

REPORT ON MACHINERY.

No. 33658

WED. FEB. 25. 1914

Received at London Office

Writing Report

10

When handed in at Local Office

28. 2. 1914 Port of Glasgow

Survey held at Clydebank

Date, First Survey 14. 3. 13

Last Survey 14. 2. 1914

took.

on the Stul 1/2 Carrowdore

(Number of Visits 22

Tons { Gross 599
Net 226.

Built at Bowling

By whom built Scott & Sons

When built 1914

is made at Clydebank

By whom made Aitchison Blair & Co

when made 1914

is made at Glasgow

By whom made Dummie & Jackson Ltd.

when made 1913

rated Horse Power

Owners Arthur Guinness Son & Co Ltd

Port belonging to Belfast

Horse Power as per Section 28 116

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

INES, &c.—Description of Engines Triple expansion

No. of Cylinders 3

No. of Cranks 3

of Cylinders 15" 25 1/2" 41"

Length of Stroke 30"

Revs. per minute 110

Dia. of Screw shaft as per rule 8.46 as fitted 8.76

Material of screw shaft steel

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

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

on the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes

If two

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

Length of stern bush 2'-10 5/8"

of Tunnel shaft as per rule 7.77

Dia. of Crank shaft journals as per rule 8.15

as fitted 8.4

Dia. of Crank pin 8 1/4"

Size of Crank webs 11 3/4" x 5 1/2"

Dia. of thrust shaft under

rs 8 1/4"

Dia. of screw 10'-0"

Pitch of Screw 13'-6"

No. of Blades 4

State whether moveable no

Total surface 33.3 sq ft

of Feed pumps 2

Diameter of ditto 2 1/4"

Stroke 16 1/2"

Can one be overhauled while the other is at work yes

of Bilge pumps 2

Diameter of ditto 2 1/4"

Stroke 16 1/2"

Can one be overhauled while the other is at work yes

of Donkey Engines 2

Sizes of Pumps 1 duplex 7-4 1/2 x 8

7-7 x 8

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

Engine Room 2 of 2"

In Holds, &c. 2 of 2 1/2"

of Bilge Injections 1 sizes 4"

Connected to condenser, or to circulating pump and pp

Is a separate Donkey Suction fitted in Engine room & size yes 2"

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

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

Are they Valves or Cocks both

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

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 bilge

How are they protected wood casings

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

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

ates of examination of completion of fitting of Sea Connections 26. 1. 14.

of Stern Tube 26. 1. 14

Screw shaft and Propeller 26. 1. 14

the Screw Shaft Tunnel watertight none

Is it fitted with a watertight door

worked from

ILERS, &c.—(Letter for record)

Manufacturers of Steel made by Dummie & Jackson - see separate report.

otal Heating Surface of Boilers 2034 sq ft

Is Forced Draft fitted no

No. and Description of Boilers one single ended

Working Pressure 180 lbs

Tested by hydraulic pressure to

Date of test

No. of Certificate

an each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler 2 direct spring

Area of each valve 5.94 sq ft

Pressure to which they are adjusted 185 lbs

Are they fitted with easing gear yes

smallest distance between boilers or uptakes and bunkers or woodwork 5'-0"

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

mg. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

er centages of strength of longitudinal joint

rivets.

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

Thickness of plates

crown

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 rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If 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

002667-002673-0126

WEB FRAMES, In Fore
No of Side Strin
B-FRAMES, In E. & H
B-FRAMES, In After
No. of Side Strin
Size of Face Angle
CKET PLATES to
b Frames, depth an

NU
Vessel
BULKHEADS
Peak
ex room

VISION
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TITUTINAL

the outside Plates
the Sluice Valves a

STRAKES.

PLATE KEEL...
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VERTICAL DONKEY BOILER—

Manufacturers of Steel

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

SPARE GEAR. State the articles supplied:— 2 top end, 2 bottom end, 2 main bearing set of con
bolts & nuts - set of jud r bilge pump valves Assorted iron bolts & nuts.

AITCHISON, BLAIR LTD.

The foregoing is a correct description,

Arch. Blair

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1913 Mar 10-14 Apr 10 May 7-15-23 June 3-18 July 1-14 Aug 17 Sept 1
During erection on board vessel --- Oct 3-17 1914 Jan 14-26-28 Feb 4-6-13-14
Total No. of visits 22

Is the approved plan of main boiler returned forwarded herewith ye

Dates of Examination of principal parts—Cylinders 14-3-13. Slides 15-5-13. Covers 15-5-13. Pistons 18-6-13. Rods 23-5-
Connecting rods 3-6-13. Crank shaft 1-7-13. Thrust shaft 19-8-13. Tunnel shafts — Screw shaft 14-7-13. Propeller 26-9-
Stern tube 18-6-13. Steam pipes tested 6-2-14. Engine and boiler seatings 26-1-14. Engines holding down bolts 4-2-14
Completion of pumping arrangements 13-2-14 Boilers fixed 13-2-14 Engines tried under steam 14-2-14
Main boiler safety valves adjusted 13-2-14 Thickness of adjusting washers PV 5/16 SV 5/16
Material of Crank shaft steel Identification Mark on Do. 83 HC Material of Thrust shaft steel Identification Mark on Do. 83
Material of Tunnel shafts — Identification Marks on Do. — Material of Screw shafts steel Identification Marks on Do. 83
Material of Steam Pipes Copper Test pressure 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 & Workmanship are good.

This machinery is eligible in my opinion to be classed + LMC 2-14.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 2-14.

JWD
26/2/14

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

The amount of Entry Fee .. £ 2 : 0 :
Special .. £ 10 : 12 :
Donkey Boiler Fee .. £ : :
Travelling Expenses (if any) £ : :
When applied for, 23-2-14
When received, 18-3-14

Committee's Minute GLASGOW 24 FEB. 1914

Assigned + LMC 2-14