

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

JUL 28 1937

Date of writing Report 10 When handed in at Local Office 28/7/1937 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Wallend Date, First Survey 3<sup>rd</sup> Nov/36 Last Survey 21<sup>st</sup> July 1937  
 Reg. Book. on the Twin screw Steamer "MISOA" (Number of Visits 77) Tons { Gross 4890 Net 2432

Built at Middlesbro By whom built Furness S. B. Co. Ltd. Yard No. 267 When built 1937

Engines made at Wallend By whom made North Eastern Marine Eng Co Engine No. 2871 When made 1937

Boilers made at Wallend By whom made North Eastern Marine Eng Co Boiler No. 2871 When made 1937

Registered Horse Power Owners Sago Shipping Co Port belonging to London

Nom. Horse Power as per Rule 551 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which Vessel is intended \_\_\_\_\_

**ENGINES, &c.**—Description of Engines Twin screw Triple Expansion Revs. per minute 132

Dia. of Cylinders 16 1/2" x 28 1/2" x 48" Length of Stroke 36" No. of Cylinders 3 each No. of Cranks 3 each

Crank shaft, dia. of journals as per Rule 9.7 Crank pin dia. 10 1/8" Crank webs Mid. length breadth 17 1/6" Thickness parallel to axis 6 1/4"  
 as fitted 10 1/8" Mid. length thickness 6 1/4" shrunk Thickness around eye-hole JOURNAL 5 1/2" PIN 5 1/8"

Intermediate Shafts, diameter as per Rule 9.3" Thrust shaft, diameter at collars as per Rule 9.7"  
 as fitted 10 3/4" as fitted 10 3/4"

Tube Shafts, diameter as per Rule — Screw Shaft, diameter as per Rule 10.2" Is the tube shaft fitted with a continuous liner { Yes }  
 as fitted — as fitted 10 3/4" as fitted 15/32"

Bronze Liners, thickness in way of bushes as per Rule 20/32" Thickness between bushes as per Rule 17/32" Is the after end of the liner made watertight in the propeller boss Yes  
 as fitted 5/8" as fitted 17/32" If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one length

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 — Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft No If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 45"

Propeller, dia. 11'-0" Pitch 11'-9" No. of Blades 4 Material Bronze whether Moveable No Total Developed Surface 52 sq. feet

Feed Pumps worked from the Main Engines, No. NONE Diameter — Stroke — Can one be overhauled while the other is at work —

Bilge Pumps worked from the Main Engines, No. NONE Diameter — Stroke — Can one be overhauled while the other is at work —

Feed Pumps { No. and size 2-300 mm x 210 mm x 600 mm Pumps connected to the { No. and size 2-180 mm x 210 mm x 350 mm  
 How driven Steam Main Bilge Line { How driven Steam

Ballast Pumps, No. and size 1-320 mm x 220 mm x 450 mm Lubricating Oil Pumps, including Spare Pump, No. and size —

Are two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 1@3": Boiler Room 2@3": 2 in Cofferdam 2": 2 in oil wells 2"

In Pump Room After Pump Room 1@3": Forward Pump Room 1@3" In Holds, &c. Fore Hold 2@2": Chain lockers 1@2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 2@8" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1@4 1/2" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes

Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes

Are all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both

Are they sized sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Overboard Discharges 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 pass through the bunkers None How are they protected —

What pipes pass through the deep tanks None Have they been tested as per Rule —

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

Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another Yes Is the Shaft Tunnel watertight No TUNNEL Is it fitted with a watertight door — worked from —

**MAIN BOILERS, &c.**—(Letter for record S) Total Heating Surface of Boilers 8870 sq ft

Is Forced Draft fitted Yes No. and Description of Boilers Two S.E. Multitubular Working Pressure 225 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED? No - see below

IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? —

Is the donkey boiler intended to be used for domestic purposes only —

**PLANS.** Are approved plans forwarded herewith for Shafting — Main Boilers — Auxiliary Boilers — Donkey Boilers —

(If not state date of approval)

Superheaters — General Pumping Arrangements — Oil fuel Burning Piping Arrangements —

Approved plans forwarded with Report No. 75173 SPARE GEAR. on sister vessel T.S.S. "BACHAQUERO"

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied 1-1/3 part crank shaft. 2 Bronze propellers. 1 propeller shaft. 2 piston rods: 1 set each of piston rings for H.P. & L.P.: 2 sets of connecting rod top end braces: 2 sets of crank pin braces: 1-H.P. & 1-L.P. Valve spindle: 100 Condenser tubes: 48 boiler tubes.

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship? NOTE.—The words in red do not apply should be deleted.

The foregoing is a correct description,  
 For THE NORTH EASTERN MARINE ENGINEERING CO. LTD.  
John Neill Manufacturer.



003549-003555-0188

1936  
 1937  
 During progress of work in shops -- Nov. 3, 12, 20, Dec. 1, 3, 8, 10, 16, 22, 28 Jan. 7, 12, 15, 20, 25, 26, Feb. 2, 8, 9, 10, 15, 17, 19, 22, 23  
 Dates of Survey while building During erection on board vessel --- 24, 25, Mar. 1, 3, 8, 9, 11, 12, 17, 18, 22, 24, 25, Apr. 1, 2, 5, 6, 7, 8, 12, 13, 14, 19, 21, 22, 27, May 19, 19, 24, 25, 27, 28, 31, June 2, 3, 15, 28, 29, July 2, 5, 6, 7, 8, 12, 13, 14, 15, 16, 19, 21.  
 Total No. of visits **77**

Dates of Examination of principal parts—Cylinders 3-2-37 Slides 16-2-37 Covers 3-2-37  
 Pistons 9-1-37 Piston Rods 26-1-37 Connecting rods 8-2-37  
 Crank shaft STAR 22-2-37 PORT 1-3-37 Thrust shaft 7-12-36 Intermediate shafts 18-5-37  
 Tube shaft — Screw shaft STAR 21-4-37 PORT 5-4-37 Propeller 4-3-37  
 Stern tube 31-5-37 Engine and boiler seatings 29-6-37 Engines holding down bolts 7-7-37  
 Completion of fitting sea connections 21-7-37  
 Completion of pumping arrangements 16-7-37 Boilers fixed 7-3-7 Engines tried under steam 16-7-37  
 Main boiler safety valves adjusted 16-7-37 Thickness of adjusting washers PORT. P.V. 13/32 S.K. 3/8; STARBOARD P.V. 13/32 S.K. 3/8  
 Crank shaft material Steel Identification Mark 22-3-37; 1-3-37 Thrust shaft material Steel Identification Mark LLOYDS 9219  
 Intermediate shafts, material Steel Identification Mark S-9251 - LLOYDS, JES. - P-9262; 18-5-37 Tube shaft, material — Identification Mark  
 Screw shaft, material Steel Identification Mark 28-4-37; 5-4-37 Steam Pipes, material Steel S.D. Test pressure 675 lbs Date of Test 12-7-37  
 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 the Rules for the use of oil as fuel been complied with Yes  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo oil tanker If so, have the requirements of the Rules been complied with Yes  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with not required  
 Is this machinery duplicate of a previous case Yes If so, state name of vessel "BACHAQUERO" N/CLE RPT 95173

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has been constructed under special survey in accordance with the Rules and approved plans. The materials and workmanship are good. It has been fitted on board in an efficient manner, tried under working conditions and found satisfactory, and is eligible in our opinion to be classed with record of  $\frac{1}{2}$  L.M.C. 7-37; T.S. CL; F.D.; fitted for oil fuel 7-37. Flash point above 150°F.

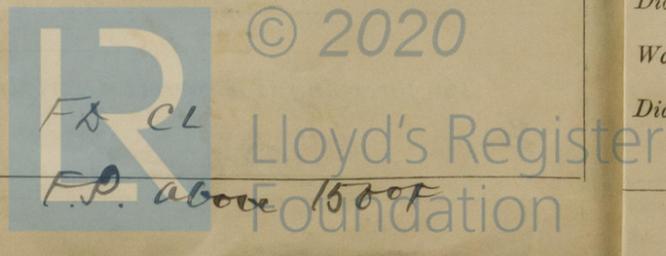
The amount of Entry Fee ... £ 6 : 0 :  
 Special ... £ 102 : 11 :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, 28 JUL 1937  
 When received, 31.7.37

J. Selles & W. Nicholson  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 6 AUG 1937

Assigned

+ due 7.37  
 Paid for air fuel 7.37



Certificate to be sent to Newcastle-on-Tyne

The Surveyors are requested not to write on or below the space for Committee's Minute.