

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 23 SEP 1931

Date of writing Report 12-9-1931, When handed in at Local Office 14-9-1931 Port of Glasgow

No. in Survey held at Blydebank Date, First Survey 8-6-31 Last Survey 11-9-1931  
Reg. Book. on the S.S. "Eckhound" (Number of Visits 18) Tons Gross 729 Net 301

Built at Bristol By whom built C. Hill & Sons L<sup>d</sup> Yard No. When built 1929

Engines made at Blydebank By whom made Aitchison, Blair, & Co Engine No. 161 When made 1931

Boilers made at Glasgow By whom made D. Rowan & Co Boiler No. When made 1931

Registered Horse Power Owners Engine Steamships Ltd Port belonging to 15-0-71

Nom. Horse Power as per Rule 706 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

Trade for which Vessel is intended Canada

## ENGINES, &c.—Description of Engines Triple Expansion

Dia. of Cylinders 14"-23"-38" Length of Stroke 24" No. of Cylinders 3 Revs. per minute 3018-7-15  
No. of Cranks 3

Crank shaft, dia. of journals 8 1/4" Crank pin dia. 7 1/4" Crank webs Mid. length breadth 13 3/4" Thickness parallel to axis 4 13/16"  
Mid. length thickness 4 13/16" Thickness around eye-hole 3 1/8"

Intermediate Shafts, diameter as fitted 6 7/8" Thrust shaft, diameter at collars as fitted 7 1/4"

Tube Shafts, diameter as fitted none Screw Shaft, diameter as fitted 7 9/16" Is the screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 19/32" Thickness between bushes as fitted 17/32" 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 One length

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 two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft Yes

Propeller, dia. 8'-9" Pitch 8'-9" No. of Blades 4 Material C.I. whether Movable solid Total Developed Surface 29 sq. feet

Feed Pumps worked from the Main Engines, No. 2 Diameter 2 1/4" Stroke 12" Can one be overhauled while the other is at work Yes

Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 1/4" Stroke 12" Can one be overhauled while the other is at work Yes

Feed Pumps No. and size not provided Pumps connected to the Main Bilge Line No. and size not provided

Ballast Pumps, No. and size not provided Lubricating Oil Pumps, including Spare Pump, No. and size not provided

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room Yes

In Pump Room not provided In Holds, &c. not provided

Main Water Circulating Pump Direct Bilge Suctions, No. and size not provided Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size not provided

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 Yes

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 Yes

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 not provided How are they protected not provided

What pipes pass through the deep tanks not provided 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 Yes Is it fitted with a watertight door Yes worked from not provided

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2040 sq. ft.

Is Forced Draft fitted no No. and Description of Boilers 1- Multitubular Working Pressure 180

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes

Is the donkey boiler intended to be used for domestic purposes only Yes

PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes

Superheaters not provided General Pumping Arrangements not provided Oil fuel Burning Piping Arrangements not provided

## SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied not provided

The foregoing is a correct description,

AITCHISON, BLAIR, LIMITED.

Manufacturer.

J. Thomson.



25712

1931 June: 8 17 22 25 29 July: 2 6 9 28 31 Aug: 6 13 17 21 27 Sep: 1 7 11

Dates of Survey while building: During progress of work in shops --- During erection on board vessel --- Total No. of visits 18

Dates of Examination of principal parts—Cylinders 17-6-31 di Slides 31-7-31 di Covers 17-6-31 di  
 Pistons 17-6-31 di Piston Rods 17-6-31 di Connecting rods 17-6-31 di  
 Crank shaft 17-6-31 di Thrust shaft 22-6-31 di Intermediate shafts 25-6-31 di  
 Tube shaft Screw shaft 28-7-31 di Propeller 31-7-31 di  
 Stern tube 31-7-31 di Engine and boiler seatings Engines holding down bolts  
 Completion of fitting sea connections Boilers fixed Engines tried under steam  
 Completion of pumping arrangements Main boiler safety valves adjusted Thickness of adjusting washers  
 Crank shaft material S Identification Mark 8965 Thrust shaft material S Identification Mark 8970  
 Intermediate shafts, material S Identification Marks 8970 Tube shaft, material Identification Mark  
 Screw shaft, material S Identification Mark 8970 Steam Pipes, material Test pressure Date of Test  
 Is an installation fitted for burning oil fuel 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 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 no If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery has been built under special survey in accordance with the approved plans and the Society's Rules and requirements, the materials and workmanship are good. It has been forwarded to Grangemouth for fitting on board the S.S. "Bekhounds".*

*Please refer to Glasgow after noting*

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

The amount of Entry Fee ... £ : : When applied for,  
 Special  $\frac{2}{5}$  ... £ 10-12 : 22 SEP 1931  
 Donkey Boiler Fee ... £ : : When received,  
 Travelling Expenses (if any) £ : : 1-10-31

*James Cairns*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 22 SEP 1931  
 Assigned *Deferred*

*See Glasgow Report*  
 No. 54968



pt. 5a.  
 of writing  
 No. in Su  
 Book.  
 5588 on  
 ster  
 gines mad  
 ilters mad  
 ominal Ho  
 ULTIT  
 manufactur  
 otal Heati  
 o. and De  
 ested by h  
 rea of Fir  
 rea of ea  
 n case of d  
 smallest di  
 smallest di  
 largest int  
 Thickness  
 ong. seams  
 Percentage  
 Percentage  
 Thickness  
 Material  
 Length of  
 Dimensions  
 End plates  
 How are  
 Tube plate  
 Mean pitch  
 Girders to  
 at centre  
 in each  
 Tensile str  
 Pitch of st  
 Working p  
 Thickness  
 Pitch of s  
 Working I  
 Diameter  
 Working p  
 Diameter