

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

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Date of writing Report 19 When handed in at Local Office 19 Port of **NEWCASTLE-ON-TYNE**

No. in Survey held at **Blyth** Date, First Survey **8th Mar. 1948** Last Survey **24th Mar. 1948**
 Reg. Book (Number of Visits **8**)

24330 on the **steel sc. steamer "FREEMAN HATCH"** Tons { Gross **1793**
 Net **995**

Built at **Wincossein** By whom built **LEATHEM, D. SMITH SHIPB'G Co** Yard No. **271** When built **1943**

Engines made at **Corn. Pa.** By whom made **Ajax Uniflow** Engine No. When made **1943**

Boilers made at **Saginaw Mich. U.S.A** By whom made **Wicks Boile Co** Boiler No. When made **1943**

Indicated Horse Power **1300** Owners **Ministry of Transport on loan** Port belonging to **London**
 Registered Horse Power **394** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes**

Nom. Horse Power as per Rule **394** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes**

Trade for which vessel is intended **Baltic & coasting**

ENGINES, &c.—Description of Engines **Ajax Uniflow, Compound Expansion, Single-acting** Revs. per minute **100**

Dia. of Cylinders **20" ; 44"** Length of Stroke **27"** No. of Cylinders **6** No. of Cranks **3**

Crank shaft, dia. of journals **10.5"** as per Rule **11.0"** as fitted Crank pin dia. **11.0"** Mid. length breadth **14"** Thickness parallel to axis **shrunk**
 Crank webs **7"** Mid. length thickness **7"** Thickness around eye-hole **shrunk**

Intermediate Shafts, diameter **10.0"** as per Rule **10.0"** as fitted Thrust shaft, diameter at collars **10 1/2"** as per Rule **10 3/4"** as fitted

Tube Shafts, diameter **10.0"** as per Rule **10.0"** as fitted Screw Shaft, diameter **not examined** Is the **screw** shaft fitted with a continuous liner **not fitted**

Bronze Liners, thickness in way of bushes **as per Rule** Thickness between bushes **as per Rule** 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 junctions made by fusion through the whole thickness of the liner **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 Oil Gland or other appliance fitted at the after end of the tube **yes**
 at **no** If so, state type **yes** Length of Bearing in Stern Bush next to and supporting propeller **yes**

Propeller, dia. **13'-6"** Pitch **12.4 ft** No. of Blades **4** Material **hang-locks** Is the propeller moveable **no** Total Developed Surface **yes** sq. feet

Feed Pumps worked from the Main Engines, No. **none** Diameter **yes** Stroke **yes** Can one be overhauled while the other is at work **yes**

Bilge Pumps worked from the Main Engines, No. **none** Diameter **yes** Stroke **yes** Can one be overhauled while the other is at work **yes**

Feed Pumps { No. and size **3** { **6 x 8 1/2 = 18 Simplex**
 { **7 x 10 = 12 Simplex**
 { **6 x 9 = 12 Simplex**
 Pumps How driven **(steam)** Pumps connected to the Main Bilge Line { No. and size **3, i.e. 2 @ 7 1/2 x 8 1/2 x 10 (duplex) = 1 @ 5 x 10 x 12 (simplex)**
 { How driven **steam, direct drive**

Ballast Pumps, No. and size **1 @ 7 1/2 x 8 1/2 x 10 duplex** Lubricating Oil Pumps, including Spare Pump, No. and size **2 @ 4 3/4 x 5 1/4 x 5 duplex**

Are two independent means arranged for circulating water through the Oil Cooler **yes** Suctions, connected both to Main Bilge Pumps and Auxiliary Bilge Pumps:—In Engine and Boiler Room **3 @ 2 1/2"**
 In Pump Room **no** In Holds, &c. **Fore Hold, 2 @ 3"; aft hold 2 @ 3"**

Main Water Circulating Pump Direct Bilge Suctions, No. and size **1 at 8" dia.** Independent Power Pump Direct Suctions to the Engine and/or Boiler Room Bilges, No. and size **2 @ 3 1/2", both on Ball. pp.**
 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 **no**
 Are all Sea Connections fitted direct on the skin of the ship **no** Are they fitted with Valves or Cocks **valves**
 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 **VALVES** fitted with a spigot and brass covering plate **no**
 What Pipes pass through the bunkers **none** How are they protected **yes**
 What pipes pass through the deep tanks **none** 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 **no** worked from **yes**

MAIN BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers **4800 sq. ft. + 82 sq. ft.**

Which Boilers are fitted with Forced Draft **both** Which Boilers are fitted with Superheaters **both**

No. and Description of Boilers **Two, Watertube (3 drum type)** Design Working Pressure **250 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**

Can the donkey boiler be used for other than domestic purposes **yes**

PLANS. Are approved plans forwarded herewith for Shafting **none** Main Boilers **none** Auxiliary Boilers **yes** Donkey Boilers **yes**
 (If not state date of approval)

Superheaters **yes** General Pumping Arrangements **yes** Oil fuel Burning Piping Arrangements **yes**

SPARE GEAR.

Has the spare gear required by the Rules been supplied **yes**

State the principal additional spare gear supplied

The foregoing is a correct description.

Manufacturer.



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