

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 25<sup>th</sup> Sept 1929 When handed in at Local Office 26<sup>th</sup> Sept 1929 Port of Sunderland Received at London Office 27 SEP 1929  
 No. in Survey held at Sunderland Date, First Survey 5 July Last Survey 26 Sep 1929  
 Reg. Book. on the S.S. "WILLIAM CASH" (Number of Visits 28)  
 Built at Newcastle-on-Tyne By whom built R & W Hawthorn Leslie & Co. Ltd. Yard No. 567 Tons { Gross  
 Engines made at Sunderland By whom made The North Eastern Marine Eng. Co. Ltd. Engine No. 2730 when made 1929 Net  
 Boilers made at Sunderland By whom made The North Eastern Marine Eng. Co. Ltd. Boiler No. 2730 when made 1929  
 Registered Horse Power 137 Owners Stephenson Clarke & Associated Cos. Ltd. Port belonging to London  
 Nom. Horse Power as per Rule 137 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no  
 Trade for which Vessel is intended Collier.

Engines, &c.—Description of Engines Triple Expansion - Single Screw. Revs. per minute 86  
 Dia. of Cylinders 17", 28", 46" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals 8 7/8" as per Rule 8 7/8" Crank pin dia. 8 7/8" as per Rule 8 7/8" Crank webs Mid. length breadth ✓ Thickness parallel to axis 5 9/16"  
 as fitted 8 7/8" Mid. length thickness ✓ shrunk Thickness around eye-hole 4 1/16"  
 Intermediate Shafts, diameter none. Thrust shaft, diameter at collars 8 7/8" as per Rule 8 7/8"  
 as fitted 8 7/8" as fitted 8 7/8"  
 Tube Shafts, diameter ✓ as per Rule 9 3/4" as fitted 9 3/4" Is the tube shaft fitted with a continuous liner Yes  
 as fitted ✓ Screw Shaft, diameter ✓ as per Rule 9 3/4" as fitted 9 3/4"  
 Bronze Liners, thickness in way of bushes 5/8" as per Rule 5/8" Thickness between bushes 5/8" as per Rule 5/8" Is the after end of the liner made watertight in the  
 as fitted 5/8" as fitted 5/8" 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 ✓  
 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 ✓  
 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'-3"  
 Propeller, dia. 12'-3" Pitch 12'-3" No. of Blades 4 Material Cast Iron whether Moveable no Total Developed Surface 48 sq. feet  
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 15" Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 3" Stroke 15" Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size 1-5 1/2" x 3 1/2" x 5" Pumps connected to the { No. and size 1-7 1/2" x 9 1/2" x 10 1/2"  
 { How driven Steam Main Bilge Line { How driven Steam  
 Ballast Pumps, No. and size 1-7 1/2" x 9 1/2" x 10 1/2" 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 2 @ 2 1/2" DIAM.  
 In Holds, &c. FORE HOLD - 2 @ 2 1/2" DIAM. AFTER HOLD - 2 @ 2 1/2" DIAM.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 5" DIAM. Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 1 @ 3 1/2" DIAM. 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 MAIN - BELOW. STARS - 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 None How are they protected ✓  
 What pipes pass through the deep tanks ✓ Have they been tested as per Rule 7  
 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 Engine Aft Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 2260 sq ft  
 Is Forced Draft fitted no No. and Description of Boilers One Single Ended Marine Type Working Pressure 180 lbs  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes  
 PLANS. Are approved plans forwarded herewith for Shafting ✓ Main Boilers Yes Auxiliary Boilers ✓ Donkey Boilers Yes  
 (If not state date of approval) Superheaters ✓ General Pumping Arrangements ✓ Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:— 1- C.I. Propeller : 2- Top End Bolts & nuts : 2- Bottom End Bolts & nuts : 2- Main Bearing Bolts & nuts : 6- Shaft Coupling Bolts & nuts : 2- Feed Pump Valves : 2- Bilge Pump Valves : One Set each of Ballast, Feed Donkey & Air Pump Valves : 2- Feed Check Valves : 1- Safety Valve Spring : 6- Boiler Smoke Tubes : 140- Assorted Studs Bolts & nuts, and a quantity of Iron Plate.

The foregoing is a correct description,  
 THE NORTH EASTERN MARINE ENGINEERING CO. LTD.

John Neill

Manufacturer.

Manager.



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Lloyd's Register  
 Foundation

005075-005081-0125



Dates of Survey while building

During progress of work in shops --

During erection on board vessel --

Total No. of visits

1929 July 5, 10, 17, 18, 24 Aug 12, 13, 14, 15, 19, 20, 21, 22, 23, 26, 27, 28, 30 Sep 2, 3, 4, 6, 9, 12, 13, 16, 21

Dates of Examination of principal parts—Cylinders

12.8.29

Slides 28.8.29

Covers 27.8.29

Pistons 21.8.29

Piston Rods 15.8.29

Connecting rods 14.8.29

Crank shaft 13.8.29

Thrust shaft 19.8.29

Intermediate shafts none

Tube shaft

Screw shaft 9.9.29

Propeller 4.9.29

Stern tube 30.8.29

Engine and boiler seatings 12.9.29

Engines holding down bolts 16.9.29

Completion of fitting sea connections 30.8.29

Completion of pumping arrangements 24.9.29

Boilers fixed 16.9.29

Engines tried under steam 24.9.29

Main boiler safety valves adjusted 24.9.29

Thickness of adjusting washers PORT 7/16" STAR 3/2"

Crank shaft material Siemens Steel

Identification Mark No 8463 A.C.

Thrust shaft material Siemens Steel

Identification Mark No 8487 A

Intermediate shafts, material

Identification Marks

Tube shaft, material

Identification Mark

Screw shaft, material Siemens Steel

Identification Mark No 8487 A.C.

Steam Pipes, material LAP WELDED MILD STEEL

Test pressure 540 lbs/sq. in. Date of Test 16.9.29

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 carrying and burning oil fuel been complied with

Is this machinery duplicate of a previous case

If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Engines and Boiler of this Vessel have been built under Special Survey & satisfactorily fitted in the Vessel. The Materials and Workmanship are good. On Completion the Machinery was tried under a full head of steam with Satisfactory results. The Machinery throughout is now in a good & efficient condition & eligible in my opinion for Classification and the notation :- L.M.C. 9.29.

It is submitted that this vessel is eligible for THE RECORD.

+ L.M.C. 9.29 C.L.

27/9/29

Subject to Hull being cleared for

(2)

The amount of Entry Fee ... £ 3 : 0

Special ... £ 34 : 5

Donkey Boiler Fee ... £ :

Travelling Expenses (if any) £ :

When applied for,

26 SEP 1929

When received,

27.9.29

Alfred Be.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

4 OCT 1929

Assigned

+ L.M.C. 9.29

C.L.

CERTIFICATE WRITER



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