

REPORT ON MACHINERY.

No. 31976

Received at London Office

JUL 27 1920

Date of writing Report

19

When handed in at Local Office

16. 7. 20 Port of Hull

No. in Survey held at Reg. Book.

Hull

Date, First Survey

Apr 18/10

Last Survey

Jul

1920

on the

S.S. "PLANSWORTH"

(Number of Visits)

Master

Built at

Goole

By whom built

Cuse & B. G. Ltd

When built

1920

Engines made at

Hull

By whom made

Baker & Co. Ltd

when made

1920

Boilers made at

Hull

By whom made

Baker & Co. Ltd

when made

1920

Registered Horse Power

Owners

R. S. Daglish Ltd

Port belonging to

Newcastle

Nom. Horse Power as per Section 28

172

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

18-30-50

Length of Stroke

33

Revs. per minute

85

Dia. of Screw shaft

as per rule

as fitted

Material of

screw shaft

Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

cut

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

No

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

No

If two

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

No

Length of stern bush

3-7

Dia. of Tunnel shaft

as per rule

as fitted

Dia. of Crank shaft journals

as per rule

as fitted

Dia. of Crank pin

9-1/2

Size of Crank webs

18x6

Dia. of thrust shaft under

collars

9-1/2

Dia. of screw

13-3

Pitch of Screw

14-6

No. of Feed pumps

Two

Diameter of ditto

2-1/2

Stroke

18

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

Two

Diameter of ditto

2-1/2

Stroke

18

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

3

Sizes of Pumps

2 1/2 H.P.

7" x 5" x 12"

No. and size of

Suctions connected to both Bilge and Donkey pumps

In Engine Room

5 1/2 2 1/2 H.P.

In Holds, &c.

4 1/2 2 1/2 H.P.

(2 1/2 2 1/2 H.P.)

(2 1/2 2 1/2 H.P.)

(2 1/2 2 1/2 H.P.)

(2 1/2 2 1/2 H.P.)

(2 1/2 2 1/2 H.P.)

(2 1/2 2 1/2 H.P.)

(2 1/2 2 1/2 H.P.)

No. of Bilge Injections

One

sizes

7"

Connected to condenser, or to circulating pump

C.H.P.

Is a separate Donkey Suction fitted in Engine room & size

Yes

2 1/2"

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

No

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

No

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

No

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

Upper deck

Is a Report also sent on the Hull of the Ship?

Yes

If not, state whether, and when, one will be sent?

No

Is a Report also sent on the Hull of the Ship?

Yes

BOILERS, &c.—(Letter for record

S.)

Manufacturers of Steel

Spencer & Co.

Total Heating Surface of Boilers

2885

Is Forced Draft fitted

No

No. and Description of Boilers

Two single end

Working Pressure

180 lbs.

Tested by hydraulic pressure to

360 lbs.

Date of test

22/3/19

No. of Certificate

3383

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

48.5

No. and Description of Safety Valves to

each boiler

Two spring loaded

Area of each valve

4.9"

Pressure to which they are adjusted

180 lbs.

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

5-0"

Mean dia. of boilers

15 1/4"

Length

10-6"

Material of shell plates

Steel

Thickness

1 1/8"

Range of tensile strength

28 to 32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

Double

long. seams

T.R.T.B.S.

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

7 1/2"

Per centages of strength of longitudinal joint

rivets

87.4%

Working pressure of shell by rules

183 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

No. and Description of Furnaces in each boiler

3

Material

Steel

Outside diameter

4 1/4"

Length of plain part

top

bottom

Thickness of plates

crown

3 1/2"

Description of longitudinal joint

Welded

No. of strengthening rings

Working pressure of furnace by the rules

183 lbs.

Combustion chamber plates: Material

Steel

Thickness: Sides

7/8"

Back

5/8"

Top

5/8"

Pitch of stays to ditto: Sides

8 1/2" x 8 1/2"

Back

8 1/2" x 8 1/2"

Top

8 1/2" x 8 1/2"

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

187 lbs.

Material of stays

Steel

Area at smallest part

4 1/2" x 2 1/2"

Area supported by each stay

4 1/2" x 2 1/2"

Working pressure by rules

187 lbs.

Material of stays

Steel

Thickness

1 1/2"

Pitch of stays

22 1/2" x 1 1/2"

How are stays secured

T.B.S.

Working pressure by rules

180 lbs.

Material of stays

Steel

Area at smallest part

7 1/4"

Area supported by each stay

3 1/2" x 3 1/2"

Working pressure by rules

190 lbs.

Thickness

1"

Material of Lower back plate

Steel

Thickness

7/8"

Greatest pitch of stays

13" x 8 1/2"

Working pressure of plate by rules

180 lbs.

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

Steel

Pitch across wide water spaces

14"

Working pressures by rules

183 lbs.

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

8 1/2" x 1 1/2"

Length as per rule

30 1/2"

Distance apart

8 1/2"

Number and pitch of stays in each

Two 2 1/2"

Working pressure by rules

183 lbs.

Steam dome: description of joint to shell

No

% of strength of joint

No

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

No

Date of Approval of Plan

No

Tested by Hydraulic Pressure to

No

Date of Test

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

No

Diameter of Safety Valve

Pressure to which each is adjusted

No

Is Easing Gear fitted

No

Is a Report also sent on the Hull of the Ship?

Yes

If not, state whether, and when, one will be sent?

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *No*

SPARE GEAR. State the articles supplied:—

Two top end, two bottom end, two main bearing & 6 coupling bolts & nuts. Re set in feed & bilge pump valves, 1 main & one feed check valves, one boiler safety valve, 1 feed pump escape valve, 50 lbs. assorted bolts & nuts, a quantity of iron of various sizes & of steel wire & 6 steam chest cover studs & nuts, 8 exhaust tubes & 16 funnels, 8 boiler tubes, spares for auxiliary machinery &c.

The foregoing is a correct description,

FOR LARLE S
SHIPBUILDING & ENGINEERING CO. LIMITED

Manufacturers.

Dates of Survey while building
During progress of work in shops --
During erection on board vessel --
Total No. of visits

ASSISTANT MANAGER

Apr 18/18 to July 5/20.

55.

Is the approved plan of main boiler forwarded herewith

" " " donkey " "

Dates of Examination of principal parts—Cylinders *15/5/19* Slides *19/5/19* Covers *19/5/19* Pistons *15/5/19* Rods *2/6/19*
Connecting rods *15/5/19* Crank shaft *11/2/20* Thrust shaft *2/6/19* Tunnel shafts *3/3/20* Screw shaft *3/3/20* Propeller *19/2/20*
Stern tube *19/2/20* Steam pipes tested *20/4/20* Engine and boiler seatings *20/4/20* Engines holding down bolts *3/3/20*
Completion of pumping arrangements *26/6/20* Boilers fixed *4/5/20* Engines tried under steam *26/6/20*
Completion of fitting sea connections *20/4/20* Stern tube *20/4/20* Screw shaft and propeller *20/4/20*
Main boiler safety valves adjusted *4/5/20* Thickness of adjusting washers *5 1/8" 7 1/8" 5 1/8" 7 1/8"*
Material of Crank shaft *STEEL* Identification Mark on Do. *2431* Material of Thrust shaft *STEEL* Identification Mark on Do. *2343*
Material of Tunnel shafts *STEEL* Identification Marks on Do. *2439A* Material of Screw shafts *STEEL* Identification Marks on Do. *2439*
Material of Steam Pipes *L.W. STEEL* Test pressure *540 lbs.*

Is an installation fitted for burning oil fuel

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

If so, state name of vessel

General Remarks

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

The engines & boilers of this vessel have been built under special survey & the materials & workmanship are good. On completion they were examined while running full power trials in the Chamber & found satisfactory. The machinery throughout is now in good & efficient condition & eligible in my opinion to have the record F.L.M.C. 7-20 marked in Red in the Surveyor's Register Book.

It is submitted that
this vessel is eligible for
THE RECORD + LMC 7. 20.

JWD 23/7/20. *ARSL*

The amount of Entry Fee ... £ : :
Special ... £ *33-2-0*
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *16.7.20*
When received, *24/7/20*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

MACHINERY CERT.
WRITTEN

+ LMC 7. 20



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Foundation