

REPORT ON MACHINERY

No. 34766.
WED. JAN. 27, 1915

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of Glasgow.

No. in Survey held at
Reg. Book.

Glasgow.

Date, First Survey 13/1/14

Last Survey 19/1/15-19

(Number of Visits 52)

on the

S.S. ESPELETTE

Master E. Amestoy

Built at Greenock.

By whom built Geo. Brown & Co (No 89)

Tons Gross 1183

Net 716

When built 1915

Engines made at

Glasgow

By whom made

Ross & Duncan (No 942)

when made

1915

Boilers made at

do.

By whom made

do.

(No 51462.3)

when made

1915

Registered Horse Power

Owners

Plisson & Co

Port belonging to

Bayonne.

Nom. Horse Power as per Section 28

152

154

Is Refrigerating Machinery fitted for cargo purposes

do

Is Electric Light fitted

do

ENGINES, &c.—Description of Engines Triple expansion surf. condg.

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders

14 1/2" 24 1/2" 45"

Length of Stroke 33"

Revs. per minute

Dia. of Screw shaft

as per rule 9.61"

Material of screw shaft

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

Yes

If two

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

Length of stern bush 3'-5"

Dia. of Tunnel shaft

as per rule 8 3/4"

Dia. of Crank shaft journals

as per rule 9.17"

Dia. of Crank pin

9 3/8"

Size of Crank webs

14 1/8" x 16 1/2"

Dia. of thrust shaft under

collars

9 1/4"

Dia. of screw

11'-6"

Pitch of Screw

12'-2"

No. of Blades 4

State whether moveable

No

Total surface

42 sq ft

No. of Feed pumps 2

Diameter of ditto

2 3/4"

Stroke

16 1/2"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 2

Diameter of ditto

2 3/4"

Stroke

16 1/2"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines 2

Sizes of Pumps

6 1/2" x 4" x 6"

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

In Engine Room

3-2 1/2"

In Holds, &c.

No 1 - 2 at 2 1/2"

No 2 - 2 at 2 1/2"

No 3 - 2 at 2 1/2"

Tunnel well

1-2"

No. of Bilge Injections 1

size 3"

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

Yes - 2 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

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

Forward suction

How are they protected

wood casing

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

See Greenock Report

Stern shaft and Propeller

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from

S. R. top platforms

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

David Colville Sons, The Lanarkshire Steel Co.

Total Heating Surface of Boilers

2716

Is Forced Draft fitted

No

No. and Description of Boilers

2 - S. E. Marine

Working Pressure

180 lbs.

Tested by hydraulic pressure to

360 lbs.

Date of test

7.10.14

No. of Certificate

12892.

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

4 1/4 sq ft

No. and Description of Safety Valves to

each boiler

Pair spring loaded

Area of each valve

3.94 sq in

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

4'-0"

Mean dia. of boilers

12'-3"

Length

10'-6"

Material of shell plates

steel

Thickness

1 1/2"

Range of tensile strength

28/32

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R.

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

7 1/4"

Lap of plates or width of butt straps

1'-6 1/2"

Per centages of strength of longitudinal joint

rivets 85.6

plate 83.6

Working pressure of shell by rules

187 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

7" x 1 1/2"

No. and Description of Furnaces in each boiler

2

Material

steel

Outside diameter

4'-0 1/4"

Length of plain part

top 19"

bottom 32"

Thickness of plates

crown 19"

bottom 32"

Description of longitudinal joint

weld

No. of strengthening rings

5"

Working pressure of furnace by the rules

195 lbs.

Combustion chamber plates: Material

steel

Thickness: Sides

19"

Back

8"

Top

8"

Bottom

32"

Pitch of stays to ditto: Sides

8 1/2" x 7 1/2"

Back

8 1/2" x 8 1/2"

Top

4 1/2" x 9 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

186 lbs

Material of stays

steel

Diameter at smallest part

1.76 sq in

Area supported by each stay

72 sq in

Working pressure by rules

194 lbs

Material

steel

Thickness

1 1/2"

Pitch of stays

16 1/2" x 17 1/2"

How are stays secured

D.N.W.

Working pressure by rules

184 lbs

Material of stays

steel

Diameter at smallest part

5.44 sq in

Area supported by each stay

289 sq in

Working pressure by rules

194 lbs

Material of Front plates at bottom

steel

Thickness

13"

Material of Lower back plate

steel

Thickness

13"

Greatest pitch of stays

13 1/2" x 8 1/4"

Working pressure of plate by rules

182 lbs

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/8" x 4 1/2"

Material of tube plates

steel

Thickness: Front

13"

Back

24"

Mean pitch of stays

9" x 9 1/4"

Pitch across wide water spaces

14" x 18"

Working pressures by rules

231 lbs.

Girders to Chamber tops: Material

iron

Depth and

thickness of girder at centre

8" x 24"

Length as per rule

2'-6 3/4"

Distance apart

9 1/2"

Number and pitch of stays in each

3-7 1/2" x 9 1/4"

Working pressure by rules

211 lbs.

Superheater or Steam chest; how connected to boiler

None

Can the superheater be shut off and the boiler worked

separately

Yes

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

Yes

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

VERTICAL DONKEY BOILER—

Manufacturers of Steel

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	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 each of top & bottom end & main bearing bolts, a set of coupling bolts, feed & bilge pump valves & seats, a set of valves for each donkey pump, springs for each main engine piston, 2 bottom end braces, condenser & boiler tubes, screwed plain bars, bolts & nuts.*

The foregoing is a correct description,

Manufacturer.

Ross & Sons, Glasgow

Dates of Survey while building	During progress of work in shops	1914 Jan 13. 21. Feb. 5. 10. 23. Mar. 5. 12. 23. 31. Apr. 7. 27. May 4. 6. 13. 20. 25. June 2. 9. 10. 12. 16. 19. 22. 25. July 2. 6. 13.
	During erection on board vessel	29. 31. Aug 6. 10. 13. 19. 24. Sept. 1. 4. 8. 11. 18 Oct. 2. 7. 12. 14. 19 Nov. 25 Dec. 9. 14. 21. 23. 28 1915 Jan 18. 19.
Total No. of visits		52.

Is the approved plan of main boiler forwarded herewith

Yes

Dates of Examination of principal parts—Cylinders	12. 6. 14	Slides	10. 8. 14	Covers	12. 6. 14	Pistons	10. 8. 14	Rods	22. 6. 14
Connecting rods	22. 6. 14	Crank shaft	9. 6. 14	Thrust shaft	4. 10. 14	Tunnel shafts	4. 10. 14	Screw shaft	14. 10. 14
Stern tube	19. 10. 14	Steam pipes tested	19/10/14	Engine and boiler seatings	25. 11. 14	Engines holding down bolts	23/12/14		
Completion of pumping arrangements	23 24/14	Boilers fixed	23/12/14	Engines tried under steam	19/1/15				
Main boiler safety valves adjusted	28/12/14	Thickness of adjusting washers	Star 8. 5 3/4. Port Boiler 5 1/2 3/4						
Material of Crank shaft	Iron	Identification Mark on Do.	No 942 9. 6. 14 F.A.F.	Material of Thrust shaft	Iron	Identification Mark on Do.	No 942 7. 10. 14 P.T.B.		
Material of Tunnel shafts	Iron	Identification Marks on Do.	No 942 4. 10. 14 P.T.B.	Material of Screw shafts	Iron	Identification Marks on Do.	No 942 14. 10. 14 P.T.B.		
Material of Steam Pipes	Solid drawn copper	Test pressure	360 lbs.						

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

The materials and workmanship are good. The machinery and boilers of this vessel have been built under special survey in accordance with the Rules and approved plans, securely fitted aboard and tried with satisfactory results under steam and are, in our opinion, suitable for classification with record + L.M.C. 1, 15.

This machinery is duplicate of that fitted in S.S. "USTARITZ"
Gds. Rpt No. 34449.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 1, 15.

J.W.D. 29/1/15. J.R.S.

The amount of Entry Fee	£ 2 - 0 -	When applied for,	26/1/15
Special	£ 23 - 2 -	When received,	30/1/15
Donkey boiler Fee	£ :		
Travelling Expenses (if any)	£ - 9 -		

Committee's Minute GLASGOW

26 JAN. 1915

Assigned + L.M.C. 1, 15.

P. J. Brown, Whitehead
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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Certificate (if required) to be sent to