

REPORT ON MACHINERY.

No. 33801
WED. APR. 1-1914

Received at London Office

Date of writing Report

19

When handed in at Local Office

30. 3. 10/4 Port of Glasgow

No. in Survey held at
Reg. Book.

Glasgow.

Date, First Survey

5. 8. 13

Last Survey

24. 5. 1914

26. Sup. on the

J. J. "Saint Eglbert"

(Number of Visits)

28.

Tons

Gross 5596.

Net

3353

Master W. Barr

Built at Port Glasgow

By whom built

Russell & Co. (K. 661)

When built 1914

Engines made at

Glasgow

By whom made

David Rowan & Co. (K. 608)

when made

1914

Boilers made at

do

By whom made

do

(K. 608)

when made

1914

Registered Horse Power

Owners Rankin Gilmore & Co.

Port belonging to Liverpool

Nom. Horse Power as per Section 28

557

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

27 1/2 - 45 - 75

Length of Stroke

51

Revs. per minute

75

Dia. of Screw shaft

as per rule 5.345

Material of

steel

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

—

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

Yes

If two

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

Length of stern bush

5-3

Dia. of Tunnel shaft

as per rule 13.785

Dia. of Crank shaft journals

as per rule 14.474

Dia. of Crank pin

14 3/4

Size of Crank webs

9 1/2

Dia. of thrust shaft under

collars

15

Dia. of screw

18-6

Pitch of Screw

19-0

No. of Blades

4

State whether moveable

No

Total surface

116 3/4

No. of Feed pumps

2

Diameter of ditto

4

Stroke

27

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2

Stroke

27

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

3

Sizes of Pumps

9 x 12 x 12, 8 x 8 x 8, 6 x 4 x 6

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

In Engine Room

4 at 3 1/2"

In Holds, &c.

2 - 3 1/2" each hold

No. of Bilge Injections

1 sizes 7"

Connected to condenser, or to circulating pump

Yes

Is a separate Donkey Suction fitted in Engine room & size

Yes

3 1/2"

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

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

Ford Suctions

How are they protected

Wood covering

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

7

of Stern Tube

7

Screw shaft and Propeller

See Rpt

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from Top grating

BOILERS, &c.—(Letter for record (27))

Manufacturers of Steel

Stewart, Lloyds Ltd. + William Beardmore & Co. Ltd.

Total Heating Surface of Boilers

8214

Is Forced Draft fitted

Yes

No. and Description of Boilers

Three Single Ended

Working Pressure

140 lb

Tested by hydraulic pressure to

360 lb

Date of test

10/12/13

No. of Certificate

12452

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

59 3/4

No. and Description of Safety Valves to

each boiler

2

Lockburn

Area of each valve

9.6

Pressure to which they are adjusted

185

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

abt 15"

Mean dia. of boilers

15-3"

Length

12-0"

Material of shell plates

steel

Thickness

1 7/32"

Range of tensile strength

28632

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D. R. Lap

long. seams

D. B. S.

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

8.781

Lap of plates or width of butt straps

18 3/4"

Per centages of strength of longitudinal joint

rivets 85.5

plate 85.7

Working pressure of shell by rules

180 lb

Size of manhole in shell

16 x 12

Size of compensating ring

Flanged

No. and Description of Furnaces in each boiler

3

Deighton

Length of plain part

top

bottom

Thickness of plates

crown 3 1/2

bottom 3 1/4

Description of longitudinal joint

weld

No. of strengthening rings

Working pressure of furnace by the rules

180

Combustion chamber plates: Material

steel

Thickness: Sides

1 1/16"

Back

2 1/32"

Top

1 1/16"

Bottom

1 1/16"

Pitch of stays to ditto: Sides

8 3/4 x 10

Back

10 1/2 x 7 1/2

Top

8 3/4 x 10

If stays are fitted with nuts or riveted heads

No

Working pressure by rules

184

Material of stays

Iron

Diameter at smallest part

2.07"

Area supported by each stay

86"

Working pressure by rules

180

End plates in steam space:

Material

steel

Thickness

1 9/32"

Pitch of stays

20 7/16"

How are stays secured

D. 2 nuts

Working pressure by rules

180

Material of stays

steel

Diameter at smallest part

7.06"

Area supported by each stay

400"

Working pressure by rules

183

Material of Front plates at bottom

steel

Thickness

2 9/32"

Material of Lower back plate

steel

Thickness

2 5/32"

Greatest pitch of stays

13"

Working pressure of plate by rules

183

Diameter of tubes

2 1/2"

Pitch of tubes

3 3/4 x 3 7/8"

Material of tube plates

steel

Thickness: Front

2 9/32"

Back

2 3/32"

Mean pitch of stays

10 5/32"

Pitch across wide water spaces

13 1/4"

Working pressures by rules

180

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

9 1/4 x 1 x 2

Length as per rule

36 7/8"

Distance apart

10"

Number and pitch of stays in each

3 at 8 3/4"

Working pressure by rules

180

Superheater or Steam chest; how connected to boiler

none

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

Multitubular

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No. 1 Description Return Tube Cylindrical See Rpt. 5a.
Made at Glasgow By whom made David Rowan & Co. When made 1914 Where fixed Twin decks.
Working pressure 100 Tested by hydraulic pressure to 200 lb Date of test 10/12/13 No. of Certificate 2436 Fire grate area 35.5 Description of Safety
Valves Cockburn No. of Safety Valves 2 Area of each 5.9 Pressure to which they are adjusted 105 lb Date of adjustment 18/3/14
If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler Yes Dia. of donkey boiler 12'-0" Length 10'-0"
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
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:—Two top end bolts, 2 bottom end bolts, 2 main bearing bolts, set of coupling bolts, all with nuts, feed & bilge pump valves, assorted iron, bolts, etc. Also propeller shaft, propeller, pair bottom end bushes, eccentric strap etc.

The foregoing is a correct description,

for David Rowan & Co. Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1913 Aug 5. Sept 11. 23. Oct 8. 17. 28. Nov 3. 12. 14. 19. 24. 28. Dec. 2. 8. 10. 15. 29.
During erection on board vessel -- 1914 Jan 15. 22. 30. Feb 5. 13. 24. Mar 2. 9. 11. 18. 24.
Total No. of visits 28.

Is the approved plan of main boiler forwarded herewith Yes
" " " donkey " " Yes

Dates of Examination of principal parts—Cylinders 3/11/13 Slides 15/12/13 Covers 3/11/13 Pistons 15/12/13 Rods 3/11/13
Connecting rods 3/11/13 Crank shaft 8/12/13 Thrust shaft 5/2/14 Tunnel shafts 15/1/14 Screw shaft 3/11/13 Propeller 15/12/13
Stern tube 15/12/13 Steam pipes tested 29/12/13 Engine and boiler seatings 2/3/14 Engines holding down bolts 11/3/14
Completion of pumping arrangements 18/3/14 Boilers fixed 9/3/14 Engines tried under steam 24/3/14
Main boiler safety valves adjusted 18/3/14 Thickness of adjusting washers P. 13/32, 3/8, C. 15/32, 1/2, 5/16, 3/4, D. B. 11/32, 1/2
Material of Crank shaft Steel Identification Mark on Do. H. G. 5 Material of Thrust shaft Steel Identification Mark on Do. H. G. 5
Material of Tunnel shafts Steel Identification Marks on Do. H. G. 5 Material of Screw shafts Steel Identification Marks on Do. H. G. 5
Material of Steam Pipes Steel Test pressure 540 lb

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

The engines & boilers of this vessel have been constructed under Special Survey & are of good materials & workmanship. They have been securely fitted on board & satisfactorily tried under steam.

This vessel is in our opinion eligible to have notation —
* LMC 3, 14 in The Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 3. 14. FD.

JWD
7/4/14

The amount of Entry Fee .. £ 3 : 6 :
Special .. £ 47. 17 :
Donkey Boiler Fee .. £ : :
Traveling Expenses (if any) £ : :
When applied for, 27. 3. 14.
When received, 31. 3. 14.

H Sandhu-Smith & Co. Muelini
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

GLASGOW 31 MAR. 1914

Assigned + LMC 3, 14

FD.

EXAMINER'S CERTIFICATE
WRITTEN



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Foundation