

t. 4.

REPORT ON MACHINERY.

No. 45550

Received at London Office

14 APR 1926

of writing Report

19

When handed in at Local Office

13.4.1926 Port of Glasgow

in Survey held at

Glasgow

Date, First Survey

12.6.25

Last Survey

8 April 1926

Book.

on the new steel S/S "DIRECTOR"

(Number of Visits

63

Gross 5107

Tons Net 3128

ster

Built at Glasgow

By whom built D. & W. Henderson & Co. Ltd (1922)

When built 1926

ines made at

Glasgow

By whom made D. & W. Henderson & Co. Ltd (1922)

when made 1926

ilers made at

Glasgow

By whom made D. & W. Henderson & Co. Ltd (1922)

when made 1926

gistered Horse Power

Owners Chantre SS Co. Ltd (T. & J. Harrison)

Port belonging to

Liverpool

m. Horse Power as per Section 28

464

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

GINES, &c.—Description of Engines

Triple expansion

No. of Cylinders 3

No. of Cranks 3

a. of Cylinders 26-43-73

Length of Stroke 48

Revs. per minute 77

Dia. of Screw shaft as per rule 4.81

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

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

yes

If two

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

Length of stern bush 5-10

ia. of Tunnel shaft

as per rule 13.5

as fitted 13.5

Dia. of Crank shaft journals

as per rule 14.206

as fitted 14.206

Dia. of Crank pin 14.3

Size of Crank webs 9x22.5

Dia. of thrust shaft under

llars 14.3

Dia. of screw 17.6

Pitch of Screw 16-6

No. of Blades 4

State whether moveable

yes

Total surface

98 sq ft

o. of Feed pumps 2

Diameter of ditto 4

Stroke 24

Can one be overhauled while the other is at work

yes

o. of Bilge pumps 2

Diameter of ditto 4.5

Stroke 24

Can one be overhauled while the other is at work

yes

o. of Donkey Engines 3

Sizes of Pumps 10.8 9.2 x 12

9.8 6 x 9

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

In Holds, &c. N°1 hold - 2 @ 3.5

N°2 hold - 2 @ 3.5

Tunnel well - 1 @ 3

N°5 hold - 2 @ 3.5

N°6 hold - 1 @ 3.5

n Engine Room

4 @ 3.5

Deep tank - 2 @ 3.5

N°5 hold - 2 @ 3.5

N°6 hold - 1 @ 3.5

Tunnel well - 1 @ 3

No. of Bilge Injections 1

sizes 8

Connected to condenser, or to circulating pump

Are all the bilge suction pipes fitted with

rooses

yes

Are the rooses 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 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

both

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

four and hold suction

How are they protected

under timber boards

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

upper deck

BOILERS, &c.—(Letter for record (R))

Manufacturers of Steel

David Colville & Sons Ltd

208

Total Heating Surface of Boilers

77060 sq ft

As Forced Draft fitted

no

No. and Description of Boilers

two double ended

Working Pressure

200

Tested by hydraulic pressure to

350

Can each boiler be worked separately

yes

Area of fire grate in each boiler

105 sq ft

No. and Description of Safety Valves to

each boiler

2 direct spring

Area of each valve

12.560

Smallest distance between boilers or uptakes and bunkers or woodwork

2-0

Mean dia. of boilers

15-0

Length

16-6

Material of shell plates

steel

Thickness

1.238 1.138

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

ends DR lap

mid TR lap

long. seams

DBS. TR

Diameter of rivet holes in long. seams

1.76

Pitch of rivets

9.13 9.25

Lap of plates or width of butt straps

21 1/4

Per centages of strength of longitudinal joint

92.6

Size of compensating ring

36.5 x 32.5 x 1.38

No. and Description of Furnaces in each boiler

6 Morrison

Material

steel

Outside diameter

3-7 3/16

Length of plain part

top

bottom

Thickness of plates

1.9

Description of longitudinal joint

welded

No. of strengthening rings

1

Working pressure of furnace by the rules

200

Combustion chamber plates: Material

steel

Thickness: Sides

2.32

Back

Top

2.32

Bottom

Pitch of stays to ditto: Sides

10.8 x 8.8

Back

Top

10.8 x 8.8

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

200

Material of stays

steel

Area at smallest part

2.550

Area supported by each stay

84.80

Working pressure by rules

202

End plates in steam space:

Material

steel

Thickness

1.38

Pitch of stays

22 x 20

How are stays secured

N.N.

Working pressure by rules

200

Material of Front plates at bottom

steel

Thickness

1

Material of Lower back plate

-

Thickness

-

Diameter of tubes

3.5

Pitch of tubes

4.13 x 4.5

Material of tube plates

steel

Thickness: Front

1

Back

Pitch across wide water spaces

14.5/8

Working pressures by rules

F230. B200

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

2 @ 10.3 x 7

Length as per rule

3-6.2

Distance apart

8.7

Number and pitch of stays in each

3 @ 10.8

Working pressure by rules

200

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

Date of writing R

No. in Reg. Book

Master

Engines made

Boilers made

Nominal Horse

MULTITU

Manufacturers

Total Heating

No. and Desc

Tested by hyd

Area of Fireg

Area of each

In case of don

Smallest dista

Smallest dista

Largest intern

Thickness

long. seams

Percentage of

Percentage of

Thickness of

Material

Length of pla

Dimensions of

End plates in

How are stay

Tube plates:

Mean pitch o

Girders to co

at centre 2

in each

Tensile stren

Pitch of stays

Working pres

Thickness

Pitch of stay

Working Pre

Diameter { At

Working pres

Diameter { At

Ove

IS A DONKEY BOILER FITTED? yes If so, is a report now forwarded? yes

SPARE GEAR. State the articles supplied:—In accordance with the Rules and in addition:-

One propeller shaft one propeller boss. two propeller blades. one Thompson coupling. two pairs of top and one pair of bottom end bushes. one air pump rod. one circulating pump impeller and shaft. one set of air pump valves. air pump head valve seating complete. one eccentric sheave and strap. one valve spindle.

The foregoing is a correct description,
For **DAVID & WM HENDERSON & CO., LTD.**

W. H. Patfield
DIRECTOR. Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1925. June 12-15. July 2-31. Aug 5-17. 20. Sept 2-8. 14. Oct. 6-12-16. 30. Nov. 9-14-18. 20. 25-26. 30.
During erection on board vessel -- 1926. Jan 11-13-14-15. 19-20-25-27-28-29. Feb 1-2-4-10-11-16-17-18-22-23-24-25-26. Mar 1-2-3-4-12-16. Apr 8.
Total No. of visits 63.

Is the approved plan of main boiler forwarded herewith yes
" " " donkey " " " yes

Dates of Examination of principal parts—Cylinders 26-11-25 Slides 1-2-26 Covers 11-1-26 Pistons 19-1-26 Rods 25-1-26
Connecting rods 20-1-26 Crank shaft 30-11-25 Thrust shaft 25-11-25 Tunnel shafts 25-11-25 Screw shaft 20-1-26 Propeller 20-1-26
Stern tube 13-1-26 Steam pipes tested 29-12-25 Engine and boiler seatings 4-2-26 Engines holding down bolts 3-3-26
Completion of pumping arrangements 12-3-26 Boilers fixed 3-3-26 Engines tried under steam 8-4-26.
Completion of fitting sea connections 2-2-26 Stern tube 2-2-26 Screw shaft and propeller 2-2-26
Main boiler safety valves adjusted 12-3-26 Thickness of adjusting washers all 3/8"
Material of Crank shaft steel Identification Mark on Do. LLOYDS N° 7278 L.C.S. 20-11-25 Material of Thrust shaft steel Identification Mark on Do. LLOYDS N° 7278 L.C.S. 25-11-25
Material of Tunnel shafts steel Identification Marks on Do. LLOYDS N° 7278 L.C.S. 25-11-25 Material of Screw shafts steel Identification Marks on Do. LLOYDS N° 7278 L.C.S. 20-1-26
Material of Steam Pipes lapwelded wrought iron Test pressure 600 lb per sq in

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 "Historian"

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

The workmanship and materials are good.
The machinery has been constructed under Special Survey, in accordance with the Rules, satisfactorily fitted in the vessel, tried under steam and found good. It is eligible in my opinion for classification and the Record + LMC 4.26

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 4.26. CL

S. J. Davis
14/4/26

S. J. Davis
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 5 : :
Special ... £ 94 : 12 : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 13/4/26
When received, 19. 4. 26

Committee's Minute GLASGOW 13 APR 1926

Assigned + LMC 4.26.

CERTIFICATE WRITTEN
14. 4. 26



© 2019

Lloyd's Register
Foundation

26
13/4/26
Certificate (if required) to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.