The Machinery of this Vessel has been constructed under Special Survey in accordance with the Rules and approved Plans and has been seen working satisfactorily under steam. Materials and workmanship are good.

The Machinery is eligible in our opinion to be classed + LMC 1-20.

It is submitted that
this vessel is eligible for
THE RECORD

+LMC 1-20 F.D.

WQH

12/2/20

APR

The amount of Entry Fee ... £ 3 : 0

Special ... £ 34 : 8

Donkey Boiler Fee ... £ 34 : 0

Travelling Expenses (if any) £

When applied for,

19/21 20

When received,

12/5 20

Committee's Minute GLASGOW

Assigned + LMC 1,20

10 FEB 1920

MACHINERY CERT.
WHITTEN
14-2-20

FRI. DEC. 4 1920

Easthope M. J. Curran
Engineer Surveyor to Lloyd's Register of Shipping

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Foundation