

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

1951/1/5
 1951/1/5 Writing Report 19 When handed in at Local Office 22nd DEC. 1951 Port of **DUNDEE**
 Survey held at **DUNDEE**. Date, First Survey Last Survey **7-12-1951**
 on the **R.F.A. "EDDYBEACH."** (Number of Visits) Gross 2157
DUNDEE. By whom built **CALEDON S.B. & E. CO. LTD.** Yard No. **474**. When built **1951** Net 905
 made at **RENFREW**. By whom made **LOBNITZ & CO.** Engine No. **B1471**. When made **1951**
 made at **DUNDEE**. By whom made **CALEDON S.B. & E. CO. LTD.** Boiler No. **674**. When made **1951**
 ed Horse Power **1750**. Owners **BRITISH ADMIRALTY**. Port belonging to **LONDON**.
 rse Power as per Rule **400**. Is Refrigerating Machinery fitted for cargo purposes **No**. Is Electric Light fitted **YES**.
 or which Vessel is intended **FLEET OILER**.

ES, &c.—Description of Engines **TRIPLE EXPANSION**. Revs. per minute **227**.
 Cylinders **16" - 27 1/2" - 43 1/2"** Length of Stroke **21"** No. of Cylinders **3**. No. of Cranks **3**.
 Shaft, dia. of journals as per Rule **8.26"** Crank pin dia. **9 1/2"** Crank webs Mid. length breadth **18 1/2"** Thickness parallel to axis **4 1/4"**
 as fitted **9 1/2"** Mid. length thickness **5 1/16"** shrunk Thickness around eye-hole **SOLID**.
 Intermediate Shafts, diameter as per Rule **AS APPROVED**. Thrust shaft, diameter at collars as per Rule **AS APPROVED**.
 as fitted **9 1/8"** as fitted **8 1/2"**
 Shafts, diameter as per Rule **AS APPROVED**. Is the **tube** shaft fitted with a continuous liner **No**.
 as fitted **9"** as fitted **screw**

Liners, thickness in way of bushes as per Rule **AS APPROVED**. Thickness between bushes as per Rule **AS APPROVED**. Is the after end of the liner made watertight in the boss **AS APPROVED**.
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner **AS APPROVED**.
 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 **AS APPROVED**.
 Liners are fitted, is the shaft lapped or protected between the liners **AS APPROVED**. Is an approved Oil Gland or other appliance fitted at the after end of the tube **AS APPROVED**.

Propeller, dia. **8'-6"** Pitch **6'-9"** No. of Blades **4**. Material **BRONZE**, whether Moveable **SOLID**. Total Developed Surface **32** sq. feet
 Pumps worked from the Main Engines, No. **NONE**. Diameter **AS APPROVED**. Stroke **AS APPROVED**. Can one be overhauled while the other is at work **AS APPROVED**.
 Pumps worked from the Main Engines, No. **NONE**. Diameter **AS APPROVED**. Stroke **AS APPROVED**. Can one be overhauled while the other is at work **AS APPROVED**.
 No. and size **TWO 8" x 10 1/2" x 22"** Pumps connected to the Main Bilge Line (No. and size **1-DUA. BILGE 50 TONS/HR, 1-G.S. 50 TONS/HR 1-CIRC. 4000 G/MIN.**)
 How driven **DIRECT STEAM**. How driven **DIRECT STEAM**

Pumps, No. and size **ONE-7 1/2" x 6 1/2" x 7" DUPLEX**. Lubricating Oil Pumps, including Spare Pump, No. and size **ONE-ATTACHED & ONE-INDPT.**
 Independent means arranged for circulating water through the Oil Cooler **YES**. Suctions, connected to both Main Bilge Pumps and Auxiliary Pumps;—In Engine and Boiler Room **SEA, BILGE MAIN & DIRECT. ER 2-2 1/2, BILGE ROOM 2-2 1/2, ER C/P W/LL 2 1/2**
 In Room **NONE**. In Holds, &c. **NONE**

Water Circulating Pump Direct Bilge Suctions, No. and size **10"** Independent Power Pump Direct Suctions to the Engine Room Bilges, size **1-4"** Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes **YES**.
 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**.
 Sea Connections fitted direct on the skin of the ship **YES**. Are they fitted with Valves or Cocks **VALVES, EXCEPT BLOW DOWN COCK**.
 Placed 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**.
 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**.
 Pipes pass through the bunkers **NONE**. How are they protected **AS APPROVED**.
 Pipes pass through the deep tanks **NONE**. Have they been tested as per Rule **AS APPROVED**.
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times **YES**.
 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 **NO TUNNEL**. Is it fitted with a watertight door **AS APPROVED**. worked from **AS APPROVED**.

BOILERS, &c.—(Letter for record **2 SB.**) Total Heating Surface of Boilers **7530 SQ. FT.**
 Boilers are fitted with Forced Draft **BOTH**. Which Boilers are fitted with Superheaters **NONE**.
 Description of Boilers **2 CYLINDRICAL MULTITUBULAR**. Working Pressure **250 LBS/SQ. IN.**
 REPORT ON MAIN BOILERS NOW FORWARDED? **YES**.
 DONKEY BOILER FITTED? **NO**. If so, is a report now forwarded? **AS APPROVED**.
 donkey boiler be used for domestic purposes only **AS APPROVED**.

Are approved plans forwarded herewith for Shafting **YES**. Main Boilers **YES**. Auxiliary Boilers **AS APPROVED**. Donkey Boilers **AS APPROVED**.
 (If not state date of approval) **13-5-50**.
 General Pumping Arrangements **YES**. Oil fuel Burning Piping Arrangements **YES**.

SPARE GEAR.
 spare gear required by the Rules been supplied **YES**.
 principal additional spare gear supplied **ADEQUATE SPARE GEAR COVERING ALL PARTS; AS PER SPECIFICATION.**

The foregoing is a correct description.
 THE CALEDON SHIPBUILDING & ENGINEERING CO. LTD.

J. L. D. O. H. E.
 MANUFACTURER.
 DIRECTOR



During progress of work in shops - - - *see Glasgow Report no 77442.*

Dates of Survey while building
 During erection on board vessel - - - *1951. Mar 27. Apr 19. 24. June 19. 29. July 10. 18. Aug 17. 31. Sept 14. 28. Oct 3. 5. 9. 16. 23. 30. Nov. 2. 5. 8. 13. 20. 22. 23. 26. 27. 29. 30. Dec 2. 3. 5. 6. 7.*

Total No. of visits *34.*

Dates of Examination of principal parts—Cylinders ^{HP} 2-11-50; ^{IP} 7-11-50; ^{LP} 23-2-51. Slides 2-11-50. 7-11-50, 23-2-51. Covers 2-11-50; 7-11-50; 23-2-51.

Pistons 23-2-51. Piston Rods 23-2-51. Connecting rods 23-2-51.

Crank shaft 2-3-51. Thrust shaft 18-7-51. Intermediate shafts 18-7-51.

Tube shaft ✓. Screw shaft 13-4-51. Propeller 27-3-51.

Stern tube 10-4-51. Engine and boiler seatings 13-4-51. Engines holding down bolts 18-7-51.

Completion of fitting sea connections 13-4-51.

Completion of pumping arrangements 20-11-51. Boilers fixed 18-7-51. Engines tried under steam *26TH + 29TH NOV. PORT BOILER, STAR BOILER.*

Main boiler safety valves adjusted 22-11-51. Thickness of adjusting washers *AFT-2 7/16"; FORD-2 7/16" AFT-2 7/16" FORD-1 7/16"*

Crank shaft material *INGOT STEEL.* Identification Mark *N^o 20665 LLOYDS.* Thrust shaft material *INGOT STEEL.* Identification Mark *4822 LLOYDS.*

Intermediate shafts, material *INGOT STEEL.* Identification Marks *4821 LLOYDS.* Tube shaft, material ✓. Identification Mark ✓.

Screw shaft, material *ING. STEEL.* Identification Mark *4819 (SPARE-4820) LLOYDS.* Steam Pipes, material *S.D. STEEL.* Test pressure *750 lb/sq. in.* Date of Test *VARIOUS.*

Is an installation fitted for burning oil fuel *YES.* Is the flash point of the oil to be used over 150°F. *YES.*

Have the requirements of the Rules for the use of oil as fuel been complied with *YES.*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *OIL TANKER.* 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 *NOT REQUIRED.*

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. *The machinery described herein has been built and installed under Special Survey in accordance with the approved plans, the Secretary's letters, the Requirements of the Rules and the Admiralty Specification. The materials and workmanship are good.*

This machinery is eligible, in our opinion, to be classed in the Register Book, with record of + LMC. 12, 51 and the notations; 2 SB. 250 lb/sq. in. H.B. 7530; FITTED FOR OIL FUEL 12, 51. FP ABOVE 150°F, O.G., and ENG. AFT.

The amount of Entry Fee *1/5. £ 29 : 0 : 0.* When applied for, ✓

Special *SPECIFICATION* £ *29 : 0 : 0.* *24. 12. 19 51.*

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

Travelling Expenses (if any) £ : : 19

R. W. Skinner for self and J. McLaren.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 8 JAN 1952*

Assigned *+ LMC. 12, 51.*

*2 SB- 250 lb. F.D.
 Fitted for oil fuel 12, 51. FP above 150°F.*

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