

pt. 4.

# REPORT ON MACHINERY.

25941  
No. 25941  
TUES. 12 NOV 1907

dated in at Glasgow 4/11/07

Port of Glasgow

Received at London Office

No. in Survey held at Paisley & Troon  
leg. Book.

Date first Survey 24 Dec '06 Last Survey 2nd Nov 1907  
(Number of Visits 59)

on the S.S. Moyle

Master H. Mulholland Built at Troon

By whom built James S B C & Co

Tons Gross 1761  
Net 749  
When built 1907

Engines made at Troon

By whom made James S B C & Co

when made 1907

Boilers made at Paisley

By whom made A. F. Craig & Co

when made 1907

Registered Horse Power

Owners

Shamrock Shipping Co Ltd Port belonging to Belfast

Nom. Horse Power as per Section 28 216

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 19.31 x 51

Length of Stroke 36

Revs. per minute 95

Dia. of Screw shaft

as per rule 11.36

Material of

Stul

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liners

Is the after end of the screw shaft 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

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

If two

Dia. of Tunnel shaft

as per rule 9.58

Dia. of Crank shaft journals

as per rule 10.67

Dia. of Crank pin

10.78

Size of Crank web

18 1/2 x 6 1/2

Dia. of thrust shaft under

collars 10 1/2

No. of Feed pumps

one Duplex

Diameter of ditto

8 x 6 x 18

Stroke

18

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

3

Stroke

18

No. of Donkey Engines

four

Sizes of Pumps

5 x 6 x 18

Stroke

18

Can one be overhauled while the other is at work

Yes

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

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

In Engine Room

four 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

one 2 1/2 in

No. of Bilge Injections

1

sizes

5 1/2

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room

Yes

size

2 1/2

Are all the bilge suction pipes fitted with roses

Yes

Are the roses in Engine room always accessible

Yes

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

What pipes are carried through the bunkers

four hold

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

24/5, 4/9/07

of Stern Tube

16/5 etc

Screw shaft and Propeller

4/9/07 etc

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

BOILERS, &c.—(Letter for record)

6

Manufacturers of Steel

Glydebridge Steel Co

Launceston Steel

Total Heating Surface of Boilers

5976 1/2

Is Forced Draft fitted

No

No. and Description of Boilers

2 Single Ended

Working Pressure

180

Tested by hydraulic pressure to

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

53-6 1/2

No. and Description of Safety Valves to

each boiler

one direct spring

Area of each valve

5.94 1/2

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

Thickness

1 1/2

Range of tensile strength

28/32

Are the shell plates welded or flanged

—

Description of riveting: cir. seams

DR

long. seams

TR DBS

Diameter of rivet holes in long. seams

1 1/2

Pitch of rivets

8 3/4

Percentages of strength of longitudinal joint

89-6 1/2

Working pressure of shell by rules

182

Size of manhole in shell

16 x 12

No. and Description of Furnaces in each boiler

3 Corrugated

Material

S

Outside diameter

3.7 1/4

No. of strengthening rings

—

Length of plain part

top

Thickness of plates

3/32

Description of longitudinal joint

weld

Working pressure of furnace by the rules

181

Combustion chamber plates: Material

S

Thickness: Sides

9/32

Back

2 1/32

Pitch of stays to ditto: Sides

8 x 8

Back

8 1/2 x 9

Top

8 x 8

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

190

Material of stays

S

Diameter at smallest part

2.07 1/2

Material

S

Thickness

13/16

Pitch of stays

20 x 18 1/2

How are stays secured

D.N.

Working pressure by rules

182

Material of stays

S

Diameter at smallest part

7.2

Thickness

13/16

Material of Lower back plate

S

Thickness

23/32

Greatest pitch of stays

20

Working pressure of plate by rules

—

Diameter of tubes

3 1/4

Pitch of tubes

4 1/2

Pitch across wide water spaces

14 1/2

Working pressures by rules

194

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

9 x 13 1/2

Length as per rule

36

Distance apart

8

Number and pitch of stays in each

Working pressure by rules

186

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

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

—

—

—

—

—

—

Working pressure of end plates



VERTICAL DONKEY BOILER—

Manufacturers of Steel

None

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 \_\_\_\_\_ Stayed by \_\_\_\_\_  
 Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_ Thickness of water tubes \_\_\_\_\_ Dates of survey \_\_\_\_\_

SPARE GEAR. State the articles supplied:

For top - 2 bottom end bolts nuts, 2 main bearing bolts & nuts, one set of coupling bolts & nuts, one set of feed & bilge pump valves, assorted bolts & nuts & a few bars of iron.

The foregoing is a correct description,

FOR AILSA SHIPBUILDING CO., LIMITED

Manufacturer.

Wm. S. Watson

Dates of Survey while building { During progress of work in shops - 1906 Dec 22 27 1907 Jan 11 28 Feb 9 11 16 Mar 6 8 11 13 18 19 20 22 Apr 9 12 14 21 May 19 27 31 22 24 June 10 18 20 22  
 During erection on board vessel - 25 29 July 3 5 10 Aug 5 8 13 16 24 Sep 2 10 19 24 Oct 3 5 9 11 16 17 18 21 26 29 31 Nov 1 2  
 Total No. of visits 59 Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts - Cylinders 17/5, 13/6 " " " donkey " " None  
 Connecting rods 10/6, 24/6 Crank shaft 17/5, 2/6 Thrust shaft 3/7 etc Tunnel shafts 7/5, 10/5 Screw shaft 10/7 24/8 Propeller 10/9/07  
 Stern tube 10/7, 13/8 Steam pipes tested 15/10/07 Engine and boiler seatings 16/9/07 Engines holding down bolts 5/10/07  
 Completion of pumping arrangements 14/10/07 Boilers fixed 5/10/07 Engines tried under steam 2/11/07  
 Main boiler safety valves adjusted 2/11/07 Thickness of adjusting washers Port B. 9/32 5/16 Star B 9/32 5/16  
 Material of Crank shaft Steel Identification Mark on Do 1973 4/9/07 6M Material of Thrust shaft Steel Identification Mark on Do 4/9/07 6M  
 Material of Tunnel shafts Steel Identification Marks on Do 1566, 1577, 1916, 1915, 1926 4/9/07 6M Material of Screw shafts Steel Identification Marks on Do 5654 4/9/07 6M  
 Material of Steam Pipes Copper Test pressure 360 lb per sq. in.

General Remarks

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

The machinery of this vessel has been built under special survey, the materials and workmanship are of good quality, it has been securely fitted on board and satisfactorily tested under steam, A. McPhail & Simpson superheater has been fitted, the superheater its pipe connections & stop valves tested to 360 lb per sq. in. and the 1 1/2" diameter safety valve adjusted under steam to 185 lb per sq. in. (Thickness of washer 5/16).  
 The machinery of this vessel is now in our opinion eligible for record of L.M.C. 11-07 (in red) in register book.

Eight forging reports now attached.

It is submitted that this vessel is eligible for THE RECORD. L.M.C. 11-07. ELEC LIGHT.

There is a small steam launch carried on the davits. The hull of wood built at Belfast by M. McKeown, the boiler by the Liggins fuel Co & engines by Kettlefold & Chamberlain; no part of which has been built under survey.

The amount of Entry Fee. £ 2 : :  
 Special £ 30 16 : :  
 Donkey Boiler Fee £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 17 NOV 1907  
 When received, 28 11 07

George Murdoch & Wm. Gordon Muir  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

Assigned

+ L M C 11, 07.

Glasgow 11 NOV 1907

MACHINERY CERTIFICATE WRITTEN 12-11-07



© 2020

Lloyd's Register Foundation

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