

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

26 FEB 1930

Date of writing Report *Feb 21<sup>st</sup> 1930* When handed in at Local Office *Feb 22<sup>nd</sup> 1930* Port of *GLASGOW.*  
 To. in Survey held at *Yroon* Date, First Survey *29. 10. 29* Last Survey *Feb 20<sup>th</sup> 1930*  
 Reg. Book. on the *SS. THE EMPEROR.* (Number of Visits *20*) Tons { Gross *824*  
 Net *405*  
 When built *1930*  
 Built at *Yroon* By whom built *Ailsa S.B. Co Ltd* Yard No. *414* Engine No. *149* when made *1930*  
 Engines made at *Yroon* By whom made *Ailsa S.B. Co Ltd* Boiler No. *A-10* when made *1930.*  
 Boilers made at *Glasgow* By whom made *Barclay Curle & Co Ltd* Port belonging to *Glasgow.*  
 Registered Horse Power *115.* Owners *J. Hay and Sons Ltd* Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes.*  
 Trade for which Vessel is intended *DE - 1 - 41*

## ENGINES, &amp;c.—Description of Engines

*Triple Expansion* Revs. per minute *92.*  
 Dia. of Cylinders *14", 23½", 39"* Length of Stroke *30"* No. of Cylinders *3.* No. of Cranks *3.*  
 Crank shaft, dia. of journals *as per Rule 4.96* Crank pin dia. *as per Rule 8½"* Crank webs *Mid. length breadth 15½"* Thickness parallel to axis *5"*  
 Intermediate Shafts, diameter *as per Rule 4.56* Thrust shaft, diameter at collars *as per Rule 4.96* as fitted *8½" Michell*  
 Tube Shafts, diameter *as per Rule 5.56* Screw Shaft, diameter *as per Rule 8½"* Is the tube shaft fitted with a continuous liner *Yes*  
 Bronze Liners, thickness in way of bushes *as per Rule 4.14* Thickness between bushes *as per Rule 4.14* Is the after end of the liner made watertight in the propeller boss *Yes*  
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *Close fit.*  
 If two 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 shaft *2'-11"*  
 Propeller, dia. *11'-6"* Pitch *12'-0"* No. of Blades *4* Material *C. Iron* whether Movable *No* Total Developed Surface *45.4* sq. feet  
 Feed Pumps worked from the Main Engines, No. *2* Diameter *2½"* Stroke *15"* Can one be overhauled while the other is at work *Yes*  
 Bilge Pumps worked from the Main Engines, No. *2* Diameter *2½"* Stroke *15"* Can one be overhauled while the other is at work *Yes*  
 Feed Pumps { No. and size *1 Duplex 6" x 4½" x 6"* Pumps connected to the { No. and size *1 Duplex 4" x 8" x 8"*  
 How driven *Steam* Main Bilge Line How driven *Steam*  
 Ballast Pumps, No. and size *1 @ 4" x 8" x 8"* 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 *Three at 2½"*  
 In Holds, &c. *Two @ 3"*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *1 @ 4"* Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *1 @ 3"*  
 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 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 *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 *4 hold bilge suction* How are they protected *Wood protected*  
 What pipes pass through the deep tanks *—* Have they been tested as per Rule *Yes*  
 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 *None* Is it fitted with a watertight door *—* worked from *—*

MAIN BOILERS, &c.—(Letter for record *(S)*) Total Heating Surface of Boilers *2021 ft*  
 Is Forced Draft fitted *No* No. and Description of Boilers *One S.B.* Working Pressure *200 lbs*  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? *Yes.*  
 IS A DONKEY BOILER FITTED? *No* If so, is a report now forwarded? *—*

PLANS. Are approved plans forwarded herewith for Shafting *—* Main Boilers *Yes* Auxiliary Boilers *—* Donkey Boilers *—*  
 (If not state date of approval)  
 Superheaters *—* General Pumping Arrangements *—* Oil fuel Burning Piping Arrangements *—*

SPARE GEAR. State the articles supplied:— *Two connecting rod top end bolts and nuts.*  
*Two bottom end bolts and nuts. Two main bearing bolts. One set of coupling bolts*  
*One set of feed and bilge pump valves. A quantity of assorted bolts and nuts*  
*Iron of various sizes.*

The foregoing is a correct description,  
 FOR AILSA SHIPBUILDING CO., LIMITED.

Manufacturer.



© 2020

Lloyd's Register  
Foundation

W1142-0042



05102

During progress of work in shops - - -  
During erection on board vessel - - -  
Total No. of visits 20

Dates of Examination of principal parts—Cylinders 19-12-29 Slides 13-12-29 Covers 3-12-29.  
Pistons 13-12-29 Piston Rods 21-1-30 Connecting rods 21-1-30  
Crank shaft 14-12-29 Thrust shaft 14-11-29 Intermediate shafts -  
Tube shaft - Screw shaft 14-1-30 Propeller 9-1-30  
Stern tube 9-1-30 Engine and boiler seatings 28-1-30 Engines holding down bolts 10-2-30  
Completion of fitting sea connections 24-1-30  
Completion of pumping arrangements 18-2-30 Boilers fixed 10-2-30 Engines tried under steam 20-2-30  
Main boiler safety valves adjusted 18-2-30 Thickness of adjusting washers P.V.  $\frac{13}{32}$  SV  $\frac{7}{16}$   
Crank shaft material S Identification Mark NO 5514 DCB. 14-12-29 Thrust shaft material S Identification Mark NO 218 DCB. 14-11-29  
Intermediate shafts, material - Identification Marks Tube shaft, material - Identification Mark  
Screw shaft, material Identification Mark NO 3439 DCB. 14-1-30 Steam Pipes, material Copper Test pressure 400 lbs Date of Test 5-10-2-30  
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 -  
Is this machinery duplicate of a previous case Yes If so, state name of vessel SS. THE VICEROY.

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery has been built under Special Survey in accordance with the Rules of the Society. The workmanship and materials are of good quality. The engines and boiler have been securely fitted on board and tried under steam with satisfactory results. It is submitted that this vessel is eligible for record of LMC 2-30.

It is submitted that this vessel is eligible for record of LMC 2-30.

22/2/30. 27/2/30. J.R.R.

The amount of Entry Fee ... £ 3 : 0 :  
Special ... £ 14 : 5 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ 3 : 5 :  
When applied for, 24 FEB 1930  
When received, 26/2/30  
Committee's Minute GLASGOW 25 FEB 1930  
Assigned + LMC 2-30  
David C Barr.  
Engineer Surveyor to Lloyd's Register of Shipping.  
© 2020 Lloyd's Register Foundation