

REPORT ON MACHINERY.

No. 5587

Received at London Office

TUE MAY 25 1920

Date of writing Report 18-5-20 When handed in at Local Office 18-5-20 Port of Bilbao
No. in Survey held at Bilbao Date, First Survey 21 June 1919 Last Survey 14 May 1920
Reg. Book. on the SINGLE SCREW STEAMER "GUERNICA" (Number of Visits 43)
Master AVELINO QUEVEDO Built at Bilbao By whom built SOC. ANO. ASTILLEROS DEL NERVIÓN When built 1920
Engines made at Bilbao By whom made SOC. ANO. ASTILLEROS DEL NERVIÓN when made 1920
Boilers made at Bilbao By whom made do do when made 1920
Registered Horse Power ✓ Owners CIA. AUXILIAR MARITIMA Port belonging to SAN SEBASTIAN

Horse Power as per Section 28 352 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

INES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
of Cylinders 24" x 40" x 65" Length of Stroke 45 Revs. per minute 65 Dia. of Screw shaft as per rule 13 1/4 13 5/8 Material of screw shaft SM. iron Steel
as fitted 13 1/2

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
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 ✓ If two
are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 6' ✓

of Tunnel shaft as per rule 11 7/8 12 0/8 Dia. of Crank shaft journals as per rule 12 3/4 12 6/8 Dia. of Crank pin 13 3/4 Size of Crank webs 23 1/2 x 8 Dia. of thrust shaft under
as fitted 12 1/4 Dia. of screw 16 5/8 Pitch of Screw 18 2' No. of Blades 4 State whether moveable no Total surface 78 1/2 ft²

of Feed pumps 2 Diameter of ditto 4 1/8" Stroke 24" Can one be overhauled while the other is at work yes

of Bilge pumps 2 Diameter of ditto 4 1/8" Stroke 24" Can one be overhauled while the other is at work yes

of Donkey Engines Two duplex Sizes of Pumps 13" x 10" & 5 x 3 1/2" No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Two (2) of 3 1/2" and one to donkey pump In Holds, &c. Two (2) in each of No 1, 2, 3 and 4 holds

3 1/2" dia, one of 3 1/2" dia in dry tank under the boilers and one 3 1/2" dia in tunnel well
of Bilge Injections one sizes 6" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2"

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 ✓

all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both ✓

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 ✓

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 ✓

at pipes are carried through the bunkers none How are they protected ✓

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

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

the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from Engine room platform
ALFONSO HERNANDEZ DE VIZCAYA & SAN FRANCISCO

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

total Heating Surface of Boilers 6000 ft² Is Forced Draft fitted no No. and Description of Boilers 3 single ended
Working Pressure 180 lbs □ Tested by hydraulic pressure to 360 lbs □ Date of test 26-3-20 No. of Certificate 55
PORT = 30-3-20
CENTRA = 26-3-20
STAR = 26-3-20

in each boiler be worked separately yes Area of fire grate in each boiler 58 ft² No. and Description of Safety Valves to

in boiler 2 direct spring Area of each valve 2 3/4" Pressure to which they are adjusted 180 lbs □ Are they fitted with easing gear yes

smallest distance between boilers or uptakes and bunkers or woodwork 18" Mean dia. of boilers 4 1/16 ft Length 3 3/5 ft Material of shell plates steel

thickness 3/8" Range of tensile strength 28/32 Are the shell plates welded or flanged none Descrip. of riveting: cir. seams 2 Rows

g. seams 3 R. D. R. S Diameter of rivet holes in long. seams 30% Pitch of rivets 187% Lap of plates or width of butt straps 4 06"

percentages of strength of longitudinal joint rivets 87 6/10% plate 85% Working pressure of shell by rules 181 lbs □ Size of manhole in shell 30 5 x 40 6"

flanged No. and Description of Furnaces in each boiler 3 corrugated Material steel Outside diameter 1 10 6"

length of compensating ring 130 x 28 No. and Description of Furnaces in each boiler 3 corrugated Material steel Outside diameter 1 10 6"

length of main part top 22 5/8" Thickness of plates crown 14" Description of longitudinal joint welded No. of strengthening rings ✓

Working pressure of furnace by the rules 196 lbs □ Combustion chamber plates: Material steel Thickness: Sides 16" Back 16" Top 16" Bottom 17 5/8"

pitch of stays to ditto: Sides 200 x 220 Back 304 x 200 Top 200 x 175 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 192 lbs □

Material of stays steel Area at smallest part 1 73 Area supported by each stay 70 ft² Working pressure by rules 220 End plates in steam space:

Material steel Thickness 2 9 Pitch of stays 435 x 450 How are stays secured NUTS & WASH Working pressure by rules 202 lbs □ Material of stays steel

area at smallest part 6 1 Area supported by each stay 3 15 Working pressure by rules 200 Material of Front plates at bottom steel

thickness 2 4 Material of Lower back plate steel Thickness 23 5/8 Greatest pitch of stays 304 x 200 Working pressure of plate by rules 248 lbs □

diameter of tubes 7 6 Pitch of tubes 104 x 104 Material of tube plates steel Thickness: Front 20" with a doubling plate 14" Back 20" Mean pitch of stays 208 x 208"

pitch across wide water spaces 350 Working pressures by rules 214 lbs □ Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 180 x 2 1/2 x 18 Length as per rule 736 Distance apart 175 Number and pitch of stays in each 2 @ 200

Working pressure by rules 195 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

W 497-0010

If so, is a report now forwarded? ✓

Rpt. 13.

SPARE GEAR. State the articles supplied:— Two top end bolts. Two bottom end bolts. Two main bearing bolts. one set of coupling bolts, one set of feed pump valves one set of lidge pump valves. one escape valve spring and a quantity of assorted bolts and nuts and iron of various sizes

Antoor

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1919 JUNE 21 JULY 19, 22 NOV 6, 10, 13, 27 DEC 2, 4, 11, 13, 19 1920 JANV. 5, 14, 21, 23, 24, 28
During erection on board vessel - - - 1920 MARCH 20, 24, 26, 29 APRIL 9, 14, 19, 20, 23, 26, 28, 29 MAY 3, 4, 5, 11, 14
Total No. of visits 43

Is the approved plan of main boiler forwarded herewith Left at the

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for future reference

23/1/20 list item

Dates of Examination of principal parts—Cylinders 19/7/19 Slides 2/12/19 Covers 19/7/19 Pistons 19/12/19 Rods 13/12/19
Connecting rods 23/2/20 Crank shaft 23/1/20 Thrust shaft 18/2/20 Tunnel shafts 19/12/19 Screw shaft 18/2/20 Propeller 23/2/20
Stern tube 21/1/20 Steam pipes tested 19/4/20 Engine and boiler seatings 24/3/20 Engines holding down bolts 26/4/20
Completion of pumping arrangements 29/4/20 Boilers fixed 31/3/20 Engines tried under steam 5/5/20
Completion of fitting sea connections 28/2/20 Stern tube 28/2/20 Screw shaft and propeller 2/3/20

PORT BOILER		CENTRE BOILER		STAR BOILER	
PORT	STAR	PORT	STAR	PORT	STAR
11%	12%	11%	13%	13%	12%

Main boiler safety valves adjusted 4/5/20 Thickness of adjusting washers

LLOYD'S	No 23
2-3-20	A.D.M.B.

Material of Crank shaft Steel Identification Mark on Do.

2 SHAFTS	LLOYD'S	No 35
27-1-20	W.G.M.	A.D.M.B.

Material of Tunnel shafts Steel Identification Marks on Do.

O	LLOYD'S	No 23
2-3-20	A.D.M.B.	

Material of Steam Pipes Copper Test pressure 360 lbs sq"

LLOYD'S	No 23
2-3-20	A.D.M.B.

Is an installation fitted for burning oil fuel no Is the flash point of the oil to be used over 150°F. ✓

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

Is this ^{Engine a} ~~machinery~~ duplicate of a previous case yes

If so, state name of vessel

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

The engines and boilers have been built under special survey. The mater and workmanship are sound and good and the three main Boilers have been tested by hydraulic pressure with satisfactory results. we enclose herewith the three Boiler certificates for signature.

The engines and boilers were fitted on board secured and tested under steam trials with satisfactory results.

all the safety valves of the three main boilers have now been adjusted under pressure to 180 lbs per sq".

All the auxiliary machinery have been tested under steam with satisfactory results.

The three main boilers are of the type H plans of same have been approved on the
This Vessel is eligible in my opinion to have the notation of
⊠ LMC 5.20 ^{is submitted that}

It is submitted that this vessel is eligible for

THE RECORD. + L.M.C. 5-20

26/5/20

The amount of Entry Fee ... £	100.0	} When applied for, 15-5-1920
Special ... £	1450.0	
ELECTRIC LIGHT Donkey Boiler for ... £	250.0	} When received, 15-5-1920
Travelling Expenses (if any) £	60.0	

When applied for,

15-5-20

When received,

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. JUL. 14 1922

Assigned

+ LMC 5.20

00
CERTIFICATE WRITING

Lloyd's Register
Foundation

... Certificate is issued upon the condition that the Committee use their discretion in the matter and that the Committee nor the Society be held responsible for any loss or damage issued by the Society or its officers, agents, servants, or negligence of any person.

—This Certificate has

pan.)—250,11,19. T