

REPORT ON MACHINERY.

Port of

Cardiff

MUN 8-APR 1918

Received at London Office

Survey held at

Cardiff

Date, first Survey

25th Mar

Last Survey

6th April 1918

Book.

on the Twin Screw Steamer "Newston" ex "Favorita Dona Catalina"

(Number of Visits 7)

Gross

Tons

Net

Built at

Bremerhaven

By whom built

J Seebeck & Co. Ltd.

When built 1906-6

Machinery made at

Bremerhaven

By whom made

Ditto

when made

1906

Horse Power

Do

By whom made

Do

when made

1906

Indicated Horse Power

90

Owners

The Instone Transport-Trading Co.

Port belonging to

Cardiff

Horse Power as per Section 28

53 N.H.P.

Is Refrigerating Machinery fitted

no

Is Electric Light fitted

no

MACHINERY, &c.—Description of Engines

Two sets compound reciprocating

No. of Cylinders

Two in each

No. of Cranks

Two

Diameter of Cylinders

11" x 20"

Length of Stroke

15 3/4"

Revs. per minute

4 3/4

Diameter of Screw shaft

4 3/4"

as per rule

5.5

Length of stern bush

19 1/2"

Diameter of Tunnel shaft

4 3/4"

as per rule

4 3/4"

Diameter of Crank shaft journals

4 3/4"

as per rule

4 3/4"

Diameter of Crank pin

4 3/4"

Size of Crank webs

13 x 5 1/2 x 2 1/2"

Diameter of thrust shaft under

Diameter of screw

6 1/8"

Pitch of screw

8 1/2"

No. of blades

4

State whether moveable

no

Total surface

15.5 sq ft

Feed pumps

one

Diameter of ditto

2 1/8"

Stroke

8"

Can one be overhauled while the other is at work

yes

Bilge pumps

one

Diameter of ditto

1 3/4"

Stroke

8"

Can one be overhauled while the other is at work

yes

Donkey Engines

one

Sizes of Pumps

7 1/2" x 5"

Stroke

5 1/2"

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

Engine Room

Two. 2 1/2"

In Holds, &c. Two in fore hold. Two in aft hold. one in F.P.

Bilge injections

2

sizes

3" dia

Connected to condenser, or to circulating pump

Air pump

a separate donkey suction fitted in Engine room & size 7/8" x 2 1/8"

Are 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

none

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

yes

Are they Valves or Cocks

Valves and Cocks

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

Are the pipes carried through the bunkers

none

How are they protected

yes

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

Were the stern tube, propeller, screw shaft, and all connections examined in dry dock

25th March 1918

Is the screw shaft tunnel watertight

yes

Is the tunnel fitted with a watertight door

yes

worked from

Engine room

top grating

MACHINERY, &c.—

(Letter for record)

Total Heating Surface of Boilers

1184 sq ft

Is forced draft fitted

no

Description of Boilers

One cylindrical multitubular

Working Pressure

142 lbs

Tested by hydraulic pressure to

yes

Can each boiler be worked separately

yes

Area of fire grate in each boiler

36 sq ft

No. and Description of safety valves to

Two spring loaded

Area of each valve

6.49

Pressure to which they are adjusted

142 lbs

Are they fitted with easing gear

yes

Distance between boilers or uptakes and bunkers or woodwork

1' 6"

Mean dia. of boilers

11 1/4"

Length

9' 6"

Material of shell plates

Steel

Range of tensile strength

16

Are they welded or flanged

no

Descrip. of riveting: cir. seams

Double

long. seams

Treble

Pitch of rivets

3 1/4"

Lap of plates or width of butt straps

14 1/2"

Stages of strength of longitudinal joint

rivets 90

Working pressure of shell by rules

149 lbs

Size of manhole in shell

15 3/4" x 11 3/4"

Compensating ring

7' x 1 3/8" flanged plate

No. and Description of Furnaces in each boiler

Two Morrison's

Material

Steel

Outside diameter

3' 2 1/8"

Thickness of plates

top 7-3 1/2"

bottom 7-3 1/2"

Description of longitudinal joint

Welded

No. of strengthening rings

1

Working pressure of furnace by the rules

230

Combustion chamber plates: Material

Steel

Thickness: Sides

3/16"

Back

1/16"

Top

1/16"

Bottom

2 1/2" x 3 1/2" x 1/2"

Stays to ditto: Sides

8' x 6 1/2"

Back

7 3/4" x 7 1/2"

Top

8 1/2" x 7 1/2"

If stays are fitted with nuts or riveted heads

riveted except

Working pressure by rules

140 lbs

Diameter at smallest part

15"

Area supported by each stay

1

Working pressure by rules

200 lbs

End plates in steam space:

Steel

Thickness

15"

Pitch of stays

15 3/4" x 15 1/2"

How are stays secured

nuts & washers

Working pressure by rules

160 lbs

Material of stays

Steel

Area supported by each stay

24 1/4"

Working pressure by rules

160 lbs

Material of Front plates at bottom

Steel

Material of Lower back plate

Steel

Thickness

3/8"

Greatest pitch of stays

1' 8"

Working pressure of plate by rules

160 lbs

Material of tube plates

Steel

Thickness: Front

15"

Back

3/4"

Mean pitch of stays

13 1/2" x 9"

Working pressures by rules

150 lbs

Girders to Chamber tops: Material

Cast steel

Depth and

Distance apart

8"

Number and pitch of Stays in each

Two 7 1/2"

Superheater or Steam chest: how connected to boiler

Direct to shell

Can the superheater be shut off and the boiler worked

yes

Diameter

2' 3"

Length

2' 3"

Thickness of shell plates

1/2"

Material

Steel

Description of longitudinal joint

Double rivet

Diam. of rivet

3/4"

Working pressure of shell by rules

220 lbs

Diameter of flue

5"

Material of flue plates

Steel

Thickness

5"

End plates: Thickness

5"

How stayed

Dished

Working pressure of end plates

205

Area of safety valves to superheater

yes

Are they fitted with easing gear

yes

Lloyd's Register

Foundation

W1637-0258

DONKEY BOILER— No. *None* Description

Made at _____ By whom made _____ When made _____ Where fixed _____
 Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____
 No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____
 Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____
 Descrip. of riveting long. seams _____ Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
 Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
 Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace plates _____ Description of joint _____
 Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____
 Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied: *1 HP Connecting rod. 1 bottom end brass and bolts. 2 valve spindles 1 HP Slide valve 1 HP piston ring 1 LP piston ring 1 Air pump head valve. 2 top end bolts 2 main bearing bolts. 1 set of coupling bolts. 1 pump link and brass. 1 pair main bearing brasses. 1 set of pump valves.*

The foregoing is a correct description,

Manufacturer.

Dates _____
 of Survey _____
 while _____
 building _____
 Total No. of visits _____

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " "

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

The workmanship and condition of the Boiler and Machinery is good. Please see Report form 9 attached. It appears that the Boiler and Machinery has been built to class in the Germanian Lloyd. The certificate for same is forwarded herewith for the information of the Committee and the Owners would like it returned in due course. No plan of the Boiler can be obtained.

The amount of Entry Fee.. £ : : When applied for, _____
 Special .. £ 8 8 : : _____
 Donkey Boiler Fee .. £ : : When received, _____
 Travelling Expenses (if any) £ : : *15-4-1918*

Committee's Minute

FRI. APR. 12 1918.

Assigned

See report attached

T. W. Webb

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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Certificate (if required) to be sent to _____
 (The Surveyors are requested to write on or below the space for Committee's Minute.)