

## REPORT ON MACHINERY.

No. 11009

Received at London Office

SAT 23 APR 1921

Date of writing Report

When handed in at Local Office

19.4.21

Port of

MIDDLESBRO

No. in Survey held at  
Reg. Book.

Stockton-on-Tees

Date, First Survey

17<sup>th</sup> Sept 1920

Last Survey

18<sup>th</sup> April 1921

on the

S.S. CABO TAZO

(S.S. No. 25)

Tons

Gross 2844.9

Net 2383.4

Master

Built at

Bilbao

By whom built

Ire Lapanda de Construccion Naval

When built

Engines made at

Stockton

By whom made

Messrs Blair &amp; Co Ltd (No 1947)

when made 1921

Boilers made at

Stockton

By whom made

Messrs Blair &amp; Co Ltd

when made 1921

Registered Horse Power

Owners

Cia Ibarra

Port belonging to

Sevilla

Nom. Horse Power as per Section 28

253

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

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

Tri-compound

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

22-36-59

Length of Stroke

39

Revs. per minute

Dia. of Screw shaft

12.42

Material of

by 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 in one

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

tight fit

If two

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

yes

Length of stern bush

4'-8"

Dia. of Tunnel shaft

as per rule 10.856

Dia. of Crank shaft journals

as per rule 11.4

Dia. of Crank pin

12.5

Size of Crank webs

23.5 x 7.5

Dia. of thrust shaft under

rollers

12.5

Dia. of screw

15'-6"

Pitch of Screw

15'-9"

No. of Blades

4

State whether moveable

no

No. of Feed pumps

2

Diameter of ditto

2 3/4

Stroke

28

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4

Stroke

28

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

10" x 10"

5 x 8 sfls

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

Engine Room

2 @ 4"

In Holds, &amp;c.

2 @ 2 1/4" hold

2 @ 3" in

No. 2 hold

No. of Bilge Injections

1

size

6"

Connected to condenser or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room &amp; size

yes

4"

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

yes

How are they protected

yes

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

23.12.25

of Stern Tube

23.12.25

Screw shaft and Propeller

23.12.26

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

top platform

## BOILERS, &amp;c.—(Letter for record)

(S)

Manufacturers of Steel

Messrs John Spencer &amp; Co Ltd

Heating Surface of Boilers

4120

Is Forced Draft fitted

no

No. and Description of Boilers

Two single ended

Working Pressure

180

Tested by hydraulic pressure to

360

Date of test

9.3.21

No. of Certificate

6212

Can each boiler be worked separately

yes

Area of fire grate in each boiler

60.2 sq

No. and Description of Safety Valves to

boiler

2 direct spring

Area of each valve

7.07 sq

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

yes

Least distance between boilers or uptakes and bunkers or woodwork

18"

Mean dia. of boilers

15'-3"

Length

10'-6"

Material of shell plates

steel

Tensile strength

17 1/2

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

2 Riv' lap

Seams

2 Riv-3 Riv

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

8 1/2"

Lap of plates or width of butt straps

18 1/2 x 1 1/2"

Rivets per pitch

5 Rivets per pitch

Rivets

8 1/4"

Working pressure of shell by rules

182

Size of manhole in shell

16" x 12"

Angles of strength of longitudinal joint

plate

8 1/4"

Working pressure of shell by rules

182

Size of manhole in shell

16" x 12"

Compensating ring

7 1/2 x 1 1/2

No. and Description of Furnaces in each boiler

3 horizontal

Material

steel

Outside diameter

47 13/32

Thick of plain part

top

bottom

Thickness of plates

7/16"

Description of longitudinal joint

Weld

No. of strengthening rings

1

Working pressure of furnace by the rules

192

Combustion chamber plates: Material

steel

Thickness: Sides

7/16"

Back

7/16"

Top

7/16"

of stays to ditto: Sides

9 x 9 1/2"

Back

9 1/2 x 9 1/2"

Top

10 x 8 1/4"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

185

Material of stays

steel

Diameter at smallest part

1 1/8"

Area supported by each stay

87.8

Working pressure by rules

204

End plates in steam space

Material of stays

steel

Thickness

1 1/4"

Pitch of stays

18 1/2 x 20"

How are stays secured

nuts &amp; washers

Working pressure by rules

200

Material of stays

steel

Material of stays

steel

Thickness

1 1/4"

Pitch of stays

18 1/2 x 20"

How are stays secured

nuts &amp; washers

Working pressure by rules

200

Material of stays

steel

Material of stays

steel

Thickness

1 1/4"

Pitch of stays

18 1/2 x 20"

How are stays secured

nuts &amp; washers

Working pressure by rules

200

Material of stays

steel

Material of stays

steel

Thickness

1 1/4"

Pitch of stays

18 1/2 x 20"

How are stays secured

nuts &amp; washers

Working pressure by rules

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18 1/2 x 20"

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Working pressure by rules

200

Material of stays

steel

Material of stays

steel

Thickness

1 1/4"

Pitch of stays

18 1/2 x 20"

How are stays secured

nuts &amp; washers



# IS A DONKEY BOILER FITTED?

SPARE GEAR. State the articles supplied :-

2 main bearing bolts, set of coupling bolts, one set of feed and bridge valves, Patent piston springs fitted two spare, one Valve spindle, Check Valve, boiler tubes, condenser tubes, set of safety Valve springs. Iron and bolts of various sizes.

The foregoing is a correct description.

FOR LA COMPANIA EUSKALDUNA DE CONSTRUCCION Y REPARACION DE BUQUES

See. Nittishup

El Director

Dates of Survey while building  
During progress of work in shops - -  
During erection on board vessel - -  
Total No. of visits 53. 20

Dates of Examination of principal parts - Cylinders 14. 2. 21 Slides 21. 2. 21 Covers 14. 2. 21 Pistons 21. 2. 21 Rods 24. 2. 21  
Connecting rods 1. 3. 21 Crank shaft 21. 2. 21 Thrust shaft 3. 2. 21 Tunnel shafts 17. 9. 20  
Stern tube 20. 10. 20 Steam pipes tested Engine and boiler seatings 13. 11. 25 Engines holding down bolts 5. 1. 21  
Completion of pumping arrangements 9. 2. 26 Boilers fixed 9. 2. 26 Engines tried under steam 9. 2. 26  
Main boiler safety valves adjusted 9. 2. 26 Thickness of adjusting washers 3. 10. 26  
Material of Crank shaft by steel Identification Mark on Do. 7287 Material of Thrust shaft by steel Identification Mark on Do. 5486  
Material of Tunnel shafts by steel Identification Marks on Do. 5486-N Material of Screw shafts by steel Identification Marks on Do. 7287  
Material of Steam Pipes Steel Test pressure 340 lb.

Is an installation fitted for burning oil fuel No. 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 by 92. 1946; Indb. Pft. N° 10965

General Remarks (State quality of workmanship, opinions as to class, &c. Evaporator cast iron shell & solid drawn coils tested to 50 lb & 400 lb respectively & found good. Evaporator marked N° 166-50 lb - 4. 4. 21 - W.M.  
These engines and boilers have been built under special survey. The materials & workman are sound and good. The main boilers and oil fuel settling tanks were tested by hydraulic pressure to 360 lb & 15 lb per square inch respectively and found good. The Builders state they have no information as to the destination of this machinery.

When this machinery has been satisfactorily fitted on board a vessel, intended for classification with this Society, and the work completed in accordance with the Rules; vessel will be eligible in my opinion to have the notations of S.L.M.C. with a date, and "Fitted for oil fuel (with a date) F.P. above 150°F", in the Register Book.

These engines and boilers have now been fitted in accordance with the rules and instructions. The materials and workmanship are good. The oil fuel installation has not been fitted. Electric light has been fitted in accordance with the Rules and tried under working conditions. Found Satisfactory.  
The vessel is eligible in my opinion to have the notations S.L.M.C. 3. 26 1926 Electric Light.

The amount of Entry Fee £ 138.00/6 When applied for, 14/11/1926  
Special £ 50.00/0 When received, 20. 5. 26  
Donkey Boiler Fee £ 16/6  
Travelling Expenses (if any) £ 250/-  
Committee's Minute TUES. 4 MAY 1926  
Assigned Not for classing Committee

Lloyd's Register Foundation