

REPORT ON MACHINERY

No. 797

MON. 15. 1919

Received at London Office

Date of writing Report 30-8-1919 When handed in at Local Office 1-9-1919 Port of CADIZ
 No. in Survey held at CADIZ Date, First Survey Feb. 22nd 1919 Last Survey Aug 5th 1919
 Reg. Book. on the S.S. AMIR (Number of Visits Five) Gross 538 Net 372

Master JESUS DE GALDONA Built at CADIZ By whom built ECHAYARRIETA Y LARRINAGA When built 1919
 Engines made at ABERDEEN By whom made J. ABERNETHY & Co. LTD. when made ✓
 Boilers made at ABERDEEN By whom made J. ABERNETHY & Co. LTD. when made ✓
 Registered Horse Power 460 Owners ECHAYARRIETA Y LARRINAGA Port belonging to CADIZ
 Nom. Horse Power as per Section 28 86 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓

ENGINES, &c. — Description of Engines SEE ABN. Report No 12155 No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12 1/2, 21, 35 Length of Stroke 27 Revs. per minute 112 Dia. of Screw shaft 7.44 Material of screw shaft as per rule
 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 ✓
 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 6.66 Dia. of Crank shaft journals as per rule 6.99 Dia. of Crank pin ✓ Size of Crank webs ✓ Dia. of thrust shaft under collars ✓
 Dia. of screw 108 Pitch of Screw 10-6 No. of Blades 4 State whether moveable No Total surface 32 sq ft
 No. of Feed pumps ✓ Diameter of ditto ✓ Stroke ✓ Can one be overhauled while the other is at work ✓
 No. of Bilge pumps ✓ Diameter of ditto ✓ Stroke ✓ Can one be overhauled while the other is at work ✓
 No. of Donkey Engines Two Sizes of Pumps 3 1/2, 5 1/4, 5 FEED, 6 x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 2-3 In Holds, &c. 2-3

No. of Bilge Injections 1 size 3 1/2 Connected to condenser or to circulating pump - Is a separate Donkey Suction fitted in Engine room & size 3
 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 stowhold 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 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
 Dates of examination of completion of fitting of Sea Connections 25-2-1919 of Stern Tube 25-2-1919 Screw shaft and Propeller 24-5-1919
 Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

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

Total Heating Surface of Boilers 1550 Is Forced Draft fitted No No. and Description of Boilers 1 S.B.
 Working Pressure 180 lb Tested by hydraulic pressure to ✓ Date of test ✓ No. of Certificate ✓
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 48.75 No. and Description of Safety Valves to each boiler ✓
 Area of each valve ✓ Pressure to which they are adjusted 185 lb 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 ✓ Description of riveting: cir. seams ✓
 long. seams ✓ Diameter of rivet holes in long. seams ✓ Pitch of rivets ✓ Lap of plates or width of butt straps ✓
 Per centages of strength of longitudinal joint rivets ✓ Working pressure of shell by rules ✓ Size of manhole in shell ✓
 Size of compensating ring ✓ No. and Description of Furnaces in each boiler ✓ Material ✓ Outside diameter ✓
 Length of plain part top ✓ Thickness of plates bottom ✓ Description of longitudinal joint ✓ No. of strengthening rings ✓
 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 ✓ Working pressure by rules ✓
 Material of stays ✓ Diameter at smallest part ✓ Area supported by each stay ✓ Working pressure by rules ✓ End plates in steam space ✓
 Material ✓ Thickness ✓ Pitch of stays ✓ How are stays secured ✓ Working pressure by rules ✓ Material of stays ✓
 Diameter 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 ✓ Superheater or Steam chest; how connected to boiler ✓ 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 ✓
 Working pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

M1060-0083

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied :-

Spare gear as per Abn. Report N^o 12155 placed on board

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	May 24 th , June 25 th , Aug 4 th , 5 th , 1919.
		34 Abn + 5 Cadiz = 39.
		Is the approved plan of main boiler forwarded herewith <input checked="" type="checkbox"/>

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

Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft 24-5-19 Propeller 24-5-19

Stern tube 24-5-19 Steam pipes tested 23-6-19 Engine and boiler seatings 23-6-19 Engines holding down bolts 4-8-19

Completion of pumping arrangements 5-8-19 Boilers fixed 4-8-19 Engines tried under steam 5-8-19

Main boiler safety valves adjusted 5-8-19 Thickness of adjusting washers 1/2"

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

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

Material of Steam Pipes Copper Test pressure 360 lb

LLOYD'S
327
J.I. 11-12-19

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 No If so, state name of vessel

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

The machinery and Boiler of constructed under Special Survey in accordance with Abn. Report N^o 12155, now having been efficiently fitted on board this vessel and tried under steam with satisfactory results it is eligible, in our opinion, to have the notation of **⊕ LMC 8-19**.

Surveyor Cadiz

It is submitted that this vessel is eligible for THE RECORD. ⊕ LMC 8-19.

JWD
16/9/19

The amount of Entry Fee ... £	Special ... £ 825.00	When applied for, 30.8-1919
Donkey Boiler Fees ... £	Travelling Expenses (if any) £ 432.25	When received, 30.8-1919

Arthur Palmer
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute
Assigned **⊕ LMC 8-19**

