

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

5 MAY 1952

Date of writing Report 28-4-1952 When handed in at Local Office

Port of KARACHI

No. in Survey held at EAST WHARF Reg. Book.

Date, First Survey 29-5-51 Last Survey 28-4-52 19 (Number of Visits 8)

on the STEEL SCREW STEAMER FORMA

Tons } Gross 470.7 } Net 234.3

Built at CALCUTTA By whom built GARDEN REACH WORKSHOPS Yard No. 258

When built 1941

Engines made at RENFREW

By whom made LOBNITZ & CO.

Engine No.

When made 1941

Boilers made at No Reend

By whom made

Boiler No.

When made 1941

Registered Horse Power

Owners EAST AND WEST STEAMSHIP CO Port belonging to KARACHI

Nom. Horse Power as per Rule 135 MN

Is Refrigerating Machinery fitted for cargo purposes NO

Is Electric Light fitted YES

Trade for which Vessel is intended TOWING SERVICE ON COAST OF INDIA, PERSIAN GULF & CHITTAGONG

ENGINES, &c.—Description of Engines 3 Cylinder Triple Expansion Revs. per minute 130

Dia. of Cylinders 13 1/2 : 23 : 38 ins Length of Stroke 27 in No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 7.2" as fitted 7.875" Crank pin dia. 7.875" Crank webs Mid. length breadth 15.75" Mid. length thickness 4.875" Thickness parallel to axis Thickness around eye-hole

Intermediate Shafts, diameter as per Rule as fitted 7.875" Thrust shaft, diameter at collars as per Rule as fitted 7.875"

Tube Shafts, diameter as per Rule as fitted 7.875" Screw Shaft, diameter as per Rule as fitted 8.5" Is the tube screw shaft fitted with a continuous liner NO

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

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 Yes If so, state type Lubritz Length of Bearing in Stern Bush next to and supporting propeller 36 1/2"

Propeller, dia. 8'-9" Pitch 9'-4" No. of Blades 3 Material C.I. whether Movable No Total Developed Surface 30 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 2 5/16" Stroke 13" Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 7/16" Stroke 13" Can one be overhauled while the other is at work Yes

Feed Pumps No. and size One; Piston 6" Bucket 4" Dia. Pumps connected to the Main Bilge Line No. and size One, 3" Suction

How driven Weir; Steam How driven Weir; steam

Ballast Pumps, No. and size None Lubricating Oil Pumps, including Spare Pump, No. and size None

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 Two of 2 1/2" diam; Boiler Room Two of 2 1/2" diam

In Pump Room Cross Lumen Two of 2 1/2" In Holds, &c. One of 2 1/2" diam

Main Water Circulating Pump Direct Bilge Suctions, No. and size One diam Independent Power Pump Direct Suctions to the Engine Room Bilges,

No. and size One of diam Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-bones 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 Values

Are they fixed 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

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 Ballast line to F.P. How are they protected Welded steel casing.

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 Yes Is it fitted with a watertight door Yes worked from Weather deck

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 2606 sq ft

Is Forced Draft fitted Yes No. and Description of Boilers 1 Marine Boiler Working Pressure 200 lb/sq in

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

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

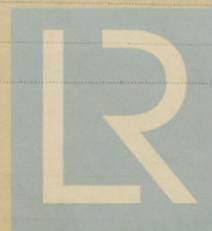
## SPARE GEAR.

Has the spare gear required by the Rules been supplied YES, EXCEPT NO SPARE PROPELLER

State the principal additional spare gear supplied IN ACCORDANCE WITH RULES CHAPTER "K" SEC 1

The foregoing is a correct description,

Manufacturer.



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Lloyd's Register Foundation

002659-002666-0013

No Records

Dates of Survey while building  
 { During progress of work in shops - - }  
 { During erection on board vessel - - - }  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 29-5-51 Slides 29-5-51 Covers 29-5-51  
 Pistons 29-5-51 Piston Rods 29-5-51 Connecting rods 29-5-51  
 Crank shaft 29-5-51 Thrust shaft 29-5-51 Intermediate shafts 29-5-51  
 Tube shaft ✓ Screw shaft 15-3-52 Propeller 15-3-52  
 Stern tube 15-3-52 Engine and boiler seatings 29-5-51 Engines holding down bolts 29-5-51  
 Completion of fitting sea connections 15-3-52  
 Completion of pumping arrangements 21-2-52 Boilers fixed Engines tried under steam 29-4-52  
 Main boiler safety valves adjusted 28-4-52 Thickness of adjusting washers P. 0.38" S 0.32"  
 Crank shaft material No record Identification Mark Thrust shaft material Identification Mark  
 Intermediate shafts, material No record Identification Marks Tube shaft, material Identification Mark  
 Screw shaft, material Identification Mark Steam Pipes, material Steel Test pressure 400 lb/sq. in. Date of Test 19-6-51  
 Is an installation fitted for burning oil fuel No ✓ Is the flash point of the oil to be used over 150°F. -  
 Have the requirements of the Rules for the use of oil as fuel been complied with ✓  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No ✓ If so, have the requirements of the Rules been complied with -  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with No ✓  
 Is this 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 Engine and boilers were built to an Admiralty order in 1941 and issued to the Builders.  
 The workmanship is good and the machinery eligible, in my opinion, to be classed as contemplated.

The amount of Entry Fee ...	£ 1125-0-0	When applied for,
Special ...	£ : :	19
Donkey Boiler Fee ...	£ : :	When received,
Travelling Expenses (if any) £	35-0-0	19

[Signature]  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 24 JUN 1952

Assigned LMC 4.52.  
 S(06) 3.52 F.D. 15B 22016



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Date of writing Report  
 No. in Survey Reg. Book.  
 on the  
 Master  
 Engines made at  
 Boilers made at  
 Nominal Horse Power  
 MULTITUBULAR  
 Manufacturers of  
 Total Heating Surface  
 No. and Description  
 Tested by hydraulic  
 Area of Firegrate  
 Area of each section  
 In case of donkey  
 Smallest distance  
 Smallest distance  
 Largest internal  
 Thickness  
 long seams  
 Percentage of stay  
 Percentage of stay  
 Thickness of butt  
 Material  
 Length of plain  
 Dimensions of stay  
 End plates in stay  
 How are stays secured  
 Tube plates: Material  
 Mean pitch of stay  
 Girders to comb  
 at centre  
 in each  
 Tensile strength  
 Pitch of stays to  
 Working pressure  
 Thickness  
 Pitch of stays at  
 Working pressure  
 Diameter { At body  
 Over the  
 Working pressure  
 Diameter { At turn  
 Over the

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