

REPORT ON MACHINERY.

No. 28617

WED. JUL 18 1923

Received at London Office

Date of writing Report

19

When handed in at Local Office

16th July 1923 Port of

SUNDERLAND.

No. in Survey held at
Reg. Book.

SUNDERLAND.

Date, First Survey 6th Feb

Last Survey 13-7-1923

(Number of Visits 29)

on the new steel S/S "GWENTLAND"

Tons } Gross 1821
Net 1090

Master

Built at Sunderland By whom built R. Thompson & Sons Ltd (S/N 319) When built 1923

Engines made at Sunderland

By whom made North Eastern Marine Engineering Co Ltd (N 2526) when made 1923

Boilers made at Sunderland

By whom made North Eastern Marine Engineering Co Ltd (N 2526) when made 1923

Registered Horse Power

Owners Morley Jones & Co Ltd

Port belonging to Newport, Mon.

Nom. Horse Power as per Section 28

214

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 20" 33" - 54"

Length of Stroke 39"

Revs. per minute 73

Dia. of Screw shaft

as per rule 11.74

Material of screw shaft

1. 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

in the propeller boss

yes

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

If two

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

-

Length of stern bush

4' 0"

Dia. of Tunnel shaft

as per rule 10.51"

Dia. of Crank shaft journals

as per rule 10.72"

Dia. of Crank pin 10 3/4"

Size of Crank webs 6 3/4" x 1 1/4"

Dia. of thrust shaft under

collars 10 3/4"

Dia. of screw 14' 9"

Pitch of Screw 15' 0"

No. of Blades 4

State whether moveable

no

Total surface

670 sq ft

No. of Feed pumps 2

Diameter of ditto 3"

Stroke 1' 9"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps 2

Diameter of ditto 3 1/2"

Stroke 1' 9"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines 3

Sizes of Pumps 5 1/2 x 5, 5 1/2 x 4 1/2, 7 1/2 x 9

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

In Engine Room

3 @ 2 1/2"

In Holds, &c.

Forward hold - 2 @ 2 3/4". After

No. of Bilge Injections 1

sizes 6"

Connected to condenser, or to circulating pump

b.p.

Is a separate Donkey Suction fitted in Engine room & size

yes, 5 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

none

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

main below, others 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

forward hold suction

How are they protected

under timber boards

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

top platform.

BOILERS, &c.—(Letter for record (3))

Manufacturers of Steel

John Spencer & Sons Ltd

Total Heating Surface of Boilers

35260

Is Forced Draft fitted

no

No. and Description of Boilers

two, single ended marine

Working Pressure

180

Tested by hydraulic pressure to

320

Date of test

7-5-23

No. of Certificate

3832

Can each boiler be worked separately

yes

Area of fire grate in each boiler

460 sq ft

No. and Description of Safety Valves to

each boiler

two direct spring

Area of each valve

5-940

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

18"

Mean dia. of boilers

13' 9 1/2"

Length

10' 6"

Material of shell plates

steel

Thickness

1 9/16"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

19R

Long. seams

1985 TR

Diameter of rivet holes in long. seams

1 1/2"

Pitch of rivets

8 7/16"

Lap of plates or width of butt straps

1' 6 1/8"

Percentage of strength of longitudinal joint

rivets 92
plate 85.5

Working pressure of shell by rules

181

Size of manhole in steel

16" x 12"

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

3 Bleighton

Material steel

Outside diameter 36 15/16"

Length of plain part

top 15"
bottom 13 1/2"

Thickness of plates

crown 15"
bottom 13 1/2"

Description of longitudinal joint

welded

No. of strengthening rings

-

Working pressure of furnace by the rules

181

Combustion chamber plates: Material

steel

Thickness: Sides

23/32"

Back

3/4"

Top

23/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

10 1/2" x 9 3/4"

Back

10 1/2" x 10 1/16"

Top

9 3/4" x 9 3/4"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

181

Material of stays

steel

Area at smallest part

2.030

Area supported by each stay

99.90

Working pressure by rules

181

End plates in steam space:

Material

steel

Thickness

1 1/2"

Pitch of stays

24 1/16" x 17 3/8"

How are stays secured

DN & W

Working pressure by rules

180

Material of stays

steel

Area at smallest part

7.660

Area supported by each stay

4280

Working pressure by rules

199

Material of Front plates at bottom

steel

Thickness

7/8"

Material of Lower back plate

steel

Thickness

27/32"

Greatest pitch of stays

14 1/2" x 10 1/16"

Working pressure of plate by rules

182

Diameter of tubes

3 1/4"

Pitch of tubes

4 3/4" x 4 1/2"

Material of tube plates

steel

Thickness: Front

7/8"

Back

3/4"

Mean pitch of stays

10 1/2"

Pitch across wide water spaces

14 1/2"

Working pressures by rules

182

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

20 8/8" x 7/8"

Length as per rule

31.5

Distance apart

9" x 9 1/2"

Number and pitch of stays in each

2 @ 9 3/4"

Working pressure by rules

188

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

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

IS A DONKEY BOILER FITTED? *yes*

If so, is a report now forwarded? *yes*

SPARE GEAR. State the articles supplied:—

*Two connecting rod top and bottom end bolts and nuts
Two main bearing bolts, one set of coupling bolts, one set of feed and bilge pump
valves, iron and bolts of various sizes, one propeller.*

The foregoing is a correct description,

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LTD.

C. T. Adams Manufacturer.

Dates of Survey while building
During progress of work in shops -- *1923. Feb. 6, 22, 26. Mar. 12, 14, 16. Apr. 12, 19, 27. May 2, 4, 9, 11, 15, 25, 31. June 14, 19.*
During erection on board vessel -- *21, 22, 25, 26, 27. July 2, 6, 13.*
Total No. of visits *29.*

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

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *4-5-23* Slides *15-5-23* Covers *9-5-23* Pistons *15-5-23* Rods *15-5-23*

Connecting rods *13-4-23* Crank shaft *14-5-23* Thrust shaft *31-5-23* Tunnel shafts *31-5-23* Screw shaft *31-5-23* Propeller *31-5-23*

Stern tube *25-6-23* Steam pipes tested *22-6-23* Engine and boiler seatings *14-6-23* Engines holding down bolts *25-6-23*

Completion of pumping arrangements *2-7-23* Boilers fixed *21-6-23* Engines tried under steam *2-7-23*

Completion of fitting sea connections *14-6-23* Stern tube *14-6-23* Screw shaft and propeller *19-6-23*

Main boiler safety valves adjusted *26-6-23* Thickness of adjusting washers *Std. 1/2" F 3/2", A 3/8". Port 1/2" F 3/2", A 3/8".*

Material of Crank shaft *1. Steel* Identification Mark on Do. *LLOYD'S NO 6484 (date as above) L.C.D.* Material of Thrust shaft *1. Steel* Identification Mark on Do. *LLOYD'S NO 6484 31-5-23*

Material of Tunnel shafts *1. Steel* Identification Marks on Do. *LLOYD'S NO 6484 31-5-23* Material of Screw shafts *1. Steel* Identification Marks on Do. *LLOYD'S NO 6484 31-5-23*

Material of Steam Pipes *Lap welded wrought iron* Test pressure *540 lbs per sq. in.*

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 *✓*

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 materials and workmanship are good.
The machinery has been constructed under special survey and is eligible in my
opinion for classification and the record + LMC 7, 23.*

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 7. 23. CL.

W.D.
19/7/23

ARE

L. C. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ *4* : -
Special ... £ *53* : *10*
Donkey Boiler Fee ... £ :
Travelling Expenses (if any) £ :
When applied for. *16 JUL 1923*
When received. *23*

Committee's Minute *FRI 3 AUG 1923*

Assigned *+ LMC 7. 23*



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