

REPORT ON MACHINERY.

No. 5977

Received at London Office

Date of writing Report APRIL 11th 1922 When handed in at Local Office APRIL 11th 1922 Port of BILBAO
 No. in Survey held at BILBAO Date, First Survey Aug. 30th 1921 Last Survey 18th March 1922
 Reg. Book. on the STEEL STEAMER "ALDECOA" (Number of Visits) Tons } Gross
 NAVAL } Net

Master Built at BILBAO By whom built SOCIEDAD ESPAÑOLA DE CONSTRUCCION When built
 Engines made at GREENOCK By whom made JOHN G KINCAID & CO LTD when made
 Boilers made at RENFREW By whom made BABCOCK & WILCOX when made
 Registered Horse Power Owners SEÑOR DON FRANCISCO ALDECOA Port belonging to BILBAO
GRAN VIA NOL BILBAO
 Nom. Horse Power as per Section 28 601 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

ENGINES, &c.—Description of Engines TRIPLE COMPOUND No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 27" - 44" & 73" Length of Stroke 48" Revs. per minute 75 Dia. of Screw shaft 14.87 Material of STEEL
 as per rule 15 as fitted 15 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 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 YES Length of stern bush 60"
 Dia. of Tunnel shaft 13.33 as per rule 13.99 Dia. of Crank shaft journals 14 as per rule 14 Dia. of Crank pin 14 Size of Crank webs 21 x 9 Dia. of thrust shaft under
 collars 16 Dia. of screw 18.0 Pitch of Screw 17.0 No. of Blades 4 State whether moreable NO Total surface 107 sq ft.
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 27" Can one be overhauled while the other is at work YES
 No. of Bilge pumps 2 Diameter of ditto 4" Stroke 27" Can one be overhauled while the other is at work YES
 No. of Donkey Engines 4 Sizes of Pumps 14 x 18 9 1/2 x 18 11 1/2 x 12 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 6 3 1/2" SUCTIONS & 4. 2 1/2" to COFFERDAMS In Holds, &c. 3- 3 1/2" SUCTIONS TO NO. 1 HOLD. 2- 3 1/2" to NO. 2
2- 3 1/2" to NO. 3 HOLD 1- 3 1/2" to NO. 4 HOLD & 1- 3 1/2" to NO. 5 HOLD & 2 1/4" TUNNEL BILGE SUCTION.
 No. of Bilge Injections 1 sizes 9" Connected to condenser or to circulating pump Is a separate Donkey Suction fitted in Engine room & size YES. 3 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 (SEE SKETCH) 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 STEAM & EXH. TO HEATING COILS NO. 2 TANK How are they protected OIL FUEL BUNKERS
 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 DECK.

OILERS, &c.—(Letter for record See Glasgow Report. 4641180. Manufacturers of Steel COLVILLE & SONS LTD.
 Total Heating Surface of Boilers Is Forced Draft fitted NO No. and Description of Boilers 3. BABCOCK & WILCOX WATER TUBE
 Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 8th & 23rd FEBRUARY No. of Certificate
 Can each boiler be worked separately YES Area of fire grate in each boiler 92.9 sq ft No. and Description of Safety Valves to
 each boiler 2 SPRING LOADED Area of each valve 184 lbs Are they fitted with easing gear YES
 Smallest distance between boilers or uptakes and bunkers or woodwork 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
 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 plate 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 crown 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 End plates in steam space:
 Material of stays Area at smallest part Area supported by each stay Working pressure by rules Material of stays
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom
 Area at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules
 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 2020
 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

002659-002666-0267

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— 2 Com. rod top end & bottom end bolts & nuts. 2 main bearing bolts & nuts. 1 Set of Coupling bolts. 1 Set of feed & bilge pump valves. 1 Escape & spring of each size. 1 Safety valve & spring. Holding down bolts & nuts. 1 Impeller & spindle for Circ pump. 1 Screw shaft. 1 Propeller. Several assorted sizes of bolts, nuts & washers. 1. Full set of spare gear for W.T. Boiler & Oil fuel burning system.

The foregoing is a report of the examination of the vessel

COLESA DE CONSTRUCCION NAVAL

Frank W. Benson

for the installers
Manufacturer.

Jefe del Departamento de Buques

Dates of Survey while building: During progress of work in shops -- 1921. Aug. 30. Oct. 9, 13, 17 & 25. Nov. 2, 10, 21 & 25. Dec. 2, 6, 10, 12, 16, 20, 22, 27, 30 & 31. During erection on board vessel -- 1922. Jan. 3, 5, 9, 16, 18, 23, 25, 28, 30, 31. Feb. 8, 9, 11, 13, 16, 23, 24. March 2, 6, 8, 13, 14, 15, 18. Total No. of visits 45.

Is the approved plan of main boiler forwarded herewith ☒ Yes. ☐ No.

(See Glasgow report 17732) " " " donkey " " " "

Dates of Examination of principal parts: Cylinders ☒ Slides ☒ Covers ☒ Pistons ☒ Rods ☒ Connecting rods ☒ Crank shaft ☒ Thrust shaft ☒ Tunnel shafts ☒ Screw shaft ☒ Propeller ☒

Stern tube ☒ Steam pipes tested 30/1/22 Engine and boiler seatings 17/10/21 Engines holding down bolts 13/2/22

Completion of pumping arrangements 13/3/22 Boilers fixed 3/1/22 Engines tried under steam 8/3/22

Completion of fitting sea connections 23/1/22 Stern tube 25/1/22 Screw shaft and propeller 16/12/21

Main boiler safety valves adjusted 2/3/22 & 6/3/22 Thickness of adjusting washers Pat. Bl. P. 13 1/2. Std. Bl. P. 15 1/2. Ford. Bl. P. 8. 13 1/2.

Material of Crank shaft Steel Identification Mark on Do. 350 Material of Thrust shaft Steel Identification Mark on Do. 350

Material of Tunnel shafts Steel Identification Marks on Do. 350 Material of Screw shafts Steel Identification Marks on Do. 350

Material of Steam Pipes Steel Test pressure 540 lb.

Is an installation fitted for burning oil fuel ☒ Yes Is the flash point of the oil to be used over 150°F. ☒ Yes

Have the requirements of Section 49 of the Rules been complied with ☒ Yes (except Clause 16. See attached copies of the Rules)

Is this machinery duplicate of a previous case ☒ Yes If so, state name of vessel "Mar Adriatico"

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

Workman ship good.

The engines and boilers of this vessel have been examined by me while being installed on board at Bilbao. The water tube boilers were subjected to a hydraulic test of 360 lbs after erection on board & found satisfactory. The machinery & boilers were tried under steam & found satisfactory. The oil fuel system was tried under working conditions, found in order and in accordance with Section 49 of the Rules, except for the fitting of self closing cocks or valves at the connection of the flat glass gauges to the settling tanks.

This vessel is now eligible in my opinion to have the notation of \pm L.M.C. 3-22. water tube boilers, electric lighting and fitted for burning oil fuel, flash point above 150°F recorded in the Register Book subject to the fitting of self closing cocks or valves at the connection of the flat glass gauges to the settling tanks, or alternatively, for the present gauges to be dispensed with and other suitable means fitted for ascertaining the oil level in these tanks, at the earliest opportunity.

The amount of Entry Fee ... £ 175.00
Special ... £ 15.00.00
Donkey Boiler Fee ... £ 25.00.00
Travelling Expenses (if any) £ 71.00

When applied for, 10-4-22
When received, 10-4-22

C. H. Fowling

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 23 JAN. 1923

Assigned

+ 10-4-22

TUE. APR. 24 1923

Lloyd's Register of Shipping

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Foundation