

TUES. JAN 22 1901

No. 18626

## REPORT ON MACHINERY.

Port of

Glasgow.

Received at London Office

13

Survey held at

Glasgow.

Date, first Survey

30 April 1900

Last Survey

11 January 1901.

(Number of Visits

26.)

on the

S.S. "RESTORMEL"

Tons

Gross

Net

Built at

Greenock

By whom built

Greenock &amp; Grangemouth

When built

1900

made at

Glasgow

By whom made

Muir &amp; Houston Ltd.

when made

1901

made at

Glasgow

By whom made

Muir &amp; Houston Ltd.

when made

1901

red Horse Power

Owners

John Carey &amp; Co. Ltd.

Port belonging to

Cardiff.

orse Power as per Section 28

210

Is Refrigerating Machinery fitted

No.

Is Electric Light fitted

No.

VES, &amp;c.

Description of Engines

Triple expansion-screw

No. of Cylinders

3

No. of Cranks

3

Cylinders

31" 35" 57"

Length of Stroke

39"

Revs. per minute

100

Dia. of Screw shaft

as per rule 11.09

as fitted 11.74

Lgth. of stern bush

3.9"

Tunnel shaft

as per rule 10.03

as fitted 10.74

Dia. of Crank shaft journals

as per rule 10.56

as fitted 10.78

Dia. of Crank pin

10.78

Size of Crank webs

7 1/8"

Dia. of thrust shaft under

10.58"

Dia. of screw

13.0"

Pitch of screw

16.0"

No. of blades

4

State whether moveable

no

Total surface

55 sq. ft.

Feed pumps

2

Diameter of ditto

3"

Stroke

19 1/2"

Can one be overhauled while the other is at work

yes.

Bilge pumps

2

Diameter of ditto

3 1/2"

Stroke

19 1/2"

Can one be overhauled while the other is at work

yes.

Donkey Engines

Three

Sizes of Pumps

{ 6 x 4 x 6 - 6 x 6 x 6.

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

ine Room

Two 3" dia. &amp; two 2 1/4" dia.

In Holds, &amp;c.

Two 2 3/4" dia. in each fore

um holds.

One 3" dia. in each after hold well &amp; tunnel well.

ilge injections

1

sizes 4 1/2"

Connected to condenser, or to circulating pump

pump

Is a separate donkey suction fitted in Engine room &amp; size

yes. 3"

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

connections with the sea direct on the skin of the ship

yes.

Are they Valves or Cocks

valves &amp; cocks.

y 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 the blow off cocks fitted with a spigot and brass covering plate

yes

y 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

How are they protected

yes

pipes are carried through the bunkers

none

How are they protected

yes

pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times

yes

e bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges

yes

were stern tube, propeller, screw shaft, and all connections examined in dry dock

dry dock

Is the screw shaft tunnel watertight

yes

tted with a watertight door

yes

worked from

top platform.

ERS, &amp;c.

(Letter for record

(S.)

Total Heating Surface of Boilers

2940 sq. ft.

Is forced draft fitted

no.

nd Description of Boilers

Two

single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

f test

26/10/00

Can each boiler be worked separately

yes

Area of fire grate in each boiler

50 1/2 sq. ft.

No. and Description of safety valves to

2 Patent spring

Area of each valve

4.90

Pressure to which they are adjusted

iler

2 Patent spring

Area of each valve

4.90

Pressure to which they are adjusted

185 lbs.

Are they fitted with easing gear

yes.

st distance between boilers or uptakes and bunkers or woodwork

X

Mean dia. of boilers

13.9"

Length

10.1 1/2"

Material of shell plates

steel

ess

1 1/8"

Range of tensile strength

28 to 32

Are they welded or flanged

no

Descrip. of riveting: cir. seams

double

long. seams

treble

er of rivet holes in long. seams

1 1/16"

Pitch of rivets

8 1/2"

Lap of plates or width of butt straps

1.6"

ntages of strength of longitudinal joint

rivets 87.3

plate 86

Working pressure of shell by rules

181 lbs

Size of manhole in shell

16" x 12"

compensating ring

McNeil's

No. and Description of Furnaces in each boiler

3 plain

Material

steel

Outside diameter

3.6"

of plain part

top 6.0"

Thickness of plates

crown 3/4"

Description of longitudinal joint

welded

No. of strengthening rings

✓

ng pressure of furnace by the rules

182 lbs

Combustion chamber plates: Material

steel

Thickness: Sides

3/64"

Back

3/64"

Top

3/64"

Bottom

of stays to ditto: Sides

8" x 8"

Back

8" x 8"

Top

8" x 8"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

180 lbs

ial of stays

steel

Area at smallest part

1.45"

Area supported by each stay

64"

Working pressure by rules

181 lbs

End plates in steam space:

ial steel

Thickness

6/64"

Pitch of stays

16" x 14 1/2"

How are stays secured

nuts

Working pressure by rules

184 lbs

Material of stays

steel

ea

at smallest part

4.34

Area supported by each stay

232"

Working pressure by rules

188 lbs

Material of Front plates at bottom

steel

ess

3/4"

Material of Lower back plate

steel

Thickness

3/4"

Greatest pitch of stays

13 5/8" x 8"

Working pressure of plate by rules

312 lbs

ter of tubes

3 1/2"

Pitch of tubes

4 3/4" x 4 3/4"

Material of tube plates

steel

Thickness: Front

3/4"

Back

3/4"

Mean pitch of stays

across wide water spaces

14 1/2"

Working pressures by rules

192 lbs

Girders to Chamber tops: Material

iron

Depth and

ess of girder at centre

8" x 2-1"

Length as per rule

2.8"

ing pressure by rules

187 lbs

Superheater or Steam chest; how connected to boiler

none

Can the superheater be shut off and the boiler worked

yes

Material

Description of longitudinal joint

Diam. of rivet

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

End plates: Thickness

How stayed

ing pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

yes



DONKEY BOILER— No. one Description Meredith's patent.  
Made at Stockton By whom made Riley Bros When made 17/10/00 Where fixed in stoke  
Working pressure 80 lbs tested by hydraulic pressure to 160 lbs No. of Certificate 3320 Fire grate area 23 sq ft Description of safety valves 2 Safety  
No. of safety valves two Area of each 4.43 sq ft Pressure to which they are adjusted 80 lbs If fitted with easing gear yes If steam from main  
enter the donkey boiler no Dia. of donkey boiler 6.6" Length 14.0" Material of shell plates steel Thickness 7/16" Range  
strength 27-32 Descrip. of riveting long. seams double r. lap. Dia. of rivet holes 15/16" Whether punched or drilled drilled Pitch of r  
Lap of plating 4 1/4" Per centage of strength of joint Rivets 82.4 Thickness of shell crown plates 7/16" Radius of do. 39" No. of Stays to c  
Dia. of stays. 1 Diameter of furnace Top 4.5 1/2 Bottom 5.6 5/8 Length of furnace 2.9 Thickness of furnace plates 19/32" D  
joint riveted Thickness of furnace crown plates 9/16" Stayed by dishes 36" radius Working pressure of shell by ru  
Working pressure of furnace by rules 87 lbs Diameter of uptake tube 3" Thickness of uptake plates 9/16" Thickness of stay tubes 5/16"  
Combustion Chamber plate 1/2" - 1 1/8" stays eff. d. pitch 8 1/4".  
SPARE GEAR. State the articles supplied:—

Two top end & two bottom end connecting rod bolts, two  
bearing bolts, one set coupling bolts, & one set  
feed & bulge pump valves. etc.

The foregoing is a correct description,  
For MUIB & HOUSTON, LIMITED, Manufacturer.

Dates of Survey { During progress of work in shops - 1900: Apr. 30. Jun. 16. 29. Jul. 9. 26. Aug. 7. 16. 22. 29. Sep. 3. 4. 13. 20. 27.  
while building { During erection on board vessel - 26. 29. Nov. 5. 22. Dec. 10. 20. 26. 29. 1901: Jan. 8. 11.  
Total No. of visits 26.

Is the approved plan of main boiler forwarded herewith

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this  
vessel has been constructed under Special Survey,  
material & workmanship are of good quality, it has  
been securely fitted on board and tried under steam.  
In my opinion it is eligible to be classed in the  
Register Book to have the record of + L.M.C. 1.01.

It is submitted that  
this vessel is eligible for  
THE RECORD. ✦ L.M.C. 1.01

The amount of Entry Fee. £ 2 : : When applied for.  
Special . . . . £ 30 : 10 : : 19/11/01  
Donkey Boiler Fee . . . . £ : : : 30/1/01  
Travelling Expenses (if any) £ : : : 18/1/01

Committee's Minute Glasgow. 21 JAN. 1901

Assigned

✦ L.M.C. 1.01  
(Stamp fee paid)

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

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Foundation