

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 27 FEB 1934

Date of writing Report 26<sup>th</sup> Feb<sup>y</sup> 1934 When handed in at Local Office 26<sup>th</sup> Feb<sup>y</sup> 1934 Port of Dundee  
 No. in Survey held at Dundee Date, First Survey 21<sup>st</sup> Nov<sup>r</sup> 1933 Last Survey 21<sup>st</sup> Feb<sup>y</sup> 1934  
 Reg. Book. 39314 on the S/S "DUNDEE" (Number of Visits 16)  
 Built at Dundee By whom built Caledon S & E. Co. Ltd. Yard No. 345 Tons Gross 1540.73  
Net 674.94 When built 1934  
 Engines made at Glasgow By whom made A. Stephen & Sons Ltd Engine No. 101 when made 1934  
 Boilers made at Dundee By whom made Caledon S & E. Co. Ltd Boiler No. 545 when made 1934  
 Registered Horse Power ✓ Owners Dundee Perth & London Shipping Co. Ltd. Port belonging to Dundee  
 Nom. Horse Power as per Rule 361 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes  
 Trade for which Vessel is intended Dundee / London

## ENGINES, &c.—Description of Engines

**Revs. per minute**  
 Dia. of Cylinders..... Length of Stroke..... No. of Cylinders..... No. of Cranks.....  
 Crank shaft, dia. of journals..... Crank pin dia..... Crank webs..... Thickness parallel to axis.....  
 as per Rule..... as fitted..... Mid. length breadth..... shrunk..... Thickness around eye-hole.....  
 as fitted..... Mid. length thickness.....  
 Intermediate Shafts, diameter..... Thrust shaft, diameter at collars.....  
 as per Rule..... as fitted..... Is the tube shaft fitted with a continuous liner {  
 as fitted..... as fitted.....  
 Tube Shafts, diameter..... Screw Shaft, diameter.....  
 as per Rule..... as fitted.....  
 as fitted..... as fitted.....  
 Bronze Liners, thickness in way of bushes..... Thickness between bushes..... Is the after end of the liner made watertight in the  
 as per Rule..... as fitted.....  
 as fitted.....  
 propeller boss..... 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 protected between the liners..... Is an approved Oil Gland or other appliance fitted at the after  
 end of the tube shaft..... Length of Bearing in Stern Bush next to and supporting propeller.....  
 Propeller, dia..... Pitch..... No. of Blades..... Material..... whether Moveable..... Total Developed Surface..... sq. feet  
 Feed Pumps worked from the Main Engines, No..... Diameter..... Stroke..... Can one be overhauled while the other is at work.....  
 Bilge Pumps worked from the Main Engines, No..... Diameter..... Stroke..... Can one be overhauled while the other is at work.....  
 Feed Pumps { No. and size 2-4"x9"x21", 1-4"x3 1/2"x9" Pumps connected to the { No. and size 1-7"x6 1/2"x15", 1-9"x8"x18"  
 How driven Steam-driven Main Bilge Line { How driven Steam-driven  
 Ballast Pumps, No. and size 1-9"x8"x18" 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 1-2 1/2" Port 1-2 1/2" Star. Aft. 1-2 1/2" Port 1-2 1/2" Centre 1-2 1/2" Star. For. 1 1/2" For. 1-1 1/2" aft. in Oil gutter.  
 In Holds, &c. No. 1, 1-2 1/2" Port 1-2 1/2" Star.; No. 2, 1-3" Port 1-3" Star. Aft. Hold 1-2 1/2" Centre. 1-2 1/2" in tunnel well

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-7" dia. Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 1-3 1/2" dia. 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 Suctions to fore bilges How are they protected In the limbers  
 What pipes pass through the deep tanks Suctions to fore bilges 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 top platform

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 6651 sq. ft.  
 Is Forced Draft fitted No No. and Description of Boilers 3 S.E. Return Tube Working Pressure 220 lbs

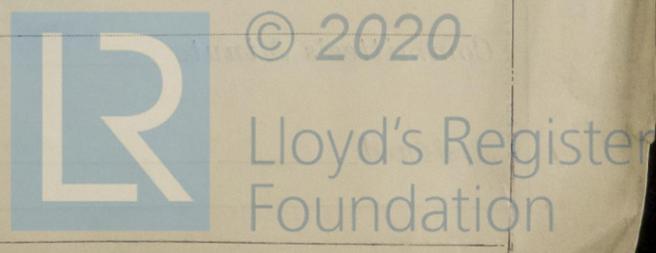
IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? ✓

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

SPARE GEAR. State the articles supplied:—  
As per list attached to Gls. Rpt. No 54156.

The foregoing is a correct description,

Manufacturer.



During progress of work in shops - -

Dates of Survey while building

During erection on board vessel - - -

Total No. of visits 16

1933 Nov. 21. 30. Decr. 8. 15. 21. 28.

1934 Jan. 10. 22. 25. 26. 30. Feb. 2. 3. 13. 19. 21.

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓

Pistons ✓ Piston Rods ✓ Connecting rods ✓

Crank shaft ✓ Thrust shaft ✓ Intermediate shafts ✓

Tube shaft ✓ Screw shaft in place. 21-12-33 Propeller in place 21-12-33.

Stern tube in place 8-12-33. Engine and boiler seatings 30-11-33. Engines holding down bolts 25-1-34.

Completion of fitting sea connections 21-12-33.

Completion of pumping arrangements 30-1-34. Boilers fixed 25-1-34. Engines tried under steam 13-2-34 in dock. 21-2-34 at sea.

Main boiler safety valves adjusted 13-2-34. Thickness of adjusting washers { For 1st. F.V. 3/8" A.V. 1/32" Sup. Value 23/64  
Port " P.V. 3/8" S.V. 1/32" " " 23/64  
Star " P.V. 1/32" S.V. 1/32" " " 23/64 }

Crank shaft material ✓ Identification Mark ✓ Thrust shaft material ✓ Identification Mark ✓

Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material ✓ Identification Mark ✓ Steam Pipes, material Steel Test pressure 660 lbs. Date of Test 26-1-34

Is an installation fitted for burning oil fuel No. Is the flash point of the oil to be used over 150°F. 30-1-34  
2-2-34  
3-2-34

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.)

This Machinery — Gls. Rpt. N° 54156 on Engines, + Dem. Rpt. N° 8851 on Boilers — has been efficiently fitted on board, & the materials + workmanship are sound + good. When the installation of the machinery was completed the safety valves were adjusted under steam to the working pressure, & accumulation tests were carried out, in accordance with the Rules, with satisfactory results. Afterwards the Main Engines + Auxiliaries were tried at sea, under full load & working conditions, & they were found to be satisfactory in every way.

In my opinion the Machinery of this vessel is eligible to be classed in the Register Book, with the notation of + L.M.C. 2-34 + the record of T.S. O.G.

Certificate to be sent to Dundee

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

The amount of Entry Fee ... £ : : } When applied for,

1/5<sup>th</sup> Special (for Install<sup>n</sup>) £ 15-: 16-: 0 } 26/21 19.34.

Donkey Boiler Fee ... £ : : } When received,

Travelling Expenses (if any) £ : : } 7.2. 19.34

John Houston  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. 2 MAR 1934

+ L.M.C. 2.34 O.G.

TUE. 17 APR 1934

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