

Rpt. 4.

REPORT ON MACHINERY

No. 811

Received at London Office

N7103 321

Date of writing Report 12-1-1920 When handed in at Local Office

19 Port of

No. in Survey held at CADIZ

Reg. Book.

Date, First Survey 2-6-19 Last Survey 3-1-1920

2438 on the S.S. "OPHIR"

(Number of Visits)

Tons Gross 538

Net 222

When built 1919

Master JOSE ESCRIBANO Built at CADIZ

By whom built ECHEVARRIETA Y LARRINAGA

Engines made at BARCEDONA

By whom made ALEXANDER BROS.

when made 1919

Boilers made at BILBAO

By whom made CIA EUSKALDUNA

when made 1919

Registered Horse Power

Owners ECHEVARRIETA Y LARRINAGA

Port belonging to CADIZ

Nom. Horse Power as per Section 28 75

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines TRIPLE EXPANSION

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 12", 20", 32" Length of Stroke 24" Revs. per minute 90

Dia. of Screw shaft as per rule 7 1/8 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

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

If two

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

Length of stern bush 2'-8"

Dia. of Tunnel shaft as per rule 6'-19"

Dia. of Crank shaft journals as per rule 6'-49"

Dia. of Crank pin 6'-49"

Size of Crank webs 4'-3/8"

Dia. of thrust shaft under

Collars 7 1/4" Dia. of screw 108" Pitch of Screw 13'-0"

No. of Blades 4

State whether moveable No Total surface 31 sq ft.

No. of Feed pumps 1 Diameter of ditto 2 1/16" Stroke 12 1/8" Can one be overhauled while the other is at work

No. of Bilge pumps 1 Diameter of ditto 2 1/16" Stroke 12 1/8" Can one be overhauled while the other is at work

No. of Donkey Engines 2 Sizes of Pumps 6" x 6" BALL - 6" x 4" x 6" FEED No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2 OF 2 1/4" AND 1 OF 2"

In Holds, &c. 2 OF 2" AND 3 OF 3"

No. of Bilge Injections 1 sizes 3" Connected to condenser or to circulating pump YES Is a separate Donkey Suction fitted in Engine room & size 2 1/4"

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

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

That pipes are carried through the bunkers NONE How are they protected

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

Is the Screw Shaft Tunnel watertight YES Is it fitted with a watertight door YES worked from YES

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers

Is Forced Draft fitted YES

No. and Description of Boilers

Working Pressure Tested by hydraulic pressure to

Date of test

No. of Certificate 38

Can each boiler be worked separately Area of fire grate in each boiler

No. and Description of Safety Valves to

Each boiler Area of each valve

Pressure to which they are adjusted 150 LBS

Are they fitted with easing gear YES

Smallest distance between boilers or uptakes and bunkers or woodwork 72" Mean dia. of boilers Length Material of shell plates

Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

g. seams Diameter of rivet holes in long. seams Pitch of rivets

Percentages of strength of longitudinal joint rivets Working pressure of shell by rules

No. and Description of Furnaces in each boiler

Length of plain part top Thickness of plates crown Description of longitudinal joint

bottom Thickness of plates bottom

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads

Material of stays Area at smallest part Area supported by each stay

Material Thickness Pitch of stays How are stays secured

Area at smallest part Area supported by each stay Working pressure by rules

Material of Front plates at bottom

Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and

Thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules 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

MARKS ON BOILER

LLOYDS TEST

Size of manhole in shell

360 LBS.

No 38 Material

15-4-19

A DE B.

Outside diameter

No. of strengthening rings

CONSTRUIDOR LA

CIA. EUSKALDUNA

Working pressure by rules

BILBAO No 14

Working pressure by rules

End plates in steam space:

Material of stays

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es: Material *Steel*
9 1/2 x 1 1/2 If stays
allest part *1 1/4"*
h of stays *1 1/4"*
supported by ea
er back plate *Steel*
h of tubes *4 1/2"*
r spaces *1 1/4"*
r at centre *8 1/2"*
king pressure by
meter

of rivets
ERHEATER.
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Heron & Co
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IS A DONKEY BOILER FITTED?

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If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:—

2 TOP AND 2 BOTTOM END BOLTS AND NUTS, 2 MAIN BEARING BOLTS AND NUTS, 1 SET OF COUPLING BOLTS AND NUTS, 1 SET EACH, AIR, FEED AND BILGE PUMP VALVES, 1 MAIN AND DONKEY CHECK VALVE, 1 SAFETY VALVE SPRING, 6 JUNK RING BOLTS AND NUTS, 12 CONDENSER TUBES, 6 BOILER TUBE 6 GAUGE GLASSES AND RINGS, 1/2 SET OF FIRE BARS, ASSORTED BOLTS, NUTS AND IRON.

The foregoing is a correct description,

Manufacturer.

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

2-6-19, 11-9-19, 26-9-19, 30-9-19, 13-10-19, 28-10-19, 6-11-19, 3-1-20
EIGHT.

Is the approved plan of main boiler forwarded herewith

No

" " " donkey " " "

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓ Pistons ✓ Rods ✓

Connecting rods ✓ Crank shaft ✓ Thrust shaft 30-9-19 Tunnel shafts ✓ Screw shaft 2-6-19 Propeller 2-6-19

Stern tube 2-6-19 Steam pipes tested 28-10-19 Engine and boiler seatings 1-9-19 Engines holding down bolts 30-9-19

Completion of pumping arrangements 28-10-19 Boilers fixed 11-9-19 Engines tried under steam 6-11-19

Completion of fitting sea connections 2-6-19 Stern tube 2-6-19 Screw shaft and propeller 2-6-19

Main boiler safety valves adjusted 3-1-20 Thickness of adjusting washers 1/16" PORT 1/16" STARS

Material of Crank shaft STEEL Identification Mark on Do. ✓ Material of Thrust shaft STEEL Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts STEEL Identification Marks on Do.

Material of Steam Pipes COPPER Test pressure 360 LBS. P

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 ✓ If so, state name of vessel ✓

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

THE MACHINERY OF THIS VESSEL WITH THE EXCEPTION OF THE BOILER HAS NOT BEEN CONSTRUCTED UNDER SPECIAL SURVEY AND HAS NOW BEEN FITTED EFFICIENTLY IN THE VESSEL AND TRIED UNDER STEAM WITH SATISFACTORY RESULTS AND IS ELIGIBLE IN MY OPINION TO BE CLASSED AND TO HAVE RECORD OF L.M.C. 11-19, SUBJECT TO BOILER PRESSURE NOT EXCEEDING 150 LBS. PER P" UNTIL TAIL SHAFT HAS BEEN RENEWED.

CADIZ SURVEYORS

The amount of Entry Fee ... £ PESETAS : When applied for,
Special ... £ 600.00 : 14-1-1920
Donkey Boiler Fee ... £ : When received,
Travelling Expenses (if any) £ 453.00 : 19...

Committee's Minute TUE. MAR. 2-1920 FRI. JUN. 25 1920

Assigned

L.M.C. 1:20

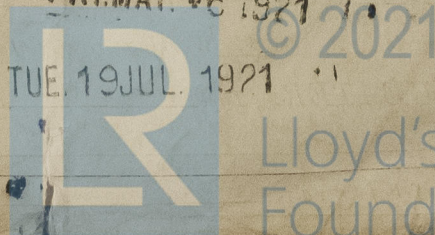
CERTIFICATE WRITTEN

FRI. DEC. 10 1920
FRI. 21 JAN. 1921
FRI. APR. 8 1921

A. J. Bell
Engineer Surveyor to Lloyd's Register of Shipping.

FRI. MAY. 6 1921

TUE. 19 JUL. 1921



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