

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 17 MAR 1942

Date of writing Report 11-3-1942 When handed in at Local Office 17 MAR 1942 Port of Sp Sunch

No. in Survey held at Jarmouth Date, First Survey 16-1-42 Last Survey 10-3-1942  
 Reg. Book. on the Sh Lyle, VIC. 7. (Number of Visits 1) Tons { Gross 96  
 Net 41

Built at Thorne By whom built Richard Dunston Ltd. Yard No. 378 When built 1942-4

Engines made at Bucles By whom made Elliot & Leacock Ltd Engine No. 634 When made 1942

Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

Registered Horse Power ✓ Owners The Ministry of War Transport Port belonging to ✓

Nom. Horse Power as per Rule 6.9 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted ✓

Trade for which Vessel is intended ✓

**ENGINES, &c.**—Description of Engines Compound Reciprocating Revs. per minute 150

Dia. of Cylinders 10 1/2", 22" Length of Stroke 14" No. of Cylinders Two No. of Cranks Two

Crank shaft, dia. of journals as per Rule 4 3/8" as fitted 4 3/8" Crank pin dia. 4 3/8" Crank webs Mid. length breadth ✓ Thickness parallel to axis 2 7/8"  
 Mid. length thickness ✓ Thickness around eye-hole 2"

Intermediate Shafts, diameter as per Rule ✓ as fitted ✓ Thrust shaft, diameter at collars as per Rule 4.26" as fitted 4 3/8"

Tube Shafts, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule 4 7/8" as fitted 4 7/8" Is the tube shaft fitted with a continuous liner no

Bronze Liners, thickness in way of bushes as per Rule ✓ as fitted ✓ Thickness between bushes as per Rule ✓ as fitted ✓ Is the after end of the liner made watertight in the 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 lapped or protected between the liners ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube at Yes If so, state type ✓

Length of Bearing in Stern Bush next to and supporting propeller 20"

Propeller, dia. 66" Pitch 86" No. of Blades 4 Material C.I. whether Movable no Total Developed Surface 11.6 sq. feet

Feed Pumps worked from the Main Engines, No. One Diameter 2 1/8" Stroke 6" Can one be overhauled while the other is at work ✓

Bilge Pumps worked from the Main Engines, No. One Diameter 2 1/8" Stroke 6" Can one be overhauled while the other is at work ✓

Feed Pumps { No. and size \_\_\_\_\_ Pumps connected to the { No. and size \_\_\_\_\_  
 How driven \_\_\_\_\_ Main Bilge Line { How driven \_\_\_\_\_

Ballast Pumps, No. and size \_\_\_\_\_ Lubricating Oil Pumps, including Spare Pump, No. and size \_\_\_\_\_

Are two independent means arranged for circulating water through the Oil Cooler \_\_\_\_\_ Suctions, connec d to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room \_\_\_\_\_  
 In Pump Room \_\_\_\_\_ In Holds, &c. \_\_\_\_\_

**Main Water Circulating Pump Direct Bilge Suctions, No. and size \_\_\_\_\_** **Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size \_\_\_\_\_**

Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes \_\_\_\_\_

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 \_\_\_\_\_

Are all Sea Connections fitted direct on the skin of the ship \_\_\_\_\_ Are they fitted with Valves or Cocks \_\_\_\_\_

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates \_\_\_\_\_ Are the Overboard Discharges above or below the deep water line \_\_\_\_\_

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel \_\_\_\_\_ Are the Blow Off Cocks fitted with a spigot and brass covering plate \_\_\_\_\_

What Pipes pass through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_

What pipes pass through the deep tanks \_\_\_\_\_ 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 \_\_\_\_\_

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 \_\_\_\_\_ Is the Shaft Tunnel watertight \_\_\_\_\_ Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

**MAIN BOILERS, &c.**—(Letter for record \_\_\_\_\_) Total Heating Surface of Boilers \_\_\_\_\_

Which Boilers are fitted with Forced Draft \_\_\_\_\_ Which Boilers are fitted with Superheaters \_\_\_\_\_

No. and Description of Boilers \_\_\_\_\_ Working Pressure \_\_\_\_\_

IS A REPORT ON MAIN BOILERS NOW FORWARDED? \_\_\_\_\_

IS A DONKEY BOILER FITTED? \_\_\_\_\_ If so, is a report now forwarded? \_\_\_\_\_

Can the donkey boiler be used for domestic purposes only \_\_\_\_\_

**PLANS.** Are approved plans forwarded herewith for Shafting 28.10.41 Main Boilers ✓ Auxiliary Boilers ✓ Donkey Boilers ✓

(If not state date of approval)

Superheaters ✓ General Pumping Arrangements ✓ Oil fuel Burning Piping Arrangements ✓

### SPARE GEAR.

Has the spare gear required by the Rules been supplied ✓

State the principal additional spare gear supplied ✓

The foregoing is a correct description.

J. Smith Manufacturer.  
Director



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010816, 010823, 0227

23/3/42

During progress of work in shops - - *16-1-42, 28-1-42, 11-2-42, 18-2-42, 10-3-42*  
 Dates of Survey while building {  
 During erection on board vessel - - -  
 Total No. of visits *5 (In shops)*

Dates of Examination of principal parts—Cylinders *18-2-42* Slides *18-2-42* Covers *18-2-42*  
 Pistons *18-2-42* Piston Rods *18-2-42* Connecting rods *18-2-42*  
 Crank shaft *18-2-42* Thrust shaft *18-2-42* Intermediate shafts ✓  
 Tube shaft ✓ Screw shaft *10-3-42* Propeller *10-3-42*  
 Stern tube *11-2-42* Engine and boiler seatings ✓ Engines holding down bolts ✓  
 Completion of fitting sea connections ✓  
 Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam ✓  
 Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓  
 Crank shaft material *Steel* Identification Mark ✓ Thrust shaft material *Steel* Identification Mark ✓  
 Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓  
 Screw shaft, material *Steel* Identification Mark ✓ Steam Pipes, material ✓ Test pressure ✓ Date of Test ✓  
 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 the use of oil as fuel been complied with ✓  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ✓ 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 ✓  
 Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *R. Dunstone Land No. 369.*  
*371. 372.*

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

*The machinery has not been constructed in accordance with the requirements of the Society's Rules but has been constructed under the supervision of the Society.*  
*The scantlings are in accordance with the Society's Rules.*  
*The workmanship is of good description.*

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

The amount of Entry Fee ... £ : :  
 Special ... £ *8:0:0* : :  
 Donkey Boiler Fee ... £ : :  
 Travelling Expenses (if any) £ *12:6* : :  
 When applied for, *17 MAR 1942*  
 When received, 19...

*J. J. Bell*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUE 19 MAY 1942*  
 Assigned *See Sub. 151598*