

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

No. 45920

1 SEP 1926

Date of writing Report 19 When handed in at Local Office 30-8-1926 Port of Glasgow  
 No. in Survey held at Blydebank Date, First Survey 23<sup>rd</sup> March Last Survey 26<sup>th</sup> Aug 1926  
 Reg. Book. on the S.S. "Torington" (Number of Visits 22)  
 Built at Paisley By whom built J. Fullerton & Co Yard No. 276 Tons { Gross 691  
 Engines made at Blydebank By whom made Aitchison, Blair Engine No. 159. Net 1926  
 Boilers made at Glasgow By whom made D. Rowan & Co L<sup>td</sup> Boiler No. 339 when made 1926  
 Registered Horse Power Owners H. Harrison (Shipping) L<sup>td</sup> Port belonging to London  
 Nom. Horse Power as per Rule 101. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no  
 Trade for which Vessel is intended Boasting

**ENGINES, &c.**—Description of Engines Triple expansion ✓  
 Dia. of Cylinders 14"-23"-38" Length of Stroke 27" No. of Cylinders 3 ✓ Revs. per minute 120 ✓  
 Crank shaft, dia. of journals as per Rule 7.38" Length of Stroke 27" No. of Cranks 3 ✓  
 as fitted 7 1/2" Crank pin dia. 7 1/2" ✓ Crank webs Mid. length breadth 14" ✓ Thickness parallel to axis 5" ✓  
 as fitted 7 1/2" ✓ Mid. length thickness 5" ✓ shrunk Thickness around eye-hole 3 1/2" ✓  
 Intermediate Shafts, diameter as per Rule 7.0 Thrust shaft, diameter at collars as per Rule 7.38" ✓  
 as fitted none ✓ as fitted 7 1/2" ✓  
 Tube Shafts, diameter as per Rule 7.04" Screw Shaft, diameter as per Rule 7.86" ✓  
 as fitted 7.04" ✓ as fitted 8" ✓ Is the { tube } shaft fitted with a continuous liner { yes ✓  
 { screw }  
 Bronze Liners, thickness in way of bushes as per Rule 19/32" ✓ Thickness between bushes as per Rule 17/32" ✓  
 as fitted 19/32" ✓ 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 ✓ 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 34" ✓  
 Propeller, dia. 10'-0" Pitch 10'-6" No. of Blades 4 ✓ Material C.L. ✓ whether Moveable solid ✓ Total Developed Surface 34.6 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 ✓ Diameter 2 1/4" ✓ Stroke 14" ✓ 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 14" ✓ Can one be overhauled while the other is at work yes ✓  
 Feed Pumps { No. and size 1-6"x4"x6" Dup<sup>ts</sup> ✓ Pumps connected to the { No. and size 1-7"x7"x8" Dup<sup>ts</sup> ✓  
 { How driven Steam ✓ Main Bilge Line { How driven Steam ✓  
 Ballast Pumps, No. and size 1-7"x7"x8" Dup<sup>ts</sup> ✓ Lubricating Oil Pumps, including Spare Pump, No. and size none ✓  
 Are two independent means arranged for circulating water through the Oil Cooler none ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps;—In Engine and Boiler Room 3-2 1/4" ✓  
 In Holds, &c. 2-2 3/4" ✓

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-3 3/4" ✓ Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 1-2 3/4" ✓ 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 sized 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 are carried through the bunkers Hold bilge, & ballast ✓ How are they protected Wood ceiling ✓  
 What pipes pass through the deep tanks none ✓ 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 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 1853 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? no ✓ If so, is a report now forwarded? ✓  
 PLANS. Are approved plans forwarded herewith for Shafting yes ✓ Main Boilers yes ✓ Auxiliary Boilers ✓ Donkey Boilers ✓  
 (If not state date of approval)  
 Superheaters none ✓ General Pumping Arrangements yes ✓ Oil fuel Burning Piping Arrangements none ✓

**SPARE GEAR.** State the articles supplied:— 2. connecting rod top end bolts and nuts,  
 2. bottom end bolts and nuts, 2. main bearing bolts, 1. set of  
 coupling bolts, 1. 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 AND ON BEHALF OF  
 AITCHISON, BLAIR, LIMITED.  
 Arch Blair Director

Manufacturer.



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 Lloyd's Register  
 Foundation  
 W1066-0160

1926 Mar 23 31 Apr 7 21 24 May 3 10 20 28 June 2 8 9 21 25 29 Aug 5 11 12 16 19 23 26

Dates of Survey while building  
During progress of work in shops --  
During erection on board vessel --  
Total No. of visits 22

Dates of Examination of principal parts—Cylinders 20-5-26. Slides 20-5-26. Covers 20-5-26.  
Pistons 20-5-26 Piston Rods 20-5-26. Connecting rods 20-5-26.  
Crank shaft 27-4-26. Thrust shaft 27-4-26. Intermediate shafts none.  
Tube shaft / Screw shaft 27-4-26. Propeller 27-4-26.  
Stern tube 21-6-26. Engine and boiler seatings 8-6-26. Engines holding down bolts 5-8-26.  
Completion of pumping arrangements 19/8/26. Boilers fixed 5-8-26. Engines tried under steam  
Main boiler safety valves adjusted 23/8/26. Thickness of adjusting washers P. 9/32 S. 9/32  
Crank shaft material S. Identification Mark 1204 J.S.C. Thrust shaft material S. Identification Mark 7566 J.S.C.  
Intermediate shafts, material none Identification Marks / Tube shaft, material / Identification Mark /  
Screw shaft, material S. Identification Mark 7556 J.S.C. Steam Pipes, material Copper Test pressure 360 Date of Test 11/8/26.  
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 carrying and burning oil fuel 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. These Engines have been built under special survey in accordance with the Society's Rules, and requirements, the materials and workmanship, are good, they together with the boiler (See Report N° 45811) have been securely fitted on board, and satisfactorily tried under steam, and in my opinion are eligible for the record + L.M.C. 8 - 26.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 8. 26. CL. 5. CL.

Handwritten signature and date 1/9/26

Jas. Cairns, J. Nichol  
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3 0 0 When applied for.  
Special 3/5 ... £ 15 3 0 30/8/26  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : : 2 9 26

Committee's Minute GLASGOW 31 AUG 1926

Assigned + L.M.C. 8. 26.

CERTIFICATE WRITTEN

Glasgow  
Certificate to be written to

Date of writing  
No. in Reg. Book  
Master  
Engines made  
Boilers made  
Nominal Horsepower  
MULTITUBULAR  
Manufacturers  
Total Heating Surface  
No. and Description of Tubes  
Tested by hydrostatic  
Area of Fire  
Area of each  
In case of double  
Smallest diameter  
Smallest distance  
Largest internal  
Thickness  
long, seams  
Percentage of  
Percentage of  
Thickness of  
Material  
Length of  
Dimensions  
End plates  
How are  
Tube plates  
Mean pitch  
Girders to  
at centre  
in each  
Tensile strength  
Pitch of stay  
Working pressure  
Thickness  
Pitch of stay  
Working pressure  
Diameter  
Working pressure  
Diameter

