

REPORT ON MACHINERY.

No. 43990.

Date of writing Report 1st Nov. 1924 When handed in at Local Office 1st Nov. 1924

Received at London Office

-5 NOV 1924

No. in Survey held at

Glasgow

Date, First Survey 14-3-1923

Last Survey 30-10-1924

Reg. Book.

s.s. "GOLDEN CAPE"

(Number of Visits 68)

Master

Built at Port-Glasgow

By whom built W. Hamilton & Co. Ltd. (N^o 388)Tons } Gross 4554
Net 2900

Engines made at

Glasgow

By whom made

D. Rowan & Co. Ltd. (N^o 781)

When built 1924

Boilers made at

Glasgow

By whom made

D. Rowan & Co. Ltd. (N^o 781)

when made 1924

Registered Horse Power

Owners Wyle Ross & Co.

Port belonging to

London

Nom. Horse Power as per Section 28

382

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

26"-42"-70"

Length of Stroke

48"

Revs. per minute

65

Dia. of Screw shaft

as per rule 14.66"

Material of

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

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.

charged If two

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

Length of stern bush

5'-0"

Dia. of Tunnel shaft

as per rule 12.98"

as fitted 13 1/8"

Dia. of Crank shaft journals

as per rule 13.629"

as fitted 13 3/4"

Dia. of Crank pin

13 3/4"

Size of Crank webs

collars 14"

Dia. of screw

18'-0"

Pitch of Screw

18'-6"

No. of Blades

4

State whether moveable

20

No. of Feed pumps

2 Weirs

Diameter of ditto

7"

Stroke

21"

Can one be overhauled while the other is at work

yes.

No. of Bilge pumps

2

Diameter of ditto

4 1/2"

Stroke

27"

Can one be overhauled while the other is at work

yes.

No. of Donkey Engines

2

Sizes of Pumps

BALLAST 9" x 12" x 12"

GEN. DKY. 8" x 5 1/2" x 10"

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

In Engine Room

5 c 2 1/2", 1 c 2 1/2" TO COFFERDAM, 1 c 2 1/2" TO N^o 3 (DRY) TANKIn Holds, &c. N^o 1 HOLD 2 c 3" - N^o 2 HOLD 2 c 3" - DEEP TANK

In Engine Room

5 c 2 1/2", 1 c 2 1/2" TO COFFERDAM, 1 c 2 1/2" TO N^o 3 (DRY) TANKIn Holds, &c. N^o 1 HOLD 2 c 3" - N^o 2 HOLD 2 c 3" - DEEP TANKIn Holds, &c. N^o 1 HOLD 2 c 3" - N^o 2 HOLD 2 c 3" - DEEP TANKIn Holds, &c. N^o 1 HOLD 2 c 3" - N^o 2 HOLD 2 c 3" - DEEP TANKIn Holds, &c. N^o 1 HOLD 2 c 3" - N^o 2 HOLD 2 c 3" - DEEP TANKIn Holds, &c. N^o 1 HOLD 2 c 3" - N^o 2 HOLD 2 c 3" - DEEP TANKIn Holds, &c. N^o 1 HOLD 2 c 3" - N^o 2 HOLD 2 c 3" - DEEP TANKIn Holds, &c. N^o 1 HOLD 2 c 3" - N^o 2 HOLD 2 c 3" - DEEP TANK

No. of Bilge Injections

One size 7"

Connected to condenser, or to circulating pump

Pump

Is a separate Donkey Suction fitted in Engine room & size

1 c 4 1/2"

Are all the bilge suction pipes fitted with roses

yes.

Are the bilge suction pipes in Engine room always accessible

Are all connections with the sea direct on the skin of the ship

yes.

Are they Valves or Cocks

both.

Are the Discharge Pipes above or below the deep water line

both.

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

yes.

What pipes are carried through the bunkers

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

BOILERS, &c.—(Letter for record S.)

Manufacturers of Steel

Mannesmann-Röhrenwerke, Abteilung Schütz-Knaudt, Hückingen 7

The Scottish

35B.

Total Heating Surface of Boilers

6081 sq. ft.

Is Forced Draft fitted

No.

Working Pressure

180 lbs./sq. in.

Tested by hydraulic pressure to

320 lbs./sq. in.

Date of test

13-6-24

No. of Certificate

16531

Can each boiler be worked separately

each boiler

Two spring loaded

Area of fire grate in each boiler

59 sq. ft.

No. and Description of Safety Valves to

each boiler

Two spring loaded

Area of each valve

8.29 sq. in.

Smallest distance between boilers or uptakes and bunkers or woodwork

26"

Mean dia. of boilers

14'-6"

Length

11'-6"

Material of shell plates

Steel

Thickness

Range of tensile strength

28/32 tons/sq. in.

Are the shell plates welded or flanged

no.

Descrip. of riveting: cir. seams

D.R. LAP

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

Pitch of rivets

8 23/32"

Top of plates or width of butt straps

18 1/2"

Per centages of strength of longitudinal joint

rivets 76.6%

plate 86.6%

Working pressure of shell by rules

194 lbs./sq. in.

Size of compensating ring

24" x 30" x 1 1/4"

Range of

No. and Description of Furnaces in each boiler

3 Brighton

Material

Steel

Outside diameter

3'-7 23/32"

Length of plain part

top 35"

crown 35"

bottom 35"

Description of longitudinal joint

weld.

No. of strengthening rings

None

Working pressure of furnace by the rules

Pitch of stays to ditto: Sides

9 1/4" x 10 1/2"

Back

8 7/8" x 9 1/4"

Top

9 1/4" x 10 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

Material of stays

Steel

Thickness

1 3/4"

Pitch of stays

20" x 19 1/4"

How are stays secured

Shubs

Working pressure by rules

Material of stays

Steel

Thickness

3/4"

Greatest pitch of stays

13 1/8" x 8 7/8"

Working pressure of plate by rules

181 lbs./sq. in.

Diameter of tubes

Pitch of tubes

4 3/8" x 4 1/2"

Material of tube plates

Steel

Thickness: Front

27/32"

Back

23/32"

Mean pitch of stays

Pitch across wide water spaces

13 7/8"

Working pressures by rules

180 lbs./sq. in.

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

8" x 2 c 7/8"

Length as per rule

2'-9 1/8"

Distance apart

c 9 1/2" w. 9 1/4"

Number and pitch of stays in each

2 c 10 1/2"

Working pressure by rules

187 lbs./sq. in.

Steam dome: description of joint to shell

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

Smoke Tube

Date of Approval of Plan

31-5-23

Tested by Hydraulic Pressure to

540 x 100 lbs./sq. in.

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

yes.

Diameter of Safety Valve

Pressure to which each is adjusted

185 lbs./sq. in.

Is Easing Gear fitted

yes.

Foundation

Foundation

Foundation

Foundation

Foundation

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? —

SPARE GEAR. State the articles supplied:— All as per Rule requirements and, in addition, one propeller shaft, one propeller, and a quantity of small gear.

The foregoing is a correct description,

For David Rowan & Co. Ltd

Archd. N. Grierson,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1923 Jan 14, 21 Apr 9, 17 May 18, 23, 28 Jun 4, 7, 18, 27 July 31 Aug 8, 9, 20, 27 Sep 10, 18, 20, 28 Oct 8, 10, 15, 17, 24, 25 Nov 30, 27, 28
During erection on board vessel - - 29 Dec 26, 1924 Jan 9, 30 Feb 7, 26, 28 Mar 4, 13, 26, 27 Apr 19, 30 May 1, 5, 7, 14, 20, 26, 28 Jun 2, 11, 13, 23, 24, 25, 26, 30 July 1, 10 Aug 7
Total No. of visits - 68.

Is the approved plan of main boiler forwarded herewith Yes.

" " " donkey " " " —

Dates of Examination of principal parts—Cylinders 30.4.24 Slides 11.6.24 Covers 30.4.24 Pistons 11.6.24 Rods 28.5.24
Connecting rods 28.5.24 Crank shaft 5.5.24 Thrust shaft 20.5.24 Tunnel shafts 4.8.24 Screw shaft 16.6.24 Propeller 16.6.24
Stern tube 30.6.24 Steam pipes tested 24.6.24 to 28.8.24 Engine and boiler seatings 12.8.24 Engines holding down bolts 2.9.24
Completion of pumping arrangements 3.9.24 Boilers fixed 26.8.24 Engines tried under steam 4.9.24 to 30.10.24
Completion of fitting sea connections * Stern tube * Screw shaft and propeller SEE GREENOCK REPORT.
Main boiler safety valves adjusted 4.9.24 Thickness of adjusting washers PORT BOILER P 3/8 S 3/8 CENTRE BOILER P 3/8 S 1 3/32 STAB. BOILER P 3/8 S 3/8
Material of Crank shaft Steel Identification Mark on Do. LLOYD'S No 781 H.C. 5.5.24 Material of Thrust shaft Steel Identification Mark on Do. LLOYD'S No 6476 J.D.B. 20.5.24
Material of Tunnel shafts Steel Identification Marks on Do. LLOYD'S No 781 H.C. 4.8.24 Material of Screw shafts Steel Identification Marks on Do. LLOYD'S No 4 H.P.F. 16.6.24 to 12.8.24
Material of Steam Pipes Lapwelded Wrot. Iron Test pressure 540 lbs./sq. in.

Is an installation fitted for burning oil fuel No—see below. Is the flash point of the oil to be used over 150°F. Yes.

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 s.s. "GOLDEN SEA" G.O. Rpt. No 43591

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

This machinery has been constructed under Special Survey in accordance with the Rules and approved plans; the materials and workmanship are good. The machinery has been fitted on board the vessel, examined under full working conditions, and found satisfactory and is eligible, in my opinion, for classification and to have the record L.M.C. 10.24 in the Register Book.

The piping arrangements have been made suitable, and settling tanks fitted, in order that an installation for burning oil fuel may be fitted at a later date if required.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 10.24. CL.

The amount of Entry Fee ... £ 5 : 0 : 0 When applied for,
Special ... £ 82 : 6 : 0 3.11.24
Donkey Boiler Fee ... £ - : - :
Travelling Expenses (if any) £ - : - : 5.11.24

H. Forster.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW

Assigned + LMC 10,24

CERTIFICATE WRITTEN 5/11/24



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Foundation