

Rpt. 4.

## REPORT ON MACHINERY.

No. 17798.

Received at London Office

THU. 31 MAR. 1921

Date of writing Report 19 March 1921 When handed in at Local Office 24 March 1921 Port of GreenwichNo. in Survey held at Greenwich  
Reg. Book.Date, First Survey 10<sup>th</sup> Nov. 1919 Last Survey 18<sup>th</sup> March, 1921

(Number of Visits 85)

on the

Old Woman

10 tons 11

Tons { Gross  
Net

Master

Built at

CadizBy whom built Echevarria & Laminaga

When built 1921

Engines made at

Greenwich

By whom made

John S. Hineaid & Co Ltd when made 1921

Boilers made at

Greenwich

By whom made

John S. Hineaid & Co Ltd when made 1921

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

411

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

## ENGINES, &amp;c.—Description of Engines

Triple CompoundNo. of Cylinders ThreeNo. of Cranks ThreeDia. of Cylinders 25" 41" 68"Length of Stroke 45"Revs. per minute 70

Dia. of Screw shaft

as per rule 13.75

Material of screw shaft

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 burnedYes

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

YesLength of stern bush 60"

Dia. of Tunnel shaft

as per rule 12.41

Dia. of Crank shaft journals

as per rule 13.04Dia. of Crank pin 13 1/4"Size of Crank webs 19 1/2 x 3 1/4"

Dia. of thrust shaft under

collars 13 1/4"Dia. of screw 16.6"Pitch of Screw 18.0"No. of Blades 4State whether moveable YesTotal surface 90 sq ftNo. of Feed pumps TwoDiameter of ditto 3 1/2"Stroke 24"Can one be overhauled while the other is at work YesNo. of Bilge pumps TwoDiameter of ditto 3 1/2"Stroke 24"Can one be overhauled while the other is at work YesNo. of Donkey Engines ThreeSizes of Pumps 11" 10" 6" 8" 5 1/2" 4"

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

In Engine Room

4" 3 1/2"

In Holds, &amp;c.

8" 3 1/2"No. of Bilge Injections Twosizes 8"Connected to condenser, or to circulating pump YesIs a separate Donkey Suction fitted in Engine room & size 3 1/2"

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

Port Talbot Steel Co. Ltd & J. Scotland.Total Heating Surface of Boilers 5882.7Is Forced Draft fitted YesNo. and Description of Boilers Two Single EndedWorking Pressure 180 lbsTested by hydraulic pressure to 320 lbsDate of test 1/3/21 4/3/21No. of Certificate 1542-1543

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

74 sq ft

No. and Description of Safety Valves to

each boiler Two SpringArea of each valve 12.56"

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers 16.6"Length 11.9"Material of shell plates SteelThickness 1 1/2"Range of tensile strength 28 1/2 to 35

Are the shell plates welded or flanged

YesDescrip. of riveting: seams all on 4long. seams all on 4

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

9 1/8"Lap of plates or width of butt straps 20 1/8"

Per centages of strength of longitudinal joint

rivets 90%plate 85%Working pressure of shell by rules 190 lbsSize of manhole in shell 16" 12"Size of compensating ring HangedNo. and Description of Furnaces in each boiler 4 DesigningMaterial SteelOutside diameter 44 1/2"

Length of plain part

top Yes

Thickness of plates

crown 9 1/2"Description of longitudinal joint WeldedNo. of strengthening rings CorrugWorking pressure of furnace by the rules 196 lbsCombustion chamber plates: Material SteelThickness: Sides 2 1/2"Back 1 1/2"Top 2 1/2"Bottom 2 1/2"Pitch of stays to ditto: Sides 10 1/8" 8 1/4"Back 10" 8 1/8"Top 10 1/8" 8 1/4"If stays are fitted with nuts or riveted heads SteelWorking pressure by rules 196 lbsMaterial of stays SteelArea at smallest part 2.08"Area supported by each stay 88"Working pressure by rules 206 lbs

End plates in steam space:

Material SteelThickness 1 1/2"Pitch of stays 24" 22 1/2"How are stays secured all nutWorking pressure by rules 180 lbsMaterial of stays SteelArea at smallest part 8.76"Area supported by each stay 540"Working pressure by rules 192 lbsMaterial of Front plates at bottom SteelThickness 1 1/2"Material of Lower back plate SteelThickness 1 1/2"Greatest pitch of stays 18 1/4"Working pressure of plate by rules 207 lbsDiameter of tubes 2 1/4"Pitch of tubes 4" 3 1/8"Material of tube plates SteelThickness: Front 1 1/2"Back 1 1/2"Mean pitch of stays 9.87"Pitch across wide water spaces 13 1/4"Working pressures by rules 189 lbsGirders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 10" 1 1/4"Length as per rule 35 1/2"Distance apart 10 1/8"Number and pitch of stays in each Three 8 1/4"Working pressure by rules 194 lbs

Steam dome: description of joint to shell

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

## SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

Hineaid &amp; Co

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR.

State the articles supplied:—

*See attached report*  
*Steam chuck*  
*The top end bolts. The bottom end bolts. The main bearing bolts. One set coupling bolts. One set end pump valves. One set Bridge pump valves. One escape valve spring each side. One safety valve spring. 12 Condenser tubes 120 Jernister bolts nuts &c.*

The foregoing is a correct description,

FOR JOHN G. KINCAID & COY., LIMITED

*Robert Greer*

Manufacturer.

Dates of Survey while building  
During progress of work in shops -- 1919. Nov. 10. 1920. Feb. 6. 16. 13. 23. May. 6. 11. 14. 16. 13. 24. Jun. 3. 11. 14. 17. 23. July 14. 19. 23. 27. 30. Aug. 5. 9. 13. 16. 18. 20. 26. Sept. 4. 8. 9. 10. 13. 15. 22. 23. 29. Oct. 1. 13. 19. 26. 27. 30. Nov. 2. 7. 16. 19. 23. 26. 27. Dec. 2. 7. 10. 13. 17. 21. 25. 27. 1921. Jan. 11. 13. 14. 15. 21. 23. 26. 27. 28. 31. Feb. 1. 6. 2. 10. 14. 16. 17. 23. 25. Mar. 1. 3. 4. 7. 9. 11. 13.  
During erection on board vessel -- 23. 25. Mar. 1. 3. 4. 7. 9. 11. 13.  
Total No. of visits 85.

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts -- Cylinders *31/1/21* Slides *8/2/21* Covers *25/1/21* Pistons *31/1/21* Rods *31/1/21*

Connecting rods *29/2/21* Crank shaft *8/11/20* Thrust shaft *2/11/20* Tunnel shafts *1/2/21* Screw shaft *1/2/21* Propeller *25/1/21*

Stern tube *8/2/21* Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam

Completion of fitting sea connections Stern tube Screw shaft and propeller

Main boiler safety valves adjusted Thickness of adjusting washers

Material of Crank shaft *Steel* Identification Mark on Do. *398* Material of Thrust shaft *Steel* Identification Mark on Do. *398*

Material of Tunnel shafts *Steel* Identification Marks on Do. *398* Material of Screw shafts *Steel* Identification Marks on Do. *398*

Material of Steam Pipes

Test pressure

Is an installation fitted for burning oil fuel

Is the flash point of the oil to be used over 150°F.

Have the requirements of Section 49 of the Rules been complied with

Is this machinery duplicate of a previous case *Yes*

If so, state name of vessel *Kincaid & Co Ltd SA No 17766 28/12/20*

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

*The Engines and Boiler of this Steamer have been constructed under Special Survey and have been shipped to Cadiz where they will be placed on board the above named Steamer.*

The amount of Entry Fee ... £ 5 : 0 :  
Special ... £ 69 : 6 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 24/3/1921  
When received, 1.4.21

*James Limer*

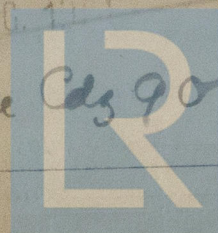
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *LASGOW. 30 MAR 1921*

Assigned *Deferred*

TUE. 23 AUG. 1921

*See Cd 903*



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