

REPORT ON MACHINERY.

No. 34078.

Date of writing Report

4. 6. 14

When handed in at Local Office

6. 6. 14

Port of

Received at London Office

WED. JUN. 10. 1914

No. in Survey held at
Reg. Book.

Glasgow.

Date, First Survey

11. 11. 12

Last Survey

3. 6. 1914

on the

S.S. "BERTY"

(Number of Visits 33.)

Master James Richardson Built at

Bowling

By whom built

Scott & Sons (No. 248)

Engines made at

Glasgow.

By whom made

Gardie, Gillespie & Co. (No. 121)

when made

1914

Boilers made at

do.

By whom made

A.W. Dalglisk (No. 594)

when made

1914

Registered Horse Power

Owners

Robert Henry Mungall.

Port belonging to

Hull.

Nom. Horse Power as per Section 28

42

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No.

ENGINES, &c.—Description of Engines

Compound Surface Condensing

No. of Cylinders

2

No. of Cranks

2

Dia. of Cylinders

13" 28"

Length of Stroke

18"

Revs. per minute

120

Dia. of Screw shaft

as per rule 5.8"

Material of

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

Yes

If the liner is in more than one length are the joints burned

Yes

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

Length of stern bush

24"

Dia. of Tunnel shaft as per rule 5.44"

Dia. of Crank shaft journals as per rule 5.4"

Dia. of Crank pin 5.2"

Size of Crank webs 10 1/2 x 3 1/2"

Dia. of thrust shaft under

collars 5 1/2"

Dia. of screw 6'-6" Pitch of Screw 9'-9"

No. of Blades 4 State whether moveable No Total surface 19 1/2"

No. of Feed pumps 1 Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work

No. of Bilge pumps 1 Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work

No. of Donkey Engines One Sizes of Pumps 4 1/2" x 3" x 5"

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

In Engine Room 1-2" & 1-2" special

In Holds, &c. 1-2" fore cabin; 1-2" aft cabin

No. of Bilge Injections 1 sizes 2 1/2" Connected to condenser, or to circulating pump pump 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 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 Steam & feed pipes How are they protected Steel tube through bunkers

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 14. 3. 14 of Stern Tube 14. 3. 14 Screw shaft and Propeller 14. 3. 14.

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door worked from

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

David Colville & Sons.

Total Heating Surface of Boilers

800 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers

One S.E. Marine

Working Pressure

140 lbs.

Tested by hydraulic pressure to

280 lbs.

Date of test

5. 2. 14

No. of Certificate

12531

Can each boiler be worked separately

Area of fire grate in each boiler

29 sq ft

No. and Description of Safety Valves to

each boiler pair spring loaded

Area of each valve

3.98 sq in

Pressure to which they are adjusted

145 lbs.

Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

5'-6"

Mean dia. of boilers

10' 0"

Length

9'-0"

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per 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

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	When made	Where fixed
Made at	By whom made		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted
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
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates
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 bolts & nuts, 2 bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set coupling bolts, 1 set feed & large pump valves, 1 set H.P. piston rings, quantity assorted bolts & nuts & iron of various sizes.

The foregoing is a correct description,

Manufacturer.

Gauldie Gillespie & Co.

Dates of Survey	During progress of work in shops	1912. Nov. 11-25. Dec. 30. 1913. Jan. 8-15. Feb. 5-14. 27. Mar. 11-20. Apr. 4-14. May 26. June 5.
while building	During erection on board vessel	July 11. Sept. 26. Oct. 22. Nov. 5-12-18. Dec. 9-11. 1914. Jan. 8-13-15. Feb. 20. Mar. 11-12-17-27.
Total No. of visits		33.

Is the approved plan of main boiler forwarded herewith

Yes

Dates of Examination of principal parts	Cylinders	14. 4. 13	Slides	14. 4. 13	Covers	14. 4. 13	Pistons	14. 4. 13	Rods	5. 6. 13	
Connecting rods	5. 6. 13	Crank shaft	12. 11. 13	Thrust shaft	26. 9. 13	Tunnel shafts	24. 2. 13	Screw shaft	9. 12. 13	Propeller	9. 12. 13
Stern tube	8. 1. 14	Steam pipes tested	20. 2. 14	Engine and boiler seatings	14. 3. 14	Engines holding down bolts	3. 4. 14				
Completion of pumping arrangements	27. 3. 14	Boilers fixed	3. 4. 14	Engines tried under steam	3. 6. 14						
Main boiler safety valves adjusted	3. 4. 14	Thickness of adjusting washers	1/2, 1/4								
Material of Crank shaft	Steel	Identification Mark on Do.	12. 11. 13 P.T.B.	Material of Thrust shaft	Steel	Identification Mark on Do.	26. 9. 13 P.T.B.				
Material of Tunnel shafts	Steel	Identification Marks on Do.	27. 2. 13 P.T.B.	Material of Screw shafts	Iron	Identification Marks on Do.	9. 12. 13 P.T.B.				
Material of Steam Pipes	Copper	Test pressure	300 lbs.								

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

The materials and workmanship are good. The machinery and boiler of this vessel have been constructed under special survey in accordance with the Rules and approved plans, securely fitted aboard and tried with satisfactory results under steam and are, in my opinion, suitable for classification with record + L.M.C. 6. 14. The machinery is duplicate of that fitted in s.s. "SKEEF" Gb. Rpt No 33452

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 6. 14.

The amount of Entry Fee	£ 1. 0. 0	When applied for	8. 5. 14
Special	£ 5. 4. 0		
Donkey Boiler Fee	£ :	When received	10/6/14
Travelling Expenses (if any)	£ :		

Committee's Minute

GLASGOW 9-JUN. 1914

Assigned + L.M.C. 6. 14.

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



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Lloyd's Register Foundation

Rpt. 5a.

Date of writing Rep

No. in Survey Reg. Book.

on the

Master James

Engines made at

Boilers made at

Registered Horse

MULTITUD

(Letter for reco

Boilers One

No. of Certificate

safety valves to

Are they fitted

Smallest distan

Material of she

Drawing of

1160 Port

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Horse Pow

above 200

than £2 2s

MEM.—

all cases w

to be defra

er No. 594

This request is

Foreign Shipping

While the Committe

stood that neither the

report or certificate

or for any error of

Secretary,

Lloyd's Reg

GENERA

Good.

on bo

valves

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Committ

Assigned

Certificate (if required) to be sent to

(The Surveys are requested not to write on or below the space for Committee's Minute.)

L.M.C. 8/6/14.