

REPORT ON MACHINERY.

No. 5914

Date of writing Report **Sept. 9th. 1925.** When handed in at Local Office **Hong Kong** Received at London Office **2 NOV 1925**
 No. in Survey held at **Hong Kong** 10 Port of **Hong Kong**
 Reg. Book. **Twin S. S. "BATAAN" HULL No. 233** Date, First Survey **13/9/24** Last Survey **2/6/1925.**
 on the **Twin S. S. "BATAAN" HULL No. 233** (Number of Visits **15**)
 Master **Built at Hong Kong** By whom built **W. S. Bailey & Co. Ltd.** Tons { Gross **190.74**
 Engines made at **Paisley** By whom made **Campbell & Calderwood** Net **100.92**
 Boilers made at **Glasgow** By whom made **Yarrow & Co.** When built **1925**
 Registered Horse Power **730 I.H.P.** Owners **Teodoro R. Yangco & Co.** when made **1925**
 Nom. Horse Power as per Section 28 **114** Is Refrigerating Machinery fitted for cargo purposes **No** Port belonging to **Manila, P.I.**

ENGINES, &c.—Description of Engines **Twin Screw Triple expansion** Is Electric Light fitted **Yes**
 Dia. of Cylinders **9 1/2" x 15" x 24 1/2"** Length of Stroke **15"** Revs. per minute **260** No. of Cylinders **3** No. of Cranks **3**
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube **No liners Vickers oil gland** Material of screw shaft **Steel**
 in the propeller boss **-** If the liner is in more than one length are the joints burned **-** Is the after end of the liner made water tight
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive **-** If the liner does not fit tightly at the part
 liners are fitted, is the shaft lapped or protected between the liners **-** If two **In brackets 25"**
 Dia. of Tunnel shaft **4.28"** Dia. of Crank shaft journals **4.5"** Length of stern bush **In stern tube 28 1/2"**
 as per rule **4 1/2"** as fitted **4 1/2"** as per rule **4.5"** as fitted **4.5"**
 collars **-** Dia. of screw **5'-9"** Pitch of Screw **6'-2"** Dia. of Crank pin **-** Size of Crank webs **-** Dia. of thrust shaft under
 No. of Feed pumps **2** Diameter of ditto **4 1/2"** Stroke **10"** No. of Blades **4** State whether moveable **No** Total surface **15**
 No. of Bilge pumps **2** Diameter of ditto **2 1/2"** Stroke **5 1/2"** Can one be overhauled while the other is at work **Yes (Independent Hor. simplex)**
 No. of Donkey Engines **9** Sizes of Pumps **See note** Can one be overhauled while the other is at work **Yes**
 In Engine Room **3 - 2"** No. and size of Suctions connected to both Bilge and Donkey pumps
and 2 - 2" in aft compartment. In Holds, &c. **1 - 2" in No. 1 hold, 1 - 2" in No. 2 hold**
 No. of Bilge Injections **one size 5 1/2"** Connected to condenser, or to circulating pump **Cir. pump** separate Donkey Suction fitted in Engine room & size **1 - 2 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 **-**
 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**
 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**
 Is the Screw Shaft Tunnel watertight **-** Is it fitted with a watertight door **-** worked from **-**

If not, state whether, and when, one will be sent. If a Report also sent on the Hull of the ship.

BOILERS, &c.—(Letter for record **-**) Manufacturers of Steel **-**
 Total Heating Surface of Boilers **2100** Is Forced Draft fitted **Yes** No. and Description of Boilers **One - Yarrow water tube**
 Working Pressure **180 lbs.** Tested by hydraulic pressure to **-** Date of test **-** No. of Certificate **-**
 Can each boiler be worked separately **-** Area of fire grate in each boiler **60 sq. ft.** No. and Description of Safety Valves to
 each boiler **2 1/2" double** Area of each valve **3.97 sq. ft.** 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 **12"** 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 **-** 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 **-** Thickness of plates **-** 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 **-** Area 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 **-**
 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 **-**

W103-0174

Lloyd's Register Foundation

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

SPARE GEAR. State the articles supplied:— 2 connecting rod top end bolts and nuts; 2 connecting rod bottom end bolts and nuts; 2 main bearing bolts; 1 set of coupling bolts; 1 set of feed & bilge pump valves; 1 set of piston rings; Assorted bolts and nuts & iron of various sizes.

In addition to the above:— 1 pair bottom end brasses; 1 eccentric strap; 1 valve spindle; 1 piston rod; 10% of total number of boiler tubes; 1 set of safety valve springs, and spares for oil fuel installation.

The foregoing is a correct description,

For W. S. BAILEY & Co., Ltd.
J. Mansay Manufacturer.
 Managing Director

Dates of Survey while building: 1924 Sep. 13, Nov. 8, Dec. 3, 1925 Feb. 14, Mar. 24, Apr. 3, 10, Apr. 21, May 1, 8, 14, 18, 29, June 1, 2.

Is the approved plan of main boiler forwarded herewith No

Dates of Examination of principal parts: Cylinders - Slides - Covers - Pistons - Rods -

Connecting rods - Crank shaft - Thrust shaft - Tunnel shafts 14.5.25 Screw shafts 24.3.25 Propellers 24.3.25

Stern tubes 3.4.25 Steam pipes tested 18.5.25 Engine and boiler seatings 3.4.25 Engines holding down bolts 29.5.25

Completion of pumping arrangements 29.5.25 Boilers fixed 1.5.25 Engines tried under steam 1.6.25

Completion of fitting sea connections 21.4.25 Stern tube 8.5.25 Screw shaft and propeller 8.5.25

Main boiler safety valves adjusted 1.6.25 Thickness of adjusting washers Port 3/8", Starboard 13/32"

Material of Crank shaft - Identification Mark on Do. No. 971 Material of Thrust shaft - Identification Mark on Do. 971 JDB

Material of Tunnel shafts Steel Identification Marks on Do. No. 1006 Material of Screw shafts Steel Identification Marks on Do. LLOYDS No. LLOYDS No.

Material of Steam Pipes S.D. copper Test pressure 360 lbs.

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

Is this machinery duplicate of a previous case No If so, state name of vessel -

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

The materials have been tested by the Surveyors to this Society and the Machinery and Boilers have been surveyed during construction by the Surveyors to this Society in Glasgow, and during erection on board at this Port. The workmanship is good and it is recommended that the vessel be classed with Lloyd's Machinery Certificate and the record of L.M.C. 6, 25, be made in the Register Book.

No. 16723
 LLOYDS TEST 320 lbs
 W.P. 180 lbs.
 A.D.M. 4.2.25

IDENTIFICATION MARKS ON BOILERS:—

NOTE:— 1 - Independent air pump 16"x 10", Cyl. 7"x 10"; 1 - General Service pump, Hor. Duplex 5 1/2" x 4 1/2" x 5"; 1 - Circulating pump 8" Centrifugal, Engine 5 1/2" x 5"; 2 - Fuel oil pump with heaters complete; 48" F.D. Fan, Engine 5" x 3 1/2"; 1 - 10 K.W. Electric Generator; 2 - Feed pumps, Hor. Simplex 7 1/2" x 4 1/2" x 10".

It is submitted that this vessel is eligible for THE RECORD. + LMC 6. 25. FD. 0
 1 Water Tube Boiler.

L. Young & J. Morrison
 Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6 : - : When applied for,
 Special ... £ 19 : - : 19
 Donkey-Boiler-Fee ... £ : :
 Travelling Expenses (if any) \$60. : : When received, 25/11/25

Committee's Minute **FRI. 6 NOV 1925**
 Assigned + L.M.C. 6. 25.
 S.D. O.S.
 1 Water Tube Boiler



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