

Rpt. 4.

## REPORT ON MACHINERY.

No. 45440

Received at London Office 30 JUN 1926

Date of writing Report

19

When handed in at Local Office

28.6.26

Port of

Glasgow

No. in Survey held at  
Reg. Book.

Glasgow

Date, First Survey

26.2.26

Last Survey

26.6.1926

(Number of Visits 26)

on the

new steel screw tug "GEORGE LYESEY"

Tons Gross 108

Net

Master

Built at Glasgow

By whom built Harland &amp; Wolff Ltd (No 734)

When built 1926

Engines made at

Glasgow

By whom made D. &amp; W. Henderson &amp; Co. Ltd (No 734)

when made 1926

Boilers made at

Glasgow

By whom made D. &amp; W. Henderson &amp; Co. Ltd (No 734)

when made 1926

Registered Horse Power

Owners South Metropolitan Gas Company

Port belonging to London

Nom. Horse Power as per Section 28

84

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

## ENGINES, &amp;c.—Description of Engines

Compound

No. of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

18"-38"

Length of Stroke

27"

Revs. per minute

120

Dia. of Screw shaft

8.49"

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

United States packing fitted

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

2'-11"

Dia. of Tunnel shaft

7.53"

Dia. of Crank shaft journals

7.91"

Dia. of Crank pin

8.3"

Size of Crank webs

15.7"

Dia. of thrust shaft under

codars

8.3"

Dia. of screw

8'-6"

Pitch of Screw

11'-3"

No. of Blades

4

State whether moveable

no

Total surface

26 sq ft

No. of Feed pumps

2

Diameter of ditto

3"

Stroke

13.5"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

3"

Stroke

13.5"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

1

Sizes of Pumps

4.86 x 12 (Weiss)

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

In Engine Room

2 @ 2"

In Holds, &amp;c.

1 @ 2" in shaft recess, 1 @ 2" in

No. of Bilge Injections

1

sizes

4"

Connected to condenser, or to circulating pump

b.p.

Is a separate Donkey Suction fitted in Engine room &amp; size

yes 2"

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

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

yes

worked from Hatch in crew's space.

## BOILERS, &amp;c.—(Letter for record (S))

Manufacturers of Steel

D. B. Whittle &amp; Sons Ltd.

Total Heating Surface of Boilers

1551 sq ft

Is Forced Draft fitted

no

No. and Description of Boilers

one single ended

Working Pressure

130

Tested by hydraulic pressure to

245

Date of test

20.4.26

No. of Certificate

14104

Can each boiler be worked separately

yes

Area of fire grate in each boiler

49 sq ft

No. and Description of Safety Valves to

each boiler

2-3" High lift

Area of each valve

7.0680"

Pressure to which they are adjusted

135

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers on woodwork

2'-9"

Mean dia. of boilers

13'-3"

Length

10'-6"

Material of shell plates

steel

Thickness

5.34"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

WR

long. seams

WRB. TR

Diameter of rivet holes in long. seams

1"

Pitch of rivets

6.34"

Top of plates

width of butt straps

15.7"

Per centages of strength of longitudinal joint

rivets 94.3

plate 83.8

Working pressure of shell by rules

131

Size of manhole in shell

16" x 12"

Size of compensating ring

2'-9" x 2'-6" x 1/8"

No. and Description of Furnaces in each boiler

two Deighton

Material

steel

Outside diameter

4'-7.5"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

welded

No. of strengthening rings

—

Working pressure of furnace by the rules

147

Combustion chamber plates: Material

steel

Thickness: Sides

5/8"

Back

5/8"

Top

5/8"

Pitch of stays to ditto: Sides

9.34" x 9.34"

Back

9.34" x 9.34"

Top

10" x 9.34"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

140

Material of stays

steel

Area at smallest part

1.450"

Area supported by each stay

950"

Working pressure by rules

132

End plates in steam space:

Material

steel

Thickness

3.12"

Pitch of stays

19" x 17"

How are stays secured

U.N.

Working pressure by rules

132

Material of stays

steel

Area at smallest part

3.90"

Area supported by each stay

323.0"

Working pressure by rules

132

Material of Front plates at bottom

steel

Thickness

2.1"

Material of Lower back plate

steel

Thickness

2.32"

Greatest pitch of stays

15.2" x 9.34"

Working pressure of plate by rules

131

Diameter of tubes

3"

Pitch of tubes

4.4" x 4.8"

Material of tube plates

steel

Thickness: Front

2.1"

Back

2.32"

Mean pitch of stays

11.17/32"

Pitch across wide water spaces

14"

Working pressures by rules

136

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

2 @ 6.34" x 4.8"

Length as per rule

28.155"

Distance apart

Working pressure by rules

141

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

## SUPERHEATER. Type none

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

007072-007077-0014



IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:

and one propeller.

as per rules, and in addition - one screw shaft

The foregoing is a correct description,

For DAVID & WM HENDERSON & CO., Ltd.

Stveday

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1926 Feb. 26 Mar. 4 5 9 19 Apr 6 9 16 20 23 30 May 4 10 11 12 18 19 14 21 25 26 27 28 31 June 2 26  
During erection on board vessel - - -  
Total No. of visits 26

Is the approved plan of main boiler forwarded herewith

yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 23-30-4-26 Slides 12-5-26 Covers 14-5-26 Pistons 7-5-26 Rods 10-5-26  
Connecting rods 10-5-26 Crank shaft 12-5-26 Thrust shaft 12-5-26 Tunnel shafts 12-5-26 Screw shaft 14-5-26 Propeller 14-5-26  
Stern tube 7-5-26 Steam pipes tested 18-24-5-26 Engine and boiler seatings 10-5-26 Engines holding down bolts 28-5-26  
Completion of pumping arrangements 2-6-26 Boilers fixed 28-5-26 Engines tried under steam 26-6-26  
Completion of fitting sea connections 11-5-26 Stern tube 11-5-26 Screw shaft and propeller 11-5-26  
Main boiler safety valves adjusted 2-6-26 Thickness of adjusting washers P 7/16" S 3/8"

Material of Crank shaft I. Steel Identification Mark on Do.

LLOYD'S  
NO 928  
H.M.C.  
12-5-26

Material of Thrust shaft I. Steel Identification Mark on Do.

LLOYD'S  
NO 929  
H.M.C.  
12-5-26

Material of Tunnel shaft I. Steel Identification Marks on Do.

LLOYD'S  
NO 926  
H.M.C.  
12-5-26

Material of Screw shafts I. Steel Identification Marks on Do.

LLOYD'S  
NO 927  
H.M.C.  
14-5-26

Material of Steam Pipes

Solid drawn copper

Test pressure 260 lbs.

main

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

Spaul

LLOYD'S  
NO 928  
H.M.C.  
25-5-26

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 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 6, 26

It is submitted that this vessel is eligible for THE RECORD + LMC 6. 26. 06.

2/7/26

The amount of Entry Fee ... £ 2 : -

Special ... £ 21 : -

Donkey Boiler Fee ... £ - : -

Travelling Expenses (if any) £ - : -

When applied for.

29 JUN 1926

When received.

9-9-26

S. C. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 29 JUN 1926

Assigned + LMC 6, 26

CERTIFICATE WRITER



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