

REPORT ON MACHINERY.

No. 85496

Received at London Office - 9 MAY 1922

Date of writing Report - 9 MAY 1922

When handed in at Local Office

9 MAY 1922

Port of

London

No. in Survey held at
Reg. Book.

Chatham

Date, First Survey 29th May 1920Last Survey 8th FEBRUARY 1922

(Number of Visits 36)

on the

S.S. "Oleander"

Master

Built at

Pembroke

By whom built

H. M. Dockyard

Tons } Gross
Net

When built 1922

Engines made at

Chatham

By whom made

H. M. Dockyard

when made 1922

Boilers made at

3 Chatham

By whom made

H M Dockyard

when made 1922

Registered Horse Power

Owners

The Admiralty

Port belonging to

Nom. Horse Power as per Section 28

644

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders

27-45-74

Length of Stroke

54

Revs. per minute

Dia. of Screw shaft

as per rule 15.53

Material of screw shaft

Iron

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

in the propeller boss

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

Dia. of Tunnel shaft

as per rule 13.95

Dia. of Crank shaft journals

as per rule 14.64

Dia. of Crank pin

as fitted 15

Size of Crank webs

9 7/16

Dia. of thrust shaft under

collars

as fitted 14 1/2

Dia. of screw

Pitch of Screw

No. of Blades

State whether moveable

Total surface

No. of Feed pumps

2

Diameter of ditto

4 1/2

Stroke

2-6

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2

Stroke

2-6

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

Sizes of Pumps

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

In Engine Room

In Holds, &c.

No. of Bilge Injections

sizes

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room of size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

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

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

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

What pipes are carried through the bunkers

How are they protected

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

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

the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record (5)) Manufacturers of Steel Spencer & Sons. David Colville & Sons.

Total Heating Surface of Boilers 10224

Is Forced Draft fitted

Yes

No. and Description of Boilers

Four Single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

22. 11. 21

No. of Certificate

1240/2/3

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

63.3

No. and Description of Safety Valves to

each boiler

h boiler Two Spring loaded

Area of each valve

9.6

Pressure to which they are adjusted

Int

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

18.6

Length

11.6

Material of shell plates

Thickness

1/4

Range of tensile strength

28/32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

D. R. L.

D. B. S. 5 riv's

Diameter of rivet holes in long. seams

1 5/16

Pitch of rivets

9 1/8

Lap of plates or width of butt straps

19 1/2

Percentages of strength of longitudinal joint

rivets 8.8.3

plate 8.5.6

Working pressure of shell by rules

182 lbs

Size of manhole in

16 x 12

No. of compensating ring

Flanged

No. and Description of Furnaces in each boiler

3 Brighton

Material

steel

Outside diameter

4-2 3/16

Length of plain part

top

Thickness of plates

crown 1 1/2

bottom 1 1/2

Description of longitudinal joint

weld

No. of strengthening rings

1

Working pressure of furnace by the rules

183 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

2 3/32

Back

1 1/16

Top

2 3/32

Length of stays to ditto: Sides

9 1/4 x 10 5/8

Back

10 1/4 x 8 1/4

Top

9 1/4 x 10 5/8

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

180 lbs

Material of stays

steel

Area at smallest part

2.345

Area supported by each stay

98

Working pressure by rules

217 lbs

End plates in steam space:

Material

steel

Material

steel

Thickness

1 1/2

Pitch of stays

2 1/4 x 20 1/2

How are stays secured

D. nuts

Working pressure by rules

186 lbs

Material of stays

steel

Area at smallest part

8.29

Area supported by each stay

44.5

Working pressure by rules

186 lbs

Material of Front plates at bottom

steel

Thickness

3 1/32

Material of Lower back plate

Material

steel

Thickness

27/32

Greatest pitch of stays

13 7/8

Working pressure of plate by rules

188 lbs

Diameter of tubes

2 3/4

Pitch of tubes

4 x 3 7/8

Material of tube plates

steel

Thickness: Front

3 1/32

Back

3/4

Mean pitch of stays

13 5/8 x 8 3/4

Working pressures by rules

181 lbs

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

10 x 7 1/2 x 2

Length as per rule

35 7/16

Distance apart

10 7/8

Number and pitch of stays in each

3-9 1/4

Working pressure by rules

187 lbs

Steam dome: description of joint to shell

none

% of strength of joint

100

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

No. of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

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

Pressure to which each is adjusted

Is Easing Gear fitted

ERHEATER.

Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

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

Pressure to which each is adjusted

of Test

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IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied:— *To be put on board at Pembroke.*

The foregoing is a correct description,

Promptfield

Manufacturer.

Dates of Survey while building
During progress of work in shops — 1920:— MAY 29 JUN 7-17-22 JULY 1-7-21 AUG 19 SEP 23-27 NOV 11-30
1921:— JAN 7-31 FEB 16 MAR 3-16 APR 11-15-28 MAY 11-25 JUN 1-23 JULY 26 AUG 16-31 SEP 15-28 OCT 19 NOV 9-22 DEC 7
During erection on board vessel — 1921:— JAN 3 FEB 1-8
Total No. of visits *36*

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

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders *28/9/21* Slides *28/9/21* Covers *31/1/21* Pistons *31/1/21* Rods *16/3/21*

Connecting rods *28/9/21* Crank shaft *15/10/21* Thrust shaft *31/8/21* ^{Int.} Tunnel shafts *1/6/21* Screw shaft — Propeller —

Stern tube — Steam pipes tested — Engine and boiler seatings — Engines holding down bolts —

Completion of pumping arrangements — Boilers fixed — Engines tried under steam —

Completion of fitting sea connections — Stern tube — Screw shaft and propeller —

Main boiler safety valves adjusted — Thickness of adjusting washers —

Material of Crank shaft *steel* Identification Mark on Do. *H58. 15/10/21* Material of Thrust shaft *steel* Identification Mark on Do. *H58. 31/8/21*

Material of ^{Int.} Tunnel shafts *steel* Identification Marks on Do. *H58. 31/8/21* Material of Screw shafts *Iron* Identification Marks on Do. —

Material of Steam Pipes — Test pressure —

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 *Yes*. If so, state name of vessel *J. J. "Olna"*

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

This report refers to the main engines & three out of four main boilers. These have been constructed under special survey & are of good materials & workmanship and are in my opinion eligible for record + L M C which satisfactorily fitted on board.

They have been sent to H. W. Dockyard, Pembroke.

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

The amount of Entry Fee ... £ 45 : 5 : 8
3/4 of total fee for engines
Donkey Boiler Fee ... £ 33 : 19 : 2
Travelling Expenses (if any) £ 14 : 5 : 6
When applied for, *13/11/22*
When received, *30/11/22*

Committee's Minute

Assigned

FRI. NOV. 17 1922

H. Gardner-Smith
Engineer Surveyor to Lloyd's Register of Shipping.

TUE. DEC. 5 1922

TUE. JUN. 26 1923

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Lloyd's Register
Foundation