

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

WED. JUL 21 1924

Date of writing Report 10 When handed in at Local Office 23/6/24 Port of NEWCASTLE-ON-TYNE
 No. in Survey held at South Shields Date, First Survey 9 Aug 1923 Last Survey 4 June 1924
 Reg. Book. 8558 on the S.S. "CORDENE" (Number of Visits 43) Tons { Gross 2345
 Built at Newcastle By whom built Sloan Hunter & Wigham Richardson Yard No. When built 1924
 Engines made at South Shields By whom made G. T. Grey & Co Engine No. 614 when made 1924
 Boilers made at Newcastle By whom made Sloan Hunter & Wigham Richardson Boiler No. when made 1924
 Registered Horse Power 1300 Owners Cory Colliers Ltd. Port belonging to London
 Nom. Horse Power as per Rule 247 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion
 Dia. of Cylinders 21 x 34 x 56 Length of Stroke 39 Revs. per minute 80 No. of Cylinders 3 No. of Cranks 3
 Dia. of Crank shaft journals as per rule 11.0" as fitted 11.3" Dia. of Crank pin 11.3" Crank webs Mid. length breadth 17 1/2" Mid. length thickness 7" Thickness parallel to axis 7" Thickness around eye-hole 4 3/4"
 Diameter of Thrust shaft under collars as per rule 11" as fitted 11 3/8" Diameter of Tunnel shaft as per rule 10.50" as fitted 10.48" Diameter of Screw shaft as per rule 12 1/2" as fitted 12 3/8" Is the Screw shaft fitted with a continuous liner the whole length of the stern tube Yes 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 joints burned 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 Yes Is an approved appliance fitted at the after end of the shaft to permit of it being efficiently lubricated No Length of Stern Bush 4'-3" Diameter of Propeller 15'-0"
 Pitch of Propeller 15'-6" No. of Blades 4 State whether Movable No Total Surface 73 sq ft square feet.
 No. of Feed Pumps fitted to the Main Engines 2 Diameter of ditto 3 7/8" Stroke 20" Can one be overhauled while the other is at work Yes
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 3 7/8" Stroke 20" Can one be overhauled while the other is at work Yes
 Total number and size of power driven Feed and Bilge Auxiliary Pumps 4. 2-9x10x10 Ballast, 1-5 1/2 x 3 1/2 x 6 Feed, 1-5 1/2 x 3 1/2 x 6 G.S.
 No. and size of Pumps connected to the Main Bilge Line 3. 2-9x10x10 1-5 1/2 x 3 1/2 x 6
 No. and size of Ballast Pumps 2-9x10x10 No. and size of Lubricating Oil Pumps, including Spare Pump None
 Are two independent means arranged for circulating water through the Oil Cooler Yes No. and size of suction connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3-2 1/2" 41-3 3/4" and in Holds, &c. Ford Hold 2-3 1/4"
 Aft Hold 2-3" Tunnel well 1-2 1/2"

No. and size of Main Water Circulating Pump Bilge Suctions One 5 1/2" dia No. and size of Donkey Pump Direct Suctions One 3 3/4" 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 connections with the sea direct on the skin of the ship Yes Are they 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 Discharge Pipes 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 None How are they protected 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 Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from E.P. Grating

MAIN BOILERS, &c.—(Letter for record 4215) Total Heating Surface of Boilers 4215 sq ft
 Is Forced Draft fitted No No. and Description of Boilers 2 S.E. Multitubular Working Pressure 180 lbs/sq in
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes
 PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers Yes Donkey Boilers Yes
 General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

SPARE GEAR. State the articles supplied:—
2 Connecting rod top end bolts & nuts, 2 connecting rod bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set of coupling bolts & nuts, 1 set of piston bolts & nuts, 1 set of feed, bilge & air pump valves, bolts & nuts of various sizes. An assortment of iron. 6 boiler tubes, 10 condenser tubes and one propeller.

The foregoing is a correct description
 For GEO. T. GREY & CO., LTD.
G. T. Grey
 DIRECTOR.

Manufacturer.



1923
 Aug 9, 10, 14, 15, 17, 21, 22, Sept. 5, 11, 28, Oct. 3, 24, 31, Nov. 2, 5, 6, 9, 15, 29, Dec. 5, 1924
 Jan 3, Feb 7, Mar 14, 21, 28, Apr 4, 15, 22, 23, 25, 30, May 5, 6, 8, 9, 14, 15, 16, 19, 21, 22, 27, June 3, 4.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - -

Total No. of visits **43.**

Dates of Examination of principal parts - Cylinders **HP. 11.9.23. LP 6.11.23.** Slides **HP 11.9.23 LP 5.9.23.**

Covers **6.11.23.** Pistons **5.9.23.** Rods **6.11.23.**

Connecting rods **22.8.23.** Crank shaft **15.8.23.** Thrust shaft **6.11.23.**

Tunnel shafts **9.11.23.** Screw shaft **25.4.24.** Propeller **8.2.24.**

Stern tube **22.4.24.** Engine and boiler seatings **17-5-24.** Engines holding down bolts **17.5.24.**

Completion of pumping arrangements **4.6.24.** Boilers fixed **3.5.24.** Engines tried under steam **4.6.24.**

Completion of fitting sea connections **4.6.24.** Stern tube **29-4-24.** Screw shaft and propeller **29.4.24.**

Main boiler safety valves adjusted **4.6.24.** Thickness of adjusting washers **R. Boiler 1 1/2" SY 1 3/8" S. Boiler 1 1/2" SY 3/8"**

Material of Crank shaft **Ingot Steel.** Identification Mark on Do. **624.**

Material of Thrust shaft **Ingot Steel.** Identification Mark on Do. **625.**

Material of Tunnel shafts **Ingot Steel.** Identification Marks on Do. **2013.**

Material of Screw shafts **Ingot Steel.** Identification Marks on Do. **2353.**

Material of Steam Pipes **S.D. Copper.** Test pressure **360 lb/sq"** Date of Test **21.5.24.**

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 **Yes.** If so, state name of vessel **SS. "CORDUFF"**

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

The machinery built under Special Survey -
 The material and workmanship found good and efficient -
 The machinery was satisfactorily fitted upon board the vessel. The main engine tested under steam and found satisfactory, auxiliary machinery satisfactory.
 The Boilers satisfactory their Safety Valves adjusted under steam 185 lbs.
 In our opinion this vessel is now eligible for the registration of + LMC. 6.24 (in Red) made in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 6.24. CL.

[Signature]
 3/7/24.
[Signature]

The amount of Entry Fee ... £ 4 : 0 :
 3/5 Special ... £ 37 : 1 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, **24 JUN 1924**
 When received, **21 JUL 1924**

Fr. V. Lockney - L. G. Challers
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI 4 JUL 1924**
 Assigned **+ LMC 6.24 CL**



LEWCASTLE-ON-TYNE.

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

Certificate to be sent to