

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 10 APR 1929  
 Date of writing Report April 4<sup>th</sup> 1929 When handed in at Local Office April 5<sup>th</sup> 1929 Port of GLASGOW.  
 No. in Survey held at Yroon. Date, First Survey 11. 10. 28 Last Survey Mar 29<sup>th</sup> 1929.  
 Reg. Book. on the SS LEEUWARDEN. (Number of Visits 27) Gross 1209 Tons Net 538  
 Built at Yroon By whom built Ailsa S.B. Co Ltd. Yard No. 409 When built 1929  
 Engines made at Yroon By whom made Ailsa S.B. Co Ltd Engine No. 144 when made 1929.  
 Boilers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 367 when made 1929.  
 Registered Horse Power Owners General Steam Nav. Co. Ltd Port belonging to London.  
 Nom. Horse Power as per Rule 304. Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes.  
 Trade for which Vessel is intended

ENGINES, &c.—Description of Engines Triple Expansion. Revs. per minute 100.  
 Dia. of Cylinders 21" 34" 56" Length of Stroke 36" No. of Cylinders 3 No. of Cranks 3.  
 Crank shaft, dia. of journals as per Rule 11.01" Crank pin dia. 11 3/8" Crank webs Mid. length breadth 11.9" Thickness parallel to axis 4" as fitted 11 1/8" Mid. length thickness 4" shrunk Thickness around eye-hole 4 1/2"  
 Intermediate Shafts, diameter as per Rule 10.49" Thrust shaft, diameter at collars as per Rule 11.01" as fitted 10 1/2" 11 1/2"  
 Tube Shafts, diameter as per Rule — Screw Shaft, diameter as per Rule 11.54" Is the shaft fitted with a continuous liner? Yes as fitted — 11 1/2"  
 Bronze Liners, thickness in way of bushes as per Rule .65" Thickness between bushes as per Rule .484" 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 — 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 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 No Length of Bearing in Stern Bush next to and supporting propeller 3'-11 1/2"  
 Propeller, dia. 13'-3" Pitch 14'-9" No. of Blades 4 Material Bronze whether Moveable No Total Developed Surface 58 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 3 1/2" Stroke 18" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 3 1/2" Stroke 18" Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size 2 @ 6" x 8 1/2" x 18" + 1 @ 3" x 4 1/2" x 6" Pumps connected to the Main Bilge Line { No. and size 1 @ 4" x 4" x 8" and 1 @ 6" x 6" x 6" How driven Steam How driven Steam  
 Ballast Pumps, No. and size 1 @ 4" x 4" 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 3 @ 2 1/2" In Holds, &c. No 1 Hold 2 @ 2 1/2" No 2 Hold 2 @ 2 1/2" No 3 Hold 2 @ 2 1/2" Tunnel Well 1 @ 2 1/2"  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 6" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 3 1/2"  
 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 Below  
 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 Ford Bilge Pipes How are they protected Wood Covering  
 What pipes pass through the deep tanks 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  
 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 Upper Deck

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 5834 sq. ft.  
 Is Forced Draft fitted No No. and Description of Boilers 2 S.E. Marine Working Pressure 200 lbs.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED?  
 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 and Iron of various sizes

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

J. McNaughton  
 ENGINEER MANAGER

Manufacturer.



© 2020

Lloyd's Register  
 Foundation

W375-0215



740P41

During progress of work in shops - - 1928 Oct 11-25 Nov 1-5-16-26 Dec 11-14-18-20 (1929) Jan 8-14-17-22-24-29-31 Feb 14-28  
During erection on board vessel - - Mar 4-8-12-13-21-22-26-29

Dates of Survey while building

Total No. of visits

27

Dates of Examination of principal parts—Cylinders 16-11-28 Slides 26-11-28 Covers 26-11-28  
Pistons 14-12-28 Piston Rods 22-1-29 Connecting rods 22-1-29  
Crank shaft 18-12-28 Thrust shaft 20-12-28 Intermediate shafts 20-12-28  
Tube shaft — Screw shaft 31-1-29 Propeller 31-1-29  
Stern tube 22-1-29 Engine and boiler seatings 14-1-29 Engines holding down bolts 28-2-29

Completion of fitting sea connections 14-1-29  
Completion of pumping arrangements 21-3-29 Boilers fixed 19-2-28 Engines tried under steam 29-3-29  
Main boiler safety valves adjusted 21-3-29 Thickness of adjusting washers PBFV 17/32 PBAV 9/16 SBFV 9/16 SBAV 19/32

Crank shaft material S Identification Mark LLOYDS NO 144 Thrust shaft material S Identification Mark LLOYDS NO 64  
Intermediate shafts, material S Identification Marks LLOYDS NO 66 Tube shaft, material — Identification Mark LLOYDS NO 64  
Screw shaft, material Identification Mark LLOYDS NO 65 Steam Pipes, material Copper Test pressure 400 lbs Date of Test 19-2-29

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 — 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 Ys Groningen

General Remarks (State quality of workmanship, opinions as to class, &c.) The engines have been constructed under Special Survey in accordance with the Rules of the Society. The workmanship and materials are of good quality. The engines and boilers have been securely fitted on board and tried under steam with satisfactory results. It is submitted that this vessel is eligible for a record of LMC 3-29.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 3.29. C.L

6/4/29

Rm 21 11.4.29

The amount of Entry Fee ... £ 5 : 0 :  
3/5 of Special ... £ 42 : 4 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ 4 : 5 :  
When applied for, 9 APR 1929  
When received, 12.4.29

David C Barr.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 9 - APR 1929

Assigned + L.M.C. 3.29

CERTIFICATE WRITTEN.



© 2020 Lloyd's Register Foundation