

REPORT ON MACHINERY.

No. 34231

Received at London Office JUL. 29. 1914

Date of writing Report

19

When handed in at Local Office

27-7-14 Port of Glasgow

in Survey held at

Clydebank

Date, First Survey

1-4-14

Last Survey

15-7-14

g. Book.

on the Steel screw tug "Wrestler"

(Number of Visits 15)

Tons Gross 192

Net

When built 1914

Master

Built at

Bowling

By whom built

Scott Sons

Engines made at

Clydebank

By whom made

Aitchison Blair Lim

when made 1914

Milers made at

Glasgow

By whom made

Dunsmeir & Jackson Ltd.

when made 1914

Registered Horse Power

Owners

Stel & Binnie

Port belonging to

Glasgow

m. Horse Power as per Section 28

109

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

no

GINES, &c.—Description of Engines

Compound

No. of Cylinders

2

No. of Cranks

2

a. of Cylinders

21"-42"

Length of Stroke

27"

Revs. per minute

120

Dia. of Screw shaft

as per rule 8.6

Material of

steel

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

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

If two

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

Length of stern bush

2'-10 3/4"

a. of Tunnel shaft

as per rule 8.04

Dia. of Crank shaft journals

as per rule 8.4

Dia. of Crank pin

8 1/2"

Size of Crank webs

15 1/4 x 5 1/2"

Dia. of thrust shaft under

lars

8 1/2"

Dia. of screw

9'-9"

Pitch of Screw

11'-0"

No. of Blades

3

State whether moveable

no

Total surface

33.9 sq ft

a. of Feed pumps

2

Diameter of ditto

2 3/8"

Stroke

16 1/2"

Can one be overhauled while the other is at work

yes

a. of Bilge pumps

2

Diameter of ditto

2 3/8"

Stroke

16 1/2"

Can one be overhauled while the other is at work

yes

a. of Donkey Engines

1

Sizes of Pumps

6"-4" x 6" duplex

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

Engine Room

1 of 2"

Stokehold 1 of 2"

In Holds, &c. Crew space 1 of 2"

a. of Bilge Injections

1

size

4"

Connected to condenser, or to circulating pump

circuit

Is a separate Donkey Suction fitted in Engine room & size

yes 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

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

that pipes are carried through the bunkers

none

How are they protected

—

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

dates of examination of completion of fitting of Sea Connections

25-6-14

of Stern Tube

25-6-14

Screw shaft and Propeller

25-6-14

the Screw Shaft Tunnel watertight

none

Is it fitted with a watertight door

—

worked from

—

MILERS, &c.—(Letter for record)

Manufacturers of Steel

See separate report.

Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

one single ended

Working Pressure

120 lbs

Tested by hydraulic pressure to

Date of test

No. of Certificate

in each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

h boiler 2 direct spring load

Area of each valve

9.62 sq ft

Pressure to which they are adjusted

125 lbs

Are they fitted with easing gear

yes

smallest distance between boilers or uptakes and bunkers or woodwork

2'-6"

Mean dia. of boilers

Length

Material of shell plates

thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

g. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

percentages of strength of longitudinal joint

rivets

plate

Working pressure of shell by rules

Size of manhole in shell

size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space:

material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

working pressure by rules

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivets

pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
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 Plates
Working pressure of shell by rules	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	
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:—

2 top end, 2 bottom end, 2 main bearing and set of coupling bolts' nuts. Set of feed and bilge pump valves. Assorted iron, bolts' nuts.

The foregoing is a correct description,

Manufacturer.

AITCHISON, BLAIR LTD.

Archd. Blair.

Dates of Survey while building { During progress of work in shops -- 1914. Apr 1-28. May 11-28. June 2-12-22-23-25-29. July 2-8-10-15.
During erection on board vessel ---
Total No. of visits 15.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 28.4.14 11.5.14 Slides 2.6.14 Covers 28.5.14 Pistons 28.5.14 Rods 12.6.14
Connecting rods 28.5.14 Crank shaft 2.6.14 Thrust shaft 2.6.14 Tunnel shafts 2.6.14 Screw shaft 12.6.14 Propeller 11.5.14
Stern tube 28.5.14 Steam pipes tested 23.6.14 8.7.14 Engine and boiler seatings 25.6.14 Engines holding down bolts 8.7.14
Completion of pumping arrangements 10.7.14 Boilers fixed 8.7.14 Engines tried under steam 15.7.14
Main boiler safety valves adjusted 10.7.14 Thickness of adjusting washers PV 7/16 SV 15/32
Material of Crank shaft steel Identification Mark on Do. 89 AC Material of Thrust shaft steel Identification Mark on Do. 89 AC
Material of Tunnel shafts steel Identification Marks on Do. 89 AC Material of Screw shafts steel Identification Marks on Do. 89 AC
Material of Steam Pipes Copper wrought iron Test pressure 300 lbs. 360 lbs.

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

The machinery of this vessel has been constructed under special survey in accordance with the rules and has been seen working satisfactorily under steam. Materials and workmanship are good.

This machinery is eligible in my opinion to be classed +LMC.7.14.

It is submitted that this vessel is eligible for THE RECORD. +LMC 7.14.

JWD.
29/7/14

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

The amount of Entry Fee .. £ 2 : 0 :
Special 16-7-0 }
Less boiler fee 7-6-0 } .. £ 9 : 1 :
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) £ : :
When applied for, 27.7.14.
When received, 29.7.14.

Committee's Minute GLASGOW 28 JUL 1914

Assigned + LMC 7.14.



© 2020

Lloyd's Register Foundation

GLASGOW

Certificate (if required) to be sent to

pt. 5a.

of writing Report

No. in Survey he

g. Book.

on the

ster

ines made at

lers made at

istered Horse Po

ULTITUBUL

ter for record

lers one Se

of Certificate 12

ty valves to each

they fitted with e

allest distance betu

erial of shell plat

crip. of riveting.

of plates or wide

123 Si

3 plain

ription of longitud

Port

We requ

ur. Aitchison

89.

Specially Surveyed

We hereby

For boilers u

Horse Power, o

above 200. The

than £2 2s.

MEM.—In e

all cases where

to be defrayed

No. B.25

This request is ma

oreign Shipping, w

hile the Committee use

od that neither the Com

port or certificate issued

or for any error of judg

5 - DEC 1913

Secretary,

GLASGOW Register

GENERAL REM

uder S

Can o it

ur Boile

Survey Fee ...

Travelling Expenses

mittee's Min

igned TRAN