

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Report 21st Jan. 1953 When handed in at Local Office 11th Feb. 1953 Port of Hong Kong. Received at London Office 24 FEB 1953

Survey held at Hong Kong. Date, First Survey 13th Dec. 1952 Last Survey 17th Jan., 1953. (Number of Visits 24)

On the S.S. "SAN EDUARDO" ( Ex S.S. "TSINAN" ) Tons { Gross 2994 Net 2100

Hong Kong. By whom built Taikoo Dkyd. & Eng. Co. of HK Ld. Yard No. 249 When built 1930

Made at Hong Kong By whom made T.D. & E. Co. of HK Ld. Engine No. 189 When made 1930

Made at Hong Kong By whom made T.D. & E. Co. of HK Ld. Boiler No. 189 When made 1930

Horse Power 1500 IHP Owners Cambay Prince S.S. Co. Ld. Port belonging to Hong Kong.

Power as per Rule 300 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Which vessel is intended General.

&c.—Description of Engines Steam reciprocating, Triple expansion, Surface condensing Revs. per minute 92

Dims. 20 1/2" x 33" x 53" Length of Stroke 39" No. of Cylinders 3 No. of Cranks 3

as per Rule 11 1/2" Crank pin dia. 11 1/2" Crank webs Mid. length breadth Max. 2'-10" Min. 1'-9 1/4" shrunk Thickness parallel to axis 7-3/8"

as fitted 11 1/2" Mid. length thickness 7-3/8" Thickness around eye-hole 5"

Shafts, diameter as per Rule 10-7/8" Thrust shaft, diameter at collars as per Rule 1'-11 1/2"

diameter as fitted 12-5/8" Is the { tube screw } shaft fitted with a continuous liner { No

Thickness in way of boxes Vickers Packing. Thickness between bushes as per Rule 3" Is the after end of the liner made watertight in the

Yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of 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 -

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

If so, state type Vickers "Vista" Length of Bearing in Stern Bush next to and supporting propeller 5'-0"

14'-0" Pitch 13'-0" No. of Blades 4 Material Bronze whether Moveable No Total Developed Surface 54 sq. feet

Worked from the Main Engines, No. 2 Diameter 3" Stroke 19 1/2" Can one be overhauled while the other is at work No

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and size 2 Weirs - 6"x8 1/2"x18" Pumps connected to the Main Bilge Line { No. and size 2- Vertical Duplex - one 9"x10"x10"; one 6"x6"x6" How driven Steam

Driven Steam Lubricating Oil Pumps, including Spare Pump, No. and size -

Independent means arranged for circulating water through the Oil Cooler - Suctions, connected both to Main Bilge Pumps and Auxiliary

In Engine and Boiler Room 5 - main suction; 4 - cofferdam suction. In Holds, &c. 4 - to ford. holds; 4 - to aft holds; 1 - to

tunnel well.

Circulating Pump Direct Bilge Suctions, No. and size one - 7" Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges,

4 - 2 1/2" Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes

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

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

Is 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 Both

Is 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

Do they pass through the bunkers How are they protected

Do they pass through the deep tanks Have they been tested as per Rule

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

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

to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from above freeboard deck.

HEATERS, &c.—(Letter for record s) Total Heating Surface of Boilers 4936 square feet.

Are they fitted with Forced Draft All Which Boilers are fitted with Superheaters All

Description of Boilers Two - 14'-9" dia. x 11'-9" long. Working Pressure 200 P.S.I.

REPORT ON MAIN BOILERS NOW FORWARDED? Yes.

DONKEY BOILER FITTED? No. If so, is a report now forwarded?

Can boiler be used for other than domestic purposes -

Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers (If not state date of approval) Plans forwarded previously & approved. General Pumping Arrangements Oil fuel Burning Piping Arrangements

## SPARE GEAR.

Spare gear required by the Rules been supplied Yes.

Principal additional spare gear supplied.

The foregoing is a correct description.

Manufacturer.



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During progress of work in shops - -  
 During erection on board vessel - - -  
 Total No. of visits

Dates of Examination of principal parts—Cylinders 13-12-52 to 17-1-53 Slides 13-12-52 to 17-1-53 Covers 13-12-52 to 17-1-53  
 Pistons 13-12-52 to 17-1-53 Piston Rods 13-12-52 to 17-1-53 Connecting rods 13-12-52 to 17-1-53  
 Crank shaft 13-12-52 to 17-1-53 Thrust shaft 13-12-52 to 17-1-53 Intermediate shafts 13-12-52 to 17-1-53  
 Tube shaft - Screw shaft 4-9-51 Propeller 6-1-53  
 Stern tube 4-9-51 Engine and boiler seatings 13-12-52 to 17-1-53 Engines holding down bolts 13-12-52 to 17-1-53

Completion of fitting sea connections -  
 Completion of pumping arrangements 16-1-53 Boilers fixed - Engines tried under steam 17-1-53  
 Main boiler safety valves adjusted 15-1-53 Thickness of adjusting washers Port- in 5/16, out 15/32. Stbd.- in 11/32

Crank shaft material Steel Identification Mark Thrust shaft material Steel Identification Mark  
 Intermediate shafts, material Steel Identification Marks Tube shaft, material Identification Mark

Screw shaft, material Steel Identification Mark Steam Pipes, material S/D steel Test pressure 400 lbs  $\square$  Date of Test  
 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 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 No  If so, state name of vessel -

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

The machinery of this vessel was built under the survey of the Hong Kong Government for Passenger Certificate.

Machinery & Boilers have at this time been opened up, examined & were found to be in good order.

Scantlings which have been well maintained were verified against drawings (which were forwarded & approved) & are as given on this Report. Material used was during the construction subjected to Hong Kong Government Tests & Requirements with satisfactory results and on examination of documents locally show them to be in conformity with the Society's Rules.

Workmanship is good.

The Machinery of this vessel is eligible in my opinion to be classed in the Rules Book 1, 53 with record of LMC 1, 53 & notation "Fitted for oil fuel 1, 53, F.P. above 150° F."

The amount of Entry Fee	£ Charged	When applied for,
Special	on Rpt. : 9	19
Donkey Boiler Fee	£ No. 11325.	When received,
Travelling Expenses (if any)	£	19

A. Y. Sinclair  
 Engineer Surveyor to Lloyd's Register

Date TUES. 21 APR 1953

Committee's Minute



Certificate to be sent to  
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)