

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office JUN 15 1938

Date of writing Report 11th June, 1938 When handed in at Local Office 11th June, 1938 Port of Greenock  
 in Survey held at Greenock Date, First Survey 24th August 1934 Last Survey 10th June, 1938  
 g. Book. on the S/S "EL HIND" (Number of Visits) Gross 5318.86  
 Tons Net 3224.96  
 Built at Port Glasgow By whom built Lithgow Coy. Yard No. 912 When built 1938  
 Engines made at Greenock By whom made John Kincaid & Co. Engine No. 698 When made 1938  
 Makers made at ditto By whom made ditto Boiler No. 698 When made 1938  
 Registered Horse Power Owners Scindia S & Co. Ltd. Port belonging to Bombay  
 H.P. as per Rule 524 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Use for which Vessel is intended Foreign

**ENGINES, &c.**—Description of Engines Triple Expansion Revs. per minute 65  
 No. of Cylinders 2 4 1/2 - 41 - 40 Length of Stroke 48 No. of Cranks 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 13.99 Crank pin dia. 14 1/4 Crank webs Mid. length breadth 8 3/4  
 as fitted 14 1/4 Mid. length thickness 6 3/8  
 Intermediate Shafts, diameter as per Rule 13.3 Thrust shaft, diameter at collars as per Rule 13.99  
 as fitted 13 5/8 as fitted 14 1/4  
 Main Shafts, diameter as per Rule 14.79 Is the tube screw shaft fitted with a continuous liner? Yes  
 as fitted 16 5/8 as fitted 19 3/2  
 Liners, thickness in way of bushes as per Rule 2 1/32 Thickness between bushes as per Rule 2 1/32 Is the after end of the liner made watertight in the  
 as fitted 7/8 as fitted 2 1/32

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner 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. Yes  
 If liners are fitted, is the shaft lapped or protected between the liners No Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes  
 Propeller, dia. 17.6 Pitch 18.2 No. of Blades 4 Material Brass whether Movable Yes Total Developed Surface 84 sq. feet  
 Pumps worked from the Main Engines, No. 2 Diameter 4 1/2 Stroke 24 Can one be overhauled while the other is at work Yes  
 Pumps worked from the Main Engines, No. 2 Diameter 4 1/2 Stroke 24 Can one be overhauled while the other is at work Yes  
 Pumps connected to the Main Bilge Line { No. and size 2 (6+7+18) (7+6 1/2+15) (4 1/2 Rotary 505)  
 How driven Steam Main Bilge Line How driven Steam Electric Motor  
 Lubricating Oil Pumps, including Spare Pump, No. and size one 8 x 7 x 18  
 Independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Pumps;—In Engine and Boiler Room 4-3 Tunnel well 1-2 1/4  
 In Holds, &c. No. 1-2-3 No. 2-2-3 1/2 No. 3-2-2 1/2 No. 4-2-3 No. 5-2-3  
 Tunnel well 1-2

Water Circulating Pump Direct Bilge Suctions, No. and size one 8 Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 size 2-4 1/2 Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes  
 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  
 Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both  
 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 Below  
 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  
 Pipes pass through the bunkers Bilge Suctions How are they protected Wood casing  
 Pipes pass through the deep tanks None Have they been tested as per Rule Yes  
 Pipes, 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  
 compartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from U.E.R. PLATFORM

**BOILERS, &c.**—(Letter for record R) Total Heating Surface of Boilers 4563 sq. ft.  
 Draft fitted Yes No. and Description of Boilers 3 Single Ended Working Pressure 220

REPORT ON MAIN BOILERS NOW FORWARDED?  
 DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes  
 Donkey boiler intended to be used for domestic purposes only Yes  
 Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes  
 (If not state date of approval)  
 General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

**SPARE GEAR.**  
 Spare gear required by the Rules been supplied Yes  
 principal additional spare gear supplied Yes

The foregoing is a correct description,  
 JOHN G. KINCAID & CO. LIMITED.  
Director

Director. Manufacturer.



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 Lloyd's Register  
 Foundation

Rpt. 5  
Date of survey  
No. in Reg. Book  
Master  
Engines  
Boilers  
Nominal  
MULTI  
Manufact  
Total He  
No. and  
Tested by  
Area of  
Area of  
In case of  
Smallest  
Smallest  
Largest  
Thickness  
long. sea  
Percenta  
Percenta  
Thickness  
Material  
Length of  
Dimensio  
End pla  
How are  
Tube pla  
Mean pi  
Girders  
at centre  
in each  
Tensile  
Pitch of  
Working  
Thicknes  
Pitch of  
Working  
Diameter  
Working  
Diameter

(1934) AUG. 24-31. SEPT. 15-24-28. OCT. 1-8-14-21-22-29. NOV. 5-15-19-23-29. DEC. 3-6-15-20-24-28-29. (1938) JAN. 5-7-12-13-20-24-26-28  
 During progress of work in shops -- FEB. 3-4-8-11-15-21-25. MAR. 3-4-9-10-11-15-18-25. APRIL 6-14-20-24. MAY 3-4-5-9-11-16-20-23-24-27. JUNE 10.  
 Dates of Survey while building During erection on board vessel ---  
 Total No. of visits 62.

Dates of Examination of principal parts—Cylinders 28- 1- 38 Slides 11- 2- 38 Covers 28- 1- 38  
 Pistons 4- 2- 38 Piston Rods 4- 3- 28 Connecting rods 7- 3- 38  
 Crank shaft 15- 2- 38 Thrust shaft 15- 2- 38 Intermediate shafts 11- 2- 38  
 Tube shaft ✓ Screw shaft 13- 1- 38 Propeller 13- 1- 38  
 Stern tube 28- 12- 37 Engine and boiler seatings 10- 3- 38 Engines holding down bolts 20- 4- 38  
 Completion of fitting sea connections 14- 4- 38  
 Completion of pumping arrangements 15- 3- 38 Boilers fixed 24 5 38 Engines tried under steam 10-6-38  
 Main boiler safety valves adjusted 24- 5- 38 Thickness of adjusting washers PV 7/16 SV 3/64 PV 7/16 SV 3/8 PV 5/16 SV 2/64  
 Crank shaft material S Identification Mark LR7676 WGM Thrust shaft material S Identification Mark LR7676 WGM  
 Intermediate shafts, material S Identification Marks LR7676 WGM Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material S Identification Mark LR7676 WGM Steam Pipes, material S Test pressure 660 lbs Date of Test 9-5-38  
 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 —  
 Is this machinery duplicate of a previous case Yes If so, state name of vessel S/S Jalakrishna Pk. Reg. No. 20484

General Remarks (State quality of workmanship, opinions as to class, &c. These Engines & Boilers have been built under Special Survey in accordance with the approved plans & the workmanship & material are of good quality. They have been securely fitted on board. Fired under steam found satisfactory. The Machinery is eligible in my opinion for the record of LMC 6-38. Notation of Fitted for Oil Fuel 6-38 F.P. above 150°F

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

The amount of Entry Fee ... £ 6 : - : When applied for,  
 Special ... £ 101 : 4 : 11th JUNE 1938.  
 Donkey Boiler Fee ... £ - : - : When received,  
 Travelling Expenses (if any) £ : : 16.6 1938/20-6

*W. Gordon-Muclivie & Co.*  
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 14 JUN 1938**

Assigned + LMC 6,38 F.D.

Fitted for oil fuel 6,38 F.P. above 150°F.

